# A MODEL ADULT MASS LITERACY CENTRE FOR KADUNA STATE, SAMINAKA

(Adult Needs in Learning Environment)

BY

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A Thesis Submitted to the Post Graduate School,Ahmadu Bello University, in partial fulfilment of the require ments for the degree of MASTERS OF SCIENCE (ARCH.)

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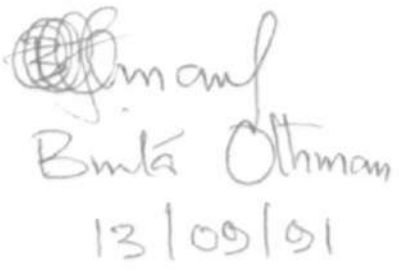
August, 1991

DECLARATION

I do hereby declare that this Thesis

has not been wholly presented for any other degree

and that all quotations have been duly acknowledged.



CERTIFICATION

This project report/thesis entitled

A MODEL ADULT MASS LITERACY CENTRE FOR KADUNA STATE

(Adult Needs in Learning Environment)

By

OTHMAN, BINTA TUKUR

Meets the regulation governing the award of the degree of Masters of Science (M.Sc.) in Architecture of Ahmadu Bello University, Zaria and is approved for its contribution to knowledge and literary presentation.

| | |
|---|---|
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**DEDICATION**

I dedicate this Thesis\Project Report

to my parents:

Alhaji M.T. Othman and Hajiya Maryam Othamn .

and my brothers and sisters.

Acknowledgement

For the full assistance in the completion of this thesis report, I wish to express my profound gratitude to all those who directly or indirectly contributed to the success of this thesis.

Special regards go to my lecturers especially my supervisor Arc. A. Mbina whose useful suggestions and constructive criticisms helped me greatly in the completion of this work. I am especially grateful to the management of Kaduna State Agency for Mass Literacy especially the Director and the Deputy Directors for all the assistance and data given to me. Also in this regard I would like to say a big "Thank you" to Mr. Ambi, Head of Building Section of same address, as well as the Principal of Women Training Centre, Kano and the staff of Centre for Adult Education and Extension Services, Ahmadu Bello University, Zaria for their time, kind assistance and contribution to the success ful completion of this thesis.

I also wish to express my appreciation to my close associates both within the Department of Architecture and outside who assisted me in this work in a variety of ways. In this direction my special thanks go to my brothers, sisters and bosom friends Binta Yahaya, Fatima Tunau, Suleyman Dammaliki and Amina Ado for the

their moral support and encouragement.

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## ABSTRACT

Despite the importance of Adult Mass Education as one of the means of bringing about social, cultural, economic, political and religious transformations in a society, adult mass education had not been receiving the attention it deserved in the scheme of affairs in Nigeria as a whole. This kind of attitude resulted in adult mass illiteracy of the citizens of the country thereby culminating in ignorance, poverty, underdevelopment and other forms of anti-social vices. Having realised the importance of Mass Literacy Education, the Federal Government in conjunction with the various state governments decided to embark on Adult Mass Literacy education thereby establishing centres. The centres were established with a view to narrow the gap between the rural and urban communities, and to integrate the former into the nation's life. These centres *are* also looked upon to hopefully design methods for mobilizing the rural people and local resources with a views to increasing production\income that will help raise their standard of living and promote the spirit of initiation and self-reliance.

In most developing countries however, architectural approach to learning environments has not really been recognised. Many architects design without paying

any attention to the needs, preferences. life-styles and locality of the adult rural illiterates for whom the buildings are meant. One of the major problems being faced is the situation whereby adults learn in environments which do not acknowledge their adulthood. People's perception of the physical environment was found to be key determinant in their use and satisfaction with it.

The thesis therefore is more concerned **with** creating a suitable environment to motivate the adult learners. In the process of this research, both local (traditional) and conventional study spaces will be analysed as well as the different techniques employed in such centres. The users are also going to be considered.

A synthesis of this is further envisaged to aid us arrive at certain design requirements for adults in Adult Literacy Schools. These 'models' will subse quentlv be used to design adult mass literacy centres in all local governments in Kaduna State.

The design scope will be limited to the following primary units: An administrative Unit. The Academic Unit and Vocational Section as well as Recreational\Auxiliary Units.

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# CHAPTER ONE

## 1.0 INTRODUCTION

The major concern of any government is to uplift the standard of living of its people and to ensure as much as possible, that the social development of the country or state keep pace with its political and economic development. In realising the above objective, the fundamental problem of increasing village or rural living standards, which is educational in character becomes imperative. In saying that the problem of increasing village or rural living standards is educational in character, we have to confine ourselves here to learning - the type of learning that brings about a change in the behaviour and attitude of the people whether in the urban or rural community. This change which is one of the keys to a higher and better living standard lies in agricultural, industrial, economic sanitary and home life behaviour of the people.

In a situation where the government is indigent and as a result is unable to commit sizable sums of money into providing social amenities as well as income earning projects to all communities, other means of achieving these must be sought. it is this non-availability of funds and the need for development that has led most developing countries of Africa, Latin America and other places into adopting Mass Literacy Programme.

1.1 Motivation

When one looks around Kaduna State, one finds most literacy classes under Mass Literacy Programme for the state conducted in the homes of the instructors, homes of village heads or other locations like primary and/or secondary schools. The classrooms and places used for these programmes do not allow for flexibility in various different techniques being used; and one distinct nature of Adult Education requirement is the availability of space such frequent changing patterns of activities. For the general consideration, it is clear that these spaces are seldom designed for operations that will provide good attention for adult education. The atmosphere is very formal and does not conform with adult learning situation. Of recent there have been moves by the Kaduna State Agency for Mass Literacy to have its own centres in all the local government in the state. It is hoped to start off at Saminaka, under Lere Local government.

It is in view of these, that the author felt there is a need for Kaduna state to have its own Literacy centres, providing all the necessary functions needed for an adult Mass Literacy Centre with due consideration of the adult.

The author is going to look into the different activities and techniques used in Mass Literacy schools considering both the local (traditional) and

conventional study areas with the hope to evolve design requirements for adults in Adult Literacy schools.

1.2 Justification

The environment exerts a great influence on human behaviour. Response, both positively and negatively, to learning is greatly affected by the environmental setting in which such is carried out. for instance, the environmental setting both in terms of physical structures and associated landscape for adult learning can never be the same with that of children. In specific case of adult environment, it is necessary to recognize the fact that adults in this environment have special reservations about their own environment.

1.3 Aims, Goals and Objectives

Aim: Creation of a Centre which actively and attractively suits the diverse adult education functions intended and techniques involved: and which not only accommodates but also contributes a very special environment for learning. For adults there is the necessity that they learn in an environment which is truly theirs.

Goals and Objectives

(1) Creating jobs and business opportunities after training

(2) Promotion of social, economic and cultural interactions and harmony among the people

(3) Creating a much more convenient space for learning.

The following goals could be achieved through the following objectives:

(1) Provision of well designed educational, social and recreational facilities.

(2) Provision of comfortable designed spaces for various activities to enhance users' requirements, physical and psychological well-being.

(3) provision of a stimulating architectural planning and forms which will hopefully draw people to the centre.

## 1.4 Scope and Limitation

Education and training are all processes of learning, but while education is broad, training is much more specific. The centre is going to consist of:

(a) Administrative Section:

This is for the purpose of administering activities

Academic Section:

This is going to comprise classrooms, a multipurpose hall for indoor assemblies, seminar and symposia presentation.

(c) Vocational Section:

There are no theories here but direct practical training. Since most of the people using it have limited or no education, this section is for teaching people new trades and also for polishing people in the various trades which they already posses. This section

is going to consist of workshops and courtyard.

(d) Recreational Section: This is going to be inform of courtyards.

Miscellaneous courses will be offered in this centre.

## 1.5 Architectural Significance

In most developing countries, architectural approach to learning environments have not really been recognised. The thesis write-up therefore has looked into the architectural approach to adult learning environments. The steps followed could be a basis to evolving a standard design. Also guidelines or ideas could be borrowed by future researchers in related projects.

## 1.6 Research Methodology

(a) Literature Review: Books, newspapers, Journals. Relevant materials were systematically analysed with the intention of comprehending the ideas and views regarding the design principles encompassing Mass Literacy.

(b) Personal Observations: Deductions from personal observation in field research and response of people during interviews were analysed to access individual opinions regarding space and environment problems.

(c) Case Studies: A critical appraisal of existing

projects was made with the intention of understanding the problems involved.

(d) Environmental Data: This involved the assessment of environmental data which enhanced the analysis of prevailing physical environmental features and climatic factors all with the aim of adapting the design to conform with the forces of comfort.

# CHAPTER TWO

## 2.0 ADULT MASS LITERACY IN NIGERIA

### 2.1 DEFINITION OF ADULT MASS LITERACY

Before going any further, the author finds is pertinent to define the terms Adult and Mass Literacy Education. "An Adult" is one who is old enough to work, to vote, to fight and be married and who has completed the cycle of continuous Education (if any) commenced in childhood. Verner (19 ) defines an adult as "a person who has come into the stage of life in which he has assumed full responsibility for himself and usually for others and who has commitantly accepted a functionally productive role in his community." During the First International conference on the comparative study of Adult Education it was agreed that; - An Adult is a person who no longer attends school as a primary or full time activity and who is over twenty years of age.

As for the definition of the term Adult Literacy Education the United Nations Educational, Scientific and Cultural Organisation (1976) at its 19th General Conference in Nairobi, advocated that - "the term Adult Education denotes the entire body of organised educational processes, whatever the content, level and method, whether formal or otherwise, whether they prolong or replace initial education in schools, col-

leges and universities as well as apprenticeship, whereby persons regarded as Adults by the society to which they belong develop their abilities, enrich their knowledge, improve their technical skills or professional qualifications or turn them in a new direction and bring about changes in their attitudes or behaviour in the two fold perspective of full personal development and participation in balanced and independent economic and cultural development." In a further attempt to define Adult Education Liveright and Haywood define Adult Education as "The process whereby a person who no longer (or did not) attend school on a regular and full time basis undertake sequential and organised activities with a conscious intention to bringing about changes in information, understanding or skills, appreciation and attitudes for the purpose of identifying and solving problems." However, the most recent comprehensive and short definition is given by Dr. Ghazzali, a former Senior Lecturer in Adult Education at the University of Manchester who claims that: "Adult Education is simply any organised Educational activity or provisions made purposefully to help adult learn what they need to learn or wish to learn."

From these various definitions of Adult Education, one can conclude by saying that "Adult Education is an organised and systematic venture which aims at improving and bringing about social, cultural, economic and

educational changes in the personality of an individual by transforming him from the state of being an illiterate to a state of being a literate and enlightened individual.

2.2 Historical Background

Concept on the development of Adult Education in the world at large is as old as civilization but the burning interest given to this concept only received impetus in this 20th century. The U.S.S.R. showed a great deal of interest in 1919. This interest received attention in 1960's. In 1965, UNESCO organised the world conference of ministers of Education on the eradication of illiteracy in Tehran.

The First African Conference to recognise the need for action was held in Addis Ababa in 1961 when the African member states of UNESCO affirmed their commitment to achieve "the democratization and renovation of Education in order to exercise fully their right to Education, a pre-requisite for the fulfilment of individual potential and for the progress of society.

2.2.1 The Birth of Nigerian Adult Education

Inspired no doubt by the deliberations of the First World Conference of Ministers of Education on the Eradication of illiteracy at Tehran in 1965 and the declaration of September 8th as International Literacy Day by the 14th General Conference of UNESCO in 1966, a group of Nigerian University Adult Education met in 1968 to form a national voluntary body to promote the

development of Adult Education. The civil war raged but in 1971 they got together again and the National Council for Adult Education (NNCAE) was formed. From the onset it enlisted University Dons, Government servants and voluntary workers in a common determination to bring about Education of the masses

In response to pressure from within the NNCAE and from without the UNESCO, the government invited UNESCO experts to analyse the situation and propose measures to tackle the problem of mass illiteracy. Their reports were presented in 1975 by which time the Federal Ministry of Education had also set up an Adult Education Unit. In Kaduna State however, an agency for Mass Literacy was set-up in May 1988 to take care of Mass Literacy programmes in the State.

## 2.3 Significance of Adult Mass Literacy

There is now a fairly widespread realization of the desperate urgency of the existing mass illiteracy in the country. Politicians, administrators, social workers as well as educationists feel that no planning, no social and economic reconstruction will be possible unless adult education is provided not only on a larger scale but also quickly and in a generous measure. Adult Education, in the Nigerian context, carries as its main goal the provision of avenues for public enlightenment. The idea is that with much effort of

the government on the young ones, the adults need to be educated so that general fresh educational programmes and progress will not be hindered gravely by mass ignorance.

If any educational policy is to be considered relevant, its priorities should actually support the upliftment of the national objectives. It's significance must be very sound in the development plans.

Adult Education is vitally concerned with manpower development at all stages, from functional literacy to numerary through the improvement of productive efficiency through basic scientific and technological education to specific education for commercial and industrial betterment and for professional development. This is one of the main contributions in the attainment of economic objectives. In the aspects of social objectives - justice and equality of opportunity, Adult education has an important contribution to make as one of its essential role is that of giving educational opportunities to adults who for one reason or another have missed it at the level of formal education. It aims at giving special attention to the educationally under-previledged: - those who have never had the opportunity of going to school, to school drop-outs, the unemployed, some categories of women, the population of rural areas and to the handicapped.

It is also necessary to point out the significance of adult education in the national development plans.

Although in developing countries today, some elements of development can be achieved from an increase on more conventional (Real and monetary) capital, the rate of growth of any nation will be seriously hampered without the development of its human resources. The skill and knowledge of the labour force, both employed and self-employed, needs constant improvement and extension; and adult education programmes are one of the means of accomplishing that. As commented by Lewis, I.J. (1965).

" The fastest way to increase productivity in the less developed countries is to train the adults who are already on the job.

Investments in adult education do have an overwhelming advantage of quick returns. They are almost immediate and can be perceived within a period as that covered by the plan; unlike investments in primary education for school children which take much longer to come to fruition. Stated by President Nyerere (1985).

"First we must educate adults, our children will not have an impact on our economic development for five, ten even twenty years. The attitudes of adults on the other hand has an impact now."

It is also arguable that adult education is a more economically viable means of promoting human betterment than the formal school system. There have been enough

sacrificial expenditures to promote the noble goal of universal education through the formal school system. Adult Education would have provided a cheaper alternative.

Many rural parents being uneducated themselves, are still reluctant to send their children to school. And many who do send their children have little enthusiasm for keeping them longer than a year or two. This results in reduction of the value of investments in the school; so adult education can be seen as a factor in the success of child education.

Another major consideration of adult education is its tasks in national development. Nigeria's literacy rate is usually estimated at around 30%, though in the opinion of many adult education experts, this appears to be an over-estimation. A study of literacy and development however indicates a minimum threshold of 40% literacy for effective take-off of national development.

The eradication of illiteracy may thus be seen as a vital task. There are many non-economic benefits of being literate, such as the ability to perform more meaningfully in community affairs. thus it can be concluded that literacy helps an individual to perform better role, not only as a worker but also as a citizen, as a family person and as a self improving individual. As the one time Ghanaian Minister of Education and Welfare, Hon. Kojo Botsio put it:

"Mass Education for community development is something more than attack on illiteracy. It is an attack on ignorance, apathy and prejudice, on poverty, disease and isolation - and all the difficulties which hinders the progress of a community. It is also an education which is designed to teach people, not merely how to read but how to live and be self-reliant."

Technological progress depends to some extent on a general atmosphere of scientific thinking. If society at large is not much influenced by scientific ideas, not only will the public take longer to adopt a technological environment, but the workers too will take longer to become efficient in jobs requiring some scientific approach.

To further show the importance of Adult Education Anyanwu, C.N. (1980) went on to say:

"The role mass education ranges from social, political, economic,moral, religious and intellectual aspects. It is the most effective means of tackling the emerging complex in dynamic growth, problems brought about by ever increasing unemployment, problems of shortage of accommodation and problems of urban development."

It is impossible to transform society if the great majority of adults do not turn a critical eye upon social reality and do not strongly desire to build a better future and to assume responsibility for their

destiny.

## 2.4 Organisation and Administration of Adult Literacy Education

Generally, adult education programme is on a very wide dimension. It is not really realistic for any country to undertake these general programmes without setting out its own principles and facing them. In Nigeria it ranges from commodity development programmes covering functional literacy to general public enlightenment programmes of various institutions, private and public agencies. The result of this wide ranged nature is that there is confusion as regards its proper interpretation which means implementation of the programme is undertaken by a wide range of bodies, institutions and the ministries. The greatest problem created by this misinterpretation is that works of bodies participating in Adult Education programmes have always been confused.

Much has shown that effective implementation of any programme however excellently drawn up on paper, depends largely on the means employed in its implementation.

In the case of adult education programme a variety of government ministries, voluntary bodies, educational institutions, business enterprises are involved. It is the duties, spheres of operation and functions of these that are necessary to be mapped out in order to determine on one hand, the proper role and place of each one

within the general organisational and operational framework of adult education activities. However it has been recognized that making use of the advantages of division of labour would give a result which is near the best. The agencies include

(i) Federal Ministry of Education

(ii) State Ministry of Education

(iii) Community Development

(iv) Voluntary bodies - Churches, women organisations

(v) Universities

(vi) Industrial and commercial establishments

Others are the ancillaries

(i) Mass Media including

- Newspaper and periodicals
- Radio and Television and
- Libraries etc.

It is the responsibility of the Federal Ministry of Education to advise the Federal Military Government on all Policy matters concerning Adult and Non-formal Education. This involves also the coordination of Adult and Non-formal education practices in the country in order to ensure uniform standards and quality control. Section 7 of the National Policy on Education, revised version 1981 sets out this clearly. In paragraph 52(1) the document states:

"In order to eliminate Mass illiteracy

> within the shortest possible time, an intensive nationwide Mass Literacy Campaign will be launched as a matter of priority and as a new all-out effort of Adult Literacy programmes throughout the country. The Mass Literacy Campaign will be planned with a limited duration of ten years during which all available resources will be mobilised towards the achievement of the total eradication of illiteracy. At the end of this time the established adult education services should be adequate to carry on the task".

In Nigeria, Adult Education is primarily a state matter in all but one state, adult education comes under the state Ministry of Education. The role of the Ministries of Education is:

(i) Set standards

(ii) Control qualities

(iii) Train personnel and

(iv) provide directives in the choice of programmes and materials. Every state, in addition has some provision for literacy and post literacy programmes in their budget.

2.4.1 Role of Other Institutions and Agencies in Adult Education

In Kaduna State, the Agency for Mass Literacy was only established in May 1988 and just little has been

achieved. The Kano State agency for Mass Literacy for example has a very outstanding contribution to Adult Education. It was formally established in April 1980 with the ultimate objective of wiping out illiteracy in Kano State and conducting vocational courses. It was also charged with the responsibility connected with all matters connected to non-formal education. The planning actually involved identifying and defining its target population which comprised mainly peasant farmers, nomadic cattle rearers, petty traders, artisans and women.

In the work of the agency, it involved the establishment of functional/vocational training centres to cater for the special needs of the adult illiterates. Among such centres are the women centres which are homelike integrated literacy and post literacy centres in acceptable locations with classes conducted at night. As at September 1982, the number of such centres was 15, with 4 at various stages of construction.

The major activities include home crafts classes, which are conducted for rural women in the home of female instructors, village heads and other locations collectively decided. There are also classes in carpentry, motor mechanics, bread making, photography and typing skills.

In order to give boost to distant teaching, media

literacy programmes and mass enlightenment. television viewing centres were established by the agency in various localities. There are 95 such centres. The agency has also established Rural Reading rooms with Book boxes which are used to dispatch books in bulk to literacy classes as well as to learners who wish to borrow for private reading. This is to ensure ready availability and distribution of reading texts. In the interim the agency has established a complete printing unit with printing machines and photographic studio in order to cope with the rising demand for reading materials.

By September 1982, the Agency had graduated 70,000 basic literacy students, 2,000 post literates, 10,000 women from women centres 1312 graduates from vocational centres 14,650 for G.C.E and other remedial courses.

While the works of other agencies involve more in the direct practical line, the works of the universities in adult education are mainly academically oriented. Generally adequate attention is paid to the needs of rural areas where the problem of illiteracy, ignorance and inadequate means of communication and lack of educational incentives are most acute.

In the case of women education, voluntary agencies are often in a position to play a major role in helping to meet the needs of rural areas.

As already stated, university Adult education is mainly academically oriented. The university adult

education has also been approached in different ways, each direction of approach depending on the priorities of the University. A typical case would now be examined.

### 2.4.2 The Adult Education Programmes of the Ahmadu Bello University, Zaria.

The Centre for Adult Education and Extension Services of the university has the significant role of the community aspiration in adult education to fulfil. The activities of the centre are carried out by three units.

(i) The Extension Coordination Section. Sub divided into mass media staff and Special programme staff.

(ii) The state Centres Section and

(iii) The Adult Education Section.

The extension coordination section has the main objective of bringing together and deploying for public benefit, the resources of the academic talent that existed on campus. A lot of work was in the general interest programme which culminated in the "University of this air". Others involved the provision of educational help to special groups and the rendering of assistance to academic activities. Major breakdown of "University of this air" undertakings include publicity and magazine series in Radio and Television:

(a) You and Your Business (Radio)

(b) Your health is our problem (radio)

(c) New approaches to subject reaching (radio)

(d) Towards better business (television)

(e) A.B.U. Theatre (radio)

(f) Kyautata Tafarkin Kasuwancin Zamani (radio)

(g) Lafiya Uwar jiki (radio)

Others are:

(h) Occasional General Interest Broadcast

(i) Newspaper work

(j) Publications and Public Relations work undertaken for other University Agencies

(k) Consultancy services

(l) Services to Trade unions

(m) Services to the Nigerian Military School

(n) Lectures and Conferences.

The state centres had the function of providing a Physical focus for A.B.U's activities in and Services to the Northern states. Each centre may be viewed as a continuing education centre involving various arms of A.B.U and working in collaboration with any other agency of higher education in the states.

The Adult Education Section provided teaching and research in adult education and related fields. Initial emphasis had been on publicising the value and relevance of adult education to social and economic development and on contributing to upgrading various forms of adult education works in Nigeria as a whole and in the northern states in particular. Adult

Education covers the whole range of part-time educational provision for persons whose social and economic responsibilities give them adult status within the community. It includes literacy, teaching, industrial training, professional refresher courses, evening school, the same material as the formal school system. Other areas of distinction include:

(i) Public Lecturers on Adult Education

(ii) Short courses in adult education

(iii) Teaching full-time university students.

Other activities generating centres are located in major cities of the northern states like Ilorin, Jos and Maiduguri from which the operations are carried down to the grass-root community.

# CHAPTER THREE

## 3.0 CASE STUDIES

### 3.1 Introduction

The nature of adult education is of vary broad range of activities which have actually determined the case studies made. The major divisions have been done under these headings:

(i) Continuing Education in the Universities

(ii) The Schools of (Elementary and Secondary)

(iii) Community Centres

(iv) Other institutions

### 3.2 Continuing Education in the Universities

It needs to be made clear that universities have two types of responsibilities in Adult Education. While they are surveyors of training and research in the subject of adult education, they also have the obligation to play a more direct role in the provision of their own extra-mural programmes. The university adult education programmes have also been approached in different ways, each direction of approach depending on the priorities of each university. The works of universities in adult education have mainly been academically oriented while the works of other agencies involve more in the direct practical line.

#### 3.2.1 Centre for Adult Education, A.B.U., Zaria

Location: The Centre is located between Faculty of Pharmaceutical Sciences and Medicine, and Extension of Faculty of Engineering.

Accessibility: The Centre is accessible from the road leading from the Northgate to Kashim Ibrahim Library. It has only one entrance and one exit.

Facilities: The Centre's facilities located here include Administrative unit and classrooms. Other facilities are located in Kashim Ibrahim Library and Faculty of Education complex.

Planning: Units are planned around a very large courtyard. The courtyard is used for pedestrian and vehicular circulation as well as parking for cars.

Architecture: Walls are concrete blockwalls which are loadbearing, supporting the double-pitched and mono-pitched roofs. The roofs are of longspan aluminium resting on timber trusses.

Forms used are purely rectangular and square.

Learning Spaces: Learning here takes place in the classrooms of about 4m x 5m.

## DISADVANTAGES

General Appraisal: The location especially with the central store and Department of Industrial Design disallows full operation. Expansion is also blocked in all directions.

- The Centre is isolated from Faculties, Centres and

facilities which will help very much during full operations.

- No defined parking for cars. Vehicular circulation area not defined as well.
- The typical Nigerian cases of adult environment for the different classes and activities in the case of learners are not available.
- Good orientation of the building which has enhanced the ventilation.

Subject Taught: Programmes and activities of these centre have been discussed in Chapter 2 (under Section 2.4.2).

3.3 The Schools

The trend of accommodation of adult education activities in Nigeria so far, has taken the form of using schools (elementary and secondary) found in the locality. There are general characteristics of these schools which affect the adult education activities. These characteristics include:

(i) provision available for different learning techniques involved

(ii) The environmental conditions

The classrooms used for these programmes are usually fixed and do not allow for flexibility in the various techniques used. The classrooms however, are large enough to accommodate the adult learners.

### 3.3.1 The Staff School, A.B.U. - Zaria

Location: The school is located towards the university dam. at Area "A". It is found between the university staff club and the botanical garden. just at the back of the senior staff houses.

Accessibility: It is accessible from the road leading to staff club from the Northgate and Main gate.

Facilities: The facilities available here are classrooms only.

Architecture: The structures consist of frame structure with columns interspaced at regular distances. Walls are non-load-brearing. Monopitched roof is supported by the frame structure.

Ceilings are low and walkways are barely the height of an average adult. The classrooms are 6m x 12m with rigid partitions. Fenetration is open to one side. Refer to fig ( 2 ).

Learning spaces: Learning takes places solely in the classrooms.

DISADVANTAGES

General appraisal:

- The school is located far into the university, which is quite a distance from the gates. Not easily accessible to the pedestrian students.
- The school is primarily designed for pupils within

the age range of five to twelve years

- Design of furniture strictly for children and adults have to wedge themselves in, when classrooms are used for adult education.
- Classrooms have rigid partitions, thus all activities in one room are basically for the room and no extension to others is possible.

ADVANTAGES

- Openings are on one side especially towards the courtyards, this will allow the students to concentrate on their activities in the classes.
- Classrooms are adequately ventilated and shaded from the sun.

## 3.4 Community Centres

A community centre when fully operational provides the function of a community school. The operation is a diversion from the alien university environment to what actually happens among the people. The adult education programmes include library services, guidance and counselling, opportunities for education in self-enrichment activities, recreation, civic, cultural, adult basic education and proper use of leisure times.

### 3.4.2 Community Centre - Isolo, Lagos

Location: The centre is surrounded by an estate and a primary school. The S.O.S. village is also to the South

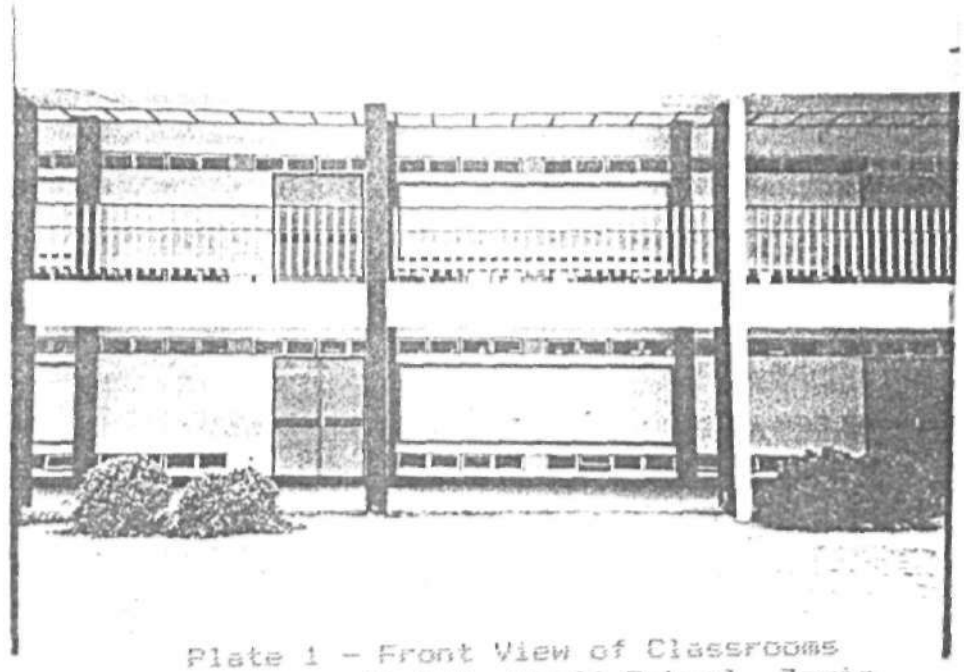


Plate 1 - Front View of Classrooms
(A.B.U. Staff School, Zaria

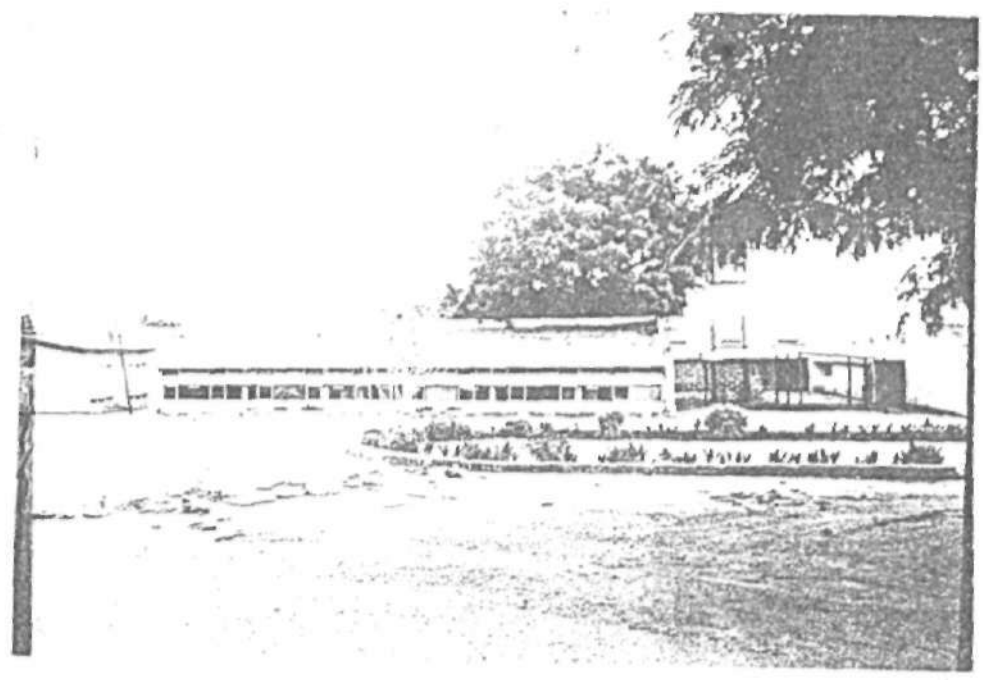
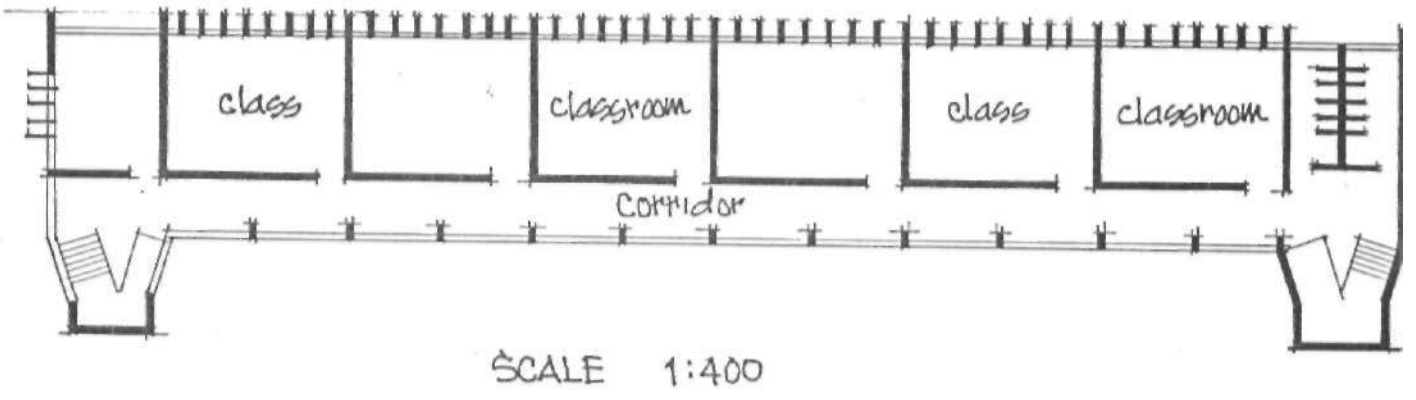


Plate 2 - View Showing Size of Buildings.

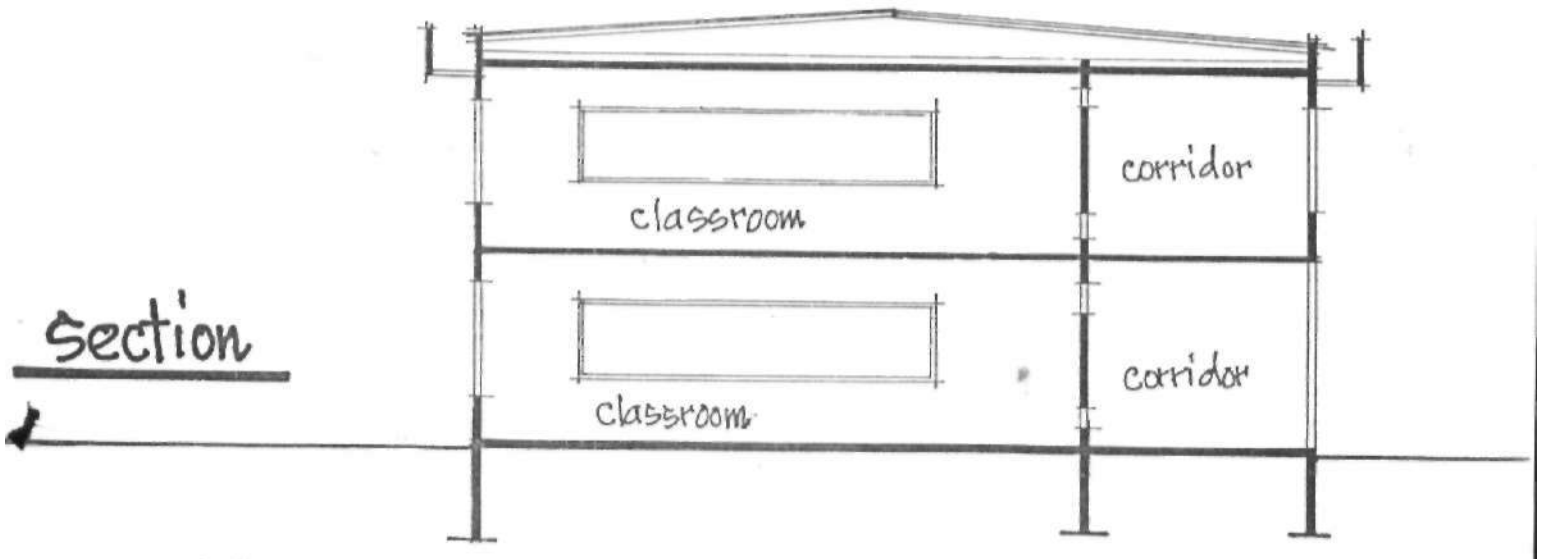
Fig. 1 - Plan of Classrooms, A.B.U Staff School
(Case Study 2)




SCALE 1:400

- Plan

Fig. 2 - Section of Classrooms.




Section

SCALE 1:100

western part of the centre.

Facilities: The centre's facilities include a dressing room, store, stage, projection room, clinic, multipurpose hall, library and kitchen.

Planning: The centre has a compact arrangement. The library and clinic are placed directly to one side of the multipurpose hall. The other facilities also line the edge at the back of the stage. Most activities of the centre take place in the multipurpose hall.

Architecture: The construction is of the normal double pitched roof covering the multipurpose hall. Walls are of concrete blocks which are load bearing. The hall is long and narrow. Forms used are purely rectangular and square. The roof has no ceiling. Roofing material used is longspan aluminium roofing sheet.

General Appraisal

ADVANTAGES:

- Proper location of the centre which makes it accessible to the people of the area.
- Flexibility in the space used as the multipurpose hall.

DISADVANTAGES

- Planning of units is haphazard
- The hall is long and narrow, without ceiling, therefore constituting acoustic problems and heat which

can make people very uncomfortable in the afternoons.

- Inadequate facilities which has restricted the activities of the centre to just the multipurpose hall; therefore many activities cannot take place simultaneously.

Programmes of the Centre

The activities of the centre include Basic Adult literacy, film shows, civic education, ceremonial occasions, group meetings and demonstration groups.

## 3.5 Other Institutions

It should now be recognised very well that the arms of adult education activities that are of basic concern to the Nigerians are limited especially when consideration is given to the basic educational needs of our societies. In some states it has been made compulsory in government establishments including civil service and parastatals. This adult education is common in government ministries, hospitals, churches, mosques.

### 3.5.1 Women Training Centre, Kano

The women centres came into existence in 1974 with a group of about 30 students in the Kano city Municipal Adult Education Office. It is under the continuing Education Division of the Agency for Mass Education.

Location: The centre is located at Emir Palace Road. It is bounded on the east by the Kano State Library and the Emir's Palace and directly opposite by the Gidan

S.O.S
primary

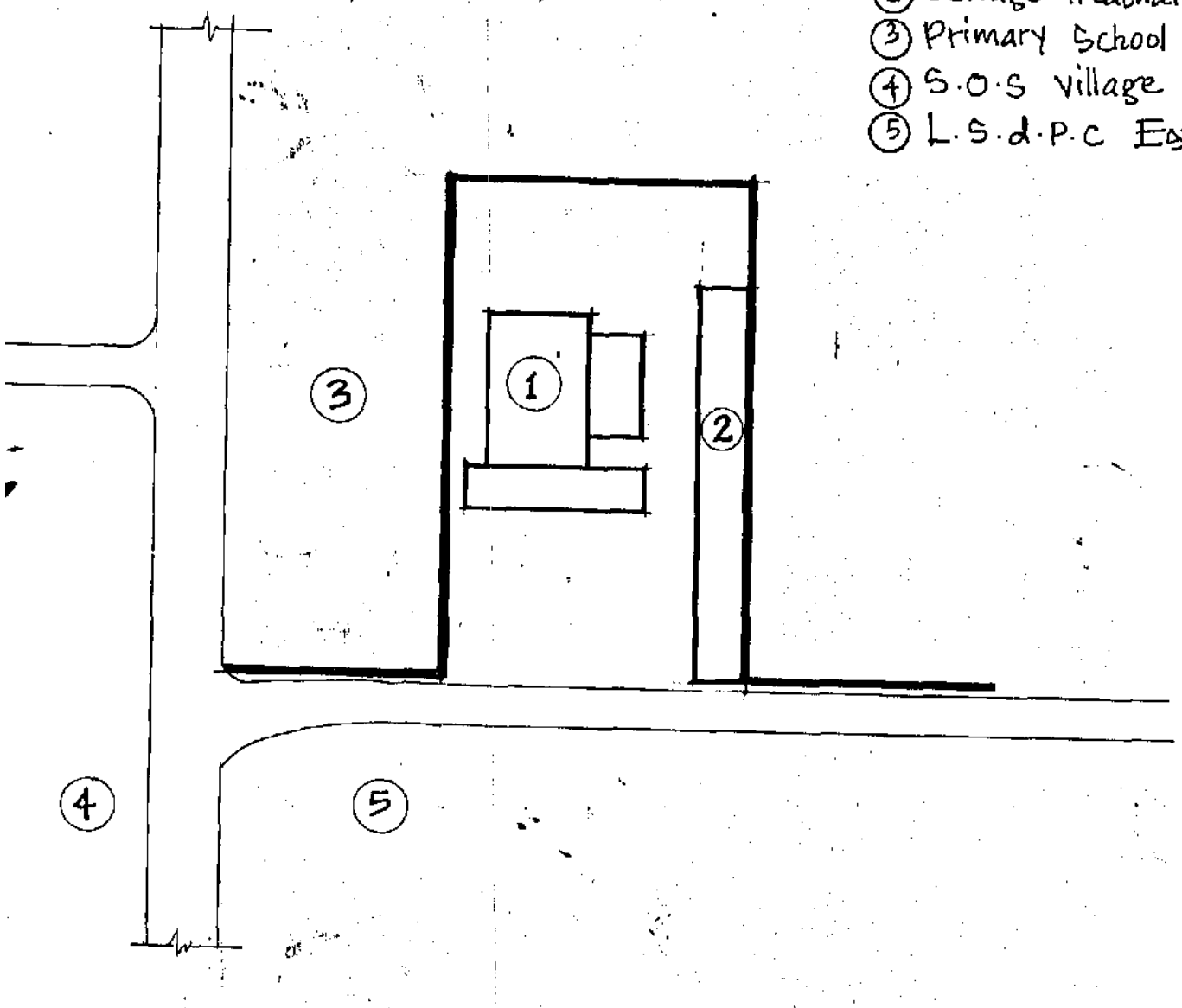
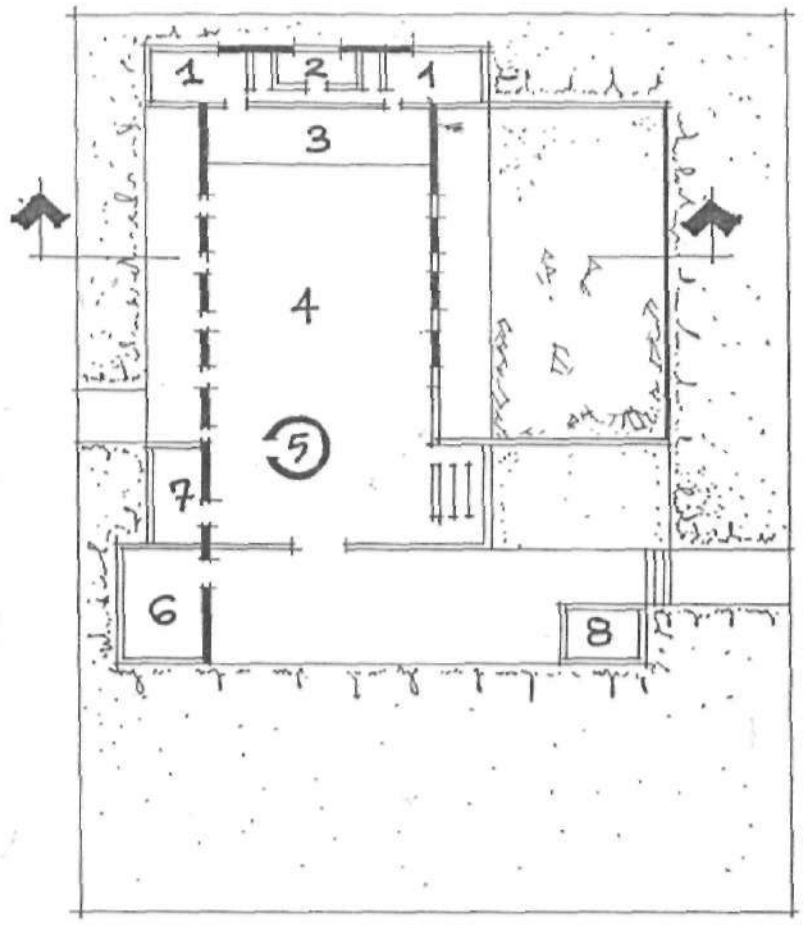



Fig. 3 - Site Location - Community Centre Isolo, Lagos

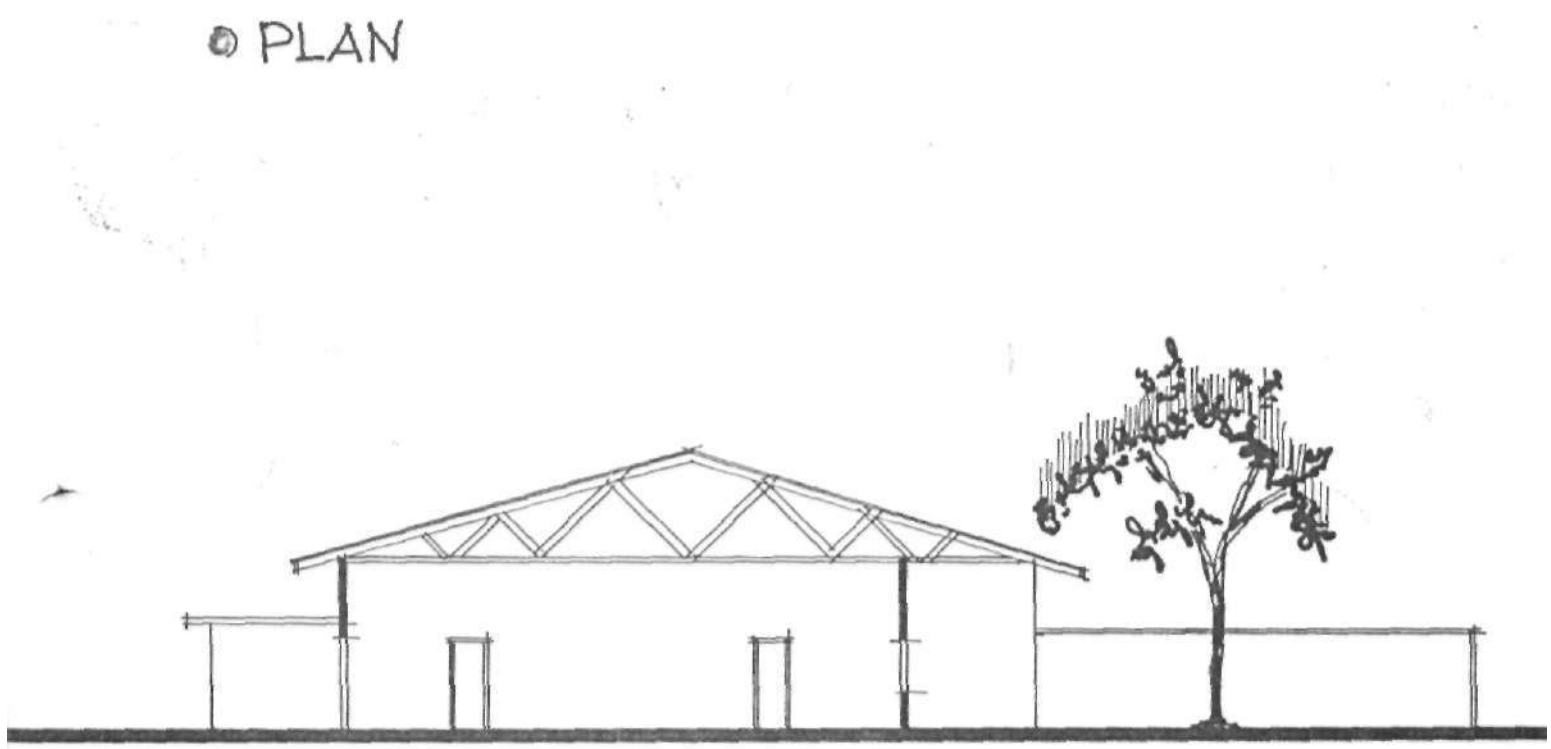


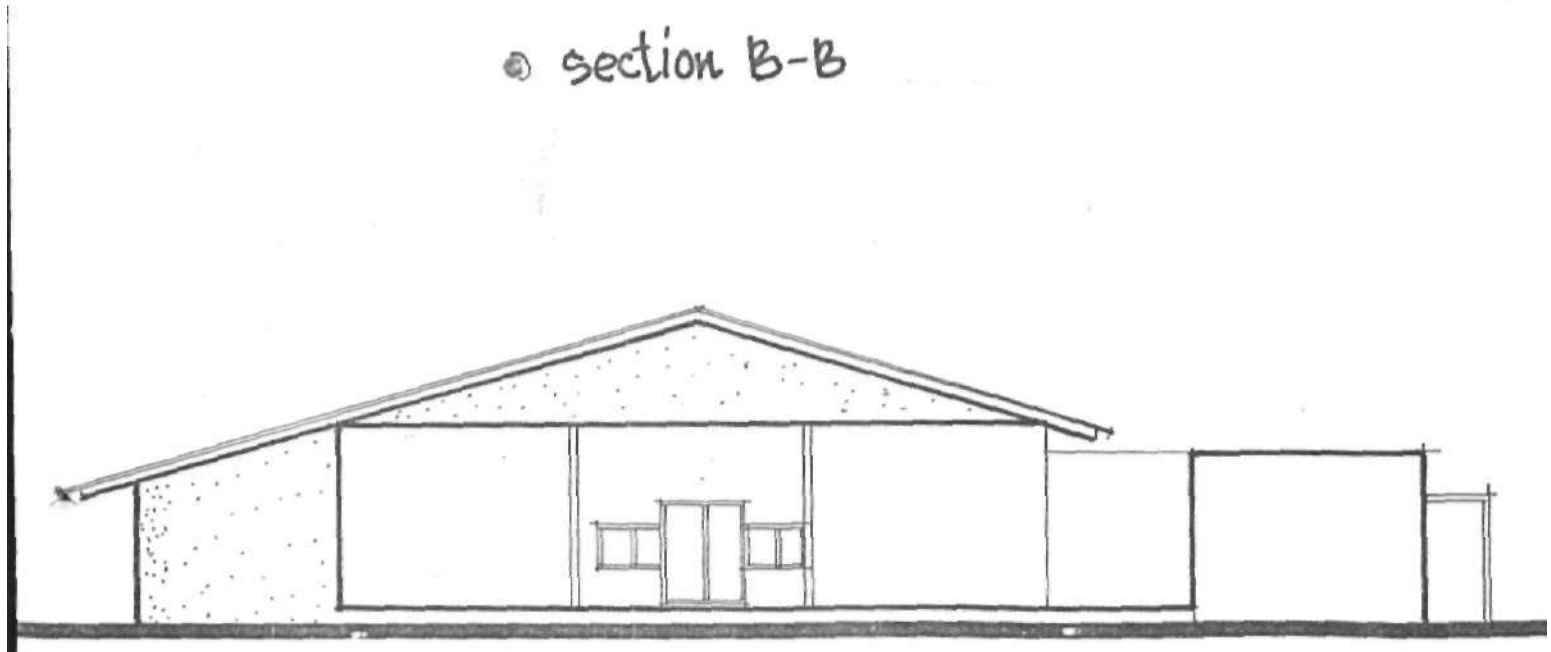

1 dressing room
2 store
3 stage
4 multipurpose hall
5 projection room
6 Library
7 clinic
8 kitchen

● PLAN

Fig. 4 – Floor Plan – Community Centre Isolo, Lagos

Fig. 5 - Section and Elevation - Community Centre
Isolo , Lagos (Case Study 3)



Makama Museum and on the north (at the back) by some residential houses to yakasai.

Accessibility: It is accessible from the Emir Palace Road.

Facilities: The centres' facilities include: an administrative unit, staff rooms, classrooms, cookery laboratory, sewing room, store and a nursery room where children are cared for while their mothers are in class.

Learning Equipments: The centre is equipped with equipments like sewing machines, knitting machines, cookers, refrigerators and mattresses for the nursery.

Planning: The centre has compact planning around a courtyard. The main building consists of classrooms, nursery room, principal's office and staff room. Double banking system of planning employed here. The courtyard houses the classrooms for the secondary section, their staff room, toilets, generator house and an overhead tank.

Architecture: The building is composed of a system of columns and beams spaced at 5m apart with load bearing walls to support the roof structure. The reception hall is interrupted by columns which reduces the amount of usable space. The construction is of normal double pitched roof over the main building and the secondary classrooms on the east. All classrooms and units in the main building are demarcated by remountable partitions.

Learning spaces: Basic and Post literacy classes take place in the classrooms while vocational lessons like cookery and sewing take place in the laboratories.

General Appraisal

ADVANTAGES

- The centre is easily accessible to users due to its location
- Adequately ventilated units
- Buildings property oriented with longer sides on North and South.

DISADVANTAGES

- No defined parking area
- Classrooms not adequate, as a result students have to stand through out lessons
- Inadequate toilet facilities
- The whole building does not really suit the function. It is serving right now as it was not built for that purpose, that is to house adult education activities.

Programmes of the Centre

The courses offered include:

(i) Basic Literacy - Hausa, Ajami, English, Arithmetic, Child care

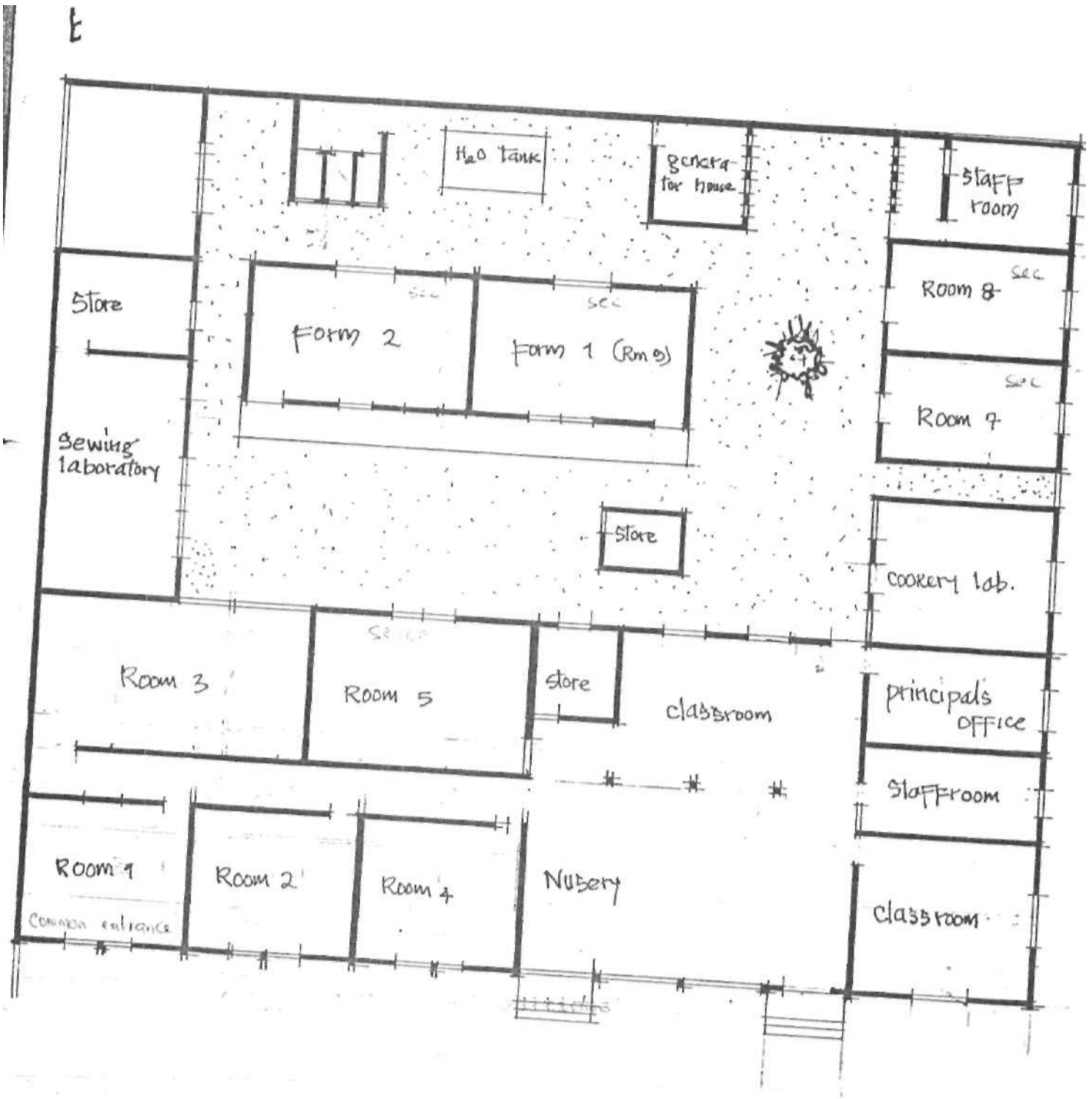
(ii) Post literacy - Advanced English, Maths, I.R.K, Cookery, crafts, sewing/knitting.

(iii) Remedial course - Forms 2-4 secondary school




Plate 3 - City Women Centre, Kano Kano
(Case Study-4)

Fig 6 - Plan of City Women Centre, Kano
(Case Study 4)



syllabi

(iv) GCE - W.A.E.C syllabi

(v) Vocational - Sewing, knitting and cookery.

3.6 Conclusion

Based on the case studies conducted, one can conclude that:

(i) The facilities housing the adult Education activities are highly inadequate for the diverse activities constituting the adult literacy programmes. This has restricted the number of courses offered.

(ii) The spaces used do not allow for flexibility in the use of various techniques of teaching employed in adult literacy classes.

(iii) The environment depicts the conventional school environment which is too formal for the users (adults) especially those who have never been to school before and are more traditionally inclined.

This is due to the fact that most of the buildings used for this functions were not designed right from the start to house the adult education activities.

(B) It has been observed too that priority is given more to the women and the men have (sort of) been restricted to just basic and post literacy classes.

In view of that the author, therefore intends to introduce some more vocational courses to the proposed Adult literacy centre.

# CHAPTER FOUR

## 4.0 CURRICULUM AND SPACE

### 4.1 programme and Activities

THe staring point of any educational planning be it formal or out of school education; the first things to be considered are the needs and interest of individuals or the illiterates for whom the programme is intended. The needs and aspiration of the masses could be obtained by creating a forum whereby the illiterates could express the kinds of educational activity they want. If the masses for one reason or the other fail to express their views, the Agencies for mass education should assess the needs and interest of the masses. The Kaduna State Agency for mass literacy has therefore drawn up programmes taking full cognisance of the classes of adult learners and the functions involved in the activities of the centre. The programmes include:(i) Basic Literacy: This takes care of the illiterate adult, who has had no exposure to any form of education at any time of his life. Here the illiterate adult learns to read and write for the first time.

(ii) Post Literacy: This takes care of the semi-literate adult. Here the adult learners increase their knowledge of reading and writing. At the end of the




Plate 4 - Women Literacy Class

course. they are examined and issued with an equivalent of primary six leaving certificate. There is also the evening secondary school classes which lasts for three years at the end of which learners are issued the Junior Secondary school certificate. Those who pass go straight to senior secondary school and those who fail join the vocational classes.

(iii) Functional Literacy: This takes care of both illiterate and the semi-literate learners. Who either want to learn new skills or trades, or those who want to improve their skills. The functional literacy involves technical and domestic courses. The technical vocation courses include:

(a) Electrical appliances
(b) Plumbing
(c) Woodwork and Joinery
(d) Building
(e) Motor Mechanic
(f) Refrigeration
(g) Radio mechanic
(h) Metal work
(i) Airconditioning

These courses are organised by the Agency at the Government Technical college, Malali, Kaduna. It usually consists of students who for one reason or the other could not continue with the formal education.

The other aspect of functional literacy include crafts like:

(a) Basketry

(b) Calabash carving

(c) pottery

(d) cloth weaving

(e) mat weaving

(f) Embroidery and Knitting

(g) Cloth Dyeing

(h) Leather works etc

(g) Domestic science.

This is the aspect that is most relevant to the Adult Mass Literacy programme because it takes care of the immediate needs of the masses and illiterates.

The diverse activities to take place in the centre could be supported by a quotation by P.H. Coombs (1972) who said:

"For effective planning of non-formal education, the population will have to be divided into various functional sub-groups each with its particular development roles and learning needs. There must be a series of coordinated programmes each with its own tailored objectives."

The writer is at this point going to look into some of the crafts to be taught in the centre and their relation to space.

4.2 Definition of crafts

Crafts can be defined as manual skill, trade or an

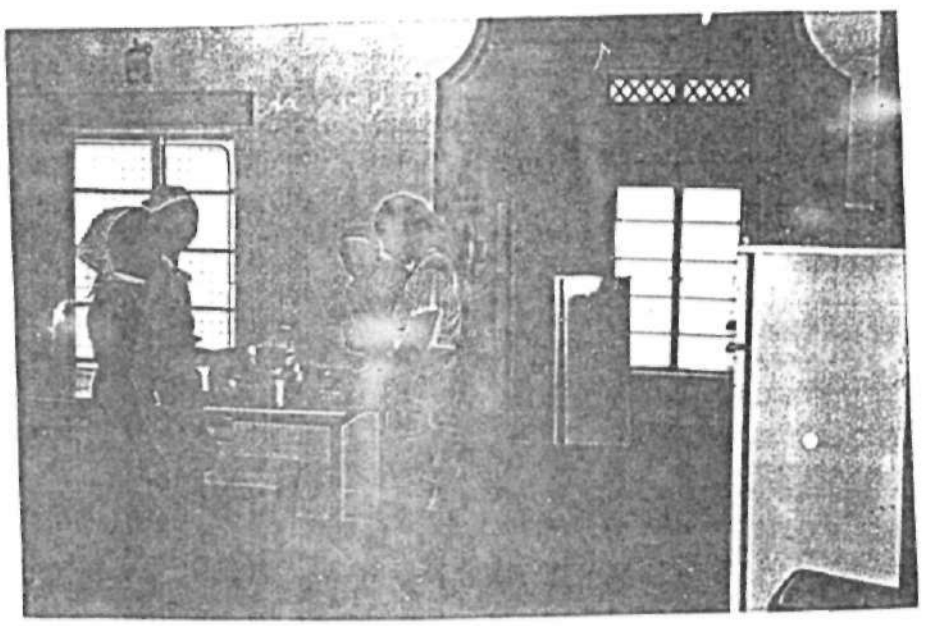


Plate 5 - Food and Nutrition class



Plate 6 - Child Care under
Domestic Science Class



Plate 7 - Students in a Knitting class

occupation, or as a special skill in the execution of manual art or handwork". The word "handicraft" can also be defined as useful or decorative object made by hand or with tools by a workman who has direct control over the product during all stages of production. Crafts grew out of continuous need for useful commodities such as clothes, utensils and tools.

4.2.1 Calabash Carving and Decoration:

The craft is practised only by men. It involves first sawing of fruits of several varieties of creepers into two, and the cleaning out of the insides with a knife which serves as the only tool. Decoration on the calabash is done by putting the calabash in between the thighs while the knife is put to work to incise various designs. Space utilised is estimated at one square meters ($1m^2$) for the carving and decoration process. Another form of decoration is the application of hot metal objects on the calabash.

4.2.2 Cloth Weaving: The craft uses traditional looms and they are basically of two types. The women who prepare and spin the raw cotton, work with a simple vertical structure to produce clothes that are half a meter wide and two meters long ($2 \times 1/2\ m^2$). the 100m which is movable consists of the frame of bamboo or azara sticks with intermediate vertical and horizontal bracing. the 100m measures about one meter high and one



Plate 8 - Calabash Carving

meter wide. The women work at the 100m while sitting on a low stool and the total area for weaver is estimated at about two square meters ($2m^2$).

The men's 100m is the horizontal girdle Sudanese type sometimes referred to as the band 100m. It is used to produce a long narrow piece of cloth about 20-80cm. the 100m consists of two vertical azara sticks in the ground at about 1m apart with a bamboo horizontal member. A prominent feature of the male 100m is the long warp threads which are spread out and held down by a stone or peg. Area required for a male weaver is about two to three square meters ($2-3m^2$).

4.2.3 Leather Works:

The craft involves the use of cattle hide, goat, sheep, snake and occasionally fish skin to make articles such as wallets, bags, boxes, footwear etc. The most frequently used leather, especially for decorative work is the goat skin which is often dyed to a bright, red colour. when it needs to be stiffened, cardboard is used to which the leather can be effectively fixed using porridge as glue. The traditional tanning process involves soaking the skin in water to which ash and seed pods of Egyptian Minosa have been added. They are the place over old wooden mortars and the outer having layer is removed with a scrapper. The skin is whitened with milk or coloured with local vegetable or imported



Plate 9 - A Female Weaver



Plate 10 - A Native Weaver



Plate 11 - Students in a Cloth Weaving class

dyes. Further ornamentation is done in any of the following ways:

- By applying a stain consisting of water and dye powder

-By embroidering with thin strips of coloured leather

- By incising and punching patterns with metal tools

- By nothing, plaiting and weather

- By an applique technique that combines gluing and stitching

- By a stripping method in which areas of the surface are removed to create contrasts of dyed and undyed leather. All the processes described above are manual and would require an area of about twenty to twenty-five square meters (20-25$m^2$).

4.2.4 Pottery

The articles made include pots, toys, coolers, frying pains. Their appearance if more often simple than elaborate. Most traditional potters work without potter's wheel. Small items are made from lumps of clay turned in the hand while larger articles begin as flat slabs placed over an upturned pot or a shallow calabash. where a large piece of clay is being turned in the first shaping process, the potter who either sits on the ground or a stool uses his feet to revolve the upturned pot and for a finishing off process such as smoothing of a rim, he stands up and circles it in one quick continuous movement. To enhance the beauty of



Plate 12 - Traditional Pottery on a Local Potter's Wheel.

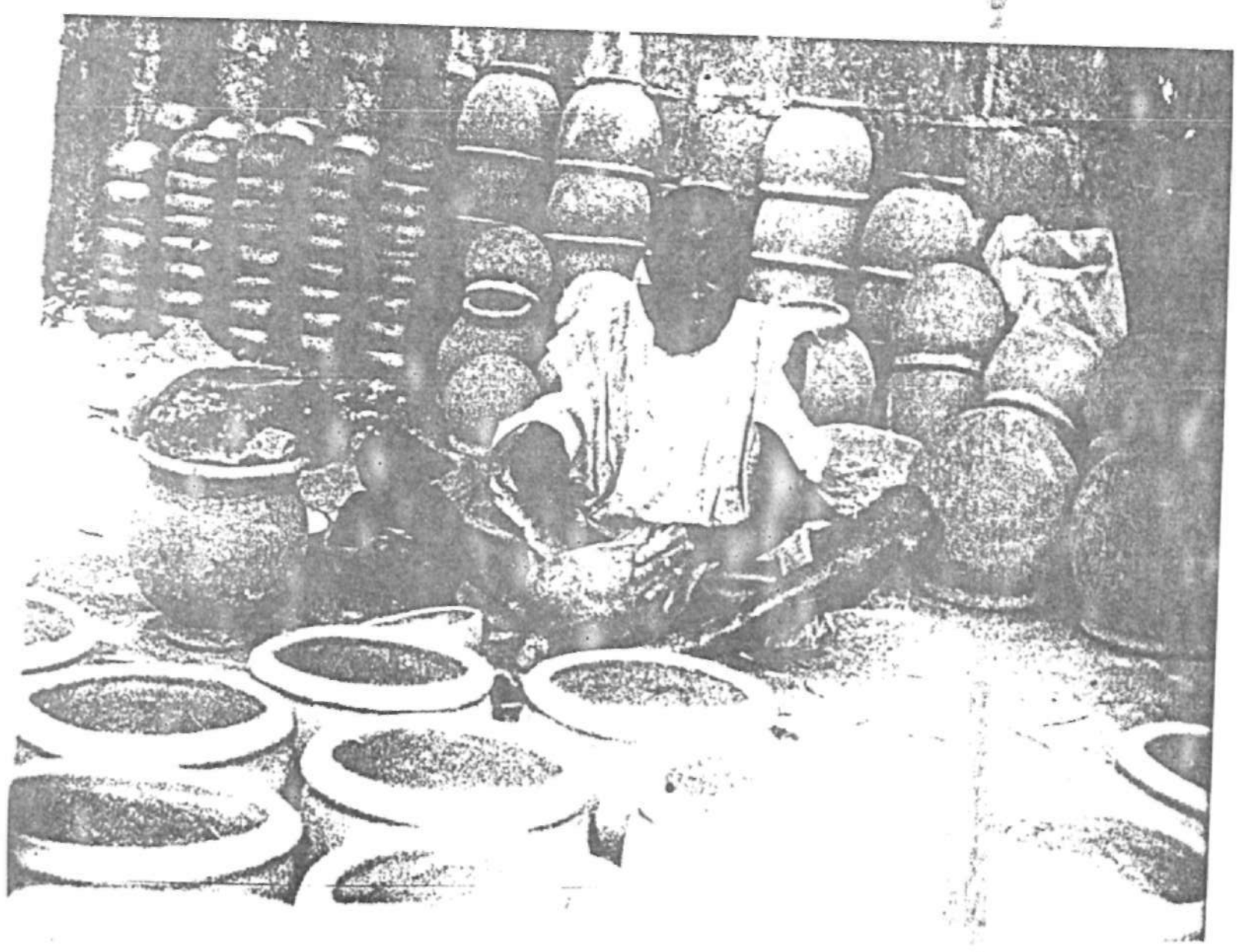


Plate 13 - A local Pot Marker



Plate 14 - Pot Modelling Process a modern potter's wheel.

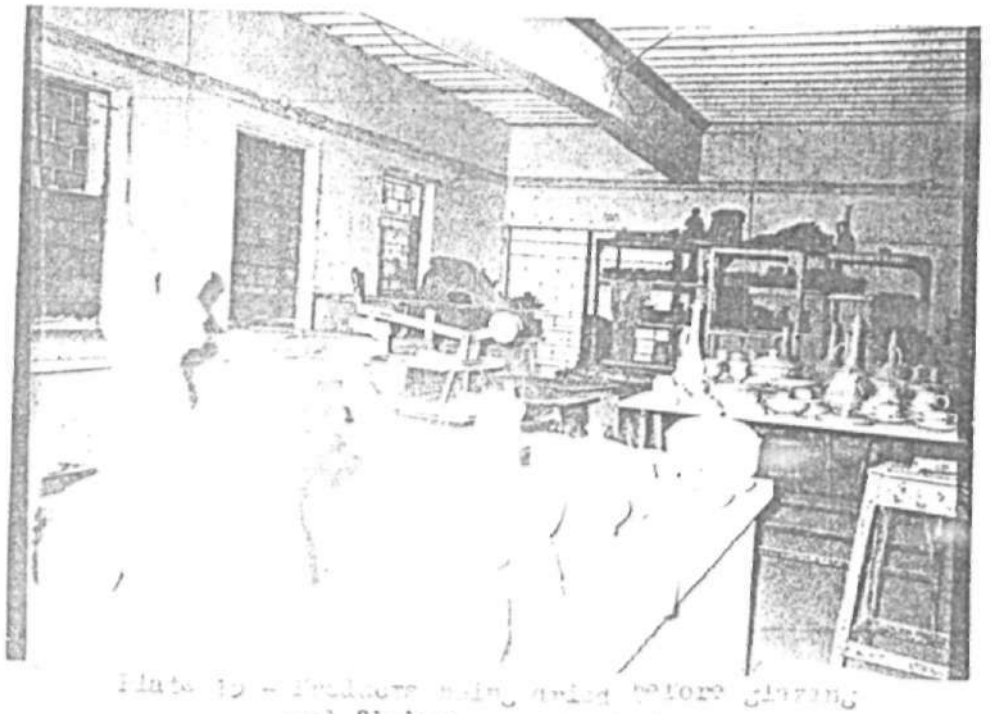


Plate 15 - Products being dried before glazing and firing.

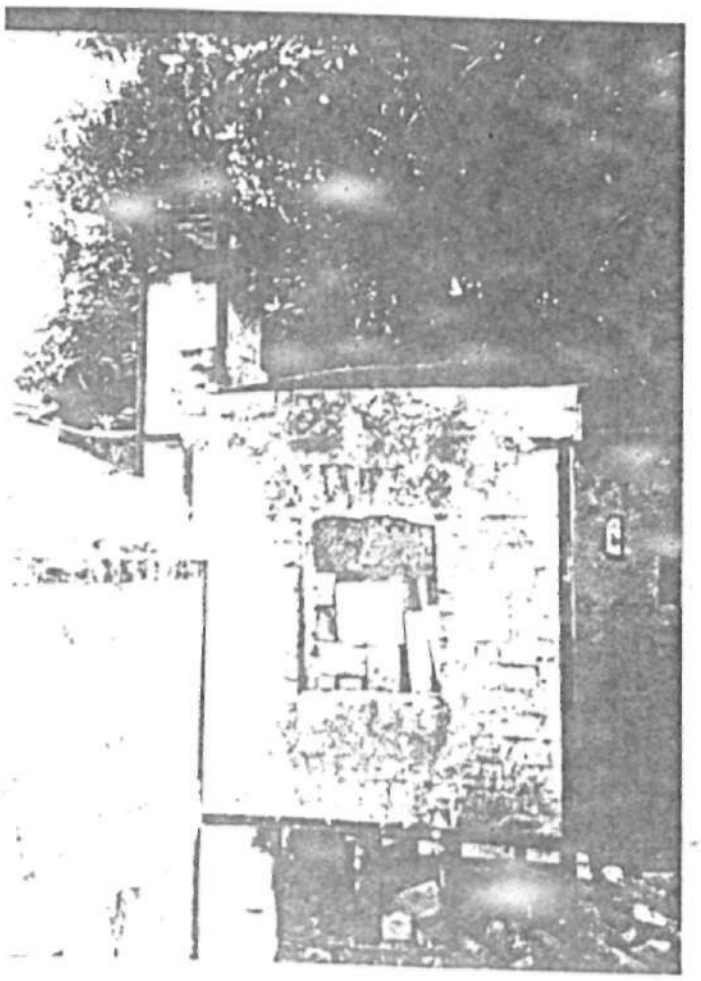


Plate 16 A brick kiln.

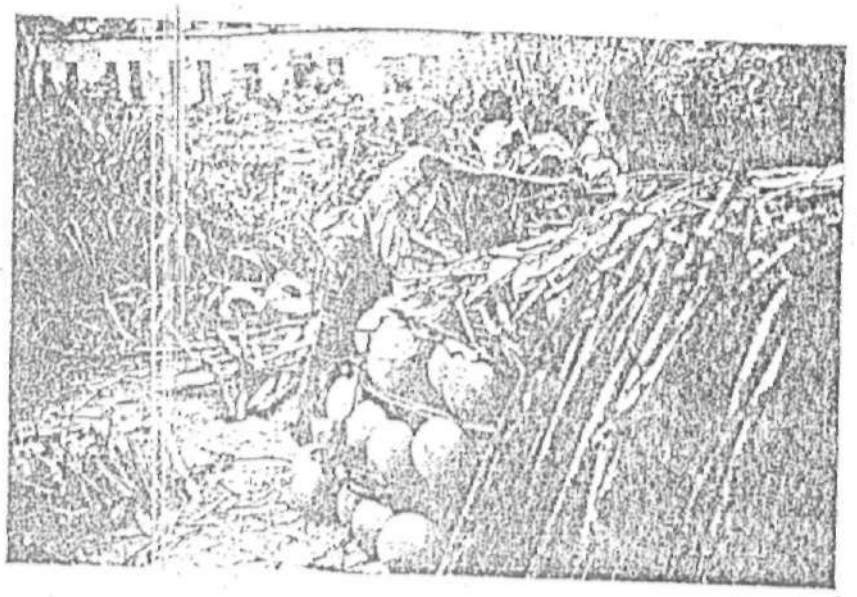


Plate 17 - Local Method of Firing Pots

certain products. various designs incised with sharp tools or are impressed using twigs or nulettes of twisted fibres. For the described process, space required is put between one to two square meters (1-2$m^2$).

Firing or glazing in traditional pottery takes place in an open space, though there are potters who fire inside low walls enclosures with homes for inserting fuel. these are no true kilns. Preparation for a typical firing process begin with a layer of grass being places on the ground. Brushwood is laid on top of this and the pots are arranged from the centre and where possible the base of one pot is set into the width of the next. firing space depends on the number of pots to be glazed.

4.2.5 Embroidery

A substantial amount of embroidery done is an clothing such as gowns, caps and spatial needs are not dictated by any special tools as most of the work done is with needle and thread while sitting in any comfortable posture. An area of one square meter (1$m^2$) will be required for one person.

4.2.6 Indigo Dyeing

The traditional dyers use cylindrical cement-lined pits about 500-1800mm in diameter and several meters deep. The pits are clustered together on sloping ground

to avoid water oozing. The dyeing process involves dipping the clothes into the pit while standing, sitting or squatting and periodic beating of the already damp dyed cloth, laid over a log of wood, with heavy wooden mallets. This accompanied by sprinkling of powdered indigo on the cloth. the dyeing process will require an area of about two square meters ($2m^2$), while the spaces around the cluster of pits is used for the beating.

Decoration on textile cloths are made either by predyeing the threads or by local printing technique using carved pieces of calabash, stamping etc.

4.2.7 Basketry and Mat Weaving:

Elephant grass and palm fronds which are mostly collected during the rainy season, are the chief materials used and they are worked on in a damp state . In certain cases, the grass are buried in the ground so that they remain supple. When colours are used, the palm fronds or grass are first boiled in water containing the dye-stuff and then laid out on mats to dry before they are woven to the desired article. Spatial needs are dictated by work convenience due to the absence of special tools and the size of the products will determine the overall space required for a weaver. An area of about two to three square meters ($2-3m^2$) will allow for weaving procedures which are carried out either squatting or sitting.

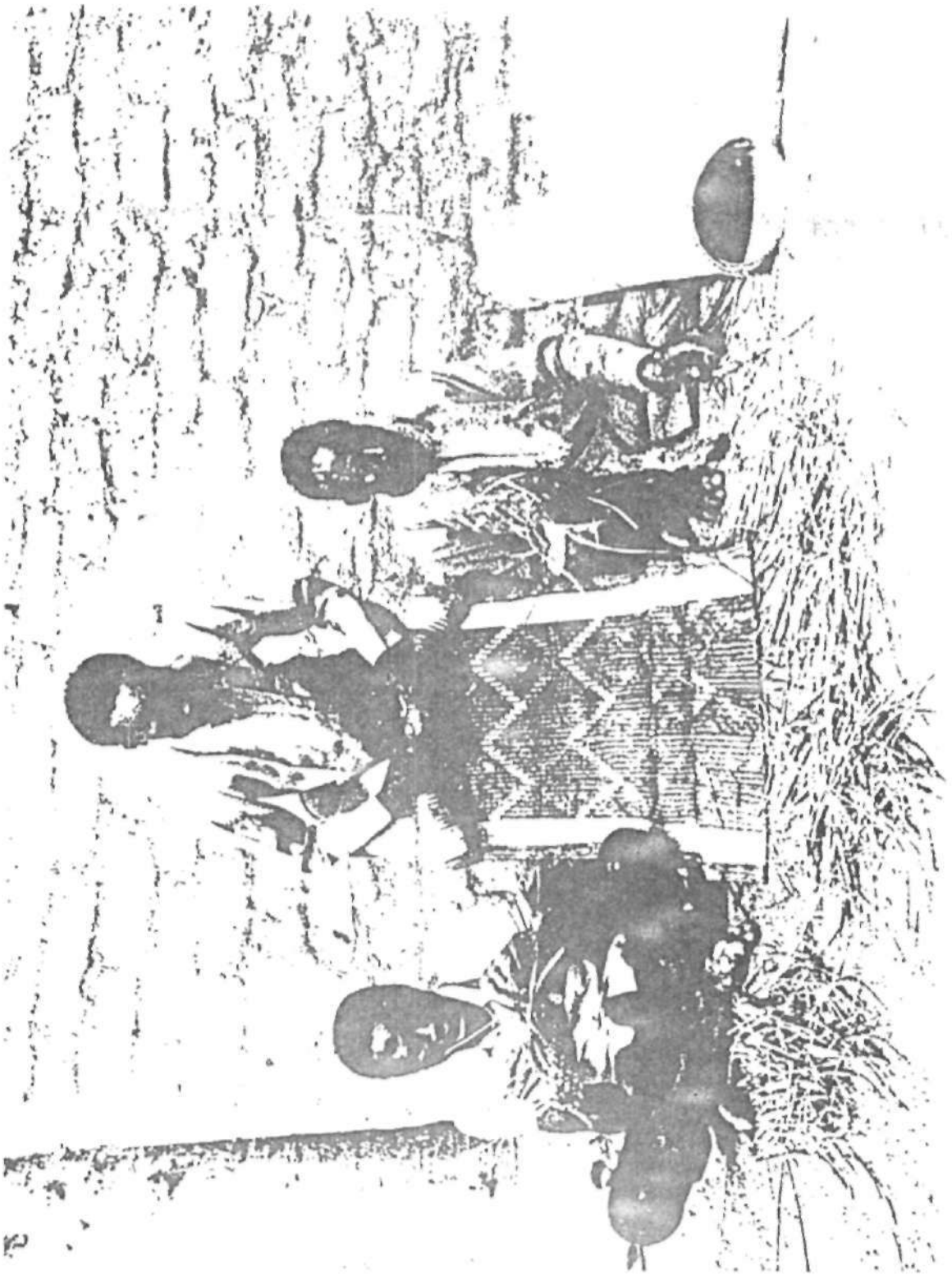


Plate 18 - Mat Weavers

To conclude, it is noted that in the making of crafts, different positions are involved, each depending on the particular craft. Space needed is dictated by the tools employed, size of products and the like.

## 4.3 Traditional Method of Learning

In the traditional method of learning which can be described as a learn-on-the job, apprentices are initially attached to the master craftsman. In this case while the master craftsman is working on a particular craft, the trainee or apprentice keeps on observing. After observing for quite some time, the trainees are finally allowed to try their hands on simple problems and then gradually to more complex and difficult ones by trial and error. This being supervised by the master craftsman. Graduates of this method of training are usually skillful using past experiences but lack the knowledge of the basic sciences relating to their disciplines as they find it difficult to prescribe solutions to problems they did not encounter during the duration of their training.

Payment for these services is done on the basis of other services like farming and household activities being rendered to the master craftsman.

## 4.4 Local Learning spaces

It is difficult to find a complete or comprehensive learning centre of local crafts (vocational) and literacy classes as projects like these are expensive to the local people. Rather individuals device means and spaces of making and instructing on local crafts and courses of their ability.

It has been discovered that literacy classes and local crafts have been done in two different space conditions. these include learning indoors and outdoors. It was revealed that the use of these spaces vary from craft to craft.

The house as learning centre

A compound in the north predominantly is usually divided into forecourt, which serves as an intermediary between the word and the central courtyard. The central courtyard houses several huts inhabited by a family, wet season kitchen, store-rooms, poultry pens and granaries. the forecourt houses the entrance hut (Porch). Here the compound head pursues his occupation. as crafts popularly done here include basket, met weaving, calabash carving, tailoring and the like. Teaching of the holy Koran also takes place in or outside the entrance. Here the entrance porch is used as the learning space.

The courtyard

Plate 19 - Example of traditional learning space
A blacksmith in his entrance hall
(zaure)



As the traditional architecture of Nigeria has it, courtyard is one of the characteristics it possesses. Dwelling units are planned in such a way that a free space is allowed mostly centrally or as the case may be the courtyard usually functions as a space for relaxation, craftmaking, cooking and sometimes cultural dancing. Learning here takes place by the women sitting around their instructors and this sometimes ends with traditional dances. This is to encourage the women to frequently attend the exercise.

## 4.5 New Instructional Methods in Mass Literacy Education

Since the main purpose of teaching is to make the learners understand the content of the learning experience, it is important for an adult education instructor to devise effective methods of instructions that can go along in improving teaching learning situation. In view of the above stated fact many writers on Adult Education have stressed the importance of good methods and techniques in teaching adult students.

For instance, Bown (1979), Lowe (1975) Rogers (1977) and a host of other writers have discussed in some greater detail various methods and techniques to be applied in teaching adults. These writers gave the following methods as alternatives in handling adult education classes:

4.5.1 Individual Learning Method:

This method is best suited in learning skills such as driving a car, motor mechanic etc. In this method, the most appropriate technique to be employed are observation, discussion on how to manipulate some tools, demonstration by masters, muse of devices such as pictures and films to illustrate the required skills. Counselling is also an important factor in individual learning as it allows the learner to develop regular habits and gain confidence in his ability to learn.

4.5.2 Small group learning method:

Learning is the main feature in this method. This method has been exhausted and over used over the years. The technique employed in this method is tutorials which aims at commenting on important issues raised during the lecture. The tutorial method has been described as useful in all areas of adult education.

4.5.3 The Socratic Method:

In this method the adult learner is engaged in discovering for themselves truth and principles. This method requires the teacher to plan thoroughly the style of this questioning and discussion. This method is most suited to the study of adult learners' life

experience. For instance, this method may be applied in discussing topical issues such as status of women, polygamy.

4.5.4 Contact with real problem method:

This method centres on planned visits, demonstration, entering into some one else's way of live. The purpose of this method is to expose the learners to real life experience. This technique is useful in many ways. This method if properly utilised will do away with issues like tribalism, misconception, hatred etc.

4.5.5 Simulation Method:

This refers to a model representing real objects in teaching adults. for example, it may not be proper and ideal in teaching, driving or piloting, to use the real objects in teaching in the first instance because it will be very risky. Instead you use mock lorries or aeroplanes for the purpose of teaching the adults how to manipulate such machines until such a time when they are capable enough to use the real objects.

4.5.6 Role Playing:

This refers to a situation of putting adult learners to imitate role playing in a simulated social relationships with the aim of making them understand a particular problem. It is always helpful to follow up a

role playing exercise with discussion so as to explain and provide - reinforcement to the knowledge gained in role play.

4.5.7 Drama:

This is a conscious form of acting for people to see a play performed with the aim of teaching social vices such as stealing etc. It carries message of social importance.

4.5.8 Games:

This is used inorder to stimulate problems and their solutions. One thing with this method is that, it permits cognitive learning. This method is useful when applied properly.

4.5.9 Stories, problems and songs: This method is used in teaching social values. As such, a study should be undertaken for collecting local proverbs which have educational value.

(10

4.5.10 Large Group Learning Method:

This method is used to cater for large audience of learners e.g town meeting, public lecture or rally type of gathering. In this situation, there may be hundreds of learners and one lecturer or a number of speakers to conduct the learning activity. In this method care

should be taken to see that participants are comfortably accommodated and that every member hears clearly what is being discussed.

4.5.11 Seminar/Workshop:

In this method, a small group of adult learners is formed under the guidance of a tutor or a capable somebody from among the participants. The group may have the option of selecting the topic to be discussed or the topic can be chosen by the teacher for the group. After the discussion, then the group submits a report on the topic discussed to the teacher.

4.5.12 Panel discussion, symposium and Debate:

In this method, a conversion between three or four persons chosen on the ground of their knowledge and interest. A particular subject is arranged while the audience listen and ask questions at intervals. Symposium is more or less like a panel discussion. All these techniques can be used either face to face with the learners or through mass media like television and radio.

4.5.13 Colloquy:

This is the method in which a discussion is held between an expert and learners. This method is usually applied after a conference so as to enable the learners to bring up some outstanding issues for further

discussion with the resource persons at the conference. This method is useful in that it builds up confidence in the learners by allowing them to throw questions and comments to the experts.

# CHAPTER FIVE

## ENVIRONMENT- BEHAVIOUR STUDIES

### 5.0 (THE CONSIDERATION IN ADULT LEARNING ENVIRONMENT)

### 5.1 Introduction

The term "Environment-Behaviour studies" when viewed in the broad range has many partial equivalents: Human-environment studies, social Ecology, Human factors, Behavioral Architecture and sometimes just programming. it has multidisciplinary and multiprofessional fields which are strongly related to the disciplines of architecture, psychology and geography; and partially related to anthropology, sociology and urban planning. However, it is only the architectural consideration that is being considered in this Chapter. The broad range field listed above shows how it's true interpretation in architecture will be of beneficial value to its users of a design. Environment behaviour studies in architecture deals with the systematic examination of relationships between environment and human behaviour and their application in design process. In this thesis some issues relating to:

(i) How adults interact with their educational environment and application of such (findings) understandings in the design process will then evolve. In most developing countries, adult education has not been given much attention and architectural approach to learning environments have not really been recognized. The basic

problem is the literacy and numeracy which are undertaken using community facilities especially the primary schools. Many of the programmes, however well started, have never been able to near any thorough completion, and one of the major problems faced is the situation in which adults learn in environments which do not acknowledge their childhood and do not allow for proper use of teaching techniques. In qualitative terms basic interpretation of the situation include:

(i) The "western tradition" has led to attitudes that allow the programme to be taken in a very formal environment rather than one that is of humane character. People are placed over nature and land rather than emphasizing humans in harmony with the physical environment.

(ii) The urge to give the people basic educational requirement, public enlightenment and other advantages of awareness has lead to the programme being undertaken in any available venue. It is advantageous in that it allows the people to get educated in places near them. The people have the advantage of using their own environments that first and foremost support the needs and desires of their inhabitants.

As already indicated, architects start their designs with the assumption that the users' needs are taken care of. The knowledge about a wide user group and about the way in which less trained people think

about the outcome of the design endevours is much more important to the successful outcome, especially in the case of a unique set of users who are so much polarised in the nature of culture and interpretation of architectural values. In this specific case of adult environment, it is necessary to recognise the fact that adults in this environment have special reservations about their own environment especially the visual values. Thus it is required that design decisions be based strictly on their needs, perception and preferences.

Two conceptual frameworks are necessary to be established before proper evaluation of environment-behaviours studies in architecture can be fully undertaken:

(i) The range of environment-behaviour information available

(ii) Where in the design process, environment-behaviour information most affects architectural decision making.

## 5.2 SCOPE OF ENVIRONMENT-BEHAVIOUR INFORMATION

One Architectural Psychologist, Irwin Altman proposed some environment-behaviour information which contains three major components:

(i) Environment-Behaviour Phenomena

(ii) User groups

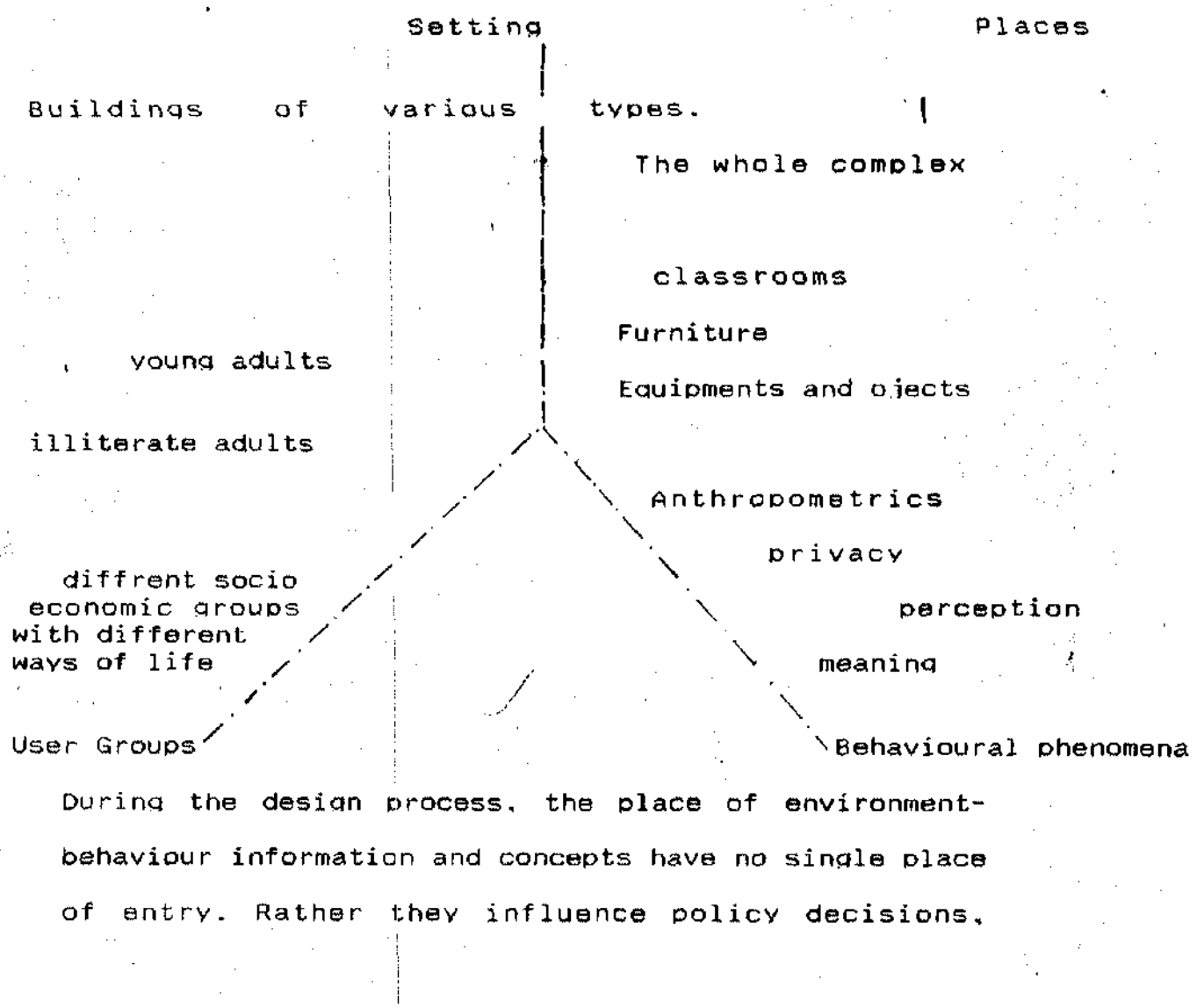
(iii) Settings

The phenomena factor is very much concerned with different human behaviour in relation to the physical environments they live in. These include privacy, proxemics, environmental meaning and symbolism, and the ways in which people use their environment in the presentation of self. Proxemics and Privacy refer to individual behaviour patterns while community and neighbourhood deal with social patterns and roles. In the decision for any particular user group, all these factors cross-cut each other and play important role in determining what the outcome is.

The user group is concerned with the recognition of the particular needs of any set of people the design is for. Different user groups have different needs and use pattern and are affected in different ways by the quality of the environment. This particular case of adult environment concerns most clearly with ethnic groups, group with different ways of life and different socio-economic groups.

Setting, the last factor, relates to different scales of grouping. This concern of the architects relates to the scale of rooms to buildings and group of buildings. Assembly of particular groupings have been associated with some socio-cultural groups which determines the mode of design for this people. In Nigeria there are different foci as related to the different ethnic groups the country has. New designs in particu lar state of the country would be expected to take

cognisance of the environment-behaviour factors of the people of the state. The unique feature about this approach is the consideration of behavioural, social, and cultural factors of the people in the setting. The feelings of the people will permeate the whole environment of the design, and in the case of adult learners, adults could be said to be learning in their own environment. The scale of space allocation to different tasks, being the primary determinant, is what actually determines this.




During the design process, the place of environment-behaviour information and concepts have no single place of entry. Rather they influence policy decisions,

programming and overall design synthesis, and such decisions and designs are evaluated against socio-behavioural criteria in post occupancy evaluation.

5.2.1 Phenomenon and Design

The interpretation and use of the stated components of environmental information requires the detailed evaluation of other factors which are contained in the above ones. Some phenomena, like anthropometrics which refer to human conditions that are for the most part manifest, concrete and observance and others like semiotics, which refer to the effect of environment that are latent, highly ephemeral, and covert provide the type of considerations for proper evaluation of the ideal environment for use in the adult situation.

(i) Anthropometrics

The anthropometrics data-the proportion and dimensions of the human body and its other physiological characteristics and abilities relative to different human activities and micro environments in this design fixes in with what is contained in the general considerations available in most published data. However special consideration is needed to be given to some critical human factors in adult's case. It is clear that with advancing years, the adult goes through a process of change in his body some of these

changes may result in his sight and learning becoming less acute. Also due to skeletal growth and addition of fats, physical dexterity may result. Thus allowance is needed for these in the allocation of spaces for various teaching techniques in adult education.

5.2.2 Behaviour Setting: Fits and Misfits

Behaviour setting relates to all those aspects of physical environment that are critical to behaviour. It is actually a key concept in the analysis of users behaviour as related to the architectural concepts that encompass a design. Ecological psychologists Roger Baker suggested four characteristics which can be associated with the behaviour setting since the case of this society which the thesis is concerned with is of a peculiar nature further explanation will be done so as to relate them to the subject matter of the thesis:

> "A common type of behaviour or a common recurring type of behaviour". In the traditional educational system - apprenticeship and some cases of practical training - seriousness is usually obtained. Traditional pattern of adult education of the organisation form bear close similarity to the present school setting . There is head of institution in different classes."

The Arabic classes situation is a typical example of this.

(ii) "Social rules and purposes governing the behaviour which may be interpreted as including norms and expectations". The adult education operation, because

of religious basis and the culture of the society, takes special consideration of the women education. There are three distinct classes of people: The women, the adult men and the young adults. In the case of the women, provision should be made for special enclosure which will ensure their privacy. Also there are illiterate adults who are being introduced into organized educational setting for the first time, it has also been suggested that a learning environment similar to the residential one will be more suitable. This follows the fact that education of adults is more of the informal sense which in most cases takes place in the home. Education for the adults is of the form of riddles and proverbs which takes place during indoor games and informal gathering in the family compound. Also the education of the young children is nearer to the concept of socialisation but adult education comes at a stage in life when the task of socialisation is, more or less completed. Therefore, the nature of the environment for the general consideration of the three classes of people involved will be necessary, in line of human character which is very much recognised in the adulthood.

(iii) Critical physical features of the setting, that is the elements and the relationships of the physical environment that are separately linked with the behaviour"

The analysis of the different backgrounds of the set of people involved will show these features. For the illiterates, the traditional pattern of room setting in compounds is the solution. For the workers especially those from the civil service and the private sectors as well as the young adults, the nature of their working place and the steps they have attended will also have to come in. However other considerations relating to functional planning, circulation etc will also determine the nature of the essence. The design approach in large comprehensive centres takes the firm of the network, the central hub and the linear approaches.

(iv) The time focus, the time frame in which the behaviour occurs, for many behaviours have daily, weekly, monthly and seasonal rythms".

Every designer, on the long run, creates forms to satisfy the users behaviourability, socially and culturally. If the forms that result, that is setting, satisfies the users in terms of behaviour, rules and purpose, there is a fit between environment and behaviour, between the form and purpose and fit occurs in the behaviour setting. Misfit occurs when the setting components are not in harmony with either behaviour or purpose or both.

The behaviour setting concept and the twin concept of fit and misfit are basic building blocks in architecture. They form the basis for the analysis of

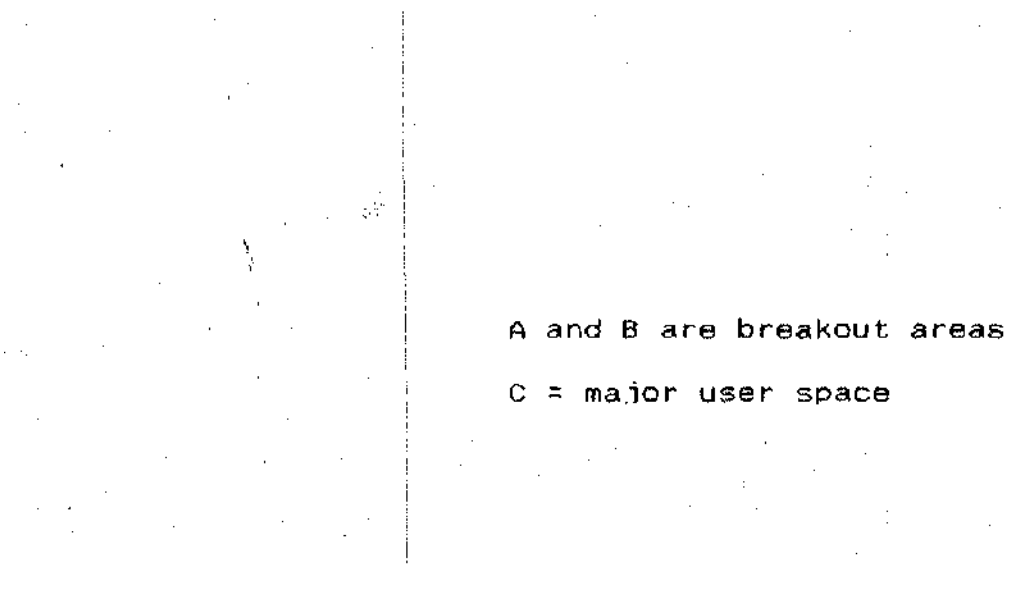
form-behaviour relations, for the evaluation of buildings in use and for the development of behaviourally based architectural programmes. Every design endeavour in this form becomes an array of implicit hypothesis aiming at achieving good fit between form and behaviour.

5.2.3 Small Group Ecology

Small group ecology is the name given to consideration of the critical environment-behaviour relations in small group situations. proxemic distances for various types of activities are part of a small group ecology. Proxemics refers to inter-related observations and theories about spatial factor in face to face interaction. Proxemic distances include intimate, personal, socio-consultive and public. the characteristic behaviours that occur at each distance are critical factor in this study. The consideration of low dimensions, shape and character of space influence the activities of the whole operation. Questions like what type of spaces are best for seminars, conferences and classroom, would become a major consideration in evaluating the extent of the design problems involved.

Studies have shown that in a group situation like a seminar, people tend to respond is others more if they can fully see them. It has also been discovered

that it is necessary to have a random arrangement of seating for effective teaching of adult basic education class. The pattern vary so much that it can take any form of normal classroom arrangement to various forms of circular patterns. Other research have demonstrated that classroom participation and even grades, are related to seating positions. Less interaction occurs in seminar room that are long and narrow, but if a room has a central square area and an escape area, it allows both intensive discussion and chance to escape the intensity without leaving the room.




Thus in this context adult education classes which is expected to accommodate programmes ranging from adult basic education to informal seminars, workshops normal classroom teachings might be a square space, window less to eliminate distractions, with limited access to indicate the private nature of undertakings, with high visibility and interaction for all adult students. For

space exclusively for conferences and seminars next to the type of room discussed above there should be "break-out-areas", vestibule - like spaces that allow participants to linger for a while and talk with others before entering fast moving circulation streams. These breakout spaces should have easy access from other parts of the spaces. They should be visible immediately upon leaving the seminar room and they should function as gathering points during and after meetings.

Another very conspicuous consideration in the design is the provision of retreats. The retreats are designed as a well landscaped area ready made for contemplative and imaginative thinking which adults desire. They are extensions of the learning areas (classrooms) and library.

## 5.3 Environmental Perception

Much of what counts as the education of young children is nearer to the concept of socialisation. Socialization can be regarded as an aspect of education as well as something apart from it. Granted that this is so for the purpose of the present argument, it might not follow that when adults are involved, socialisation, is an entirely inappropriate notice because by definition an adult is already socialized. Also adult education, comes at a stage in life when the tasks of socialization are more or less completed. If in this

phase of life education starts up again its tasks will be a different one not socialisation.

An important question about environmental perception is how the everyday user perceives simplicity versus complexity in modern architecture and urban design. Most of the designs of learning environment for young children of Nursery schools, have been approached bearing in mind the psychological content relating to developments like curiosity, play, explanatory behaviour which are stimulated by variety of complexity in the environment. Thus in summary the view is towards socialization. However, the nature of the adult education environment does not need any concept of socialization.

To date, principles of visual perception called "gestack theory" have been the most used by architectural theoreticians and researchers as a basis for predicting building perception. The principles that have been most applied include Figure and ground, "Prangnaz" or completeness, relative simplicity, proximity, equality, continuity and closure. other principles include. The cues for depth perception: interposition, visual angle and distance, linear perspective, aerial perspective, light and shade, movement, parallax and texture graduant.

# CHAPTER SIX

## 6.0 STUDY AREA

### 6.1 National Setting

The thesis site is located in Saminaka town, which is the headquarters of Lere Local government Area, created out of the former Saminaka Local Government area. To the north of the local government area. It is bounded by Ikara Local government and a part of Kano State. To the east it is bounded by Bauchi and Plateau States. To the South and west, it is bounded by Kaura local government area.

### 6.2 Natural and Physical Characteristics (Topography)

Lere Local government lies between the Bauchi Hills on the east and the Kauru hills on the west. It thus forms a well watered and fertile basin, comprising very rich farmland and grazing area for cattle. Streams and rivers abound, of the latter the Kogin Maya or Karamin Kogin and the Galma. The land is undulating and with large outcrops of granite interspersed with extensive swamps.

### 6.3 Vegetation

Lere Local government areas falls within the Savannah tropical belt. There are two forest reserves found in the area; one at Saminaka, "the Kurmin male" and one at Kaiyerda, "The Gandu Karami". Economic trees found here include: oil palm (very scarce), the mahogany, shea butter trees, tamarind, fan palm and the

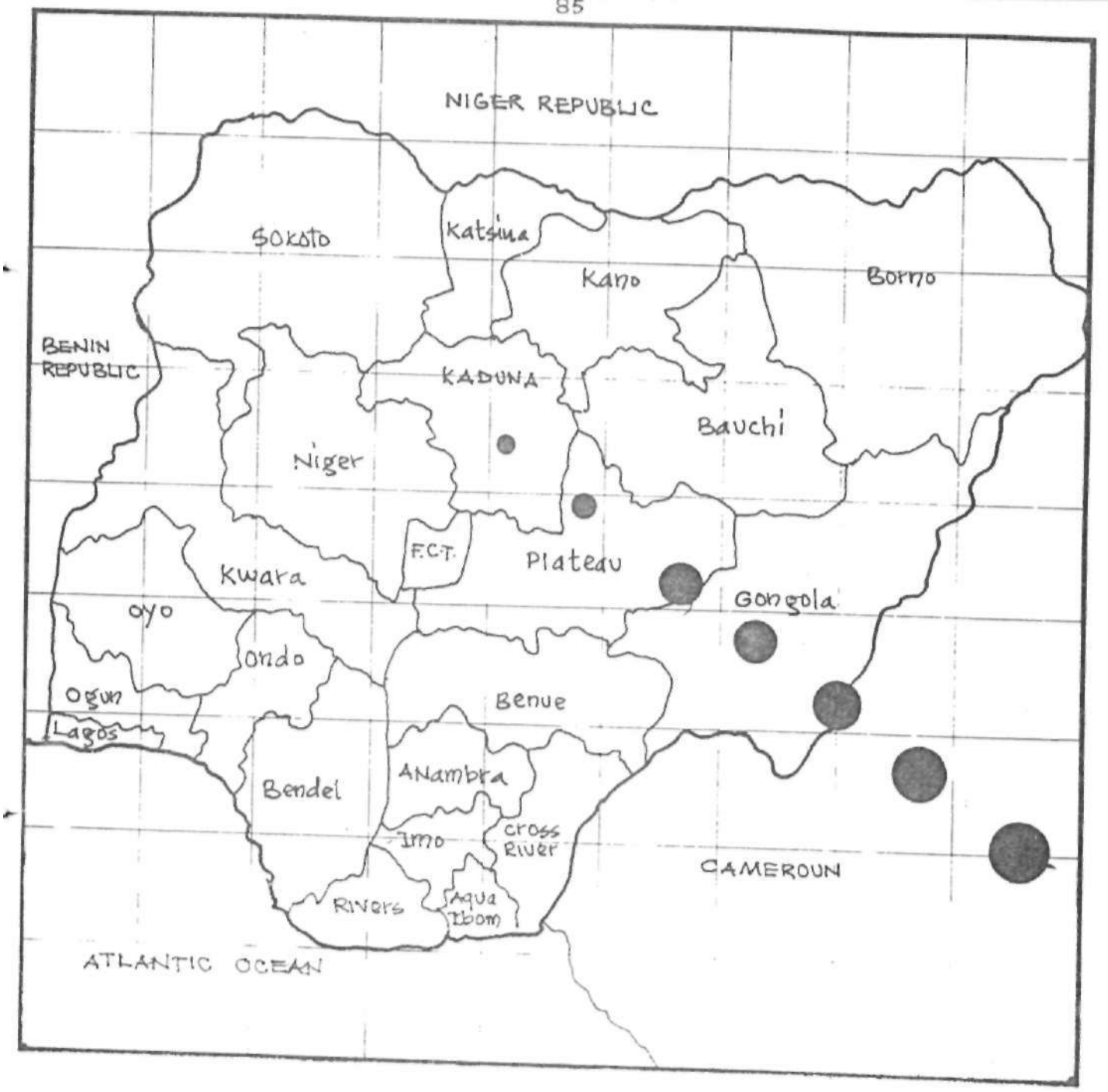



Fig. 7 - Map of Nigeria Showing Kaduna State

Source: Ministry of Lands and Survey Kaduna

Fig. 8 - Map of Kaduna State Showing Lere Local Government Area.
Source: Ministry of Lands and Survey Kaduna

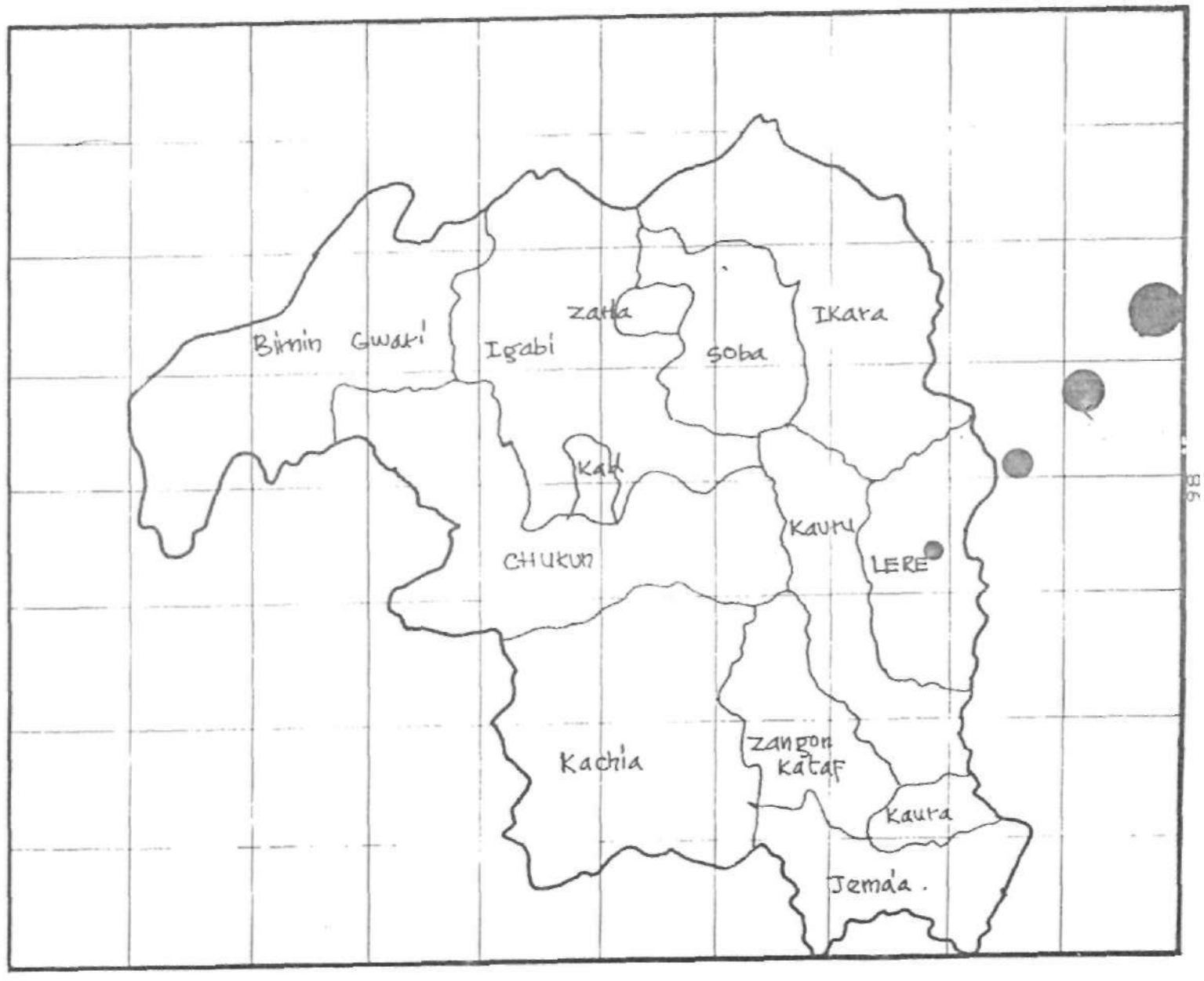



Fig. 8 - Map of Kaduna State Showing Lere Local

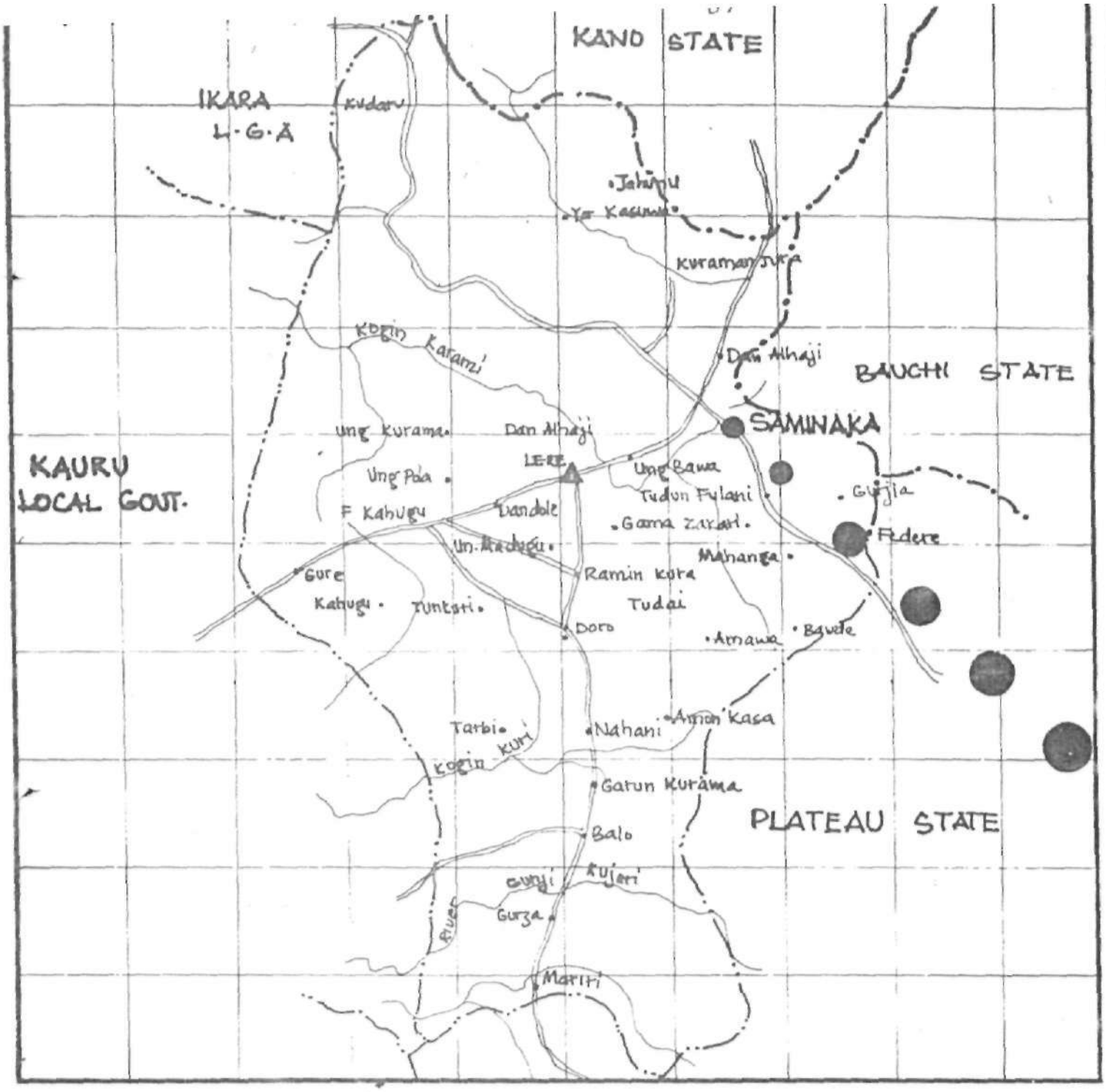
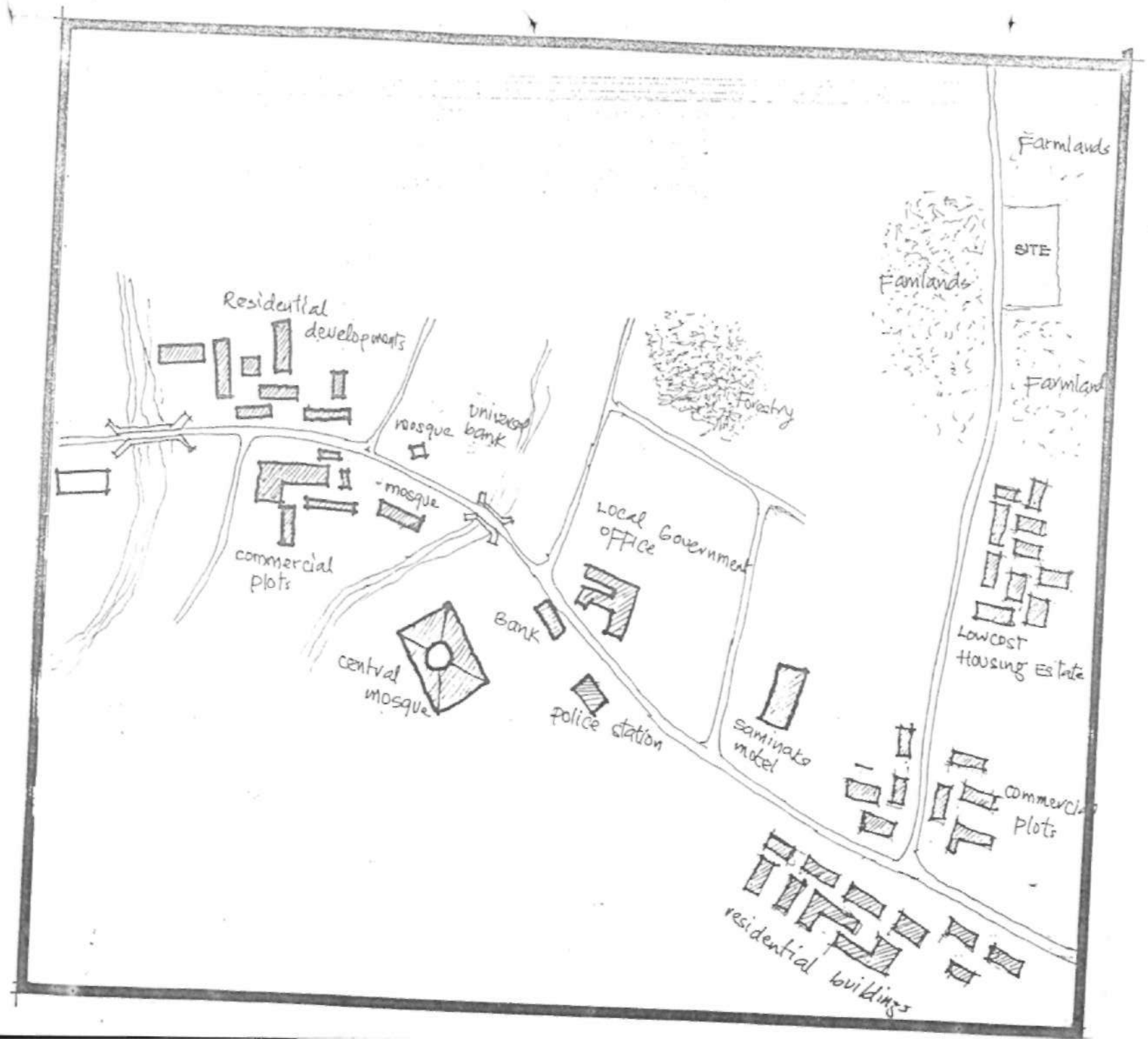



Fig. 9 – Map of Lere Local Government Area, Showing Saminaka Town

Source: Ministry of Lands and Survey Kaduna


Farmlands
SITE
Farmlands
Farmland
Residential development
mosque
University bank
Forestry
mosque
commercial plots
Local Government office
Bank
central mosque
police station
saminato motel
Low cost Housing Estate
commercial plots
residential buildings

loko, locust bean tress(dorawa), tukurwa, and duniya.

6.4 Climate

As already stated above, the local government area is located within the Savanna Tropical belt. As a result of its location, it enjoys favourable climatic conditions.

The maximum temperatures occur in March, April and may as temperature sometimes rises up to 33°C. It is coldest in the months of December, January and February. The comfort zone for temperature is between 23°C to 32°C.

Relative humidity falls as low as 20% during the dry season and mounts as high as 95% during the wet season. The comfort zone lies between 40% to 70%.

The beginning of the rainy season is marked by frequent storms and high intensive relief rain. Wet season stretches from April to October and the dry season from November to March. The mean annual Rainfall is about 1413mm.

There are longer days than night during the dry season, which is the reverse during the rainy season. The amount of cloud cover influences the amount of sunshine received and is also affected by the angle of incidence the sun makes with the earth's surface. The least amount of sunshine is recorded in August with an average of 4 hours per day. A lot of sunshine is experienced within the months of November land February

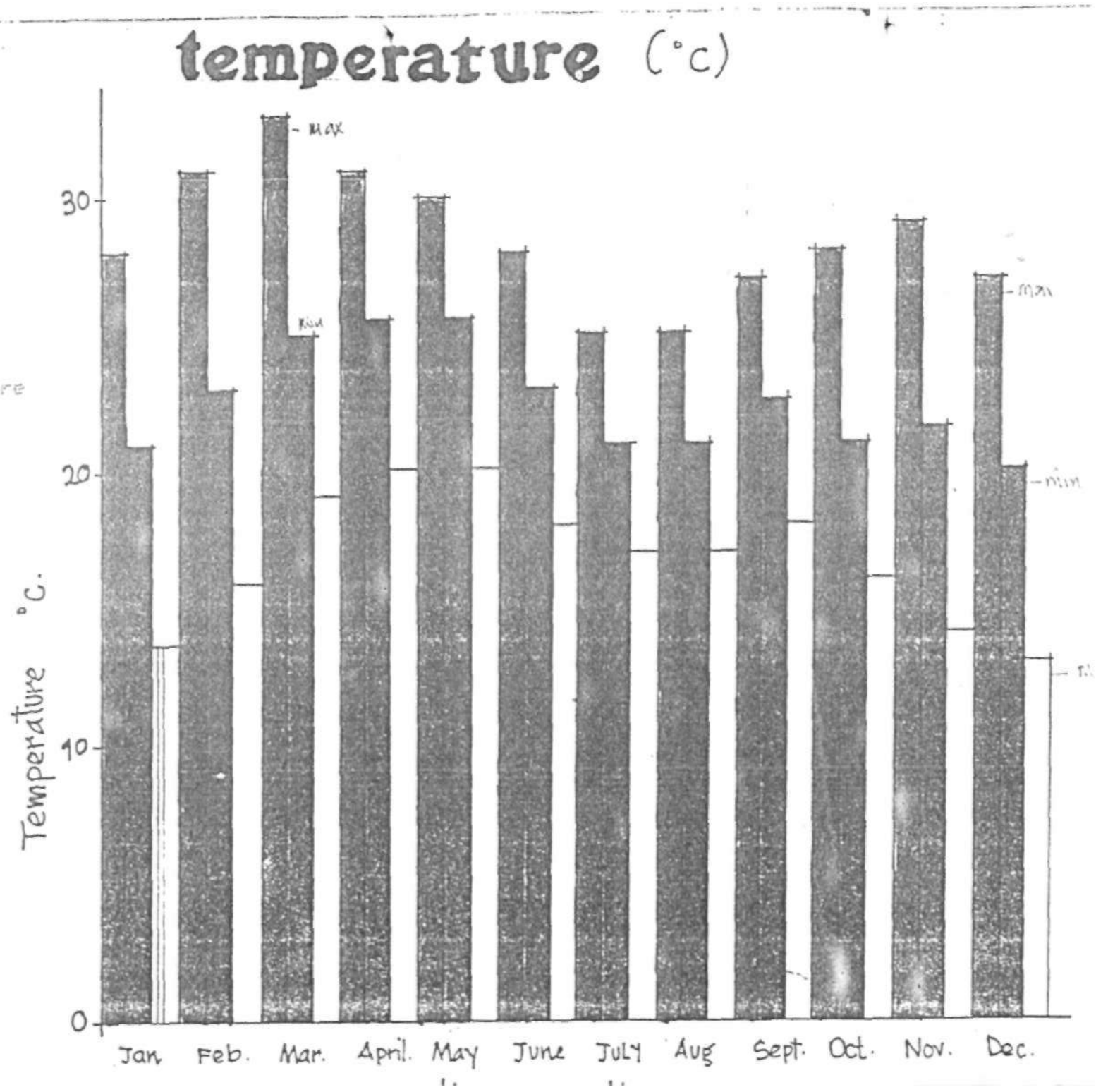
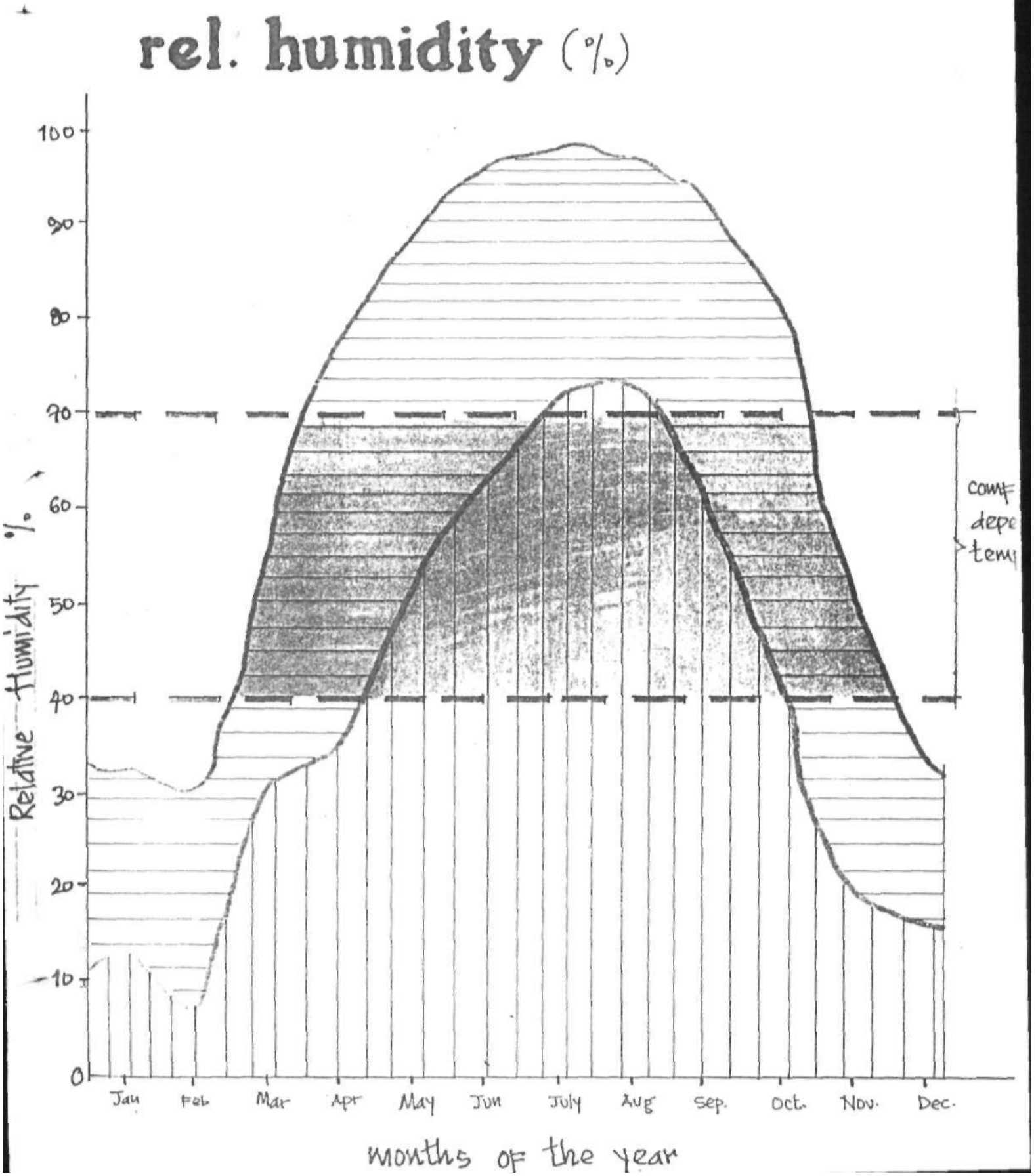
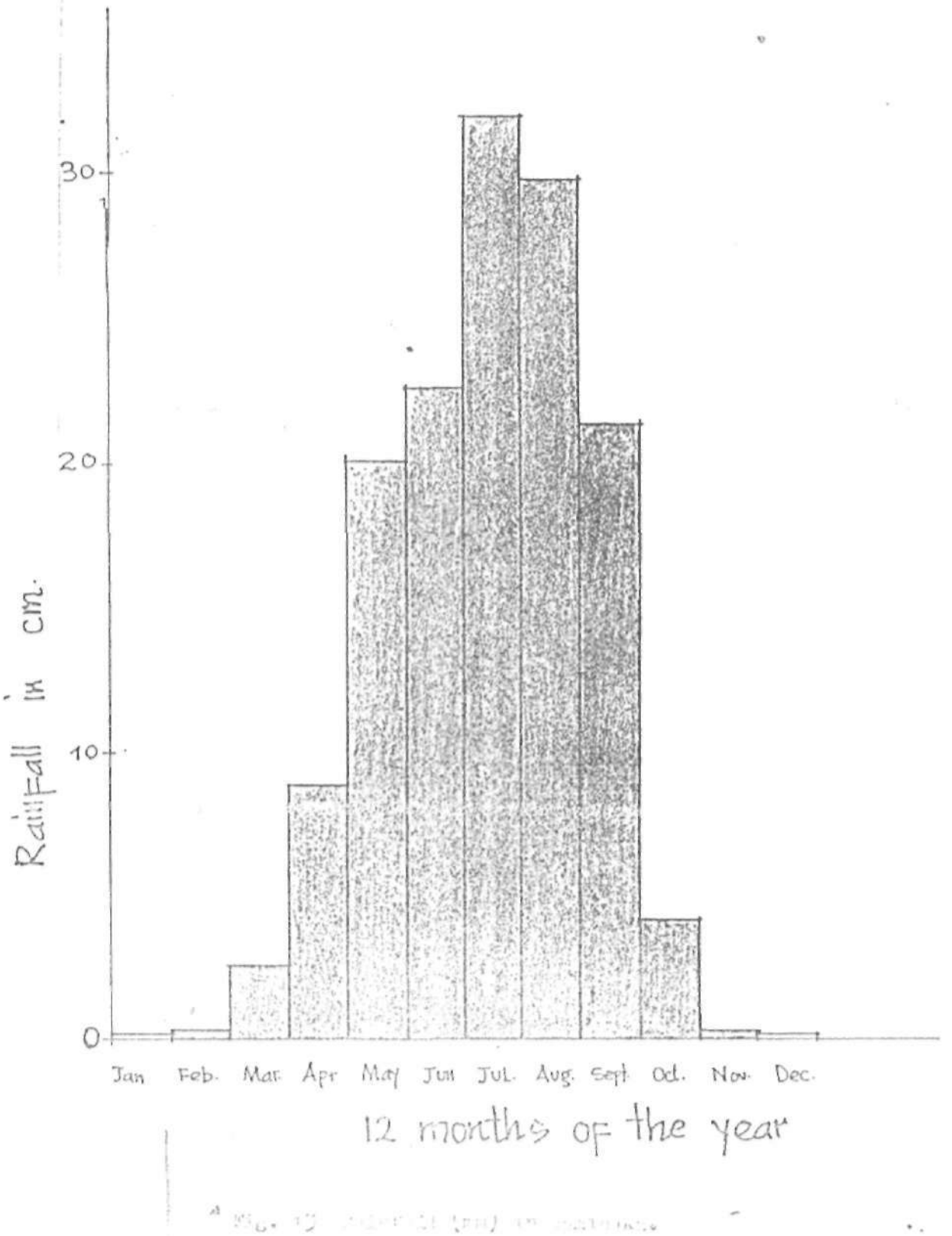



Fig. 1 Temperature in Semineka

Fig.12 Relative humidity of Jamshoro



# rainfall (mm)


Rainfall in cm.
30
20
10
0
Jan
Feb.
Mar.
Apr
May
Jun
Jul.
Aug.
Sept
Oct.
Nov.
Dec.
12 months of the year

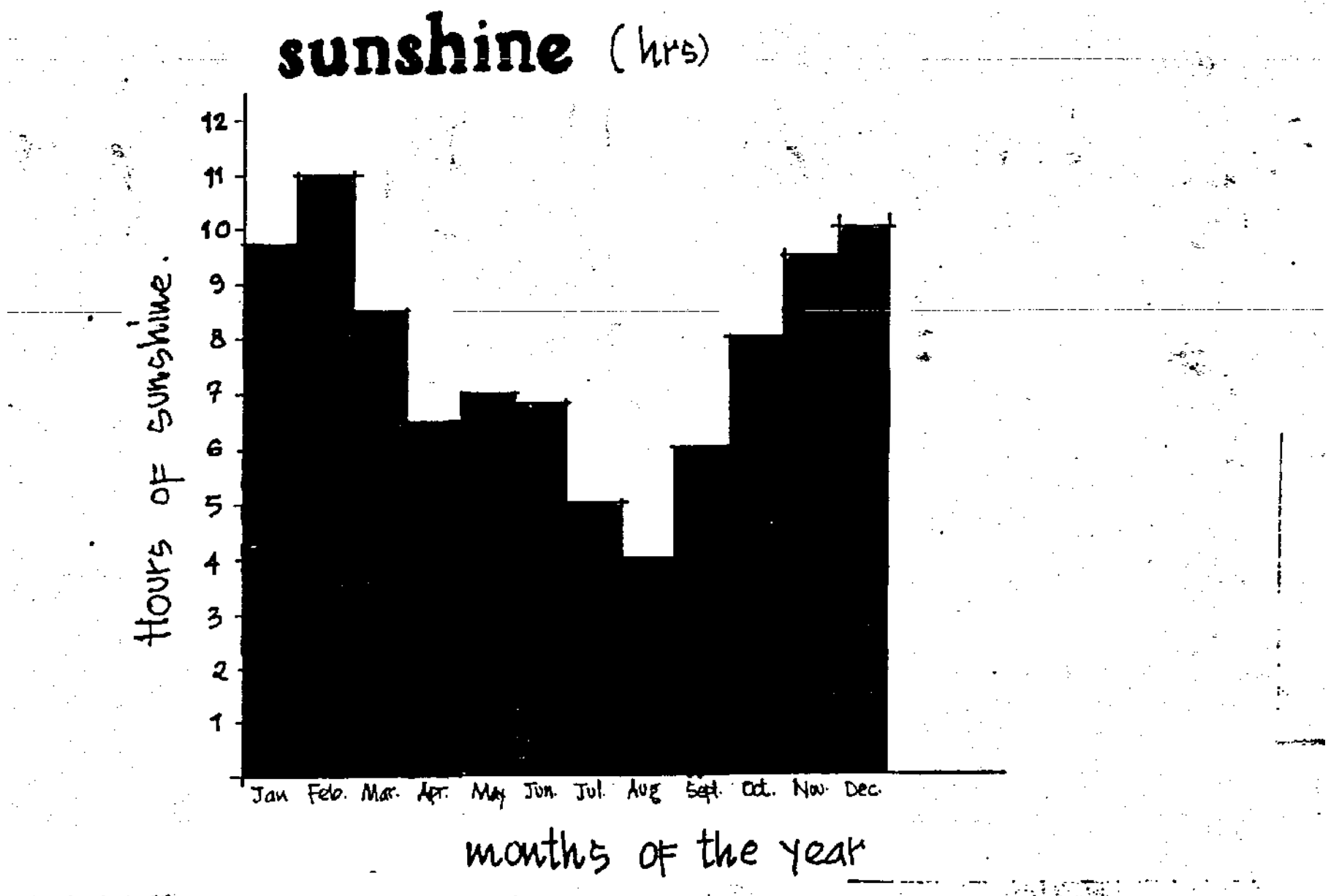



Fig. 14 Sunshine Hours in Saginaka

with hours of sunshine reaching 10-11 hours per day.

DESIGN IMPLICATIONS

Rainfall: Drainage systems should be capable of handling large volumes of water.

Temperature/humidity: Adequate cross ventillation of habitable spaces is highly desirable for all year comfort. Opening should be positioned to take advantage of desirable winds.

6.5 Socio-Cultural Context

The local government is inhabited by mainly Habe, lFulani, Kurama, the Gure, the Kafagu, Ango settlers from the Plateau province. In addition there are a certain number of Beriberi, Nupes, Buzus and Yoruba. the dominant groups are the Fulani and the Habe.

The present population of Lere Local government is estimated to be about 22,321 people.

6.6 Occupational and Employment structure

The local government is composed of people with different occupations, like Butchers, Tailors, petty traders, Blacksmiths, drummers, barbers, labourers (Personal servants included), leather workers, few pot makers, mallams, carpenters weavers, farmers who are majority and civil servants.

6.7 Communication

Saminaka town, the headquarters of the local

governmnet area is strategically located as it serves as a junction to 2 major Trunk A roads to the Kaduna-Jos and the Kano-Eastern States roads. There is also the Saminaka-Zaria road. Other secondary and tertiary roads include the Seminaka to Chawai, Kawu, Zangon Kataf Ikara, Jingre (Plateau State), Toro (Bauchi State) and Tudun Wadan - Dankade in Kano State.

The Bauchi light Railway passes through the eastern part from North to South with stations at Saminaka (Rahama station) and at Kaiver da.

## 6.8 Existing Industries and Other Institutions

Lere Local government area does not have any industry at the moment, however there are some commercial linstitutions and hotels like Allied Bank, Nigeria Universal Bank, Leadway Assurance company and Saminaka Motel.

## 6.9 Chosen Site

### 6.9.1 Site Appraisal

Location: Site is located between anguwar bawa and Anguwar Kashi and along Zonkwa Road near the Kaduna State Low Cost housing estate.

Accessibility: The site is accessible from only one side which is the main road to Zonkwa, found on the southern end of the plot.

Services: No services at all. absence of pipeborne water and electricity. there is therefore a need for a proposal.



View of Chosen Site

Proximity to town: The site is located at the outskirts of the town though within trekking distance to inhabitants around the area (abour 400-500m) about 400-500m from the Kaduna State Low cost housing estate.
Expansion: The size of the site is 300m by 400m which can be expanded on all sides due to presence of vast undeveloped land around the site.

6.9.2 Site Analysis

This relates more to the physical condition of the site as other considerations have been enumerated earlier.

The site is relatively flat but with the direction of drainage towards the northern part. The vegetation is scanty with many mango trees few, tamarind and locust bean trees.

There is only one access to the site which is a major route because it links it with the other settlements around the area. There is an untarred road cutting across the site used mainly by the corners of farmlands around the site. This could be a major pestrain route.

The site has concrete pillars demarcating the former site before it was expanded. The size of the site is 300m by 400.

Absence of good views except to the north of the site which are some hills.

# CHAPTER SEVEN

## 7.0 DESIGN ANALYSIS

### 7.1 Brief and Design Scope:

Empphasis will be laid on the learning spaces. Other funtions and services to be provided in this centre will include a multipurpose hall, administrative building, a recreational yard, domestic science unit, restaurant, clinic classrooms and sales shop for students' projects.

Administrative Unit: This caters for the administration of the whole centres activities. It will therefore consist of the Head, Assistant and supported by the following officers: Counselling, Bursar, Purchase, Sales, teaching staff.

Crafts Unit: This is divided into different susubunits which include textile weaving, pottary, basketry, mat weaving, and calabash carving.

Domestic Science Unit: This deals with family living. Activities here include cooking, sewing and poultry.

Multipurpose Hall: this will serve a number of activities including indoor assemblies, seminar presentation, symposia and drama. This can be rented out to organisations or individuals as a source of

raising funds to maintain the centre.

Recreational Yard: This would be lused for traditional performances and demonstration exercises. It's going to be inform of an open courtyard.

Classroomms/Library: These will deal with adult literacy teaching. Library will be used by the students and and teaching staff.

Sales - Completed project will be sold here to members of the public and interested individuals.

Welfare: This include the clinic for minor dispensing and lounge for members of staff and students as well as a nursery.

7.2 Functional Relationship:

In a centre like this, it would be expected students would specialize in more than one trade. This therefore demands on architectural sequence of locating the various units of the centre. There is need to analyse the functions that are closely related and to plant the design in such a way that relationship was graded according to related activities or functions.

7.3 Conceptual Analysis

Concept is an abstract idea or way to satisfy a developer's programme, develop a memorable training

environment and satissfy users' needs for a specific site. Concepts are also based upon particular impressions and informations that can be expressed graphically or in forms which a design can be developed. Concepts are the products of understanding and interpreting the sites potentials and limitations through analysis, users' needs embodied in the programmes and combining them into an idea.

7.3.1 Site Concept

This is also referred to as concept of planning. It is defined as the organisation of the total land area and air space of the site for use by the people who will occupy it. the site concept determine the proposed location of each section of the building which finally determines the actual overall site plan.

The site concept is therefore based on:

(1) Accessibility

(2) Separation of vehicular and pedestrian movement

(3) Related functions and privacy

(4) Nature of job as related to tidiness, public noise and so on.

The administrative unit and multipurpose hall are located to the main access into the site for public. The crafts units are located at the near sides for vehicular service access and vehicular/and pedestrian separation, privacy and untidiness. While the recreational areas are located at the centre for access

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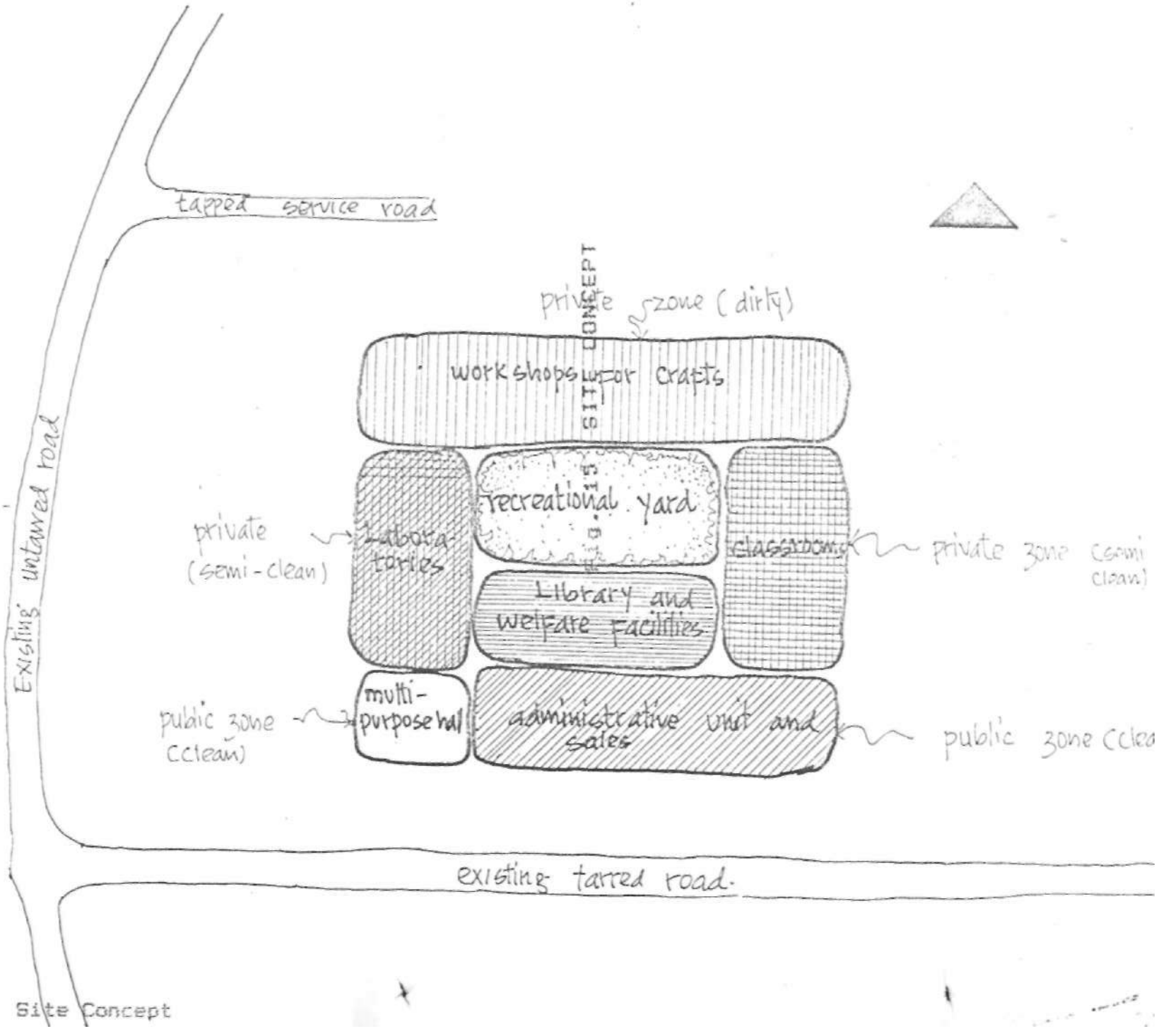



Fig 15 Site Concept

from the classrooms, workshops, laboratories and the administration unit.

7.3.2 Design Concept

(1) Spatial organisation: the concept here involves using the courtyard concept with hierachy of spaces characteristic of the people and dominant Hausa Architecture. The courtyards here do not only warrant privacy but also provide ample space for outdoor learning and activities, ventillation for comformt and good work environment.

(ii) Forms:

The Centre is expected to be an extension of the form s and planning the rural people are used to in their houses.

7.4 Schedule of Accommodation and space Requirements

proposal by national Board for Technical Education

(a) Number of students per practical Class = 20

(b) Number of students per theory class = 30

Proposal for 450 students.

7.4 *Schedule of Accomadation and Space Requirement*
Proposal by the National Board For Technical Education.

(a) Number of students per practical class = 20

(b) Number of students per theory class = 30

Proposal For 450 Students.

| Functions | Req. No. Units | Net Area | Gross Area |
|---|---|---|---|
| Principal Office | 1 | 25m$^2$ | |
| Vice Principal | 1 | 20m$^2$ | |
| Finance Officer | 1 | 14.4m$^2$ | |
| Career Officer | 1 | 14.4m$^2$ | |
| Counselling Office | 1 | 20m$^2$ | |
| Purchase Office | 1 | 40m$^2$ | |
| Staff Room | 1 | 50m$^2$ | |
| Conference Room | 1 | 48m$^2$ | |
| General Office | 1 | 40m$^2$ | |
| Showroom | 1 | 18m$^2$ | |
| Secretary and Typing | 1 | 14.4m$^2$ | |
| Stationary Store | 1 | 40m$^2$ | |
| Entrance and Reception hall | 1 | 38.25m$^2$ | |
| (B) WELFARE FACILITIES | | | |
| Waiting Hall | 1 | 22.75m$^2$ | |
| Consultant Office | 1 | 10.8m$^2$ | |
| Dispensing Room | 1 | 10.8m$^2$ | |
| Lounge | 1 | 36m$^2$ | |

(C) Social and Recreational Facilities

| | | | |
|---|---|---|---|
| Multipurpose Hall | 1 | 150m$^2$ | |
| Performance Stage | 1 | 50m$^2$ | |
| Changing Rooms | 2 | 15m$^2$ | 30m$^2$ |
| Recreational Yard | 1 | 706m$^2$ | |
| Salesshop | 1 | 48m$^2$ | |
| Cashier Office | 1 | 14.4$^2$ | |

(D) Practical and Theoretical Facilities

| | | | |
|---|---|---|---|
| Classrooms | 11 | 60.48m$^2$ | 665.28m$^2$ |
| General purpose | | | |
| Classrooms | 2 | 30m$^2$ | 60m$^2$ |
| Tutorial Rooms | 2 | 30m$^2$ | 60m$^2$ |
| Library | 1 | 120m$^2$ | |
| Librarian | 1 | 14.4m$^2$ | |
| Store for Library | 1 | 12m$^2$ | |
| Textile Weaving Room | 1 | 77.76m$^2$ | |
| Spinning Room | 1 | 77.76$^2$ | |
| Dyeing Lab. | 1 | 77.76m$^2$ | |
| Stores ( Raw Materials | | | |
| and finished Products) | 2 | 30m$^2$ | 60m$^2$ |
| Pot Modelling Workshop | 1 | 77.76m$^2$ | |
| Clay preparation Room | 1 | 77.76m$^2$ | |
| Store(Raw Materials | | | |
| and Finished products) | 2 | 30m$^2$ | 60m$^2$ |
| Changing Room | 1 | 30m$^2$ | 30m$^2$ |

| | | | |
|---|---|---|---|
| Kilns | 2 | | 3.50m$^2$ |
| Basket Weaving workshop | 2 | 77.76m$^2$ | 155.52m$^2$ |
| Store | 2 | 30m$^2$ | 60m$^2$ |
| Mat Weaving Room | 1 | 77.76m$^2$ | |
| Mat Joining Room | 1 | 77.76m$^2$ | |
| Stores | 2 | 30m$^2$ | 60m$^2$ |
| Calabash Preparation | 1 | 77.76m$^2$ | |
| Calabash decoration | 1 | 77.76m$^2$ | |
| Store(raw materials & finished products) | 2 | 30m$^2$ | 60m$^2$ |
| Food Laboratory | 1 | 120.02m$^2$ | |
| Demonstration Class | 1 | 48m$^2$ | |
| Domestic Science Lab | 1 | 120.02m$^2$ | |

# CHAPTER 8

# 8.0 DESIGN REPORT

## 8.1 Problem Definition

It has been recognised that much effort is required to be put into the creation of a centre which actively and attractively suits the diverse adult education functions intended and techniques involved: and which not only accommodates but also contributes a very special environment for learning. For adults, there is the necessity that they learn in an environment which is truly theirs.

## 8.2 Site Planning

The architects' primary responsibility lies with the design of buildings and enclosures for human activities. However building do not exist in isolation, they exist in a spatial, behavioral and perceptual context. Thus the architect has a direct responsibility for the relationship between building design and the building site. This area of concern is termed site; planning or site design, which can be defined as:

"The art of ordering the man-made and natural environments to support human activities".

Site planning of the design is related to the site concept which is based on accessibility, separation of vehicular and pedestrian movement,

related functions and privacy as well as nature of activities as related to tidiness, access into the centre is from the south direction. Parking for staff and visitors are located in front of the administration unit and multipurpose hall unit.

Separate parking bay is provided at the back of the centre where the workshops are located for vehicles bringing raw materials for use. Care was taken to separate pedestrians from vehicular access.

8.2.1 Spatial Organisation

Planning and design on all scales can be seen as the organisation of space for different purposes according to different rules that reflect needs, values and desires of a group or individuals. One major factor that was considered in the grouping is the influence of different social classes and religious background. The Islamic religion does not permit women mixing with men under any circumstance. This is inevitable even with the provision of separate wing for women except if lessons will have to be conducted at different times which is what the author is suggesting.

Each unit however, has its own private courtyard. There is also a central courtyard which is used for cultural dances and dramas. From the design the aim is to make spaces flow into one another, while according private work space and

comfort to students working in each section. The courtyards here do not only warrant privacy but also provide ample space for outdoor learning and activities. ventilation for comfort and good work environment.

The concept employed in the :planning of the centre is that of the layout of a traditional compound. A traditional compound (in Hausa Architecture) is usually divided into the forecourt and the central courtyard. The forecourt houses the main and usually only access into the compound (entrance hut). In this design the entrance halls serve this function. The only access into the compound is through the domain of the compound head where he entertains visitors and friends, takes his meal and if possible pursue his occupation. In this case it is the administrative block for administering activities of the centre which houses the principal, vice-principal and other officials.

From the forecourt one leads into the central courtyard which houses the huts of the wives, children, and husband all grouped around an open area with a wet season kitchen, one or two general store rooms (granaries) and huts of any other related family group(s). Some times different families on the same compound have individual or

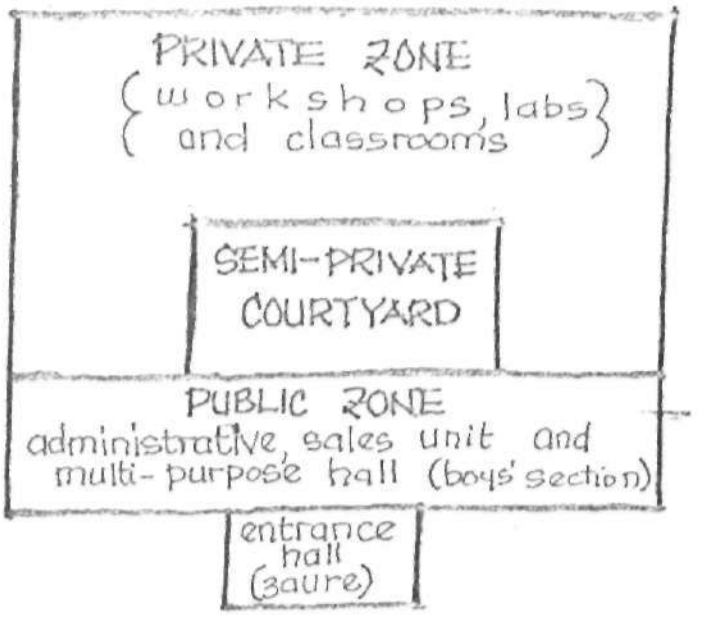
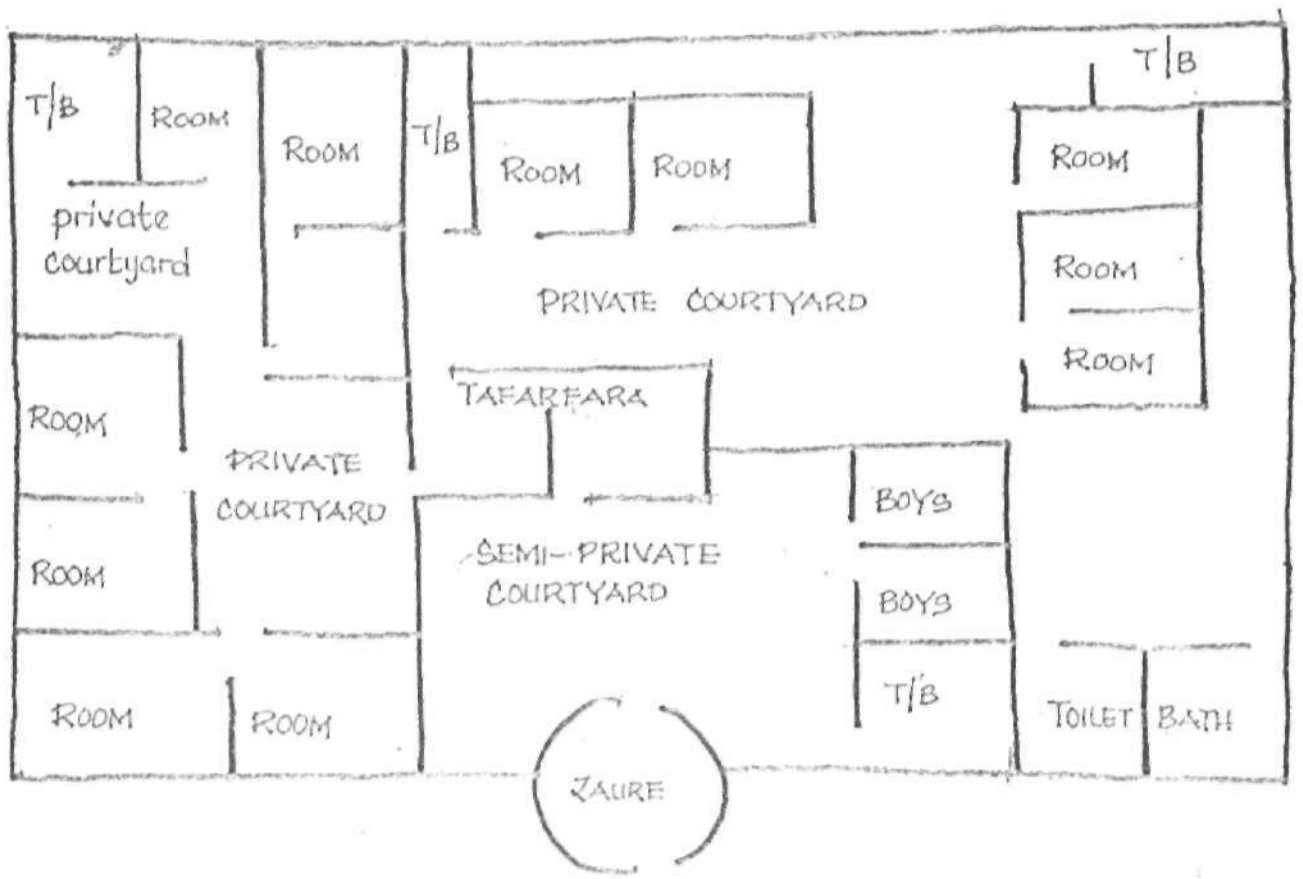



Fig 16 DESIGN CONCEPT




A typical House - Traditional Compound

private courtyards, apart from the general central courtyard.

The same applies to the central courtyard provided in the design which houses the classrooms, workshops and laboratories which are units that make up the centre as in the traditional compound. Each unit in turn has its private courtyard.

8.3 Design

The centre has the following facilities

1. Offices
2. Library
3. Classrooms
4. Workshops
5. Laboratories
6. Recreational Yard.

Dimensions used are according to National Board for Technical Education k(N>B>T>E) standards. Space allocations for learning spaces is such that they can be adoptable for any function apart from one stated.

In this design consideration is given to the teaching techniques used in adult education classes as well as seating arrangements. It has been discovered that adults will learn better in a room that is the shape they are used to. The various techniques that take the different arrangements from very linear patterns to circular ones might have given rise to a polygonal shape

arrangement of open plan classroom. Considering cost among other factors, the traditional rectangular shape learning spaces have been used in such a way that these arrangements can fit in.

The basic arrangements that are used are shown in fig17,18,19.. These arrangements suggest ample space for the programmes that are undertaken. This has been taken care of by the standard dimensions used.

8.3.1 Lighting

Since there is no electricity in Saminaka, emphasis is given to natural lighting. This is done by the provision of a good number of windows with sun shading devices which can eliminate solar radiation and glare from getting into the interiors. Flower boxes provided for plantings to improve the micro-climate and enhance aesthetics.

8.3.2 Storage

Each unit of the training centre has a store for materials of immediate use and storage of finished students' projects.

8.3.3 Outdoor learning spaces

This could take place in the courtyards with students seated along the verandahs and all open spaces. For example gardening and poultry.

8.4 Landscape

In Nigeria, the primitive man is part of the

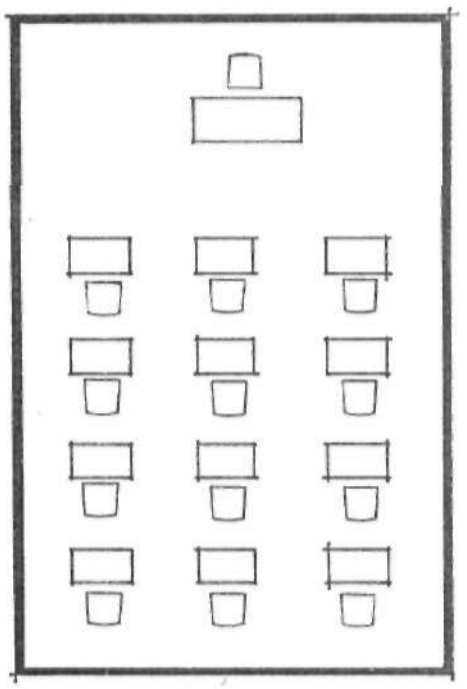


Fig. 17 - Traditional Classroom Plan

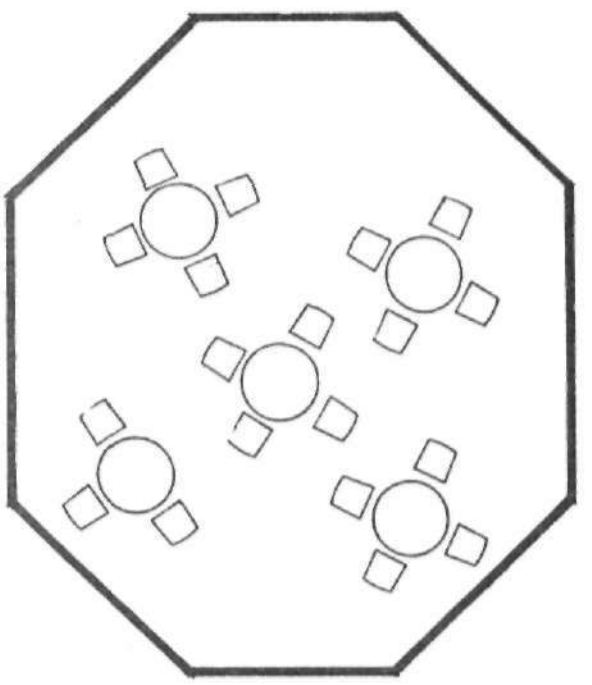
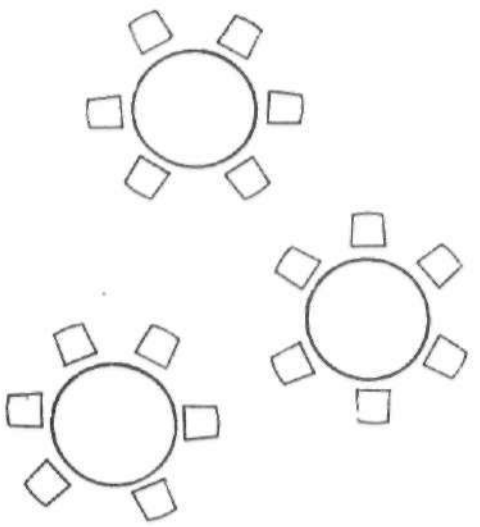
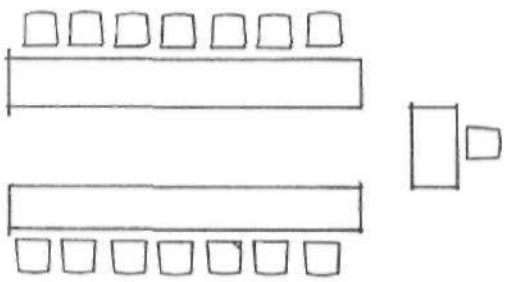


Fig. 18 - Open Plan Classroom.





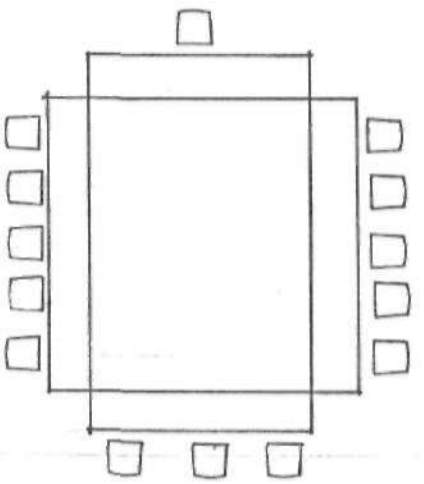


Fig. 19 - Different Seating Arrangements in Adult Literacy Class

wild or natural landscape. That is the living environment under which he performs all his living activities in natural. For the adults, perhaps more than for any other section of the community, there is the need for a life close to nature, where the changing needs and all the various moods of climate and colour can be appreciated to the full; for these are among the blessings which remain to the last.

Failure of the surroundings in which we educate our adults in this respect has shown the worst of conditions under which respect is lost to natural environmental elements. Adults are packed in places which are of completely strange nature to them.

One of the distinct lines that the design has gone into the use of landscaping in creating the homely character in it. Open areas and courtyards are properly landscaped so that the educational experience will not just be academic.

8.5 Services

These include storm water, water supply and electricity paved gutters are provided within courtyards for storm water drainage. This is drained along the direction of slope of site.

Water and electricity can be tapped from the town's mains.

## 8.6 Construction

Materials used for construction include concrete, stones, reinforcement bars, roofing sheets, cement, terrazzo, ceramic tiles and other local materials.

### 8.6.1 Openings

Windows used are louvres and casement windows while doors used are flush doors, commercial door and crittall-Hope double leaf door.

### 8.6.2 Roofs and Floors

Floors are constructed of 150mm concrete slab and cement sand screeds finish with P.V.C floor tiles for offices and terrazzo finish for classrooms, laboratories, workshops, toilets, corridors and verandahs as well as entrance hall. This is because terrazzo is water resistant and resistant to wear. Roof members are steel trusses to cover large spans and most roofs are single pitched. Roofing material used is long-span aluminium ceilings are of celotex boards.

### 8.6.3 Sections, Elevations

Headroom for classrooms, workshops and laboratories is 3.5m due to type of activities carried out and number of occupants. Windows are 0.9m from the floor. Headroom for the administrative block and welfare facilities is 3.0m. Thickness of walls in 225mm and 150mm for

non-load bearing walls like those in the toilets and stores. Wide gutters used for collection of large volumes of water during the rainy season and to also shade the window openings.

Elevations are as shown in Appendix .....

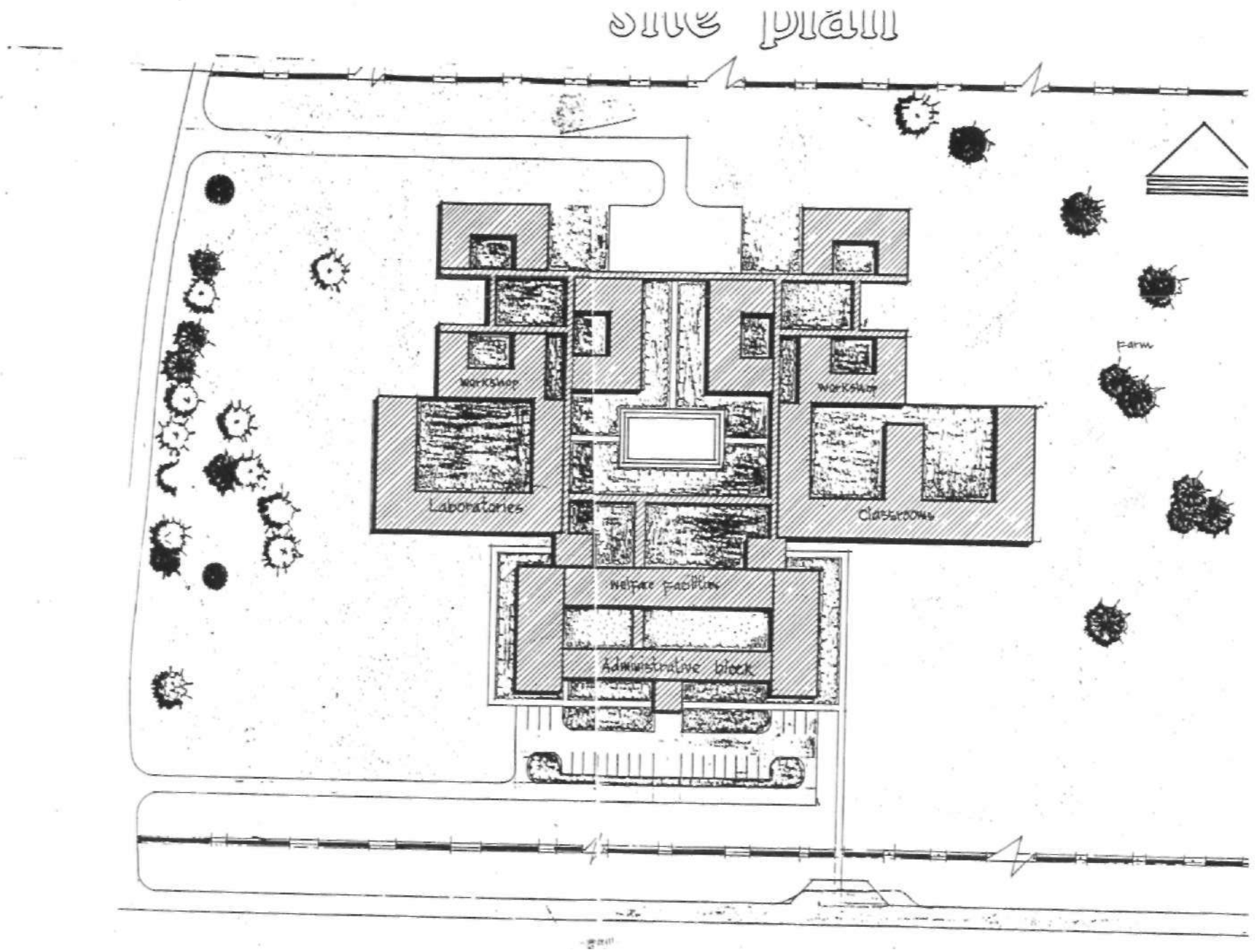
CONCLUSION

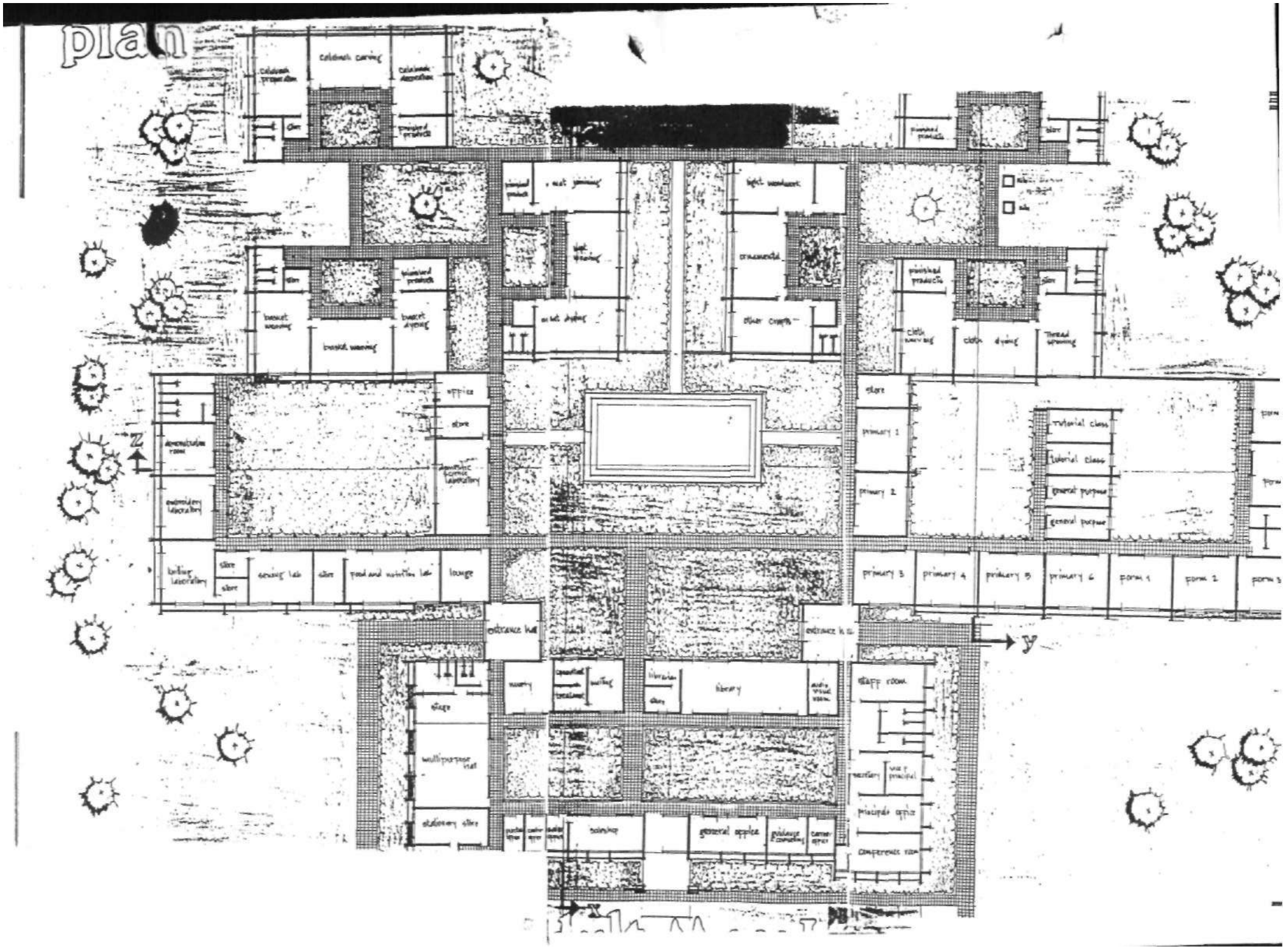
Creating an environment and not just space has been taken as the main priority in the design approach to motivate the adult learners. The economic and social values of Nigerians have changed very rapidly from indigenous, traditional things to foreign, imparted things. This has truly affected what is truly Nigerian learning environment and ways of learning especially with regards to adult education. In view of this, the study therefore started with the study of activities in adult education classes and, local, traditional learning spaces with the aim of achieving effective learning spaces. A further study was also made in form of case studies with the aim of appraising the architectural implications in educational design.

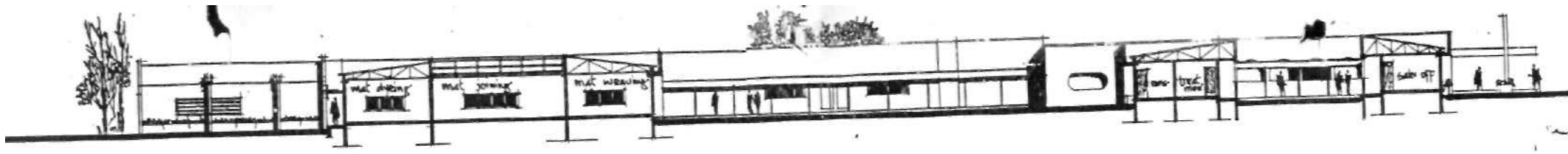
In the course of this study, it was stated by the author that one of the main problems of adult education is that adults learn in environments which do not acknowledge their adulthood places used for adult education activities are seldom designed for operations that will provide good

attention for adult education. People's perception of the physical environment is found to be key determinants in their use and satisfaction with it. An approach to this problem was made considering the users and the type of spaces they are used to. The units are combined in such a way that courtyards are developed but these are allowed to flow into each other so that each one is not entirely separated. From this form of grouping, it is clear that the pattern lends itself to an informal nature of arrangement from which a truly humane environment can evolve. One of the distinct lines that the design has taken is the use of landscaping in creating a homely character. Another approach to this problem is by flexible and adaptable spaces to cater for the diverse activities and growth. There is need for a building designed for a particular purpose or function to be adaptable for other similar functions if the need arises.

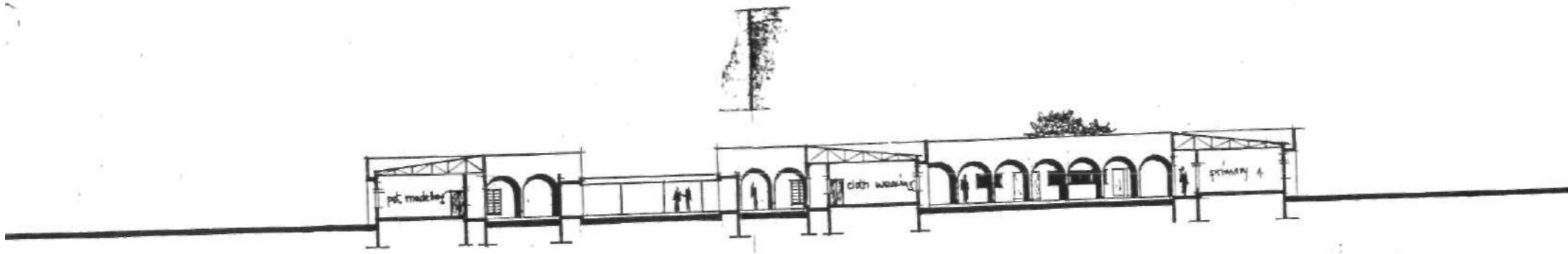
Any aspect of adult education not touched in the course of this study has been left to other researchers for further research work. This thesis has left room to architects to find new dimensions in developing effective learning spaces for adults in different types of learning environments.


Site Plan
Workshop
Workshop
Farm
Laboratories
Classrooms
welfare facilities
Administrative block


plan
N
entrance hall
library
staff room
principal office
tutorial class
tutorial class
general purpose
general purpose
primary 1
primary 2
primary 3
primary 4
primary 5
primary 6
form 1
form 2
lounge
stage
stationery store
general office
Y




section X-X



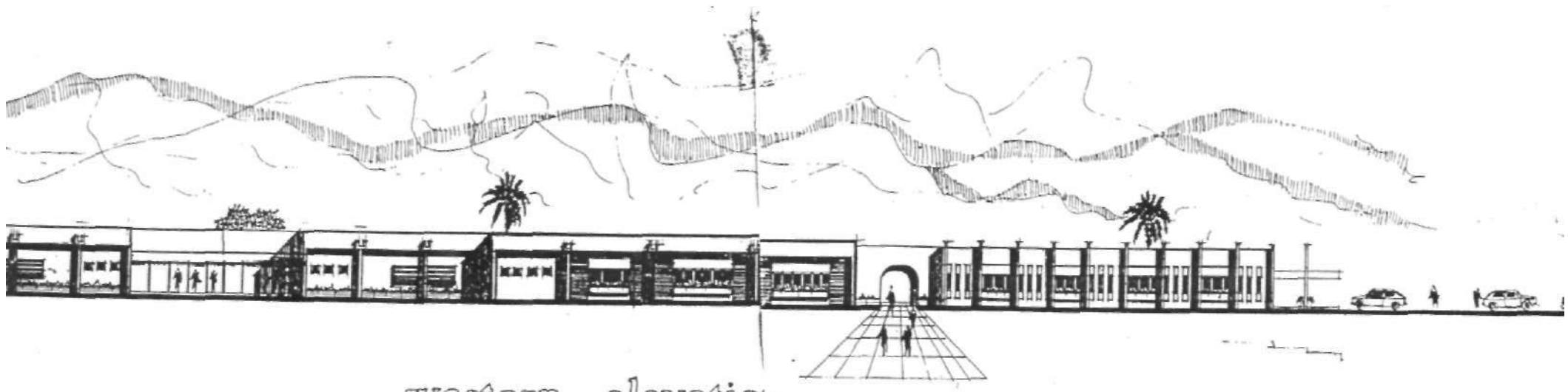

section y-y



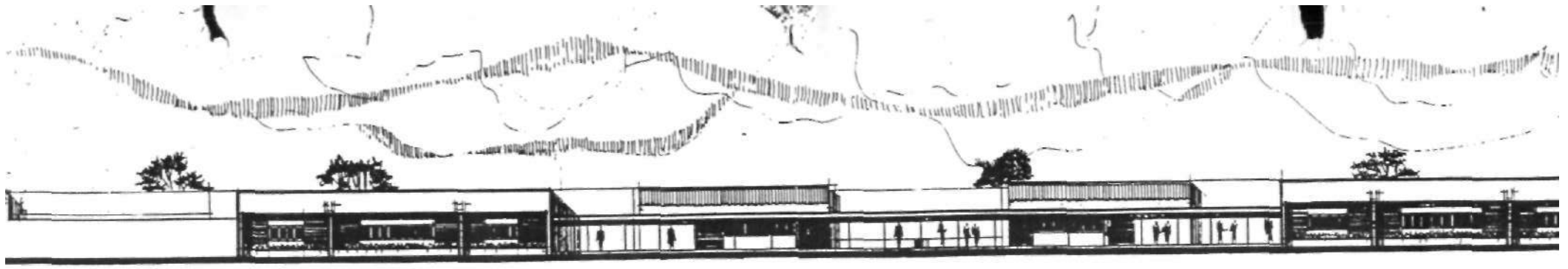

section Z-Z



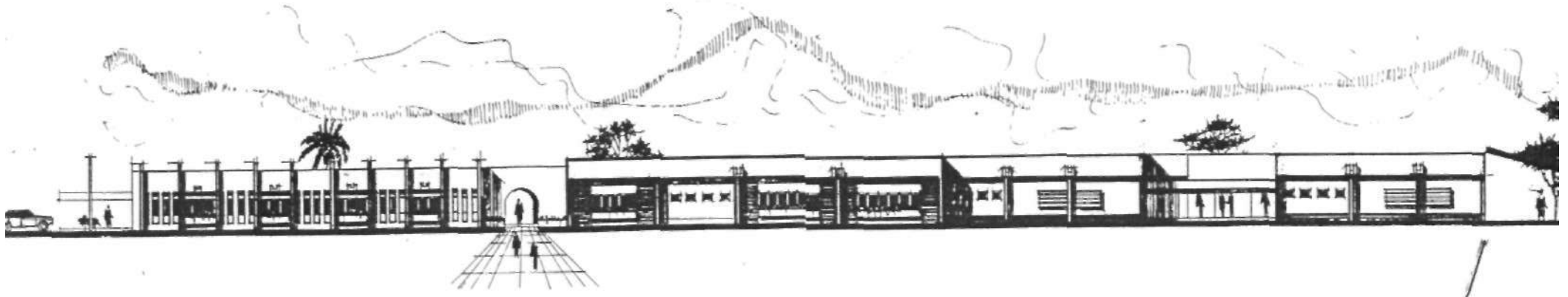
approach elevation



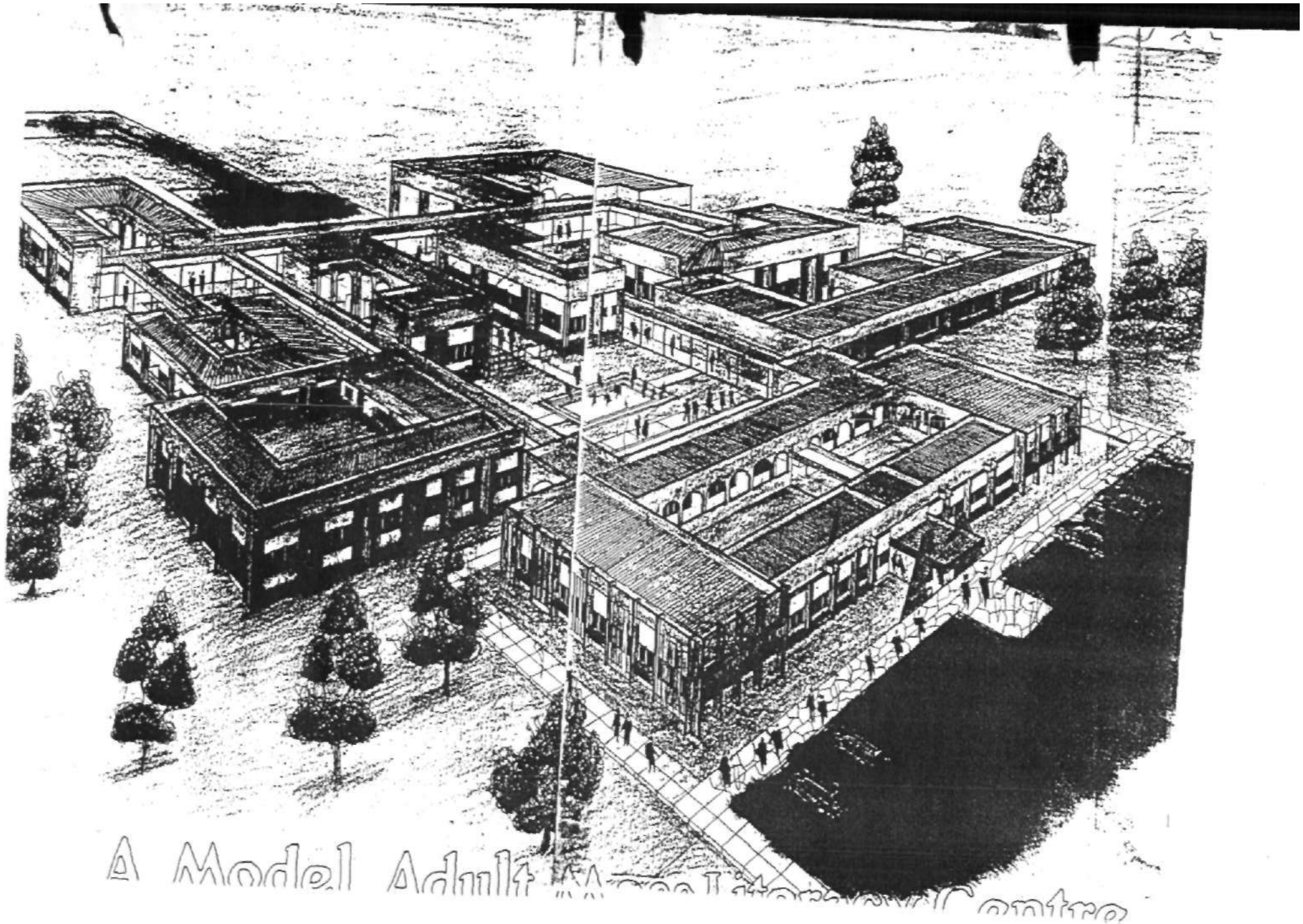
western elevation



northern (back) elevation



eastern elevation



A Model Adult [illegible] Centre

## FACILITIES ON SCHOOL SITES AND THEIR SIZES

Built-Up Area

| Facility | Size per Unit Place | Dimension | No. of Students |
|---|---|---|---|
| 1. General Classroom | 1.4$m^2$ per Student place | 7.2m x 8.4m | 4? |
| 2. Art/Music Room 5 | 2.1$m^2$ per Student place | 7.2m x 11.67m | 40 |
| 3. Science Laboratories (Physics, Chemistry, Biology, Integrated Science, Agricultural Science) Including preperation room and store. | 3.6$m^2$ per Student | 7.2m x 20m | 40 |
| 4. Home Economics | 3.0$m^2$ per Student place | 7.2m x 16. 67m | 2? |
| 5. Local Craft | 1.4$m^2$ per Student place | 7.2m x 8.4m | 40 |
| 6. Workshop | 3.9$m^2$ per Student place | 7.2m x 10.8m | 20 |
| 7. Staff Room | 2.5$m^2$ per Teacher place | 2.5m x no. of teachers per type of School | - |
| 8. Central School Store | 49$m^2$ (Day School) | 4.2m x 11.7m | - |
| 9. Library | 112$m^2$ - the equivalent of two Classrooms | 7.2m x 16.8m | |
| 10. Assembly Hall | .5$m^2$ per Student place | .5m x No of Students per type of School | - |
| 11. Students' Typing Room | 2.4$m^2$ | 7.2m x 13.89m | 40 |
| 12. Technical Drawing Room | 2.00$m^2$ | 7.2m x 8.4m | 2? |
| 13. Principal's Office (to include toilet and Secretary's Office | 25$m^2$ | 4.2m x 6.0?m | - |
| 14. Vice Principal's | 15$m^2$ | 4.2m x 3.57m | - |
| 15. Guidance & Counselling Office | 20$m^2$ ( to include waiting area for Students and parents) | 3.6m x 5. 56m | - |

| Facility | Seize per Unit place | Dimension | No. of Students |
|---|---|---|---|
| 16. Office for Accounts and General Duties | $40m^2$ | 4.2m x 9.52m | -- |
| 17. (a) Toilets | 1 with toilet bowl/ unirary/wash hand | - | per 40 Students place |
| (b) Toilets | basin 1 | | per 15 teachers |
| 18. Cafeteria | Provision may be made for Day Students as appropriate on the school site | | |
| 19. First Aid/Clinic/ Sick Bay. | A room should be made available for this purpose | | |
| 20. Generator House | This should be provided where needed | | |

Dormitories - Not included because of States deboarding policy.

OPEN (UNBUILT - UP) FACILITIES

| Facility | Size |
|---|---|
| School Farm for Agricultural Science | I nectare in the minimum size of land recommended per School in both rural and urban locations. |
| Car Park | I car slot is recommended per 20 Student places in each School |

Outdoor Games

Playing Fields as available open space will allow

| | | |
|---|---|---|
| (I) | Track Field-with football inset | 1.5 hectares |
| (ii) | 2 Cricket Pitches (including Pavilion), with 2 Hockey Pitches and 2 Handball courts inset | 3 hectares |
| (iii) | 2 Basket Ball Courts | 0.5 hectares |
| (iv) | 2 Volley Ball Courts | 0.5 hectares |
| (v) | 2 lawn Tennis Courts | 0.5 hectares |

Indoor Games

Existing Assembly Hall with adequate Headroom may be utilised for

i. Badminton and

ii. Table - Tennis

New Assembly Halls may be designed for the activities also.

MEAN MONTHLY TEMPERATURE

| | JAN | FEB | MAR | APR | MAY | JUN | JULY | AUG | SEPT | OCT | NOV | DEC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MAX: | 28.2 | 31.0 | 33 | 31 | 30 | 28 | 25 | 25 | 27 | 28 | 29 | 27 |
| MIN: | 13.7 | 15.9 | 19.1 | 20.1 | 20.1 | 18.1 | 17 | 17 | 18 | 16 | 14 | 13 |
| MEAN: | 21 | 23.5 | 26.1 | 25.6 | 25.6 | 23 | 21 | 21 | 22.5 | 21 | 21 | 20 |

MEAN MONTHLY HUMIDITY

| | JAN | FEB | MAR | APR | MAY | JUN | JULY | AUG | SEPT | OCT | NOV | DEC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MAX: | 53 | 50 | 57 | 80.3 | 86.4 | 90.5 | 92.3 | 93.3 | 93 | 75 | 53 | 52 |
| MIN: | 32 | 32 | 48 | 48.2 | 56.7 | 68.6 | 79.6 | 70.1 | 58 | 44 | 31 | 31 |
| MEAN: | 42.5 | 49.5 | 64.3 | 76.6 | 79.6 | 86.0 | 85.7 | 75.5 | 59.5 | 42 | 42 | 42 |

Rainfall

| JAN | FEB | MAR | APR | MAY | JUN | JULY | AUG | SEPT | OCT | NOV | DEC |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.3 | 2.8 | 26.2 | 39.1 | 201.7 | 227.6 | 321.1 | 279.4 | 215.1 | 42.4 | 3.6 | 1.8 |

Mean month + mean annual Remittance

Mean annual rainfall 1413mm

Source: Baba J. M. (1984) Pg.6-7

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