EGGON CULTURAL DEVELOPMENT ASSOCIATION (ECDA): WOMEN TRAINING CENTRE, NASSARAWA EGGON

AN ARCHITECTURAL CONTRIBUTION TO THE DEVELOPMENT OF THE COMMUNITY

BY

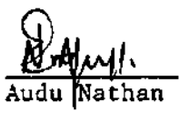
AUDU NATHAN B.Sc. (ARCH)
AHMADU BELLO UNIVERSITY,
ZARIA.

A THESIS PRESENTED TO THE POST-GRADUAT SCHOOL, AHMADU BELLO UNIVERSITY IN PARTIAL FULFILLMENT FOR THE AWARD OF A MASTER OF SCIENCE DEGREE IN ARCHITECTURE, M.SC (ARCH)

NOVEMBER, 1992

DECLARATION

I, Audu Nathan hereby declare that this thesis work is a product of my own original research work and that all quotations and information utilized have their sources duly acknowledged by way of references and it has not been presented elsewhere for the award of degree.



Audu Nathan

CERTIFICATION

This thesis entitled "ECDA, Women Training Centre, Nassarawa Egon": "An architectural contribution to the Development of the Community", by Audu Nathan meets the regulations governing the award of the degree of Masters of Science in Architecture of Ahmadu Bello University and is approved for its contribution to knowledge and literary presentation.

Chairman, Supervisory Committee — Date 5.5.93

Member, Supervisory Commitee — Date 5-5-93

Member, Supervisory Committee — Date 5/5/93

Head of Department — DAte 18.8.2000

DEPT. OF ARCHITECTURE
Faculty of Environmental Design
A. B. U. Zaria - Nigeria.

Dean, Post-graduate School — Date 14/05/01

DEDICATION

This thesis is dedicated to my late mother Anna Ajegaku A. Audu Enjugu and Dr. B. A. Enjugu whose love and passion for hard-work I derived my inspiration from.

I wish to, at this point express my profound gratitude to all those who contributed directly or otherwise in seeing this thesis work through. So numerous to mention though, but mention must be made of among others, Dr. B.A. Enjugu, for his scholarly advice, financial and moral assitance which was never ending. Also worthy of mention here is Mrs. B.A. Kotso, my sister who first teleguided my thoughts towards this project and stood by me from beginning to the end. The leadership of "ECDA" Women Wing, must be congratulated as well, namely Mrs. Theresa Wuya, Mrs. Florence Aboki, Mrs. Rose Avu and others too numerous to list here.

I will not be doing myself any good if I forget to mention my bossom friend, Mr. Tony Steve Agbu who assisted me in his own way. I must confess, his was most comforting.

My brothers, Mr. Gideon A. Enjugu, Mr. Reuben A. Enjugu, Ahijah A. Enjugu, Dr. Nickolas A. Enjugu, Sisters - Mrs. Comfort Jonathan Kuje, Miss Grace A. Enjugu of "blessed memory", and Dad - Mr. Audu Enjugu. I have nothing to give but would like to remind you that God will be with you people always and guide you to assist others as you did to me.

Nassarawa Eggon Local Government Council must be parted on the back too, for their exhibition of maturity and interest in developmental projects by providing me with a site bearing in mind the short notice served them, even though they had not yet settled down for effective work.

Last but not the least, I express my profound gratitude to my very good friends in the persons of Miss Asheazi A. Attah, Mr. Samuel Akau Garnvwa, Polycarp Allumbugu and Timothy Avongs. May God help us all through.

I will like to finally and most graciously express my limitless gratitudes to my able supervisor who against all his tight schedules, was able to find time and see my work during the course of this work. His was very gainful at all the stages of this work. He is Prof. Schwerdffeger, F. W. For those whom for want of space I cannot put down their names, I remain grateful to you all.

ABSTRACT

Gripped by the current "Better Life for Women Programme" nationwide campaign, the women of Eggon tribe in Plateau State Nigeria, amongst them well placed civil servants and technocrats felt the need to establish a Training Centre in their community.

Studies revealed the urgent need for such a Centre given that none of its kind was found within that part of the country. Activities considered to be complementary to existing practices in the community are integrated into the concept of the Centre to enable it live up to the challenges of a new and increasing population as a result of its recent status as a Local Government Headquarter. The thrust is for real development which connotes training of the creative capacity of a people to efficiently transform natural resources at their disposal into goods and services to meet everyday needs.

The Centre concept takes cognisance of the unique activites of women in the area ostensibly to identify problems and proffer solutions. The Centre is thus viewed as a showcase intended also to spur other organs within the community towards greater and faster overall development.

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CHAPTER ONE

INTRODUCTION

1.0 Introduction: "No room for laziness" is a slogan commonly used in the traditional African Society where everybody was a worker, with no other means of earning a living from the community. Even the elders, who appeared to be enjoying themselves without doing any physical work had, infact , worked hard all their youthful days' attempts to relate education to life-style is indeed a modern concept in many such societies.

It has been generally accepted that there is a clear cut distinction between education in the broad sense and vocational training that is conditioned by the realities of the world. Now, it is clear that these two cannot be divorced. The realities of the present day situation suggests that they have to go hand in hand.

Hence, a system of integrated education is needed to reverse the abberrant effects:- political, social and educational of this very distinction. Studies and experience proclaims what is obvious to everyone. The necessity and the advantages of establishing a fundamental relationship between manpower strategy and training.

The notions of education and work do not only link an introduction to manual, productive work, but the encouragements of all practical activities directly useful to the society. Focus here is on activities ultimately aimed at initiation to a specific kind of technology, like the creation of objects and goods useful to society. This must be carefully integrated into the learning process so as not to distort already set curricula.

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Hence, the allusion of the Women Training Centre being proposed for Nassarawa Eggon town in Plateau State, Nigeria. It is of course going to be the first of its kind in the whole Local Government Areas in the State.

1.1 PROBLEM DEFINITION:-

Since inequities in the treatment of women can begin at birth and continue through life:- at home, in school, in society at large, even if equal counselling treatment were provided to students regardless of sex, one would expect different outcomes. To bridge up this deplorable gap, arose the need for a programme with the following objectives:-

1.1.1 To provide educational opportunities for women and to explore available skills within the locality and improve or create self reliance for the women folk.

1.1.2 With the recent government emphasis on rural development programmes for rural women, the search towards finding a viable and sustainable programme for rural women within the Eggon people has intensified, and this is just one of the many such lofty projects.

1.1.2 Plateau State as a whole is yet to have a standardized women model training centre that incorporates many activities to enhance the women's position within the male dominated community.

1.2 MOTIVATION: ASPIRATION TO CHANGE

KASHIM IBRAHIM LIBRARY

The educational system has been identified by several writers as dealing unequally with the two sexes (Harrison 1973; Frazier and Sadker, 1973; Macleod and Silverman, 1973). In a sense, the educational system mirrors society. In a society that deals

unequally with boys and girls. This and the following greatly motivated one into undertaking this project.

Many social myths about achievement, motivation, self-concept and women's place in society still persist. While acceptance of the working woman seems to be increasing, career options still appears to be restricted largely to religious and traditionally feminine areas. Women believe that the ideal woman should strive for a balance between self realization and intra-family nurturing. But women's view of men's ideal woman is significantly more family oriented and personally subordinated. This belief inhibits some women from seeking work because they believe that men prefer traditional home makers. Moreover, success and achievement are considered masculine attributes. When a woman is successful, either the quality of her achievement is devalued or a multitude of negative consequences is associated with her success. Since success by women is not highly valued even by other women, for women to seek success requres high self-motivation and an internalized reward system. The tendency therefore, is to promote this and imbibe courage amongst women, hence the timely proposal for this Training Centre. It is hoped that no woman shall remain redundant even if at home. It is for this reason that both formal and non-formal approaches shall be considered in this centre.

1.3 AIMS AND OBJECTIVES

This thesis aims mainly at creating self-sustaining rural community. And among the objectives of the Centre are:-

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1.3.1 Giving women knowledge and skills leading to increased productivity in mutual occupations, the ability is to participate in village - level organisations such as co-operatives.

1.3.2 Conveying useful knowledge and skills to backward communities.

1.3.3 Influenceing the women and pupils attitudes, especially to create a habit of acceptance of, and positive motivation towards manual occupations or rural life.

1.3.4 Developing qualities of character conducive to social stability and worker productivity as well as to personal welfare, such as moral rectitude, perseverance, accuracy, creativity, self-reliance and co-operation.

1.3.5 Covering the unit costs of schooling and maintenance through sale of students craft products or any other produce.

1.3.6 Attracting rural women as well as pupils to school with a view to improving the effectiveness of the general education programme through greater local relevance and the use of activities as a learning aid and as a rest from mental work.

1.4 SCOPE AND LIMITATION

The scope of this centre will be limited to an Administrative Unit, Educational Unit, Multipurpose Unit, Accommodation/Catering, Shops, Recreational Facilities and Welfare Unit.

1.5 RESEARCH METHODOLOGY

The Research Methodology adopted for this thesis is based on the analysis of the following:-

(a) Literature Review:- Books, journals, newspapers and other relevant materials properly analysed with intent to comprehend the ideals and views regarding the design principles encompassing training centres.

(b) Personal observations:- These include deductions from field research based on personal observations and response of people during interviews. These will be analysed to consider individuals opinions regarding space problems.

(c) Case Studies:- An appraisal of existing space will be made with the intention of understanding the problems involved.

(d) Enviromental Data:- This will involve the comparison of environmental data which enhances the analysis of prevailing physical environment features, climatic factors all with a view to adopting the design to comfortable standards.

1.6 ARCHITECTURAL SIGNIFICANCE

This comes to play with the following resolutions:

i. To produce a stimulating architectural planning and forms to draw the women to the Centre.

ii. A moderate but comfortable space designed for various activities to enhance users' requirements such as physical psychological well being.

iii. Provision of a well designed education, social and recreational facilities for women and children and pupils.

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CHAPTER TWO
GENERAL SURVEY

2.1 LOCATION

Nassarawa Eggon is located approximately within Lat. 8^{o} $45^{'}$ East. It is in Plateau State located along the regional highway connecting the Eastern part of the country to the Central and Northern part of Nigeria. It is along the Akwanga - Makurdi road. Nassarawa Eggon is the administrative Headquarters of Nassarawa Eggon Local Government Area as well as the traditional Headquarters of all the Eggon sons and daughters.

Being on a regional highway, it experiences heavy transit traffic flow and has great potential to develop commercially in agricultural products. Its role as a district headquarters for a long period of time has made the surrounding neighbourhood depend on her as a social centre.

2.2 HISTORICAL BACKGROUND

The Eggon people first settled in this town as far back as the pre-independence era. It has served as a traditional seat of power and a lucrative market base for the Eggon people as traders patronize the market with vehicles to buy and convey food stuff in large quantities unlike the markets in the hinterland that were almost inaccessible due to bad roads. The Eggon people are said to have descended from Ngazargamu in former Borno Empire hence their origin always points from the North-East. The Eggon people are spread in all the then ten (10) Local Government Councils of Western Plateau. However, their main concentration to the absence of

other tribes except visitors, is in the Nassarawa Eggon Local Government Council. The Eggon people admininstration originally was operated by a council of trust-worthy elders of the society but with the Chieftaincy style of government in the Northern part of Nigeria, a common Chief was introduced. The seat has now been democratised and is contestable by sons of Eggon subject to ratification by the Elders.

The main occupation of the Eggon people is agriculture - farming.

2.3 POPULATION

The geographical entity known as Nassarawa Eggon town has a population of 5,374 as at the 1963 census figures. However, using an annual growth rate of 3.0% plus urbanization, the population has been estimated to reach 30,000 by the year 1995.

Nevertheless, the geographical entity known as Nassarawa Eggon district under the former Akwanga Local Government had a population of 92,249 by 1963 census figures, which projected forward by 1980 was 146,368 persons (Government Printer 1978: 4 - 6). Latest figures from 1992 Census are yet to be released by the Local Government, but it is certainly expected to be higher. The growth rate is not constant due to its segmented lifestyle and republican attitudes. A population that was clan oriented without cohesive leadership, proceeded to create a problem of unity (Anzolo J. J.; 1983; 23-25).

2.4 CULTURE AND TRADITION

It is paramount to note that the need exists for people to be rooted in their origin. Attempts should be made to discourage up-rooting people particularly in cultural and linguistic habitats. Hence,

the task of cultural promotion should not be to detach the individual from his origins but, on the contrary, to provide him with the opportunity for re-asserting his own identity. There is a certain polarity between personal identity, a group identity and historical identity. The people of Nassarawa Eggon appear to uphold these values. However, prominence is given to group and historical identity.

Consequently, the Christian culture and its tradition of Christmas and Easter celebrations as well as the Islamic cultures comprising two annual Sallah festivals, are keenly observed by their ardent followers who are growing in numbers in the town.

On the local scene is the long standing cultural tradition of group activities, Such as weddings which involves cultural dances and some traditional formalities: burial ceremonies and its traditional rituals.

The most significant of all is the Eggon Cultural day known as Anzili Eggon which is celebrated once every year, featuring dancers from various clans, exchange of visits and speeches as well as sharing of experiences.

On this day, activities start as early as 10.00 am in the morning and last till late evening. It is however, been modernised without deleting original traits. The Chief of Eggon, known as The "Aren Eggon" and prominent Eggon sons and daughters are given the opportunity to deliver speeches usually on the historical origin of their culture. After that, various group leaders

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from various clans are invited to display their myths to the admiration of the public. A beauty contest has now been introduced into the system as part of its attempts towards modernisation.

This is restricted to Eggon girls and is weighed heavily on the display of Eggon traditional fabrics.

2.5 LAYOUT AND LAND USE

As it now stands, there is no up-to-date statistics on the current land use of the town. However, the land use scheme as at 1978 with slight amendment shall be discussed.

As at 1978, the projected population of the town was put at 6,100 persons with a built-up area that covers approximately 0.84 sqkm (84 hectares). This gives a gross density of 70 persons per hectare. There are no physical barriers to development except the farming areas.

2.5.1 RESIDENTIAL/COMMERCIAL

The total residential built-up area covers approximately 0.53 sqkm (53 hectares), i.e. 61 per cent of the total town area. The estimated 1978 population is 6,100 i.e. a density of 115 persons per hectares. The residential area appears relatively homogenous. The plots are rectangular and the average plot size is 20 x 30 metres. Buildings are generally made of mud with thatched roofs or corrugated metal roofs, witha few having concrete and cement blocks. The maintenance standard appears to be rather high.

Commercial activities are scattered all over the town and within the residences. There is however, a concentration of commercial

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activities around the old market. There was as at 1978, an old market function and a motor park. The market is situated along the main road. However, a newly proposed market on the opposite side of the main road has been completed and is in full operation, whereas the motor park remains at the old site.

There is a guest house and a couple of small hotels in the town scattered on various sites of the town.

Other public facilities include local government administration buildings, the Chief's Palace, Courts, Post Office and Police Barracks, Post and Telecommunication building, Central Mosque, Churches, the Ministry of Works' Yard and an electric power station. Total land estimated for all these is 0.45 sqkm.

2.6. SOCIO-POLITICAL ORGANISATION

As in most other African societies, the social structure before colonization was based on kinship which hitherto consisted of a man, his wives, children and his younger ones and his aged parents who made up a household called Odne. Expansion of the Odne through marriage of his children and younger ones around his own household form "Kpaji" or quarter. He takes charge by virtue of his being the most able-bodied and eldest man around. Several other Kpajis form what is known as "Ugu" or ward. No inter-marriages take place within members of one Kpaji or within the "Ugu". Attempts are always made at ensuring that all conflicts between members are resolved amicably or with imposition of a fine.

The social stratification is no longer of much relevance, but the following could be distinguished.

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Awyne - children aged 10 - 20 years.

Oko-la - youths aged 20 - 45 years.

Andak'bo - elders aged 45 years and above.

As expected, responsibilities are delegated to these groups in descending order.

However, with the domination of this society by the colonial powers, the philosophy of the colonial powers has been brought to bear on them. Sad to note though, that this colonial concept of social and political structures is what is most dominant in Nassarawa Eggon today.

2.7 WOMEN ASSOCIATION

Eggon is the noticeable tribe in this town. They are known for their love and peaceful co-existence for as long as history could observe. The Eggon women have never been found lacking in anything. They are mainly professional farmers and traders,etc. They never believe in leaving their husbands to tend the farmlands alone and they usually form farming associations (ekpo-agba) which they do by rotational farming between members of such a group. This brings them together into one common interest group. Infact this has led to the formation of their parent women association today, the Eggon Cultural Development Association Women's Wing, to which every woman in an Eggon man's house by birth or through marriage automatically becomes a member.

Leadership in these organisations today has been democratised and not on the basis of age. Other such associations are the "Zumunta Mata Eggon", which is an Association that binds all Eggon Christian

Women together for the same purpose of fostering religious unity and development. There is also the National Council of Women Society, Better Life Programme, Women in Health and various others that the Eggon Women participate actively in.

2.8 EMPLOYMENT AND INCOME LEVELS

Employment in any given society becomes difficult to analyse especially in the present day Nigerian society where the transition from the traditional to a modern cash economy is still taking place. However, employment could be broken down to the following categories:-

2.8.1 The Primary Sector (Agriculture): Going by a survey carried out in 1978, this sector accounted for over 20% of total employment by adult population of 15 - 64 years, this, excluding housewives.

2.8.2 The Secondary Sector (industry, crafts and construction): As at 1978, this accounted for over 5% of the total population 15 - 64 years and is expected to reach 15% by the year 1995.

2.8.3 The Tertiary Sector (Transport trade and Services): This accounted for over 80% of the population within the same year, 1978 and is expected to drop to 75% by the year 1995.

It is however, pertinent to note that trade and commerce remain the most important sector followed by agriculture and then public services. Because of the present rapid growth of the town as a result of its upgrading to a local government headquarters, things are fast changing and no detail or conclusive research of the existing facilities can be undertaken for now. It is expected that within the next one year, the situation shall improve when

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eventually all economic activities settle down.

2.9 EXISTING INFRASTRUCTURAL FACILITIES

2.9.1 HEALTH FACILITIES

A maternity home, a child welfare clinic and a dispensary are located at the southern fringe of the town. The maternity home has 6 beds and is handled by qualified medical personnel, Doctors and Nurses.

Along the Kagbu-Mada Station road, i.e. the Western fringe of the town is a newly commissioned cottage hospital with enough beddings and facilities to cater for the town and other communities around Eggon.

These are all government owned, but anumber of privately owned clinics and maternities are found scattered in and around the town with pharmaceutical shops. The cottage hospital caters for infectious diseases, orthopaedics, maternity care and others. However, a clinic for emergency dispensation of culments will be very essential in the proposed Training Centre.

2.9.2 EDUCATIONAL FACILITIES

There are among the existing educational facilities in Nassarawa Eggon today, a Nursery School/pre-primary, 3 primary schools, 3 secondary schools and a typing school. There is a Quranic school too with an adult literacy class as well.

There is no tertiary institution in the town and these facilities are very much inadequate for educational growth. It is in view of this alarming situation that the idea of a Women Training Centre was developed. This will cater for all adults and the Secondary students who will find it very useful, particularly the

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females in their attempts towards self-reliance.

2.9.3 MARKET FACILITIES

The present new market in Nassarawa Eggon is large enough for the town's needs, and also the old market which is still in use. There will be no need to consider establishing one around the Centre, as there is close proximity.

2.9.4 COMMERCIAL/INDUSTRIAL/ADMINISTRATION FACILITIES

There are a lot of commercial facilities within and around the town, such as hotels, e.g Unity Hotel, Rafin Sanyi Hotel, Saminaka Hotel, Debat, Green Garden and a host of others. As well as a guest house. Of all these, only one provide comfortable accommodation, hence the need for an accommodation unit in the Centre with its own Catering Section. There is no Centralised commercial core within the town other than the market which comes up every 5 days of a week. There is a need therefore, for a commercial unit in this Centre, hence the shops.

There are a number of furniture industries in the town, a vegetable oil millingfactory, block industries, Quarry site and mechanic shops. These will complement the facilities that will be provided for in this Centre.

In terms of Administration, there is the local government headquarters, the Ministry of Works Camp, the Chief's Palace, Post and Telecommunications Offices, Law Courts, Police Posts, Barracks, etc. Because of the recognition of the town now as an administration headquarters, there is the need for a multi-purpose hall as well as a Conference Room to aid various meetings, workshops etc. in terms of accommodation that may be undertaken from time to time.

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2.9.5 ROAD INVENTORY

(See fig) for hierarchy of township roads and the number of motorable lanes as well as surface condition. Almost all motorable roads are short access roads, perpendicular to the Lafia - Akwanga Road. Apart from this last one no bituminous road exist. There are laterite or dusty roads motorable for 2-lane traffic and in good condition going to Mada or branching from this Southwards, and one similar private road encircling the former Borini - prono gravel pit in the northern end of the town. Lastly, the road leading to the Chief's palace is of the same standard. All remaining roads are dusty roads in bad condition and just a few have two lanes. Drainage is usually poor and roads suffer much during raining seasons. Still, most of the roads have fairly large right-of-ways and can be up-graded without large-scale demolition of houses.

i. Parkings:- Possibilities of roadside parking exist in many places without hazards to the traffic. Besides, the large squares exist in front of the Chiefs palace, and generally, all offices and institutions have ample parking spaces.

ii. Traffic Volumes:- Very little motor traffic is seen outside the Lafia - Akwanga Road. Going by the authors household survey, car ownership is roughtly 30 per 1,000 inhabitatnts, motor cycles, 250 per 1,000. The only existing "capacity" problems are due to difficulties in simultaneous passage of cars from opposite directions on the minor roads.

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2.9.6 EXISTING SEWAGE FACILITIES

In the old township, pit laterine is the most common way to dispose human excreta. Usually, every family or household has their own pit and thus several pits may be found in one compound corresponding to the number of households. The pit laterines are usually 2 - 5 metres deep and approximately 1m in diametre and covered with a slab of concrete or planks with a small opening in the centre. In some cases, the pit is lined with mud bricks or conrete. A pit will last for some years and when filled up, people normally prefer to dig a new one rather than the old.

Waste water from washing and cooking is led to the gutters along the streets through openings in the walls around the compound. Not all gutters are properly maintained and lakes of waste water can be found in some. Buckets are not used, and indiscriminate disposal does not take place. There are no public toilets in the town except for the new market. The sanitory conditions are controlled and supervised by the health office of the Local Government according to the law of the public health. The fact that each pit laterine is only used by a certain rather small group of people reduces the danger of infections. However, a few of the households now use the water closets system becuase of the ready availability of pipe borne water.

2.9.7 STORM WATER DARINAGE

The town is divided into two major catchment areas by a ridge along the main road. Some roads and buildings in the town are marked by erosion, but no area is flooded. Drainages are through road side gutters, etc.

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2.9.8 REFUSE DISPOSAL SYSTEM

There is a public refuse collection in Nssarawa Eggon. A number of dustbins (oil drums) are placed along the motorable roads. People bring the refuse to the drums from where it is collected by labourers and a lorry from the health office. The solid waste is dumped and covered in borrow pits in and around the town, partly in order to re-establish the terrain and partly to avoid mosquito breeding in the rainy season. From a hygienic point of view, the final disposal of solid waste so near dwellings is not advisable.

2.9.9 WATER SUPPLY

Nassarawa Eggon is supplied mainly by dug wells and boreholes. The depths of the wells is about 10 - 15m and the diameter is about 1-5-2m. The capacity of the wells is small and may dry up during the dry season. The quality of the water is very poor.

A finished water supply system supplies water intermittently to the town. It is very negligible as it is yet to be fully utilised. However, there is a complete pipe network with stand pipes, an elevated service reservoir with a volume of about $125M^3$ and two boreholes with pumps. The capacity of the boreholes is un-known but that of the pumps is about $10-20M^3/hr$.

2.9.10 ELECTRICITY SUPPLY

The town enjoys electricity supply as a result of the State's Rural Electricity Board's Scheme for electrification by main generators see (fig). The power station is located at the

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Southern end of the town just behind a primary school from Lafia - Akwanga road. It contains 3 genrators (415 volts, 3 phase, 50 Hz, total effect of 150 kw) is transmitted by overhead cables on erected poles along Akwanga - Lafia road.

2.9.11 POSTAL SERVICES

There is a local postal agency in Nassarawa Eggon which still depends on the Post Office in Akwanga Local Government Council for its bigger functions.

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CHAPTER THREE

3.0 TRAINING CENTRES AND ITS EVOLUTION

3.1 EVOLUTION OF TRAINING CENTRES

Based on the various methods of training being introduced in this Centre, its evolution could be said to date back to when history was recorded. Based on local crafts, the evolution dates back to mankind and its evolution. This was alternated with farming activities and other domestic activities. This was the sort of education obtained then. But with modernization, this method of alternating education was introduced systematically in Cincinnati, United States, where it was decided to take advantage of the fact that the students worked to pay for their education and organise the system so that they would be able to learn "things" which the university alone could not teach them.

Education in alternating periods has since been developed, with varying degrees of success in the United States and Canada (where 300 colleges have adopted the so-called 'co-operative' system); in Western and Eastern Europe; in Cuba and particularly in China where it has become the launching pad for the transformation of society into a learning and re-learning society.

This is gradually gaining attention in Nigeria, with the establishment of Vocational Training Centres, Technical Schools and Polytechnics all over the country. It is yet again been proposed for Nassarawa Eggon town in Plateau State, Nigeria to be able to harness the scattered talents all over the nooks and corners of the area to concentrate in one place and develop them because of certain economic, social and educational advantages expected from it.

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3.2 THE NEED FOR TRAINING CENTRES

Already there is an established education system in Nigeria aimed at training her citizens from the first to the third levels of education. But the point is, whether it can effectively cater for the needs and development of all its teeming population with their diversified cultures.

Knowledge is almost being forgotten today, because education has become too examination oriented. Students tend to struggle more to pass and thereafter acquire the knowledge outside the confines of school. It is clear that identification with the training given is not strong enough to promote average mental and social development. Aside from the need to study and pass, there is hardly any cordial relationship on the part of the students and teachers to create for a balanced social and psychological freedom.

Much as the introduction of extra curricula activities into the education curriculum tries to create a psychologically freer atmosphere, the tense atmosphere that characterises most schools,

still has its strong grips on the students, as they are often observed to long for the holidays away from school. The home of family background constitutes a basic foundation for human development, but we just cannot wholly rely on it particularly now that the value systems of many adults are also getting distorted due to external pressures.

It should therefore, not be a surprise then to see the need for the Centre being wholly for women when the society as a whole is degenerating in values. Often times, adult women, after examining their current situation and future opportunities, want and need to return to post secondary institutions for further education or training. Because higher education has been structured for 'typical' student who completes his/her education through continuous full time study, adult women frequently experience institutional, as well as personal, barriers. Some could be having to bear with the guilt of abandoning their traditional home roles and actively seeking the education they want.

This Centre is aimed at helping women make the transition from home to school or work with a minimum of extraneous complications.

3.3 TYPES OF TRAINING IN THE PROPOSED CENTRE

The types of training proposed for this Centre is such that it seeks an insertion of work into the education process as an internal issue, implying a change of content, methods and structures in the education system. It also seeks to improve the connection between education and the reality of the world of work in the society which it must serve.

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This should not only be though as an introduction of students to manual work, productive work, but the encouragement of all practical activities directly useful to society. The focus here is definitely based upon activities aimed at initiation to a specific kind of technology, the creation of objects and goods useful to society, and activities arranged and deliberately integrated into the learning process in all general education and at all levels of the "Centre's" system without, however, conferring upon the education/work idea aims that are narrowly or exclusively economic and vocational, nor taking it away from the legitimate over-seers, the educators themselves.

In short, contrary to a deeply rooted tradition, the school should no longer be 'against manual work', as it has all too often tended to be.

Hence, creating an atmosphere conducive for learning will allow for free creative work, which will clearly constitute a fundamental dimension of modern culture, as a factor contributing to fulfilment aptitudes, enrichment of the personality and a priviledged means for wormen to gain their independence, assert their roles in the community and participate in the life and functioning of the community.

3.4 DEFINITION OF CRAFTS

Crafts can be defined as manual skill, trade, an occupation, or 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 workman who has direct control over the product during all stages of production. It also indicates

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methods of production.

3.5 VARIOUS FORMS OF CRAFTS

It is worthy to note that African women play a major role in craft production. In nearly every ethnic group, South of Sahara women work as artists in addition to carrying out their domestic activities. The crafts they produce demonstrate to a large extent, broad, range of media including pottery, textile weaving, embroidering, carving, leather work, painting, clothdying, calabash decoration, mat and basket weaving. Though, mostly found among the sex group working on these crafts are menfolks, but women have been able to break into this barrier.

For the purposes of this research, only those crafts found and practised in Nassarawa Eggon and its environs will be discussed.

3.5.1 LOCAL TEXTILE WEAVING

The evolution of textile weaving in Nigeria can be traced back through archaeological discoveries in the Eastern part of Nigeria of local textiles over a thousand years old, woven from bast and leaft fibres. Bast fibres were probably used first then cotton. Written evidence also has it that the Northern Emirate of Kano had a reputation for the skill of its weavers as close as 1513. Similarly, the Yoruba ethnic group of Western Nigeria were noted with weaving and ample use of hand woven fabric for their own clothing. An observer in the 1890s once said "the Yoruba is by custom a fully clothed mortal. It is considered in the highest degree unfashionable to appear in the streets without a complete covering of two or three ample and well dyed cloths, drapped round the body in not ungraceful folds."

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Of the numerous weaving techniques, the following are commonly used in Nassarawa Eggon.

VERTICAL LOOM

The vertical loom is with a fixed frame, a heddle stick and no treadles. With variations in structural details just as in the treadle loom, it is again less sophisticated technologically than the treadle loom. Rectanglar frames in upright position is always favoured and the warps (threads) are manipluated mannually by treadle sticks. The weaver wraps the warp thread around the top cross beam and the lower cross piece of the frame. While work is in progress, the weaver keeps the work at approximately chest level by shifting the cloth down and around the cross beam of the frame.

It is worth knowing that the size of the loom varies according to geographical location, but each of the variations has approximately the same basic apparatus as early enumerated. The width of the textile woven on three looms varies from twenty inches to forty-eight inches and in length from four to six feet. The vertical loom is used commonly by women and also training beginners.

TREADLE LOOM

The treadle loom is constructed with a rectangular wooden framework which supports the reed and two heddles with a roller or pulley for storage at the back of the loom and another roller in front for the warp (or thread) and the woven fabric storage respectively. These rollers are referred to as beams.

The warps pass through the warp beam, up over the back beam and stretched across a distance of four feet to the front beam, over it and down to the cloth roller for rolling the woven fabric which is placed underneath the weaver's knees for convenience.

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The warp is then held in tension by cranking up the ratchets on both warp and cloth rollers so that the warp is stretched in opposite directions. The principles are the same as in the former method. The only noticeable difference is therefore speed.

TEXTILE DECORATING

The various indigo that grow around the environs of Nassarawa Eggon's bushes are used as dyes. Among them are the indigofera tinctoria, indigofera arrecta, indigofera suffricotosa, etc.

Carved pieces of calabash and stamping are the decorating techniques used on the textile cloth. It is also done by pre-dying the treads.

Decorations on textile cloths are usually symbolic, e.g. a circle clot, could symbolise a sun as a source of great vitality, zig-zag could symbolise snakes, water, etc.

3.5.2 POTTERY

Pottery is also one of the earliest crafts, certainly dating back to African's neolithic period when man used polished stone as tools. It was discovered in the sixth mellenium B.C. (information revealed) in the Middle of Jericho in Palestine and spread to parts of North Africa. South of the Sahara, the earliest pottery found dates back to the fourth mellenium B.C. The Eggon people established as a basis for their pottery, their ingenuity in the storage of fresh and cold water in specially modelled ports, i. e. the embzu

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MATERIALS

Clay is the raw material used in pottery and is commonly found in river banks, crevices, banks of lakes and ponds. The material is sticky, greasy, and sandy and its colour can be black, grey or brown-red. Clay dug out on-shore need little preparation before used except that which is dug from deeper grounds. The clay is soaked in trough with water and the water that rises up surface is filtered off. Sometimes, it is stirred and sieved with a thresh. Most clay in use in Africa is the Terracotta - a low fine clay rich in iron.

The malleability of clay improves with age. Clay could also be found exposed to the weather, and it breaks down small lumps and ages the clay. Preparation is enhanced by pompelling treading and rolling the clay.

The plasticity of clay and malleability varies widely. Some can only be used for definite purposes. Greasy clay could have little application of sand or finely crushed shards (grog - which is fire clay).

MAKING OF POTS

In Nassarawa Eggon, pottery making is common to the women. However, two distinctive methods of pottery making could be identified. The advanced method is that which involves wheels in the building of pots and firing.

The local method inculcates the gathering of the clay from river-sides, which are subsequently dried under the sun. The clay may be further broken into suitable sizes and put in bags (woolen)

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with little water to keep it moist enough to ensure slaking. When loose and slopy, it is then mixed with some quantity of sand acting as re-inforcement. The mixture is therefore sieved with two grade thresh to remove the impurities and hard sand. A time lag of two two days is allowed for settlement, then tabled to drain out the water and later put into pits dug inside the ground to preserve the moistness. At this stage, the clay is considered ready for use in building the pots. This is however applied to both methods except for variations in building the pots.

For the local process, the potter places a lump of clay on a hollow stone and beats out a hollow in the middle with her hand. She then pulls the walls in a diagonal direction while she walks backwards around the pot. This continues until when she is more than half-way completion, she adds thick coils of clay pulling them outwards and thinning them with the same rythmic movement. The neck and shoulder is then built to finish and is dried before the bottom part is done. Firing is done in the open without a kiln.

POTTERY DECORATION

For functional or otherwise symbolic reasons, pots undergo various kinds of decorations. Designs are done normally while the pots are still moist or by incising designs in leather hard clary; by impressing wet clay with pointed sticks or rough materials such as braids of straw, by applying coils, lumps or braids of clay when wet, by burnishing and polishing it: and more rarely of recent, by painting designs using a brush or knife with mixture of earth colours such as the kaoline and ocher with water or peanut.

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3.5.3 BASKET WEAVING

Materials for basket weaving are found in abundance in and around Nassarawa Eggon such as, raffia, reeds, straw, bamboo, etc. Knives and owls are the only noticeable tools applied. Grasses are usuallypicked wet and dried slowly in shades. They are used for coils and for wrapping stiffer fibres. The most prominent basket technique in Nassarawa Eggon is the coiled basket. The basket base is of straw or reed wrapped with very durable grasses. Coils are stitched and the base materials is spiralled into coils. Successive wider coils are made building the form out. The coiling and stitching continue till the basket is completed.

3.5.4 MAT WEAVING

Mats are made from flexible cords from the branches of the raffia or palm trees. The materials are woven or spinned forming a long cord of several metres. The cord is then stiched together forming a circle. The circle is cut through giving a unified length of about two metres of the mat.

3.5.5 CALABASH DECORATION

Calabash is a container for water, a bottle for shaking cream into butter, clipper in the well, a basin for washing a container for eating and most commonly today, a room decoration element. Fresh calabashes are green in colour. The fresh ones are allowed to dry in the sun and cut out to drop out its contents. The open calabshes are then soaked in water to allow the internal lining or skin to become bloat and soft. They are also allowed to dry and harden and can be carved and worked upon very much like wood.

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Decorations are made with hot knives or ordinary cold knives and painted. The negative shapes are carved out leaving the positive intact.

In concluding, craftsmen adapt different sitting position depending on the kind of craft. Usually, they are found squatting on the floor or sitting on very low stools with his/her legs fully stretched out.

3.6 PROSPECTS OF INDIGENOUS CRAFTS

As has been analysed, Nassarawa Eggon is predominatly an agrarian population. Women only play supportive roles to their men on farms. But due to economic constraints, high population growth and the galloping urban migration drift for white collar jobs, the males left behind can no longer effectively sustain thier families. So with the establishment of a Women Training Centre in Nassarawa Eggon, it is hoped that most of them will be trained to become skilled crafts women. The products should be able to pass for the markets and sold while the proceeds shall complement the family's income. Besides training of the women, the Centre shall also be seen as a catalyst for the social, economic and cultural upliftment of Nassarawa Eggon and its environs.

3,7 THE TRADITIONAL METHOD OF LEARNING

In the traditional method, it was a learn-on-the-job; apprentices were initially attached to master craftsmen in which case the trainee keeps close watch and observation over what the 'Master Craftsman' was doing. Payment for such services were done on the basis of other services, such as farming, household activities, etc, being rendered to the master craftstman.

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Today, it has changed so much so that apprentices gather round Master Craftsmen. Their trainees are even allowed to try their hands on the job and perfect the skills with time.

Finally, the modernized system is what has been prescribed for the Centre with the provision of good centralised court-yards and workshops.

CHAPTER FOUR

4.0 CONTRIBUTION TO SOCIO-ECONOMIC DEVELOPMENT OF THE COMMUNITY

Within the scope of this research, it is discovered that the community will benefit to a large extent with the establishment of this Centre in terms of Economic activities, enhanced educational opportunities, socio-cultural development recreational as well as health services. These are further discussed below.

4.1 ECONOMIC DEVELOPMENT

Very low income class are dominant features of the economic activities in rural communities. This is partly because of lack of educational knowledge, and the kind of rudimentary tools, ideas and techniques used which results in very poor quality and low output. This in effect attracts low patronage and less prices. The contributions here is therefore aimed with the establishment of this Centre to:-

Reducing the frustration of young and adult people whose expectations about employment and earnings do not match with the available employment opportunities;

Utilizing effectively the community's human resources in the development process;

Propagating egalitarian values and dignity of labour among the various sexes.

All these will be achieved to a large extent by the provision of facilities such as will accommodate vocational training to teach new and improve on the already existing skills. This gives the graduands better bargaining powers in terms of jobs, which will to a large extent improve upon the economic base and consciousness of the community.

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4.2 EDUCATIONAL RELEVANCE

From the analysis of this Community earlier carried out, one could notice a complete absence of tertiary institutions other than primary and the secondary school levels of education.

The role of education in any community determines to a great extent the developmental trend of the community. It brings about better means of communication through the art of reading and writing. Improvement upon general skills and hygiene could be enhanced through enlightenment which is the result of education. Motivation and encouragement from parents and peers are important influences in education.

The parents therefore, need that education for them to see the need for such a venture for their children. This therefore, brings about the need to have a training centre with adult literacy classes to bring to date the educational requirenements of adults with the hope of transforming the community.

Most importantly worthy of note is that, education is not just a situation where one establishes contacts with the streets or the community. This is because we cannot really define the kind of reality established through such contacts. At best, it is considered fragmentary reality, that is bits of knowledge, images and flashes of information which are not interrelated, and also not explained.

The Training Centre has the task of organising this reality and educating her students to relate what they see, what they read and hear to what they know. And a school system where there is "life" that is other activities besides teachning, takes place

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and jointly analysed by teachers and students as proposed in this Centre shall achieve these goals.

4.3 SOCIO-CULTURAL DEVELOPMENT

A cursory look at educational story books tells it all. It is found that men are active and women passive, men lead and rescue, women follow and serve others, men engage in wide varieties of occupation, whereas, women are wives and mothers. Also the occupation follow rigid traditional sex lines: women are teachers, nurses and are virtually excluded as historical figures and from descriptions and illustrations and when they are included, most are objects of derision, cartoons, or they are insubordinate and supportive rather than leadership roles. This is therefore, an attempt to bring them to the forefront with high degree of communal activities as already noted in the analysis.

Getting them to a Training Centre will affect the family - living programmes. But this is however intended to evolve more comfortable families, varying activities and proper utilisation of time.

Hence facilities provided for are for the priority of women and little children in the design. This will, to a great extent, uplift their social awareness and enhanced their cultural affiliation. This is again based on the facilities provided for in the design.

4.4 RECREATIONAL DEVELOPMENT

Facilities for recreational activities and relaxation are almost non-existent in the Community. The only noticeable facilities are the school fields (primary and secondary schools) and are fully engaged by youths. There is no Community Hall for cultural

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activities or even conferences. So the inclusion of well maintained playgrounds and open spaces, with well landscaping is considered very vital to the centre's design. The need for film shows which will screen desirable shows justifies the provision of a large multy purpose hall which could also be used for indoor games. Infact these could be commercialised to improve their economic base. Provision of a swimming pool, tennis courts, etc. will also attract people bye and large and also with the provision of a guest accommodation with Catering facilities will boost the financial position of the Community. This will not only develop recreational aspects of the community, but will attract other small-scale industries that may want to take advantage of these facilities.

4.5 HEALTH AND OTHER SERVICES

Facilities for health care delivery is grossly inadequate for the community and its environs as analysed. The provision of health services should lay emphasis on preventive health delivery rather than curative. This centre therefore, intends to include a clinic in its facilities. Serious cases will be recommended to bigger health centres.

The provision of all these services in the centre will help to attract people to the Centre and accord it its desired recognition. Some of these services, will be found generating outlets for the Centre.

Hence, proper and efficient utilisation of the centre is expected as a means of achieving the stated goals.

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CHAPTER FIVE

5. CASE STUDY

This Chapter is an attempt towards a critical appraisal and analysis of the learning environment of existing Woment Training Centres. It is also aimed at understanding their architectural implications.

5.1 ECWA WIDOW'S TRAINING CENTRE, SAMARU KATAF

Brief: This Centre was established in April, 1978. It admits an average total of thirty women annually, with the minimum qualification of first school leaving certificate. It has four divisions among which are:

Local Crafts

General Education

Commerce

Home Economics

The duration of study of courses is three years after which an examination is conducted. Promotion to every class is based on a student's successful passing in the examination. Only Sundays are observed free.

Location: In a town called Samaru - Kataf thirty kilometres from Kafanchan is the location of the Centre. It is situated within the heart of the town opposite Kaduna State Collecte of Agriculture along the Kafanchan - Saminaka road.

Accessibility: The Centre is accessible from the west cardinal direction on the main road to Saminaka from Kafanchan.

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Facilities: These include:

(i) Academic facilities - classrooms, workshops and a library

(ii) Social facilities - multi-purpose hall, open spaces for conferences.

(iii) Accommodation facilities - dormitories

(iv) Religious Facilities - a Chapel.

Planning: On approaching the Centre are the class rooms and the Principal's Office by the right while opposite this block separated by a landscaped parking area are the domitories, the chapel, the multi-purpose hall, library and another classroom block. These units are mixed up. The crafts and commerce units are separated by wide coutryards for outdoor activities of students.

Architecture: This inculcates the following:

Structures: walls are load-bearing supporting double pitched roofs, over-hanged roofs on verandahs supported by poles and columns.

Materials: The materials used for construction include concrete, mud, timber, corrugated iron sheets, wooden and glass windows and panel doors.

Learning Spaces: Among these are classrooms for general studies and commerce and craftrooms or workshops.

Classrooms - These measure about 6 x 9 x 2.8m and contain a student number varying from eighteen to fifty. While some classes are less populated others are very congested. The walls are of

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mud and sandcrete construction, while windows and doors are glass and panel respectively. Ceilings are of corrugate iron sheets instead of celotex.

Craft rooms or workshops - These include textile weaving, matting and basketing workshops. Similar to classrooms in all respects except windows are wooden panels. The rate of use of these units is from 8.00 am and to 2.00 p.m. from Mondays to Saturdays.

GENERAL APPRAISALS

Merits - learning blocks have good orientation, hence comfortable for learning

- less cost of construction as a result of the use of local materials.
- The use of pointed arches creates an attracting architectural climate.

Demerits - Under-openings in learning spaces.

- Poor architectural linkage between blocks.
- Courtyards too large and undefined.
- Poor use of materials.

5.2 JACARANDA POTTERY CENTRE, KADUNA

Brief: The Centre is located at the outskirt of Kaduna along Kaduna - Kachia trunk road. The Centre serves commercial as well as training purposes.

Accessibility: The Centre is accessed from the main Kaduna - Kachia road. It has a main entrance and a service entrance. The main entrance is directed to the administrative block, staff quarters and the restaurant. The service entrance is directed towards the workshops and clay deposits bay.

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Facilities: Facilities provided for in this Centre includes administrative unit, restaurant, pottery workshop, exhibition and sales room, staff accommodation and kiln.

Learning Equipment: Learning is done on potter's wheels which are operated both manually and electrically. Learning starts with the preparation of clay, stitching, glazing and firing of in-built kilns, as well as modelling of pots.

Planning: The various units are arranged around courtyards. In the pottery section, the exhibition hall, the modelling workshop, glazing room/workshop and the firing kilns form a circular arrangement with a large circular courtyard.

The administrative unit, restaurant and staff accommodation also form a courtyard with sub-court-yards within them. Most of these courtyards are used for outdoor relaxation and learning.

Architecture: In this are also:

(i) Structures:- Walls are load-bearing supporting double pitched thatch roofs resting on timber trusses.

(ii) Materials - mud, grasses, timber, etc. It is interesting to note that the materials used for this Centre are mainly local and traditional.

(iii) Forms - Rectangular, circular and traditional forms.

Learning Spaces:- Learning takes place in two different spaces in this Centre, viz: courtyards and workshops. Also the preparation of clay takes place in the courtyards, while the proceeding stages take place in the workshops. There are two pot modelling workshops,

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the biggest measuring 4 x 10m while the smaller one measures about 2.5 x 4m. While the smaller one is rarely used, the bigger one embraces stitching and modelling activities. This contains sinks, bins, wheels, worktop benches, racks, cold store room, etc. The glazing workshop is isolated from the modelling workshop by a large courtyard and circular in form.

Demerits:

- The planning allows for haphazard movement due to bad functional relationship scheme.
- Tight spaces in workshops due to too much work taking place at the same time.
- Undersize windows in the workshop, allowing in only limited amount of lighting for the trainees.

Merits:

- Good orientation of workshops with longer sides facing the North-South cardinal points.
- Use of local and traditional building material reduces the cost of building.
- Provision of courtyards provides spaces for outdoor learning and cross-ventilation.

CASE STUDY 3: & 4

5.3 HENDERSON/DECATUR AND WAYNE COUNTY VOCATIONAL CENTRES, U.S.A

Brief: Henderson/Decatur and Wayne County Vocational Centres are two different vocational centres situated in different location in the United States of America (U. S. A.) but as prospects of Tennessee State. Henderson/Decatu Vocational Centre is located in Wenesboro.

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Planning:- Planning of the two Centes are similar. The design is divided into a high and low bay. The high bay includes trades like auto mechanics, building trades, metal and welding electrical/electronics. And auxilliaryclassrooms and support facilities are connected.

The low bays have common laboratory spaces with auxilliary classrooms as well as support facilities like storage rooms, tool rooms and lockers.

Goals of Design:-

(i) Flexibility and expansibility - From constant research, it is being observed that vocational school programmes change with time, and even sometimes during the actual construction of a building. Hence, an evolution of a concept that will accommodate the expected changes.

(ii) Work Environment - Noise level, comfort and lighting levels that will exist in industry had to b e approximated so that the educational experience would not just be academic.

(iii) Speed and cost control - What was of priority were buildings that were economical and sufficiently of good quality.

Facilities:- These include, workshops with equipment like lockers and stores for tools, toilers which are centrally placed.

Architects and team of Constructors - ARchitects Yeawood and Johnson; Project Architects: J. Mixhaed Gold; Engineers: Yearwood and Johnson; Project Engineers: John and Carpenter (structural) Thomas Engineering Inc; Mechanical: Akinson and Associates

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(Electrical) Contractors: Park - Richardson Company and Management Construction, Inc. respectively.

Merits:

- The connecting corridors to the various spaces have windows into each of the learning spaces. Their being that the spaces could be used for both circulation as well as visual interaction maing the whole building to have a distinct sense of activities going on.
- Each of the working spaces is expandable in two different directions at least.
- There is proper zoning in terms of noise level, hence the noisy trades and quitest trades - into (High and low bays respectively).

Demerits:

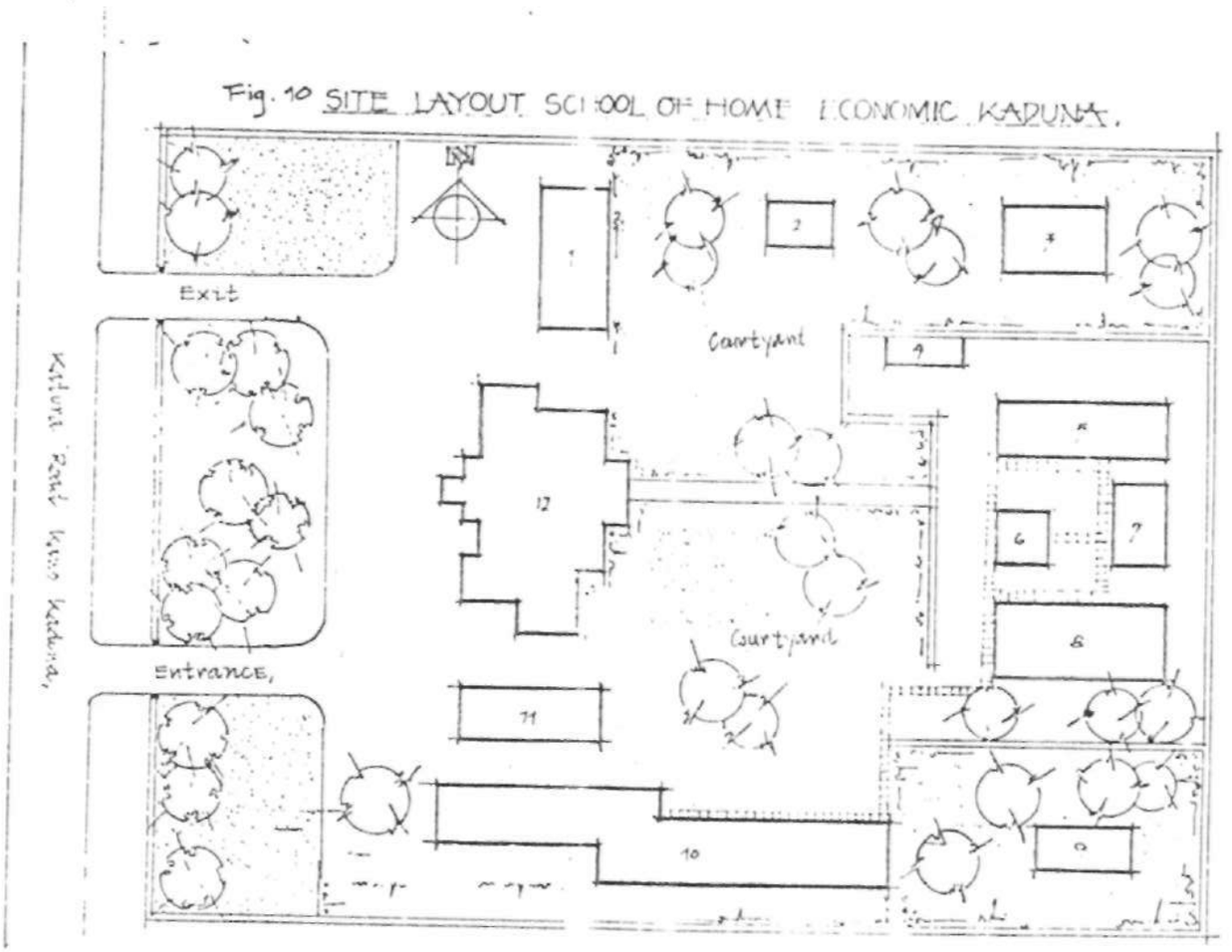
- The central location of auxilliary facilities like toilets is not convenient, especially in the Nigeria's context.
- The absence of courtyards within the whole building limits proper ventilation of the spaces, particularly in the area of cross-ventilation.

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LEGEND

1. Library
2. Boys' Quarters
3. Matron's House
4. Poultry Farm
5. Dormitory
6. Common Room
7. Dormitory
8. Dormitory
9. Staff Houses
10. Classrooms and Staff Offices
11. General Store
12. Administration.

Fig. 10 SITE LAYOUT SCHOOL OF HOME ECONOMIC KADUNA.



KACHIA.
BAY
CLAY PREPT.
BAY
SECOND ENTRANCE.
CENTRES
VEHICLES.
COURTYARD
STORES
FARMING
KASHIM IBRAHIM LIBRARY
NOT TO SCALE
LEGEND
1. KILN
2. SALESHOP
3. STORE
4. STORE
5. SHED
6. GLAZING ROOM
7. FIREWOOD KILN
8. GATE HOUSE
9. OFFICE
10. STORE
11. WORKSHOP
12. WORKSHOP
13. STORE/ COLD ROOM
14. STORE
15. SHED
16. BAR
17. RECEPTION
18. KITCHEN
19. RESTAURANT
20. STAFF QUARTERS

CHAPTER SIX

6.0 THE SITE ANALYSIS

6.1 INTRODUCTION TO SITE

The site of this project is located in Nassarawa Eggon, the headquarters of newly created Nassarawa Eggon Local Government of Plateau State, Nigeria.

6.1.1 GEOGRAPHICAL LOCATION OF NIGERIA

The Federal Republic of Nigeria, located in Africa is bounded by longitudes 2.5° and 14°. 30' East and by latitudes 4° and 14° North of the Equator. It is also bounded by Niger Republic and Lake Chad to the North, Republics of Benin and Cameroon to the West and East respectively, while to its south lies the Atlantic Ocean. (see fig 6.0).

6.1.2 PLATEAU STATE

Plateau State lies between latitudes 7° and 11° north and longitudes 7° and 12.5° east is almost centrally located within Nigeria. It is bounded by 5 of the present 30 States of Nigeria and the Federal Capital Territory where Abuja (the new Federal Capital of Nigeria) is located. It shares common boundaries with Bauchi State in the North Eastern direction, the Federal Capital Territory in the western direction, Kaduna State in the North West, Taraba State in the eastern direction, Kogi State in the south western direction and Benue State in the southern direction. (see fig. 6.1)

Plateau State covers an area of about 53,585 sqkm and has a population of about 3,026, 657 people consisting of over 40 tribes noticeable

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all over the 23 local government councils.

6.1.3 NASSARAWA EGGON TOWN

Nassarawa Eggon is the adminstrative headquarters of Nssarawa Eggon Local Government Council and its tradition institution where the "Chairman" and the "Aren Eggon" presides over the local government and the people respectively.

It presently has two districts namely, Eggon West districts with headquarters in Mada station, and Eggon East District with headquarters in Nassarawa Eggon.

According to the population figures of the former Akun Local Government which is the present Nassarawa Eggon Local Government, the population according to the 1963 census was 92,249 and was further projected at 2.5% to be about 140,368 in 1980. The only ethnic group in the local government area is the Eggon people.

6.2 PHYSICAL SETTING

6.2.1 TOPOGRAPHY

The Jos Plateau is the highest and hydrographical centre of Nigeria forming a central water-divide.
From an elevation of about 1500m to 1800m. The Plateau descends in a series of steep steps to the wide Benue trough.

The northern part of the Benue trough, the norther lowlands, forms a continuous plain about 100km wide which generally and gradually slopes from the foot of the Plateau towards the Benue River. The northern part of the plain shows a slightly steeper slope, descending from the foot of the Plateau escarpment. South of the

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northern lowlands follow the Benue river flood plain. The geographical regions of Plateau State are shown (see fig. 6.2)

Major tributaries of the Benue river originating in the southern Plateau are Dep river and Mada river. These rivers and their tributaries dissect the flanks of the Plateau in the steep valeys. Secondary tributaries are Tuma river and Okona river.

The areas between the lower Mada river in the west and the lower Dep (Ankwe) river in the east lies entirely within the Benue plain and forms a flat plain with few outstanding hills. Nassarawa Eggon is situated on the wataershed which separates the two rivers. The watersheds and the river systems are also shown (see fig 6.3)

6.2.2 GEOLOGY

No detailed geological maps covering the Nassarawa Eggon region are available but the geological main structures of the Southern Plateau and the Benue valley are shown. (See fig. 6.4). It is seen that Nassarawa Eggon is situated in the area of the Basement complex, but very near the boundary to the areas cretaceous sediments. The Benue valley forms a deep trough full of sedimentary rocks lying on top of much older metamorphic rocks. North of the trough, the crystalline metamorphic and igneous rocks of the Jos Plateau are found. The Benue trough is considered to be a result of the continental separation of Africa and South America.

6.2.3 VEGETATION

The town is situated in the Benue Valley between the Benue river and the Jos Plateau. This area is part of the Southern Guinea Savanna. The vegeration has to a large extent resulted from

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extensive agricultural use of the land. the predominant vegetation type is park savanna which is characterised by a dis-continuous canopy, shrubs and grass. Many areas are heavily affected by man-made and natural fires during the dry season, which has forced the vegetation to develop characteristics enabling it to resist fires.

Many trees shed their leaves during the dry season and the surface is often blackened by ashes from bush fires. As soon as the wet season begins, however, the vegetation quickly regains its bush appearance.

Among the common trees are the oil bean tree, shea butter tree, locust bean tree and the isoberlina tree.

A large part of the vegetation is crops and pastures land. The most important crops are yams, maize, sorghum, cassava, guinea corn and cow peas.

6.3 CLIMATE

Where nothing else is mentioned, the meteorological data presented in the following are based on "Master plant for Water Resources development, Federal Republic of Nigeria, Benue-Plateau State, 1970".

6.3.1 PRECIPITATION

The Plateau State has two seaons

(i) A dry season without or with very little rainfall from November to March.

(ii) A wet season from April till October.

In (fig 6.5) the mean monthly rainfall is given for a number of towns in or very near to Plateau State. The mean annual rainfall

.../45

distribution over the state is also given. No rainfall data are available for Nassarawa Eggon but the figures for Lafia are considered to be representative for the town. The data is also given for its mean monthly. The most rainy months are seen to be July - September. Also given is the annual rainfall for Lafia for the last 40 years. The highest rainfall for this period is 1699.4mm and the lowest is 949.6mm.

6.3.2 TEMPERATURE

Highest temperatures always tend to occur at the end of the dry season close to the spring equinox. Thus, March has the highest temperatures. The lowest temperatures occur in the middle of the dry season in December or January, when outgoing radiation is encouraged by low humidity, clear skies and longer nights. The lowest monthly mean temperature of the year occur either in the middle of the rainy season, when maxima temperatures are low or in December when daily minima temperatures are low. The temperatures figures, mean monthly for Ibi and Makurdi are considered to be representative for Nassarawa Eggon (see fig 6.6).

6.3.3 HUMIDITY

The relative humidity has the lowest values in the dry season, whereas the highest values occur in the rainy season.

A close look at the relative humidity table will indicate a marked decrease from the early morning to the afternoon throughout the year (see fig 6.7).

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6.3.4 WIND

The wind direction is dominated by the seasonal movement of the inter-tropical convergence zone; which represents the moving frontier between moist Atlantic air from the South and the dry air from the Sahara.

In winter (from September till April) winds are north-easterly, bringing extreme aridity and harmattan. For the remainder of the year south west winds are prevailing. Generally, wind speeds appear relatively low only one wind speed exceeding 68 km/hr (average over a 10 min. interval) was recorded in all 11 year period at Makurdi.

6.3.5 SUNSHINE

The daily average sunshine hours for Jos and Makurdi are given. Also is the yearly variation in the sunshine amount. The month with the highest sunshine hours/day are November and December whereas the least month is August with an average of 4.22 hours/day which is due to the amount of cloud cover during this period of the year. (see fig 6.8). This implies that there are longer days than nights during the dry season which is reversed during the rainy season.

The amount of clud cover which influences the amount of sunshine received is also affected by the angle of incidence the sun makes with the earth surface.

6.4 SITE SELECTION

6.4.1 INTRODUCTION

As earlier discussed in the introductory Chapter, this project is expected to act as a stimulus for enhanced growth and development

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of the immediate environment. Nassarawa Eggon was selected for this project because of its cultural significance. Besides being the traditional stool of the Eggon people, it is also a melting point of all economic acativities in and around the local government.

Its climatic condition does not place it at a disadvantage to others, rather they are the same. Hence, for viability and proximity, it is considered cnetral. Its physical setting is magnificient enough.

6.4.2 SITE LOCATION

The Nassarawa Eggon Local Government Council has allocated a particular area in Nassarawa Eggon town after due consultation with the (Eggon Cultural Development Association) for special institutions of this nature. It is to cater among other things for a Women Training centre and the site was given within this as shown in (fig 6.8).

The whole site is yet to be developed, but however, it has been shared among the various interest groups, namely, the women's and the men's wings of the above mentioned association.

The site could be considered to be well located bearing in mind the fact that it fulfils some basic requirements such as:-

(i) Accessibility - The site is easily accessible both by vehicular transport and pedestrian traffic. Hence, there is little or no difficulty in reaching the site.

(ii) Availability of land: The land provided for could be said to be adequate for the scope of work required.

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(iii) Topography: The site has good topographical features and there is good drainage; it draws to the west. The sub soil is also very stable, hence cost minimization in foundation.

(iv) Proximity of Services: The site is not quite a distance from the town, hence urban facilities such as water, electricity could easily be tapped at very moderate cost.

(v) Proximity of complimentary facilities: It is very close to these services. The market is a walking distance, so also is the cottage hospital. The administrative centre of the local government is not too far too. This will go a long way in reducing the cost of running the Centre.

(vi) Natural Landscape: It is blessed with a good vegetation cover hence little effort is required to modify it.

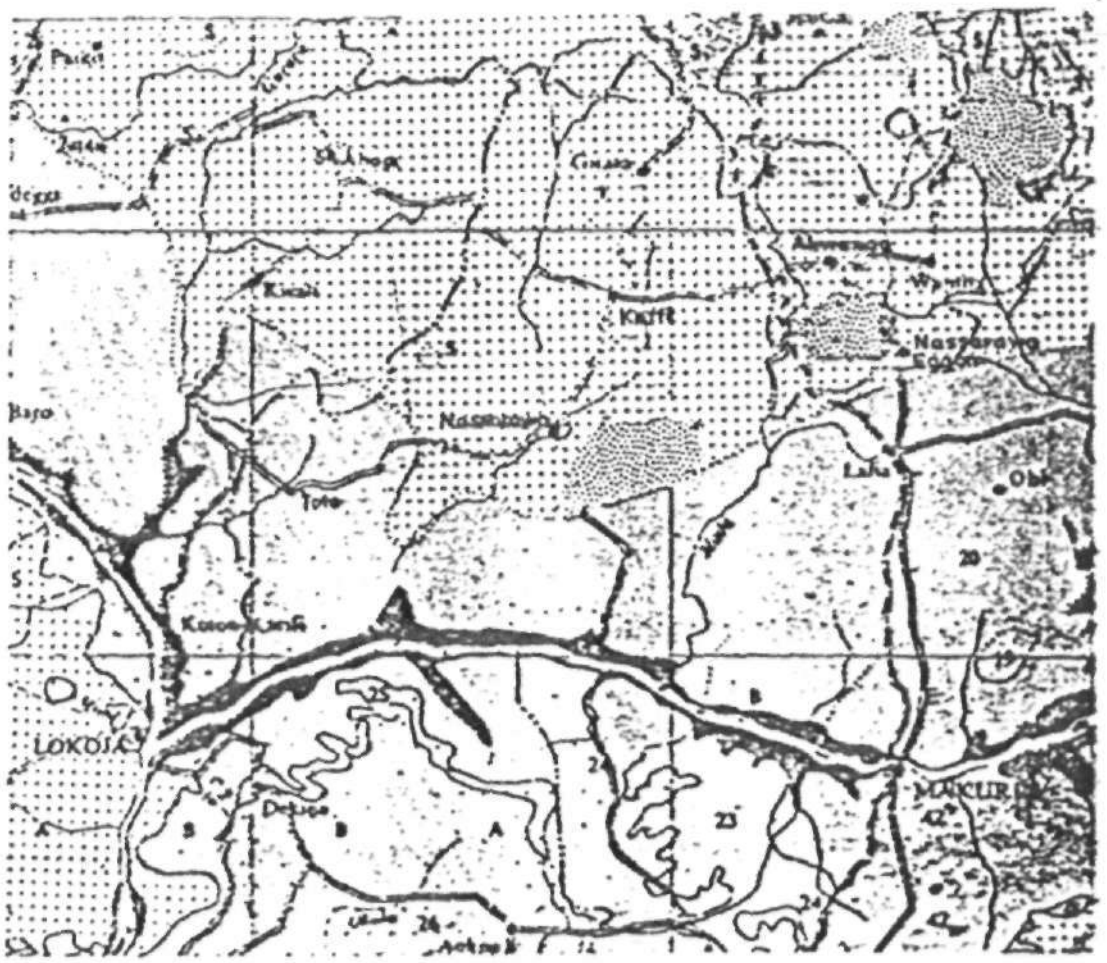
6.4.3 SITE ANALYSIS

See (fig. 6.9) for the analysis which is based on their entire site.

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GEOGRAPHICAL REGIONS



SCALE 1:2.000.000

CRETACEOUS SEDIMENTS

BASEMENT COMPLEX

YONGER GRANITES

OLDER GRANITES

ALLUVIUM

GEOLOGY OF THE BENUE VALLEY AND THE SOUTHERN PLATE

Fig. 6.1

FIGURE 6.5 - MEAN MONTHLY RAINFALL IN MILLIMETRES

Station	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	ELEVATION m	NO. OF YEARS
Akwanga (1)	1.6	0.6	17.5	111.2	166.1	172.5	261.3	324.1	313.4	153.1	15.7	0.2	1537.3	450	13
Ibi (2)	2.5	5.1	30.5	88.9	165.1	182.9	139.7	160.0	221.0	137.2	10.2	5.1	1148.2	111	27
Jos	2.0	2.3	24.1	94.7	190.5	228.1	323.9	281.4	208.5	42.7	3.1	1.5	1402.8	1285	50
Keffi	2.5	7.6	43.2	73.7	160.0	167.6	226.1	462.3	299.7	137.2	10.2	5.1	1595.2	457	22
Lafia (3)	1.5	6.1	23.3	82.2	157.7	161.4	208.5	238.5	253.6	133.3	6.8	0.0	1272.9	183	40
Makurdi	7.6	7.6	33.0	106.7	200.7	193.0	175.3	218.4	259.1	149.9	10.2	0.0	1361.5	113	33
Nassarawa	2.5	12.7	38.1	81.3	157.5	170.2	210.8	200.7	269.2	137.2	15.2	5.1	1300.5	259	20
Shendam	0.0	2.5	15.2	73.7	147.3	188.0	185.4	223.5	251.5	127.0	7.6	0.0	1221.7	244	27
Wamba	0.0	7.6	30.5	83.8	152.4	190.5	332.7	381.0	327.7	129.5	12.5	2.7	1650.9	320	31

(1) Ministry of Agriculture and Natural Resources, Akwanga

(2) Nigerian Meteorological Service

(3) Ministry of Agriculture and Natural Resources, Lafia

MEAN MONTHLY TEMPERATURE

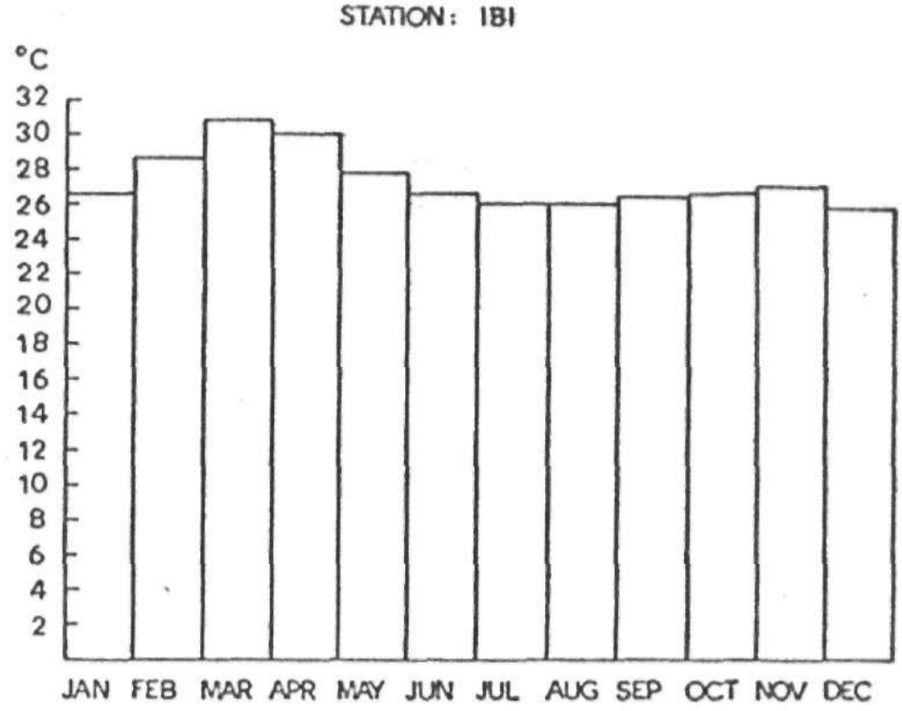


FIG. 4.1

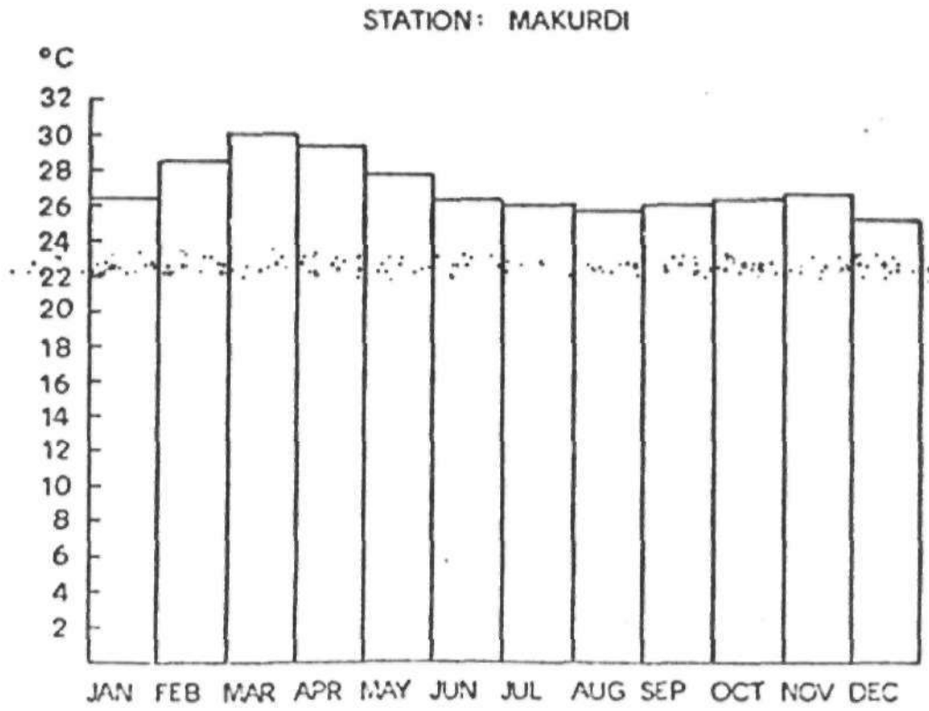
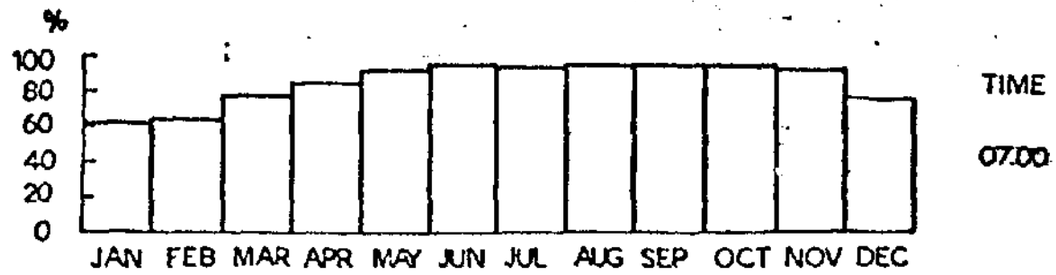
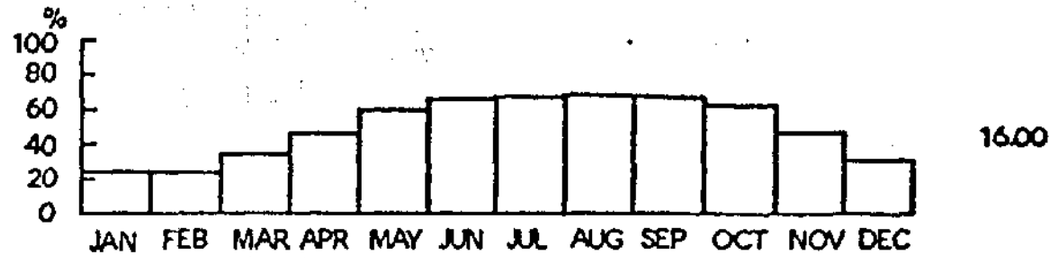


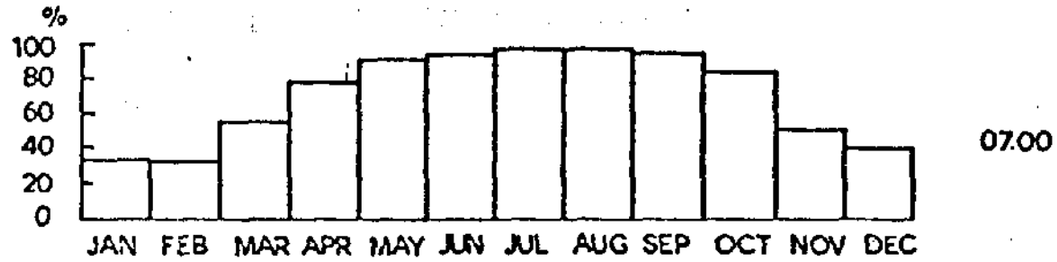
FIG.

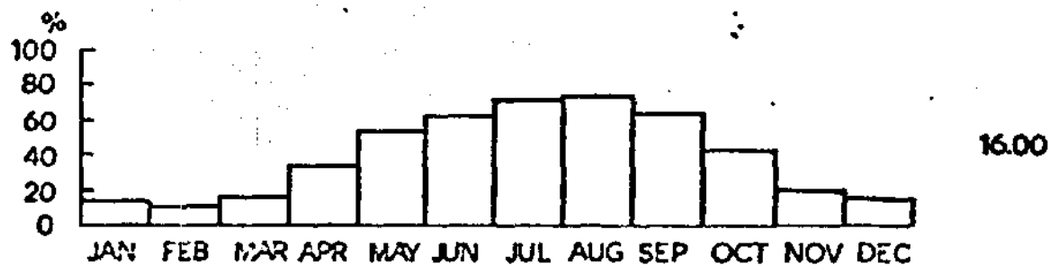
Fig 6.6



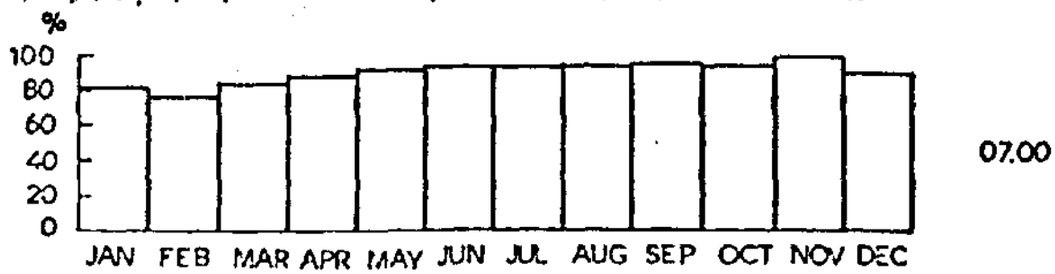


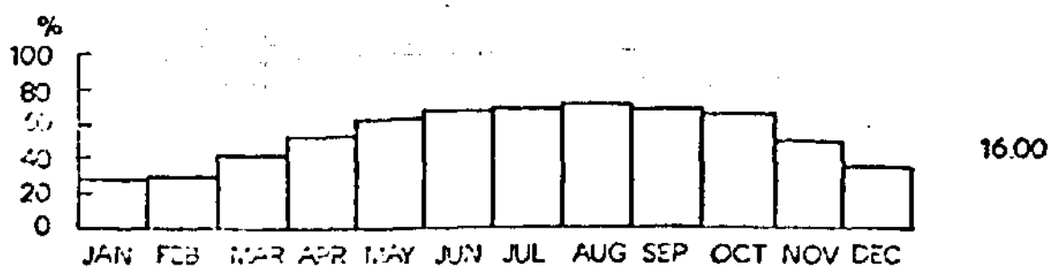
RELATIVE HUMIDITY JOS



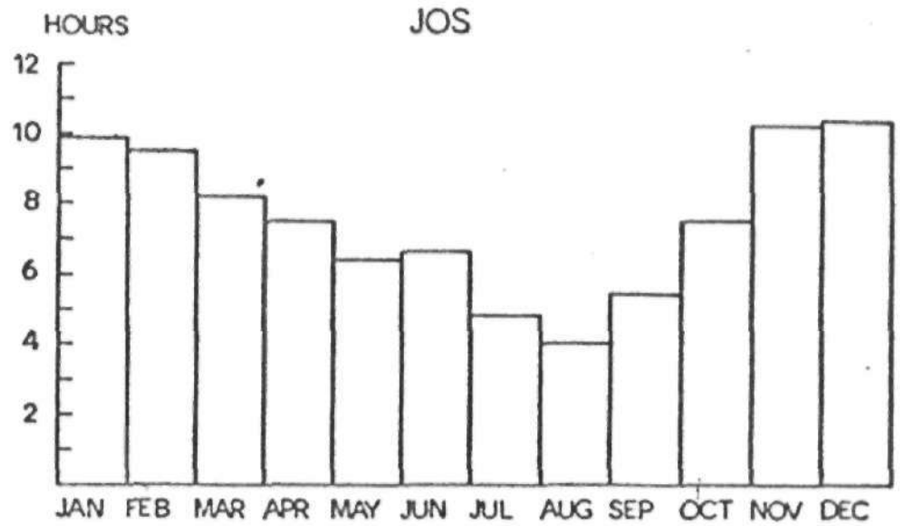


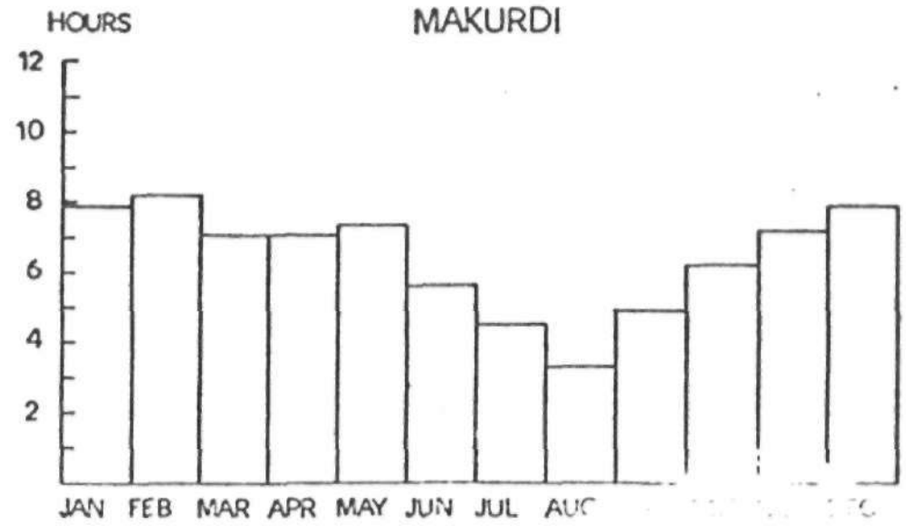
RELATIVE HUMIDITY MAKURDI





DAILY AVERAGE SUNSHINE AMOUNT





CHAPTER SEVEN

7.0 DESIGN ANALYSIS

7.1 DESIGN BRIEF

Women Training Centre, Nassarawa Eggon is a project expected to bring about a new dimension in the development process of the Eggon women in particular and the people in general. It is expected to serve the collective needs of all Eggon women in furtherance of their quest for better education other than what is obtained. It is to also compliment government's efforts towards its policy of self reliance, and education for all. It will accommodate the economic, education, cultural and social needs of the women in a total environment.

Bearing in mind the inadequacies of the existing trianing Centers as in the case studies presented in Chapter five, attempts have been made to increase the scope of this Centre above the existing ones studied, hence the necessity of a design that can adequately cater for this. Hence the main challenge here is to use a simple but yet a conducive architecture that will create an ideal environment for effective development of the total woman. The architecture here bearing in mind its scope and dimension should be seen as contributing in bringing rural woman closer to the modern world, but yet living within her own environment, rather than a total alienation from existing cultural and social values and norms.

Prior to the evolution of such a Center, analysis of spaces and their functions as well as average number of users is required.

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The compilation of these data then opens up the need for the architecture to methodically combine the proposed spaces to achieve functional buildings whose aesthetic qualities are nevertheless within the present day situation.

7.1.1 BRIEF DEVELOPMENT

The Women Training Centre shall consist of the following Departments to be further sub-divided into 3 zones.

They are:

1.	Administrative Department]	
	]	Public Zone
2.	Educational Department]	
3.	Recreational Department]	Semi-public zone
4.	Commercial Department]	Public zone
5.	Residential Department]	Private zone

1. THE ADMINISTRATIVE DEPARTMENT

This Department shall consist of most of staff offices and shall be further sub-divided into:-

A Main Lobby
A Reception Office
An Exhibition Gallery
Visitors' toilers
Accounts Offices
Principal's Office
Vice Principal's Office
Staff room for teachers
Conference Room
General Office
Secretary's Offices
Coordinator's Office
Stores
Staff Toilets

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Then the Associations offices namely for,

Administrative Secretary

Presidents Office

Vice Presidents Office

Conference Room

Public Relations Office

Audio Visual Room

Library

Librarian Office

A clinic

2. The Education Department

This shall consist of

Workshops

Classrooms

Nursery/Dar care

Laboratory

Stores

Toilets

3. The Recreational Department

Four effective use of leisure hours by students but by and large, the Guests, this department will provide among others already availabe in the town

Swimming Pool with common room and changing facilities

Lawn Tennis Courts

Well cut lawns and gardens

and Children playing grounds

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4. Commercial Department

This department shall act purely for commercial purposes and to help in generating revenue for the association. Facilities provided are:

Restaurant

Kitchen

Store

Changing room

Toilet

Waiting Lounge

Bar/Open terrace

Laundry

Toilets

Multi-purpose hall

shops.

5. The Residential Department

This is for Guest that may wish to put up on paying a rent for the use of the rooms. Facilities are:

Rooms

Dressing Rooms

Toilets

It is worthy to note that this is not to accomodate the students as they are day students, so also the staff. Provision is been made for the staff elsewhere outside the scope of this project.

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7.3 CONCEPTUAL ANALYSIS

The architectural dimension of the solution to the problems highlighted in this thesis is guided by two concepts.

They are; the site zoning concept and the design metaphor.
the site will be zone using two basic principles. The hierarchy of space (from public through semi-public to private) and the general traffic pattern, to create an ideal environment for an effective woman. The traffic network will be distinctively separated into vehicular and pedestrian.
The design metaphor is based on the traditionally held custom of the Eggon people for coutryards in their compounds. It is the focus of all activities within the housholds. Stories are told, cooking is done, and evening sleeping. Hence all areas of vast activities have common courtyards.

7.3.1 THE DESIGN CONCEPT

The design concept is a spatial integration of functions. The facilities are not so compactly arranged together. The administration is made the focus of the design with every other function planned around it.

All other activities that need self advertising, like the commercial area and the clinic are located on western and estern sidesof the Administration respectively with ease of reach. The more private areas like the Workshops, Guest Accommodations and Recreational areas are further recessed to the background to decongest the crowdy activities areas.

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CHAPTER EIGHT

8.0 DESIGN REPORT

8.1 SITE PLANNING

This was in close relation to the site concept. Main access into the Centre is from the south direction. Care was taken to separate pedestrian from vehicular roads. To minimise the risk of traffic hold-ups, a diversion was created for vehicles bringing raw materials and also cost of manning two gates avoided. Parking for staff and visitors was located infront of the administration and multi-purpose hall.

8.1.1 SPATIAL ORGANISATION

The aim was to make the spaces flow into one another while according privacy work space and comfort to women working in each of the sections. This was achieved by using courtyards. Each unit has its own private court-yard. There is a Central courtyard for general activities when the need arises.

8.1.2 FORMS

The forms adopted for this design is rectangular. Its simplicity in terms of construction, and general acceptability for educational purposes enhanced its choice. Besides, its a common feature of architecture in the locality. The spatial nature of the design is a charactersitic of the peoples architecture. In essence the aim is to just extend the house set up of the villages of Nassarawa.

.../55

8.2 THE DESIGN

WORKSHOPS AND CLASSROOMS

The design of these units was done in a way that, they are located in the same area, and share common facilities. The classrooms have the same areas and can accommodate a minimum of 25 people, whereas the workshops can accommodate at least 12 people.

8.2.1 LIGHTING

Since electricity in Nassarawa Eggon cannot be said to be sufficient emphasis was placed on natural lighting. This was done by the provision of sufficient windows, properly oriented.

8.2.2 STORAGE

Each unit of the Centre has at least, a store for materials of immediate use, and storage of finished students goods. There is also a Central Store.

8.3 SERVICES

These include, sewage, storm water, water supply and electricity. Paved gutters are provided within courtyards and around buildings for storm water drainage. This is drained along the slope direction as indicated on site analysis. Water and electricity can be tapped from inside the town.

8.4 CONSTRUCTION

Materials used for construction include concrete bricks, reinforcedbars, roofing sheets, cements, ceramic tiles and the use of local materials.

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8.4.1 OPENINGS

Doors are sliding, and timber panel doors windows are casement as well as sliding.

8.4.2 ROOFS AND FLOORS

Roofs were of timber, steel and aluminium as well as zinc roofing sheets. Ceilings were of celotex board. Floor was constructed of sand and cement, terrazo finish and quarry tiles.

8.4.3 SECTIONS AND ELEVATIONS

These are as shown on the drawing sheets.

8.5 LANDSCAPE

Open areas were properly landscaped. Courtyards were also land scaped so that the education experience will not just be academic.

CHAPTER NINE

9.0 SUMMARY, CONCLUSIONS AND RECOMMENDATION

9.1 Summary

This thesis has brought to focus the ways in which derogatory role and status ascribed to women in the various Nigerian cultures have contributed to the low self image of most Nigerian women. These problems are not synonimous to illiterate women alone but cut across all levels of education, tribe and social class.

It has also been realised that sex as a biological fact has been over extended into fields like academics, politics, business and even family life patterns. The influences of families, peers, communities and government in fostering a pattern of segregation where women are considered as inferior to men, has been very heavy. With this in mind, yet women are struggling to be better developed and some are already making break-throughs into areas otherwise thought to be exclusive preserve of men.

an appraisal of the architectural implication in educational design was done using case studies before work was done on this project.

9.2 Conclusion

The following conclusions can be drawn from this work:

(i) Architechture remains one of the most effective tools *for modern development.*

(ii) The work presents an effective medium for re-assessing the much desired new status for women in society.

(iii) The work is a new practical idea which, properly developed, will bring about a rapid and remarkable improvement in

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standards of living in the community.

(iv) The work does not only provide new ideas in Architecture in the community, it fulfills social as well as commercial requirements yearned for in a typical semi-rural settlement in the country.

9.3 RECOMMENDATION

Having successfully outlined the use of Architecture as means for development of women, the challenge hereafter is for individuals, families, societies and government to formulate policies and adopt attitudes that will transform these thoughts into concrete physical facilities. That way the dignity of the woman can be restored as desired by the creator.

BIBLIOGRAPHY

1. Feigna Blekher (1979) - The Soviet Woman in the Family and Society (A sociological Study)

2. Joane and Buldolz (1976) - Nigerian Handicrafted Textiles

3. Margaret Jean Sharon Stitcher (1984) - African Women (South of Sahara)

4. Fadahunsi; A. T. (1983) - Model for Community Vocational Training Centre, Igbajo, Oyo State (M. Sc. Arch.) Thesis) A. B. U., Zaria.

5. Sleeman; J. P. and Rockwell, D. M. (1981) - Designing Learning Learning Environment Longman, London.

6. Rene Dumont, (1977) - School Versus Manual Work (Prospects) vol. vii, No. 3

7. Nyerere J. K. (1977) - Ten Years after the Arusha Declaration, Dares Salaam Government Printer.

8. Clark Kerr, (1976) - Education and the World of Work - an analytical sketch, in Babara Burns (ed)

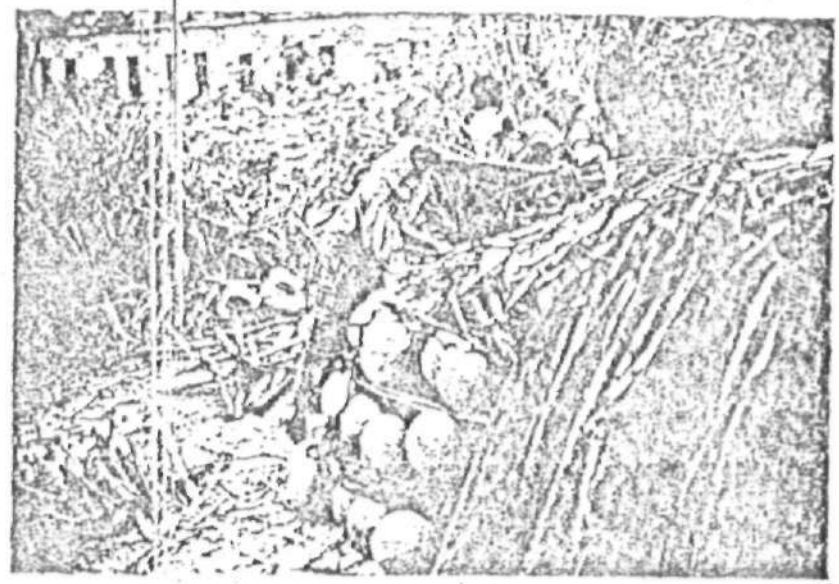
9. Zaghloul Morsy (1979) - Learning and Working - UNESCO Publication

10. Neufert; E. (1975) - Architects data Friba, R. H. (Ed.) Crossby Lockwood and Son Ltd., London



FIG. 7 MAT MAKING

Fig 5 FIRING OF POTS





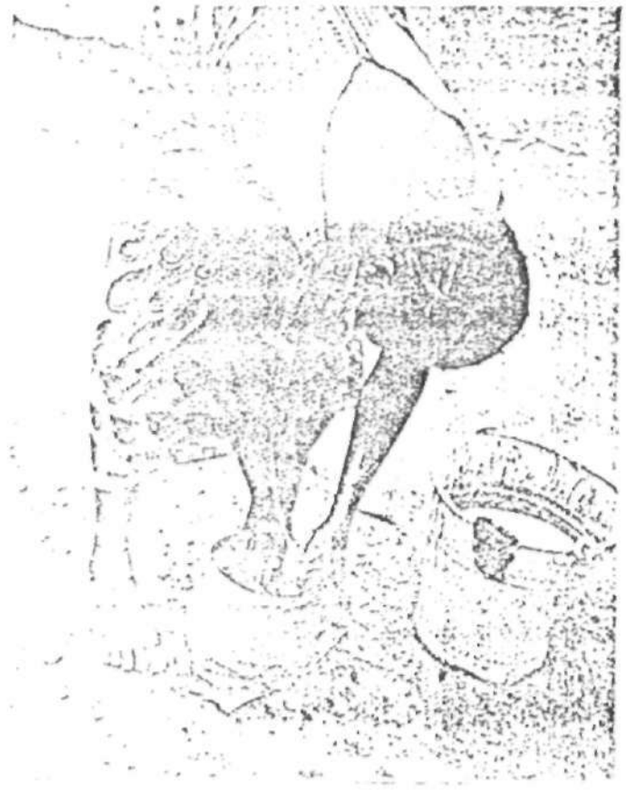


Fig 4(c) Pot MAKING
STOOPING POSITION

Fig 4(b) POTTERY - SITTING POSITION



Fig 4(a) POT MAKING - SITTING POSITION.



Fig. 3 cloth PRINTING



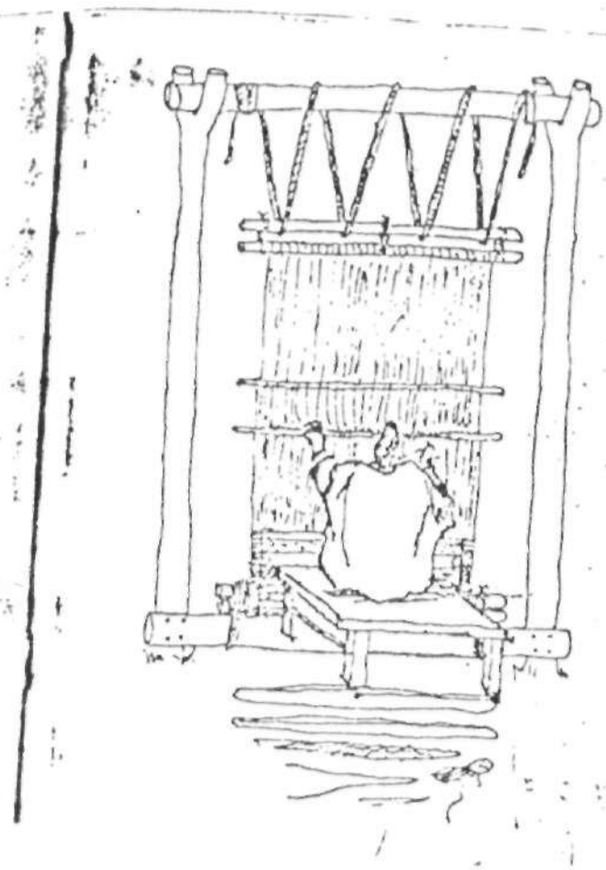


Fig 2(a) shows a WEAVER ON THE VERTICAL LOOM



Fig b) show EAV OF MODERN COUN BALANCE LOOM

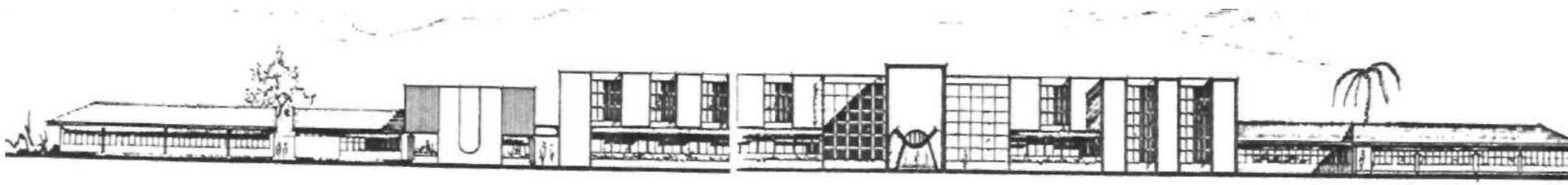
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Fig. 1 spinning

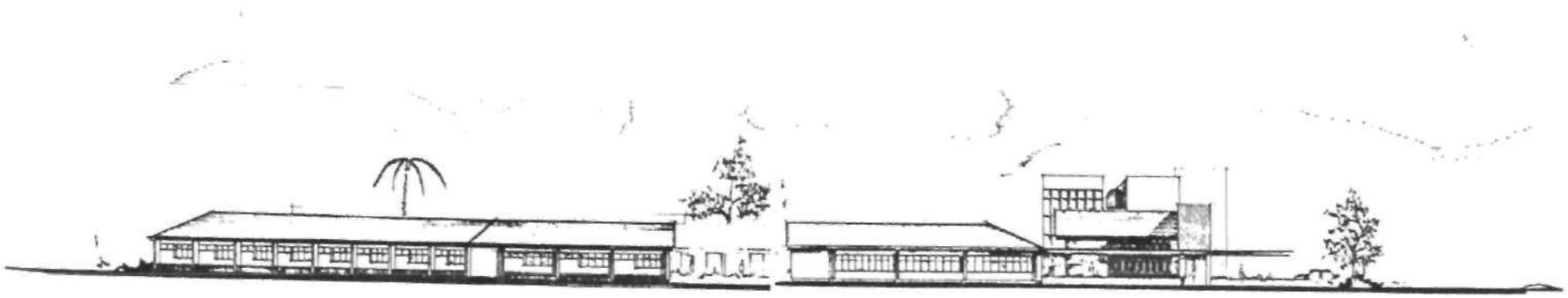


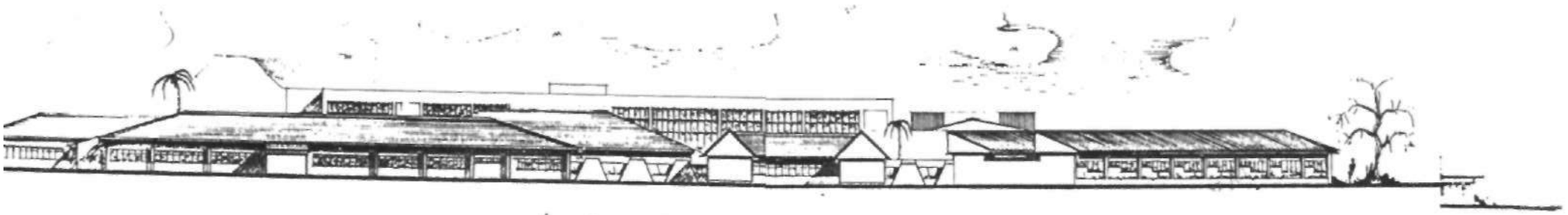
Fig. 6 Basket making



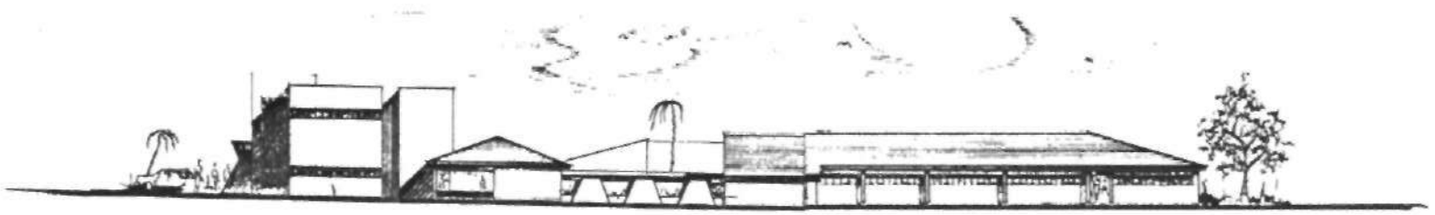


SOUTH ELEVATION



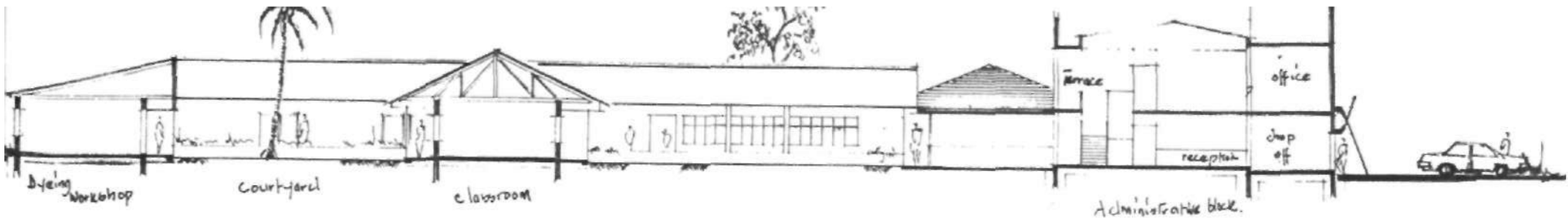


NORTH ELEVATION

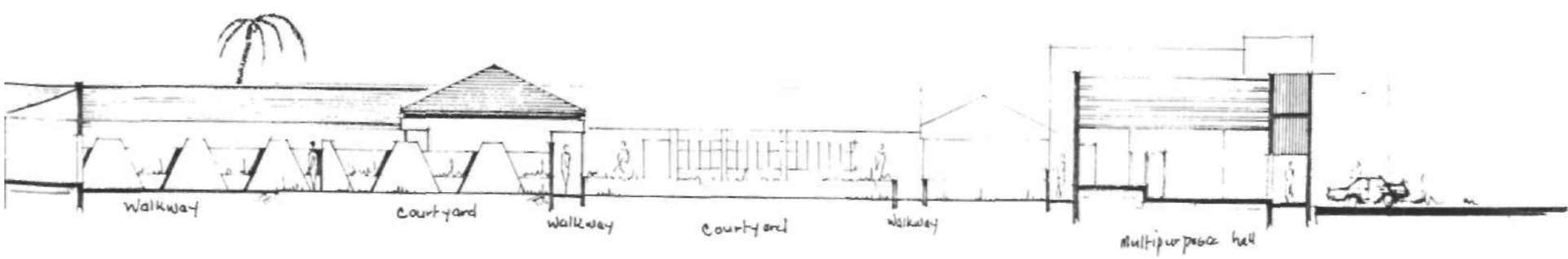


EAST ELEVATION

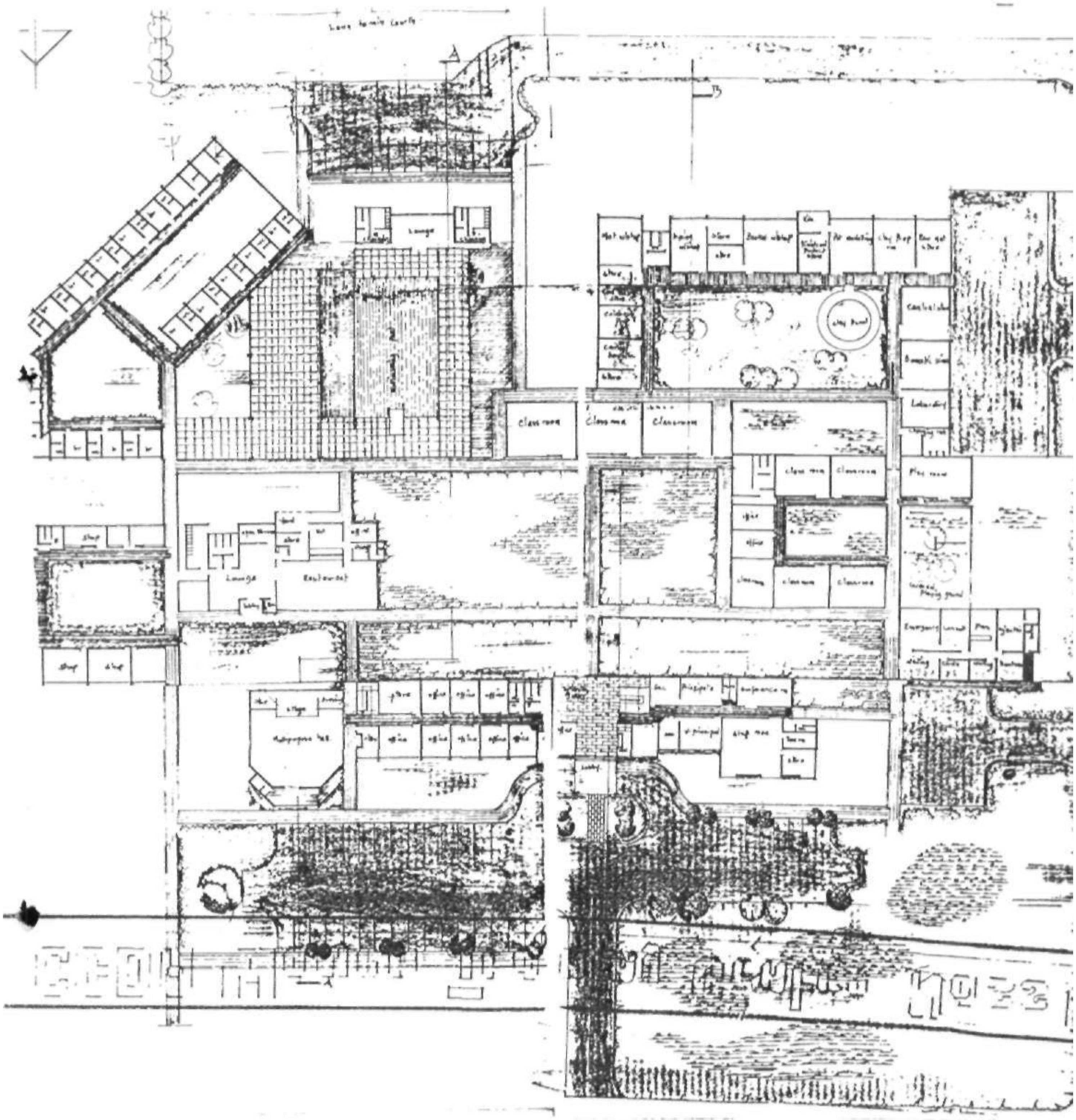
NAME: AUDU NATHAN
MENTOR: PROF. SCHNEIDERGER
M.Sc. THESIS '92



Section B-B



Section A-A


Lounge
Restaurant
shop
classroom
office

