FEDERAL PRISON, ABUJA:

A NEW APPROACH TO PRISON DESIGN

BY

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Department of Architecture

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DECLARATION.

I hereby declare that this thesis has no bearing to any work done by any person or group of persons which has been presented and accepted for a higher degree. This thesis has been composed by me and is a record of my own research work all quotations are distinguished by quotation marks and the sources of information are specifically acknowledged by means of references.

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CERTIFICATION.

This thesis report entitled **FEDERAL PRISON ABUJA** by **FAMILUSI ABIMBOLA. A.** meets the regulations governing the award of the degree of Masters of Science in Architecture (M.Sc. Arch) of Ahmadu Bello University, and is approved for its contribution to knowledge.

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DEDICATION

Dedicated to all the prisoner who would have had better opportunities of re-integration with better prison conditions in Nigeria .

ACKNOWLEDGEMENT

I would like to recognise the wonderful people who have made this thesis write up easier than it would have been.

First of all, my greatest thanks and gratitude goes to God Almighty, who found it in His very busy schedule to keep me in full health.

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ABSTRACT

Increasing crime appears to be a failure of all modern industrialised societies. The crime rate and efforts to control it has led to the evolution of prisons. Prisons are places created to shelter the reformation of judged criminals. Depending on perception, it may be viewed as a place to reform the convicted offenders of the society. Prison is seen by most people as an inevitable part of the penal system and there is a growing awareness that its effect on offenders are rarely beneficial and may be positively harmful. In "Prisoners of the society" Martin Davis argues that there is still the need in the society for a commitment, not only to reform its deviant members, but also to provide a compassionate service in those situations where it is most needed"

The essence of this study is to examine the purpose and effectiveness of prisons and to use the principles of rational architectural design in creating a more effective prison program. Studies have shown that even good rehabilitation programmes sometimes fail to reform prisoners after the expiration of their prison term. Some schools of thought attribute the apparent failure of such programmes to the rapidly evolving cultural dynamics and social trends. This is why it is of great importance to evaluate current prison conditions in the country. This study will examine ways of improving prison conditions through architectural solutions.

Prison conditions have changed in some ways over the years, but the nature of imprisonment is depressingly similar. In Nigeria, the present state of prisons donot meet the required standards for the policies and objectives of the national Penal System. Most of the existing facilities were established during the colonial era. The penal system then

was based on punitive rather than corrective reformation. As a result, these facilities are no longer suitable for achieving current and future goals.

In the pursuit of adequate architectural design solutions, rational basis of problem definition, analysis synthesis and solutions have been employed. Relevant research has been conducted with regards to overall objectives, means methodologies, as well as media of communication of research products. In terms of context, consideration is given at both macro (i.e. in terms of the global world situation) and micro (i.e. in terms of the Nigerian national context) scale. The objective at all times as been to give practical application to the design solutions proposed and presented in the fulfilment of requirements for postgraduate thesis.

It is expected that at the end of this exercise, this study will lead to the evolution of a prototype prison environment capable of meeting the expectation and challenges of the nation, state and society. The focus of this study is to suggest ways of improving prison

conditions through provision of necessary infrastructure and space allocations, organisations and articulations. The long term objective will be to achieve a humane oUsposjiion that will fully reintegrate rehabilitated offenders into the society.

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1.0 INTRODUCTION

1.1 Problem definition.

The main policies and objectives of the Nigerian Penal System are based on the principles of corrective measures. The idea is to make the prisoner more useful to himself and the society upon completion of his term in prison. Unfortunately, this is not easy to achieve in practice. A close examination of the prison conditions in the country shows high level of cruelty and unusual punishment

Reports from people who have been incarcerated in the Nigerian prisons reflects the inadequacies of the existing facilities. The facilities on ground are not enough for the inmates the penal system insists on dumping into prison. As a result facilities meant for two of three people are grossly overused by about fourteen people or more. (HuriLaw news letters)

There are poor facilities for sanitation throughout the prisons. Prison cells are overrun with vermin in all stages of development. Personal hygiene is impossible, food and sanitary conditions are inadequate and unsafe.

According to the Human right news letters, the overall effect of the accommodation situation manifests an unpleasantness that defeats the overall aim of social rehabilitation of inmates. Inmates are housed in virtually unsupervised, overcrowded dormitories, with no attempt by officials to separate minor offenders from violent criminals. This makes the rehabilitation process difficult if not impossible. There are glaring deficiencies in the area of support facilities. Most prisons in the country have no provisions for inmates with physical or mental problems. This is pathetic, especially for a pregnant female prisoner during or after giving birth to her child.

Facilities for recreation are never available. This readily leads to idleness as well as physical and mental depression of the prisoner. Similarly, there are no adequate facilities for religious worship in some of the prisons. This is a vital ingredient for reintegration into the society.

The prison system in Nigeria takes away the prisoner's pride, self-esteem, and plunges him into further disrepair. The prison condition requires a lot in terms of infrastructure and improvement to achieve its aim of rehabilitation for the inmates.

The problem presented therefore is one of finding a more humane architecture that will provide suitable conditions to aid the rehabilitation, reformation and reintegration of incarcerated offenders.

1.2 Statement of intentions.

The main aim of the thesis is to carry out a study of the Nigerian Prison System; (using, the Kiri-Kiri Maximum security prison and the Federal Prison of Kaduna as case studies), so as to improve the current prison conditions in Nigeria through recommendations in terms of appropriate infrastructure and actual physical structures.

The architectural design solution presented at end of the exercise will hopefully serve as a the prototype design that will result will form a basis on which to fashion other prisons. To achieve the stated aim, a number of objectives have been identified as follows:

i. To study the existing infrastructure.

ii. Consider the merits and demerits of these infrastructures.

iii. See to the improvements of the demerits in the light of the "state-of-the-art" technology for improving the physical and mental development of the inmates.

iv. And finally, to propose a contemporary design solution based on these problems.

1.3 Motivation

This study has been motivated by humane and compassionate considerations and consequent efforts to check the wave of the spread of crime in the society. The inhuman treatment during prison terms have more terrible impact on the ex-inmates. Rather than leaving the prison rehabilitated, prisoners come out of prison as more hardened criminals with scores to settle with the society. The prime motive is to use the opportunities presented to constitute to the arrest of this spread.

1.4 Methodology

In the aid of carrying out a thorough research work, field trips will be made to prisons chosen at random: for size and convenience. This is to observe the human elements. The prison governors will be interviewed and questionnaires will be administered during the study. Physical documentation of the existing infrastructure will be carried out in print, graphics and photography.

Due to the nature of the problem of prisons, secondary sources will also be relied upon to compare notes. Journals, Periodicals, published and unpublished theses, as well as electronic mails will be used in collecting data for the study. Historical evolution of crime

development in the country as well as methods of preventing crime will be carefully studied. This will require relying on information from oral history.

The final analysis will be the result of the formal interviews, administered questionnaires and literature review. This will result in the prototype design for a model prison in Nigeria.

1.5 Constraints and limitations

Prisons are very sensitive areas of public service - for security and other reasons. Detailed information will be difficult to obtain, and pictures will not be allowed in the prison premises.

Time is a serious limitation in this field. Due to the nature of the study, the case studies will be taken for ease of contact.

1.6 Scope of work

This research will involve a study of prisons, foreign as well as Nigerian. Studies of facilities to improve the policies of the prisons will be considered and ways of improving prison conditions through architecture.

2.1 Crime

The New Encyclopaedia Britannia (volume 16), describes crime as an act of omission or commission that violates the law and is punishable by the state. Crimes are considered injuries to the society or community as defined by law. Crime includes both act (*actus rea*), and the intent to commit the act (*mens rea).* Criminal intent involves an intellectual apprehension of factual elements of the act or acts commended or enjoyed by the Law. Criminal liability is relieved in the case of insanity and legal minors. Under common law, crime was classified generally as treason, felony, or misdemeanour, but many offences could not be defined exactly and the rule was adopted that any moral act tending to prejudice the community was, per se, a crime and punishable by the courts.

2.2 Types of Crime

The most common crimes that occur are:

a. **Larceny**: The unlawful taking of property without the use of force violence of fraud. Included are crimes such as shop lifting, pocket picking and purse snatching. Excluded are "con" games, forgery and issuing of worthless cheques .

b. **Burglary**: The unlawful entry of a structure to commit a felony or theft. The use of force to gain entry is not required to classify crime as burglary.

c. **Robbery**: Stealing or taking anything of value from the care, custody or control of a person in his presence, by force or the threat of force. Assault to commit robbery and attempt at robbery are also included.

❑ CIVIL OFFENDERS

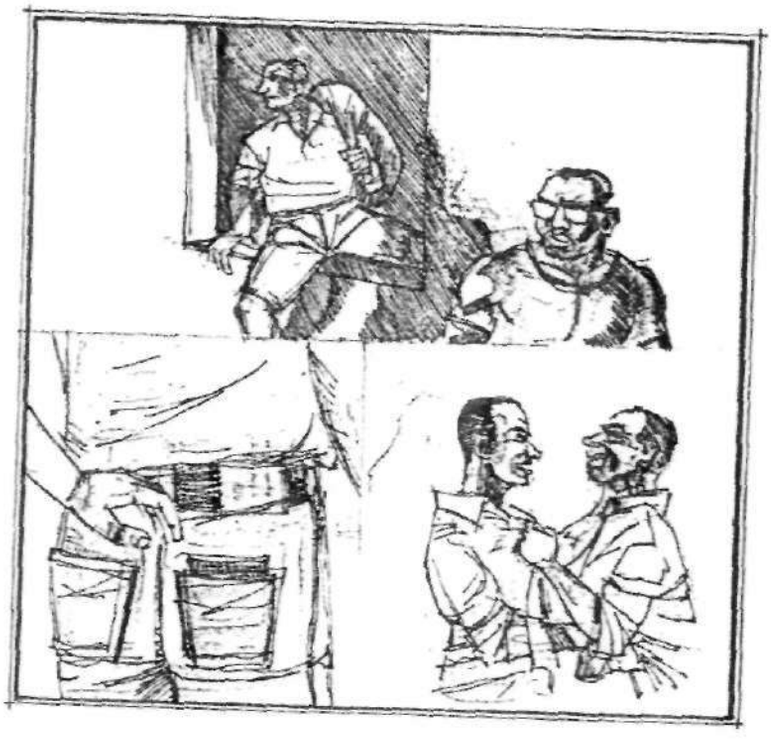


PLATE 1

❑ POLITICAL PRISONERS

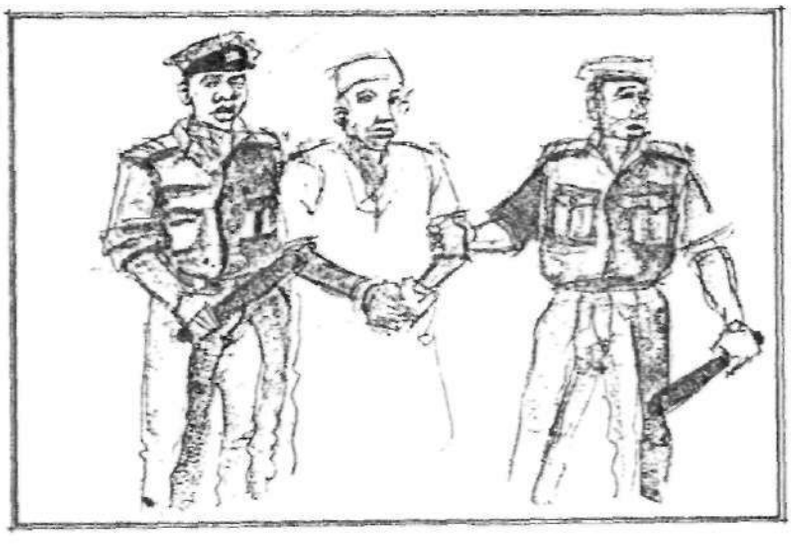


PLATE 2

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☐ HOMICIDE



PLATE 3

d. Forcible rape: The carnal knowledge of a female through the use of force or threat of force. Assaults to commit forcible rape are also included. Statutory rape (without force) is not included.

e. Aggravated assault: The unlawful attack by one person upon another for the purpose of inflicting severe bodily injury usually accompanied by the use of a weapon or other means likely to produce death or serious bodily harem. Attempts are included since it is not necessary that an injury result when the weapon is used which could result in serious injury if the crime were successfully completed.

f. Murder and non negligent manslaughter: The wilful killing with malice aforethought of a human creature, the death occurring within a year and a day of injury.

g. Political offence: In criminal law, this is the act declared by the state to involve a threat to its safety or existence, as treason, sedition or declared to constitute an interference with the organisation and processes of government, as bribery of public officials. Such offences are distinguished from ordinary crimes that disturb the public peace, such as murder, arson or larceny, but are not directly against the government.

2.3 Measurement of Crime

The most common techniques for measuring the various parameters of crime are notorious for their inaccuracies and disagreements. Despite the desired reputation, statistical assessments do permit at least an unanimous verdict about the frequency of crime: There is too much of it.

HIM LIBRARY

It is obvious that statistics underestimate the actual amount of criminal activity because all criminal events are not observed, and of those that are observed, not all are reported to the police. Such underestimation is common to many measurement problem where the task is to choose some index that will accurately represent some universe of events whose dimensions are completely unknown.

2.4 Theories of Crime

No one knows for sure why crime occurs, the theories of crime are nearly as old as the phenomenon they try to explain. The first implicit theory of crime was probably hatched by the original crime victim who, discovering that his cave had been burglarised or his favourite club filched, grappled with the general question; "why?" or struggled with the more personal, but equally vexing puzzle; "why me?" More formal descriptions of crime had a religious tone, being primarily concerned with transgression of God's rather than man's laws. From this perspective crime was either equivalent or due to sin. This theory, based on theology and ethics, is that criminals are perverse persons who deliberately commit crimes or who do so at the instigation of the devil or evil spirits. Although this idea has been discarded by Criminologists, it persists among the uninformed people and provides the rationale for the harsh punishment still meted out to the criminals today.

During the 1700s and 1800s, naturalised accounts of man's relationship with his brethren's concerned moral issues and were turf of social philosophies and social critics such as Voltaire and Rousseau. Several social and legal concepts were emphasised by this

group of thinkers, including the philosophy of free will, in which behaviour was directed by rational choices. This movement, whose major components were Italian intellectual, Casare Baccaria and the English philosopher, Leremy Bentham, did not provide a theoretical explanation of crime beyond the moral judgement that criminals were individuals who faced with the decision of doing right or wrong, freely opted to do wrong. The major intent of this classical school was reform.

The core reformism principle of the classicist was the concept that punishment should fit the crime. Punishment should be tailored to the offence it follows, but punishment should never be too severe.

Sophisticated scientific explanation for the cause of crime have been presented by three criminologists, an Italian Criminologists : Casare Lambroso (*1835 -1909*), Enricho Ferri and Raffaele Garofalo. Ferri stressed social determinism, while acknowledging the role of physical factors. Physical characteristics were most strongly emphasised by Lambroso, he asserted that crimes were committed by persons who are born with certain recognisable hereditary physical traits, this theory was however disproved by a British criminologist, Charles Gorring (*1870 -1919*), in the twentieth century. Gorrings comparative study of jailed criminals and law abiding persons established that the so called *"criminal types"* with inert disposition to crime do not exist. Recent scientific studies have tended to confirm Gorrigs findings, some investigators who holds with the Endocrinology theory, still hold however that specific abnormalities of the brain and endocrine system contribute to a persons inclination towards criminal activities.

Criminal behaviour was also related to the environment, natural or physical by a French philosopher, Montesquieu. Criminologists of the nineteenth century, associated with sociologist movement, attributed crime mainly to the influence of poverty, pointing out that persons who were unable to provide for themselves and there families through the normal legal channels are frequently driven to illegal channels.

Expert today however blame the cause of crime on the multiple factor or multiple causative theory. They reason that crime springs from a multiple of complicity of conflicting and converging influences - Biological, Psychological, Cultural, Economic and Political. The multiple causation theory seems more plausible than the earlier stated theories. An understanding of the causes of crime is still elusive because the interrelationship of causes is difficult to determine.

2.5 Treatment of Crime

Various correctional approaches developed in time, old theological and moralistic theories encouraged punishment as retribution by the society for evil, some tried to make punishment more precisely fit for the crime committed. Italian schools stress on prevention of crime rather than on punishing crime, these people argued that individuals are shaped by forces beyond their control.

Over the years, treatment and rehabilitation of criminals have improved in many areas, the emotional problems of convicts have been studied and efforts are being made to help such offenders in most developed countries. In all, greater public understanding of crime is important to the apprehension and conviction of criminals, their rehabilitation and prevention of crime. In recent times however, public attitude towards crime and punishment have been changing, rehabilitation is falling out of favour as public demands longer and harsher sentences for offenders.

2.6 Punishment of crime

The purpose of punishing offenders have been debated for years, a variety of conflicting are held in practice each is followed to an extent. These theories are:

a. ***Restitution:*** In modern judicial system, the term restitution has acquired various shades of meaning. The key principle that all theories of restitution share is that there should be a relationship between the gravity of the crime and the severity of the punishment. Punishment should be used to achieve an end rather than a social objective.

b. ***Deterrence:*** This is a complex concept that involves several related theories of punishment. Criminologists distinguish between general and individual deterrence in this form: General deterrence is punishment whose objective is to deter other persons from following examples of offenders by fear of the same consequence that have

been inflicted on the offenders on him. This theory of general deterrence is not concerned with the future behaviour of the offender himself, it assumes that most crimes are rational and that most potential offenders would calculate the risk of being caught, prosecuted and sentenced in this manner. On the other hand, the individual deterrence theory, unlike the general deterrence, is aimed at a particular individual who is punished, the objective here is to teach him not to repeat his behaviour. Deterrence share with retribution the idea that punishment should be related in severity to the gravity of the crime committed, emphasising the principle of proportionality on practical grounds.

c. ***Incapacitation:*** This is an aspect of punishment known since early times. The idea is for the offender to be dealt with in a manner that will make it impossible to repeat his crime: by execution or banishment in earlier times, by execution or lengthy periods of incarceration in modern times.

The problem here arises with reconciling the idea with other principles, in particular those of limiting retribution. In practice it is limited to offenders who have committed crimes repeatedly. However, because there is great difficulty in identifying with any certainty those offenders who are dangerous, the principle is controversial.

d. ***Rehabilitation:*** This is a more recent theory of punishment, the idea is that through treatment and training, the offender should be rendered capable of returning to the society to function as a law abiding member of the community.

2.6.1 Types of Punishment

Most countries have enacted a criminal code in which all of the criminal laws can be found. Prison is not the most common penalty for crime nor is it one of the oldest, in fact a wide variety of punishment that do not involve incarceration are used including financial sanctions. Some of the punishment for crime include:

i. ***COPORAL PUNISHMENT:*** This include punishments like :

a. **Flogging**: It has been one of the most popular methods of punishing crime and has been used to preserve family domestic, academic and military discipline.

b. **Mutilation:** Introduced or earlier employed by Lex Talionis. This theory holds that punishment be inflicted by methods that duplicates the injury originally inflicted. E.g. "an eye for an eye" e.t.a. This was done to discourage other potential criminals.

c. **Branding:** This was common with prisoners of war, slaves and criminals in the late oriental and classical societies. The Romans branded criminals with some appropriate mark upon the forehead.

d. **Stock and pillory:** This method was common in the early modern times. The stock held the prisoner, sitting down, his feet and arms fastened in a locked frame. The pillory held him standing with his feet and arms in a locked frame.

ii. ***TRNSPORTATION :*** This involves sending criminals or offenders on exile, banishing them overseas motivated by the desire to rid the society of its criminals.

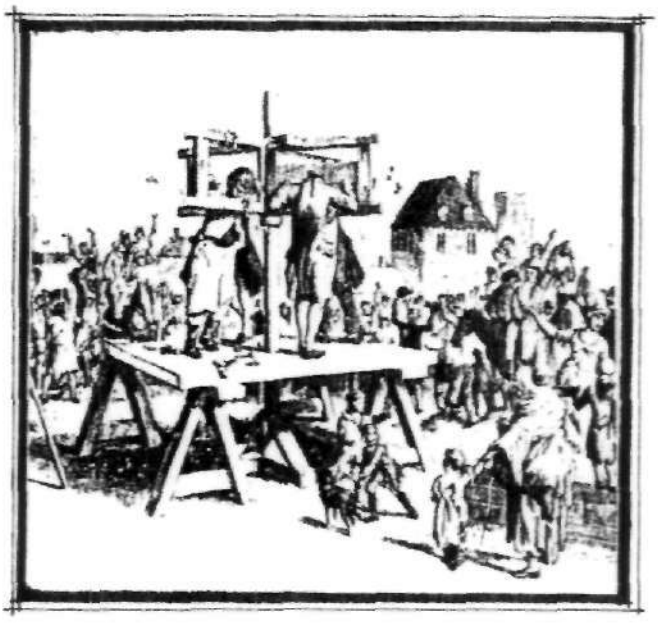


PLATE 4 Stock and pillory

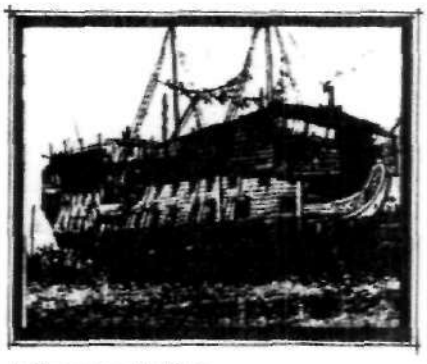


PLATE 5 : Transportation

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PLATE 6 Capital punishment

Used in places like England where offenders were transported to Australia and North America.

iii. ***FINES*** *:* This is the common penalty for punishment that avoids the disadvantages of many other forms of sentences. It is inexpensive to administer and does not normally have side effects such as social stigma and many other side effects that follow imprisonment. However, fines have limitations. There are dangers that the imposing financial penalties may result in more affluent offenders receiving penalties that can easily be discarded while less affluent offenders are placed under burdens that they cannot sustain.

Iv ***REPARATION*** *:* The concept of reparation is relatively new and has gained in popularity in many societies. In this case, the offender makes good the damage he has done through his crime, not by paying money but by services to the victim directly or indirectly, through the community usually in form of one community service or the other.

v. ***CAPITAL PUNISHMENT*** *:* This involves taking the of a criminal by drowning, stoning to death, hanging, beheading, firing squad, etc. The purpose of this gruesome exercise is to provide adequate warning to potential criminals. Most of these forms of execution have been abolished over the years but some still remain today. Hanging has been the most widely used following the firing squad. In the present time, electrification by the electric chair, gas chambers, lethal injections are the most common forms of capital punishment.

vi. ***DISQUALIFICATION*** This is a most familiar kind of punishment, where the offender is prevented from committing further offences without the necessity of incarceration. An example is that of disqualifying an offender from driving a motor vehicle or from holding a drivers license. Other forms of disqualification may be imposed on offenders, convicted by particular types of crime: A fraudulent company director may be disqualified from being involved in the direction of a company, a corrupt politician may be disqualified from holding public office, a parent who sexually abuses his children may be deprived of parental authority over them.

2.7 Punishment of Crime in Africa

Sentencing courts in Africa stress the punitive and deterrence aspect of sentencing rather than the reformative. In consequence, sentences of imprisonment are often proportionately longer than they are in Europe, fines are also heavier. The legislation of African countries reflects the same approach to sentencing as capital punishment and in many cases corporal punishment are permitted and in some cases may be mandatory.

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2.8 Nigerian Penal System.

Criminology emerged in Nigeria in the late sixties as an extension of the legal discipline. The opportunity for its birth came about in July 1968 when the Faculty of Law of the University of Lagos organised the National Conference of the Nigerian Prison in collaboration with the Prison Department itself. The attendance at this conference influenced the type of criminology that emerged and became dominant today.

The Criminology that emerged was "correctionist" in stance, and largely service oriented, emerging from a largely legalistic background. This was a direct departure from the criminology of punitive stance that was adopted during the colonial era. The change may have been due to the reformation in prison and penal systems going on in the western world at the time. In the early seventies, there emerged a group of intellectuals with a strong determination to produce sociological accounts of crime and criminal justice. The effort of these group led to the International Conference on Crime-Control in developing countries in Ibadan in 1980. The greatest contributor to the school of thought of these intellectuals is Odekunle (1976, 1978, 1979 and 1980). A careful examination of his views illustrates the general concern of these people. Odekunle argues that Nigeria is currently experiencing a "crime-problem", and this problem is a direct concomitant of the operative social order. He identifies Nigeria's development strategy as the "capitalist" or the "mixed" type, and suggests that it is inherently crime producing because it creates the "Economic man" who accumulates wealth and property at the expense of others.

In the formulation of a Penal system that will best suit and reduce crime rate in Nigeria, more fundamental thinking needs to be done to re-conceptualise crime before valid decisions can be made.

PUBLIC ORDER

CRIMES/OFFENCES REPORTED TO THE POLICE

YEAR	CASES REPORTED	CASES PROSECUTED	CASES PENDING	CASES CLOSED
1994	291,272	144,864	128,174	15,720
1995	251,055	123,030	124,999	16,449
1996	285,810	129,858	140,999	32,546
1997	297,478	144,814	136,771	15,204
1998	279,910	117,948	117,267	15,366

TABLE 1

CASES RPORTED TO THE POLICE

SERIOUS CRIME	1994	1995	1996	1997
MURDER	1,646	1,502	1,453	1,629
MANSLAUGHTER	89	53	48	20
FELONIUS WOUNDING	16,359	14,775	16,491	17,167
ASSAULT	52,007	51,312	53,320	45,877
OTHER CRIMES AGAINST PERSON	28,370	26,776	21,715	24,432
ARMED ROBBERY & EXTORTION	1,700	1,064	1,568	2,044
BURGLARY & HOUSE BREAKING	26,923	23,484	28,826	18,392
LARCENCY	90,017	72,294	N.A	69,341
FORGERY & CURRENCY CRIMES	1,335	1,425	1,210	776
OTHER CRIMES AGT. PROPERTY	38,584	43,897	21,715	48,379
BRIBERY & CORROPTION	297	314	137	224
TOTAL	257,281	236,896	146,483	228,281

TABLE 2

RECIDIVISM

TIME	1994	1995	1996	1997
1ST OFFENDER				
M	14,545	10,713	17,262	6,164
F	373	297	380	119
CONVICTED ONCE				
M	8,969	4,216	7,797	2,572
F	201	84	85	26
CONVICTED TWICE				
M	3,043	2,640	3,300	1,237,315
F	49	49	25	
CONVICTED 3CE				641
M	1,736	1,496	1,525	5
F	13	26	6	
CONVICTED 4TIMES				
M	1,176	888	1,145	1,017
F	12	4		
CONVICTED 5TIMES				
M	880	397	529	758
F	7	4		
CONVICTED 6 OR MORE TIMES		620		
M	1,027	1	463	482
F	19			
TOTAL				
M	31,376	20,970	32,103	12,871
F	674	465	496	165

TABLE 3

PRISONS

CAPACITY OF NIGERIAN PRISONS BY STATE.

STATE	NO OF PRISON	MALE	FEMALE	MIXED	CAPACITY
ABIA	4	-	-	4	980
ADAMAWA	6	-	-	6	1600
AKWA-IBOM	5	-	-	5	1566
ANAMBRA	2	-	-	2	424
BAUCHI	6	-	-	6	945
BENUE	3	-	-	3	1129
BORNO	6	1	-	5	1420
CROSS RIVERS	6	-	-	6	1070
DELTA	5	-	-	5	774
EDO	6	-	-	6	1190
ENUGU	4	-	-	4	1244
IMO	2	-	-	2	917
JIGAWA	4	-	-	4	550
KADUNA	7	-	-	7	1619
KANO	3	-	-	3	1250
KATSINA	3	-	-	3	388
KEBBI	5	-	-	5	580
KOGGI	6	-	-	6	367
KWARA	2	-	-	2	154
LAGOS	5	4	1	-	2795
NIGER	8	-	-	8	694
OGUN	4	-	-	4	1502
ONDO	5	-	-	5	685
OSUN	2	-	-	2	640
OYO	2	-	-	2	346
PLATEAU	10	-	-	10	2179
RIVERS	4	1	-	3	1012
SOKOTO	2	-	-	2	976
TARABA	4	-	-	4	500
YOBE	3	-	-	3	347
F.C.T. KUJE	1	-	-	1	80
TOTAL	135	6	1	128	29923

TABLE 4

Chapter three

3.0 PRISON

3.1 Meaning of Prison

A prison, according to the Oxford English dictionary, is an institution for confining and punishing people who have been convicted for committing a crime, by severely restricting their freedom (incarceration).

3.2 Evolution of Prison

Throughout history, most societies have built places in which to house or hold persons accused of criminal acts pending some form of trial. Government seldom imprisoned criminals for punishment; the idea of criminal being imprisoned as punishment after trial is relatively new. In ancient times, and indeed, through about fifteenth century, the penalties for crime were generally some type of corporal punishment, common punishment at the time included branding , imposing fines, whipping and capital punishment (e.g. execution). The authorities punished most offenders in public in order to discourage people punished most offenders in public in order to discourage people from breading the law.

In the 16th century, England vagrants and petty offenders were committed to institutions known as work houses. The English and the French kept their political enemies in such prisons as "**TOWER OF LONDON**" and "**BASTILLE**" in Paris.

Since the first early communities, the society have been callously indifferent to the treatment of the criminals; Humane method of dealing with criminals were not attempted until the 18th and 19th centuries AD. The complex problems involved in the treatment

and improvement of offenders are still very far from being even fully understood let alone solved.

3.2.1 The early prisons

About the year 1927 B.C, the Hanurab's "law of retaliation was re-stated, which followed the principle of "an eye for an eye, a tooth for a tooth". The brutality of this law was characteristic of all contemporary penal methods and set the standard of punishment for many centuries after.

Prison as places of punishment, were uncommon in the ancient world. They were used, rather, as place of detention for those awaiting trial and sentence, for debtor and political offenders. The idea of criminals being improved as punishment after trial is relatively new in ancient times and indeed, through about fifteenth century, the penalty for crime were generally some type of corporal punishment. Not until the 18th century and 19th century A.D did they become like England, used a form of prison for their purpose somewhat earlier.

In the 7th century B.C Greek, prison were merely large some or underground chamber for the detention of prisoners awaiting trial a punishment, but Plato was to speak of prison two centuries later in "De Legibus" in which he anticipated the modern conventional system by many hundred years,

"Let there be three prison in the city, one for the safe keeping of person awaiting trial and sentence another for the amendment of disorderly persons and vagrants, those guilty

of misdemeanours, to be called a "Sophronesterion" house of correction".... a third to be situated in the country away from the habitation of man, and to be used the punishment of felon"

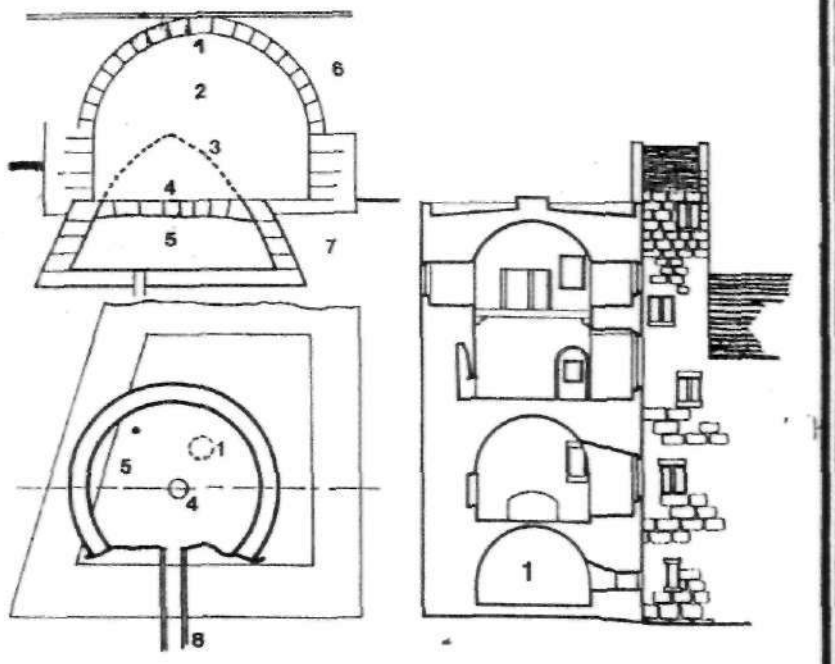
3.2.2 The Medieval prisons

For centuries more, any filthy hovel was considered suitable for imprisonment of debtors of personal and political enemies. In the middle ages, the usual place of detention were the castle keep or dungeons. A section through a medieval keep (Campbell castle, Scotland) is shown below, with the dungeon indicated.

Europe had many such castle prisons and their numbers increased during the 15th and 16th century. All of them were notorious for their ghastly cells, their names carried an award of evil. An example of which was the conceiver and the Bastille in Paris. The plan of the Bastille is shown in the figure below. In addition, people who owed money were held in "Debtors prisons"

During the seventeen hundreds, many people criticised the use of executions and other harsh punishments. Spurred by deep religious beliefs and the undoubtedly spirit of humanitarianism that arose during the enlightenment, the English Quaker, William Penn, founder of the colony of Pennsylvania, abolished the death penalty for most crimes and replaced it with incarceration as primary punishment.

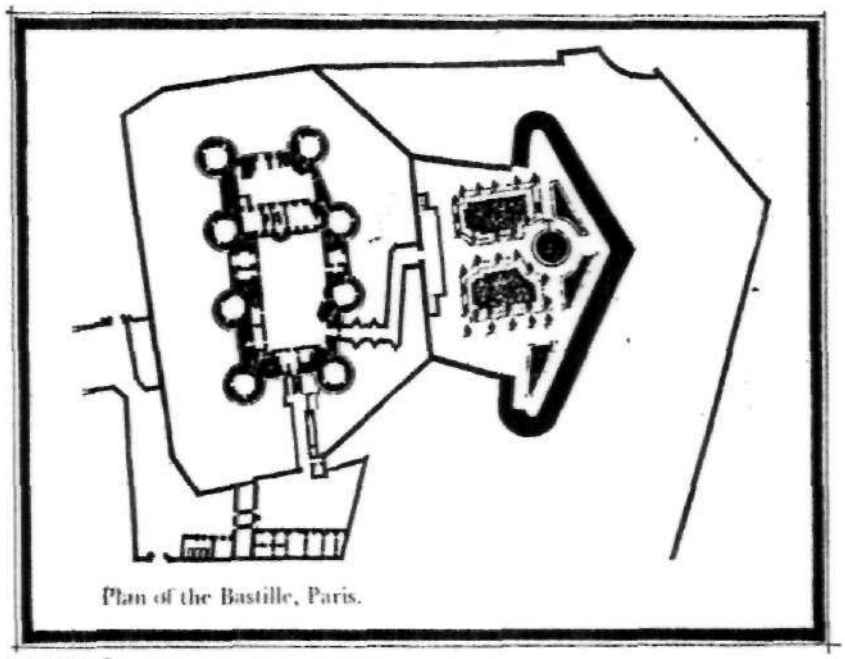
In 1704, Pope Clement XI erected the papal prison of San Nichele in Rome. In 1773, the prison in Ghent, Belgium was established. The walnut street Goal in Philadelphia, became the first prison in the U.S., by the 19th century most countries followed suit.



One possible reconstruction of the Mamertine prison, Rome.
Key: 1 Opening in vault; 2 Upper prison; 3 Original dome; 4 Opening into tullianum; 5 Tullianum (lower prison); 6 Earth. 7 Tufa rock 8 Drain

Section through a mediaeval keep (Campbell Castle, Scotland).
Key: 1 Dungeon.

PLATE 7



Plan of the Bastille, Paris.

PLATE 8



PLATE 9 U.S PRISON IN THE 1800S'

The Walnut Street Goal reflected the present system of incarceration, involving classification, industrialised treatment and prison labour. In the 16th century, Vagrant and Petty offenders were committed to institutions known as work houses. The English and the French kept their political enemies in such prisons as the "Tower of London" and the "Bastille".

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Early prisons were dark and dirty and overcrowded. All types of prisoners were locked together including men, women and children, dangerous criminals, debtors and the insane. During the last 1700's, the British reformer, John Howard toured Europe to observe prison conditions, his book, "The state of prisons" (1777) influenced the passage of law that led to the construction of the first British prison.

At the beginning of 1800's , prison reformers began to emphasise the importance of keeping prisoners alone. It was thought that if they had time to reflect in solitary confinement, prisoners would see the errors of their ways and become reformed. Prisons were build in many tiny cells where prisoners lived and worked alone. Each had its own exercise yard and even in church, prisoners were separated by tall screens to prevent them seeing other inmates.

By 1850's the separate system had been largely superseded by the silent system because overcrowding made the separate system impossible. In the silent system, prisoners worked and exercised with the other inmates but they were forbidden to talk to or look at each other.

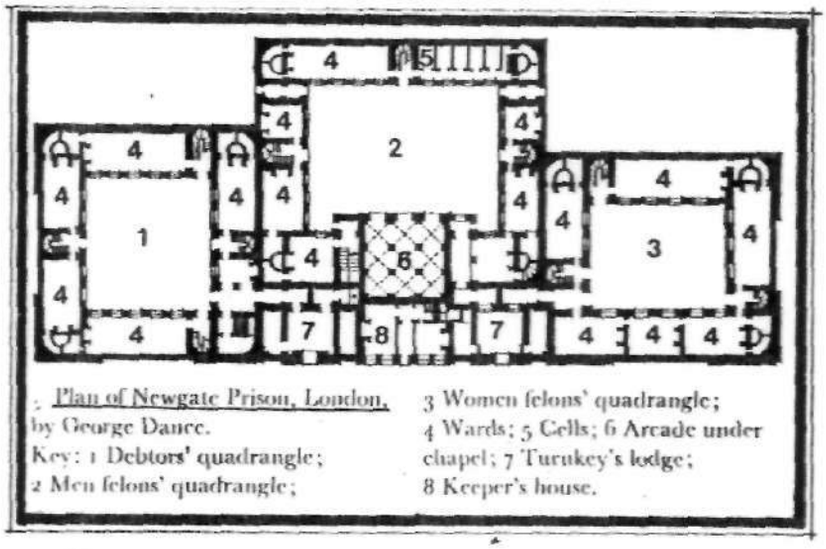
With the failure of this system, consideration was given to the return of coporal punishment, but in 1917, the society of Philadelphia began a reform movement which led to the establishment of solitary cells without labour.

The firs large scale attempt at implementing the solitary confinement at all times with work provided in cells was in 1829. The architect, John Haviland, was faced with the problem of creating a design that would permit solitary confinement but would not injure the health of permit escape or the prisoners.

The design became an architectural model for most of the new prisons in Europe, South America and later Asia, but was not too popular in America.

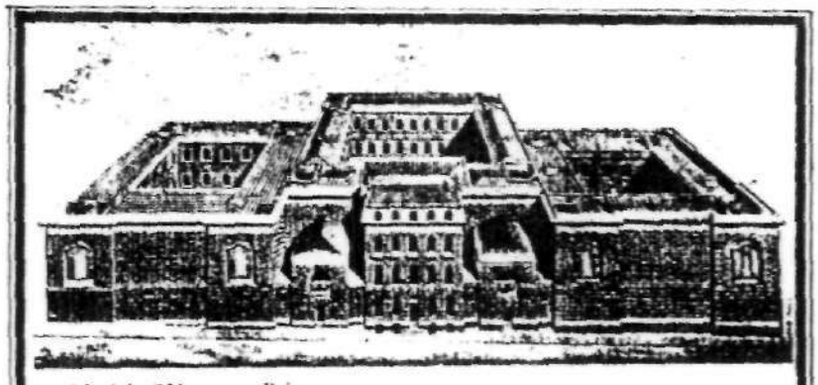
In 1817, the Auburn prison opened in America, following the pattern of its sister prison at Newgate; in this system, the prisoners had workshop group during the day and several prisoners shared a cell at night. This system was popular in America, but discipline was a problem; so during the day silence was enforced and the prisoners were led to individual cells at night.

By the 1900's reformers led to further improvement of prisons. In late 1930's prisons began to rehabilitate programmes based on background, personalities and physical conditions. On individual inmates, this approach made rehabilitation programmes more meaningful. By 1960's many people felt that criminals could be helped



Plan of Newgate Prison, London, by George Dance.
Key: 1 Debtors' quadrangle; 2 Men felons' quadrangle; 3 Women felons' quadrangle; 4 Wards; 5 Cells; 6 Arcade under chapel; 7 Turnkey's lodge; 8 Keeper's house.

PLATE 10

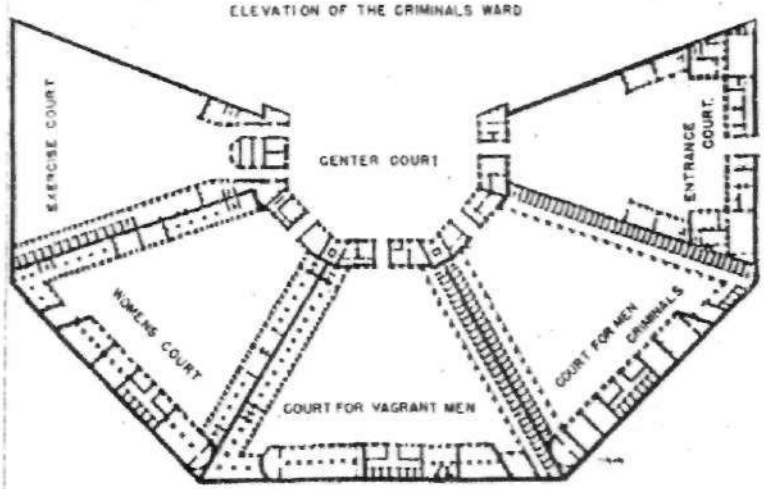


Model of Newgate Prison.

PLATE 11



ELEVATION OF THE CRIMINALS WARD



PARTIAL DETAIL FLOOR PLAN

Cellular prison at Ghent, **a** the completed portion; **b** the proposed finished prison.

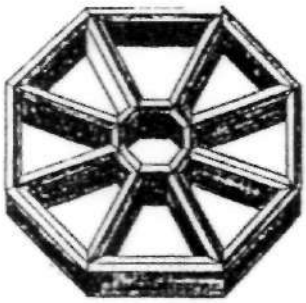


PLATE 12

better outside prisons, as a result, many countries began to set up community correctional centres and half-way houses. Offenders lived in these facilities just before their release and received counselling to help them adjust to life outside prison. The number of prison inmates declined.

Prisons today experience severe over-crowding as one of its major problems, cells originally built for one prisoners, now house two three or more men. It has been ruled that many prisons are so over crowded that they violate the prisoners constitutional protection code. Lack of adequate funding has made improvements of these prison conditions difficult.

In addition to all these, there is also the problem caused by overcrowding, tension among prisoners and between prisoners and prison staff often run high leading to brutal attacks which have contributed to the number of prison riots.

3.3 Evolution of prison in Nigeria

3.3.1 Pre-colonial era

Imprisonment of offender was not new in the Nigerian society, before the arrival of the European, the awareness of incarceration of offender among the Tivs, Ibos, Yorubas, Hausas and Edos, already existed, for example the " house" served as a sort of prison for the state among the Yorubas. For the Edos, "Ewed" was the place for keeping slaves (prisoners of war) and offenders. In 1902, Sir Lugard discovered the existence of prison among the Fulanis.

3.3.2 The beginning of the prison system (1861-1900)

The British Government assumed responsibility of the administration of Lagos colony in 1861, the prison system model after the British pattern was introduced. So the 1st recorded form of organised prison system evolved from Lagos in 1862.

The first prison in Nigeria, who appointed judges and other necessary officials stating that the existence of prisons is necessary to the operation of courts and judges. The Broad Sheet prison was designed to accommodate Three Hundred prisoners and was built at about 1876.

3.3.3 Decentralisation of prison administration (1885-1912)

As the prison system extended beyond Lagos, they deemed it proper to make provisions for the maintenance of law and order, in 1891, the evolution of prisons began in the east by 1900 prison were established in Onisha, old Calabar Benin City, Sapele and Degema. There was also the attempt to establish a native judiciary organisation with the passing of a native court presentation in 1906. By this justice according to native law and customs under the general supervision of the commissioner for the area.

This court could sentence somebody to a maximum impairment of two years. The courts were native in name only as the British Government refused to recognise the traditional native courts and system of imprisonment.

Chapter three

Most parts of present western states came under British jurisdiction in the last decade of the 19th century, the jurisdiction of the British crown was complicated by the treaties and agreements made with the native power upon establishment of southern protectorate. Example of this was the agreement signed at Ibadan in 1893 allowing for the stationing of a British resident who must not interfere with native institution and custom. Outside Lagos, the supreme court ordinance does not operate. The Native courts continued to flourish through appeal would go to the resident in each of the major towns there were fairly large prisons to serve the area for keeping prisoners who were serving long sentences. While in each of the smaller towns there were prisons for short term prisoners. The smaller prison were under the supervision of the commissioners and the lager prisons were under supervision of residents.

The Northern protectorate was inaugurated in 1900 by adopted indirect rule because of the difficulties that arose in an attempt to embrace the Northern Nigeria. The supreme and judicial courts were established to dispense law to Non-native, the Alkaki courts were used for the administration of sheria to deal with civil litigation.

At first prisoners lived in villages and reported themselves for work each morning, residents and district officers made sure that prisoners were properly fed and cared for, by 1912 prison were either run directly by the British or operated by native authorities.

During this period, prison administration was not the main concern of colonial administration. In 1885, prison were divided into Juvenile, Debtors and those whose definitions were not clear.

3.3.4 Lugardian era (1912-1930)

After the amalgamation of the North and Southern protectorate, Lord Lugard, who was the Governor General, tried to introduce uniform administration in the country. The two-teer system of judiciary which applied in the Northern part had to be introduce in the other part of the country.

There was also the need for prison for the eastern railways and coal mine fields. This move to form a uniform judiciary system found expression in the 1916 prison ordinance and 1917 prison regulation. The ordinance gave the governor the power to establish and regulate government prisons. The governor was empowered to declare any prison in any province as a prison and to make regulation the government of the prison. The governor was to appoint director of prison as well as other prison officers who should govern the prison system. The director of prison was empowered to make standing order for organisation, discipline, clothing etc. for the prisoners and prison staff.

On the local level, the 19th Native authority ordinance gave the native authority power to establish police force to check offences and arrest the culprit, courts to try them and prison to sentence them.

On the National level, the government prison was for keeping convicted offenders by the British establishment. Supreme and provincial courts. They were classified into three.

a) Convicts Prison: for those sentences for move than three years.

b) Provincial Prison: for those serving not less than 3 years

c) Divisional Prison: for those serving types of sentences.

All these prisons were all under the supervision of the director of prison and were manned by senior officers of the prison.

In the North, the prison were a sort of appendage of the police force. The lack of experience and poor conditions of service made work unattractive for the educated graduates. As regards the treatment of offenders, there was no clear cut idea about the aims of imprisonment, the reformatory aspect was very unsatisfactory.

3.3.5 Post Lugardian era (1931-1945)

Many more purpose were opened during this ear under the auspices of the new government structure formed in this era. By 1940 there were N.A.G prison in the west as against the 3 that existed before the reform. In the early 1930's there was a decline in the prison population and closure of a few due to the financial depression. This led to the re-examination of prison administration.

In 1932 a school along Borstal tunes under the provision of the native children ordinance was opened in Enugu for reception of boys under the age of 16 who commit crimes punishable by imprisonment.

1934 Lt. Col. Vil Mabb appointed new director of prisons in the South - looked into staff training. Pointed out that for penal reform to be successful, brain not brawn was needed in prison administration his major contribution was the amalgamation of the two separate prison dept in the South and North into a single department under the control of a director of prison with headquarters at Enugu. The new amalgamation was sign official that prison administration would become uniform and prison in the North were no longer to be treated as sub-department of police.

The out break of that was (world war II) prevented further progress in the prison reform. After the war in 1943, a British prison commissioner was appointed to inspect the prisoners and his recommendation led to the formation of warders welfare board in Enugu.

3.3.6 The Dolan period (1946-1955)

This period witnessed Dolan's idea of prison reform in the Nigerian prison system. Mr R.E Dolan was a man with long and varied experience in prison service he was appointed as director of the Nigeria prison and soon as he assumed office he introduce a 10 years development plan. His plan embodied ideas, which where in line with the modern approach of penology. Law breakers were regarded not merely as offenders who must be punished but as individual who must be rehabilitated and converted into non-deterrent citizens.

As part of the aim of achieving this objective of rehabilitation and reintegration and educational programme was obtained for all prisoners. Vocational education was introduced for the prisoners and meal training was not neglected. Long term prisoners received special attention to prevent the estrangement that the long break form their families would cause and therefore making rehabilitation difficult, financial provision was made for relatives to enable them visit their imprisoned relatives.

As services attempt was made to improve the quality of staff especially in the lower cadre of the service leading to the opening of a warder training school in Enugu in 1947.

3.3.6 The Post Dolan period (1954-1968)

Dolan retried in 1954 and by this time he had set down lines along which prison reform might proceed the emphasis was no longer on punishment but reformation and reintegration. Despite these structures his set-up was not achieved in terms of prison reforms. With constitutional changes taking place and the country preparing for self government, the Federal prison came under the ministry of internal affairs. Under this new ministry the director of prison and his sub-ordinates deal with problems of increasing prison population, provision of good quality staff and provision of adequate funding.

The increase in prison population meant the putting up of more buildings or the extension of old ones. In 1955 attempts were made to enlarge the existing prison or distribute convict to provincial and provisional prisons, but these exercises were unsatisfactory as they defeated the idea of classification treatment. This problems

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especially of inadequate funding lead to the focus of attention on other method of crime punishment apart from incarceration such as adult probation. On staffing, attempts were made to Nigeralise the upper cadre of the prison department putting into consideration the coming Nigerian independence in 1960.

Due to the in-ability to run the Native Authority prison, and lack of funds to maintain them, the Federal department of prison had to absorb all native authority prison into their system as recommended by Gobir Report in 1966.

3.4 Prison Architecture

Prison structures are architectural and according to F.D Moyer, in his book "Prison Architecture", architecture can be considered as a social art which provides structures for human activities. Architecture influence behavioural pattern, enriches the reasonable world and provide expression and continuity to the social value.

The basic philosophies of prisons as a social institution were of two folds: punitive and in recent times reformative. The former can be traced back to pre-historic societies where the punitive aspect was expressed in the ostracitization of social deviants and criminals from the main stream of the society. Maximum security and brutal treatment were the only effective measures known. If a man (woman or even a child) were not thrown into prison for some real or imaginary offence, he was executed, whipped or maimed.

In the early years, prison structures were seldom built for the use to which they were finally put in most cases they were strong cages within a fortress or castle. One of

the earliest known prison was the reconstruction of the Tullianum, now known as the Mamertine prison in Rome which was built at about 460B.C. The prison consist of an upper rectangular room lit by a hole in the roof with a dome like dungeon of Etruscan origin below. The prisoners were confined to the lower room unless condemned to death, then he would be thrown into the lower dungeon to starve or be strangled.

As years went by and prison reformers began to speak up, building designed for prisons came up. Building have been modelled on one or combination of basic types of structures. These building types are:

a Radial plan

The need for the tax of supervision from a central view point led to the complicated radial plans. This building type characterised by the structure which was similar to that of a bicycle wheel .

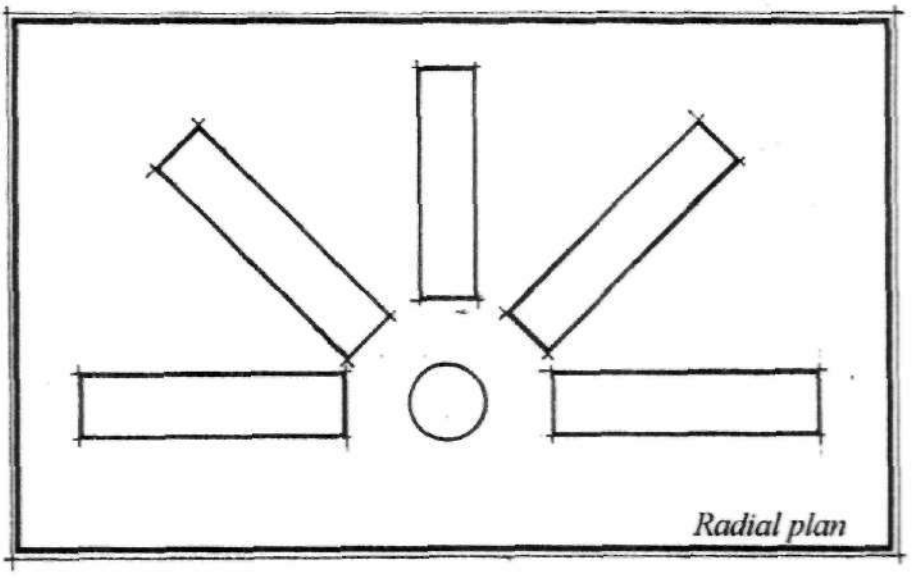


FIG 1

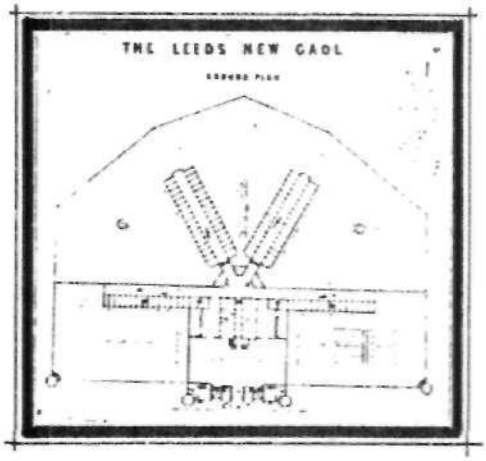


PLATE 13 **ARMLEY PRISON, LEADS** A TYPICAL 19TH CENTURY RADIAL PRISON.

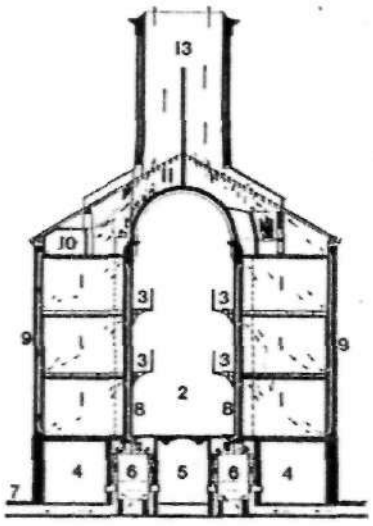


PLATE 14 AERIAL PHOTOGRAPH.

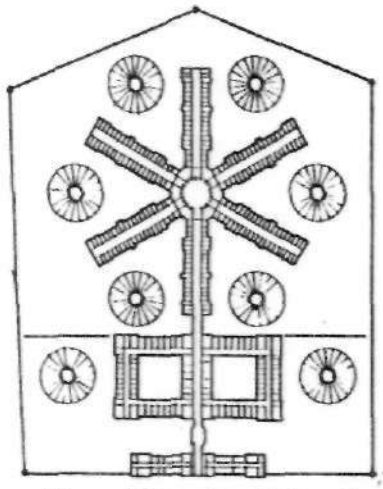
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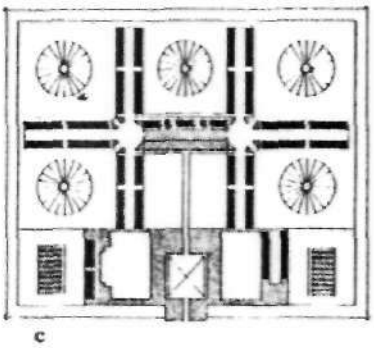
PLATE 15: CELL HALL



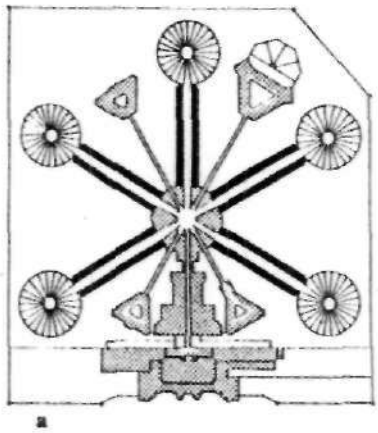
Section through Pentonville cell block (other radial prisons similar) showing fresh air system.
Key: 1 Cells; 2 Open access corridor; 3 Gallery access; 4 Coal store; 5 Apparatus room; 6 Warming apparatus; 7 Cold air flue; 8 Fresh air flues; 9 Foul air flues; 10 Main foul air flue; 11 Smoke from apparatus; 12 Fire ' for summer ventilation; 13 Foul air shaft.



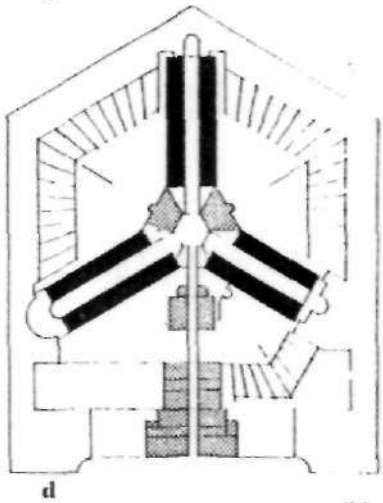
House of Correction, Milan. A typical European radial prison. Circular enclosures are exercise yards.



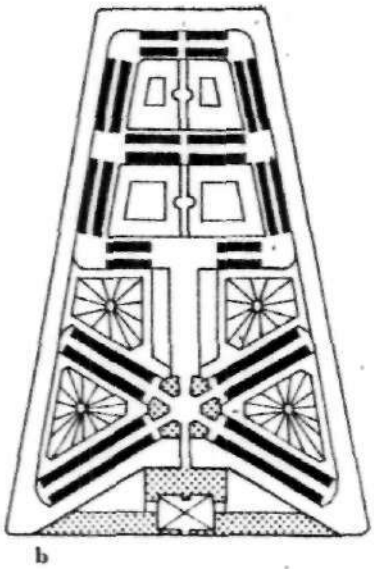
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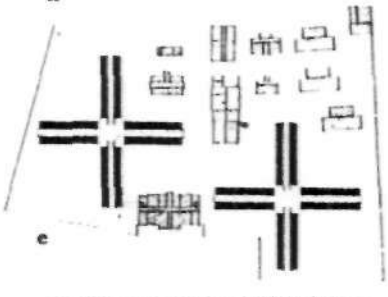
a



d



b



e

Variations on the radial theme.
a Brussels (1835); **b** La Santé, Paris (1864); **c** Torino (1862); **d** Termonde (1872); **e** Petersburg (1877).

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The central point or control point was located in the middle out of which radiate the other activity spaces, making it possible for all activities and movement to be observed from a central point. An existing example on this is the prison at Ghent.

A rudimentary form of radial layout incorporating long inside cell house. Most of these prison are max. or medium security.

b Panopticon Construction

This idea was divided by Jeremy Bentham, to solve the problem of maximum supervision by a minimum skilled staff. The Panopticon was based on definite penological principles; cellular separation, safe custody, and hard labour believing that reformation could be achieved by seclusion, employment and instruction. This established firmly the principle of radial planning cell houses.

The development of rectangular cell houses was carried out into a series of cell houses arranged radially around a central point. The cells, with radiating partitions were planned around external walls, internal open galleries and staircases connecting them to each level.

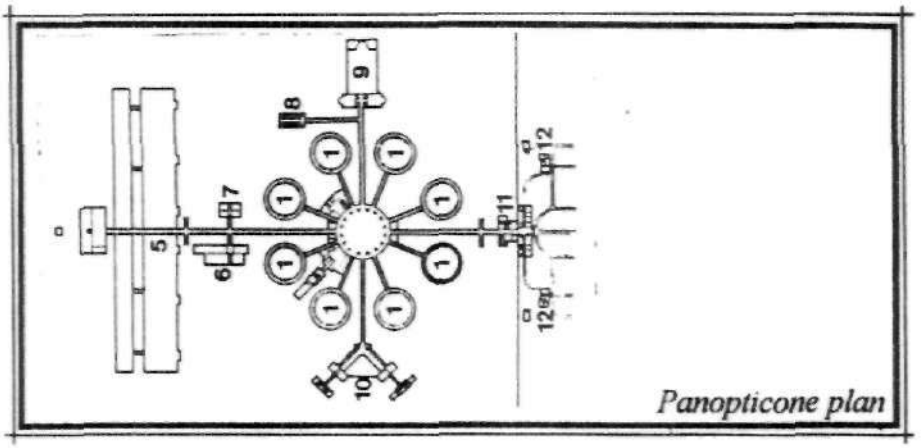
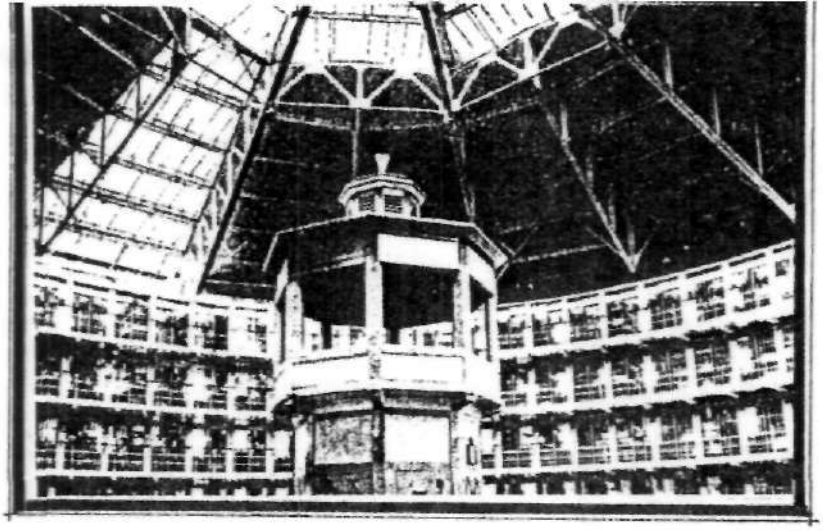
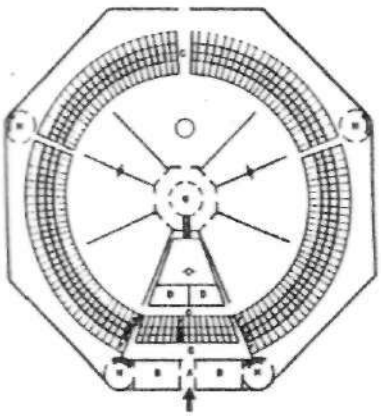
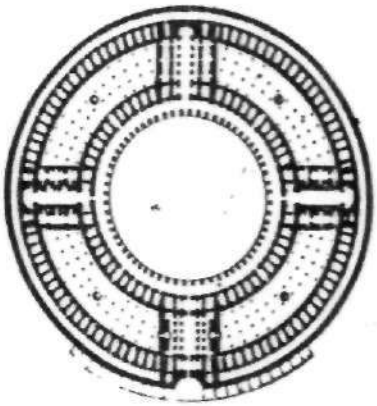


FIG 2

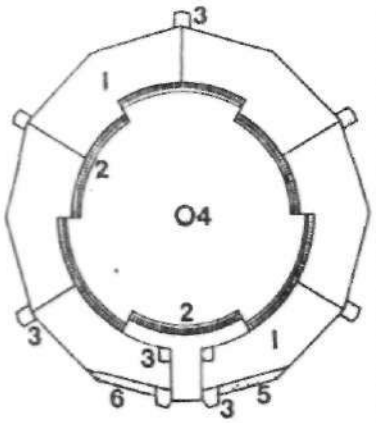




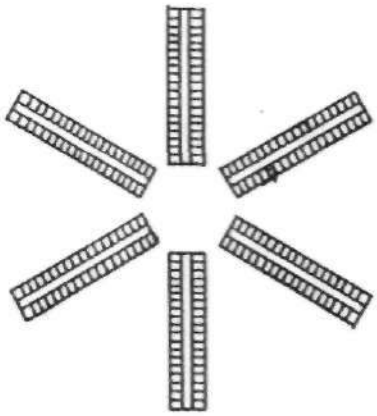
a First Western penitentiary at Pittsburgh, Pennsylvania. A distortion of the panopticon principle.



c French panopticon design by Bellet.



Proposed panopticon-style prison in Madras.
Key: 1 Exercise yards; 2 Cell blocks; 3 Warders' houses; 4 Warders' guard and control point; 5 Reception and administration; 6 Hospital and stores.

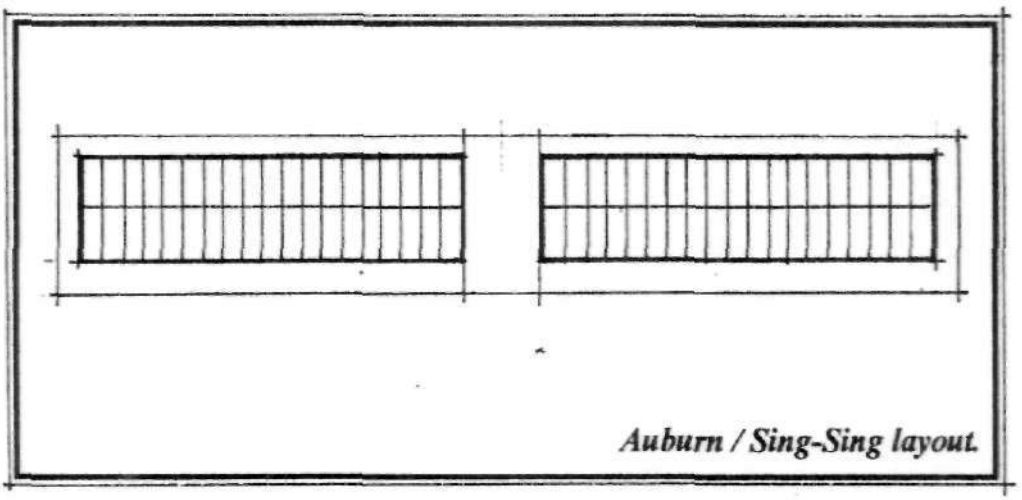


Two typical plan forms of the two basic American penal systems: the radial plan of the Pennsylvania system the stick form of the Auburn system.

PLATE 17: PANOPTICON

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c. **The Auburn / sing-song layout**, with long cell houses containing inside cells suitable for maximum security prison.

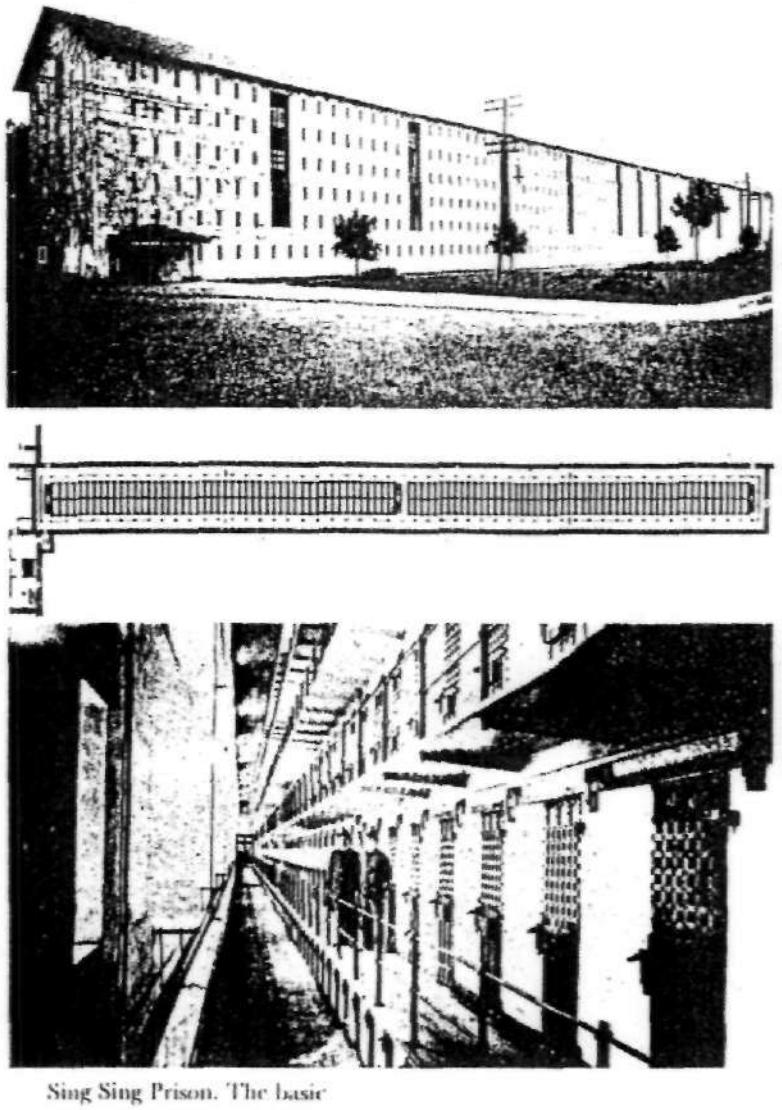


Auburn / Sing-Sing layout.

FIG 3

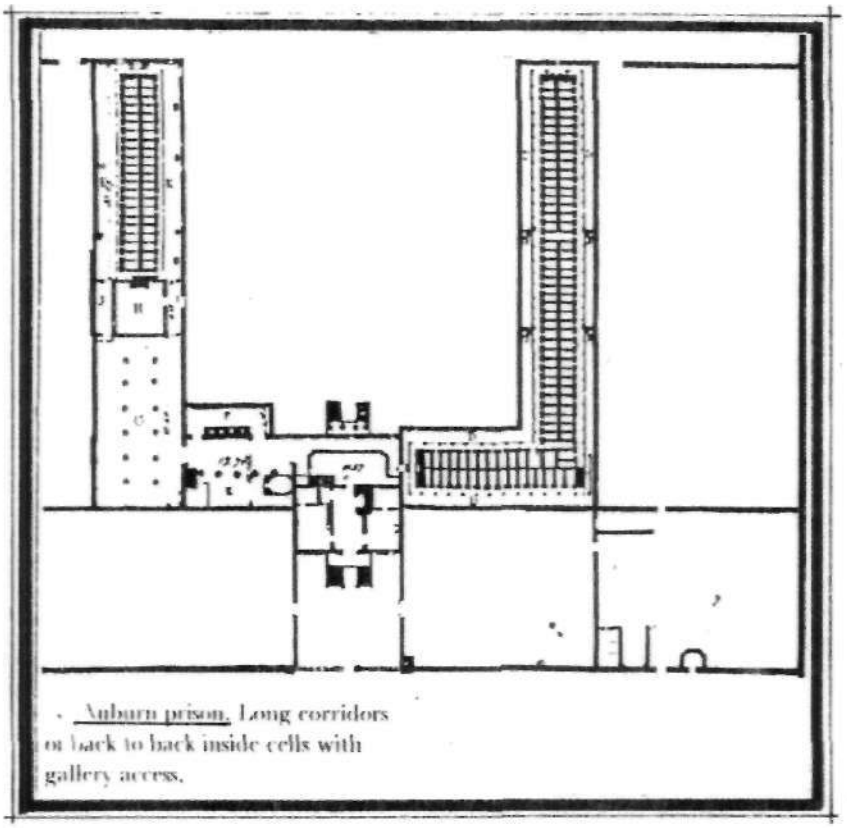
d. Telephone pole:

This new prison layout was used for the first time in 1898 in France for the new prison at Frearies. The prison was designed by Francisque Henry Poussin. It was called the telephone pole layout because the plan shape resembles the central post and cross-bars of a telephone pole.



Sing Sing Prison. The basic plan shape for all other 'Auburn/Sing Sing' prisons.

PLATE 18



. Auburn prison. Long corridors or back to back inside cells with gallery access.

PLATE 19

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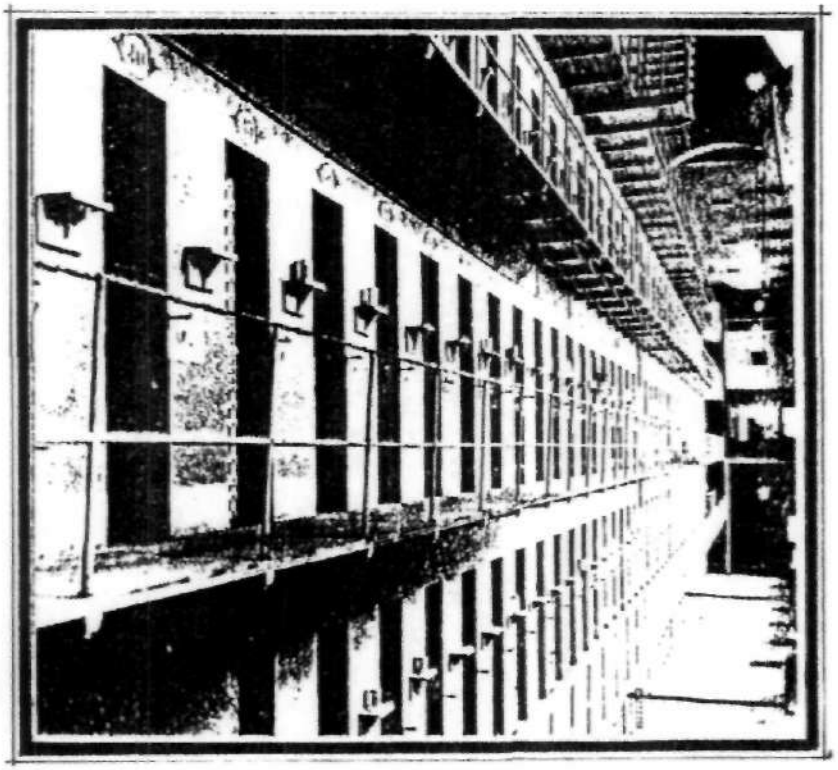


PLATE 20 GALLERY ACCESS

The telephone pole layout has outside or inside cells contained in separate blocks planned along a central corridor, and suitable for any type of institutional use. The chief merit of this prison was that each cell house was a separate unit, so ensuring a more effective classification for prisoners.

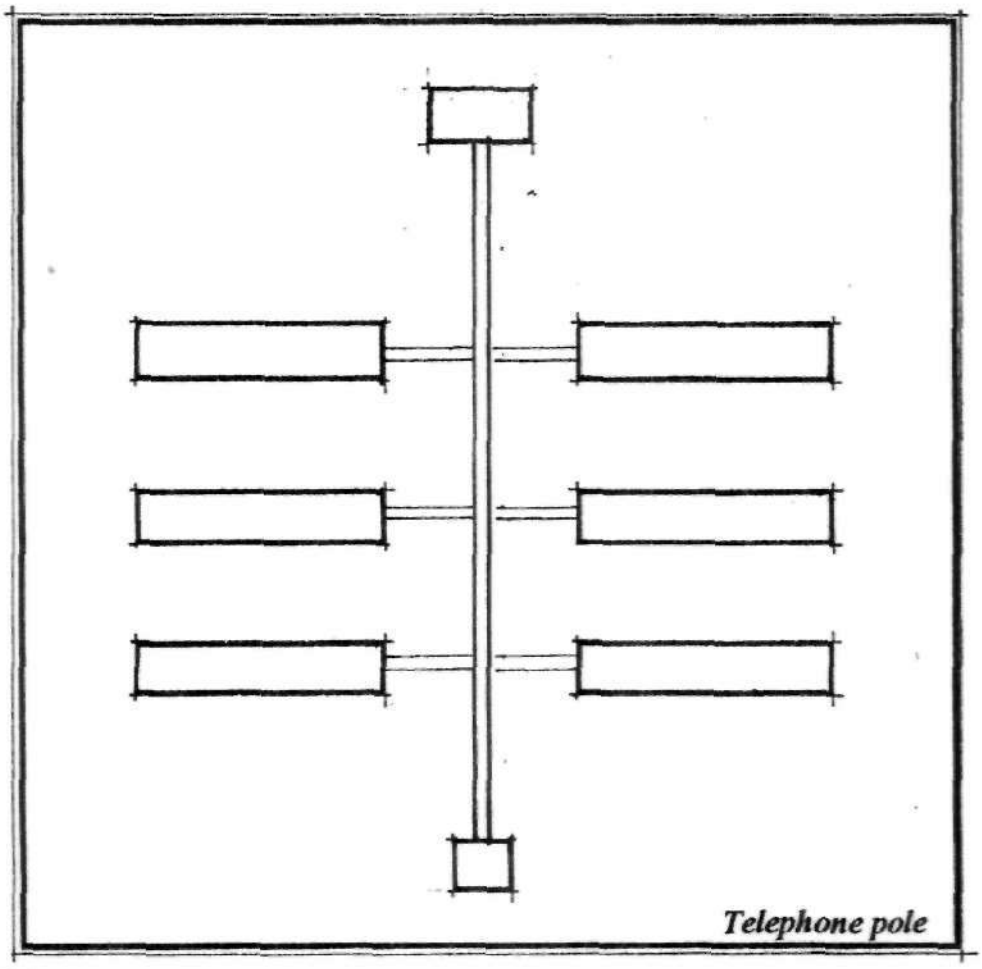


FIG 4

f. Sky scrapper prisons

This prison type is a modification of the telephone pole type with vertical circulation rather than horizontal. The elevator shaft substitutes the long corridors, they are either radial or rectangular in plan and used mostly for remand and prisoners serving short sentences. They have certain advantages, there are:

i. They are more secure due to their height

ii. Classification and segregation is possible within a limited space with no loss of centralised administration and supervision.

iii. Where space is restricted in the city, a sky scraper can be fitted onto a small site, the smaller ground area is guarded more easily.



Sky Scrapper Prisons

PLATE 21

g. Self enclosed prison

In the design , the prison building or cell houses from part of the outer boundary wall. And example is the worlds largest penitentiary, the Michigan state prison at Jackson. This prison design is one way to economic on wall, but at the expense of good planning.

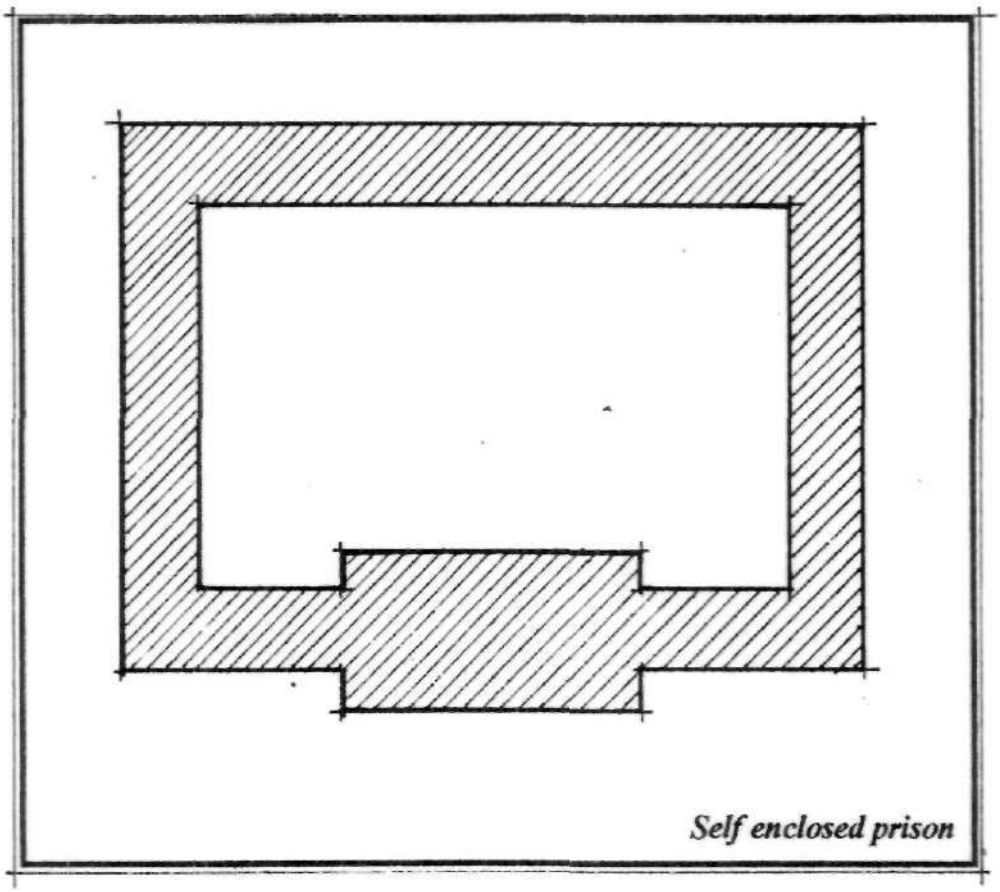


FIG 5

h. Courtyard design.

This design has cell houses arranged around a central court and connected by covered corridors. The enclosing building from the external perimeter. Thus the external appearance are void of fences and guard towers. These buildings are very expensive to build, with excessively long corridors and cells houses are too far from each other and from other facilities.

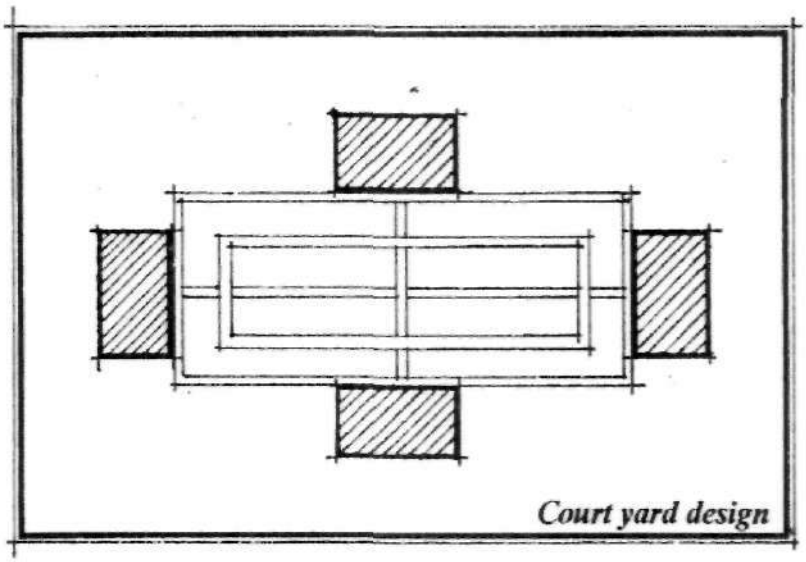


FIG 6

i. Unit plan / campus layout.

This layout has a non-prison like design. It is flexible and will permit the building to each a variety of functions. It consists of separate cell houses or "cottages" planned to enclose one or a service of courts, who is well landscaped giving a spectacular effect.

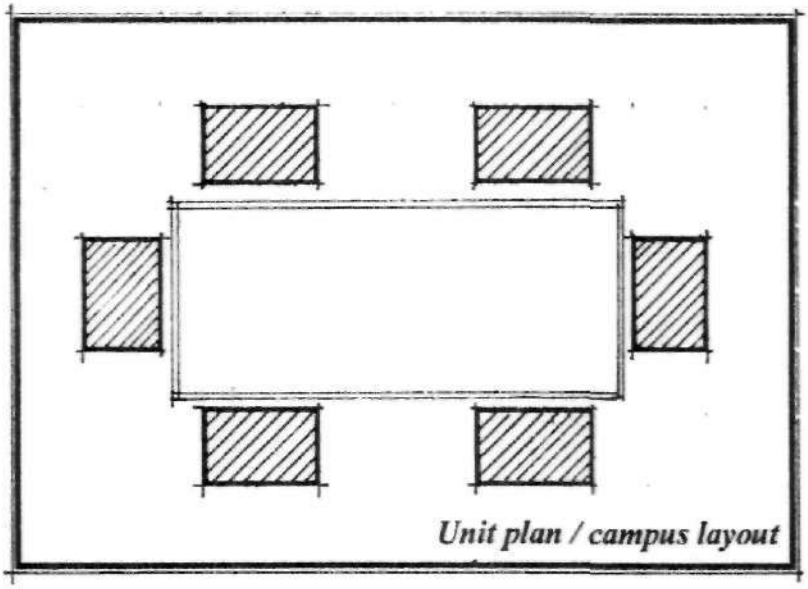


FIG. 7

The design promotes interaction and sensory stimulation, that is absent in traditional prison. The prison is usually for medium or minimum security institutions.

j. Open plan layout / Free planning layout

These are used mostly for juvenile institutions and for some farm camps. It conform to no definite architectural pattern. Each unit is self contained although central workshop and schools, sometimes dining halls are provided

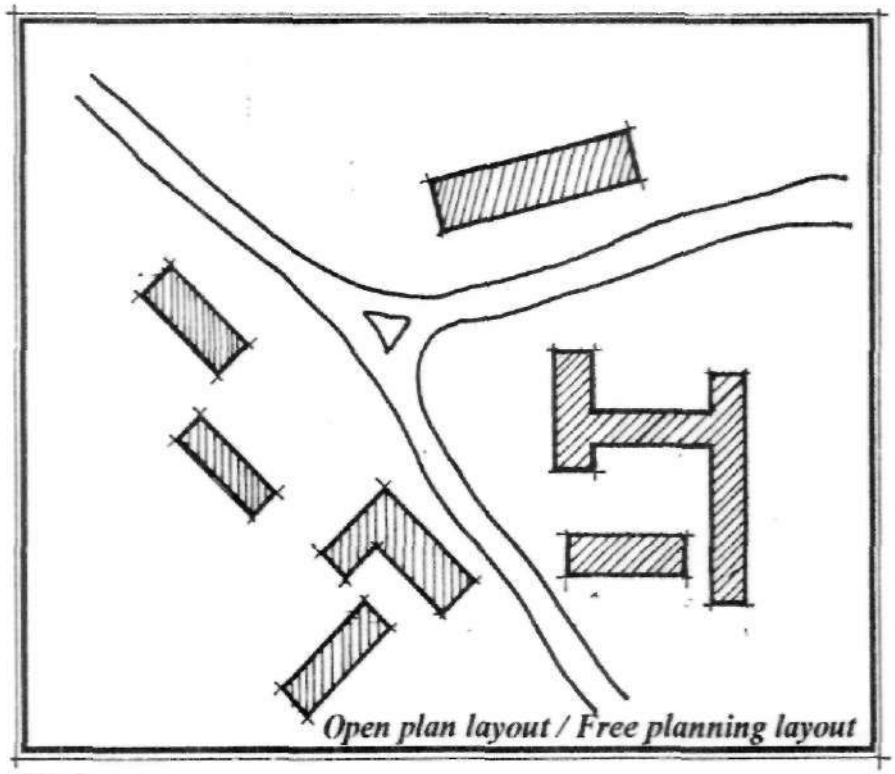


FIG. 8

3.7.1 Prison Architecture: Past, Present and Future

In recent cases, Architects have worked to avoid stiff formalities in prison design. They have broken down the stultifying symmetry and scale of earlier modes to create a community or campus like environment. Bars, gates, towers and locks, while still present tend to blend the architectural character rather than dominate it.

New facilities tend to place great reliance on electronic surveillance. While concurring in its obvious economics, Architect John Grosfeld (La Pierre Litchfield, Weidner & Grosfeld), warns that closed circuit television has important drawbacks.

"Picture resolution is not always of satisfying quality. Furthermore, prisoners tend to resent electronic monitoring and express that resentment by vandalising the equipment.

While temptation is always present to build large facilities, there is a general recognition that the behemoths of the past, - San Quintin, Sing- sing, etc.- offered no prospect for rehabilitation. Most new facilities have a capacity not exceeding six hundred.

Prisons are becoming more specialised. The Illinois Security hospital and the Albans correctional facilities are examples of this. They are clearly programmed, designed and staffed to treat two particular classification of offenders.

For reasons of economy, politics, and penal philosophies, prison sites used to be in isolated rural locations, out where the road ends. This resulted in difficulties. A high grade correctional staff was difficult to assemble and keep. Distant travel was a hardship for prisoner's families. Today- Architects try to look for "close-in" sites near courts, cities and university, so that the communities can have a part in rehabilitation by offering jobs to inmates or work release programmes and providing education.

There is now a preference for single occupancy cells to replace traditional prison dormitories. The cells are being rearranged in ways that have clear social and architectural implications. The cells shown here are typical of most in newer institutions. While security requirements still predominates, surfaces are still hard and finishes durable. Care has been taken to upgrade the base level of habitability. There is an emphasis on single cell occupancy. Fixtures are selected with at least some concern for appearance and use. Louvered windows with bars integral (or sometimes grills) have mostly replaced

traditional barred openings. In short cell design is beginning to reflect the growing interest in rehabilitation instead of mere custody.

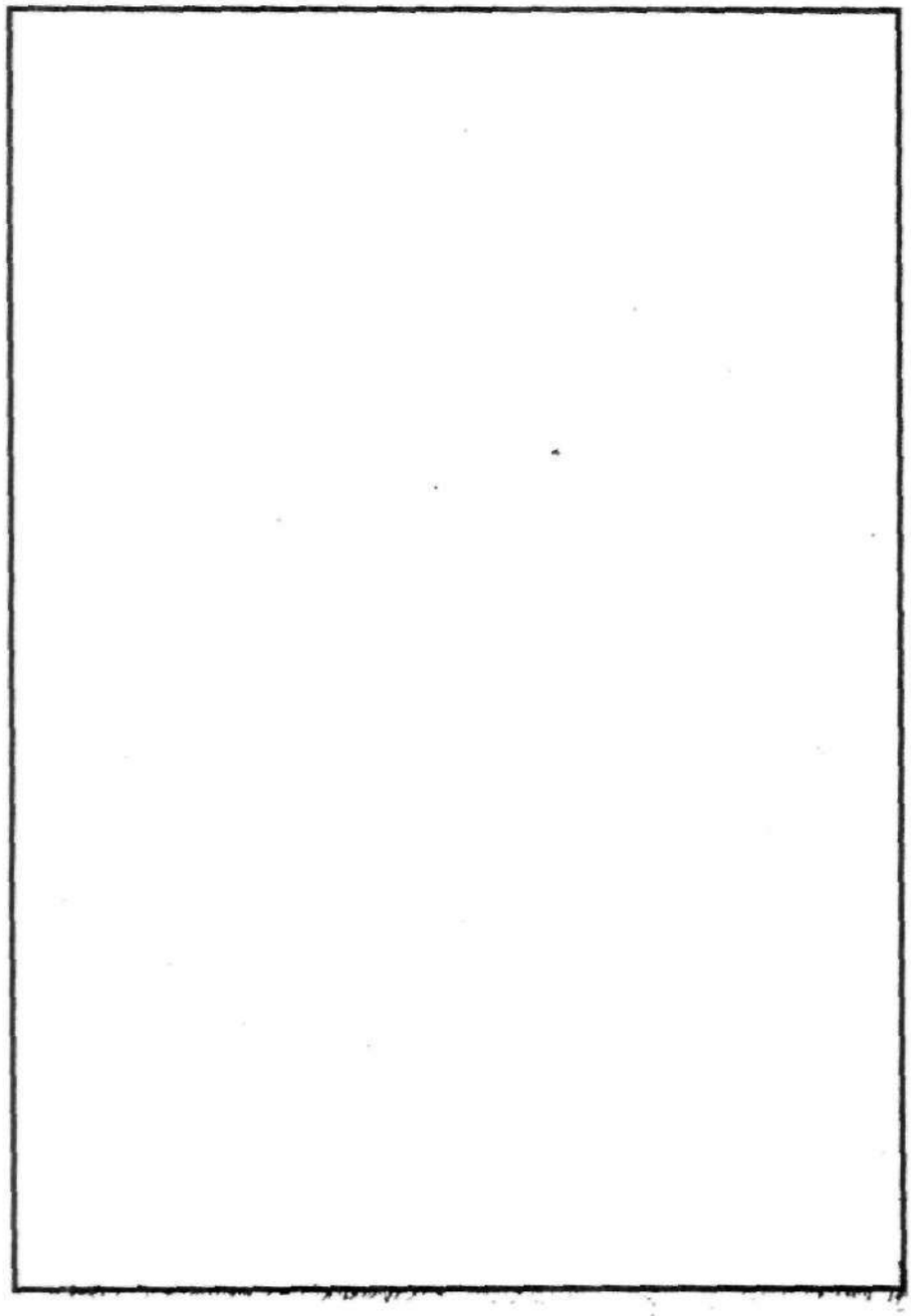


FIG 9 Cell units in newer institutions

Whether this newest generation of facilities will succeed in correcting is still uncertain. Many signs point to hope. Architect Herbert McLaughlin (Kaplan & McLaughlin) has expressed this forth right view, "The design of a jail most work to the purpose of humanity. It most provide both the jailer and the inmate with a sense of themselves, a non-threatened worthy individual..... We are learning from the newly emerging discipline of socio-physical design how environments give behavioural tones. These lessons must be applied to jails. An atmosphere which provides privacy, choice, information and control is possible, is mandatory."

In a letter to Dr. Karl Maminger, Daniel Gale, A.I.A, speaks to the point. "I think it is becoming clear that inmates have to live in small, treatable groups, be supervised by counsellors, not jailers, be given the opportunity to keep busy in fruitful pursuit, express themselves as individuals, be further educated and perhaps, most important to my mind, be permitted to develop a sense of responsibility. .....The architect must help the division of corrections, assuming he is fortunate enough to have a capable and concerned one, sell to the public, the legislature, the division of public work, and in some cases, the correctional staff itself and the funding agencies.

.....Our role then, can only be to master plan a system, or parts of a system, to give facilities their proper weight in total plan, then execute those facilities with as broad an understanding as possible.....**Fantastic things are possible**."

3.5 Types of Prisons.

Due to the current emphasis laid on correctional facilities in the country, there has been a resent regrouping of correctional institutions on functional basis. A brief survey of these facilities is given as operated here and abroad.

I Juvenile remand centres:

These are centres that cater for offenders between the ages of eight and twelve. The running of these schools or centres,(depending on their function), is by the ministry of education or social welfare. In these institutions, juveniles are admitted from juvenile courts or welfare centres. These children are given the basic primary education and are kept in dormitories after school hours. The children take part in games and other character forming activities. It should be noted that most "would be" criminals can be remanded more easily at early stages when they are quite malleable.

II Bostal Training Institutions:

The "graduates" of the approved schools and children of the remand centres eventually find their ways into Bostal training institutions. The age range here is between twelve and eighteen. The "students" live a more regimented life and are constantly under supervision. They are taught all types of trade and they live in dormitories.

III Detention centres:

These are centres in which suspects of a crime are detained until their cases are heard in court. The duration of stay should not exceed three months.

IV Minimum security prisons:

This usually refers to the open prisons and operate without armed guard posts. If it has a fence at all it is usually to keep out unauthorised public. The inmate housing are invariably the open dormitory type, though single cells are preferred in that it will allow inmates lock their individual rooms; give them a sense of privacy and promote responsible behaviours.

This is the least restrictive prison type and inmates are not considered dangerous (unlikely to flee from custody). The inmates are usually those convicted for non violent crimes. The planning of this type of facility must provide easy supervision, while allowing the use of communal facilities and adequate distribution of responsibilities.

These facilities range from large institutions to small farms or forest camps. The idea is to give a sense of direction and a greater prospect of reintegration of the convict upon discharge.

V. Medium security prisons:

These are institutions characterised by walled perimeter fence that allows for a lot of freedom within the walls. The inmates incarcerated here are admitted for less serious offences like minor assault or small theft. Inmate housing usually consists of individual cell rooms or dormitories. Some of these institutions have educational facilities smaller than those of schools. Most of the prisons in Nigeria can be classified under this prison type.

VI. Maximum security prisons:

These are prisons which hold offenders serving long terms for crime like murder, kidnapping, treason etc.. The emphasis is on control and supervision in this type of prison through a perimeter wall with electronic detecting devices (in foreign countries) and powerful spot lights. Housing is mostly single cells with their own sanitary facilities. The planning takes into consideration maximum staff surveillance of all inmate areas and activities at all times. It should be noted that less than thirty percent of the prison population require this type of security.

VII. Multiple security prisons:

While it is ideal to provide separate institutions for each type of security systems, such compartmentalisation is available only to correctional institutions with a high inmate population. For smaller systems, it is unlikely that funds will be available for separate facilities. Maximum separation is needed between custody groups to avoid inhibiting the full participation in correctional programs of medium security custody.

For a multiple security system it is impossible to prescribe a formula for determining proportions of maximum, medium or minimum security offenders that will apply in all correctional projects. The proportion is however, determined by considering the effectiveness of services and programs that provides diversions from incarceration. The proposed institution will provide for a higher proportion of medium-security facilities.

4.0 CONCEPT OF SPACE IN PRISON ARCHITECTURE.

Man is known to be responsive to his physical environment or the space he perceives around him. Architectural space is a powerful element in shaping of human behaviour, its power lies in the fact that we are in constant contact with it. It has a positive and a negative moulding effect. The negative effect has its proof in the Pruitt-Igoe housing complex of Saint Louis Missouri, designed by Minoru Yamasaki and built in 1955. This building was destroyed in 1972 because it created the problem of criminal tendencies in human behaviour. If created spaces can cultivate human tendency of criminal behaviour, then space can be manipulated if well thought out, to aide in the rehabilitative and reformative processes in the prison environment. To understand this it is important to study the meaning of space and how spaces can be articulated.

4.1 Element of Space.

Space, according to Leland M. Roth (1993), can be defined as a self contained entity, infinite or finite, an empty vehicle ready and having the capacity to be filled with things. Physically, space is defined by the extension of material bodies or fields bordering on each other, for example: landscape of earth and stones adjoining bodies of water and air. The measurable distance within such a rag rug of different materials are aspects of physical space. Apart from the energy that pervades it however, space cannot be said to exist physically. Space cannot be given by itself, it is created by a particular constellation of natural and man made objects to which the architect contributes.

4.2 Types of Space.

The basic space types, from the very simple to the complex are:

i. **Physical space**: This is space expressed in cubic meters. The volume of air bounded by floor, walls and ceiling of a room.

ii. **Perceptual Space**: This is space that can be perceived or seen. In a building with glass walls, perceptual space can be seen as extensive.

iii. **Conceptual Space**: The mental interpretation of space. A plan stored in our memory. Buildings with conceptual spaces can be easily grasped in the mind.

iv. **Behavioural Space**: Space that can be moved through and used accurately. The configuration of elements in a dramatic way shows how we can move about in a space.

v. **Directional Space** can determine or suggest patterns of behaviour by its way of configuration regardless of barriers and hindrances. Directional space is a kind of space that the path of movement is clearly suggested by configuration of elements. There seems to be an inevitable gravitational pull towards the focus of that space.

vi. **Non-Directional Space**: Here, space is perceived as having no obvious path of movement through the building. Rather, a variety from which to choose.

vii. **Personal space:** This refers to the distance that members of the same species put between themselves within a particular space. Although it is not strictly architectural, the architect never-the-less must take it into account. Personal spaces in animals can be recognised in the way birds space themselves along

the line of a building or on a telephone wire. In humans it is the way strangers space themselves in sitting on benches waiting for a bus.

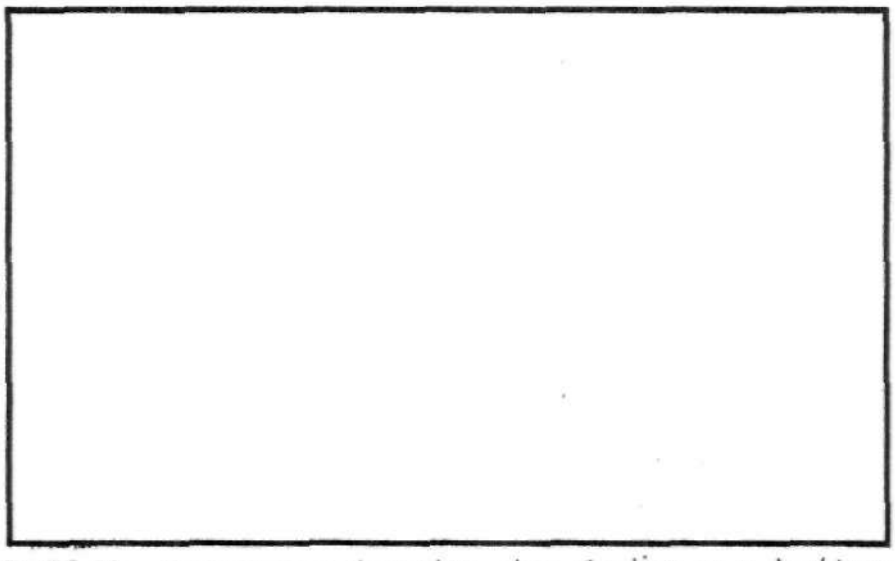


PLATE 22 Birds spacing themselves along the line of a building.

Humans have proved themselves to be extremely flexible in their definition of personal space; they do not seem to have any programmed genetics of spatial code, only those culturally determined and fixed in childhood. If an architect violates these uunstated rules of personal space while every other architectural variable is optimised, the result may be an environment that is resisted by its users.

4.3 Space Communication

Humans responds to created space: The psychological effect of space is recognised in the human responses towards space. There are four basic positions identified theoretically on the relationship between environment and behaviour, they are:

i. Free will Approach.

ii. Possibilistic Approach

iii. Deterministic Approach

iv. Probabilistic Approach

Of all the four stated above, the deterministic approach is the one that concerns how spaces shape our behaviour the most. There are three languages used in discussing its elements. These are:

i. **Environmental Determinism**: This is the belief that our values and behaviours are shaped by the setting of geographical, social and cultural environment rather than hereditary traits.

ii. **Physical Determinism**: This is the belief that human behaviour is determined by the nature of the geographic environment as adapted by people of a particular place.

iii. **Architectural Determinism**: This theory holds that a change in the built environment will bring about change, not only in the living conditions of the people concerned but also in the lifestyles and aesthetic values of the people.

The control of space however, has to do with the type of occupancy. There are to types of occupancy, spaces of temporary occupancy and spaces of permanent occupancy. Spaces of temporary occupancy are spaces where people are in transition and are mostly uncontrollable. Such spaces are waiting rooms, bus terminals e.t.a. Spaces of permanent occupancy are more private spaces and are controllable to a large extent. The configuration can be altered to suit a required taste. This space matters to behaviour for with time they affect human thinking and perception, moulding the mental process.

Decisions made about spatial configurations, geometric compositions, construction methods materials, dimensions symbols and scale of a building directly affects the users of this building. Therefore the attitude of a designer matter towards the decisions taken in the choice of creating a suitable atmosphere for a particular environment. The attitude to take when designing a correctional institution should be to a large extent non-paternalistic (that is the attitude of a society with no class difference).

4.4 Criteria for good Space Design.

According to Bennett (1977), a set of criteria can be used to judge a good design. These are safety/health, performance, comfort, aesthetic pleasantness. These criteria should be applied to the environmental factors that shape the quality of space. For further understanding, the criteria are explained below.

i. Safety/Health: A good design must satisfy the need for health and safety. A buildings structural system should be well designed. The design should not expose the users to hazards or accidents.

i. **Performance:** This is the enhancement of the intended task through the design of space. Poor environmental conditions hinders performance. Conditions like poor lighting, high noise levels, extreme temperatures affect the quality of space.

ii. **Comfort:** Comfort is closely linked with performance. This is a psychological feeling of well being. The performance in a space will be hindered if the space is uncomfortable.

iii. **Aesthetic pleasantness**: Pleasantness depends on certain dimensions. These dimensions are determined by our visual experience and are perceived differently by different individuals. Some of the physical dimensions are scale, proportion, balance, harmony etc. A well designed prison space should be aesthetically pleasant without being opulent, austere without being inhumane, open without compromising security.

Applying these set of criteria to the environmental factors we can study how they can shape the quality of space. We shall look at three very important environments. The luminous environment, the sound environment and the anthropometrics and ergonometric environments.

Luminous Environment:

Lighting affects space design because the environment is appreciated primarily because of the quality light. Too much or too little light affects the health of an individual. Well designed lighting can create a desired environment of high

performance with very little discomfort. Aesthetically pleasing lighting depends on intended effect of the space on the users: stimulating, highlighting, calming, attention getting etc. The table given below gives an assessment of colour perception and colour association tests.

Colour	Impression of distance	Impression of warmth	mental stimulation
Blue	Farther away	Cold	Restful
Green	Farther away	Cold to neutral	Very restful
Red	Near	Warm	Very stimulating
Orange	Very near	Very warm	Stimulating
Yellow	Near	Very warm	Stimulating
Brown	Very near	Neutral	Stimulating
Violet	Very near	Cold	Aggressive/ depressive

TABLE 5 COLOUR PERCEPTION.

Certain terms have been used in describing the emotional an psychological effects and responses of colours on man. The associated colours are:

i. **Warn, Advancing and Stimulating colours**: Red, Red-orange, Orange-red.

ii. **Cold, Reseeding and Relaxing colours:** Blue-green, Violet.

iii. **Neutral and Tranquil colours:** Yellow-green, Green.

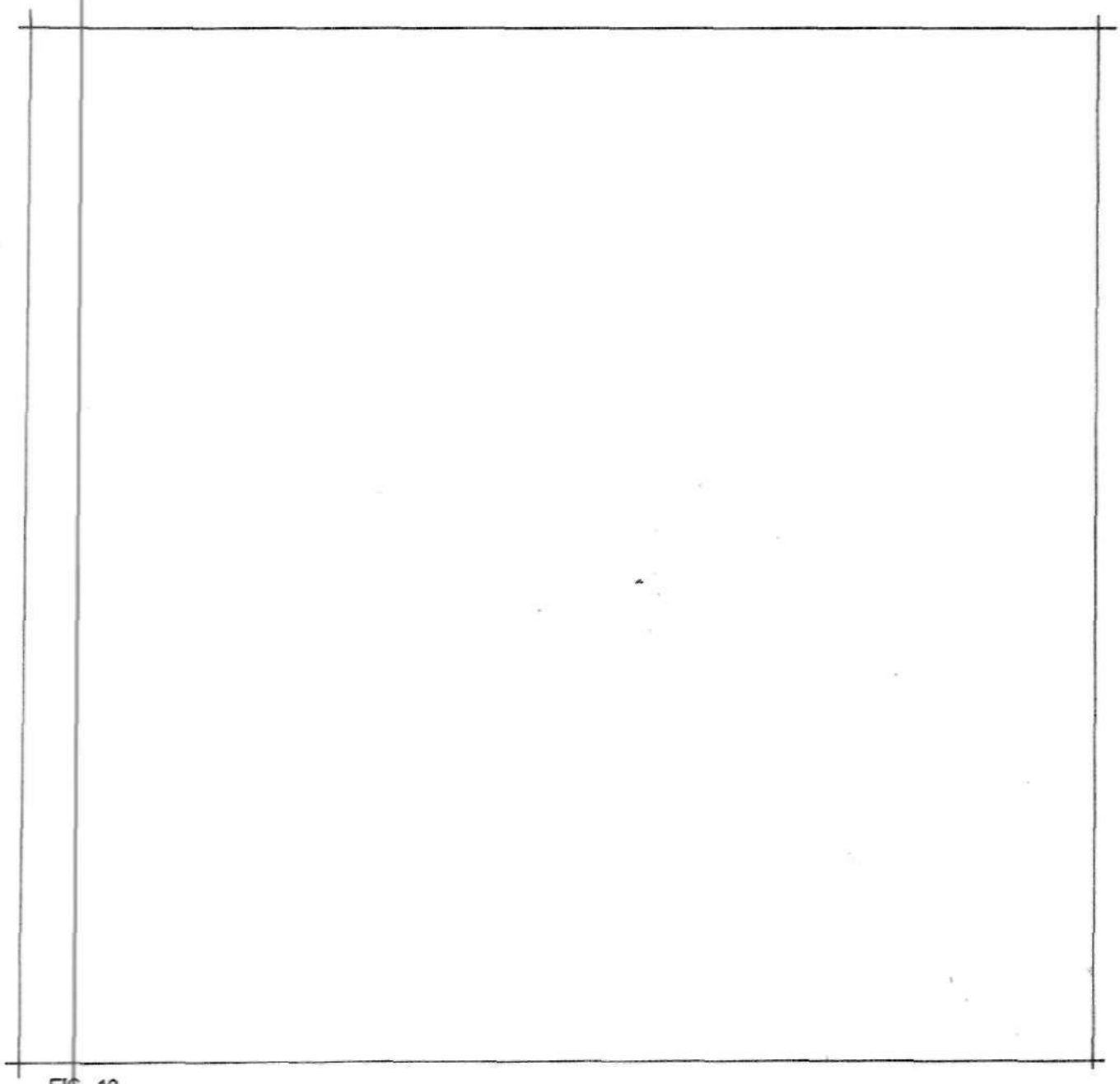


FIG 10

The colours suitable for a reformative environment should be very restful and stimulating, therefore, cold to neutral colours, like green, blue, and very warm colours like yellow and orange will be used in the proposed design.

Sound Environment:

Sound is closely associated with the behavioural setting of a built environment. Wanted and unwanted sound need therefore to be controlled. This condition is mainly important in the areas of health and performance. The effectiveness of any task is greatly affected by noise levels. A persons pattern of behaviour can be affected negatively with the annoyance effect of noise. Design and selection of acoustic materials play an important role here.

Buffers will be created to ward off unwanted noise and sound muffling materials will be created where they are needed .

Anthopometrics and Ergonometrics:

Anthopometrics is the study of the human body dimensions and Ergonometrics is the human factor of use in the built environment. These factors deal with the design of spaces to facilitate the performance of the intended task. If these criteria are neglected several problems may arise in comfort, health and eventually performance. Spaces should be calculated according to the number of users in order not to violate personal space rule thereby retarding the process of retardation.

4.5 Prison Space:

Most people perceive prisons as places where the "bad" people of the society are kept. Their perception affects the way they feel prisons should be

designed. Most prison spaces are therefore badly designed and lack adequate maintenance to satisfy the basic requirements for humane human habitation. To make matters worse, most prisons in Nigeria were built during the colonial era when the penal policies were punitive and the structures were fashioned likewise. This with the inadequate maintenance in the prison environment creates a space that makes the users rebellious, giving them a feeling of personal vendetta against the society and leaves no room for reformation.

A prison should be thought of as a rehabilitative environment where the "socially ill" people of the society are kept. The architectural vernacular should therefore deviate from the modern brutallistic architecture to a post-modern institutional character. The spaces should be designed to facilitate rehabilitation. Prison spaces should have a more humane disposition, creating spaces that are large without being opulent; austere without being inhumane; open without compromising security. Although the desired effect of created spaces may be constrained by several factors like **cultural preferences, economic factors and technological factors,** a rehabilitative environment can still be achieved by well thought out space planning and articulation.

5.0 Case studies

Case studies are important features in any design because they give you insights into how the design should be approached. The most important case studies are those which are taken from areas with similar characteristics with the subject being proposed.

The case studies being studied for the purpose of this write up have been taken from related projects within the country and abroad.

5.1 Federal Prisons Kaduna.

Location: Independence Way Kaduna.

Description: Federal Prisons Kaduna is a medium security prison for men and women with a capacity of 712 inmates. The prison was built during the Lugardian Era, (1915) and has an enclosed area of 100,230m2.

The institution does not seem to have a particular format of planning and most of the building added grew by accretion (as the need arose). The planning does not seem to enhance security control, the security achieved is by man power and a perimeter wall. The building structures are old but still very sound the materials seems to have been well preserved. Facilities for recreation and rehabilitation were not put into consideration when the institution was being planned, so the facilities for recreation on ground now are make shift and are not well suited for their particular functions.

Merits:

i. Durable building materials.

ii. Good staff/inmate relationship created by designing the institution in such a way that the staff cannot isolate themselves from the inmates.

Demerits:

i. The structures grew by accretion, no particular order of planning.

ii. No flexibility in the design. There is no room for change in the way the building can be used.

iii. No central point of visual control, the staff strength has to be high in order to maintain proper security.

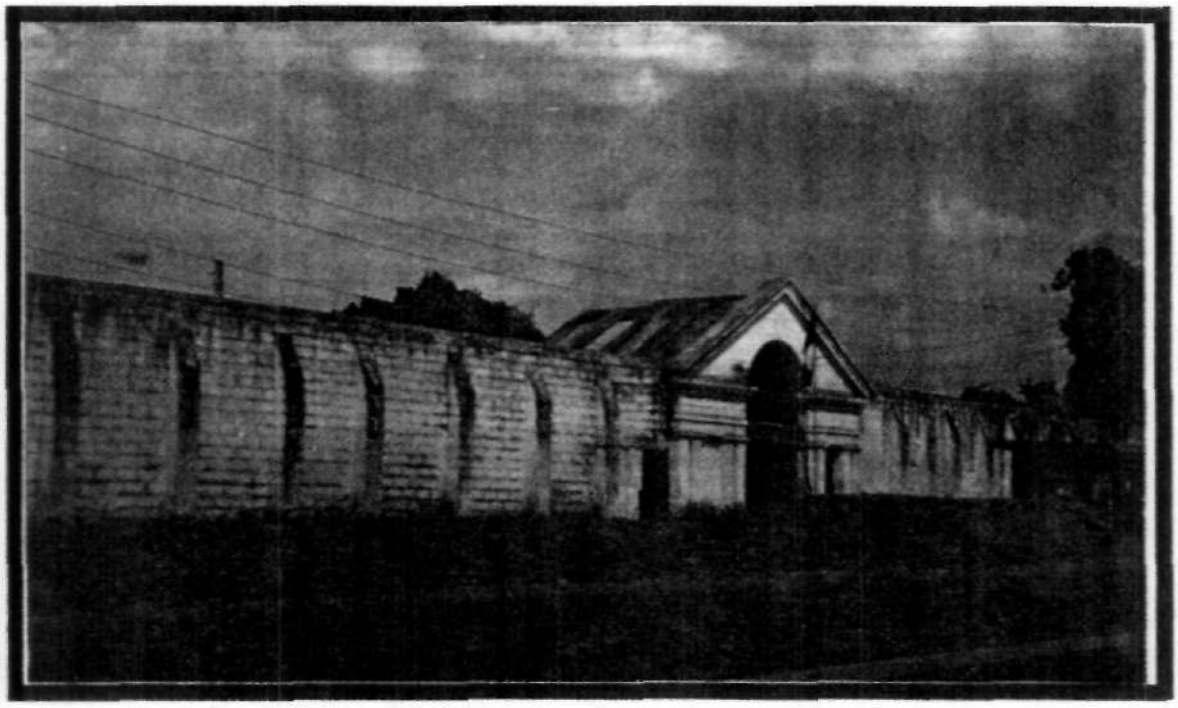
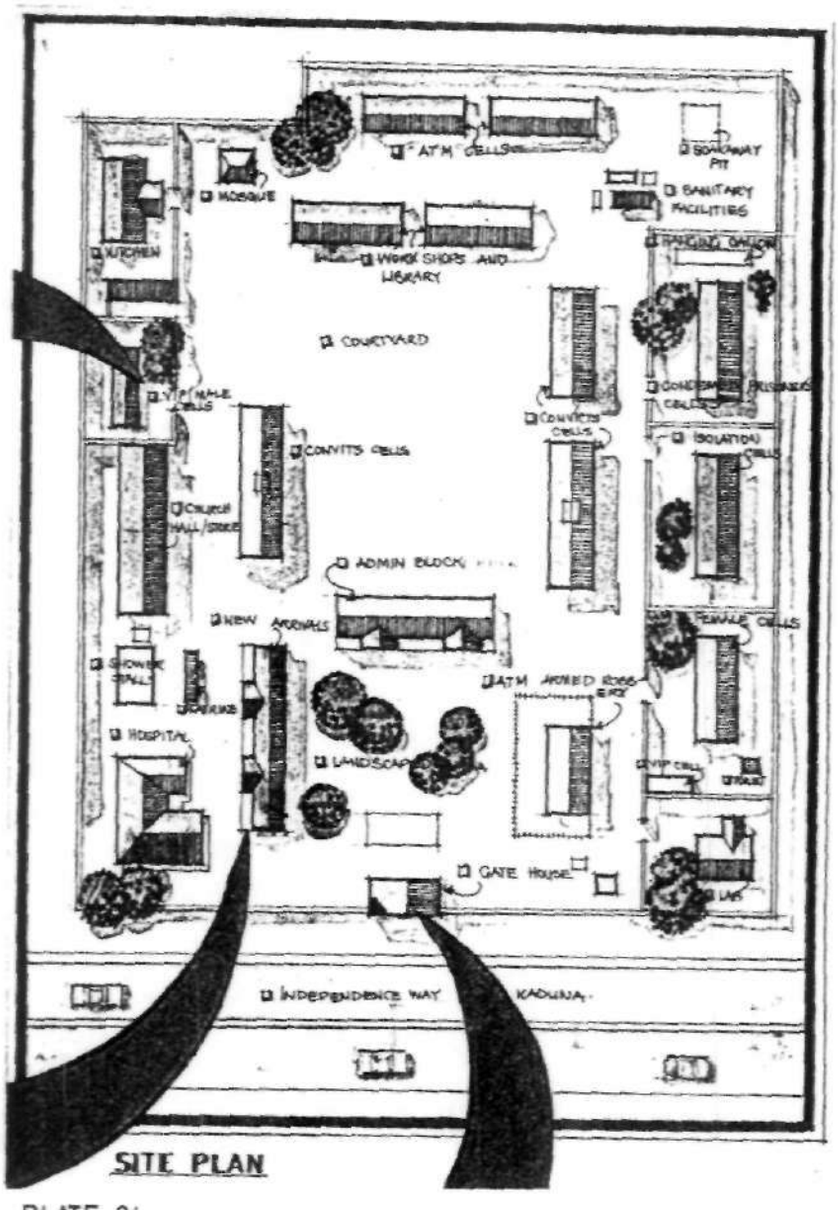
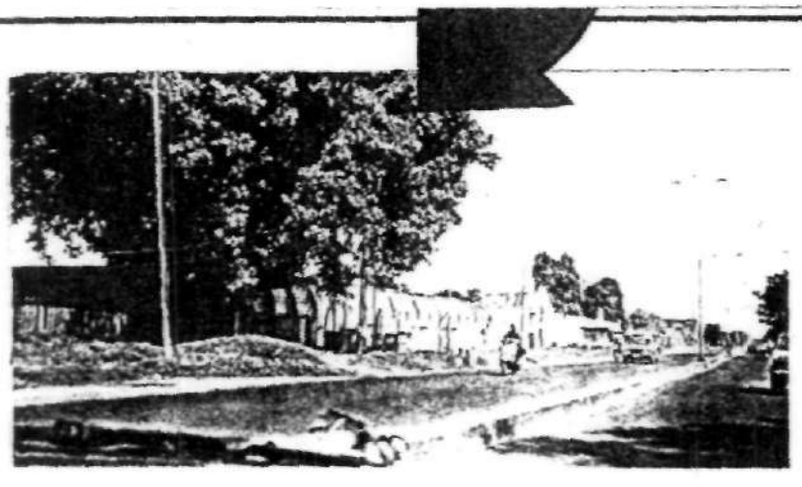


PLATE 23 Federal prisons Kaduna.



SITE PLAN

PLATE 24



APPROACH VEIW

PLATE 25

5.2 Kiri-Kiri Maximum Security Prison

Location: Lagos

Description: Kiri-Kiri is a maximum security prison for men with a capacity of 1056 inmates. The planning can be likened to the unit plan/campus layout. Most of the building structures, like most of the other prisons in the country, were built during the colonial days and so exhibits similar problems with the Federal Prisons Kaduna. The security of the institution is ensured by the prisons location and the perimeter fence. The cells are grossly in adequate both in terms of capacity and planning. There are no provisions for rehabilitation or recreation in this prison institution. Facilities for visiting was not considered when the institution was planned and no arrangement as been made to correct this oversight. The general condition of the particular prison is greatly inhuman and unfit for human habitation.

Merits:

i. The use of durable building materials and good construction techniques

ii. The courtyard system of planning ensures that the staff strength will be reduced during the day because the inmates will be within the centeral core of the institution.

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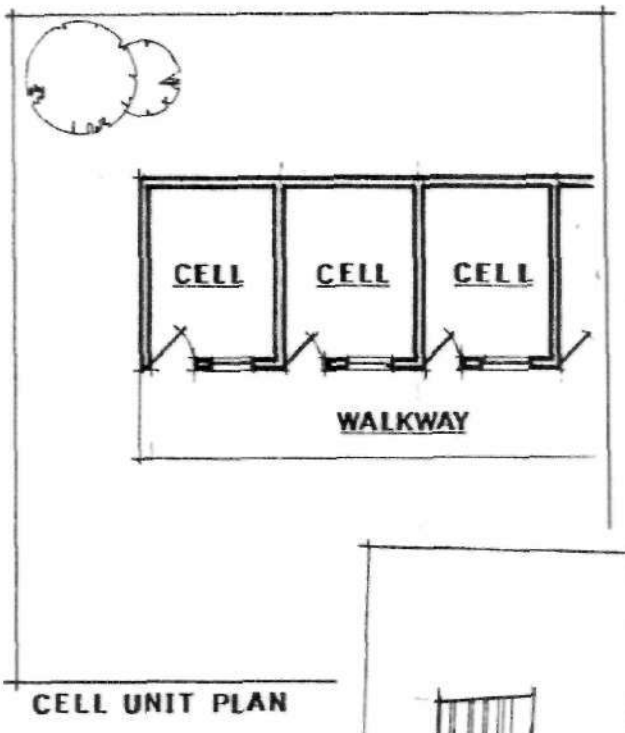
Demerits:

i. Durable building materials.

ii. The structures grew by accretion, no particular order of planning.

i. No flexibility in the design. There is no room for change in the way the building can be used.

ii. No central point of visual control, the staff strength has to be high in order to maintain proper security.



CELL UNIT PLAN

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CELL ROOM PERSPECTIVE

FIG. 11 Kiri-kiri Max. security prison - Lagos.

5.3 Millhaven Ontario Prison Canada.

Location: Canada.

Description: Millhaven is a maximum security prison for men with a capacity of 477 inmates and 479 beds. It was completed in 1967 and has an enclosed area of 102,592m2 with the total area covered by the building being 14,777m2.

The institution inverts the more usual organisational format which locates the services components in a central core with housing units surrounding or attached to the periphery. The housing area comprises the central section of the institution and is used to provide the movement pattern which connects the secondary and support elements.

The degree of security provided is increased during the night when there are usually fewer staff. This is served by the arrangement which locates housing units in enclosed courtyards, courtyards being formed and defined by the housing elements themselves. In this sense, the building form demonstrates the establishment of security parameters without reliance upon external walls or fences as sole means of security.

The day time functions, which are undertaken in the workshops, auditoriums, chapel and the administrative program areas are provided with a higher level of staff supervision and the staff-client interaction consequently can achieve a corresponding level of control even though located on the building periphery. The provision of double fencing and guard towers acts as an additional layering of control measures.

Merits:

i. High degree of security provided during the night.

ii. Fewer Staff needed for supervision when inmates are in their cells.

iii. The institutions design is instructive in the analysis of the planning concept and the organisational principles in response to defined needs.

Demerits:

i. The security is less when the inmates are engaged in the day time functions.

ii. More staff is needed during the day and provision of double fencing and guard towers for additional security becomes a necessary but expensive measure.

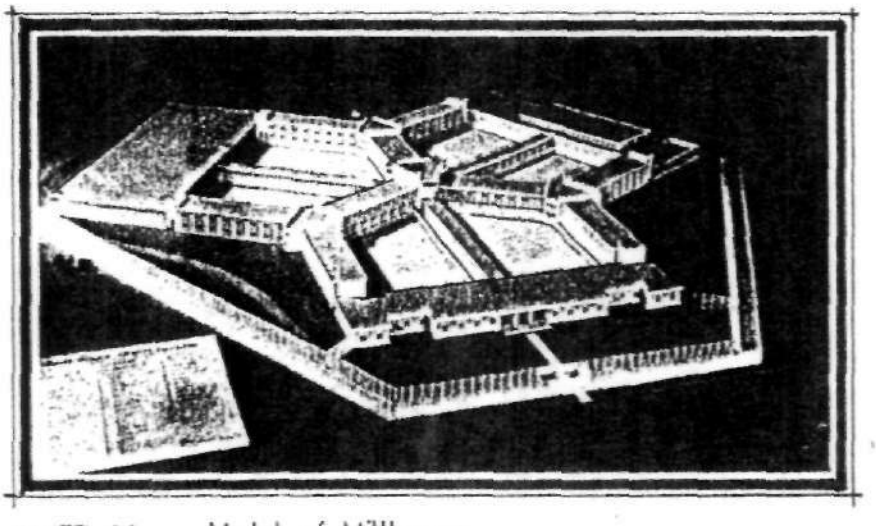


PLATE 26 Model of Millhaven

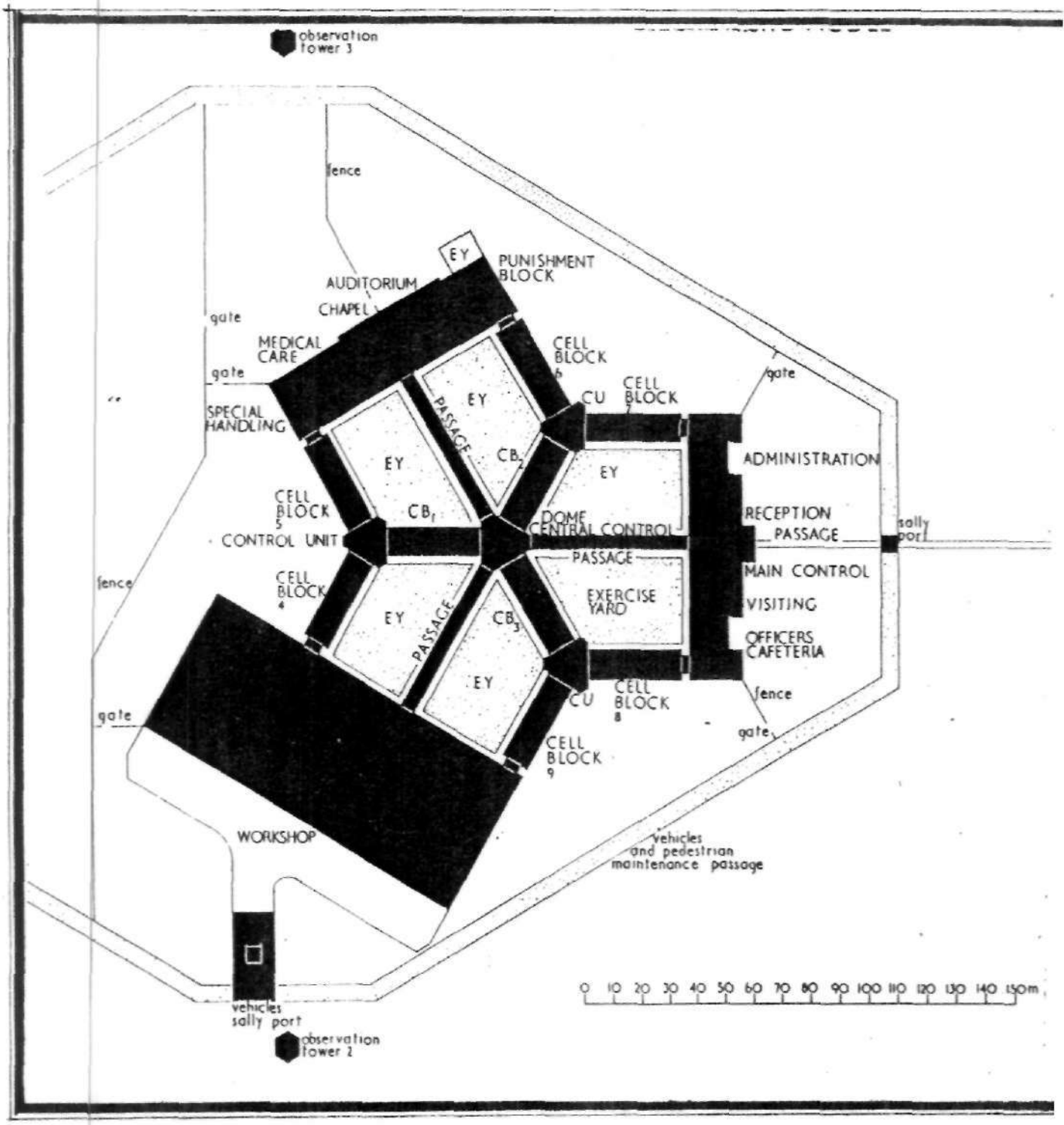


FIG 12 Millhaven — Site plan

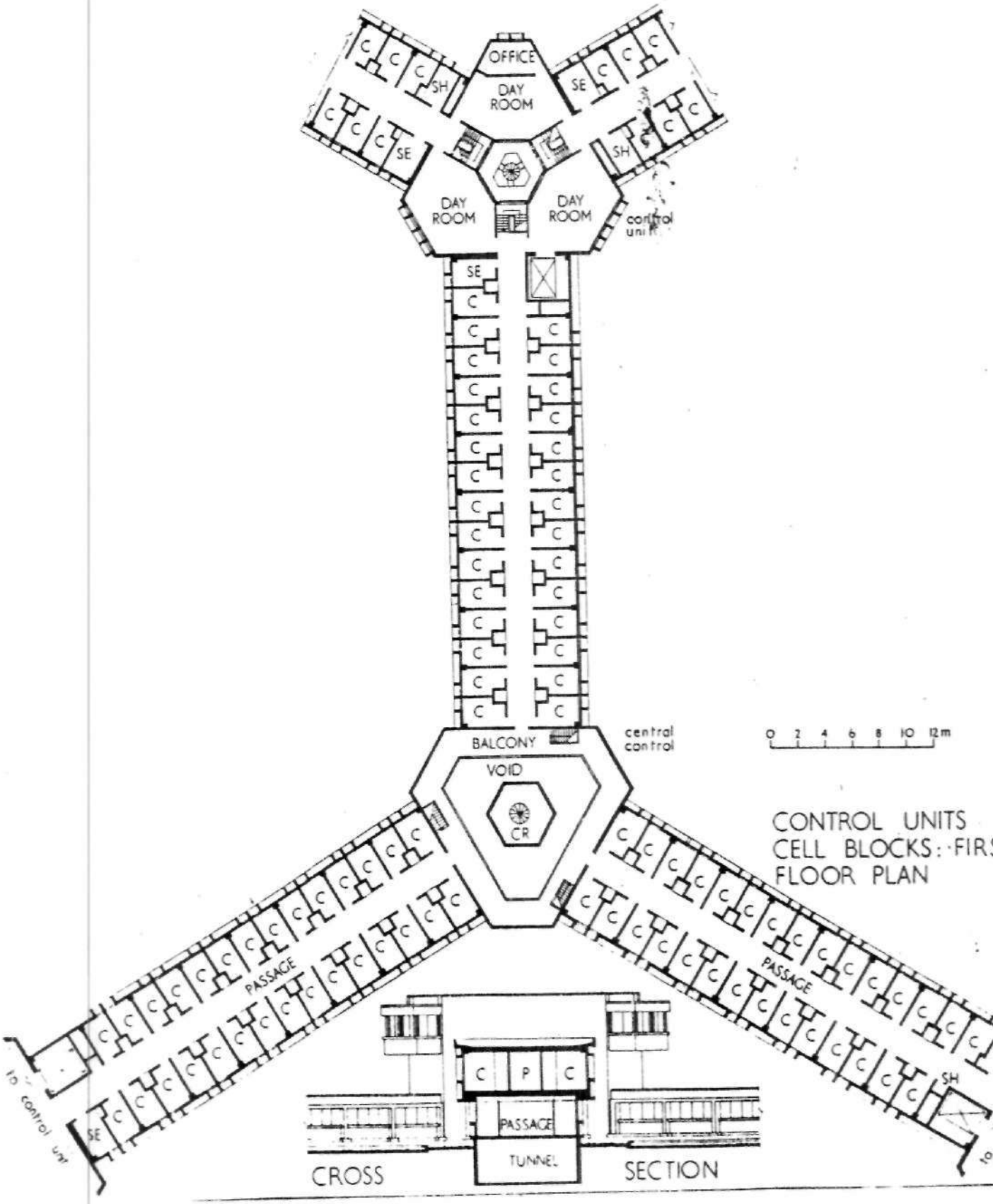
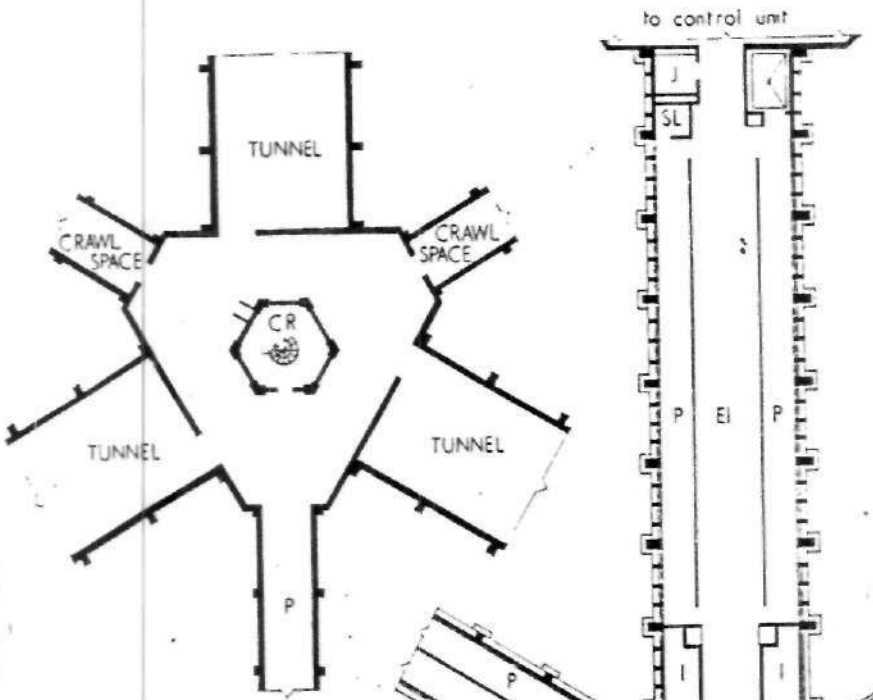
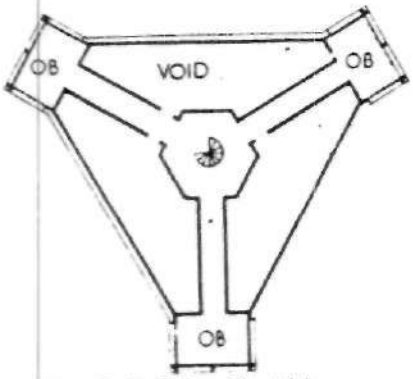


FIG 6 – Millhaven Plan.



BASEMENT FLOOR PLAN

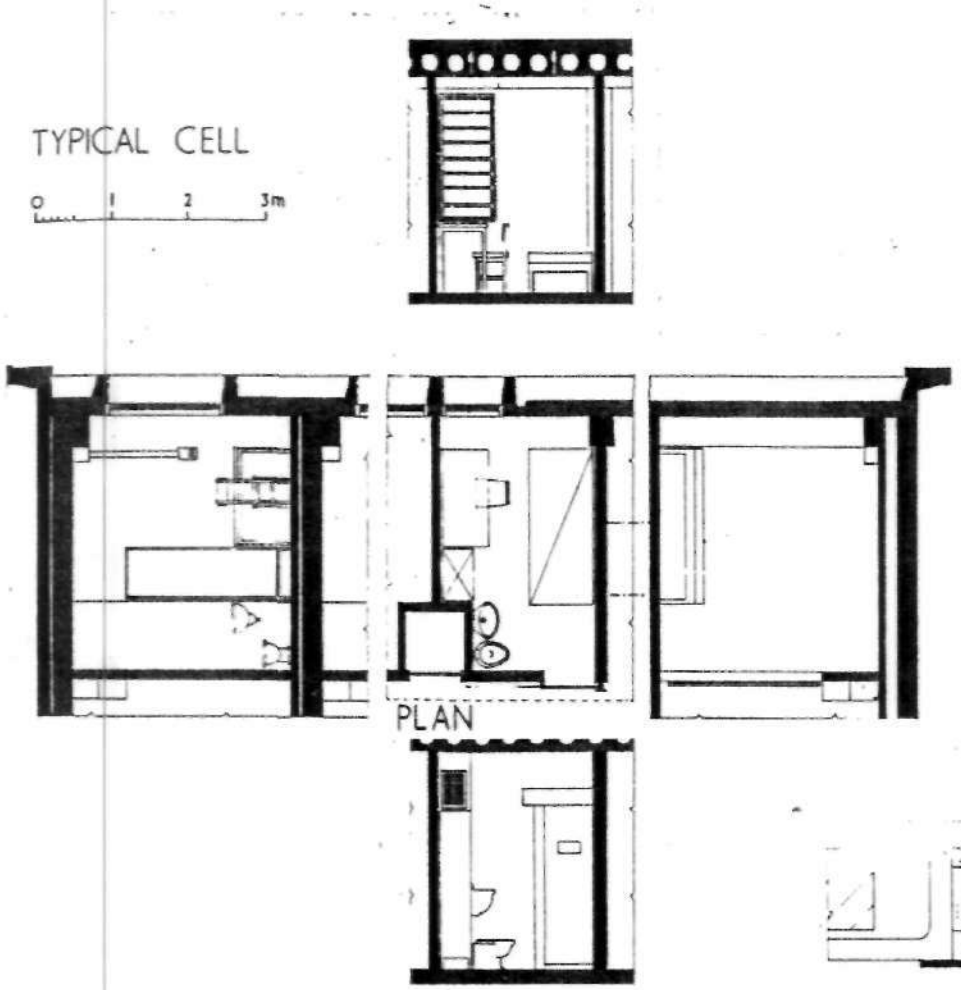
CENTRAL CONTROL & CELL BLOCKS: GROUND FLOOR PLAN



SECOND FLOOR PLAN

FIG 14 Millhaven plan

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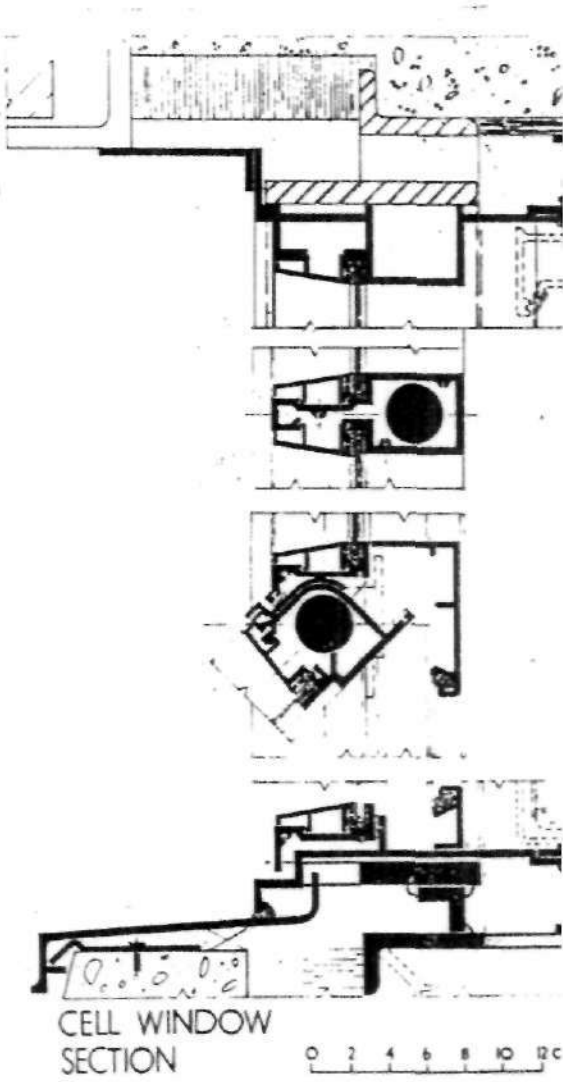


FIG 15 Millhaven Details

5.5 Joe Arpaio's Canvas Jails

PLATE 27

Location: Maricopa county USA

History: Designed by Sheriff Joe Arpaio and Len Sherman in 1993. This prison came about due to the crammed conditions of the Arizona prison. The Arizona prison was constructed to hold 3,000 prisoners while more than 5,000 prisoners where incarcerated. Although more prison cells were needed, money was not available to build them.

The motivation of this prison was to accommodate more people in jails while spending as little as tax payers money as possible.

Description: Tents are the Key ingredients in this plan. Concrete foundations were built and electrical and plumbing facilities were installed with a perimeter wall built round. The tent was designed to hold 1,000 convicts. The prison is located in the middle of the desert, away from civilisation.

Merit:

i. The prison was cheap to construct and is easy to maintain.

Demerits:

i. The design will not work in cold places during winter.

ii. Hardened criminals cannot be kept in this prison.

iii. Segregation of inmates cannot be achieved with this concept.

Visits from families and attorneys of prisoners will be difficult because of the prison's location.

6.0 DESIGN CONSIDERATIONS

Traditionally, architects have relied upon design process to achieve desired responses, but recently a collaboration between architecture and social science has enab us to apply vast information resources to practical design. However an architect seeki information funds scarcity of scientific data about men in confinement. Until there are more studies and until collaboration become more general and more systematised, the correctional architects must continue to rely largely on experience and intention.

The modern institution is centred mainly on staff-inmate relationship. Planning designing a new correctional institution is a complex process involving difficult choice The primary function on a correctional institution/building is to provide a secure environment, confining the inmates and making possible contemporary correctional methods. This will include occupational techniques, integration with the community, positive use of leisure time, positive staff inmates interaction and counselling.

The duty of an architect is to provide an environment where society is able to out its legal custodial duties while attempting to modify the attitudes of the inmates. In search of a suitable facility, a number factors be taken into consideration, such fact will be spaces within the institution. It is however important to understand that it is impossible to satisfy every need, since there is no such thing as a perfect design.

6.1 Organisation of space

This involves the ordering of architectural spaces which has to do with distribution of functional component and the zoning of the layout with consideration given to circulation; grouping and the design programme. The institution consists of some activities with each involving functions whose performance necessitate a certain amount of space organised in the four of specially defined areas which must be quite distinct from one another. In organising space, the most suitable location of space relating to a particular functions is determined on the basis of specific culture peculiar to each activity.

6.2 Zoning of Functions.

Prior to evolving a concept for the proposed prison, it is important t o identify the major activities that will take place within the institution and zone them accordingly. There are two ways of zoning:

I On the site and

II In plan development.

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Site zoning: After through analysis of the site, the site zoning is represented graphically. Site zoning is influenced by the climatic requirements such as wind directions, solar radiation, topography, drainage, soil capacity etc.

II. **Zoning in plan development** will bring about the proper arrangement of the building complex, and can be achieved through the following methods:

a) **Functional Relationship**: Similar activities are grouped together for example, workshops, classroom, library can be grouped as a building complex. This permits the sequence and orderly flow of activities.

b) **Primary space types**: All functions with similar space requirements are grouped together. This system enhance adaptability of space.

c) **Technical building characteristics:** Noise levels, degree of privacy, duty/clean activities areas with special equipment can be grouped together.

6.3 Functional relationships

The functional relationships show how spaces relate to each other in order to achieve a good flow pattern. Functional considerations are integral to the overall success of the design. A good analysis of the utilitarian functional relationship is therefore very important. For best results, activities are grouped in accordance with their similarities.

6.4. Circulation

The objective is to minimise the total length of circulation space, horizontal or vertical thereby reducing function. Circulation is facilitated by a harmonious flow of space without abrupt circulation within a correctional facility (institution) need to be planned out to provide easy flow and allow required supervision and custody control.

6.6 Flexibility.

Due to the constant change and improvement of the building industry, and introduction of new technologies, it is better to design for a number of indeterminate future conditions rather than a single set of fixed functions. The degree of flexibility will be determined by:

i. Location of fixed circulation elements e.g. stains, elevators and entrance.

ii. Location of fixed service elements & utilities.

iii. Structural modules including spans & location of fixed elements e.g. columns.

iv. Design of mechanical distribution and lighting systems

The creation of flexible spaces requires an early decision in the design process about the extent and degree of flexibility.

6.7. Accessibility

Numerous factors are considered in choosing a site, the geographical are of this facility is determined by t he source of the majority of the inmates served. The facility should be located close enough to urban centre to:

i. allow the staff a normal social life and continuing training possibilities.

ii. Offer prisoner easier contacts with their families and attorneys.

iii Offer prisoner work opportunities in extra moral industries.

iv. Offer opportunities for various types of professional counselling.

The facility should be enough from urban centres to allow for cheap acquisition of land.

- Easier surveillance of prisoners.

6.8 Space Analysis.

Space is the single most important element of facility all the other aspect and element of that facility depend upon. Analysis of the factor that influence design emerges in an assessment of space needs. The purpose of space analysis is to determine the physical characteristics, the quantity and conditions that would be accommodated n the design.

6.10. Fire service and control

Modern building require not only means of escape, access for fire brigade and structural protection but also just aid equipment. Expect advice on appropriate provisions and maintenance desirable for particular cases of special installations should be sought from local fire brigade. A number of common equipment's for fighting fires include, buckets of water, buckets filled with sand, soda acid fire, extinguishers and foam extinguishers. There are placed at strategic positions and are moveable. Stains and lobbies shall be vented to prevent smoke accumulation in cases of fire.

6.11 .Lighting and ventilation.

Lighting is an important element in architectural design, Externally, windows are used to display the character & features of a building, internally they serve to emphasise features of t he decor and attention to signs, directions and hazards.

Ideally, lighting and ventilation of any building should be natural. In cases where they proof inadequate. They are provided for artificially.

6.13 Maintenance.

One of the major draw backs of design is the lack of proper consideration for maintenance. In the proposed design. Adequate thought shall be given to maintenance when the building is in use. Choice of materials shall reflect this need. Design shall take into cognisance the fact that apart from major maintenance work, official activities must go on when general maintenance is being carried out.

6.14 Other considerations.

According to Istavan Lendway in his traces on modern correctional institutions. There are two major zones to be considered in living areas. A maximum-security area provides for 40% of total accommodation including segregation cells and medical suite, and the minimum security area provide for about 605 of the total accommodation . All services areas and supporting services that are out local of t he inmate living areas are considered minimum security.

The administrative area usually classified as a non security area. The building should be of "human scale" to be designed in such a way as to encourage visiting and should be an integral part of the pedestrian and vehicular and pedestrian network surrounding it. The open space around the institution should be developed in a manner,

which promotes public use. The emphasis should be on "dynamic security" as opposed to employing more impersonal forms of supervision. To create an institution which is responsive to changing needs of its uses, staff and inmates: The building should have sufficient internal flexibility to allow conversion for different types of occupants. Particular attention should be paid to the design of building systems to accommodate changing demands. A responsibility in the institution will be to prevent inmates from harming themselves through suicide attempts use of drugs or other personal abuses. To allow separation of inmates who are potential suicide risks and need closes observation. To provide an environment from which inmates cannot escape. The classification of inmates into separate securely zones according to their escape potential. To provide a building which will allow the convenient and secure transfer of inmates to and from prison. The attention placed on the quick, effective and high priority movement of inmates through the building. The institution should not duplicate services, which are available within the community, such as: Intensive or long term medical care, swimming pools and specialised recreational areas. Classification of potentially incompatible inmate into separate living areas, resulting in division of buildings to avoid residential units. The inmates should interact in small groups. Examples of activities where small group interaction is important are getting and engaging in social activities. The objective is part of the reason for dividing the residential part into definable unite. To provide adequate nourishment, medical care, shelter, opportunity fir exercise and services for maintaining cleanliness.

Inmates should be encouraged to assist in looking after their own needs. The environment should be easily comprehended by inmates, visitor, and staff, by the filling of openness which at the same time would reduce inmate sense of confinement. To provide a service of facilities which will allow inmates a choice to engage in a wide range of activities.

7.0 Site Analysis

7.1 Site location.

The "site" is an important aspect of our environment because it has a biological, social and a psychological impact on its users that goes further than its accepted influence and technical functions. It set limitations and allow open opportunities for people. The objective of the proposed facility is to create an environment suitable for influencing the user positively so that at the end of his term, it integration into the society is easily achieved.

The Federal Capital Territory is relatively new, and is without adequate rehabilitative facilities. The only prison in Abuja is at kuje area Council with a capacity of 80 beds and a lot more prisoners than the prison can cater for. Since Abuja is the New capital of Nigeria and everyone to be moving close to the seat of government, the crime rate is likely to shoot up(increase); there shall be need for prison facilities in the near future.

The site is located within the Bwari area council . north of t he municipal area council(city centre). Bwari is an institutional council with many existing infrastructure which will aid the rehabilitative process in the proposed prison.

7.2 ABUJA

The Federal Capital Territory(F.C.T) came into existence by decree number 6 on the 5th February 1976. Until its creation Lagos had been the capital of Nigeria. Since the

amalgamation in 1974. With the increase in economic activities and population explosion in the former capital Lagos, it became apparent that the infrastructure and service will no longer adequate, there the city was over burdened and its facilities were over stretched. The Federal Military, in 1975, under the late Muritala Mohammed, set up a panel under the chairmanship of Justice Akinola Agula, to examine the issue of relocation of the Federal capital Abuja was recommended and chosen because of the centrality and it s easy accessibility from all parts of the country by road, mail and air.

"Abuja" is derived from the most important settlement within the territory known as Suleja. Abuja was carved from Niger, Kwara, Plateau State, with a total land area of 8,000Km2 . Abuja is divided into six area councils, among these area council is Bwari.

Before the creation of the Federal capital Territory, the area was sparsely populated. The population was put at 109,000 in 1963 and 125,000 in 1977. However since 1980, Abuja has experienced considerable increase in population, in 1992, the population of Abuja was put 378,671. The rapid growth will continue in the foreseeable future. Having regard for the ongoing programme of moving the seat from Lagos to Abuja.

7.3 BWARI - A brief history

Bwari is an aborigine settlement in the north-east area of Abuja, the Federal Capital Territory(F.C.T). It is bounded in the west by Tafa local Government Area of Niger State in the East by Kagarko local government of Kaduna State, in the Gwgwalada area councils respectively. Before its creation as an area council in October 1st 1996, it

was known as the Bwari Development Authority. It became fully operational in December 1996.

The historical background of Bwari dates back to the 16th century from facts through oral and written history, Bwari was believed to have been founded by a hunter who came from expedition from Kano. Another historical legend claims that the hunter might have migrated from Brono and settled in Bwari mountains.

At present, the area council is estimated to have a population strength of over 300.000 inhabitants. The indigene of the council are mainly Gbagiyi (Gwari), Koro and other tribes across the country. Farming is the major occupation of the people of the area council. They equally engage in commercial inter prises and wholesale retailing to promote internal trade within the area council.

7.4 Geography.

Abuja has between longitude 7.045 and latitude 0.25 North. Its located just north of the alluvial plane formed by the confluence were Benue and Niger. It is within the hot and humid low-land of Benue/Niger trough.

There are four major rivers flowing through the territory into the Benue/Niger trough. The first river Kaduna is the largest river and lies west and North of the territory.

Its water shed drain most of the territory into the Niger. The second is Gwanana river, it passes through the western edge of the territory into the Niger. The third is the

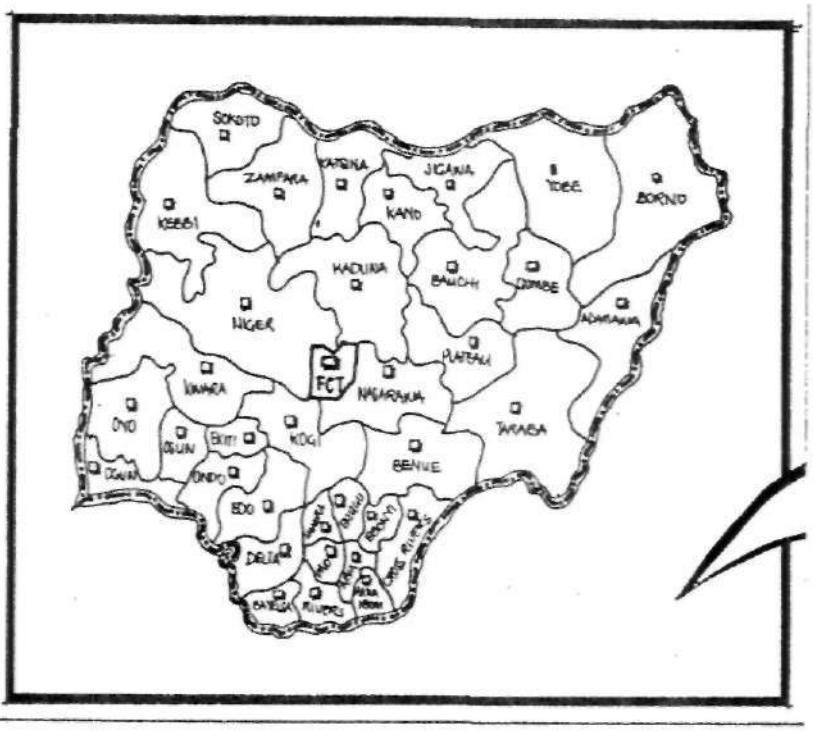


FIG 16 - Map of NIGERIA

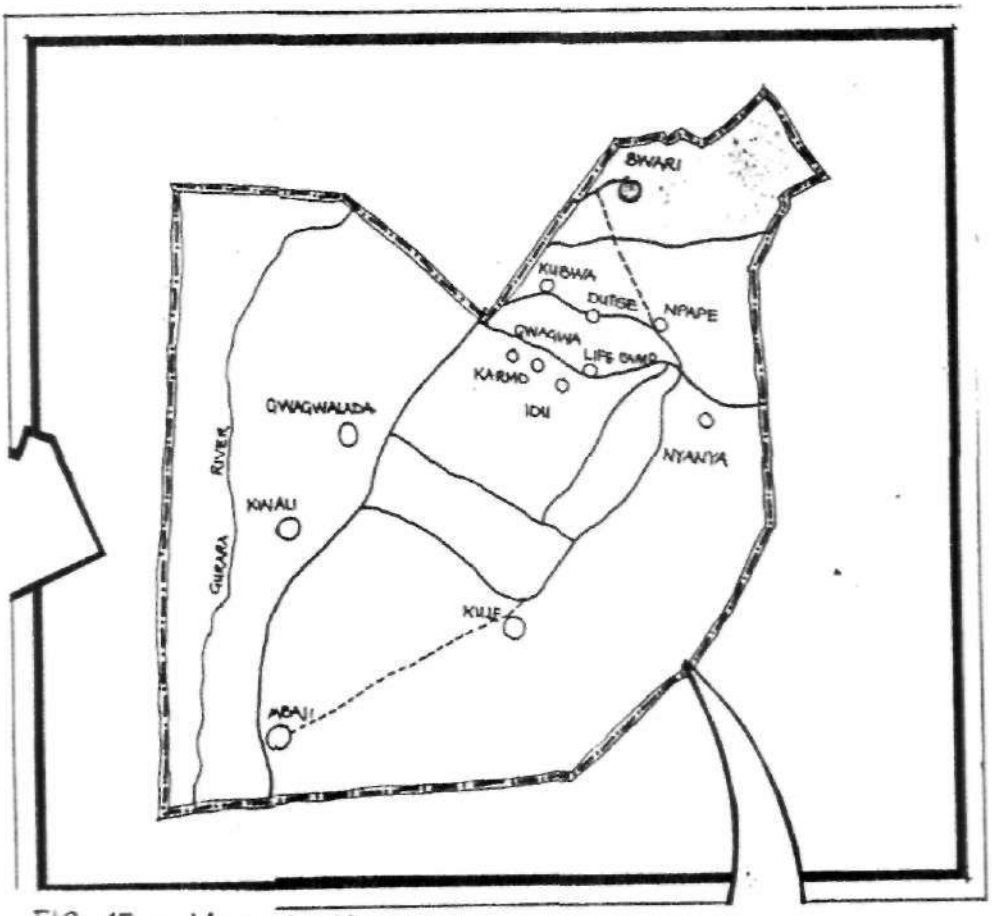


FIG. 17 - Map of ABUJA

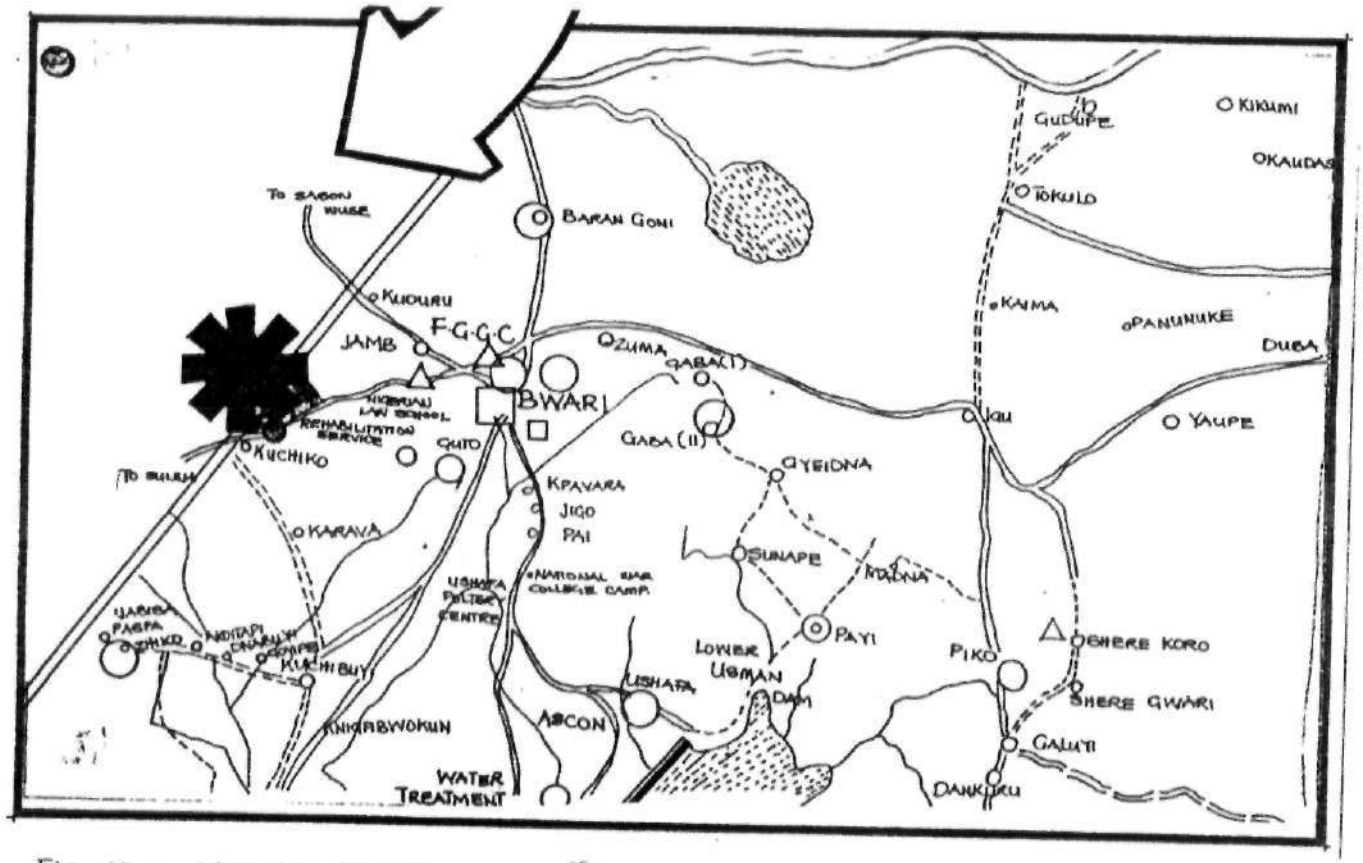


FIG. 18 – MAP OF BWARI

FIG

River lies east of the territory, while the Jatai River lies between river Kaduna and the F.C.T.

7.5 Climatic data..

i. Sunshine hours.

During the months of November until April, the variation in the amount of sunshine hours follow a general trend of an increase from over two hundred and seventy five hours on the city site. Cloudiness increase as the rains approach with a proportional decrease in sunlight.

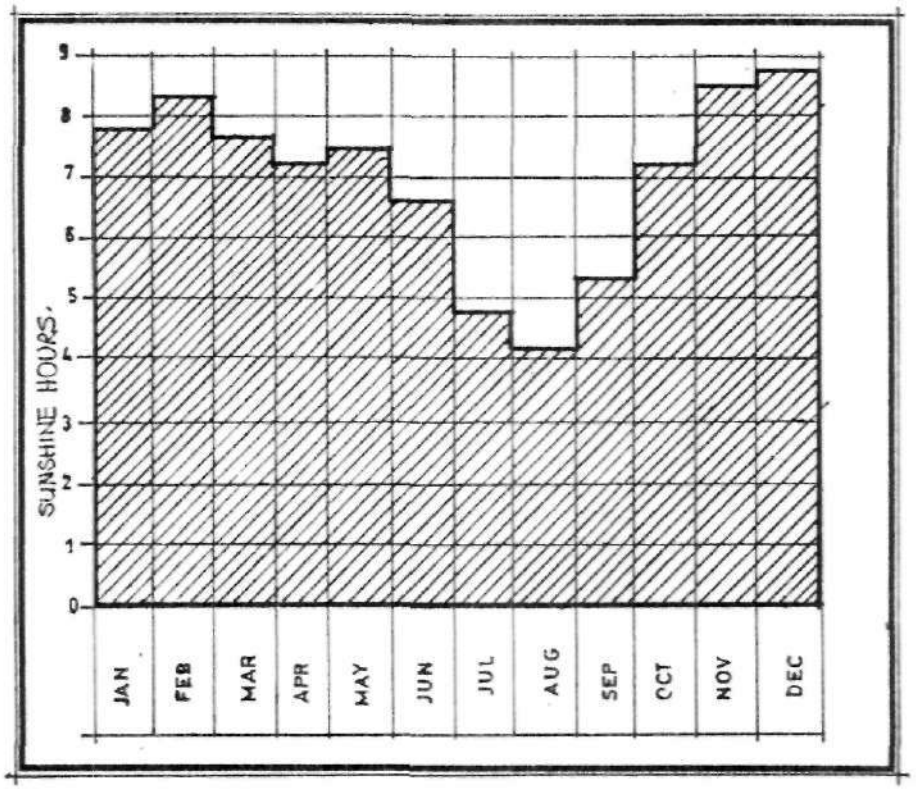


FIG 19 – SUNSHINE HOURS

THE FEDERAL CAPITAL TERRITORY IS EXPOSED TO A MINIMUM OF 1300 TO 3200 SUNSHINE HOURS ANNUALLY.

Design implication; Sun shading device are as such to be adopted in the design proposal, designed with calculations from the figures from the graph of the sunshine hours.

ii. **Temperature:**

The federal Capital territory records its highest temperature during the dry season when there are few if any clouds changes in temperature as much as seventeen degrees centigrade have been recorded between the highest and lowest temperature in a single day.

Design implications:

iii. **Humidity:**

The low humidity during the dry season coupled with the high afternoon temperatures. Accounts for the descanting effect of the dry season. In the rainy season, the relative humidity is much higher and the temperature slightly lower. These effect created a heat trap there by making affected spaces unbearably hot. A solution is the introduction of wide openings in buildings for more air inflow and the provision of mechanical devices to aid cross ventilation.

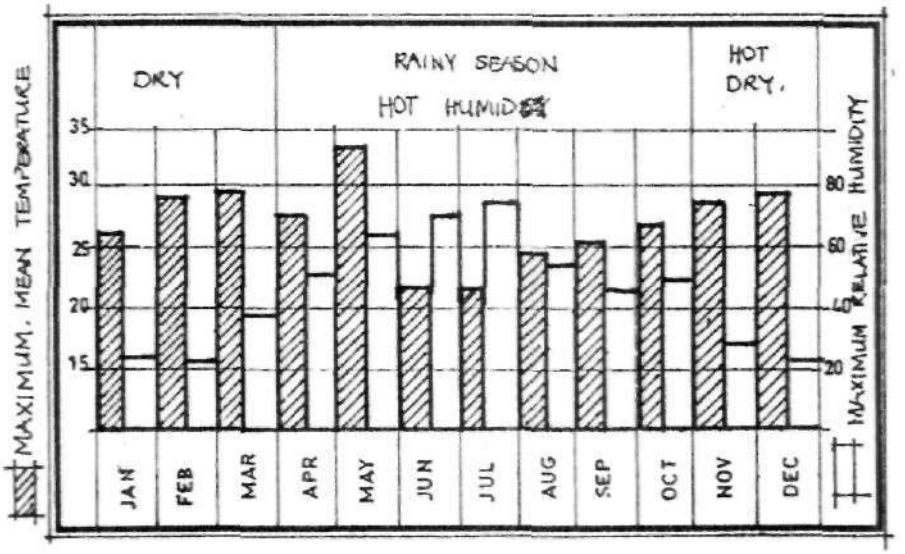


Fig 20 - HUMIDITY

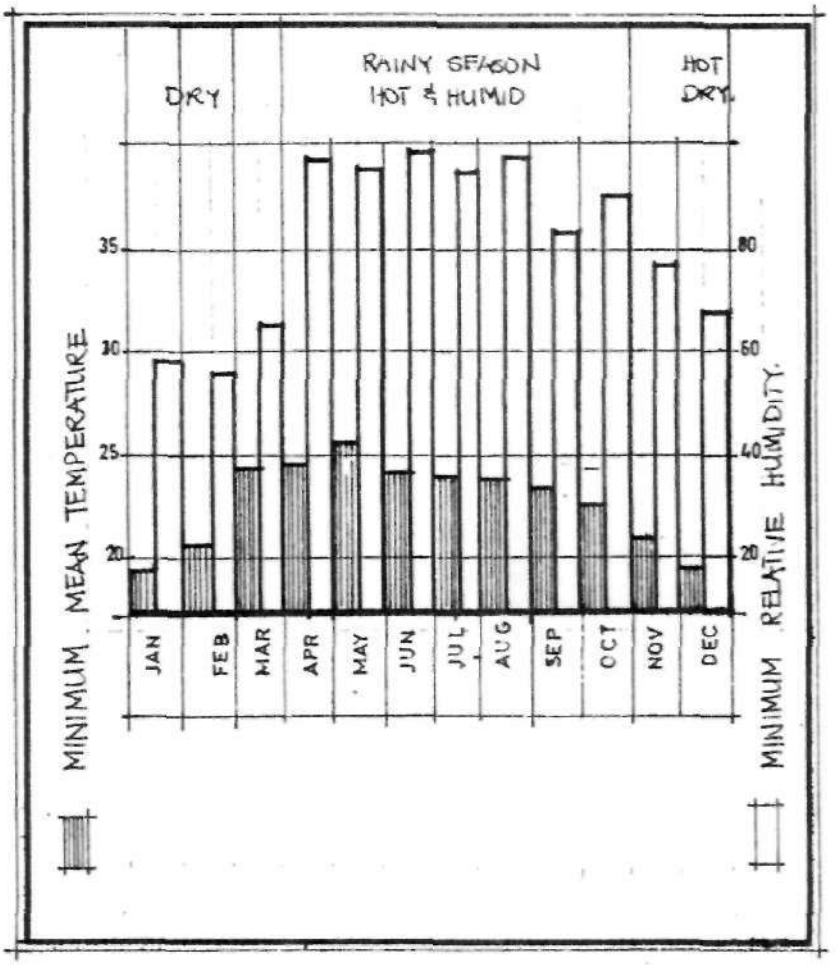


FIG 21 - HUMIDITY

iv. Rainfall:

From meteorological data, rainfall in Abuja last for 180-190 days between the month of April and October. Mean monthly distribution shows a concentration of rainfall, in the month of July, Aug. and September. Which accounts for 60 percent of the total rainfall in Abuja.

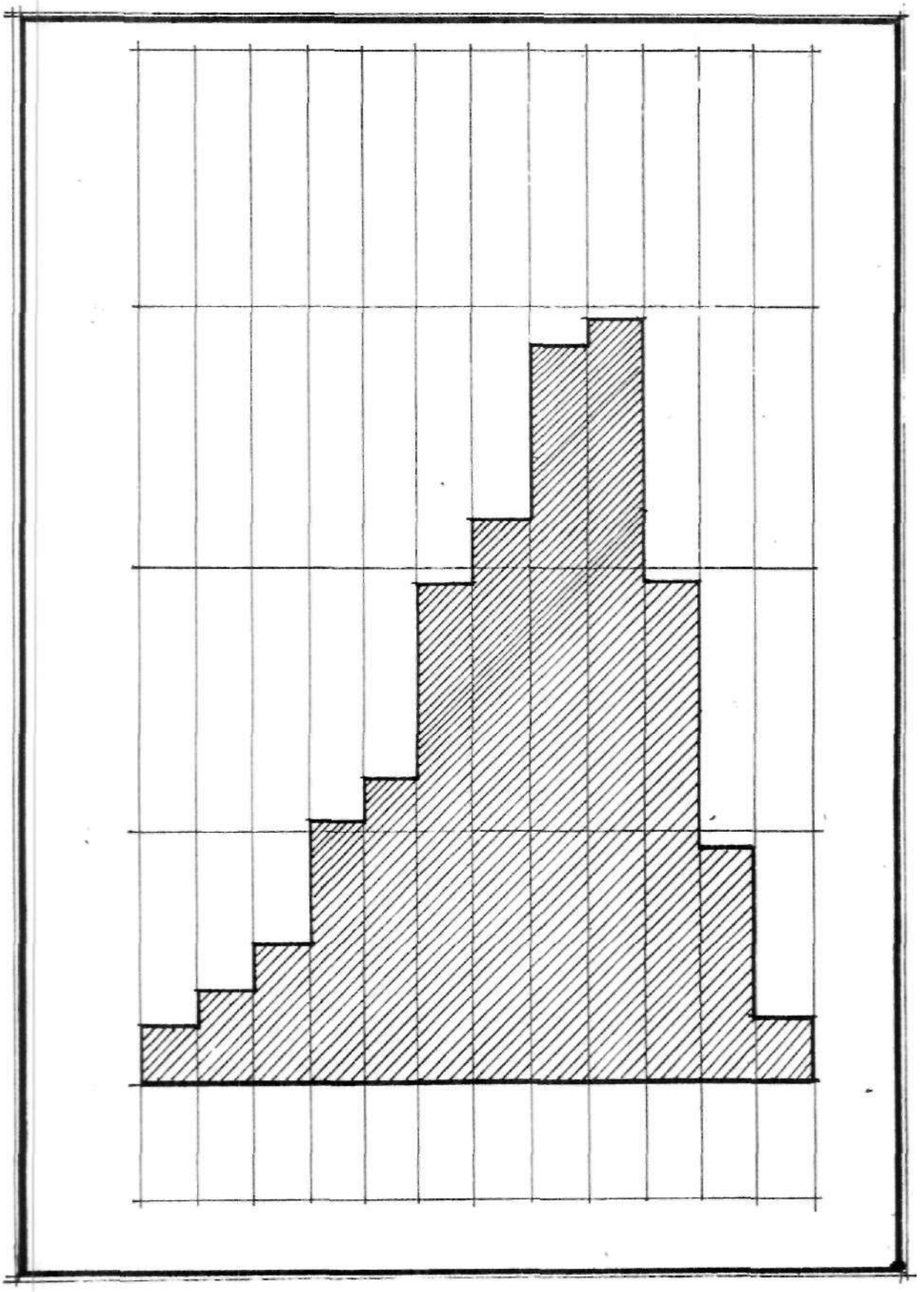


FIG 22 RAINFALL

7.6 Infrastructure available.

Roads and transportation..

The Suleja road is existing presently and provide access into the subject site.

Water supply system.

Water supply within the Federal Capital Territory is through the main water supply tank lines convey water from source(lower Usman Dam).

Electricity:

Electrical power supply in Bwari is based on supplies from one of the 3 different power stations.

Telecommunication:

The telecommunication system in the subject site is in line with the standard applied throughout Nigeria as given by NITEL.

Drainage:

The proposed site shall benefit from an already proposed system that recognises two aspects of the drainage problem, rainfall water and flowing water prescribes that drainage will be channelled through a system of tertiary, Secondary, Primary and main collectors in the researched order. Also the nature of the terrain is the subject sites favours a network of open channel drainage.

Sewage:

An already laid down proposal of sewage system course exists through out the subject site. It will be easy to empty sewage from the site of the proposed site into the proposed interception line.

Solid waste disposal: There exists at present, a refuse collection point. There is a curbed collection point.

Vegetation:

The entire FCT falls within the savannah region. The vegetation is characterised by shrubs with occasional densely wooded areas. Interspersed with riparian vegetation which is characteristically found along the river banks located further inland. The park savannah type of vegetation however occupies the larger part of the proposed site, within the memorial park. It is characterised by tall grass, shrubs and medium sized trees.

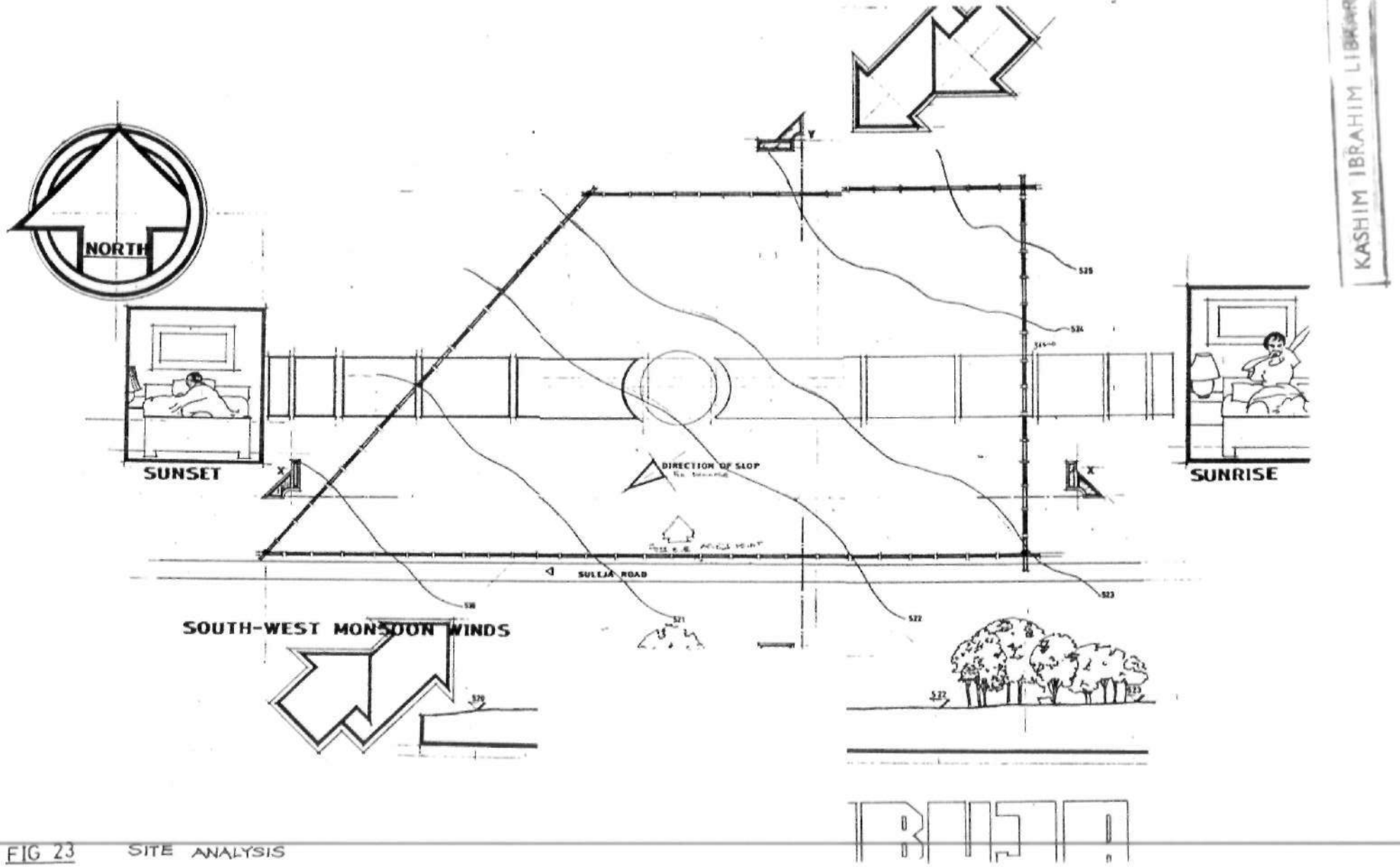


FIG 23 SITE ANALYSIS

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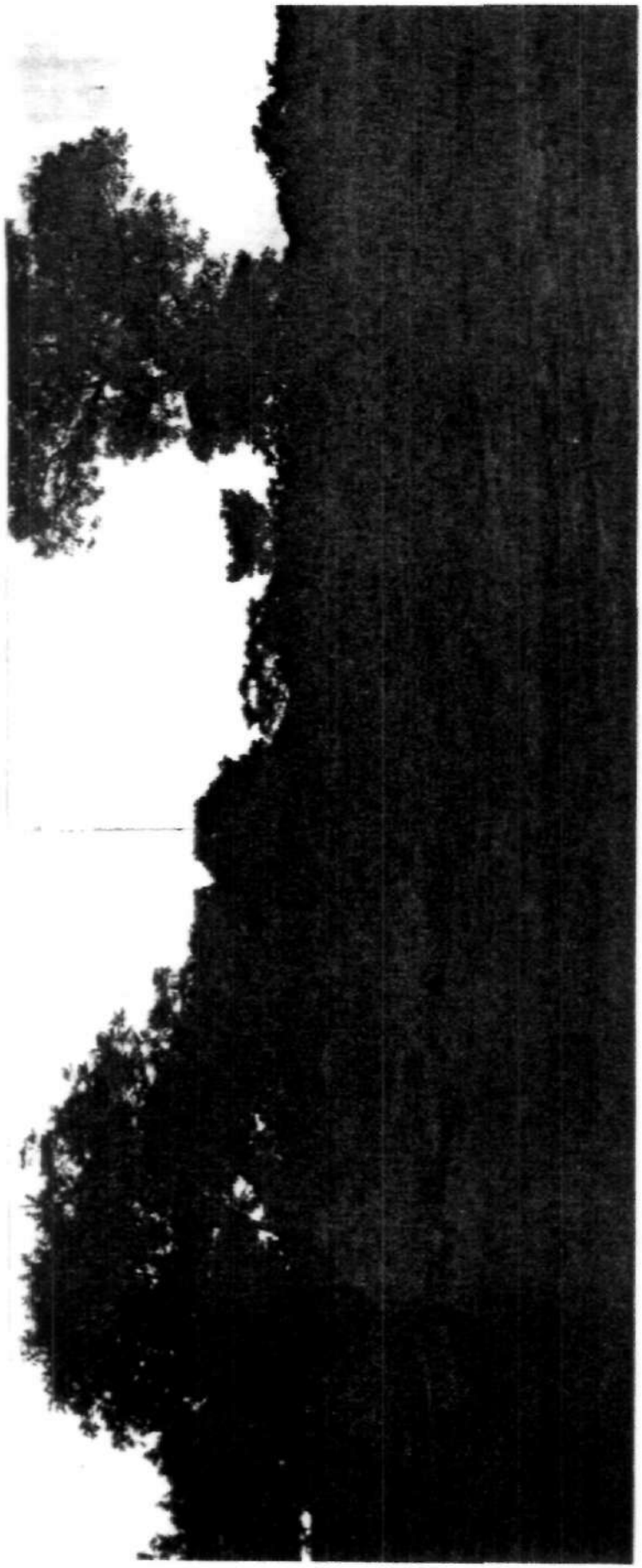


PLATE 28 SITE PICTURE.

8.0 FORMULATION OF BRIEF.

In developing this brief, detailed discussion well carried out with the Nigerian Prison Service staff(welfare officers and other in charge) in Kaduna and Lagos and Human Rights lawyer who are actively involved in the prison reform program presently going on in Nigeria. A case of existing facilities in the Nigerian Prison in Lagos, Kaduna and Zaria also helped from the basic of this brief, other facilities identified from foreign case studies that would enhance the efficiency of the prison project were taken into account.

It should be noted that this brief would be seen not as a rigid set of miles but as a statement of intent which would evolve the design process. The major couturier would be economy and flexibility of space and peak utilisation period of the space would be considered.

8.2 Population projection

According to the statistics from the Federal prison service for the total number of inmates admitted, over a deviation of eight year, an average of 43,963 inmates was got and based on this a percentage of inmates to serve maximum security sentence and medium security terms can be derived. The maximum security section will cater for inmate serving long term (more then 15years) and the medium security section will cater for inmates serving short terms(more then 3 years) The average number of inmates serving long prison term over an average of inmates serving long prison term over an average of eight years was about 16,000 and those serving short term was about 33,000.

From the data above, 38% of the inmate admitted will serve their term in the maximum security section and 75% will serve short term in the medium security section.

The international panel of penitentiary commission in their draft prepared for the treatment of prisoners in the Canada convention, stipulated that for a prison to achieve its goals, that of information and re-integration, the number of inmate should not exceed 600. The size of the facility therefore will cater for 500 inmates. From this figure, the no of inmate in the maximum security, medium security and special section can be calculated.

Maximum security section: 18%

$$= \frac{18}{100} \times 500 = 90 \text{ inmates.}$$

Medium Security section: 75%

$$\frac{75}{100} \times 500 = 375 \text{ inmates}$$

Special section:2%

$$\frac{2}{100} \times 500 = 10 \text{ inmate}$$

The number of prison warden to serve the prison will be calculated thus: According to time severs standards: Building type by john calendar, the number of wardens to prisoner in the maximum security section is 1:2. This will also apply for the special section. The number of wardens to prisoner for the medium security section is 1:10. So for the maximum security section, there no of staff will be:

1 X 90 = 45 warders.

--

2

The medium security section

1

-- X 375 = 37.5 =38 wardens.

10

The special sections ½ x 10 = 5 wardens. TOTAL = 88 wardens.

8.3 Schedule of accommodation description

The proposed prison design will have a combination of facilities which will cater for activities that will contribute to reformation and quick re-integration of inmates into the community and would enhance easy dispensation of staff duties.

The basic elements of the correctional facility or prison institution will include:

Housing

For maximum security individual cells will be provided because they require constant supervision. Their cells will be located on the outside wall of the housing unit, each with a window. Sliding or swinging door which open into the cell are provided with vision ports for night, checks. Furniture will be built in and ventilating air will be adequately provided for. Walls will be made from concrete or man sonny (reinforced) unties, floors will be concrete with steel trawled furnish.

For the medium security, dormitories or squad rooms will be provided, planned for the ease of visual supervision. Each inmate will be provided with a locks for his belonging which may be an integral part of his bed. Beds provided for each squad room will not exceed 10, and a floor area of 55 staff for each bed and its circulation space will be provided. Chairs and tables will be provided and an adjacent day room.

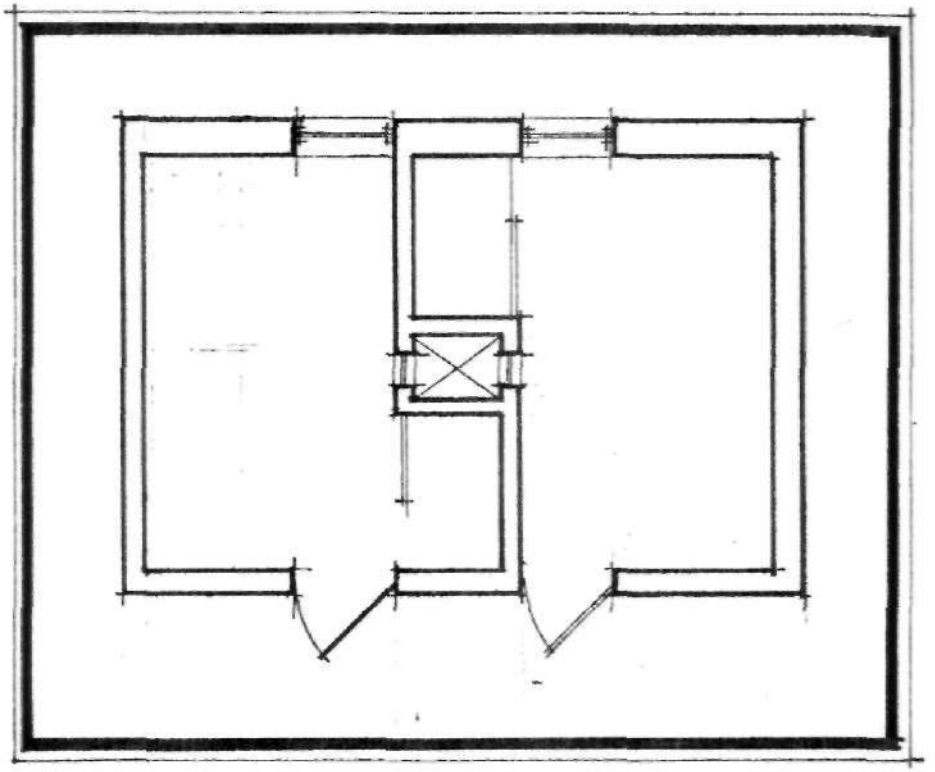


FIG 24 Cell arrangement

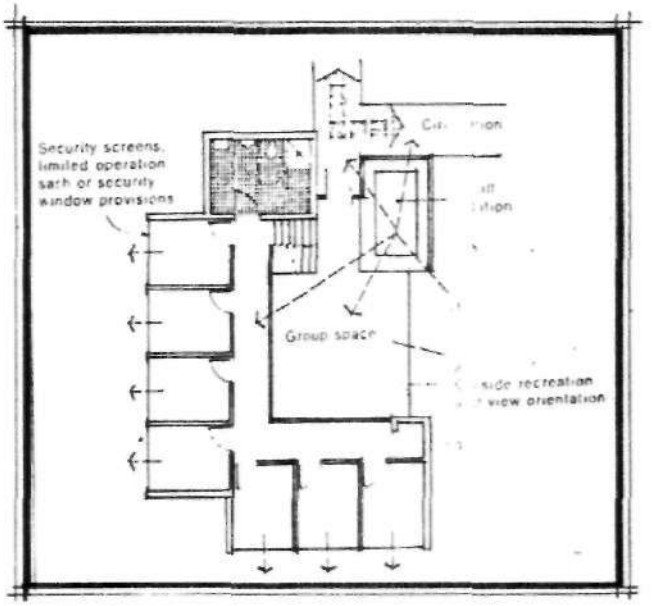


FIG 25 Cell block layout

Housing support facilities.

There will be provision of casual recreation areas, generally called day rooms, adjacent to the living quarters. The space allotted is a minimum of 15sqf per inmate and a closet for storage of equipment is provided. Activities that take place here are games(cards etc.) Ping-Pong, to watching, reading and sometimes dining.
There will also be facilities for utility functions like group toilets, laundry facilities and spacing for storage of equipment used in general cleaning of the honouring units.

8.31 Administration

The administrative functions can be grouped to include facilities that are located outside of security controls of the institution and those within the basic security system. The functions located outside basic security system are those in which the staff needs to the accessible to the public and requires ease of ingress to and egress from the institution. Such functions include those of the office head of the institution, the business manager, certain deputy wardens, whose duties relate to the public and various administrative, clerical and secretarial staff.

Those administrative workers whose work relate directly to the inmate population should have their offices within the basic security system of the institution. Preferably near the most vital areas of his function. For example, the deputy warden in charge of custody would have his office adjacent to the central control room and the key control rooms of

the institution. The deputy warden in charge of the inmate program would have his office located in the heart of the institution so that he is not isolated from the inmate population that he serves. Administrative officers in education, recreation and vocational training should have their offices located within the operating areas of their programs.

An idea gaining acceptance is the inclusion of arrangement courts facilities within the detention facility. With the count room directly within the portion of the institution under security, the elaborate precautions involved in guarding prisoners and t transporting them to the counts is unnecessary. The judge, attorneys come to the fails instead. There are problems created by admitting judges and attorneys within the controlled zones of the institution, but these are minor compared to the difficulties involved in transporting prisoners to courts.

8.32 Correctional programs.

The functions in this facility include all activities that would involve professional treatment if the inmates to influence a change of attitude and behaviour. Some of these functions are: counselling, casework, clinical services, education, vocational training, work-release on study release.

i. ***Counselling:*** Counselling the establishment of a direct relationship, either at a personal or group level, is an attempt to solve specific personal problems or develop over a period of time increased self - understanding and maturity. Counselling may be the natural out growth of personal relationship between staff and inmates developed

through day to day contact or the deliberate structuring of groups for mutual discussion of inmate and staff problems. Arranging living accommodation is small groups provides a natural setting for the development of counselling relationships between custodial staff and inmates. Optimum size of counselling group is between 8 and 12 persons, and a multiple use space within the building(housing unit) where such activity can take place on a scheduled basis is needed. Each housing unit should also include office spaces which can be utilised for individual interviews and private discussions.

ii. ***Case work :*** Casework comprises services by professionally trained personnel(study, diagnosis and treatment of psycho social problems) admitted individually or on a group basis. Casework activities involves obtaining the inmates social history, solving immediate problems with families or other person, exploring problem of social adjustment, and providing supportive guidance and information for release. In addition to the general institution program, other situations aided by case work services are persistence

investigation of detainees (for probation), the reception process and post institutional supervision. Case work activities are most effectively carried out in a centralised area that has ready access to typing services and records, although it is possible that a case worker might go to see his client(inmate) in an interview room in a housing unit.

8.34 Clinical services

Clinical Services rely on a professional staff such as psychiatrists, clinical psychologists, phychiatic nurses, occupational therapists and other specifically trained technician. These services provide intensive diagnostic and treatment techniques to discover causes and cares for individual maladjustment. The clinical staff also provide guidance and support to other staff members to aid them in their custodial responsibilities. Allowances would be made in the maximum - security unit of the institution for individual and group treatment by the clinical service personnel.

8.35 Medical service:

The correctional institution has an explicit responsibility to protect and maintain the health of inmates and to prevent the spread of disease among the prisoner population, preventive medical services in prison begins with the physical examination of each newly received inmate encompassing any laboratory or X-ray evaluations that may be necessary. Those inmates who are found to be ill upon admission would be placed in the infermary for treatment.

The initial examination demands the identification of chronic illnesses in new inmates such as cardiac conditions, tuberculosis or diabetes as well as drug addiction. The medical facility will consist of an inpatient and outpatient department. The out patient function consist of the regular daily procedure under which inmates who are ill or required medical attention can report to the physician for examination and treatment. At least 10 percent of the institution's inmate population may be expected to report to such call daily.

An ample waiting area that will include toilet facilities is required for inmates waiting for medical attention. Consultation and treatment rooms will be located in close proximity to the clinical laboratory, X-ray and pharmacy areas. Inpatient facilities ought to have full range of accommodations for inmates requiring medical attention. Sufficient beds will be provided to accommodate3-5% of the total population, housed contagious diseases will be provided, special facilities for psychiatric patients who require special security and safety devices to prevent self injury. Partial operation smite will be provided for emergency use. Basic treatment areas include, general examination and treatment, hydrotherapy, physiotherapy, and eye, ear, nose and throat services. These areas should be closely related to each other and under the direct supervision of the office of the medical director. Support facilities include; X-ray smite, clinical lab, and a pharmacy. The pharmacy will allow for storage of drugs. A dental section will also be provided, adjacent to the medical waiting room.

KASHIM IBRAHIM LIBRARY

8.35 Education

Education in prison is basic to any comprehensive correctional program. From 10-30 percent of all prison inmate are functional illiterate with an inability to supers minimum test scores only 7 to 3 percent have completed secondary school. Statistically, retardation in educational achievement is highly connected with the extent of communality behaviour. This is a clean indication that inmate should be better prepared for today's job market and for other responsibilities of non-criminal life.

Design standards for educational facilities are the same as for other schools, with perhaps more emphasis on flexibility, such as interior partitions that can be moved as curriculum changes. A basic correctional education program should provide for the following subjects.

- Academic
- General education
- Institutional orientation
- Pre release instruction
- Commercial training.
- Music.
- Health Education
- Arts and crafts.
- Dramatics
- Audio-visual room.

The educational unit should be located on a major circulation corridor for maximum accessibility to inmates.

Many classes would be taught in the evening by the extension service of a state university or by a teacher from a nearby college. It must be possible to use the educational unit during these hours without undue traffic through areas that normally open during day time only.

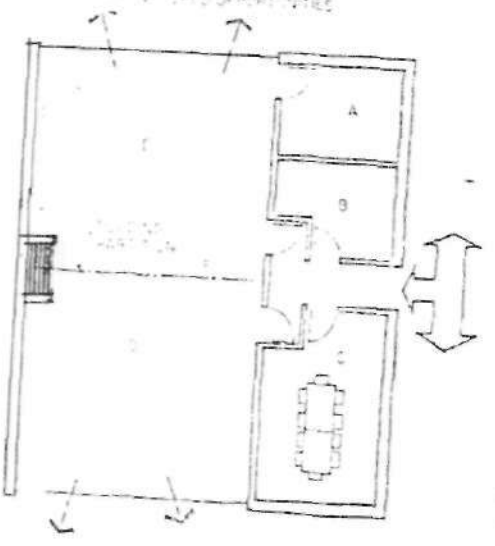
A close connection will exist between the educational unit and the library. It is to make the audio-visual room adaptable for a range of uses. With ample ancillary storage space for additional chairs and musical instruments. Adequate space will be set aside for education director and staff toilets for inmates and staff need to be provided within the unit to minimise unnecessary movement through the main entrance of the unit.

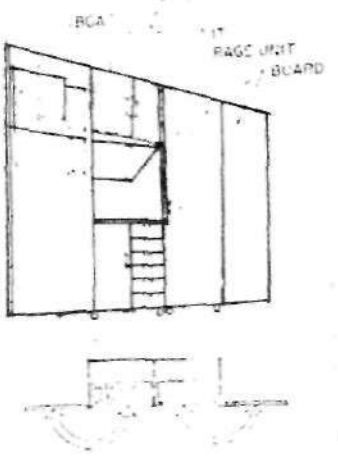
Educational component providing range of spaces in 5 sizes to offer choice of space appropriate to particular staff inmate of inmate activity folding partitions offer opportunities for larger group presentations or dialogues.

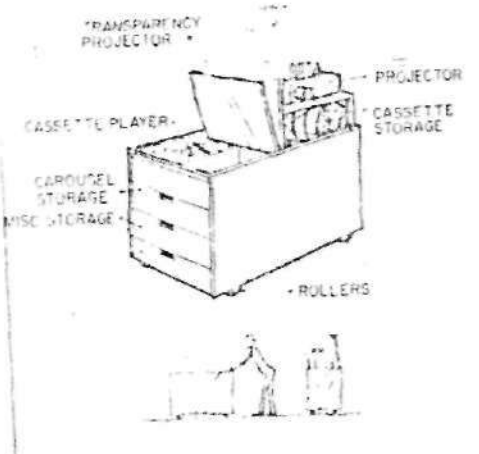
8.36 Library

Library services function as the information and library materials centre supporting the institutional program. The library will provide a significant type of recreation for certain inmates especially those not interested in or not able to participate in sports. The heaviest uses comes during the evening hours, therefore the library will be located so that adjoining areas with limited operating hours may be closed off without improving access to the library. The library will be best located far from noisy areas such as workshops, but easily accessible to housing units and close to the educational unit.

The quantity of reading matter would be a small reference collection supplemented by a program of book interchanges from general library. The library will have no fever than 6,000 volumes or at least 10 books per inmate. Seating spaces will be allotted for not







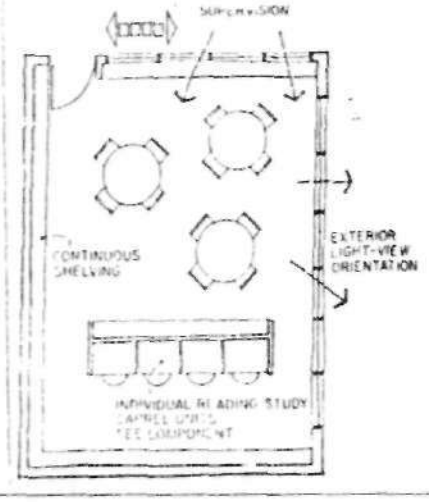




FIG 26 Classroom and Library

less than 5% of the institutions population, with an allowance of 30-35sgff per reader for book shelves, tables, chairs and circulation.

Supporting facilities will include a Liberian's office and workroom, a magazine storage room, and a listening room with record player. Provisions will be made for transporting books to the segregated maximum security and infirmary areas to serve inmate who cannot travel to the library.

An outdoor area will be made to serve as a reading garden.

- Library component utilising individualised reading - study area located remote from distraction of entry circulation- active usage area near entry for ease of access.

8.37 Vocational training program

Vocational training programs in prisons have to extent beyond those operations which are necessary solely for the maintenance of the institution and prison industries. The inmates level of educational achievement needs to be considered in assigning them to training programs involving high technical skills. Vocational program planning calls for a careful analysis of current market conditions to determine what jobs are actually available to inmate upon release. This analysis include investigations of governmental job restrictions because of certain criminal histories.

Shop and maintenance areas will be supplemented with adjacent classrooms and special training facilities for instruction on new techniques and procedures.

The regulation and inspection of tools are cortical functions in a prison. Since all tools must be accounted for each day, they should be stored on shadow boards which automatically indicate when any tool is out of place.

Work release/study release: These programs are usually administered through correctional units detached from the basic prison. This units house those inmate who have qualified for a program of partial release into the community in order to work or study. This program is often administered or a pre-release phase where inmates generally are transferred to the unit short time before their release. Work-release inmates must not be mixed with regular prison inmate since they are often carried by insiders to bring in contrabands from outside. Since the occupants of the work release units are face to work in the community, no physical constraint are necessary in their housing facility. The structure became comparable to a college dormitory, and often a private residence is acquired for this purpose, as long as it conforms to normal occupancy health, and fire standards.

Consideration will be given to location close to public transportation and within communities where the neighbourhood atmosphere permits integrated housing. Space needs to be provided for offices, recreation, day rooms, kitchen, dining room, laundry storage and sleeping areas.

8.4 Inmate serves:

8.41 Commissary:

This is where inmates purchase personal items, such as cigarettes, combs, juice and many such minor items as the administration wants to stock. Inmates comes in shifts to make purchases, as a variation, inmates fill out request slips in their housing areas, the ships are then taken to the commissary where order are placed in container and marked for the ordering inmates. The containers are then distributed to them in the housing units.

A commissary needs sufficient space and display counters for inmates to see the available items, so that they can order without delay. Ample space must be allotted for storage of stock and for the commissary officer's book-keeping operations.

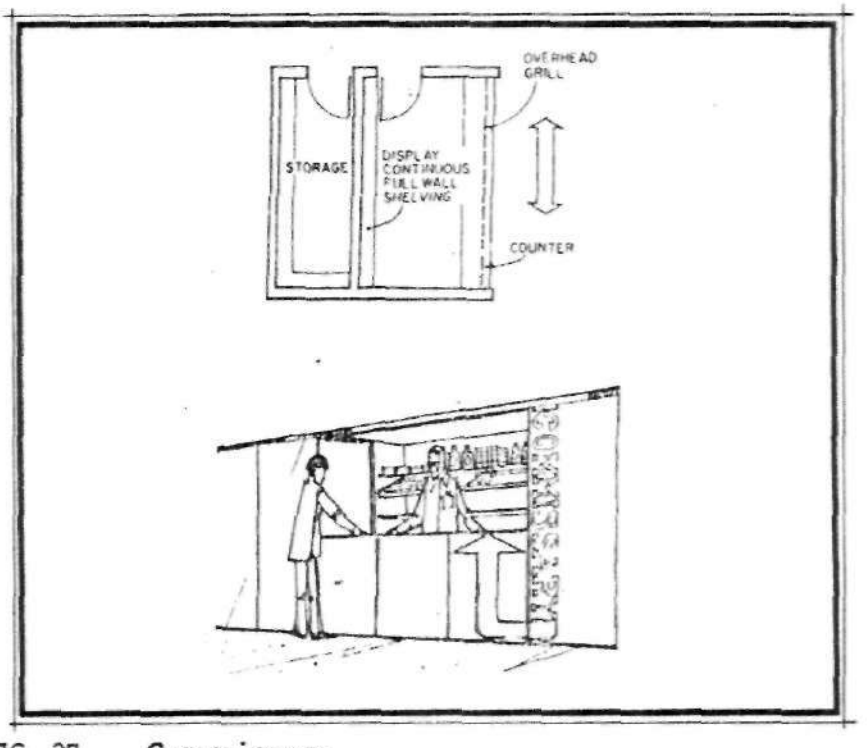


FIG 27 Commissary

A Company component with adjacent storage room for stock corridor located for easy access.

8.42 Barber:

Barber facilities will be located in individual housing units. The chair(s) should be moveable for storage while not in use. Generally inmates shave themselves, and barbers services only apply to haircuts.

8.5 Reception and discharge

The reception and discharge unit is the point of institutional entry on departure for all prisoners. The entry process is important in determining the inmate later attitudes and behaviour since it is his institutional impression. The reception involves booking, examination, clothing wave, classification, interview, fingers painting, photographing and assignment to a housing section. Sufficient holding areas must be provided where incoming inmates can congregate until the staff is prepared to administer the reception procedure. The holding area requires benches for sitting and toilet facilities in each area. Showers and dying areas should be provided at the reception area, and examination room and doctor's office ought to be included for medical examination. Prisoner beginning should not have access to those who have completed the process.

Due to the high percentage of drug addicts received by detention facilities, a major segment of newly received prisoners will undergo withdrawal, which is no longer a

problem if methadone is administered. The withdrawal period take 4-5 days, and medical observation must be maintained during this time.

8.6 Food serves:

This area is one of the most important and different operations in any correctional facility. Most of the kitchen work will be done by inmate with raung levels of experience on interest under direction of standard and limited staff. Good services can be correctional programme.

Food will be prepared in a central kitchen facilities having major area for receiving, storage and preparation of food. Cooling dish washing and garbage disposal. The amount of space required for storage of storage of food staff depends upon frequency & characteristics of the food purchasing and delivery program in the institution.

The point of entry for receiving food items refusing a substantial amount of storage will be supervised by a store keeper who checks incoming delivers against order and designate storage areas in the institutional warehouse. The steward supervises the main kitchen, and his office should be strategically located to promote this control, with max. glazed vision lights. Facilities for the kitchen include: lounge, Classroom9for special culinary institution) and toilet. \The inmates will put on their kitchen clothing in their housing units.

The basic method of feeding the inmates will be the provision of local dining room in housing units. This method eliminates the problem of large numbers of inmates congregating together and is more easily suited to the type of facility that promotes a

correctional program based on group interaction. This local dining room can be used for other program between meals.

8.8 Staff dining:

Staff dining will be treated as a separate function from inmate dining, except in small correctional units that promote a close rapport between staff and inmates. The staff dining hall will be divided into areas for custodial staff and superior staff. The dining facility will be near a main traffic artery, so that in the case of an emergency, there can be quick access to main control points of the institution.

8.9 Recreation:

Recreation has been recognised as an integral part of a good correctional treatment program it alleviate the dull monotony of prison life, acts as a safety valve to release pent-up energise that might otherwise lead disturbances and can be directed towards helping inmates confront some of their personal problems. The recreation program will embrace active, competitive sports and strenuous activities for all inmates who are physically fit and interested.

Indoor facilities will plan for a gymnasium are for multi purpose use. Outdoor recreation space will also be provided. This area will be fenced and would be as adjacent to the gymnasium as much as possible to permit common use of lockers and controlled distribution of athletic equipment.

8.10 Visiting

There are to types of visiting done in a correctional facility, visits with family and visits with attorneys and case worker. Visit with family are encouraged to sustain family ties until the inmate release. Control for frequency and length will determined by the institution. There shall be provision for three types of visiting.

i. ***Closed visiting.***

This will consist of a booth with a complete physical barrier separating inmate and visitor. A large expanse of tempered/lamented Glam. to permit visual contact while awad contact can be effected by telephone or microphone speakers arrangement.

ii. Open Visiting.

Open visiting allows contact and normal conversation between inmate and visitors. Since constraints are more relaxed an outdoors area adjacent to the visiting room will be used with visitors leaving packages and handbags outside the visiting room.

iii Attorney/caseworker visiting.

This will occur in a central location close to the maintenance of the institution to avoid excessive outside traffic into the heart of the prison. This room will be fully enclosed with liberal glassed in area for visual observation by custodial officers.

8.11 Religion

The actual service that takes place in this facility are only a small part of the complete religious program, which includes, religious education, counselling and contact with inmates families and visitors. The institution clergymen/Imams will require individual office to carry out their administrative responsibilities.

8.12 Security control.

Central control will monitored by a control room which will function as the nerve centre of institution. This area will be in complete operation, constantly, acting as the custodial centre for key control, communications, alarm, and traffic control. The control room will have usual access along the major traffic corridors. All the institutional key should be stored in the key cabinet of the control room and furnished to officers at the beginning of their four duty and retained upon completion. The Communication network of the institution is controlled from this area. System of traffic control will be located in or adjacent to the central control room to indicate at any given time the housing location of each inmate.

8.13 Fire arms

Fire arms will be stored in secure dispository at the main entrance of the institution.

8.14 Vehicular access and parking

Vehicular areas to the institution will be through an entrance vestibule with doors and gate at each end, both of which will not be unlocked at the same time. Large vehicle gates that are motor-controlled from a nearby tower(or controlled point) will be provided. Parking spaces serving the entire facility will have two sections, the staff section located within the facility and the visitors parking located outside the facility(public zone).

8.0 Accommodation schedule

ADMINISTRATION

COMPTROLLER	1		8 X 10
SECRETARY	1		4 X3
W/C	1		1.2X0.8
ASST. CONTROLLER	1		6X8
ASST. WARDEN (ACCOUNTS DEPT)		4	6X8
SECRETARY	1		4X3
PERSONAL/PAYROLL/RECORDS	1		4X3
W/C	1		0.8X1.2
BUDGETS	1		4X3
ACCOUNTS OFFICE	1		4X3
WELFARE	1		4X8
INFORMATION	1		9X6
GENERAL OFFICE	1		10X4
MEETING ROOM	1		6X12
CANTEEN	1		6X12
KITCHEN	**1**		4X3
STORE	2		2X3
W/C (A)	1		12X0.8
COURT ROOMS	2		12X14
JUDGES CHAMBER	2		5X4
W/C AND CHANGE ROOM	2		2X3
RECEPTION	2		8X6
WAITING	4		3X5
W/C (GENERAL)	10		1.2X0.8
SOCIAL WORKERS	4		4X6
CIRCULATION	15%		

CLINIC

WAITING AND RECEIPTION	1		9X9
CONSULTING ROOMS GP	1		5X5
DENTAL			5X5
PYSCHO			3X5
TREATMENT/EXAMINATION	1		3X5
PHARMACY	1		3X3
X-RAY ROOM	1		3X4
W/C	2		1.2 X 0.3

SHOWER	1.5X0.2
DRYING AREA	
WARDS	

FOOD SERVICES

INDOOR WORK AREA	15X6
OUTDOOR WORK AREA	15X6
STORE/PANTRY	3X3
CLASSROOMS	6X6
SUPERVISOR	3X4.5
STAFF DINING	6X10

RECREATION

GYM	36X24
CHANGING	6X10
OFFICE	4.3X3
STORE	6X6

VISITING

CONTROL AREA	6X3
CLOSED VISITING CUBICLES	6X9
W/C	0.8X1.2
SUPERVISOR	3X3
OUTDOOR SPACE	60X60
OFFICES/MEETING ROOMS	3X4.5

RELIGION

CHURCH HALL	24X18
W/C (6)	0.8X1.2
STORE	3X4
CHPLAIN'S OFFICE	3X4.5
W/C	2X3
STORE	3X4
IMMANS OFFICE	3X4.5
SECURITY CONTROL	3X3
KEYROOM & COMPUTER	6X6
CONTROL TOWER	6X6
OFFICER	3X4
FIRE ARMS	6X12

SHOWER	2	1.5X1.2
LABS	1	3X4
PARTIAL OPERATION SUITE		
EMERGENCY ROOM		
WARD ROOMS	1	9X9
ISOLATION ROOMS	2	4.5X3
WARDEN IN CHARGE (MEDICAL OFFICER)	2	3X4.5
EDUCATIONAL		
CLASS ROOMS	12	
OFFICES	4	3X3
MEETING ROOM	2	4.5X3
W/Cs	4	0.8X1.2
LIBRARY READING RM	1	9X3.0
REFERENCE	1	6X3
LIBRARIAN		4.5X3
STORE		3X3
SUPERVISOR		2X3
W/C		0.8X1.2
VOCATIONAL		
WORKSHOPS		9X12
STORE		3X3
OFFICES		4.3X3
SUPERVISORS		4.5X3
W/C		0.8X1.2
COMMISARY		
STORE		3X4.5
W/C		0.8X1.2
BARBER		4.5X6
RECEPTION/DISHARGE		
BOOKING OFFICE		9X6
INTERVIEW ROOMS		4.5X3
EXAMINATION ROOM		4.5X6
CLOTHING ISSUE		4.5X6
CLASSIFICATION ROOM		9X6
ASSIGNMENT OF HOUSING OFFICE		4.5X3
PHOTOGRAPHING & FINGER PRING.		9X6
HOLDING AREA		12X9
TOILET		2X3

PARKING	
STAFF PARKING	12X60
VISITOR	20X90
HOUSING	
SINGLE CELLS	3X4
SHOWER RM	1.2X1.3
W/C	0.8X1.2
EXERCISE YARD	12X14
SUPERVISOR	3X4.5
CONTROL	3X3
DAY ROOM/DINING ROOM	8X6
MEETING ROOM/CORRECTION SUPER VISION	3X6
LAUNDRY RMS	6X6
TREATMENT ROOM/ISOLATION CELLS	2X2
OBSERVATION	3X3
INDUSTRY	
FARM LAND	
SUPERVISOR	
STORES (WARE HOUSE)	
ACCOUNT OFFICE.	

9.0 Design Report

At the beginning of this research, certain problems were identified with respect to the topic. The solutions to these problems were achievable to a large extent through detailed analysis synthesis of idea and scheme. This design report is based on literature review, case studies, problems analysis & design considerations and criteria proposing a suitable solution.

9.1 Design concept & Philosophy.

The major aim of this thesis to first find a suitable solution to the problems facings prisons today. Inhuman treatment, badly designed structure and inadequate facilities for rehabilitation using architecture as a tool and secondly to change the architectural vernacular of persons today from the brutalistic modern architecture to a more humane and open post modern architecture without compromising security.

9.2 Design

The design is based on requirement that will aid the proper rehabilitation and eventual re-integration of reformed persons into the society. Facilities to aid this have been well thought out and designed to actually achieve the above stated aim with emphasis on space psychology.

9.2.1 ACCESSIBILITY

The major access to the site is on the south side of the; off trunk B road from Bwari town center. There is a service road off the major access for the use of service trunk and heavy duty vehicle.

9.2.2 CIRCULATION (PEDESTRIAN)

There are well-defined circulation spaces for vehicles and pedestrian. The administrative area is where the vehicles access stops. The central core of the person is designed to suit only pedestrian circulation and have been designed in such a way as to enhance security.

9.2.3 LANDSCAPING

The form of the building structure as regards the elevation can be said to be post-modern. This can be seen in the columns, regimentation and the general ordering of forms. The spatial organisation also follows the order of regimentation and provision has been made for flexibility and future expansion.

Furthermore, the architectural style is one that reflects the qualities, of light – weight construction, contemporary construction technology and simple functionality.

However, security being a major consideration has not been compromised; and the over all design has been aimed at enhancing this.

The choices of materials were influenced greatly by security requirements and a little by aesthetics. The combined effect achieved and sort for in the design task an environment with spaces that are large without being opulent; austere without being

in human; for the purpose of proper rehabilitation and eventual re-integration into the society.

The finishes employed in this design are hardwiring and durable with cost being of major consideration.

9.3 RECOMMENDATION & CONCLUSION.

Before the effective implementation of the purpose of the prison can be achieved, the attitude of the society most especially law makes must be re-oriented. This can be archived by enlightenment programms geared towards creating on awareness the advantages of reformative prisons for societal defaulters as against punitive attitude, which has become more prevalent in our society today.

Further-more, the government should be encouraged to support such programms by providing adequate finds for the development and constriction for the proposed rehabilitative federal persons. Abuja.

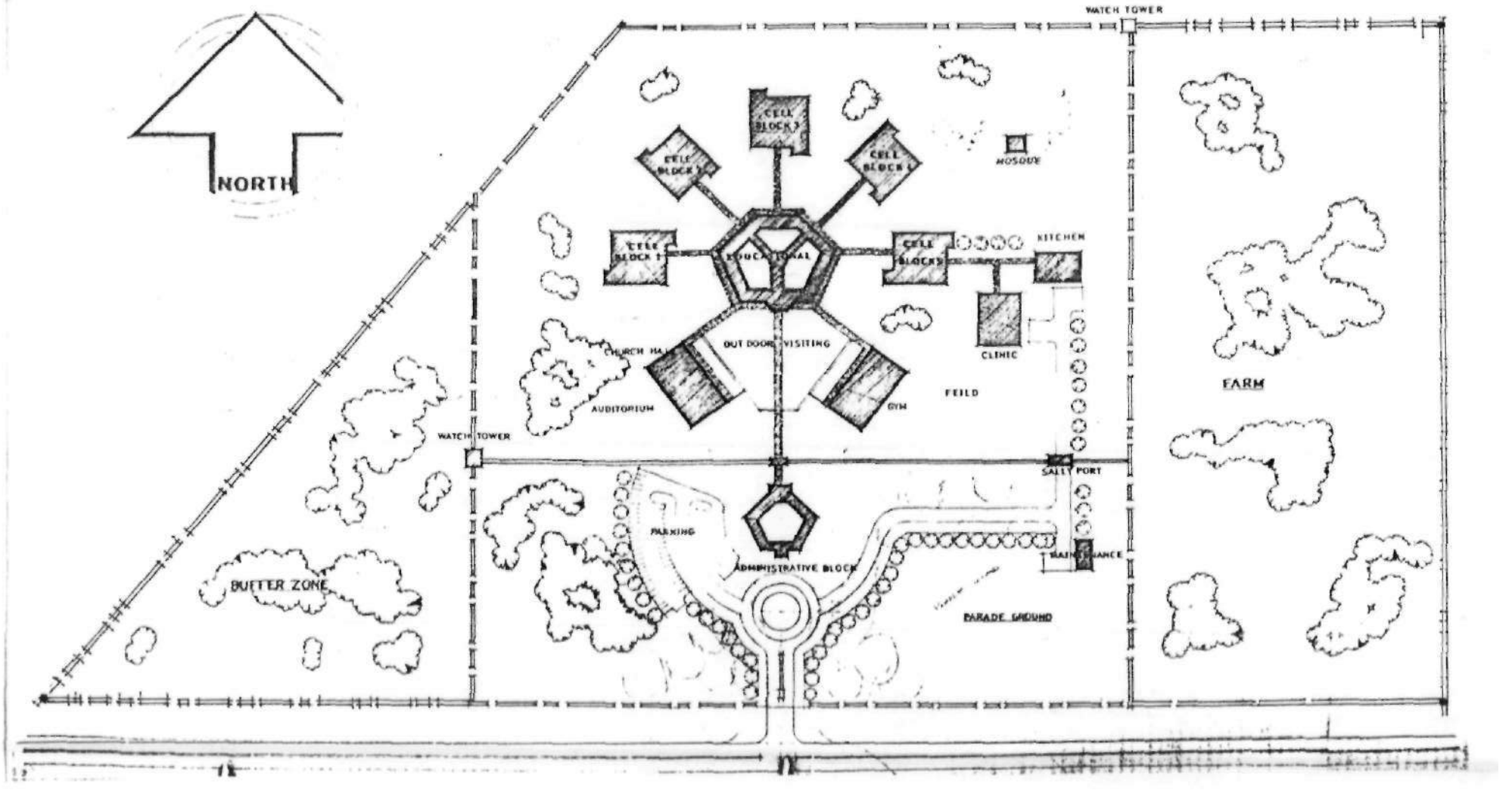
9.4 CONCLUSION.

In conclusion the proposal for Federal prisons Abuja with the aims of finding a new approach to prison design that will change the public attitude towards the way prisoners are treated and the way the prison institution are received, and the objective of improving the demand of prison design in the light of the "State of the art technology. Have been successfully incorporated into the overall design. Which was achievable by the method of planning. Design considerations and parameters, detailed

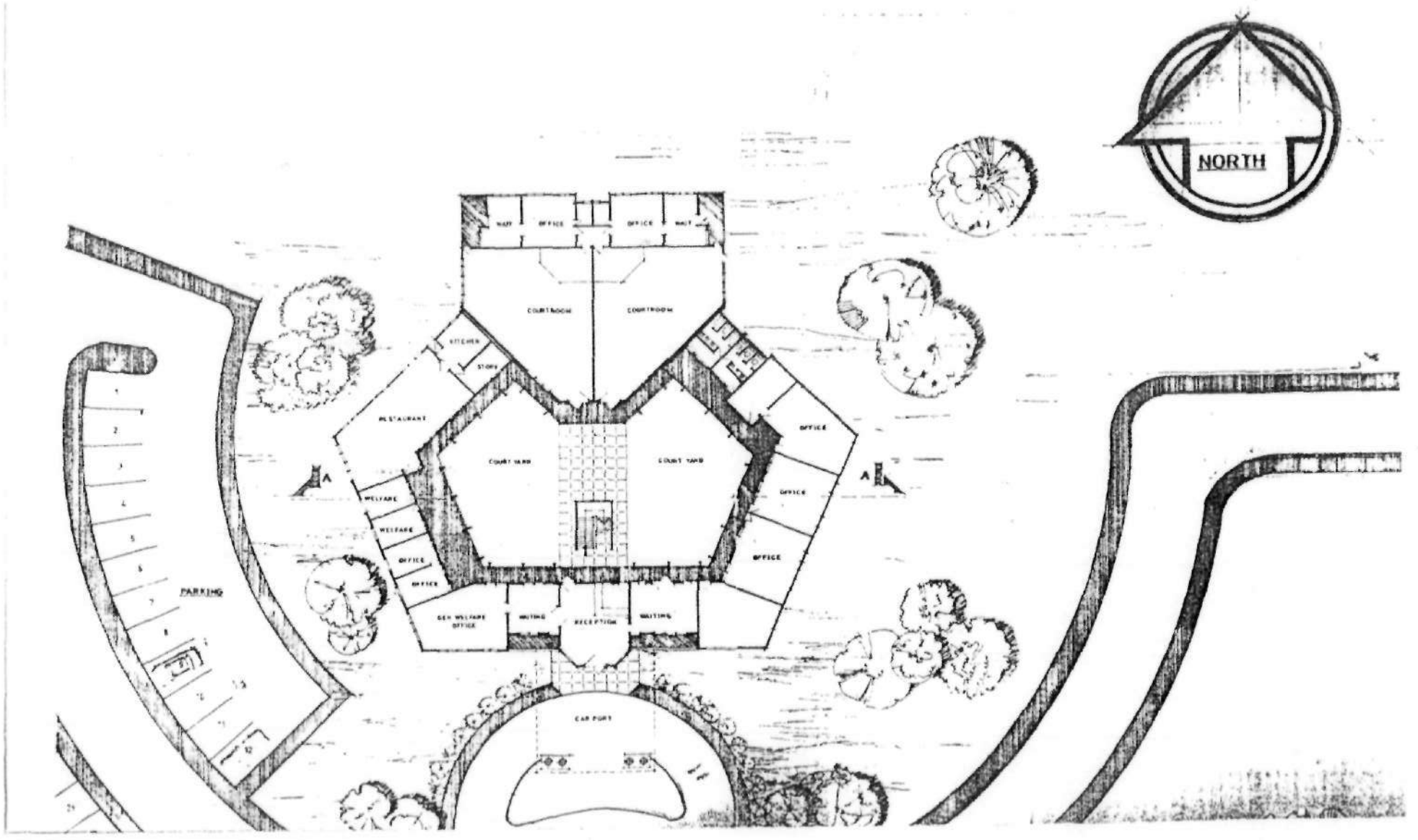
analysis and in-depth research. Considering security as the major challenge of the whole design task.

As earlier mentioned this thesis research though a hypothetical one can be said to have achieved its aims and objectives and presented a logical solution to the problems stated. And as such its feasibility and literacy contribution can be appreciated.

SITE PLAN

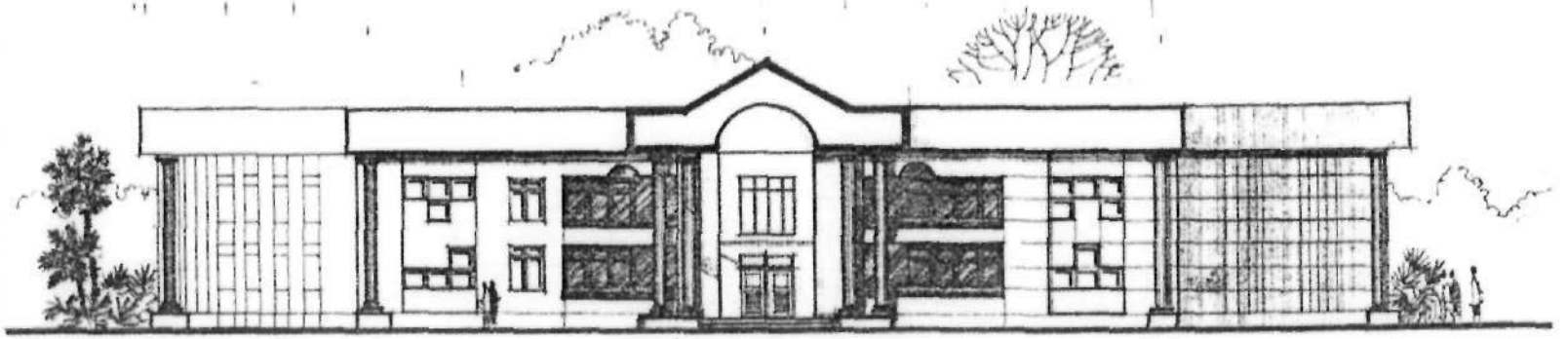

NORTH
WATCH TOWER
CELL BLOCK 2
CELL BLOCK 3
CELL BLOCK 1
CELL BLOCK 4
CELL BLOCK 5
MOSQUE
KITCHEN
EDUCATIONAL
CHURCH HALL
OUT DOOR VISITING
CLINIC
AUDITORIUM
GYM
FEILD
FARM
WATCH TOWER
SALLY PORT
PARKING
ADMINISTRATIVE BLOCK
MAINTENANCE
BUFFER ZONE
PARADE GROUND

ADMIN BLOCK

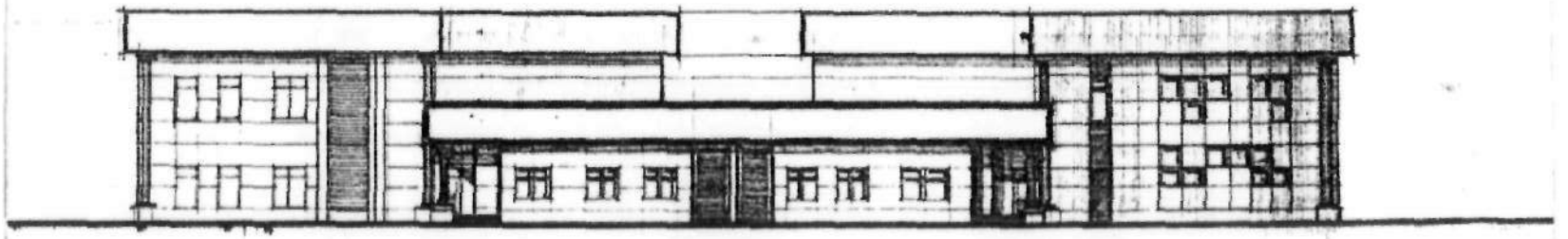


ground floor plan.

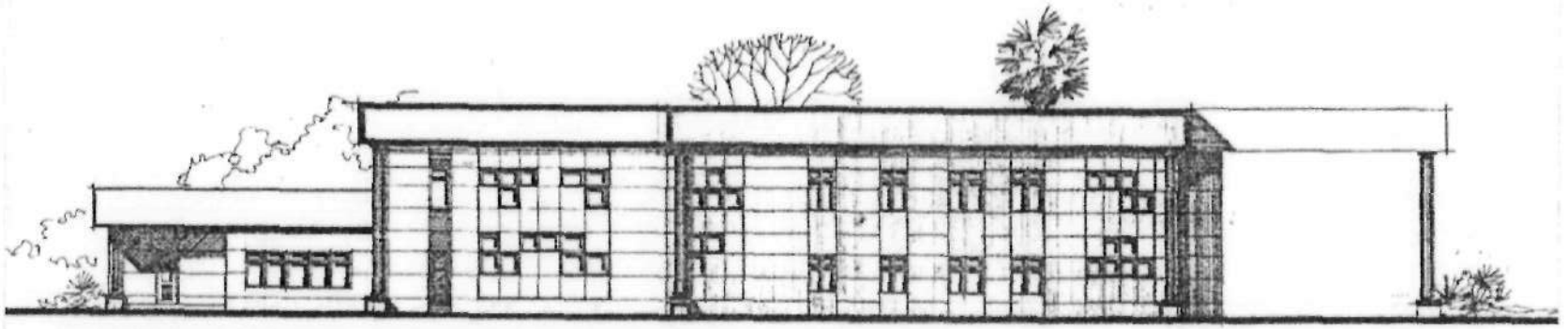
ADMIN BLOCK



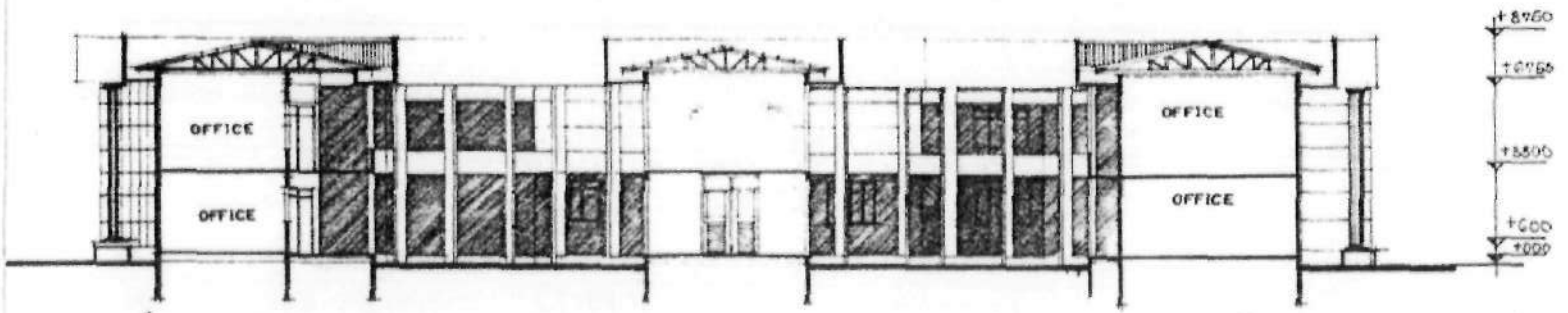
APPROACH ELEVATION SCALE:1:200



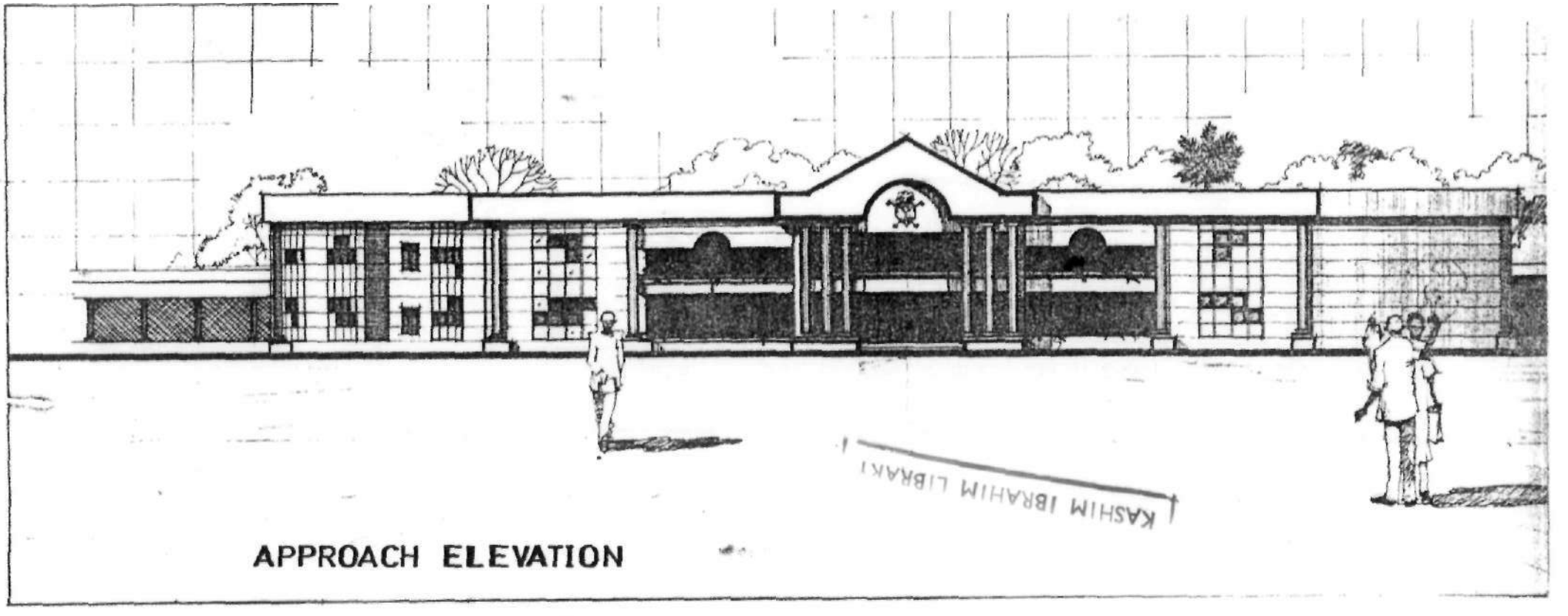
NORTH SIDE ELEVATION SCALE:1:200



WEST SIDE ELEVATION SCALE:1:200

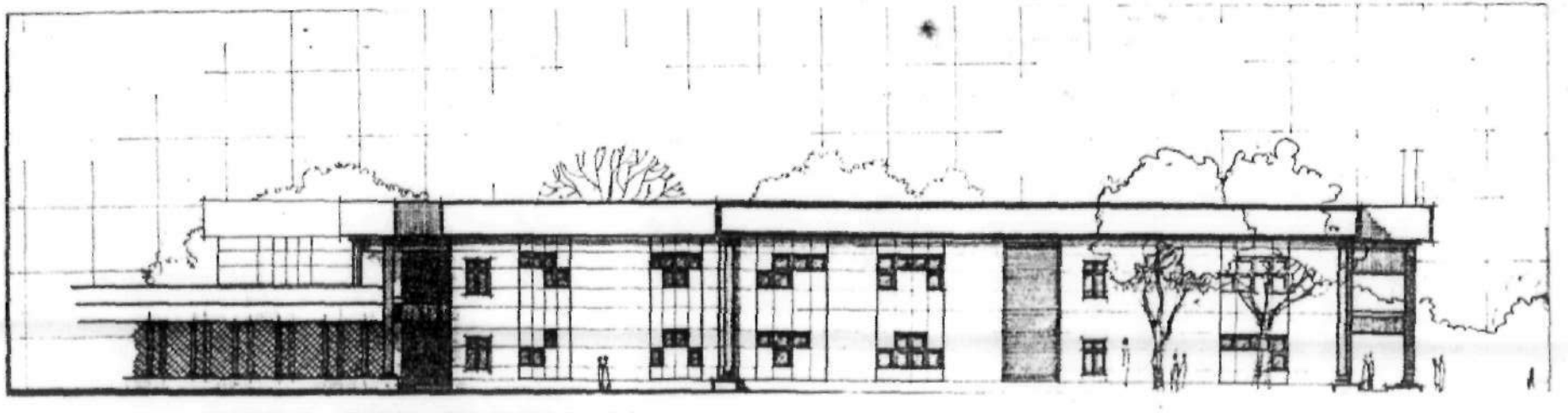


SECTION A-A SCALE:1:200



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APPROACH ELEVATION



WEST SIDE ELEVATION

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