TITLE PAGE

PSYCHIATRIC HOSPITAL FOR YOLA

A THESIS SUBMITTED TO THE DEPARTMENT OF ARCHITECTURE,
FACULTY OP ENVIRONMENTAL DESIGN, AHMADU BELLO UNIVERSITY,
ZARIA

IN PARTIAL FULFILLMENT OF THE DEGREE OF MASTERS OF
SCIENCE IN ARCHITECTURE

BY

SA'AD, R. T.

JULY, 1987

DECLARATION

I do here declare that this thesis entitled Psychiatric Hospital for Yola is a product of my own research work and has not been accepted in any previous application for the award of the degree of Master of Science in Architecture by Ahmadu Bello University.

All sources of information are adequately acknowledged by means of footnotes and references.

SA'AD, R. T.

Date.....

CERTIFICATION

This thesis entitled, Psychiatric Hospital for Yola by SA'AD R. T. 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 literaly presentation.

_____ Date_____

Chairman Supervisory Committee

_____ Date_____

Member, Supervisory Committee

_____ Date_____

Member, Supervisory Committee

_____ Date_____

Head of Department

_____ Date_____

Dean, Post Graduate School

DEDICATION

To my late Father Alhaji Sa'ad Maiha

May his Soul rest in perfect peace

(Amin)

ACKNOWLEDGEMENTS

This should have been the appropriate time and place to acknowledge all my well wishers and detractors alike for their various contributions during my six years of hectic academic period. Doing this will surely lead to writing another book.

Nevertheless I still wish to mention the names of those whose acknowledgement of appreciation is inevitable.

First and foremost my thanks and gratitudes go to Almighty God for everything. Special appreciations go to my Mentor Arc. Abdulkarim Masud for his intelligent supervision throughout the course of this thesis, and to the entire members of my Supervisory group without whose cooperations the success of this thesis would have been difficult.

To all the members of my family I can never thank them enough, May Allah reward them abondantly for their moral and financial support.with utmost sincerity I appreciate the sacrifice of my husband Dr. U. Ahmed and may his patience and endurance earn us a good life together (Amin).

A B S T R A C T

PSYCHIATRIC HOSPITAL FOR YOLA

"Let go off me, do you think I am mad, why did you bring me here among mad people ?, it is you who are mad" shouted a twenty year old secondary drop out when brought into the psychiatric ward in Yola General Hospital by his parents.

What a pathetic case, most insane people do not know there is something wrong with them. It's these people who need the help of the government and the community, but ironically, they are the most uncared for.

Drug addition, alcoholism, high crime rates, severe depression resulting from frustrations caused by the recent economic crisis in the country, has created catastrophic situations; the greatest of them is mental illness which is further perpectuated by the lunatic asylums we have in the country.

The functional organisation of these asylums and most existing psychiatric institutions were designed based oh the need to handle irresponsibility, danger and the need to isolate the mentally ill from the entire society.

The results of these conditions are inducement of a stereotype chronic behaviour, agitation and violence reciprocated by the staff in repressive action of equal violence.

In the light of these problems the research scope will cover an indepth study into:

- current concepts of psychiatric Illness and their therapies;
- the relationship between space and antisocial behaviour;
- the traditional and cultural perception of the mental illness;
- the effect of architectural design on the mentally ill;

Since mental illness is characterised by a disorganised personality the goal of this thesis is therefore to create a therapertic atmosphere interms of both architectural Forms and the environmental landscape of the immediate surroundings that will encourage the reorganisation of behaviour and restoration of a balanced personality.

Hence what we need is band of efforts by psychiatrist, psychotherapist, social scientists and architects towards improving the psychiatric care in the country since total dependence upon orthodox methods have become grossly inadequate.

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CHAPTER ONE

PSYCHIATRIC HOSPITAL FOR YOLA

THESIS WRITE - UP

INTRODUCTION

Surveys by rokhown researchers all over the world have shown - that, although the number of mental diseases have largely increased in the recent years. The endogenous diseases like mamic depression and schizophrenia have remained stable for over a hundred years. The diseases that have increased are the neuroses and non psychotic looses of adaptability whoses causes are mainly due to stresses from the Society.

Therefore, the prevailing economic crises in Nigeria leading to alcoholism, drug addition and joblessness can be seen as a number of precipitating factors for the alarming increase in the number of Psychiatric and neurotic cases in the past few years. The overwhelming number of insane people roaming all over Nigeria streets today is one evidence of this increase.

The conditions of our traditional Asylums and mental hospital all over the country shows that the insane population receives very little or no care from the government and the society as a whole.

The Asylums have been and is still regarded as a convenient place to get rid of inconvenient people. So their disign and functional organisations were based on the need to handled inresponsibility and dangers posed by the insane people. Most of the existing mental hospitals are housed in buildings converted from other uses like offices and

residential as the case in Maiduguri and Yola respectively.

"Mental illness is characterised by a disorganised personality and difficulty in having any meaningful relationship with people and things." [1] as P.F. Chanoit has put it. Hence the living conditions and means of treatment in the mental hospitals offered to these patients must encourage the reorganisation of their personalities. Therefore creating such a therapentic atmosphere in terms of both building structure and landscape which will enhance recovery processes is the goal of this thesis.

In as much as the main aim of the propose hospital is to restore the patients to a normal social life as soon as possible, stress must be laid on the necessity of having a small homelike and cheerful unit in a pleasant attractively furnished surroundings.

The world health organisation expert committee on mental health said of the atmosphere of the hospital in one of their reports; "The most important single factor in the efficacy of the treatment in a mental hospital appears to us to be an intangible element which can only be described as its atmosphere and in attempting to describe some of the influences which go to the creation of the atmosphere, it must be said at the outset that the more a psychiatic hospital limitate the general hospital, the less successful it will be in creating the atmosphere it needs. Too many psychiatric hospital give the impression of being an uneasy compromise between a general hospital and a prison. Where as in fact the role they have to play is different from either. It is that of a "Therapentic Community" while in itself one of the most important types of treatment which the hospital can provide." [2]

In order to understand fully this specialised branch of hospital design, the author undertook an intensive research on the following fields.

- The existing mental hospitals: Their problems and how they can be improved.
- Types and classification of mental illnesses and how they can be handled.
- relationship between behaviour and space.
- How Architecture can affect and modify behaviour
- The human psychological responses to the build environment (colours, landscape and scale)
- How to integrate the various components of the hospital so that they work in unison.

The author got information from both primary sources - (case studies and interview) and secondary sources. (textbooks, newspapers, magazine and thesis - write up).

The first part of this thesis gives the reader an insight into the major causes and types of psychiatric illnesses and how they are handled both in traditional and the modern ways.

The second part tells the reader briefly about the history of psychiaty and trends towards sheltering the mentally ill with particular reference to Nigeria.

The third part gives an account of some case studies of some mental hospitals in Nigeria and abroad.

The last part treats the design and site concept. Space analysis and the design concepts.

REFERENCES

1. P.F. Chanoit: Ekistics 296, script/Oct 1982
Effects of deign: The planning and organisation of psychiatric institutions in France

2. Expert Committee on mental health: (1959)
Social psychiatry and Community attitudes.

CHAPTER TWO

INTRODUCTION TO PSYCHIATRIC ILLNESSES

2.1 - A Brief history

2.2 - Causes

2.3 - Types and Classification

2.1 A Brief History

For thousands of years the supernatural make volent gods, demons, w witches, vampires, moon and even planets have been used to account for abnormal behaviours of the mentally disturbed, in many cultures of the world. Also, the theorey, of demonology which existed in ancient times suggested that mentally ill were possesed by demons and evil spirits and therefore evil in themselves. Hence their symptoms were often thought to be God's punishment over their evil deeds. These beliefs intensified the inhuman treatments administered to them.

The treatments of sufferers were often directed towards the casual factors (evil spirit) "The following procedures were the common treatment methods used from ancient times through the middle ages"[1].

1 - primitive psycho - surgery - for - example trephening - this involved boring of a hole on the skull to let out the evil spirit from the brain of the sufferer.

2 - Expulsion of evil spirit from the possessed by physical means - beatings, bleeding, exposing the sufferer to foul odours and noises were some examples.

3 - Transfering the spirit into the body of another creature. In most cases into the witch doctor or an animal.

4 - Exorcizing the spirit through psychic means - incantation, tricks, magic or prayers were perfomed by or under the direct supervision of the witch doctor or priest.

After the middle ages, two new methods of handling mental illness emerged - The lunatic asylum and the physical treatments methods. Both methods were inhuman.

The lunatic asylum

The asylums in the ancient time, were to be convenient place to get rid of inconvenient people.

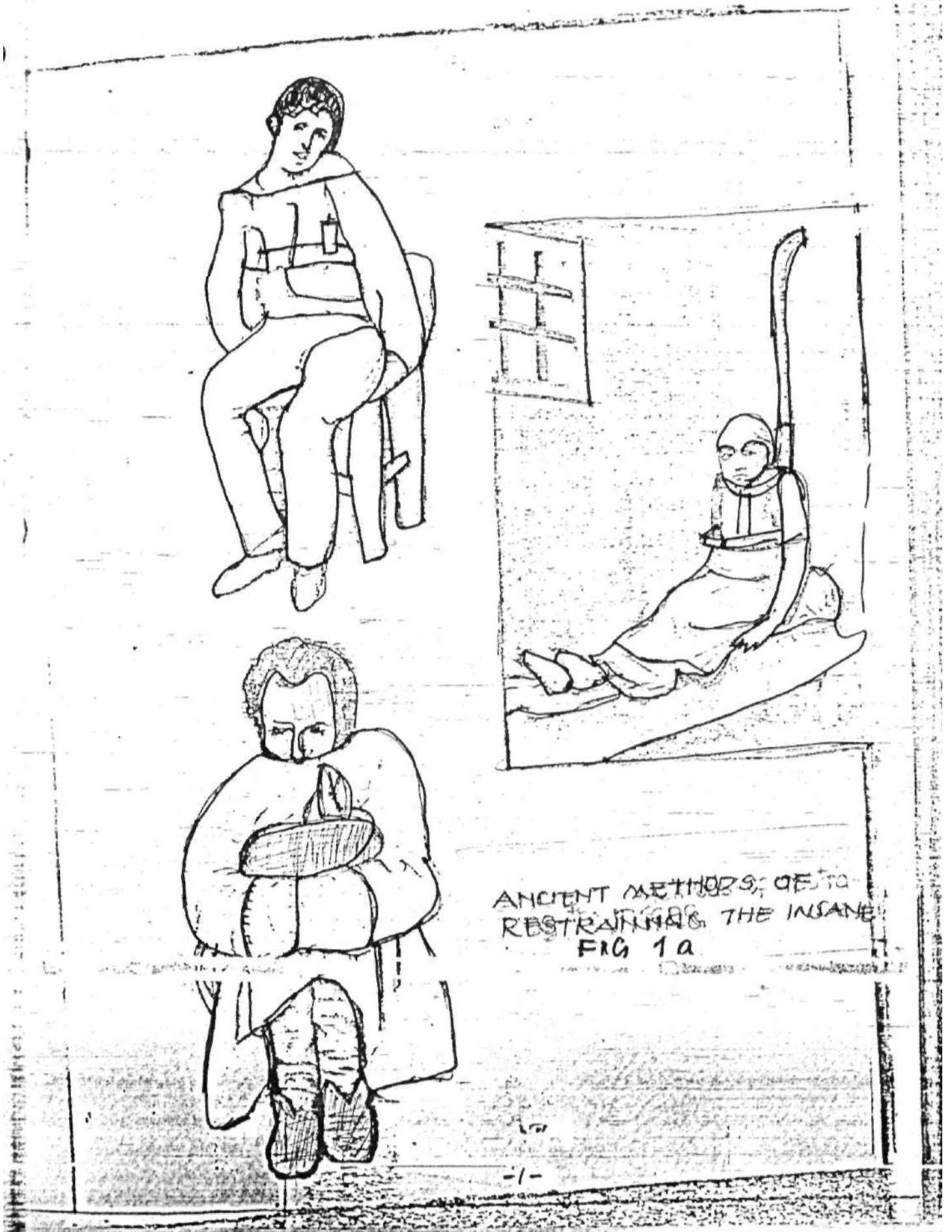
The therapentic procedures in most of the early asylum included chaining hands and ancles, beating, swinging bleeding isolation and public ridicle. (See Fig....1a.b....) bledding was the most rampant practice.

Psychological therapies which came up on a reaction to the inhuman treatment methods involves removal of physical restrain from hospitalised patient, and showing them some degree of kindness.

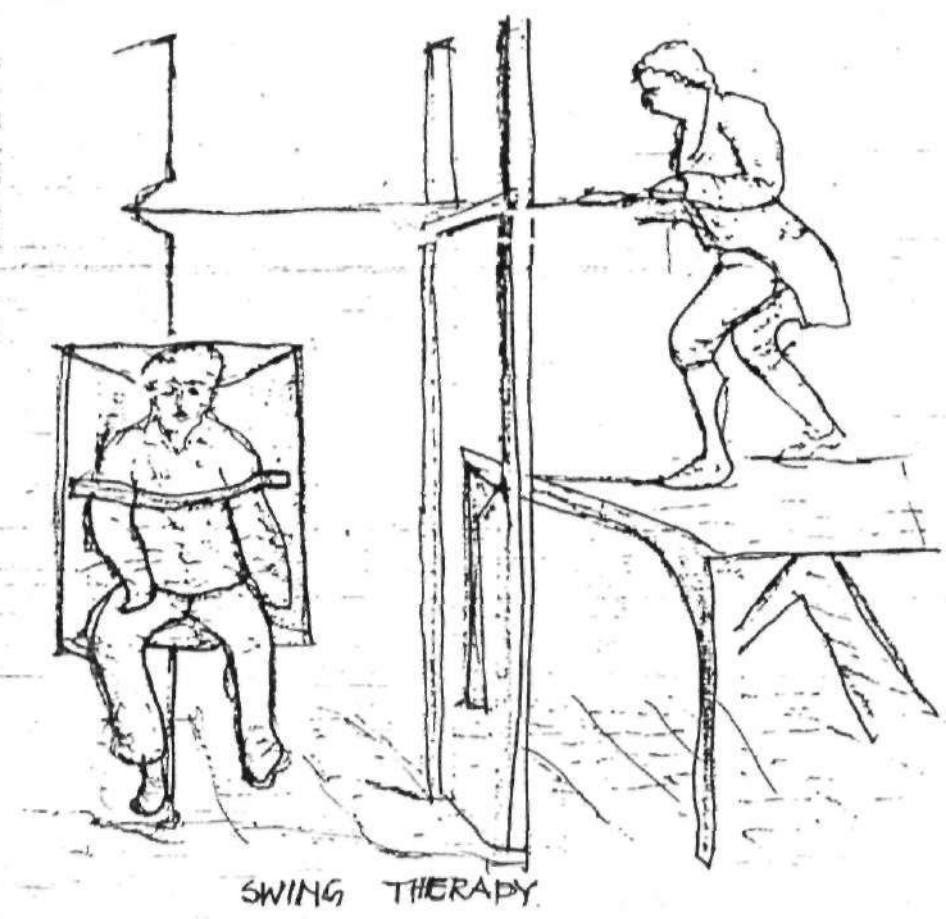
In modern day Psychiatry, mental illness is perceived as a medical problem and hence a natural one. Psychiatrists who are in support of this medical model, advocate for the building of hospital, hospitalisation of patients, training of psychiatrist and auxilliary staff and in effect the use of the highest technology indiagnising and treatment of mental patients.

1.2 CAUSES OF PSYCHIATRIC ILLNESSES

Organic brain damage through accident or at birth may cause epilepsy or mental retardation. This can be detected physically. But sometimes people became abnormally without any physical reason that can be seen. There casual factors are most appropriately classified into :-



ANCIENT METHODS OF TO
RESTRAINING THE INSANE
FIG 1a



M[illegible] methods were used [illegible] mentally distressed peo[illegible] one can well imagine that after an experience in the c[illegible] swing pictured here, peo[illegible] ple might rather quickly st[illegible] cooperative in the ways that had led them to be given such "treat[illegible] ment". [illegible] seems quite [illegible] likely that this system made people [illegible] better or cured them.

As you can see, the "chair" was perhaps an even more barbarous means of restraining people whose behavior was violent than the straitjacket was. Despite the reforms begun in mental institutions at the instigation of Dorothea D[illegible] and others, this method of managing "mental patients" was apparently in use as late as 1882.

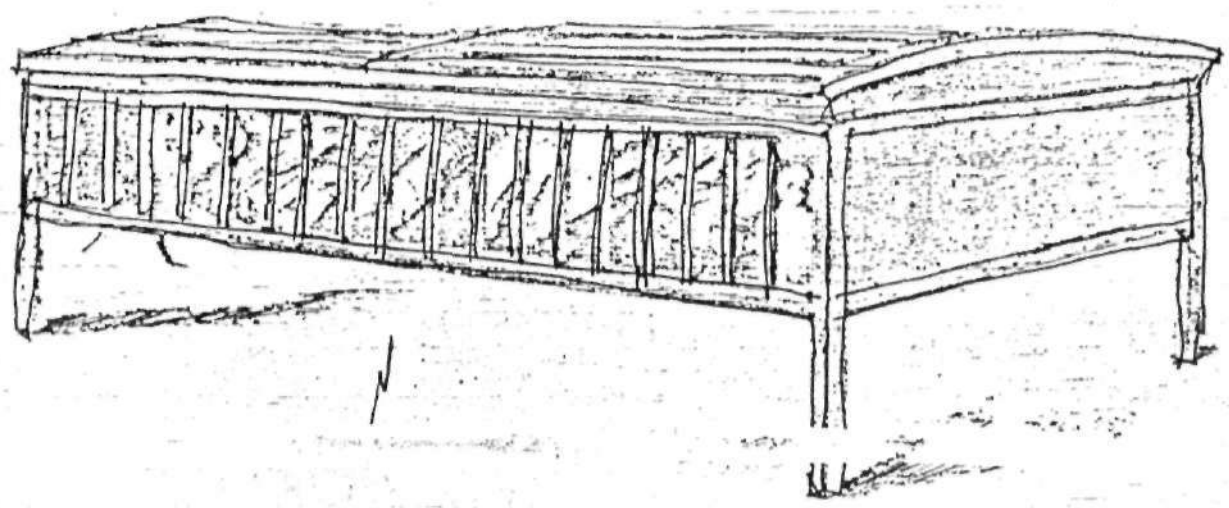


FIG. 1b.

- Predisposing causal factors
- Precipitating causal factors
- Maintaining factors

1 - Predisposing Factors

There are events or conditions that occur long before any abnormal behaviour is noticed and yet predisposes the viction to later difficulty in life. Predisposing factors can take any of the following forms.

a. - Genetic code - means heriditry.

Experiments have shown that both physical trants and behavioural tendences are passed on. for instance a study with mono-zygor twins showed that schizophrenia has a high concordance ratio for identical twins even if they are reared apart. Also Schizophrenia is more common among families with Schizophrenia historical background.

2 - Injuries to the brain sustained at birth or during pregnancy can predispose a child to mental retandation.

1 - Also all instances of cerebral damage due to some tonic substance either taken by a pregnant or breast feeding mother.

11 - Precipitating causal factors

These are factors which as is a trigger for mental disorders[3]. A precipitating like event may be a sudden loss of a beloved one, a failure in ones life a disaster or a sudden physiological changes. The ingestion of LSD for instance cane precipitate severe reactions in some individuals who are predispose to act in that manner.

iii - Maintaining Causal factors

They serve to reinforce abnormal behaviour and maintain it overtime. for instance poor conditions in a mental hospital could maintain a persons withdrawal and depression for along time.[4]

1.3 CLASSIFICATION OF ILLNESSES

Psychiatric illnesses can broadly be classified into the following groups.

1 - Neuroses
2 - Psychoses
3 - Abnormal personality
4 - Mental retandation
5. - Alcoholism and drug addiction

NEUROSES

Neuroses is a mild form of abnormality a neurotic patients may be abnormal only at certain areas of his life and perfectly normal in others.[5] He often known his trouble and contributes to his treatment. The ceimer of neuroses are wildly environmental - mostly due to stress and strain of life. It can take any of the following forms.

1 - Anxiety - Means a feeling of tear or aprehension accompained by an automatic disturbances (The mine) an anxiety state may creat acute stages of physical inpairement.

2 - Hyperchondria - This is an excesstive worry that one has a disease, even though he may not have any. The imaginary hyperchondriac illness does not fit the discription of any known illness.

3 - Hysteria - This is state caused by a sudden loss of function without any organic damage, usually an a result of stress in a suscentible person or overwhelming fear in a normal person. For example a soldier at the war front may suddenly go blind for sea of being shot.

4 - Phobia This is an irrational fear of something that substitute for a true or hidden example are.

- Hydrophobia - fear of water
- agorophobia - fear of depth
- clausrophobia - fear of closed spaces
- zoophobia - fear of animals

5 - Depression - A prolonged cause of grieve and low spirit
The sufferer is persistently plaugned by fellings of discouragement, failure and interiority.

PSYCHOSES

The psychotic represent an entirely a different picture. Whereas the neurotic is difficult and incapacitated only insome respect, the psychotic represent a human wastage on a large scale. (ibe mino)

The psychotic's world is usually different from the one normal people know. "It is a world of hallumination, decusions, gable speobhes and exxergerated emotional states. There are two forms of psychotis - schizophreinc and manic depression"[1]

1 - Schizophrenia - means fragmentation of personality. A schizophrenic makes disconnected services speeches and he finds it different to concentral on one mine of thoughts. a Schizophrenia can have simple, hebephrenia catatonia or paranoid.
Most schizophrenics are hospitalised.

2 - Manic depression - This may not always involve decusions and hallucinations. Attacks are rythmic, although one attach may last for several months. A manic depressed may become delirious and isolates himself because of his feelings of dejection and discouragement.

ABNORMAL PERSONALITY

According to James Willis, each individual is said to lie somewhere along the curve of normal distribution. The group of individuals who deviate from the average are said to be abnormal. The abnormality of such

people show in their antisonal acts and social inadequacy. eg. the psychopaths.

Psychopaths - There are a group of abnormal personalities that suffer from their abnormalicy and came the society to suffer. They have no feeling of right or wrong are not bothered by the consequences of the deeds.

Their unconcered readiness to kill, steal or cheat is a grave threat to their society. Many arm rubbers and murders fall into this category.

ALCOHOLISM AND GRUG ADDICTION

Chronic Alcoholism is a state when an individual becomes dependent on alcohol to an extend that it interfers with his physical and psychological health and inpairs with his profession and social abilities.

Some physical complication of alcoholism are gastitritis, diarrhoea hepatitis cirrhosis, liner failure etc.

Psychological complication include alcoholic Hallucinosis, anditory delirium trements (restlessness) and Alcoholic simentia.

Both drug addiction and drug habituation involve replated consumption of natural or synthemic drugs. Addiction however is characterised by another. Powering desire to continue taking the drugs. Whereas in habituation there is a desire but not compulsion to continue with the drug.

Drug addiction can occur at any age but is more common among teenages and adolescent. This may be related to the fact that youths like to seek for adventures fun and exitements which the drugs provide.[2] Examples of such drugs include:- cocaine heroin, marijuana Barbiturates, morphare etc.

MENTAL RETARDATION

Mental retardation is as old as the other catygories of mental illness The history of children who have been unable to learn even the simplest of the everyday concepts like bathing and dressing have been read in books by early writers.

Mental retardation originates early inlife, during the developmental period, it involve subnormal intelligence and social inadeguacy. It also involves hypothesized organic causes and in most cases incurable. So the purpose of homes and hospitals for mentally retarded is not so much to enable patient return to normal society but to be able to help them develope some basic concept of living. Mental handicap is also associated with physical disability and somes with behaviour distrubances.

REFERENCES

1. James C. Coleman: Abnormal behaviour and mental mental life.
2. Richard H. Price: Abnormal behaviour Respective inconflicts.
3. Ibid
4. Ibid
5. John R. Wilson: The mine
6. John R. Wilson: The mine.

CHAPTER THREE

METHODS OF TREATING/MANAGING PSYCHIATRIC PATIENTS

The treatment of mental patients include a wide range of Asidual Psychological and sociological prodedures.

In Nigeria today three systems of treatments are identified by researchers.

3.1 - Religious methods
3.2 - Traditional methods
3.3 - Modern medical methods

3.1 RELIGIOUS METHODS

Most Nigerian religions regard insanity as an act of punishment or possession by evil spirit. Treatment is usually directed towards the supernatural being (evil spirit) inside the human body. The most common types of religious healers are.

a. - The muslim mallams - They use passages from the Quoran written on a slate and washed with water and handed to the patients to drink. Others paform treatments by praying and reciting verses from the Holy Quoran calling on the Almighty God to remove the evil spirit which is believed to have taken control of the patient tampering with his way of life.

b. - Second group are the Christians pastors. Some African Christian Churches like the Aladura have many sects which belief in healing the mental patients by praying

c. - Traditional religions leaders - There take their patients to the shrines call on their idols, by reciting some incantations which are only meaningful to them.

The most common places of religions treatments practices are the churches, shrines and homes.

3.2 TRADITIONAL METHODS

Two types of traditional healers are in practice today in Nigeria.

1 - The spiritual healer - They use supernatural powers to heal.

Examples of such healers are the Babalawo of Yorubaland, the Ogweba of Idoma and the Gboka of Hausaland.
During their treatment operations they talk to people who are not seen by patient or observer and pretend to hear answers from them (unseen people) the incantation they recite and the names they call are odd and strange to the observer. They belief that the only way to cure a mental patient is to call on the particular evil spirit in possession of the patient and reach an agreement on how much should be given to him by the patient. The evil spirit says the amount or quantity of what he wants and promises to go act as soon as they are fulfilled. The witch doctor is the only communicator with the evil spirit.

ii - The herbalist - There group of traditional healer use herbs and speically prepared concoctions for the treatments of their patients.
The traditional healers have played and are still playing a vital role in the treatment of the psychiatric patients in Nigeria. If nothing eve, many communities in Nigeria have confidence in them, and this is an important factor in the treatment of mental illness. Their is a general belief that man's conception of what caused his predicament determines his response to the problem, and many still belief in the traditional model.

A trial though not very successful one has been made to make psychiatrist and traditional healers work in colaboration at a psychiatric research institute in Aro village - Abeokuta established under ~~Pwttest~~ Professor A. Lambo.

According to Professor Lambo through their long practice of psychiaty in Africa, they discovered that understanding the African patient in his social environment it is essential to work in close collaboration with other displines.

'My sudenore collegue Dr. Tijani and I have for a number of year make use of the services of African traditional healers whom we have specially chosen to help us in social psychiatry"[1] ~~were the~~

3.3 MODERN ORTHODOX METHODS[2]

Treatment methods of psychiatric illnesses in the modern concept are those measures used to influence the patients mental state and to assist him in his rehabilitation and return to community. The measures vary depending on the condition of the patients some measures are more useful in handling psychotics eg physical others more useful in rehabilitation e.g occupational therapy.

A Psychological

- Psychotherapy - behaviour therapy	used to deal with individual's symptoms, illness and personality.

B Physical

- Pharmacotherapy agents. like - sedatives - tranquilizers - antidepresents	used in acute psychotics depressive illness and maintenance treatment of chronic illness

C Occupational

- Occupationa therapy	used to divert, stimulate, entertain and encourage the patient activity and interest.
- Industrial therapy	Plays an important role in rehabilitation by giving the chance to work and earn in a sheltered environment.

A. PSYCHOLOGICAL METHODS

- Psychotherapy - treatment of personality maladjustment by psychological means

1. Individual psychotherapy - In this therapy the therapist treats the patient along and success of this treatment will depend mainly on the relationship between him and the patient.

2. Group therapy - Here the therapist handles many patients in a group. So the success of the therapy will depend on the relationship between each patient and the other members of the group as on t to the therapist.

3 Behaviour therapy - This therapentic process seeks to eradicate the maladaptive response by a process of desensitization.

4 Abreaction - In this therapy, a patient relates an important past experience which has contributed significantly to the development of his illness. It can be induced by hypnoses or injecting the patient with sodium cimytal.

5. Psychoanalysis - This word is used in two different ways - first a process psychotherapy - second as a theory founded by analytic psychotherapy is one of the most important psychotherapy. Here the analyst seeks to explore and modify the personality structure of the patient by intensive and prolonged exploration of this unconcious mental life.

B. PHYSICAL METHODS

This method utilizes the modern pharmacotherapentic drugs and electrical means in diagnoses treatment of the psychatric patients. The drugs used in various groups

1. Tranquilizers

There are "drugs which alter behaviour without imposing conciousness examples of these drugs are

(a) Chropromazine belonging to the (phenothiazine group) is used to calm psychotic exitement whether organic effective or Schizophrenic in origin.
It is also widely used in maintenance treatments of Chromic psychotic patients. Chlopromazine (largactic) also potentiats the action of barbiturates, alcohol and nacotic drugs.

(b) promazine (spatine) – another example of a phenothiazine

(c) Thioridazine (melleril) has a similar action with Chlopromazine

(d) Trifluoperazine (Stelazine) – belongs to the Chlorperazine series and is widely used in the treatment of acute and Chronic Schizophrenic

2. Anti depressants drugs

There are drugs used in the treatment of depression. May fall in two main groups.

(a) Tricychic agents of imipramine

(b) Monoamine oxidase inhibitors (MA OIS) eg tranylcy promine (Parnak), phenelzine (Nardi), llocarbovazid etc.

3. Anxiolytics

Drugs used in the treatments of anxiety examples are diazepan (valion) chlordiazepoxide (librium) and lithimm carbonate.

4. Adjuncts to treatments

There are usually complementory to the drugs therapy. They include

a. Vitamins of the group B used in treating dehrimad temas

b. Insulim as an appetizer and in anxiety stated.

5. Electroconvulsive Therapy (ECT)

This is a form of "shocks" treatment by electrical means. That aid the patient to attain a certain behaviour. It is a modification of the older days shouc therapy performed by sudden inversion of the patient or swinging him to and fro in a suspended cage. See Fig ...16.. ECT was first used in 1938 by Celettri and Bini since then it has

been found very useful in the treatment of depression and some form of schizophrenia eg acute schizophrenic episodes and schizo-affective illnesses.

A typical ECT machine gives a 100v discharge per one second.

See Plates

This induces instant loss of consciousness followed by convulsion. Nowadays, it is usual to give modified ECT by using intarvenous anaesthesia with a muscule. Relevant to (Breridis) to prevent injury by violent muscular contractions.

Recovery period is not more than 10 minutes and disconfort is very minimal. Treatment is given twice a week and the patient is assessed between the periods.

The harzards of ECT include injury, to tongues teeth and bones.

6. Leucotomy

Surgical operations on the brain aimed at the relief of persistent tension especially in depressive, states, obsessional disorder and chronic schizophrenis. This is achieved by dividing the frontal lobes and the thalamur. This has become very on popular since the advent of tranqilizers.

C OCCUPATIONAL METHODS

1 - Occupational therapy - for many years it has been realised that work can be a source of diversion to the disturbed patient. Nowadays there are a wide range of activities like art and craft work which are used to calm anxious patient and revive interest in the depressives. Occupational therapy is also a part of rehabitation for the patient helping to acquire some skills before going back to his community.

2 - Industrial therapy - This an attempt to provide the patient a working day a wage and prospect of working outside the hospital. It provides sheltered working environment for chronic patient where he can learn new skills and gain confidence in his ability. These patients need encouragement, careful assessment and supervision during this therapy. The following staff are responsible in this scheme.

- Doctors
- Nursies with special training
- Social workers
- Psychologist
- disablement resettlement officer

SOCIAL MEASURES

These are basically the work of social workers. They investigate and find out some possible social factor in the community that might have contributed to a patients mental state. Some of their works includes

a. Collection of data
d. Highlighting of areas of social relevance in the patients life situation
c. direct consulting abond concrete social problem such as finance housing etc.
d. Social case work: This is a therapentic technique in which the P.S.W helps the patient to handle his problem and relate them to his social situation.
e. helping a patient to get psychiatric advice
f. prohylaxis of psychiatric disorder
g. group discussion with sponses of patients who have a common problem eg (alcoholics wieres)
h. After care and follow up.

SHELTER AND ENVIRONMENTAL MILIEU

Over the past 150 years, there has been a remarkable changing trends in how to shelter and manage the mentally ill. In the early years when mental illness was refered to as lunacy, madness, and insanity, Webster defined their shelter as "a refuge or defence: a means or place of protection in an area of safety"[3] synonymous terms are cover, madhouse retreat a sanctuary. A patient who got into any of these houses never saw outside its walls until he was death, his corpse was removed.

In the late 19th and early 20th century when people began to accept mental illness as a natural one, more humane mental hospitals were put up, by governments and communities - where patients were kept and treated by specialists. Such institutions are asylums and mental hospital. The persistent primitive restraining methods and totality of the hospital set up had some negative effects on the inmates - for example some developed an "institutional syndrom" - which made them unable to adjust back in the community even after discharge. This may be due to

- Closed up space organisation of hospital
- Absence of rehabilitative and recreational facilities in the hospital.

During the past twenty years, when people began to accept that environmental milieu as a therapeutic tool in the psychiatric patients treatments, psychiatrist came up with a "Therapeutic Community Concept" for the design organisation and management of psychiatric hospitals.

THERAPEUTIC COMMUNITY CONCEPT

This is the most modern concept in psychiatric hospital design and patients management. This conert "implies that every single aspect of the hospital structure and function and the attitudes and behaviour of each one of the staff members, shall be regarded as having a potentially therapeutic effect on the patients under care".[3]

Some of the therapentic characters of the hospital should be as follows:

a. The location of the hospital - should be within or very close to the community it serves. This help patients have sense of belonging to his community.

b. The hospital structure should be small and domestic in scale - This makes the patients feel at home rather than in an institution for mad people.

c. The plane of hospital should be free and open, to give patients chance of admiring the beauty of his environment.

d. provision should be made in the hospital for patients recreational and rehabilitative facilities - games and occupational therapy.

Finally "The size of the hospital should be big enough to permit subs dividions and small enough to prevent fragmentation and break up of relationships within it".[4]

REFERENCES

1. Maurice King: Medical Case in Developing Countries

2. James Willis: Lecture notes on Psychiatry

3. Maddinson and Leabeater: Psychiatric Nursing

4. P. F. Chanoit: Effects of design: Planning and organise of Psychiatic institutions in France. Ekistics 296 Sept/Oct 1982.

CHAPTER FOUR

HUMAN PSYCHOLOGICAL RESPONSES TO THE BUILT-UP ENVIRONMENT

4.10 ENVIRONMENTAL PERCEPTION AND BEHAVIOUR

4.11 LANDSCAPE

4.12 AESTHETICS

4.13 ARCHITECTURAL SPACES AND FORMS

4.2 THE EFFECTS OF COLOURS ON THE HUMAN

4.3 THE EFFECTS OF SIZE AND SCALE OF BUILDINGS

ENVIRONMENTAL PERCEPTION AND BEHAVIOUR

"Behaviour results from the interaction of individuals (The social environment) and with the surrounding (physical environment")[1] Therefore a design must understand how individuals perceive the designed environment and how they react to certain situation both physically and socially.

"Experiments show that variations of physical environment stimulation is necessary for normal orientation and mental balance in human beings."[1]

Human responses and adaptability to certain environmental conditions can result in specific behaviours. This is demonstrated by the fact that furniture arrangements in a room influences social interaction.

Some Architectural Planning concepts can be alien to man, for example in an open plan where there is no privacy or in a high rise building where there is no contact with the ground.

The judgement, here are in terms of probable mental stress and discomfort to which such environments may contribute.

LANDSCAPE

Various types of landscapes may also result in specific behavioural response.

The configuration of the landscape and the development of sequence of changing views and experiences including the introduction of allegorial and mythological aclusions in the form of statuary tempts, grottoes and other buildings, was intended to amusement sorrow, beauty tear ame in sequence not all at one.[2]

Trees in the environment is perceived by different people in different ways for instance, 10 a teenager a tree near his house is just an avenue to provide pleasant shade and a place to hang out with friends. An adult on the other hand views the tree as pleasang neighbourhood and agreed quality of the environment. Older people will see it as an unpleasant falling object and wish it to be cut. A schizophrenic who has made a frind of this tree in an anthropomophic way will respond appropiately to this event.

AESTHETIC SATISFACTION

"The requirements for Aesthetic satisfaction of a man are the requirements of his visual perceptions raised to a higher degree"[3] The most essential thing in visual perception is to have a pattern which contains the unexpected.

There are two neurophysical principles involved in man's grasp and enjoyment of the world; the principle of response to novelty, change and stimulation, and the principle of response to repetition or pattern.

It was suggested that a major aspect feeling pleasures in aesthetic satisfaction is related to the brainm selecting patterns and novelties within it.

"Aesthetic satisfaction can therefore be regarded as visual beauty either on a flux in which we can find a pattern or a pattern in which there are fluctuations"[4]

A brick wall with its repetition of similar units for instance, forms, a pattern. Changes and fluctuations may occur at various scales. At the scale of bricks, the texture may vary at the scale of the wall, the window becomes the dluctuation.

ARCHITECTURAL SPACES AND FORMS

Architectural spaces constitute a major element in the psychological environment. There is a continueus reaction by an individual to certain phenominon he is exposed to like; open and close spaces, light and darkness, colour. Such reactions should be studied and interpreted by architects before planning any particular environment the reactions however may vary from person to person.

CLOSED SPACES

What happens when a human being is isolated from right sounds and sights?[5]

An experiment was carried out in 1951 in united state with fifty five volunteers mostly students;-

They were placed in a solitary confinement in dark rooms for four days. They thought, slept and got bored. Some had hallucinations.

Yet during and after confinement showed that sensory deprivation alters perception invarious ways.

(a) Time instead of seening long is telecoped
(b) Subjects becomes more sentitive to pain
(c) Hallucinations become more frequent as confinement is prolonged
(d) Shapes and figures seemed distorted to the volunteers after the confinement

Open spaces on the other hand have possitive effect on the human. It helps him in visual orientation and appreciation of the natural environment.

The Architectural disposition of building on the site therefore has a considerable importance in planning a psychiatric hospital. It is possible by placing the building in careful relationship to each other to create a variety of spaces, some large some small, some open others enclosed. If this is done imaginatively by the architect, it can help in re-educating the patient to understanding space.

The precur arrange vary from country to country and from tradition to tradition in some country. For example in the further part of this country the traditional courtyard systems of analysing building on the site will be more useful since it's the kind patients are familiar with.

The form or structure of buildings can be designed to handled a predetermined emotional or psychological response as follows.

a. Tension - unstable forms, split composition clash of colours, visual imbalance

b. Relaxation - Simplicity, fitness, familiar objects and materials evident structural stability

c. Fright - no points of orientation, illogical and unstable forms, unprotected voids.

d. Gaiety - Free spaces smooth flowing forms and pattern

e. Pyramic action bord forms heavy structural forms and rough natural texture on solid heavy materials.

f. Seasons lore Complete privacy inward orientation of rooms, low ceilings and walls soft simple forms.

THE EFFECTS OF COLOURS

Most colours have strong emotional and psychological effects on human beings.

a. Blue - Reduces exitability and help one to concentrate. It is both cooling and sedating (But too much of it produces amalancholic effect).

b. Green - is also sedating.

c. Yellow - As we can see from the sunlight - is cheery, stimulating, and attention drawing. It is the most luminous colour. for instance on dull days when the sunlight is absent, most people exhibit mental and psychological suggishness and general lack of enthusiasm for their work. When sun appears, they become more active again. Yello is also attention demanding, so can be used on dangerous location to warn people. e.g at the edge of a subway platform to mark the hazard.

d. Red - It excites and stimulates the brain red comes in varying shades.

Medium red - suggests health and vatality Bright red often has agressive quality and is frequently adoneted with wideness and excitement.

e. Purple - is sedating and soothing

f. Orange - has astimulating effects, should therefore be used in small amount e.g occupance of an orange office become ill at east after some time and would look for slightest opportunity to go out.

g. Brown - Though restful can be depressing when used alone. should be used along with Yellow or Orange

h. Grey - is cold, but can also be depressing when used alone.

"Generally speaking people prefer either warm or cool colours. Personal preference depents on such factors on familiary with various colours and colour schemes and emotional connotations, concious or unconcious that they have for an individual"[6]

Colours can be used functionally, to draw attention to something or to minimise its importance e.g. on walls or to express architectural forms. Colours on buildings are applied to walls, ceilings and floors.

USE OF COLOURS IN THE HOSPITALS

Colours are used in both exteriors and interiors of most institutions like hospitals, nursing homes and mental health centres to provide the most favourable environmental for patients, visitors and staff. The aim according to Halse is to provide an atmostphere that is friendly and inviting.

WARDS - Pastel colours are mostly more desirable in the interior of wards although older patients may prefer more saturated colours.

SIZE AND SCALE OF BUILDING

Scale is an elusive term. It is used to refer to, human scale, inhuman scale, small scale, large scale, grand scale, institutional scale etc. The latter is what the author is concerned with. The scale of a building relative to its users may have either possitive or negative effect on them. The scale will largely depend on the use of the particular building for instance the same users who find the grandeur size of this church pleasing might find their high rise residences depressing.

It also depends on the mental state of the user. While a normal mine may find grandeur building desirable, the sick mine finds it repelling

Many evaluation studies have shown that soft domestic - like hospitals have more therapentic values than the grandeur institutions - especially where the mine is sick need readjusting.

REFERENCES

1. MICHAEL LAURIE: An Introduction to Landscape Design.
2. Ibid
3. Ibid
4. Ibid
5. JOHN ROLAN WILSON: The Mine
6. ALBERT HALSE: The Use of Colours in the Interiors
7. P. F. HANOIT: Effects of Design – The Planning and Organisation of Psychatric Institutions in France (Ekistics 296 Sept./Oct 1982)

CHAPTER FIVE

PSYCHIATRIC CARE IN NIGERIA

5.1 HISTORICAL DEVELOPMENT OF SERVICES

5.2 PRESENT CONDITION

5.3 PSYCHIATRIC SERVICES IN YOLA

INTRODUCTION

In every nation, whatever the level of development it is expected that health care is considered the right of every individual. In Nigeria today health care of any form at all has become more or less a proviledge Efforts have been made by the government to built General and Teaching hospital all over the country. But in most of them, psychiatric services are either absent or grossly inadequate. However it is in the government health policy to built an autonomous psychiatric hospital in every state capital throughout the country.

DEVELOPMENT OF PSYCHIATRIC SERVICES

Before the second world war most psychotic patient were kept under custodial care all over Europe. This practice was tranfered to their colonies. In Nigeria prison cells were used as an equivalence of the Royal Bethlehem hospital in London. Such patients were either locked up in prison or prison based Asylums all over the country.

"Criminal lunatics and some lulley vangrants psychotic were the inmates of such prison based Asylums".[1]

Doctors from the general hospitals used to visit them monthly, but since there were no nurses to look after there patient, nothing much was

achieved. The only achievement was that patients were protected from the public harassment.

With the advent of psychopharmacological drugs and phenothiazines in the early 50s, things begin to change. Inmates of the Asylums could then be taken to nearest hospitals for treatment with the newly arrived drugs. There were some improvements. At this juncture, the ministry of health brought in some experienced expatriate doctors to take over the services. For instance one doctor who had alot of experience in most British Asylum was brought in to man all the Asylum in northern Nigeria.[2]

This attempt did not succeed, because at that time psychiatric Nursing was still alien to this country and doctors found it very difficult to practice without nurses.

Modern psychiaty started in the west with professor Adeoye Lambo (Deputy Director World Health Organisation) in the early 50s. The Aro Mental Hospital in Abeokuta was opened in 1958 under him. It was built by the world health organisation to study mental illnesses in Africa, south of the Sahara.[2]

Up North, modern psychiaty started about seven years later (1961) with the new nucleus under ABUTH in Zaria. The unit was started with 8 beds for both males and females under Dr. Oshodi who had earlier worked with Professor Lambo at Aro.

The dramatic improvement of patients who were regarded as hopeless cases soon spread all over north thus attracting patients. By 1966 the unit was moved to Kaduna to occupy the space for the former general hospital which had been moved to a new site.

Soon the government realised the importance of modern psychiatry and hence established psychiatric units and hospitals in most general hospital all over the country. Such examples are - psychiatric hospital Kakuri Kd Kaduna; psychiatric hospital goron dutse, psychiatric hospital Isholu etc. Presently there about 11 psychiatric institutions all over the country. However, this does not put an end to the traditional Asylum case.

PRESENT CONDITION

Presently there are about 111 psychiatric institutions all over the country.

These are grossly in adequate interms of medical personnel, modern technology and bed space.

The total psychiatric beds in these hospitals are far below requirements. The world health organisations after a through study and survey of developing countries including Nigeria made the following recommendation of bed spaces required.

a. 1 bed for every 1000 of population in urban areas.[3]

b. 1 bed for every 10,000 of the population in the rural areas.[3]

By 1975, a survey conducted in Nigeria showed a total psychiatric beds of 2,800 constituting of 0.05 beds per 1000 (Boroffka 1975)[5]. Hence the inadequacy of these facilities has made it impossible to stop the traditional Asylum case, even though the services are now restricted to only acute cases.

The iceficiency of these hospitals also lies greatly on their entire planning and organisation of the hospital. Most of them are either improperly designed or conversions of other buildings for modern psychiatric services to succeed in this country, there must also be proper public enlightment. Most traditions in Nigeria still belief mental illness is cause by evil spirit and can only be cured by the removal of

the spirit which the doctor is not capable of doing.[4] So they prefer dealing with witch doctors who can "communicate" with the spirit.

PSYCHIATRIC SERVICES IN YOLA

Before 1979, the only form of psychiatric case in Gongola were traditional medicine and Asylum custodial case. By 1980 the present psychiatric unit in the general hospital was established. It is a unit of 29 beds for both males and females.

TRADITIONAL PRACTICE

The traditional practioners are either herbalists or witch doctors. Some set up their home and admit patients for treatment, others go about from one place to another dispensing their services along. The author visited a traditional psychiatric home belonging to a lady witch doctor which had over 100 patients.

Whatever form of traditional practice takes, it is usually crude and secretive. There is no standardisation of dosages and no documentations of diagnoses and treatments procedures.

THE HOSPITAL METHODS - ASYLUM

The Yola lunatic asylum is as old as the town itself. It is in Yola town next to the prison. Presently it is being used to keep chronic and violent cases. It comprises a bunch of cell-like cubicles inside which patients are chained to a heavy rod. The chains is long enough to allow minimal movements to pass bowel or receive food through the small opening over the door. The cells are enclused within a high wall.

The Asylum is visited by a doctor every week to see the patients and give drugs. The progress of there patients are usually very slow because there are no nurses to see that they take their drugs as prescribed. The Asylums is under the supervision of warders and some prisoners who are almost due for release.

When they see any improvement on a patient, he is taken out from the cell to an open corridor and chained to the poll. If improvement continues he is allowed to go on small erands under supervisions from time to time. Finally when remarkable improvement is shown by the patient, he is released to the streets.

No follow up no medical check so the sickness can relapse and he is back to sequare one.

THE GENERAL HOSPITAL PSYCHIATRIC UNIT

The existing psychiatric unit in Yola General Hospital was established in 1979. It is a unit of all beat with an average capacity of 20 - 30 out patient attendance daily. The unit has the following problems

1 - It lacks sufficient medical personal cope with the increasing number of patients coming to the hospital denty.

2 - Inadequate number of beds to cater for all patients requiring admission.

3 - Inadequate diagnostic and therapartic facilities.

4 - Lack of security. The unit is located infront of the hospital the central Focal point of the public.

See -table 1

Below you find a statistical analysis of the patients increase in the past 3 years. The Unit has 24 beds capacity with an average of 25 - 40 impatient daily.

Year	1981	1982	1983	1984	1985
Impatient	306	409	377	323	64
Out patients	2270	2332	2401	2452	2545
Deaths	2	1	3	4	

TABLE 1/

REFERENCES

1. DR. R. AHMED (1987) (Associate Prof. of Psychatric)
ABUTH Kaduna.
- The Historical development of western Nigeria

2. Maurice King - Medical Care in Developing Countries

3. Boroffka, A (1975) The provision of psychiatric services in Developing Countries. Africa Journal of Psychiaty

4. Tunga Congo (1987) The role of Nonpsychiaty in psychiaty - A paper presented to the Department of Sociology ABU Zaria (11th March 1987)

CHAPTER SIX

CASE STUDIES

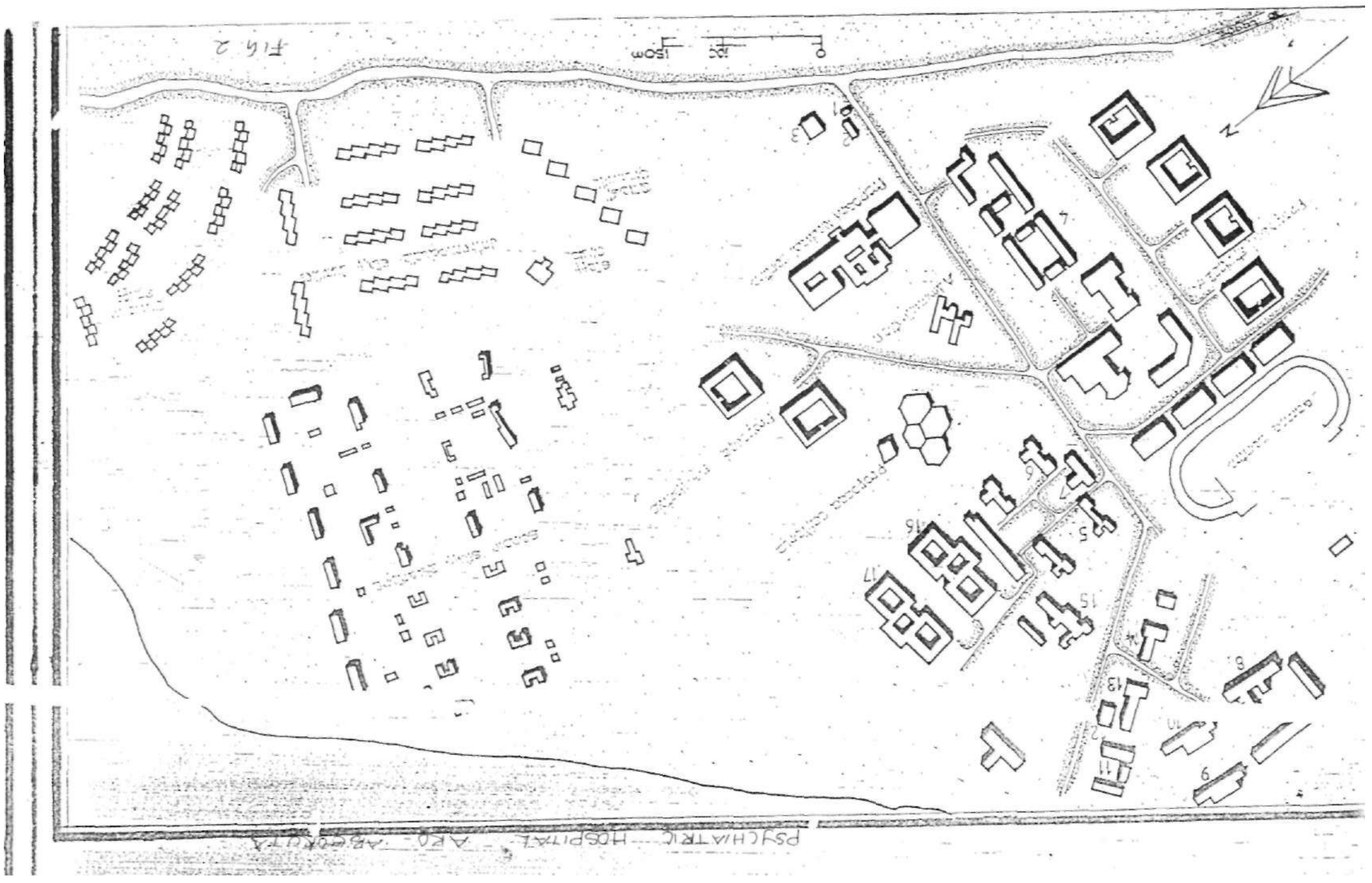
- ARO - PSYCHIATRIC HOSPITAL ABEOKUTA
- ABU - PSYCHIATRIC HOSPITAL KADUNA
- EMGREST PSYCHIATRIC INSTITUTE POLAND
- 280 PSYCHIATRIC HOSPITAL NEW YORK
- HOSPITAL DOEKEL HOLLAND

PSYCHIATRIC HOSPITAL ARO - ABEOKUTA

INTRODUCTION: The village of Aro lies outside Abeokuta close to Ibadan In 1948 Aro was chosen by WHO as the site for a mental hospital to be associated with the University of Ibadan. By 1950 the building was completed and the hospital was incorporated into the experimental community mental health scheme. "Aro thus provides the first real opportunity to study mental illness in Africa". In the words of Maurice King.

REGIONAL LOCATION: It is located in the Western region of Nigeria and meant to serve the whole of the Africa South of Sahara. Its location is away from the hospital with which it is associated i.e UCH Ibadan, so it reduces convenience for both staff and students alike. However it is accessible by a high way that comes from Ibadan.

HOSPITAL LAYOUT: The hospital layout is that of the old pavillion system, with buildings scattered horizontally all over the site resulting in long travel distances from one section of the hospital to another. But one can see a proper zoning of buildings of related functions together.


Fig 2
PSYCHIATRIC HOSPITAL, AFO ABEOKUTA

e.g. Boiler house generator landy are all gone together (ancilliary Larrices), outdoor games gardens, gymnastics are all grouped in the recreational therapy area. **(See Fig. 2)**

DIFFERENT DEPARTMENTS AND THEIR FUNCTIONS

1. Gate house: Comprises of the gatemans room and an emergency unit violent patients coming to the hospital are first calmed at the emergency unit at the gate before being brought into the hospital. Charpel and Mosque are also at the entrance. Locations of this near the emergency unit is not very vesirable for instance a violent patient may be brought in during worship and hence distrubance is caused

2. Medical Centre - This comprises of consultation, diagnostic and therapentic facilities. The out - patient department which is suppose to be near entrance has been taken for inside - This is a great disadvantage because patients coming in have work pass a group of buildings with which they have no business before reaching the O.P.D.

3. Administration/Teaching and research - Administrative block, classrooms blocks and students hostels are all located after the gate house. The matrons house and office is also attached to the student hostel.

4. Recreational facilities - This comprises of outdoor games areas - lawn tennis, football, volleyball etc. Used by both patients and students. Location is appropriate. Facilities here are for recreational or games therapy.

5. Occupational therapy department:- provides a set of workshops to occupy the patients during the day and to help him adapt special skills. The location is far from patients wards hence should either be decentralised or made closer. There are also occupational Therapy farms in this area.

6. Medical records department: This is an extension of the O.P.D So is located near it

7. Ancilliary Services:- Comprises - laundry, kitchen and cafeteria boiler house generator etc. Cafeteria should be close to the patients as possible for conveinent.

8. Nursing Units:- This is segragated into

- Male and females
- Acute and converlescent patients. Each unit has
- toilet,
- Nursing station
- treatment rooms

The wards lack storage spaces and wardrobes for patients. So their personal belongings are insecure.

The general traffic pattern on the site layout is not the best.

There is an intermingle between both pedestrian and vehicular traffic.

Therapentic Community:- The location of this hospital near village itself is therapentic. It makes patients have a feeling of belonging and not located from the community. The building system of the hospital also is aimed at providing a therapentic atmosphere in close liason with the building systems of surrounding community. The point here is that if the hospital structure is made alien to the immediate environment patients and the general public may think it is an attempt to instructionalise or confine them. Moreover a highly complex design makes patients

2 PSYCHIATRIC UNIT ABUTH KADUNA.



LEGEND.

W	WARD
OPD	OUT PATIENT DEPARTMENT.
P	PHARMACY.
M.R.	MEDICAL RECORDS.
G	GATE HOUSE
O.T	OCCUPATIONAL THERAPY UNIT
A	ANCILLIARY SERVICES.

FIG 3

CASE STUDY 2

ABU PSYCHIATRIC HOSPITAL KADUNA

INTRODUCTION: The present ABU psychiatric unit was built in 1921 as the first general hospital for the whole of the then northern protectorate. It was converted into a psychiatric unit of ABUTH in 1961 when, they started the nucleus of modern psychiaty and needed accomodation for it. By then many more hospitals were built in Kaduna and most towns in the north, so it was easily surrounded.

The unit started with a ward of just six beds for both males and females under Dr.Oshodi. It is presently a unit of 78 beds under the leadership of Dr. Ahmed (an associate professor of Psychiaty)

Hospital layout is not anything to go bye since it was not purpose design most function croped up as their need came. Many facilities are still lacking eg rehabilitative and recreational and even nursing units are inadequate. Since it is not an autonomous hospital most of the diagnostic facilities are located in the main hospital and even some ancillaries eg food is served from the main hospital kitchen to the Unit .

Structures are uninteresting and landscape is completely absent here. see fig 3

MAIN THERAPEUTIC FUNCTIONS IN THE HOSPITAL

1. Out Patient department - Functions here are:
   - Consultations rooms
   - psychologist office
   - social welfare officer
   - medical records office
   - general office
2. Teaching:- Classrooms for student Nurses and medical students on psychiatric posting

3. Dispensary:- Pharmacist office and store for drug dispensing alone since the main pharmacy is in the hospital

4. Nursing Units:- Basically they have three divisions of wards

A - Female ward

B - Male ward

C - Converlscats

Each ward has the following facilities

- treatment room (ECT)
- utility room
- Nurses station
- drug store
- toilet facilities
- kitchenett
- amenity ward

STAFF ORGANISATION

A Professional Staff

- No of consultants	2
- No of residents	-
- psychiatric trained Nurses	10
- psychologist	1
- pharmacist	1

B Nurses and Technicians

- senior nursing staff	13
- welfare officer	10
- staff nurses	10

C Auxilliary Staff

- Cleaners	10
- messenger	2
- drivers	2
- ward attendants	10

From this staff organisation one can see that man power is not so mu much the problem here. The major problem is a properly designed place to utilise the man power and the drugs available.

CASE STUDY 3

EMERCEST PSYCHIATRIC INSTITUTE

The emerest psychiatric institute is a 99 - bed private facility for adults and adolescent in portland connecticut.

"Dr. Leiva the medical director brought together a group of psychiatrists architects, administrators and interior designers to creat an environment in keeping with strongly developed therapentic program with high level of clinical intensity"[3]

DESIGN OF NURSING UNITS

In the design of the nursing units, the intermediate design concept was used. This concept was adapted from the marin community health mental centre where it is tested in an evaluation program and found very successful This a design concept where some space are in some ways purposely ambigous and changing. This negates the phychology that rigidly defined spaces are appropriate for patients and those learning to define themselves. The intent of this concept is to creat spatial variety that will encourage many different behaviours. "This is contrary to the most design for mental health which are structured to provide the strongest possible behaviours message of conformity".

There is a group of 4 bedrooms occupied by eight patients. It forms a sub group and defined by space change but still remain part of the general central space for a larger group comprising of three, eight patient sub groups.

- The open community space is used by each member of the bedrooms as a day space for relaxation
- "The Nurse's station is just like a kitchen table those patient family staff and visitors can interact".

- Units isolations are minimised by emphasising the connections inside and outside, developing a kind of campus square.

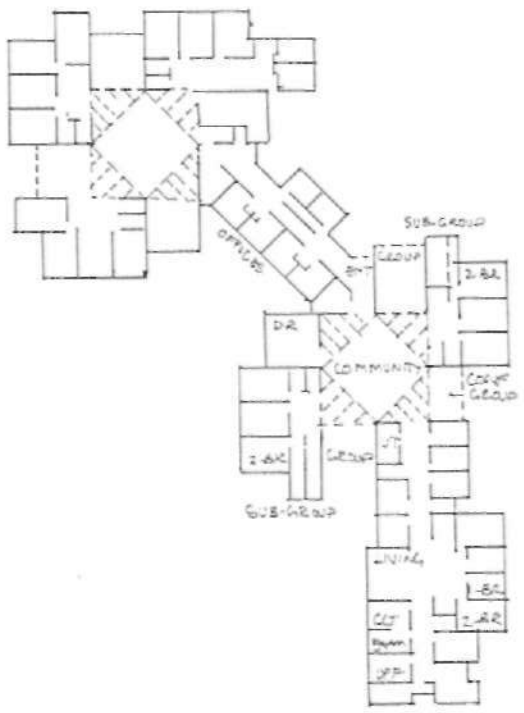
  The two nurses units are linked by offices and are accesible from the cafteria by a covered workway and to the creative therapy through a kitchen back door.
- The layout is very spaces and hence there is a lot of room for landscape and planting
  The creative therapy forms the local point of the design.

(See Fig. 4)

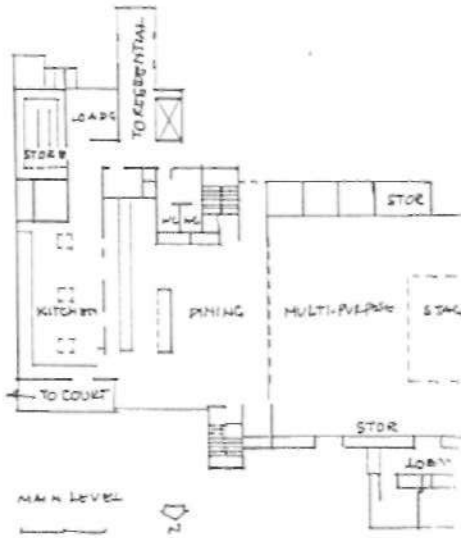
4 EMCREST PSYCHIATRIC INSTITUTE -



SITE PLAN



NURSING UNIT.



COMMON FACILITIES.

FIG. 4

CASE STUDY

BLOCK PLAN FOR A PSYCHIATRIC HOSPITAL OF 280 BEDS

"As a reaction against the very compressed prison-like mental hospital in the past, there has been a tendency in the recent years to separate the various buildings on mental hospital site very widely and plan in which all the building are dotted round the edge of the site are common."[2] This idea will look too scattered. A better idea is to arrange few buildings around a courtyard eg arrange 2 or 3 nursing units around a courtyard creating centre, and sub centres at various corell. This reflect a village plannings systems. The block plan of the 280 bed hospital was propose to demostrate this current concept of layout, See Fig. No.5

DISCRIPTION

The hospital site is borded, on one of its narrower side by a public road. The focal point in the hospital. Refectory, club meeting room and workshops for the most advanced and specialised work are grouped here. The social centre was delibrately placed at some distance from the actual centre of the site towards the site farthest from the road. This gives the remoter part of the site an additional value other wise ary ward there will look isolated.

PATIENT LIVING QUARTERS

The patients living quarters are grouped into three "villages" each with its own workshop. In each village the building are fairly close together, and surrounded a small partially enclosed square.

Two of the villages have three wards. (i.e 89 patients) and the third village has 112 patients.

3 BLOCK PLAN FOR A PSYCHIATRIC HOSPITAL OF 280 BEDS

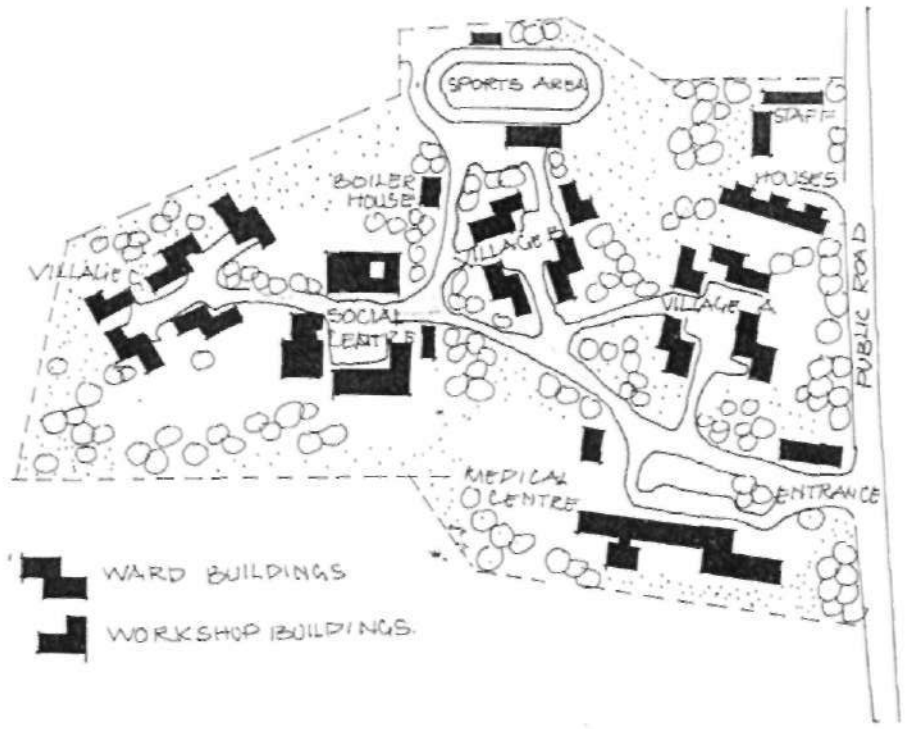


FIG 54

Staff housing forms the fourth village and is located near the public road. "The hospital present patient with a gradual succession of space from this room to the ward buildings, to the village unit and eventually to the total hospital. See drawing."[3]

CASE STUDY 5

HOSPITAL DOMMEL HOLLAND

This is a hospital for 30 patients requiring treatment for a double handicap - both mental and physical.

DISCRIPTION

The living quarters for patients are of three home wings. Each for a difficult stage of treatment from new intakes to chronic cases and patient for socialization, and treatment therapy areas. The restricted site incorporated an existing building and the chequesboard layout is intended to give the maximum wall perimeter.

STRUCTURE

Load bearing masonry wall present reinforced concrete ribs with structural topping for floor and roof slabs material.

Concrete block reinforced concrete steel glass.

Recreational facilities found here include swimming pools, sports hall and a common room. **See Fig. 6**

5 HOSPITAL BOECKEL HOLLAND

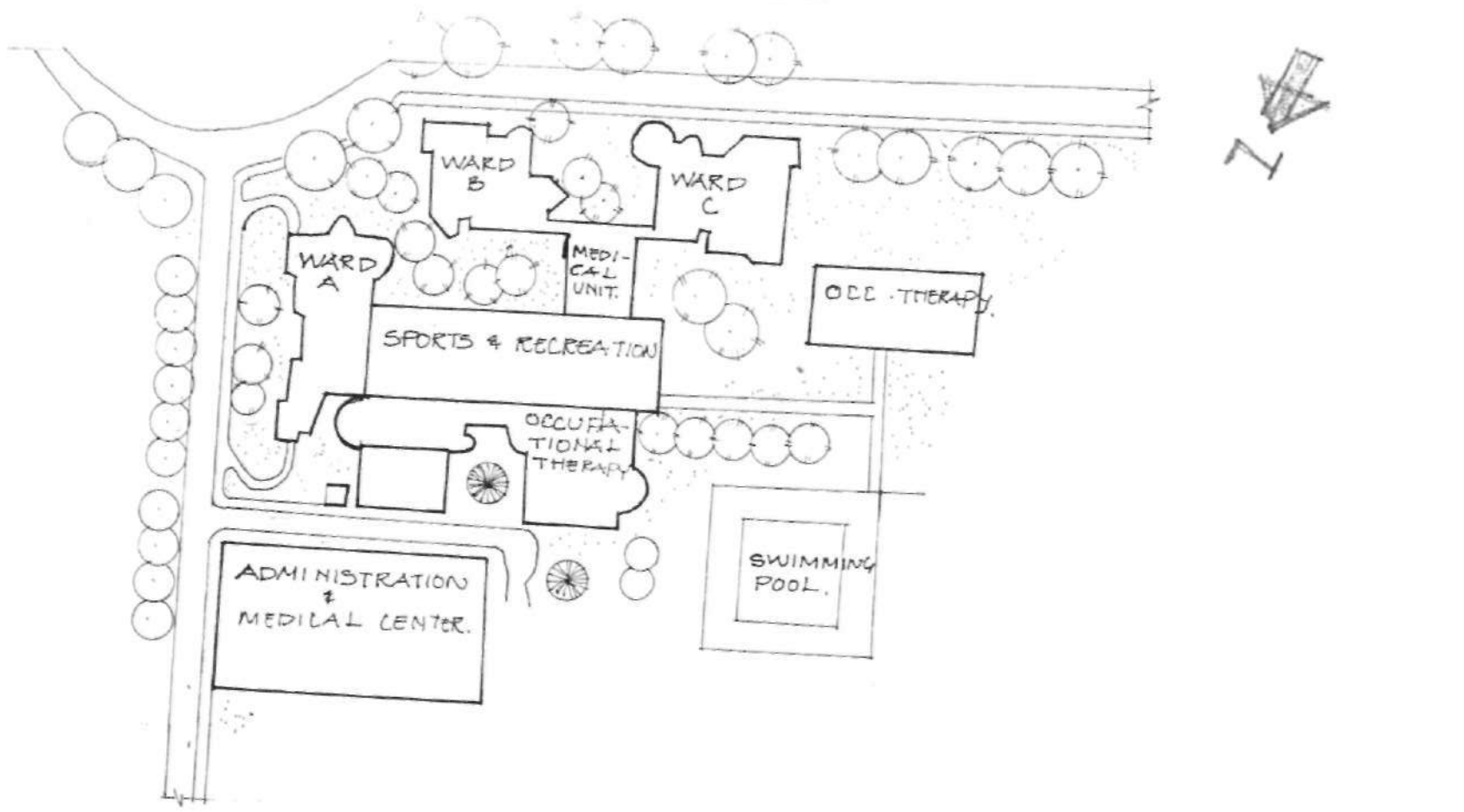


FIG. 6

CONCLUSIONS

1. The modern trends in the design of psychiatric hospitals are
   - To make the buildings small and residential in scale by the use of soft forms and materials
   - To creat a therapentic environment by properly blendings the building with the immediate envionment.
   - Isolation of the hospital is imimised by locating the hospital site within the community this helps patients to feel at home, because they can identify with the immediate environment.
2. Open communal spaces showed an increased socialisation and decreased a strong feeling of territorialising psychological
3. The severely disoriented patients however need a more confined space in their accommodation.
4. Heavy landscaped views has a soothing effect on patients and therefore enhance recovery
5. The location of the psychiatric hospital within the community which it serves diminishing the stigma about mental illness.

CHAPTER SEVEN

THE SITE

.1 - LOCATION OF YOLA

.2 - SITE SELECTION

.3 - SITE ANALYSIS

.4 - CONCLUSIONS

LOCATION: YOLA

The propose project will be sited in Yola, the capital of Gongola State of Nigeria. Yola lies on latitude 12^{o} $2a^{1}$ east and congitude 9^{6} 10' North along the south bank of River Benue. **See Fig 7**

Yola really is a twin town comprising of Jimeta and Yola. The former is the commercial/administrative centre while the later is the old traditional administrative seat of the former Adamawa Province under the leadership of the Lamido. This division however, is not very rigid because the expanse land inbetween them is gradually being filled up by new structures. Most of the undeveloped lands that remain are floadable and therefore used for agricultural purposes only.

Yola town is predominantly fulanis while Jimeta is multi ethnic.

PHYSICAL CHARACTERISTICS OF YOLA

TOPOGRAPHY

The lands in Yola and Jimeta generally slope in the south-west, east and the north-west directions. The highest point in Jimeta has an elevation of about 224 metres and the lowest point about 152 metres above mean seat level. (MSL) The topography of Yola is comparatively flat and the highest elevetion is 188 while the lowest is 167 above mean sea level (MSL)[1]

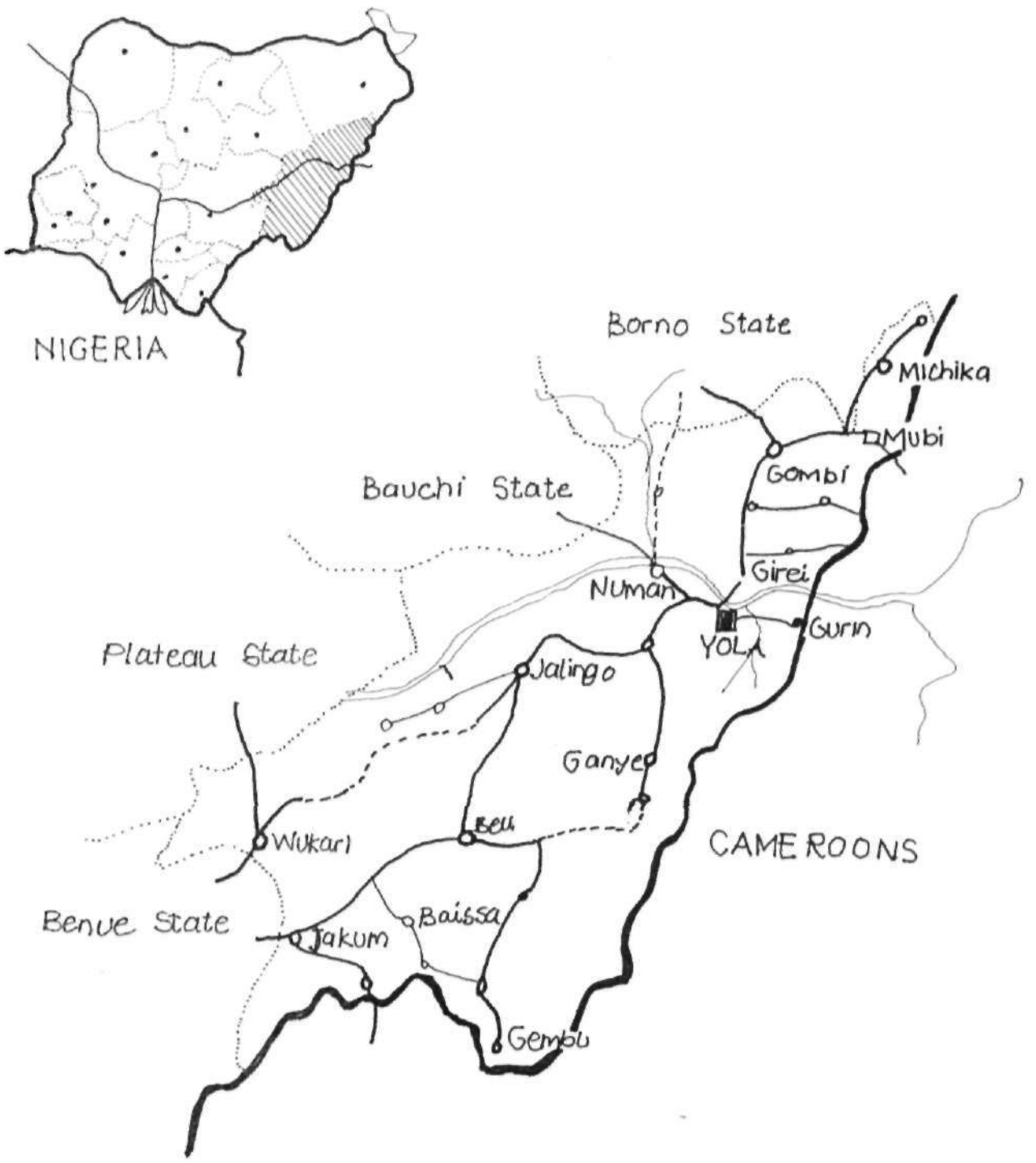


FIG. 1 GONGOLA STATE: LOCATION OF GREATER YOLA

GEOLOGY AND SOILS

Jimeta – Yola lies in the Benue through which consists of undulating flood plains. The soils of the flood plains, consist of geologically recent alluvium which are of loamy and clayey nature.

THE CLIMATE

The climate of Jimeta – Yola is semi to tropical. Yola is within the hottest regions of Nigeria. It has an annual average temperature of 26°. In the months of March to June the temperature is on high as 38°C See Fig.8.....

The humidity ranges is very high it goes on high as 80% in July and as low as 20% in January. See Fig..9..... The predominant trade winds are the North East trade winds from October to March and the South west.

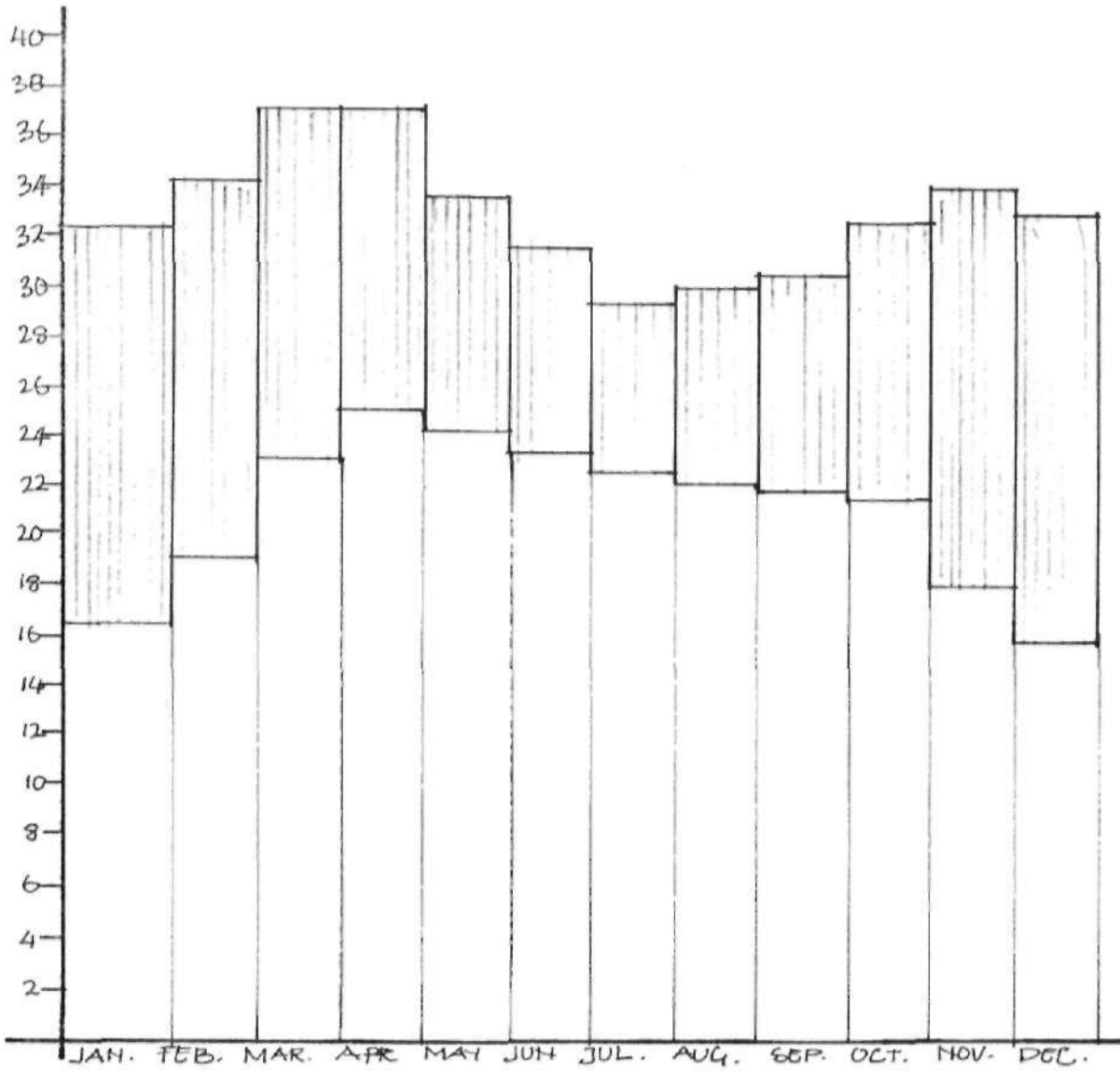
The North East trade winds brings hamattan from the Sahara desert between October and March and the South west brings rainfall from the atlantic ocean between April and September See Fig..10....

The annual rainfall is slightly below 1500mm with two seasons. The wet season from April to September and the dry season from October to March. See Fig.11 -...

The average bright sunshine hours is 7.4 hrs per day. The range of sunshine hours is high between 2.2 hours and as high as 9 hours in November See digram Fig.....12

HEALTH FACILITIES

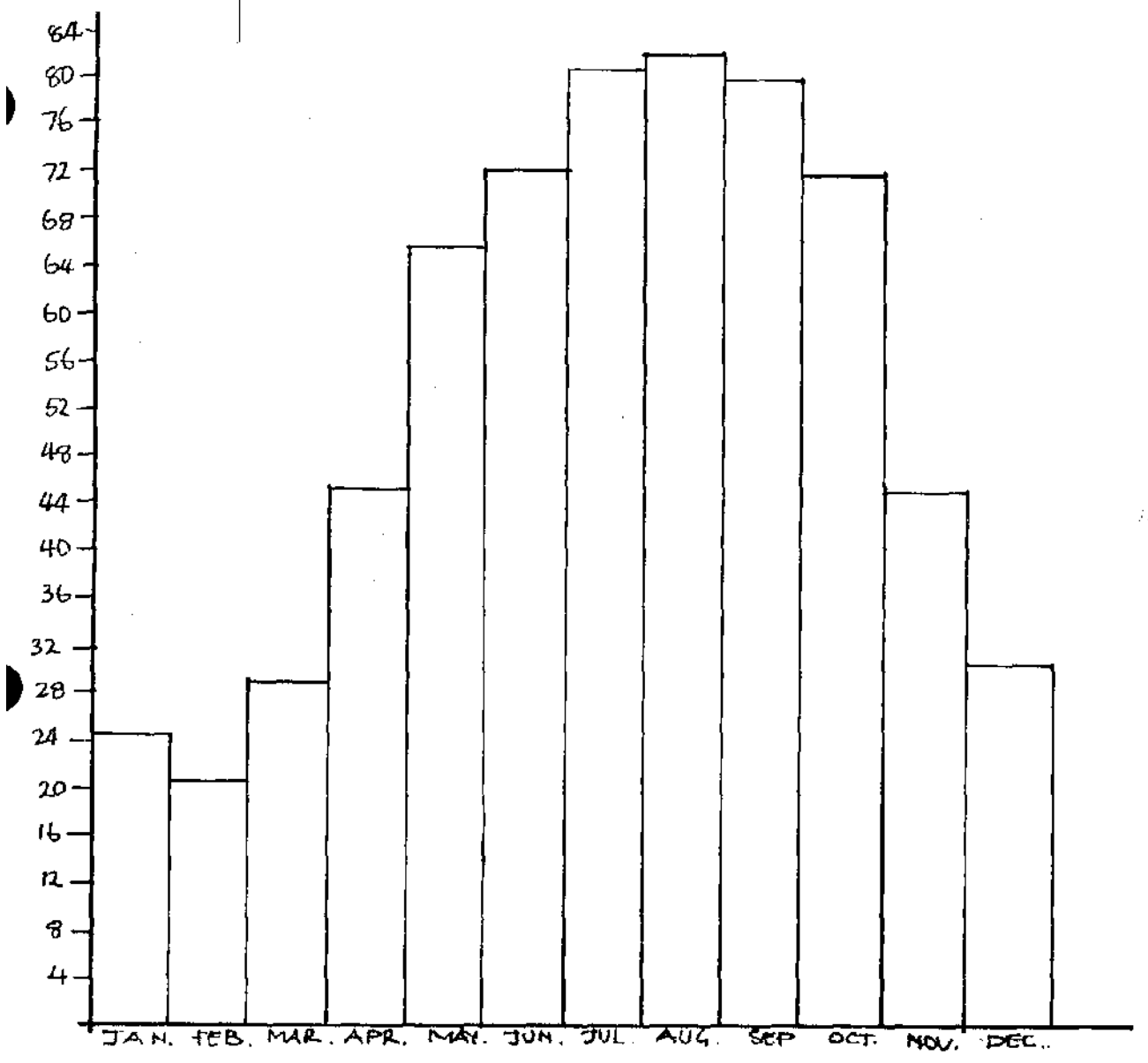
Presently, there is only one general hospital in the whole of Yola and Jimeta. The hospital is grossly inadequate and under staffed. The doctor – patient ratio is 1:4820 which falls short of the world health organisation's recommendations of 1:100. The hospital beds/population ratio is 1:11004[2] as oppose to the standard of 1:1000. However there are quite a number of clinics and chemist privately own



MEAN TEMPERATURE (°C).

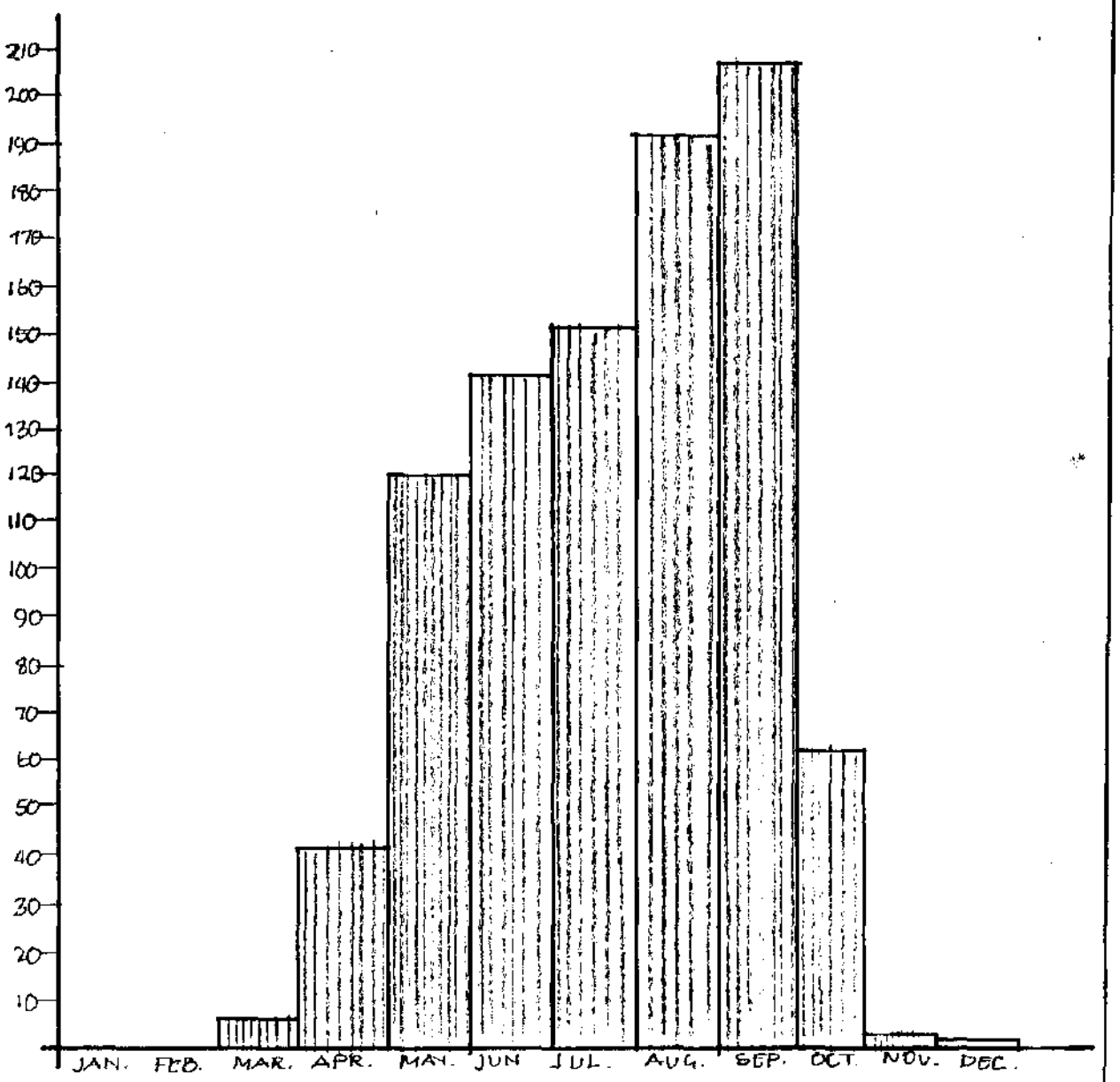
JAN	FEB	MAR	APR.	MAY	JUN	JUL.	AUG.	SEP.	OCT.	NOV.	DEC	
52·4.	34·2	37·0	37·0	38·7	37·6	29·6	30·0	30·5	32·6	34·0	32·9.	MAX
16·5	18·1	22·8	23·2	24·3	28·3	22·4	22·0	21·9	21·6	15·0	15·7	MIN.

Fig 8



JAN.	FEB	MAR.	APR.	MAY	JUN	JULY	AUG	SEP	OCT.	NOV.	DEC
24·2	20·1	28·7	44·8	64·7	71·4	79	80·6	70·6	70·3	43·2	20·7.

RELATVE HUMIDITY FIG 9



MEAN RAINFALL(MM)

JAN	FEB.	MAR.	APR.	MAY.	JUN	JUL.	AUG	SEP.	OCT.	NOV.	DEC.
0·00	0·00	5·90	41·50	119·20	140·20	150·60	180·8	206·10	62·10	1·70	0·80.

Fig 10

POPULATION STRUCTURE

For the provision of such a hospital, it is necessary to know the structure of the population. This will enable the design to calculate the percentage of the population likely to be sick and the number of these who need hospitalisation, hence number of hospital beds to provide.

GENERAL:

The Jimeta 1963 census figure of 36,300 does not give a picture of the actuall population growth. As at 1985 the population of Jimeta was put at 106,160 and Yola at 50,817 at 3% rate of growth, by 1970 each would be 135,490 for Jimeta and 64856 for Yola[3] respectively See diagram Fig.....

:2 SITE SELECTION

There has been a federal government proposed to build a psychiatric hospital in Yola since 1980. So a site has been air marked for the project, but this did not prevent the designer from looking for alternative sites that offered better opportunities.

SELECTION CRITERIA

Fo a design of this nature, there are a number of factors to consider in selecting a site. Because the site itself, is an organ of therapy. The choice of the site was based on the following criteria.

1. NEIGHBOURHOOD: In choosing a site for a psychiatric hospital nearness to the community is the number one pre-requisite, the hospital must be near the community which it serves. This redness the stigma about mental illness and gives a patient a feeling of belonging. Isolating the hospital gives the patient a feeling of being cast away or helpless. This feeling increases depression.

2. SERVICES: The site must be near service lines. This redness cost of installments. services like electricity, pipe lines, telephone and sewage treatment plants.

3. ACCESSIBILITY: The site must be easily accessible by a motorable road. It should not be in a remote area. Should be easily located by even a visitor to the town.

4. AVAILABILITY OF LAND: The site must be big to give room for open air practices like agriculture and space for future expansion when the need arises.

5. SUPPORTIVE FACILITIES: Should be near supportive facilities like a teaching hospital, Nursing School and general hospital.

6. QUIETNESS: Site most not be in a noisy crowded area. It must be quiet and peaceful.

7. SITE FEATURES: There should some forms of natural landscape on the site e.g. terrain, water body and planting. This relaxes the patients mine and hence enhance his recovery.

SITE A

The first site considered is marked A See Fig.....13 It is along Jimeta-Yunan road. It is the site chosen by the government.

MERITS

a - Accessibility
b - Availability of land for expansion
c - Availability of service lines

DEMERITS

a - It is on a highway with high volume of traffic - there is a risk of patients being run over by a running vehicle.
b - The site is away from the community
c - It is in an industrial zone, hence very noisy.

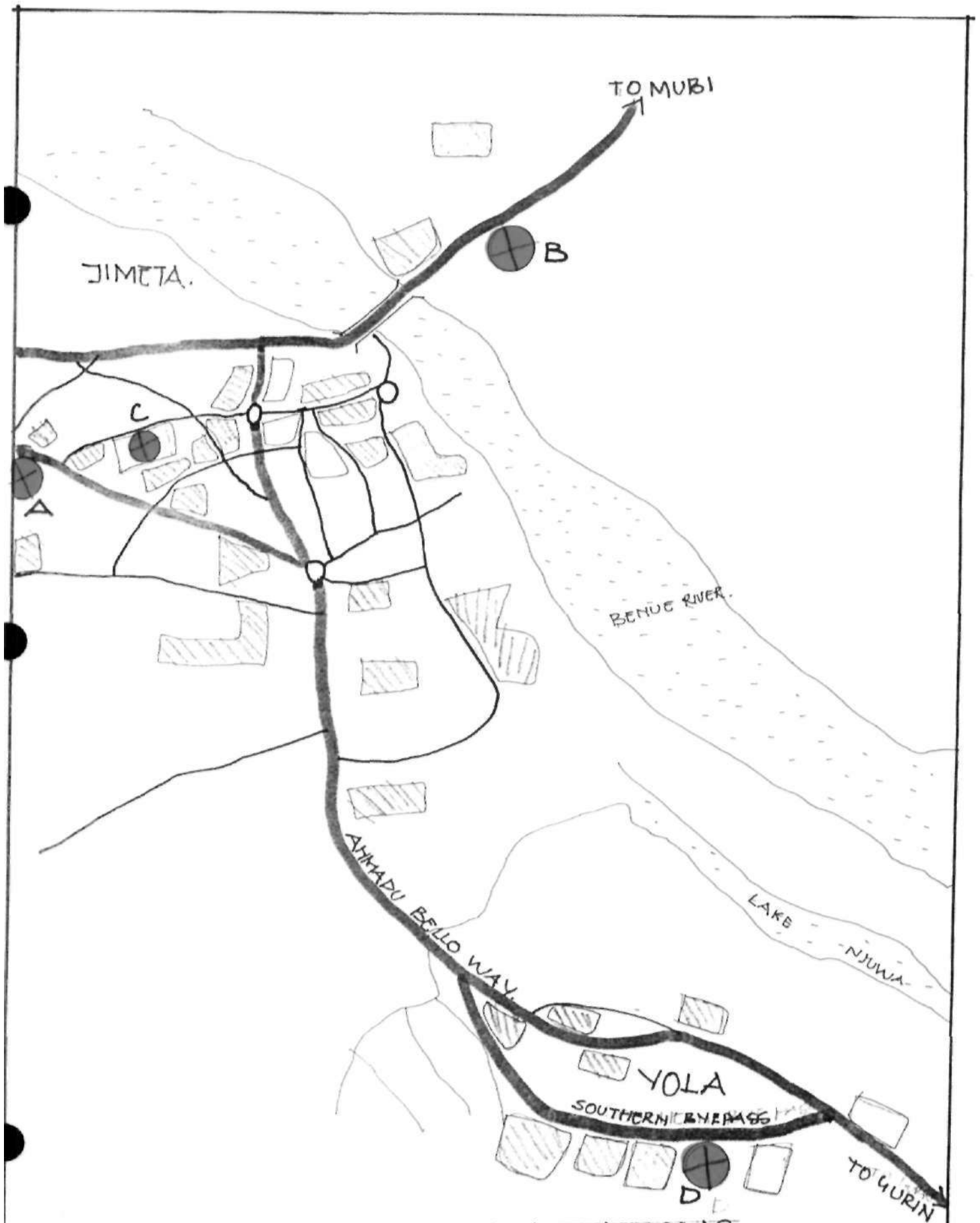
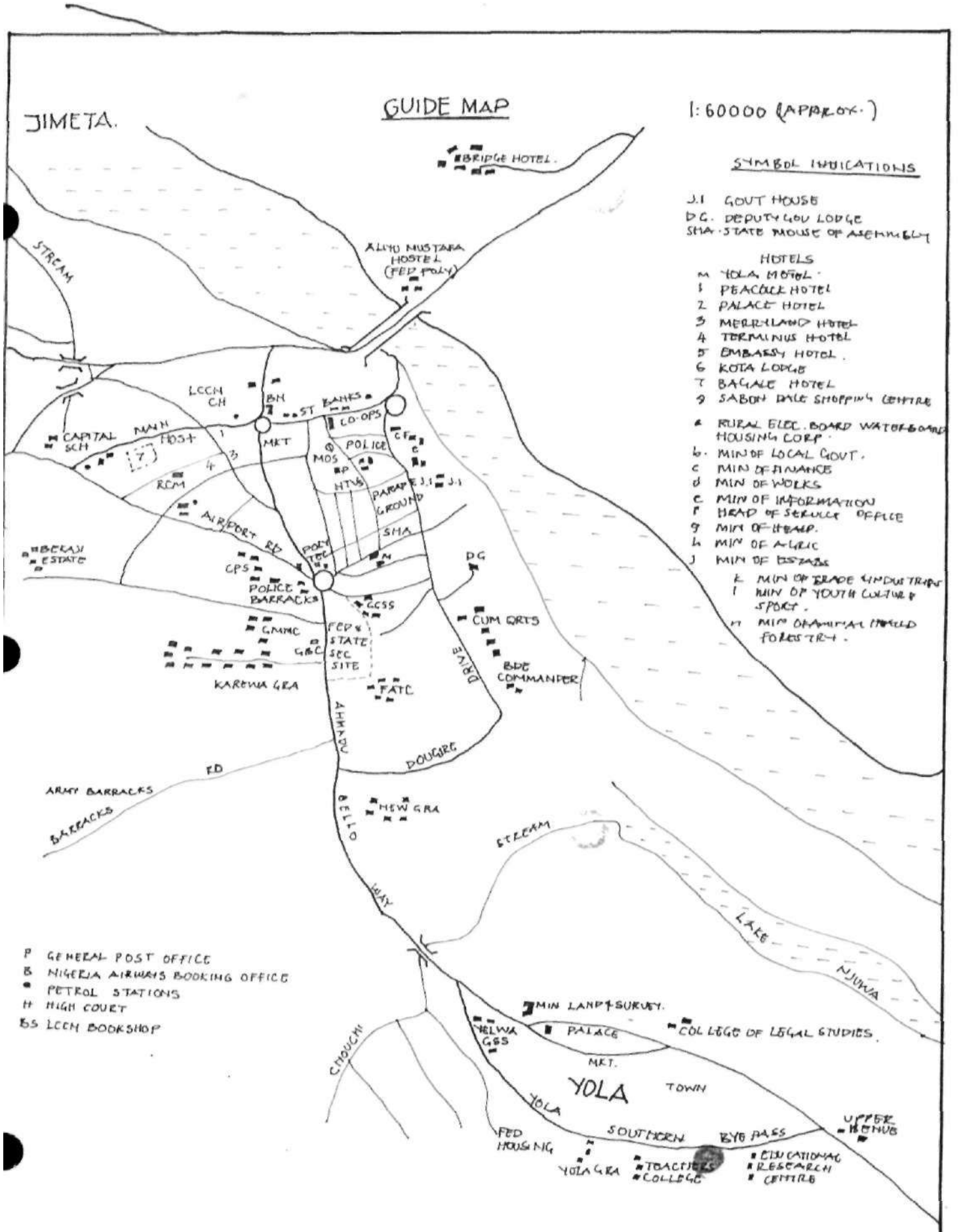


FIG 13. GREATER YOLA: SITES LOCATIONS.


JIMETA.
GUIDE MAP
1:60000 (APPROX.)
SYMBOL INDICATIONS
J.1 GOVT HOUSE
DG. DEPUTY GOV LODGE
SMA. STATE HOUSE OF ASSEMBLY
HOTELS
m YOLA MOTEL.
1 PEACOCK HOTEL
2 PALACE HOTEL
3 MERRYLAND HOTEL
4 TERMINUS HOTEL
5 EMBASSY HOTEL.
6 KOTA LODGE
7 BAGALE HOTEL
9 SABON GALE SHOPPING CENTRE
a RURAL ELEC. BOARD WATERBOARD HOUSING CORP.
b. MIN OF LOCAL GOVT.
c MIN OF FINANCE
d MIN OF WORKS
e MIN OF INFORMATION
f HEAD OF SERVICE OFFICE
g MIN OF HEALTH.
h MIN OF AGRIC
j MIN OF EDUCATION
k MIN OF TRADE & INDUSTRIES
l MIN OF YOUTH CULTURE & SPORT.
m MIN OF ANIMAL HUSBD FORESTRY.
BRIDGE HOTEL.
STREAM
ALIYU NUSTARA HOSTEL (FED POLY)
LCCN CH
BN
ST BANKS
CO-OPS
CAPITAL SCH
MAIN POST
MKT
POLICE
MOS
RCM
NTVS
PARADE GROUND
J.1
SMA
AIRPORT RD
BERAU ESTATE
CPS
POLY TEC
DG
POLICE BARRACKS
GCSS
CUM QRTS
GMMC
GBC
FED & STATE SEC SITE
BDE COMMANDER
KAREWA GRA
FATC
DRIVE
AHMADU
DOUGRE
ARMY BARRACKS
FD
BARRACKS
BELLO
NEW GRA
STREAM
WAY
LAKE
NJUWA
P GENERAL POST OFFICE
B NIGERIA AIRWAYS BOOKING OFFICE
PETROL STATIONS
H HIGH COURT
BS LCCN BOOKSHOP
MIN LAND & SURVEY.
HELWA GSS
PALACE
COLLEGE OF LEGAL STUDIES.
MKT.
CHOUCHI
YOLA TOWN
YOLA SOUTHERN BYE PASS
UPPER REACHES
FED HOUSING
YOLA GRA
TEACHERS COLLEGE
EDUCATIONAL RESEARCH CENTRE

FIG

Fig 12

SITE B

This site is along Jimeta - Mubi road and over looks river Benue.

MERITS

a - Pleasent views of river and terrains

b - Availability of enough land

c - Accessibility

DEMERITS

a - Site is noisy

b - It is a rocky site therefore unnecessary cost of construction.

c - It is isolated,

SITE C

Site C is in the general hospital compound.

MERITS

a - The location within the general hospital reduces the prejudice concerning mental illness

b - Both units can share common facilities and there would be a collaboration between the psychatric and practitioners in other fields of medicine

c - It will be possible to provide a joint training program for nurses in noth psychiatry and other fields of medicine.

DEMERITS

a - The available peace of land within the hospital is too small for this project.

b - Joint site produces a hospital village which runs a risk of being detarched from the entire community.

c - Some requirements of a psychiatric hospital are different from those of a general hospital hence functioning together may be difficult.

d. - There is a risk of other patients being harass by the mentally ill.

SITE D

Site D is inside Yola town. Its along Yola Fufore road (southern bye pass). It's the chosen site for this project.

MERITS

a - NEIGHBOURHOOD - The site is located close to both residential and some institutional buildings. The institutions around the site are upper Benue River Basin Development Authority (UBRBDA), Yola GRA, YOLA TEACHERS COLLEGE and many residential settlements of low density.

b - Its a very vast peace of land.

c - All essential domestic services are available on the site

d - The nursing school is closely.

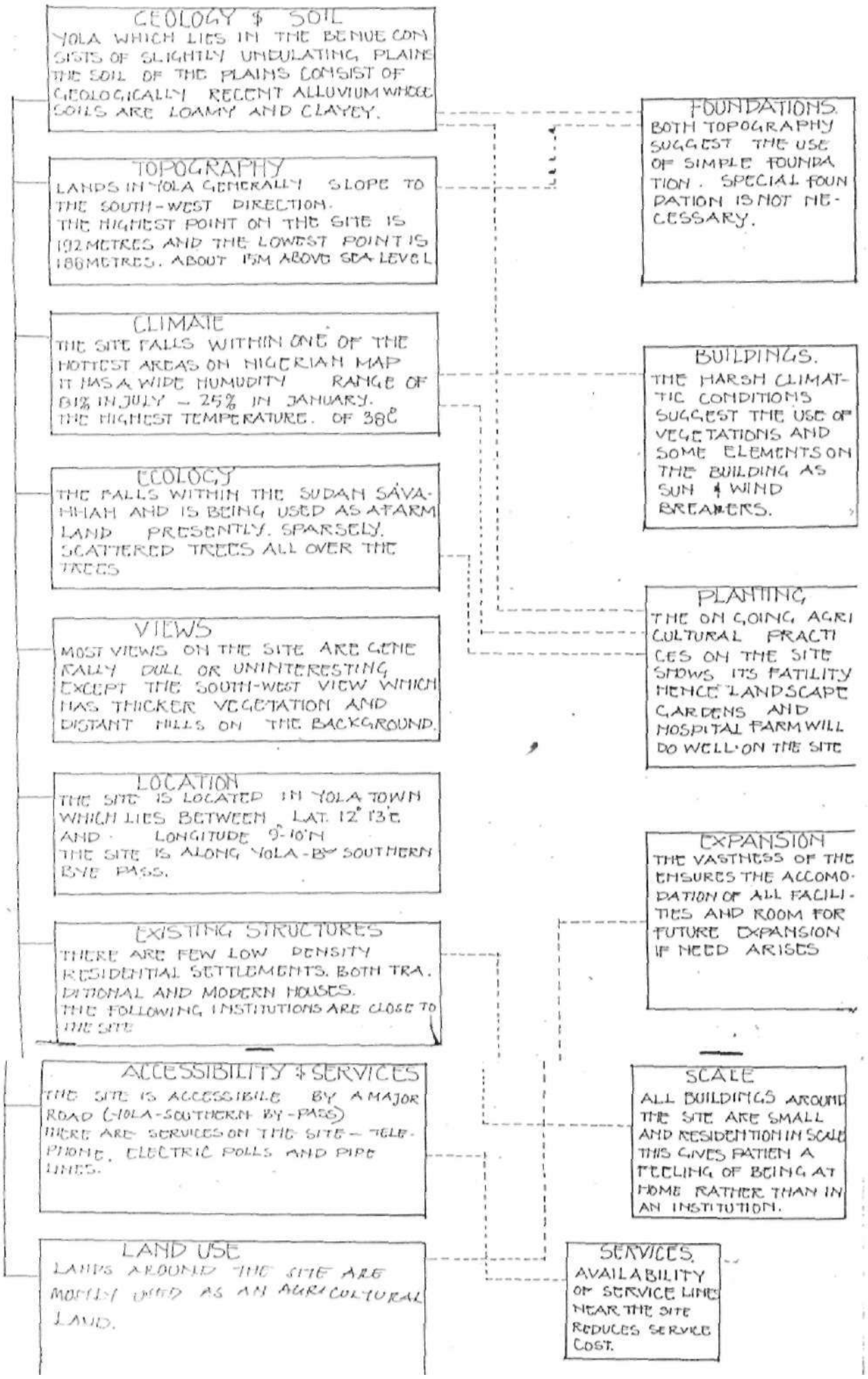
DEMERITS

a - Natural landscape is very minimal. On or near the site. So it is one of the challenges the design has to face

See pictures fig.....

SITE CHARACTERISTICS

CONCLUSIONS.



REFERENCES

1. Max - Loik - Greater Yola Master Plan 1976 - 200

2. " "

3. " "

4. Ministry of land and survey - survey maps 1985

5. Ministry of Health - Health report

6. Psychiatric Unit - Yola General Hospital.

CHAPTER EIGHT

PLANNING A PSYCHIATRIC HOSPITAL

8.1 BRIEF and BRIEF DEVELOPMENT
8.2 DESIGN CONSIDERATIONS
8.3 FUNCTIONAL ANALYSIS
8.4 DESIGN PRINCIPLES
8.5 SITE CONCEPTS
8.6 DESIGN CONCEPTS
8.7 CONCLUSIONS
8.8 SCHEDULE OF ACCOMMODATION

INTRODUCTION: Hospital are usually organised and equiped to provide treatment for all types and catygories of illness, both acute and chronic. They are centres where complete health services can be rended certain spa spaces in which special services are to be conducted and environments in which there services can be carried out efficiently. The creation of these spaces and environments should be the objectives of the Architects.

8.1 BRIEF AND BRIEF DEVELOPMENT

The major therapentic components of any psychiatric hospital can be grouped into four.[1]

a. medical centre/ Administration
b. social therapy centre
c. Occupational therapy centre
d. living quarters for in patients

MEDICAL CENTRE

The medical centre is a major component of the hospital facilities here include

- Consultation facilities
- diagnostic
- therapentic
- training and research

A Consultative facilities

A consultation rooms - The rooms should be moderately small. Not so large otherwise patients can be scared.

"It should have the image of a consultation room with no symbol of surgery or other potentially alarming instruments"[1] Physical examination can be carried out here on a couch behind ascreen or curtain.

Consultation office are for psychiatrists, psychologist and senior nursing officers.

Social workers may have their offices on a seperate wing either of the O.PD or the Administrative block.

Nurses do not need offices, since they don't carry out any consultations

a. REGISTRATION/WAITING

Registration offices are required for registration of new patients with a waiting space.

Main O.P.D waiting is accessible from the registration area.

waiting areas should not be along major traffic spines of the hospital.

B Diagnostic Facilities

There are tests carried out to detect mine or detect patients illness its kind and degree.

Diagnostic facilities include - laboratories, surgery electro-encephalography and radiology.

1. Electro Encephalography department

The electro encephalographic machine meatures pulses brain charges and vibrations. It determines within brain is functioning well ar not. The size of the meclure is about 22" x 36" and 30" high. The

machine is very sensitive to heal and x-rays so the rooms should be air conditioned.

Area

Space requirement are[3]

a. apatients enenimation room at least 3.6 x 1.8

b. an instrument room of similar dimension and

c. an office and record room 4.2m x 2.4m

ECG rooms can be located in the same unit.

2. Radiology Department

This is functionally a diagnostic and therapentic departments serving both in patients and out patients.

Basically there are two processes involved here.

a. Radiography -- making pictorial records by means of x-ray on film.

b. Fluoroscopy - is the direct visualisation of the parts of the body through the medium of x-rays.

The therapy sections is usually integrated with the diagnostic unit for use of common failure and better utilisation of staff - Patients can also be exposed to x-rays of radio isotopic cobait as a therapy.

3. Pathology Department

The pathology department receives specimen mostly were and blood from out patients and in patients. Some of these test are carried to rulcout the possibility of a patient having some completed physical illness that could be this taken for a mental one. The size of these department will depend on the frequency of use i.e number of specimen. tested every day in a psychiatric hospital it should be a small one since not many of these test are often performed.

c. Therapentic Facilities

The day hospital

The day hospital is mainly therapentic in function. Psychotherapy, group therapy E.C. Therapy and chemotherapy are carried out here. Patients attend on out patients basis. Daily or weekly as prescribed by the psychiatrist. It should be a unit on its own but readily accessible from the main hospital gate.

The pharmacy department

The Pharmacy functions as a dispensing compounding, and in some bigger general hospital manufacturing unit. It is more functional to have a separate dispensary in the out-patient department only to be supplied with bulk medication from the central store. Serving all other departments.

The Electroconvulsive therapy Department

Two machine are required in this department. Each will require a room big enough to contain it and a bed space on which the patients lie and receive the treatment. An adjoining recovery room is required for each treatment room. The size of the machine is

Administration

The administrative offices are independent of other functions in the hospital, so it can be designed on a separate block next to the out patients department.

Functions include

a. Entrance lobby - This is very public. It should lead to the Waiting area and main corridor of the administrative block.

b. General office - These provide accommodation for clerical staff and equipment. Separate office on a partitioned space should be provided for the cashier.

c. Directors office - Should be accessible to all other offices but not near the entrance for privacy. It should be accessed by the public via the secretaries office. Secretaries office should be big enough to have sitting arrangement for visitors.

d. Medical Record. This should include registration office, catalogues room and Records store. This shares both administrative and medical functions.

e. Conference room - part of the conference room can be utilised as a library and the other part for conferences and meetings. It should be very close to the director.

f. Assistant Director - The director should have an assistant who does the work while he is away or to assist him

g. The hospital Secretary - He oversees the affairs of the hospital so his office should be centralised in the administration.

h. Matrons office - The matron is the head of the nurses just like a supretendant psychiatrist is the head of doctors and the whole hospital. Her duties, however are mostly administrative, so her office is better located in the administrative block.

TRAINING RESEARCH

The training and research departments are housed on the same block. These should be offices for clerical staff, teaching staff and board room.

Research offices should be provided with offices for Secretaries who keep the statistics and records necessary for the purpose of research.

Facilities here also include: Teaching and research laboratories, Classrooms and a medical library.

SOCIAL CENTRE

In the recent years, the concept of mental hospital design has changed. The hospital is no longer a place for confinement but a therapentic community specially designed. Thus "the psychiatric hospital we envisage is really a collective unit analogous to a village."[4] It is estimated that about 80% of the patients population of the hospital will frequent the social centre. The arrangement of the buildings in the social centre should form a forum. Inform of a communal space for use as a meeting and relaxation. Functions in the social centre includes

A Shopping centre - some shops for the sell of essential commodities like soap, omo and bread.

CAFETARIA

There should be central cafeteria in the social centre. This can be used for both staff and patients. This idea is to encourage mixing of staff and patients and with other patients from other wards.

SPORTS AREA

The sporting activities will include football, badminton, volley ball and any traditional game that can be organically organised. Relaxation sitting arrangements can be provided around the outdoor games field.

An indoor games gymnasium hall and changing room is provided here. A common room for patients relaxation and receiving visitors.

OCCUPATIONAL THERAPY

The importance of occupational therapy in psychiatric treatment in tremendous. It helps engage the patients in useful work, and increases interpersonal relationship between the patients - this reduced anxiety produced by unwanted seculusion.

The activities of occupational therapy departments cannot be centralised. "Social adaptations diverges from the undifferentiated to the differentiated from simple to complex". The type of occupational therapy is meant to be of therapentic value to the patient. The type of vocation chosen for the patient depends on the stage of his illness and his cultural background. As a rule local tradition must be looked into inorder to make a choice of therapentic activities.

There are basically type three types of occupational therapy.

a. Small work room in the ward. The seriously disturbed and functionally registed patients, who need to stay indoor should be provided with a workroom in form of a day room. Inside the ward. They occupy themselves with art therapy painting, modelling etc. About 20% of the total hospital patients require this kind of occupational therapy.

b. The patients should be encourage towards more diffentiated activities as soon as possible. Some sheltered workshops are provided for them in the social centre. This centralisation encourages mixing of patients from different wards and hence encourages socialisation.

c. The third part of occupational therapy is an open form round the site.

IN PATIENTS LIVING QUARTERS

The ward must be such that the patients will feel secure. "The feeling of security is the first pre-requisite for the re-establishment of the patients normal relations with his environment."[5] Insecurity can engender anxiety which happens to be the cause of most disturbed behaviour.

There are two conditions under which the atmosphere of security can be created. According to Baker A.

a. reassuring living condition for patients

b. reassuring working condition for staff.

If the patients material and social environment corresponds to his residual powers of adaptation, his anxiety will be desirably reduced. Patients need to have some privacy but at the sametime not feel isolated.

Types of Ward Accommodation

Single Bed and Seculution wards: Private rooms may be needed for patients who work and participate in social activities outside the hospital unit and who need the evening to return to their own private corners in order to offset the effect of the collective life they live during the day as recommended by world health organisation expert committee on mental health.

WARD DESIGN CONSIDERATIONS

It is good in some cases to distinguish each cubicle in the ward by a different bed arrangement with distinctive decoration. Each patient should have a cupboard which can be locked for his exclusive use.

The central part of the ward should include an office for the physical, a nurse and an examination room, treatment room, and a social area in which all the patients in the ward can meet.

The internal design of the ward should be such as to assist patients in orientation it the available space should not be broken up into two many zones, and the separate zones should be of simple design. This will enhance the patients sense of security if he is able easily to envisage the whole are of the ward units and for this reason it is preferable that the overall length of the building should not be more than about 50 metres.

Water closets and wash hand basins in private rooms should be arranged so that they can be left entirely at the disposal of the patient. a day.

Very anxious patient need to lie in a restricted space in order to increase their sense of security, while other restled or noisy cases must be isolated to some extent not to disturb their comparision.

The single or seculution rooms should be easily accesible to the staff as the patient in them here need of protection and servillance."[2]
Single rooms for disturbed patient should be soundproof and padded.

GROUPING OF PATIENTS

Most psychotic patients will be best in groups of 4 to 8 cubicles, so as to reconcile the need for independence for with the need for security A group of 4 establish good personal relationship but when one person is removed, the relationship breaks on the other hand, a large group of over eight allow for more independence but encourages isolation. Groups of 4 - 7 are however found the most suitable.

Room with 2 beds are liable to stimulate too strong emotional reaction. Group of 3 often used to ambiguors situation where 2 get friendly and isolate the third.

A small domitory of 6 beds the ideal. There should be no ambiguity in the design. "There as patients react against complexity, ambiguity and ustration, they will usually readily accept a clearly defined restriction".

AXILLARY SERVICES

Service yard should be separated from the main hospital parking. The buildings should be housed together in separate buildings. Outside the area hospital structure.

a. THE LAUNDRY

The laundry since requires heat should be near the boiler plant and should be accessible.

The size of the laundry depends on the following factors.

a. number of hospital beds
b. liven use rate
c. lundary operation
d. percentage wash rate, flat rate.

The laundary should be readily accessible to nursing units.

b. BULK STORAGE

The function of this department is to receive store and issue items which can be stored centrally in the hospital. These items include furniture, drugs and linens.

Should open to a service court and should not be far from diagnoitic and therapentic facilities which it serve.

c. THE KITCHEN

The main kitchen should be located near the service yard and should be accessible from all parts of the hospital especially, the nursing units.

The kitchen serves the individual dining room of each village The kitchen should have the Bulk stores, by store offices for caterining officer, preparation serving and cooking areas.

d. Maintainance and Engineering Service

The maintenance and the engineering service will be accomodated in work, shops which will be shifted and equiped to perform the necessary maintainence. The workshop should have the following sections.

- Painting
- electrical services
- General maintainance and plumbing
- Carpentry

DESIGN CONSIDERATIONS

A. Security against escape, Destructions and Suicide

In most cases, a satisfactory psychological atmosphere, varied therapentic occupation and satisfactory relations with the nurse will be sufficient to alteriate anxiety which leads to attempts to escape or commit suicide. Nevertheless, the behaviour of certain patient requires stricter control at certain times.

a. WINDOWS: The days of detention screens bars and other harh security devices are gone. They creat an atmosphere of segregation and distress. Contemporary experience indicate that these divices are unnecessary and undesirable in most patients areas. Where medium or normal security is needed, less obvious methods can be used.

Windows can be made with heat tempered glass and ventilated such designed for limited and safe oepning; Ordinary burglar proving or mosquito proving used in domestic homes can be used in the windows. The patients is used to seeing them in most houses where they are used to protects tenants from burglars and mosquitos.

b. DOORS: Peep hole on the door of apatient is not necessary. It is substituted with an observation panels on the door. For easy surveillance. The kind of lock system should be simple enough for the patients to manage. It should not be ambigous and is easily opened from outside by Nurses using a special key.

c. PADDED CELLS: Some patients are mount and agressive, so could be dangerous to himself. He might attempt suicide by hutting himself against hard surfaces.

Care most be taken in designing their wards sharp corners, wall projections and breakable and hard objects should be avoided in the room.

All instrument of potential danger like raza blade, knives ropes stone should not be allowed in the ward. All the wall, doors, windows, floors of the room for a disturbed patients ward.

d. DAY LIGHTING AND COLOUR

Day lightining and colour should be used extressively in the patients living quarters to provide certain variety and contrast. "Variety and contrast are stimulating where as uniform lighting and posted colour schemes are not".

e. NOISE LEVELS

Noise levels are extremely high in most psychiatric hospitals. Conditions are usually worse in the out patients department where a high volume of patients are expected at the same time.

Older construction methods with thick walls of mansory took care of noise absorption, but modern construction of thin walls between frames perpetuate this noise problem.

The problem is combated by use of hard tiles and plaster with high reflective properties as the finishes. Further the rooms should be soft furnished with curtain and soft furniture to dampen the noise intensing.

In the planning aspect, noise control can also be achieved for instance noisy functions are restricted to noisy zones and are grouped together and quite functions are taken away from this zone.

DESIGN PRINCIPLES

The modern trends in the management of psychiatric patients which emphasises the importance of the built environment has led to active involvement of Architects and environmental scientist.

The environment of mental health buildings is no longer just a convenient place to supervice and control patients, but an carefully designed avenue which aid doctors and nurses to bring the sick back to health.

> "Hospital staff are trying to create a therapeutic environment, and hospital architecture must also be directed to this end in which it can play the most valuable part".[2]

The world health organisation expert committee on mental health has condemned most of our existing hospital. Intespect of their size and scale. Most of the buildings their pointed out are heavily institutional inscale and very unlike the domestic environment to which the patient is accustomed. So it is stressed that attempts should be made to make hospital as domestic like as possible.

However it is not adviced to make a hospital look like that it is not. The design of a hospital has a social purpose and the patient willp appreciate a certain scale of purpose in the architecture as well as the comfort and friendliness of a semi domestic environment. Bakau A. (1959) stated.

One might argue that how and why should a hospital which is an institution for 30 and above people look like a domestic home for 3 - 4 people? This is simple. It is the duty of the architect to strike a balance inorder to achieve his objective. A Bakau went ahead and recommended that the nearest to a psychiatric hospital in size scale

and social purpose is a residential college where a number of separate building are grouped together to form a village in an urban setting.

FUNCTIONAL RELATIONSHIP

Functional relationships of the various components of the hospital is one of the most important aspect of the design.

Movements of patients staff and visitors must be progressive. There should be a hiradhy of functional relationship where one function leads to the next. The whole hospital must function as a one entity. Functional relationship disgrams are shown in the preceeding diagrams (See fig..15, Fig. 16....)

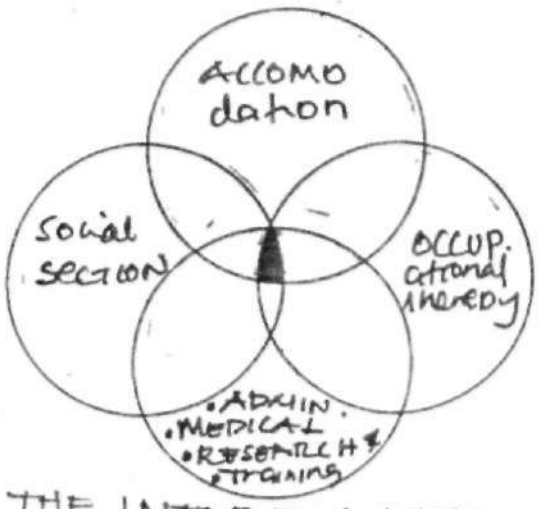
The Site Zoning Concepts

From the site analysis characteritics of the site like noise level, access road and traffic have necessitated its zoning into public semi public and private zones. See Fig. 17

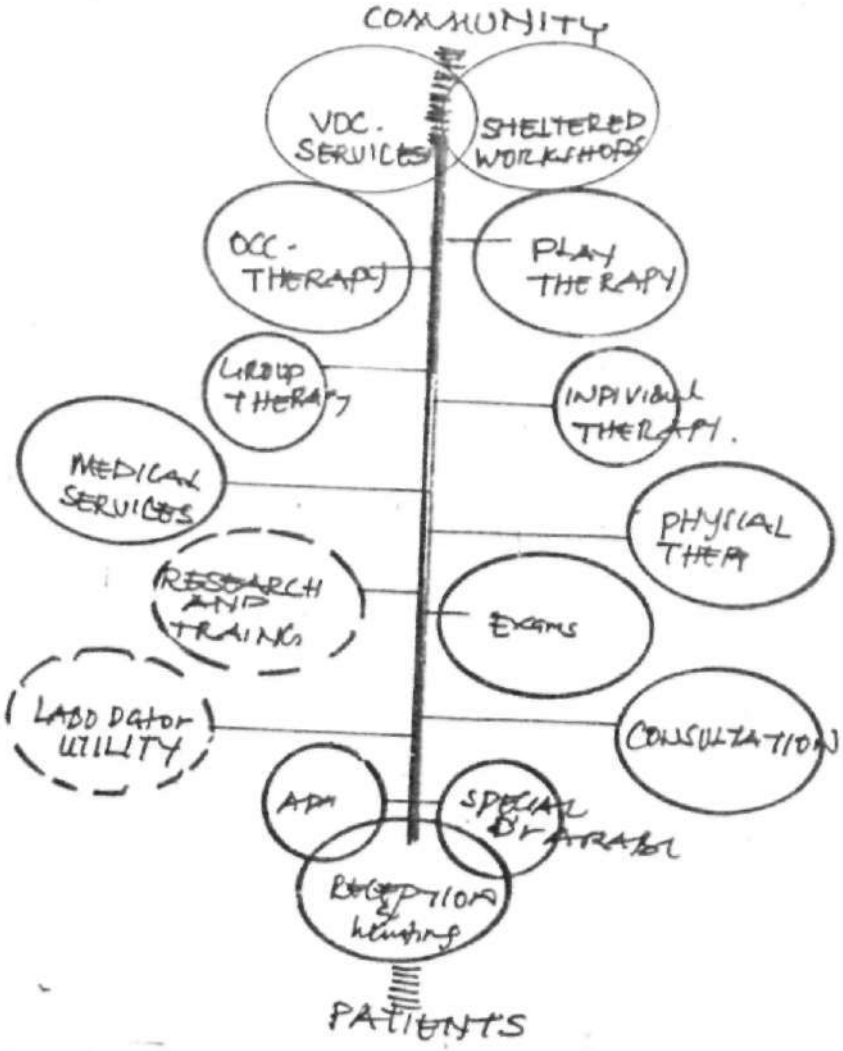
The functional analysis of the whole complex is also shown that some functions are public e.g. Administration and out patients department and others private e.g. the Nursing units so there functions are grouped together into 4 distinct zones which will allow smooth flow of traffic

1. Diagnostic and therapentic zones, semi public
2. Out-patient and public zone
3. In patient zone - private
4. Services zones - public.

The functions are super imposed on the corresponding zones on the site to achieve maximum functionality without interference or obstruction See diagram Fig.....18



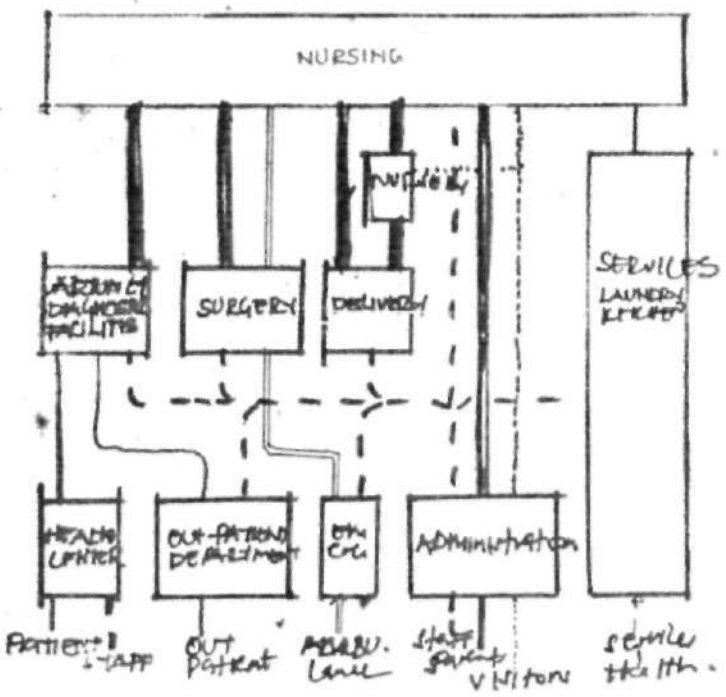
NOTE THE INTER RELATIONSHIPS BETWEEN THE VARIOUS COMPONENTS.



SPINE OF FUNCTIONAL HIERARCHY FOR FACILITIES IN A PSYCHIATRIC HOSPITAL.

Fig 15

FLOW CHART. FOR A HOSPITAL



FUNCTIONAL DIAGRAM

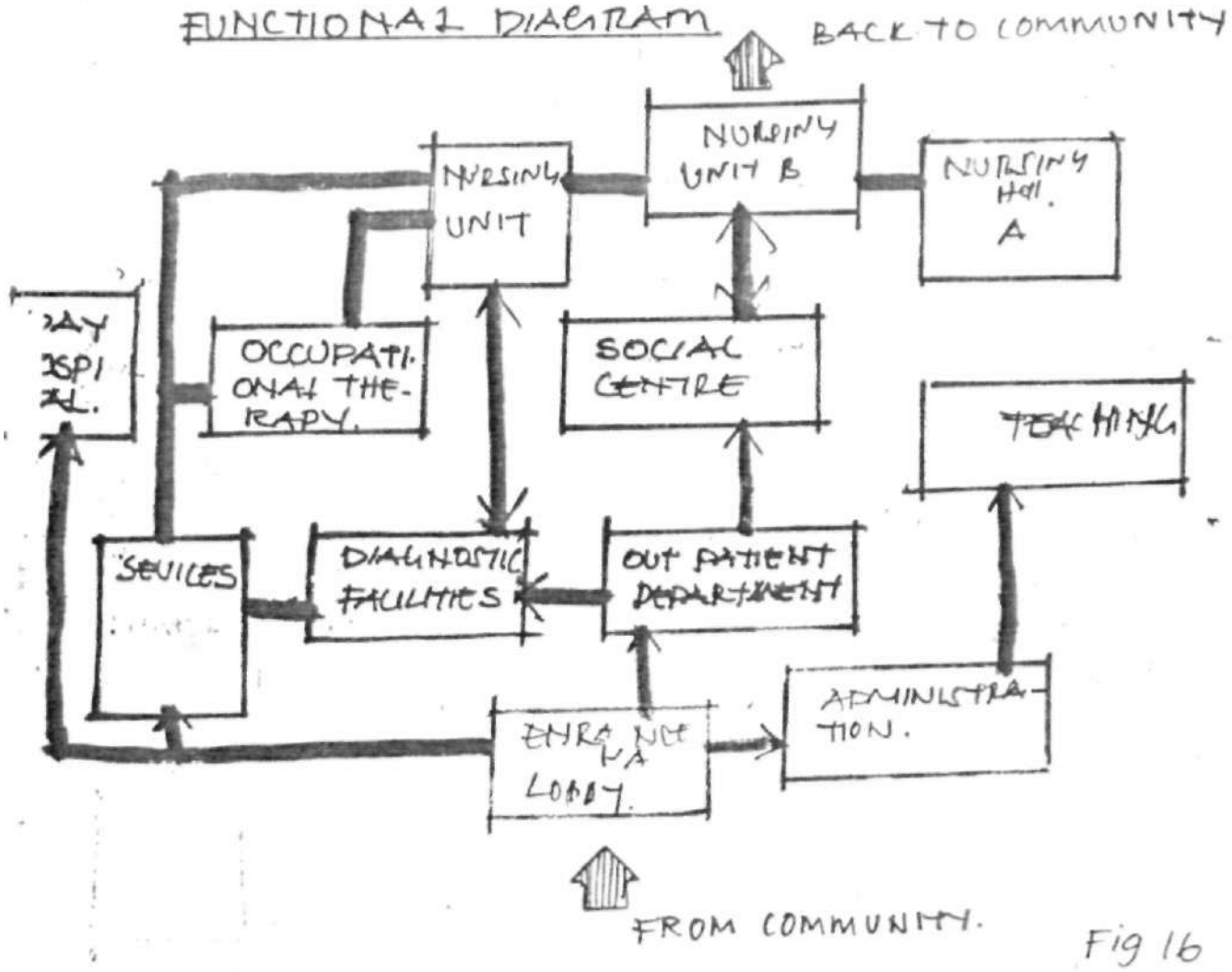
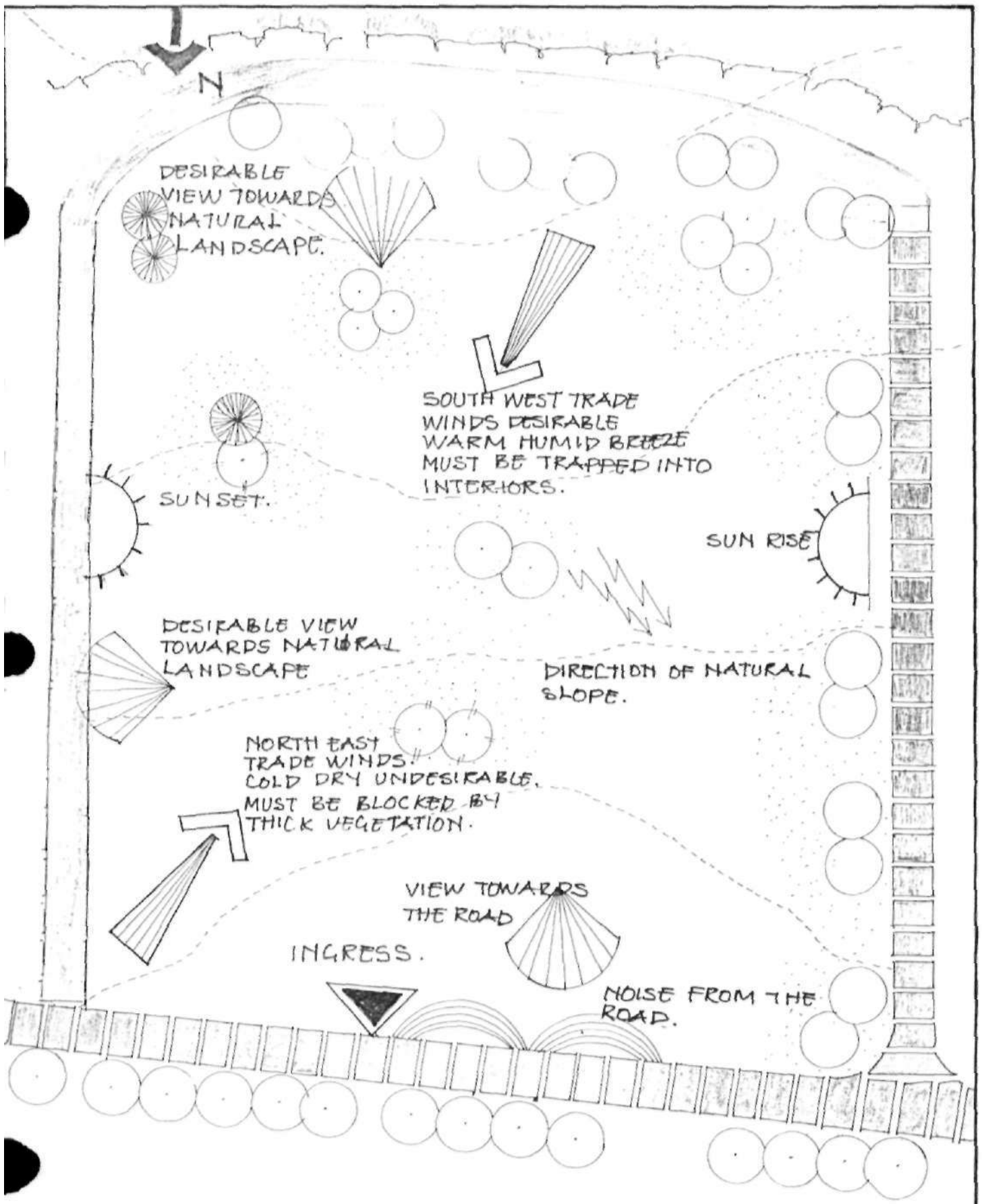
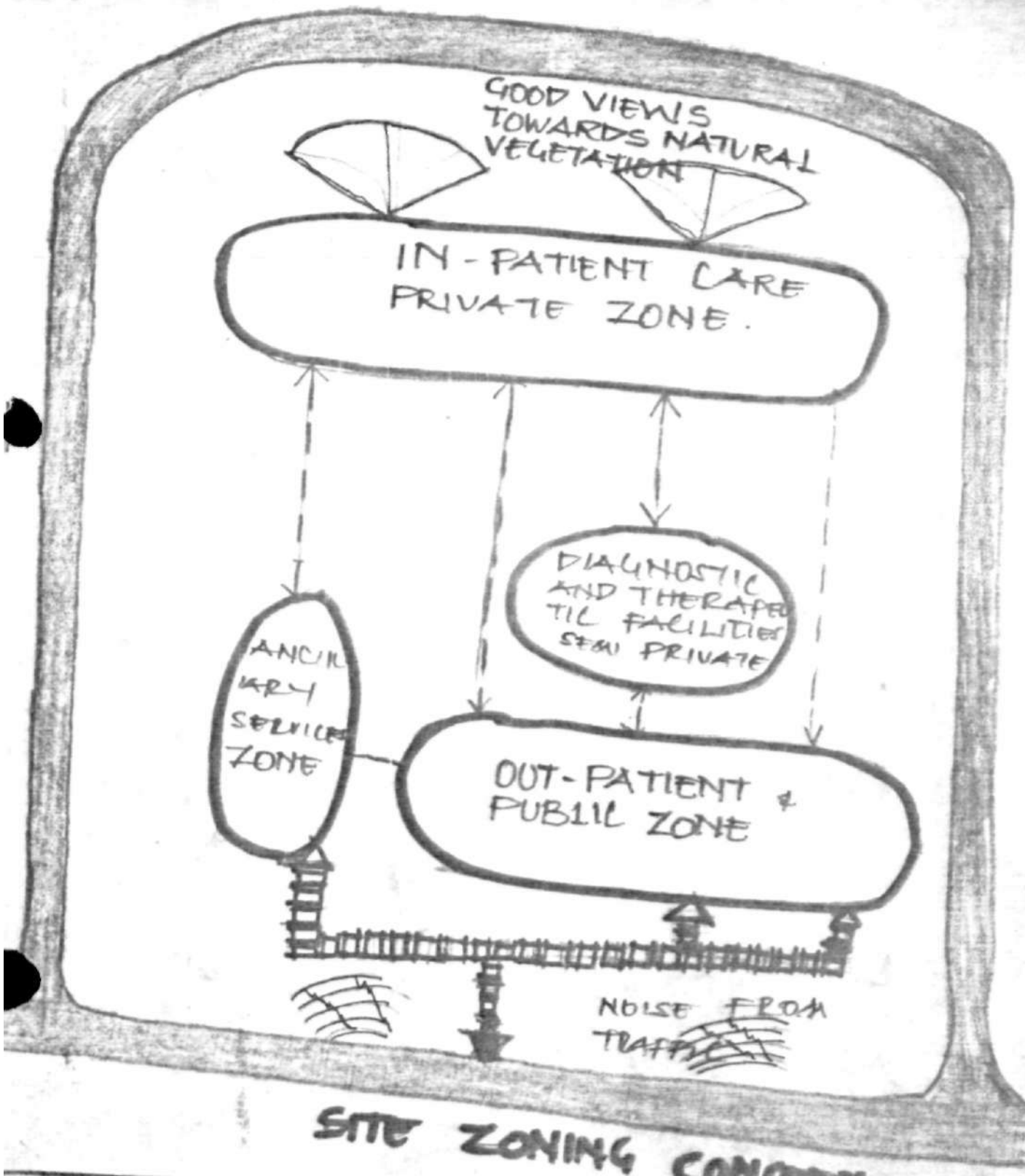


Fig 16



SITE ANALYSIS. FIG.1



SITE ZONING CONCEPTS.

FIG 18

Discription

The services area has been located near the access road. By vertue of its function, it has to be accessible by a motorable road.

The Out Patient Department and the Administrative which are public by function are placed near entrance so that they are reached first. visitors and public who have nothing to do in the other parts of the hospital do not have to go through them.

The diagnosis and therapentic facilities which include Pharmacy, laboratory social centre, surgery, ECT ECG and etc which are semi public act on a barrier building the public and the private zone.

Patient care unit is completely private so itsis rushed behind all other functions.

Traffic Pattern

The vehicular traffic is restricted to only the public areas. Nursing units need not to be assessed by car. Patients who are ambulant can work from one part of the hospital to another and visitors may park in front and work round tb see their patient. The idea is to minimice accident risk, and visitors car noises especially at visiting times. The same parking spaces used by the visitors in the evening since visiting will usually be evening time.

Entrances:

There are three entrances into the complex. The out patient entrance, Administrative entrance and the feeling research entrances. The idea behind separate entrance is to avoid mixing up of the ordinary public with the patients. Patients will feel better and secured if they know that the ordinary public are not allowed to bounce in and see them because they are ashamed of the illness.

PLANNING CONCEPTS

Rosefield Isadore in her book hospital architecture and beyond has outline three major concepts of hospital planning.

- the pavilon – horizontal spread of buildings. Connected by long corridors.
- The monoblock – vertical stalk. Transportation is mostly mechanical by lifts, ramps and staircases.
- Contiguity – This is something inbetween the monoblock and the pavillion.

For the purpose of this design the author has adapted the pavillion planning concept. Even though this has a disadvantage of long travel distances, it is the authors duty to minimise these distances by way of good planning.

The monoblock is avoided because such hospitals, Look monumental and thus make patient feel dimunitive. Secondly use of machinal different is too expensive.

Thirdly staire cases are security risk in a hospital of this kind It is the authors intension to create a hospital building of intimate scale that will make patients and staff feel at home and at the same time to produce a compact layout that functions in unisin and reduces travel distances.

PLAN SHAPE AND FORM

Forms which are simple and do not suggest tentativeness or hesitation in this proportions give, pleasure to the human eye. resulting from the ease to grasp and identify them.

For this reason the author who is dealing with "sick mines" has under taken to all simple rectangles and squares throught the complexe curves and sharp corners which may cause visual inbalance are avoided. "These distinct forms of rectangles and squabes have aquality of stability and proportion which satisfies the human desire for strength, security and settled response"[8] It is the kind of form best for the sick mine.

These squares and rectangles are arranged round courtyards which serves the functions of lighting and ventilation, to make people in the complain apprerate nature and finally to include a feeling of security in the patients.

This courtyard concepts has been adapted from the house making system in the area and African traditional architecture as a whole.

The patient care units are planned in form of a 'village', blocks of buildings round a communal space.

REFERENCES

1. A. Baker R.L. Davis and P. Sivadon (1959)
: Psychiatric Services and Architecture.
(Public Health Papers World Health
Organisation Geneva).

2. Ibid

3. Neutert E. (1980): Architects data

4. Baker A. Davis R.L. and Sivadon (1959)
Psychiatric Services and Architecture.
(public Health papers World Health Organisation

5. Ibid

6. Ibid

7. Halse Albert O. 1972 Use of Colours in Interiors
McGrawhill New York

8. Haward Robertson: (1950) Principles of Architectural Compositions
Seventh impress Architectural Press Ltd London

CONCLUSIONS

The earlier part of this research has enabled the author to fully understand the current concept in the management of Psychiatric patients which involves an architectural environment.

The effects of building forms space inter-relationship and finishes especially colour on patients at various levels of sickness have been fully understood. The result of this research is the design of a psychiatric hospital in a carefully structured environment that will enhance patients recovery.

There is by now a good deal of evidence to suggest that Architectural environment which affects and modifies behaviour ofters patients a maximum therapentic values.

However the concepts of psychiatric patients care and management changes rapidly and it is probable that during the next 20 0 - 40 years there will be substantial alteration in the role of the architectural environment in the therapy.

Therefore in creating an environment of this nature, behavioural scientist psychiatrist and Architects should always work in close collaboration.

8·8 BIBLIOGRAPHY

1. A. Baker, Davis - R.L. and P. Sivadon (1959) : Psychiatric Services and Architecture (Public health paper World Health Organisation) Geneva.

2. Apagu Ali Abba (1983) Psychiatric Hospital Maiduguri. An unpublished M.Sc. Thesis submitted to Department of Architecture.

3. Boroffka (1975): The provision of psychiatric Services in developing Countries. African Journal of Medicine

4. Halse, Aberlt O. (1968) Use of Colour in the Interior McGrawhill New York

5. Haward Robertson (1950) Principles of Architectural Compositions. Seventh impress Architectural Press Ltd London.

6. Isadore Rosefield (1969): Hospital Architecture and beyond Halluday Lithograph Corporation (U.S.A)

7. James Willis (1964) Lecture notes on Psychiaty Blackwell Scientific Publications

8. James Colema (1964) Abnormal Psychology and Modern Life Glenview III Scott Foresman

9. Jones Maxwell (1950) Therapentic Community New York. Basic Books

10. Neufent E. (1980) Architects data Canada Publishing

11. Lambo T.A. and Lenghton Alexandra H. (1963) Psychiatric disorder among the Yoruba. A report from the Cornel and mental health research project in Western region of Nigeria.

12. Michael Claurice (1975) An Introduction to Landscape. American Elsevier publishing

13. Neufert E. (1980) Architects data Canada publishing

14. P.F. Chanoit (1982) Effects of design planning and re-organisation of psychiatric services in France Ekistics 296

15. Redstone Louis G (1982) Institutional building Architecture of the controlled environment Architectural reviewed books.

16. Richard H. Price (1978) :Abnormal behaviour perspectives in conflicts Host Fine Hart and Winston.

17. Riger Bastide (1972) The Sociology of mental disorder. Western printing services limited and Bristole U.K.

18. R.L. Levelyn – Davis (1966) Hospital planning and administration Public health paper World Health Organisation. Geneva.

19. Scott Geoffery (1956) The Architecture of Humanism Constable

20. Scull Andrew (1979) Musium of madness. The social organisation of insanity enquiries.

21. Terner Hemade (1983) Psycho rehabilitation Centre Makurdi. unpublished M.Sc. Thesis submitted to the department of Architecture

22. Tunga Largo (1987) The role of mon Psychiaty. Unpublished Seminar paper presented to the department of Sociology Ahmadu Bello University Zaria.

23. U.S. Department of Health Education. 4 Welfare public Health Service.

Design and Construction of general hospital. F.W. Dudge Corperation New York.

6.9. SCHEDULE OF ACCOMMODATION

MEDICAL CENTRE

Gate House Description	Number of rooms	Area/room(m^2)	Total area(M^2)
Gate mans Office	1	9.00	9.00
Secilusion rooms	2	9.00	18.00
Consultation rooms	1	20.00	20.00
Multipurpose hall	1	40.00	40.00
Toilets	2	6.00	12.00

CONSULTATION FACILITIES

Entrance lobby Description	Number of rooms	Area/room (m2)	Total (M^2)
Entrance lobby	1	81.00	81.00
Waiting for registration	2	30.50	60.25
Registration office	2	20.25	40.50
Waiting for consultation	2	121.00	242.00
Consultation rooms	6	30.30	182.25
Doctors rest/Common room	1	81.00	81.00
Staff toilets	2	6.00	12.00
Patients toilet	4	6.00	24.00

DIAGNOSTIC AND TREATMENT FACILITIES

LABORATORIES Description	No of rooms	Area/room(m^2)	Total(m^2)
Radiology			
Reception/Waiting	1	55.00	55.00
Strecher Bay	1	6.00	6.00
Filing room	1	18.00	18.00
Radio therapy	1	61.00	61.00
Office	1	18.00	18.00
Dark room	1	18.00	18.00
Light room	1	18.00	18.00

	No of rooms	Area/room	Total
Diagnositic x-ray room	1	24.00	24.00
Changing	2	3.00	9.00
Toilets	2	6.00	12.00

ELECTRO-ENCEPHALOGRAPHY

Description	No of Room	Area/room	Total
Reception and waiting	1	60.25	60.25
EEG Room	2	20.25	40.50
ECG Room	1	20.25	20.25
Toilets	2	6 .00	12.00

SURGERY

Disoription	No of Room	Area/room	Total
Reception and Waiting	1	81.00	81 .00
Stretcher Bay	1	6 .00	6 .00
Pre-Surgical preparation	1	10.12	10.12
Anaesthesia	1	20 .00	20.50
Instrument room	1	9 .00	9 .00
Scrub room	1	10.12	10.12
Main theatre	1	45 .00	45.00
Recovery room	1	30.40	30.40
Office	1	20.25	20.25
Filing room	1	18 .00	18 .00
Doctors Common room	1	30.40	30.40
Doctors changing	1	10.12	10.12
Toilets	2	6 .00	12.00

PATHOLOGY Description	No of Room	Area/room	Total
Reception and Waiting	1	60.25	60.25
Office	1	18.00	18 .00
Main laboratory	1	10.00	10.00
Specimen Store	1	18.00	18.00
Scrub room	1	10.00	10.00
Filing	1	18.00	18.00
Toilets	2	6.00	12.00

ELECTRO - CONVULSIVE THERAPY DEPARTMENT

Description	No of Room	Area/room	Total
Waiting and Reception	2	45.5	91·00
ECT Treatment Room	2	18·0	36·00
Recovery room	2	60.25	121.50
Music station	2	2.25	4.50
Toilets	2	6·00	

PHARMACY DEPARTMENT

Description	No of Room	Area/room	Total
Reception and Waiting	2	30.37	60.25
Drug store	1	40.50	40.50
Dispensary	2	18·00	36·00
Pharmacist office	1	18·00	18·00
Toilets	2	6 ·00	12·00

CHILD THERAPY CENTRE

Description	No of room	Area/room	Total
Reception and waiting	1	60.25	60.25
Consultation	1	18·00	18·00
Therapy rooms	1	30.37	30.40
Multipurpose hall	1	60.25	60.25
Toys Store	2	10.12	20.24

ADMINISTRATION

Description	No of Room	Area/room	Total
- entrance lobby	1	20.25	20.25
- reception and waiting	2	18.00	36.00
- Secretaries Office	2	20.00	20.00
- Directors Office	1	30.00	30.00
- Assistant Director	1	30.00	30.00
- Hospital Secretary	1	20.25	20.25
- Conference room	1	40.5	40.5
- Matron office	1	20.25	20.25
- General office	1	60.25	60.25
- Cash office	1	20.25	20.25
- Medical Social Services office	1	20.25	20.25
- Offices (	1	20.25	20.25
- Toilets	2	6.00	12.00

SOCIAL WELFARE DEPARTMENT

Lobby

	No of Room	Area/room	Total
- Psychologist	1	20.25	20.25
- Social welfare office	1	20.25	20.25
- Information room	1	20.25	20.25

RECORDS DEPARTMENTS

Description	No of room	Area/room	Total
Records office	1	20.25	20.25
Catalogue	2	10.125	10.125
Records store	1	40.50	40.50
staff room	1	20.25	20.25

TEACHING AND RESEARCH FACILITIES

Description	No of Rooms	Area/Rooms	Total
Entrance Lobby	1	60.25	60.25
Director of Research Office	1	30.37	30.37
Secretary	2	10.125	20.250
Conference room	1	30.37	30.37
Staff common room	1	40.5	40.5
Record laboratory	1	40.5	40.5
Teaching laboratory	1	40.5	40.5
Seminar room	1	60.25	60.25
Staff toilets	2	6	12
Classrooms	4	60.25	60.25
Medical Library	1	81	81
Offices	2	20.25	20.25
Toilets	2	6.00	12.00

IN PATIENT NURSING UNITS

CONVALESCENT PATIENTS VILLAGE

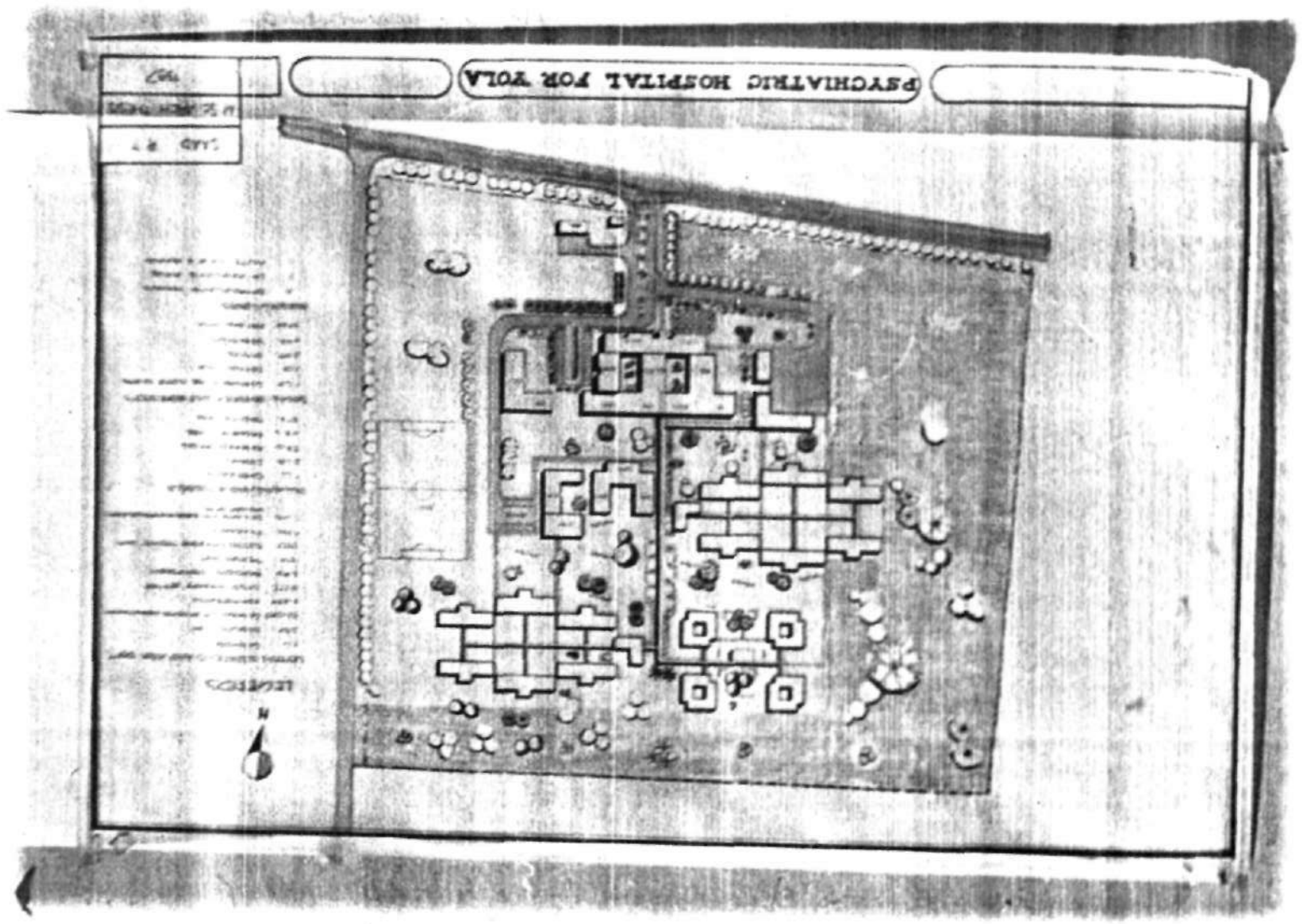
TYPICAL WARD

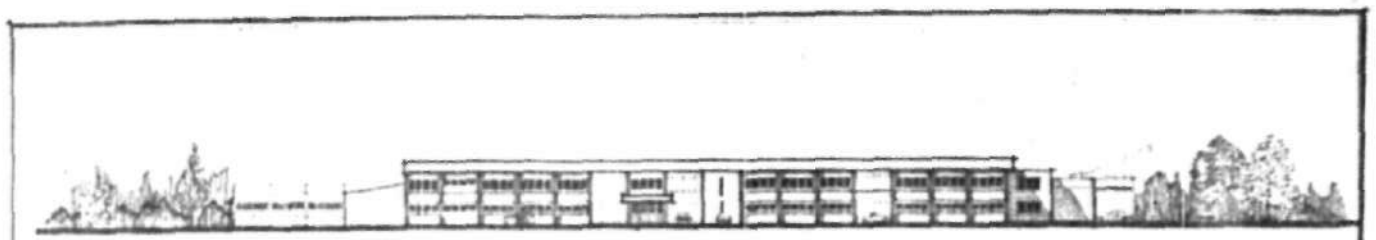
Description	No of Room	Area/room (m^2)	Total (m^2)
6 Beds ward	2	45·00	90·00
Nurser Room	1	18·00	18·00
Drug Store	1	9·00	1 ·00
Single Bed wards	2	9·00	18·00
Utility room	2	10.50	21·00
Toilets	1	6 ·00	6 · 00
Shower	1	6 · 00	6 · 00
Dining hall	1	40.50	40.50
Preparation	1		
Common room	2	30 ·00	30 · 00

ACUTE PATIENTS UNIT

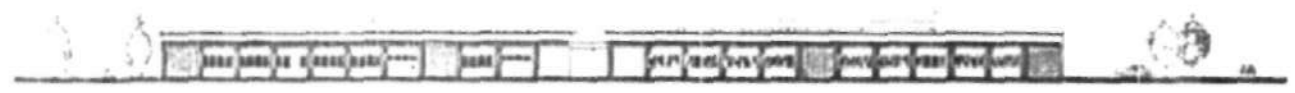
TYPICAL WARD

Description	No of Room	Area/room (m^2)	Total (m^2)
4 Beds ward	2	36.00	72.0
Seclusion rooms	2	9.00	18.0
Nurses station	1	9.00	9.00
Dry store	1	12.00	12.00
Day room	1	45.00	45.00
Utility room	2	9.00	18.00
Toilet	2	9.00	18.00
Shower	2	10.25	10.25


PSYCHIATRIC HOSPITAL FOR YOLA



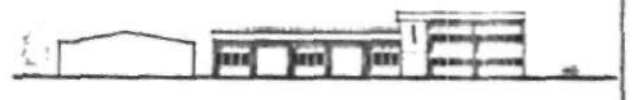
NORTH ELEVATION



SOUTH ELEVATION



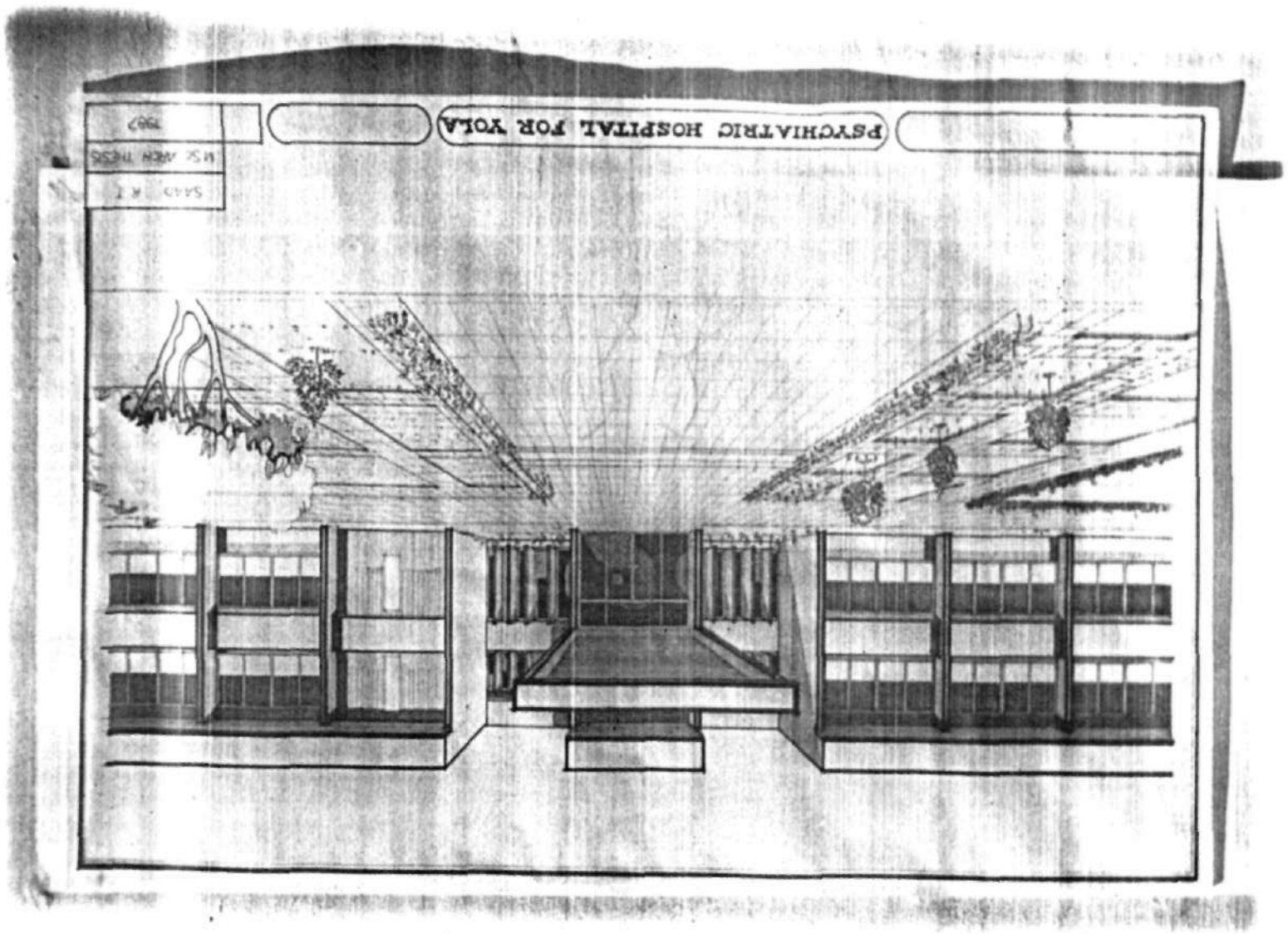
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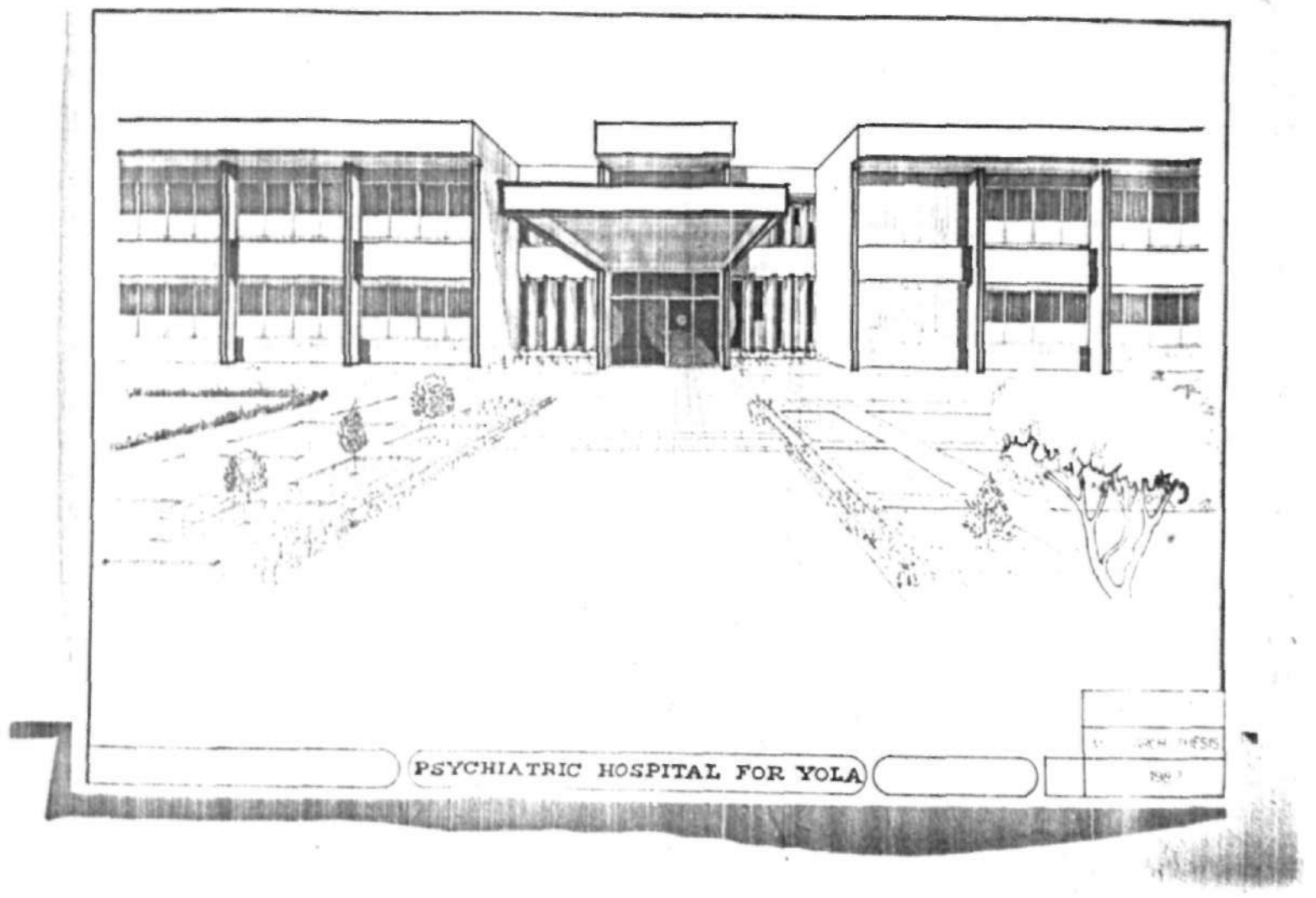


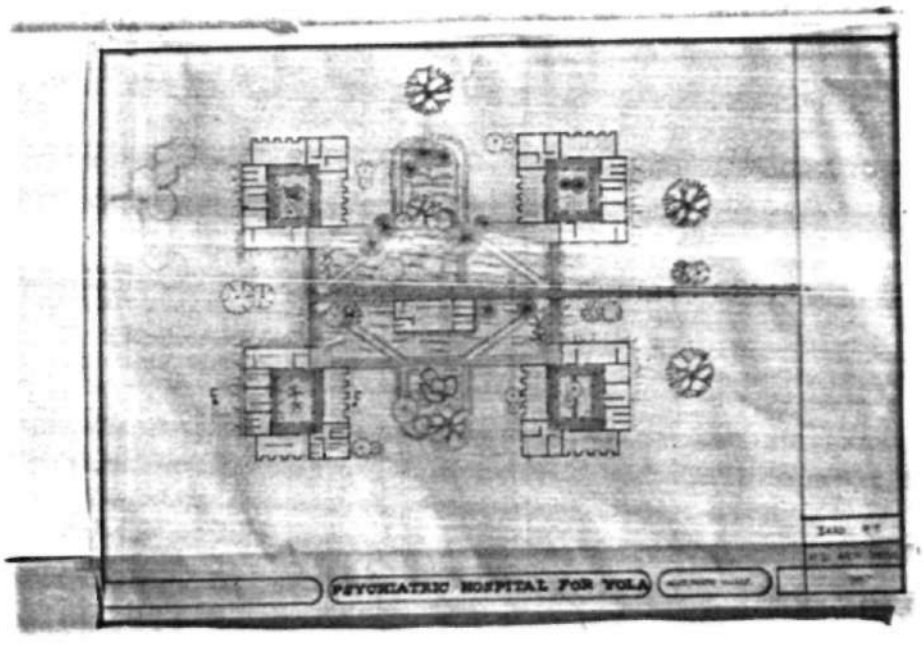
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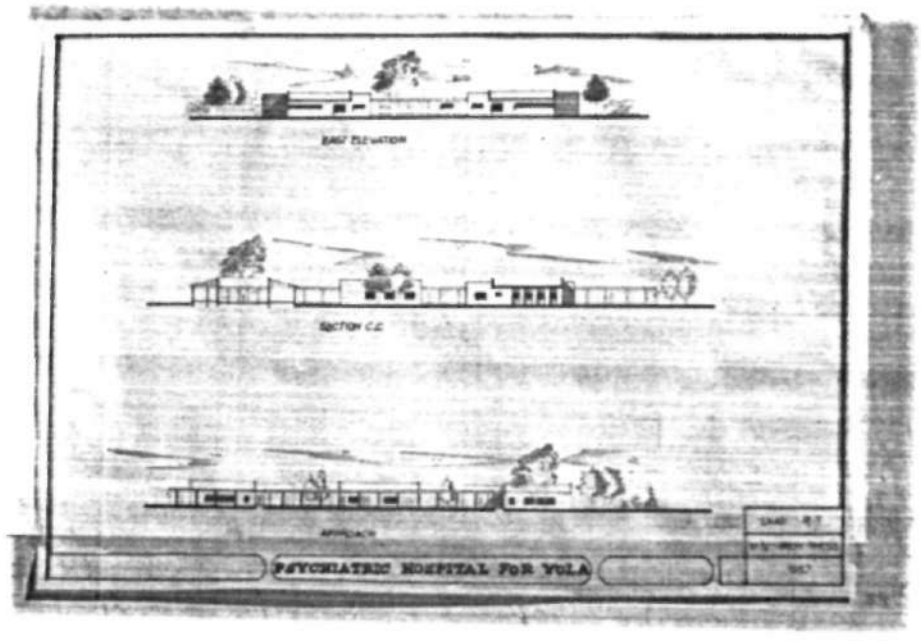
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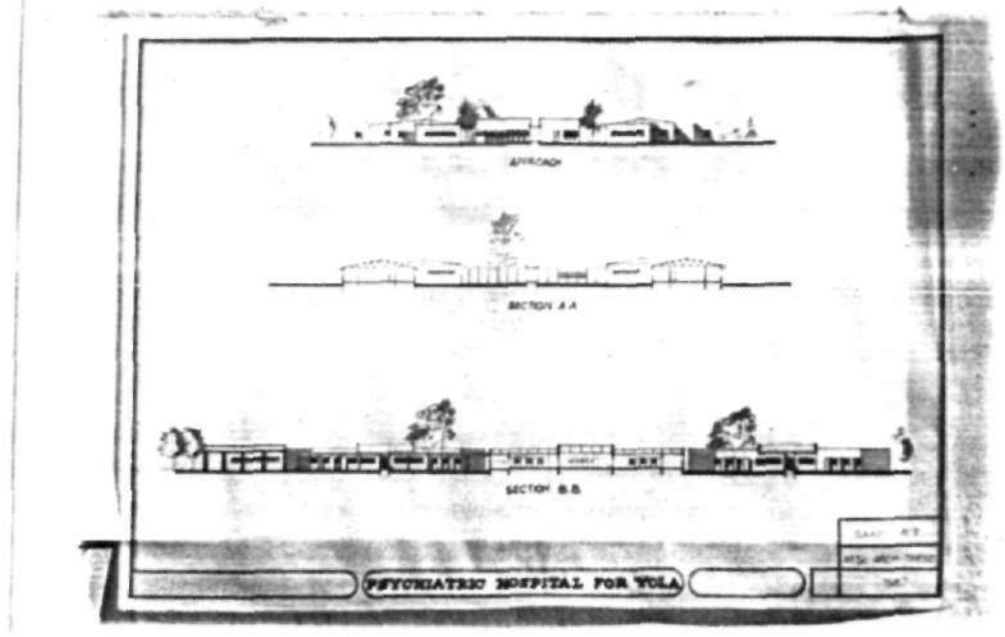
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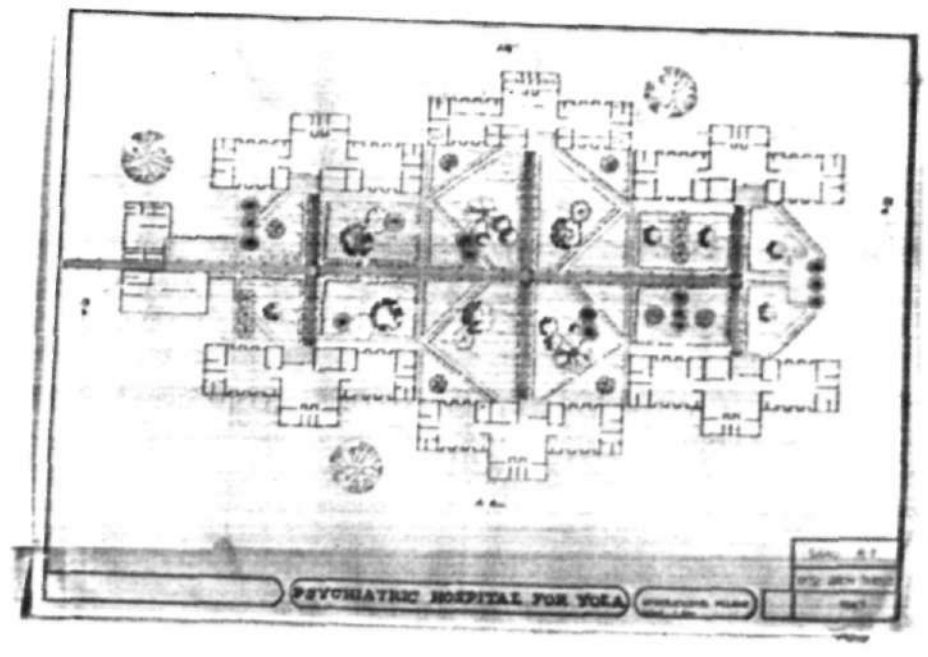

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PSYCHIATRIC HOSPITAL FOR VOLA


EAST ELEVATION
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PSYCHIATRIC HOSPITAL FOR VOLA


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