RHEMA CHAPEL INTERNATIONAL CHURCHES HEADQUARTERS ILORIN.

"Integrated Facilities For Church Administrative Functions"

M.Sc. ARCH. THESIS

BY

AWOLEYE TIMOTHY SEGUM

OCTOBER 1997

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AWOLEYE TIMOTHY SEGUN
B.Sc. (HONS.) ARCH.

A THESIS SUBMITTED TO THE POST-GRADUATE SCHOOL OF THE AHMADU BELLO UNIVERSITY IN PARTIAL FULFILMENT OF THE AWARD OF THE MASTER OF SCIENCE (M.Sc.) DECREE IN ARCHITECTURE.

DEPARTMENT OF ARCHITECTURE
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EPIGRAPH

Now there are diversities of gifts, but the same spirit. And there are differences of administration, but the same Lord.

And there are diversities of operations, but it is the same God which works all in all.

1 Cor. 12:4-6

Let all things be done decently and in order.

1 Cor. 14:40

..... Let us build these cities and make about them walls and towers, gates and bars ..... So they built and prospered.

II Chr. 14:7

DECLARATION

I AWOLEYE T.S. do hereby declare that this thesis is an authentic work conducted within the vegetations of the post graduate School of Ahmadu Bello University, Zaria.

All directly quoted materials and secondary sources are duly acknowledged.



Awoleye T.S.
1997

CERTIFICATION

This thesis report entitled " Rhema Chapel International Churches headquarters. Ilorin - Integrated facilities for Church Administrative Function" meets the regulation governing the award of the degree of Master of Science in Architecture (M.Sc. Arch.) of the Ahmadu Bello University, Zaria - Nigeria.

It is approved for its contribution to knowledge and literary presentation.

Chairman, Supervisory Committee	9/11/97 Date
Member: Supervisory Committee	9/11/97 Date
Member: Supervisory Committee	9/11/97 Date
Head: Department of Architecture	Date
Dean: Post Graduate School	23/01/01 Date

DEDICATION

To:

The God head and the entire body of Christ.

ACKNOWLEDGEMENT

My profound and unalloyed gratitude goes to my Heavenly Father who gave me the inspiration for this thesis in 1994. My Parents Chief and Mrs. M.O. Awoleye for their love and care.

My Spiritual Father and Mentor Apostle G.O. Adegboye for his support financially and other-wise, and the following people who contributed constructively during the course of the research.

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Mary Oyewo of Federal College of Chemical and Leather Technology, Zaria for typing this thesis in record time. And all those who contributed one way or the other to the successful completion of this work. You will not lose your reward in Jesus name.

Thank U. all!

5.45pm
13th October, 1997
Room 146 Akenzua Hall.

ABSTRACT

Rhema Chapel International Churches headquarter have the problem of co-ordination of activities and general administrative problems as a result of inadequate facilities and lack of integration of the existing facilities. All effort made at taking the word to the Nation emphasizing its integrity has not been able to produce a hundred percent result because of information and communication breakdown, clericalism and other problems that hampers effective management, motivation, control and execution of the various visions of the ministry.

The desire objectives of the study is to study what constitute church administrative functions. Discover the necessary facilities that will facilitate effective church administration.

Study how best this facilities can be integrated into one another.

Enhancement of effective circulation as a means of controlling crowd and Harmonious relationship between functional units.

Evolving a design pattern that will promote Christian fellowship, Unity of spirit and singleness of purpose among members.

This thesis again has the view of forwarding a design proposal that will seek to provide integrated facilities that will facilitate effective administration of the multi-farious arms of the ministry and which could also be used by other ministries under the apostolic jurisdiction of Rhema Chapel International Churches and finally as a means of saving money initially used in renting facilities for administrative purpose.

The thesis is structured into nine chapters in all. The first is the introductory chapter. The second deals with historical evolution of church Architecture, while the third deals with client and need for integrated facilities.

Chapter four reveals the site informations and environmental physiography.

Chapter five deals with existing cases locally and internationally.

Chapter six, seven and eight deals with design considerations, its development and actual design report.

The thesis is concluded with recommendation and development strategics in chapter Nine.

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APPENDIX I

LIST OF ABBREVIATIONS USED IN THIS TEXT

A.D.	-	In the year of our Lord (After death of Christ)
B.C.	-	Before Christ
C.	-	Century
e.g.	-	For example
Niz.	-	Namely, as follows
fig.	-	Figure

APPENDIX II

Synagogues	-	*Building used for an assembly of Jews for religions teaching and worship.*
Tabernacle	-	Shadow of Christ in the new testament of the Bible.
Temple	-	The new testament of the bible present the born again person as the temple of the Holy Spirit.
Lithurgy	-	Worshipping together of a corporate body.
Eucharist	-	Holy Communion, the bread and wine taken at this time.
Sanctuary	-	Holy or sacred place in the Church
Ecclesiastical	-	The Christian Church of Clergymen
Creed	-	Beliefs or opinions on religions doctrine
Church	-	Gathering of believers of Jesus Christ.
Ministry	-	The priests profession or vocation
God head	-	God the father, the Son and Holy Spirit.

CHAPTER ONE

INTRODUCTION

In modern times space is our most valid symbol of God. The God that cannot be contained or spatialised is represented by definition of space which covers man in his finiteness. I believe that the church buildings of our days can best express God's transcendence of space and time as it also expresses the immensity of God in employing space and time possibility in modern Architecture. Architecture of the church for this reason becomes the highest challenge which confronts an Architect.

In recent times the Pentecostal movement become Apparent after the Azuza street revival lead by W.J. Seymour in 1906 at Los Angeles california. The revival started on the first [1] of April 1906 at 312 Azuza street Seymour was the central Figure of the Azuza street revival. Seymour continued for three and half years at Azuza street. Services were held three times daily with speaking in tongues as a central attraction. Healing of the sick was not left behind.

The Pentecostal movement become popular because of its sharp deviation from the orthodox Church's beliefs, practices and methods. The movement has since spread throughout the world.

Ever Increasing word ministries A.K.A. Rhema Chapel International churches belongs to this movement. Ever Increasing Word Ministries is a Christian organisation that had it's formal inception on the 23rd of November, 1987.

This extraordinary Ministry has the vision and commission of God "To take the word of God to the Nations emphasizing its integrity". It has it's executive president/founder in person of

Revered George Olowale Adegboye. Rhema Chapel International Churches is one of the fastest growing Churches in Nigeria[2] with a total of about 40,600 members in the 30 installation nation wide, with it's International Headquarter at Ilorin Nigeria. Rhema Chapel International Churches have firmly and solemnly resolved:

i. To come together in unity and harmony as one indivisible body of Christ to promote the kingdom of God here on earth.

ii. Having a sense of mission and commitment to speak effectively about the gospel and it's impact on mankind and the society at large.

iii. Realising that their fellowship will enhance their spiritual and corporate actions as well as provide a forum for encouraging one another.

iv Rhema Chapel is also highly regarded as an Apostolic governing centre and a supervisory ministry to guide a number of Christian ministries, evangelical organisations and associations worldwide.

v Because of the Global mandate of this ministry, it's multifarious arms, and several activities that take place throughout the year it become necessary, to have a corporate Headquarter of international repute at Ilorin being the city where the vision was born.

vi However this thesis has two purposes. First as a design proposal and secondly as a research towards how best ecclesiastical architecture could be used to integrate facilities for Church Administrative functions.

1.1 PROBLEM STATEMENT/MOTIVATION

i. Problems of information dissemination which hampers effective management, motivation, control and execution of the various vision and mission of the ministry.

ii. Lack of uniformity in the modus operandi of the church among various arms and installations of the ministry.

iii. Clericalism which speaks of the need for updated administrative skills by people involved at various levels of church administration in the church i.e. Board of Ministers (Pastors), Chapel Administrators, Clerks, Board of Deacons, Board of Head of Departments and general Church workers which only effective training can provide.

iv. Lack of integration among functional units apparent in the existing structures of the church.

v. Lack of space for massive gospel activities.

vi. Problem of Division and secession among members.

vii. Problems of identification and acceptance among clergy and laity of the ministry worldwide.

viii. Excessive cost implication of renting facilities.

1.2 NEED FOR PROPOSAL

The project under consideration is Rhema Chapel International headquarters located at Ilorin. Presently, the Church headquarters is located on a rented parcel of land and a retainership fee is paid yearly. It contains a frame structure which serves as the sanctuary and a six room bungalow as Administrative office. It also has a Bible School on another parcel of land over looking the sanctuary on the other side of the road.

The sanctuary with a capacity of 1500 people accommodates services three times in a week. The church has over 30 installations scattered in major cities of the country together with an international arm called "GAWO" with offices in England and America respectively.

Due to the space constraint of the Church coupled with need to coordinate and monitor various arms and installations of the ministry together with necessity to train ministers who will help to fulfill the vision, about Twenty eight thousand square metres (28,000m^2) of land was bought for the purpose of building an outstanding international headquarters. It is projected that at completion, this land popularly called Rhema City will bear everything ranging from conference Halls, Auditorium, Administrative towe,r Bible school to Accommodation facilities.e.t.c.

1.3 VALIDITY OF PROPOSAL

For any proposal to be significant, it must be show to identify very closely with the goals and aspirations of the church itself and the society in which it operates. It is only then that there could be sound basis for such proposal.

Therefore the aims and objectives may be summarized as follows:

i. To provide integrated facilities that will facilitate effective administration of the multifarious arms of the ministry and church.

ii. Evolving a design pattern that will promote Christian fellowship, unity of spirit and singleness of purposes among worshippers.

iii. Complementing the global security alertness given to lives and properties in the church communities.

iv. The giving of architectural expression to the prevalent mood of the Christian faith which is worthy of proclamation.

v. Incorporation of open-planning concept as solution to multifunctional space utilization in ecclesiastical buildings.

vi. Enhancement of effective circulation as a means of controlling crowd and Harmonious. relationship between functional units.

vii. To secure healthy and sanitary conditions in the overall site considerations.

viii. To study what administrative functions are.

ix. To discover what are the necessary facilities that will facilitate effective church administration.

x. To study how best this facilities can be integrated into one another and to make provisions for them.

1.4. ARCHITECTURAL RELEVANCE OF PROPOSAL

The design of a Pentecostal church headquarters should be different from that of orthodox because the former is purely guided by sacrament and the word while the later is still under political coatings.

In contemporary consideration, the architecture must be of our age and it must speak through our technology. For integrity sake in considerations, the Architect must be honest through orderly structure and economy in simplicity. Theologically, the architecture must unite the members and avoid separation of people or on the basis of sex. Liturgically, the architecture must show the worshipping together of a corporate body.

While considering discipline, the architecture must show concern for man. It should express discernment, gentleness and strength, kindness, friendliness and acceptance, Logic creativity and knowledge with intelligence.

1.5 RESEARCH METHODOLOGY

The research methodology for the successful realization of the aims and objectives outlined would involve.

1. Collection of studies of selected churches in Nigeria
2. Physical survey of existing structures and environs.
3. General observation of existing conditions (photographic documentation).
4. Intensive search for published and unpublished materials relevant to the thesis (Library Research).
5. Interview of Church Authorities e.g. President, Board of Trustee Member, Minister in charge of Churches, Chapel Administrators and members.
6. Participant observation method is also employed in the research.

1.6 SCOPE AND LIMITATIONS

1.6.1 Architectural

Although it is the desire of the author of this thesis to design a total and well integration church complex, it will not be possible to deal with all the functional areas that comprise a church complex in the thesis due to time constraint. Hence only the Administrative block, the main Auditorium and Accommodating facilities will be considered in detail. Other facilities may be taken care of on site plan.

1.6.2 Spiritual

This work does not enter into doctrinal details of the faith. Rather, it contents itself with intellectual validity of the faith.

1.7 CONCLUSION

This dissertation has a major architectural significance in the study of colemporary Architecture in religions the world over with a view to acquiring an architectural syntax that would be manipulated to solve the problem in response to conditions of function, purpose and the context. As PIETRO BELLUSHI puts it "the essence of contemporary architecture is not the avoidance of style or creation of a new one but an insistence on integrity of thought".

FOOTNOTE:

1. Rev. George Adegboye (1981)
2. City people Magazine (1997) 20 Fastest growing Churches in Nigeria and their Pastors (August 27th 1997).

CHAPTER TWO

HISTORICAL EVOLUTION OF CHURCH ARCHITECTURE

2.0 INTRODUCTION

In this chapter, relationship is established between Architecture and Liturgy in the ecclesiastical architecture, especially through the past. The past movement as revealed by case study spans along the period of time towards the establishment of this Hypothesis. Two major forces operating (The tabernacle of meeting and The Temple both of the Jews as recorded in Jewish history[1] dates back to about BC 2430 and BC 974 respectively) have been majority symbolic of worship.

Far back as BC 2500 the Jews had synagogues which also had some influence on Ecclesiastical Architecture. The Synagogues were places of fellowship and sharing of scripture, a function which church building also perform. The new testament presents the Jewish tabernacle of meeting as shadows of Christ and the Born again person as as a temple of the Holy spirit while presenting the Church as the body and fulness of Christ[1].

2.1 ARCHITECTURAL STYLE IN CHURCH HISTORY

The Church, over the period of history has been mother to many styles of Architecture. The list below traces the principal styles that has been used.

ROMAN ARCHITECTURE ---------- A.D. 365

EARLY CHRISTIAN ARCHITECTURE ---------- A.D. 4th-12th Century

BYZANTINE ARCHITECTURE ---------- A.D. 324th-15th Century

ROMANESQUE ARCHITECTURE ---------- A.D. 8th-12th Century

GOTHIC ARCHITECTURE ---------- A.D. 12th-17th Century

RENASSANCE ARCHITEURE ---------- A.D. 15th-19th Century

ECLECTIC ARCHITECTURE ---------- A.D. 19th Century

MOOREN ARCHITECTURE ---------- A.D. 19th-20th Century

Opinion differs on the ideal plan for a church. There are those who consider the plan of the Basilica as the ultimate form. Yet others say that the cruciform plan of the Gothic Cathedral is the perfect solution. The great variety of plans that have been used over the centuries may lead one to assume that neither the perfect solution has yet been found nor the ultimate plan yet evolved.

What is true of the plan of the church is equally true of its design, for the church has evolved and developed to meet gradual changes in construction methods as well as Liturgy. problems of structure are constantly being solved and the opportunities of planning more in tune with Liturgical requirements are increasingly possible. Many structural forms of the past have become obsolete and new ones are taking their place.

2.2 ROMAN ARCHITECTURE CHURCHES A.D. 365

The Roman dwelling was admirably adaptable to Christian usage. The inner spares could be used for the mass, the impulsion for baptism etc. The Liturgy that originated here progressed naturally to the Basilica church which was to follow. The Churches built at this time were principally of two types: The ROTUNDA or Central Vertical axis e.g. San Stefano, Rome A.D. 468 or the Longitudinal axis known as the BASILICA. Fig 2.1

While other types of churches were built during the early centuries throughout Chirstiandom, it was in the Roman Basilica that the Liturgy of the Western Church reached it's high point of development. This Basilican Liturgy has come down to this day essentially unchanged and had great influence on the architectural periods and forms which have followed.

The basilica of San Clemento A.D. 320, presents a perfect example of a primitive church. Everything is conventional and in the 'Staus quo" the partico, the atrium, the choir screen and the ambos. This is achieved in many ways by giving it an isolated and raised position and by making it free standing by a balanced design and the use of choice materials. Fig 2.2

2.3 BYZANTINE ARCHITECTURE CHURCHES A.D. 324-15th Century

In A.D. 527 Justinian ascended the throne of the Eastern (Roman) empire. A devout Christian and a great organiser, his forty years of autocratic rule had a profound effect in Byzantince Culture. He saw himself divinely appointed both to lead the Christian Church and to assemble and revive the old Roman empire, with Ravenna as the Western sub capital and constantinople as new Rome.

Justinian's reign marks the adoption of the centrally planned domed church as the main building from and rejection of the basilica (as retained by the West).

The form was round, with a central nave and surrounding ambulatory (a circular aisle). Domes have always been a feature of Eastrern architecture, probably because to the eastern minds they appear infinite.

Byzantine architecture was essentially centripetal whereas western Christian architecture created long vistos down a narrow nave - the visual Climax being the sanctuary at the far end. The

most incredible Church in Christaindom. The "HAGIA SOPHIA" (holy wisdom in Greek) A.D. 537 can be considered the outstanding achievement of the Byzantine era.

The fierce boldness of the Santa sophia represents the antithesis of the Logic of the Roman architecture and the perfectionism of the classical Greek style. It is an example of architecture intended not to impress and overwhelm, but to stir one's deepest sentiments in religion. Fig 2.3

2.4. THE EARLY CHRISTIAN CHURCHES 4TH - 12TH CENTURY

It was emperor constantine (of old Roman empire) who gave official recognition to Christianity in A.D. 313, until that time Christians had been forced to meet in secret places. The early Christians found that the Basilica type of building were well suited to the requirements of their worship and they began to build in imitation of them. When Constantine in A.D. 330 moved his capital from Rome to Byzantium which became known as Constantinople, he built a Basilica in his new capital and splendid churches in Bethlehem and Jerusalem. He had a peculiar preference for circular building[4]. The Basilican plan was based on the Roman Basilica which was an integral part of the forum complex in which there was the law court and the commercial complex. The dogma of the Roman churches was built in a few words. The seed of the spiritual nature implanted by baptism and nourished by the body and blood of Christ through the participation in the eucharist. Baptism was done in a baptismal font by the entrance into the building having a room of its own attached to the entrance. It is a pre-requisite for becoming a member of the body of Christ (Baptism means immersion). The narthex which was the space after the entrance and separated by a vailing or a wall from the nave for specific reasons signified man's need for God. He had to cross a barrier consciously by believing, while the repetition of columns toward the altar symbolised a transition from death to life[5].

It is believed that the altar which is at the West end of a Basilica is the place at which earth reaches up towards heaven. In a Christian context, it serves as the table for the sacrifice and supper of the faithfuls and at the same time as the place at which God appears to us in the Eucharist, the altar even without a tabernacle is the throne of Christ. And because a throne is the symbol of a ruler, the altar used in earlier times was seen as the symbol of Christ.

In the ideal Church, the altar is clearly marked out as the true sanctuary, as the heart of the plan. Fig 2.4

2.5 ROMANESQUE CHURCHES: A.D. 8TH-12TH CENTURY

The Romanesque architecture which spread throughout the western part of the old Roman empire and also Poland and Scandinavia was largely ecclesiastical. The requirements and discipline of the Church moulded this new style of the builder. Where ever the Roman Catholic Church was, the building was Romanesque[7]. Fig 2.5

The Romanesque period had churches with many variations (Regional) depending on changing social and religious needs of the people. It was clear from the churches of this period that the prevalent idea of the church was that of the temple unto God. This is evident in the movement of the movement of the altar to the east wall, the priest performed the Liturgical act of Worship assisted by sellers and witnessed by the people, while facing the altar, he performed a solemn ceremony on their behalf. The nave was made to accommodate shrines. The stationing of the cross within the church also received wide acceptance at about this time. This period spanned about five centuries and witnessed a lot of variations form place to place though carrying the same central thought.

2.1.6 GOTHIC CHURCHES 12TH-17TH CENTURY

The spiritual symbolism was the driving force behind the adoption of the style of architecture. The cathedral was the house of God - not merely a place where needs were covered and words whispered. It represented supernatural reality created to satisfy the need for an architecture that reflected a deep religions experience. There were significant practical advantages to the Gothic system. The pointed arch allowed architects to vault over almost any ground plan, however complicated and elaborate.

Flying buttresses made it feasible to build higher and to open solid walls, thus creating spaces for large windows. Thus interior spaces were filled with light.

The particular and most shriking construction of the Gothic age was towards the expression of liturgy in form, use of materials such as stained glass, marble and brick. Most of the Cathedral therefore looked alike. For example the facade of the collegiate church of Nantes is very similar to that of Notre Dame de paris (A.D. 12th-13th Centuries). The return of the altar to a position between the officiating minister and nave in some churches showed a renewed understanding of worship as corporate rather than individual. Fig 2.6

2.1.7 RENAISSANCE CHURCHES: A.D. 15TH-19TH CENTURY

Italian Renaissance is characterised by massive rusticated buildings sparsely decorated and fortress like e.g. Spiritual church Florence. See fig 2.7

In the French Renaissance, the Gothic tradition was carried on, and even when it was abandoned, a lot of variety and restlessness still remained, in the wild roof scapes consisting of spirelets.

Dutch and English Renaissance was characterised by strap work, extravagant glazing, fancifully shaped gables e.g. St. Paul Cathedral, London.

2.8 ECLECTIC CHURCHES: A.D. 19TH CENTURY

Italian - Neo - Classicism reached its Zenith in Arnaldo - Fershinis St. Peter and St. Paul - a building that comprises of a hemispherical dome perched on a chest box, with a plan of a Greek cross. In the Eclectic period, there wee many identifiable styles. Austere classicism for public buildings and half timbering cottage styles and jass - modernism for houses. Also, there was a strong sense of attempting to promote individuality. Fig 2.8

2.9 MODERN CHURCHES: A.D. 19TH-20TH CENTURY

The devastation caused by the 2nd world War, the development of new and exciting techniques of building and a theological recovery within the church of the full Biblical meaning of the ecclesia and its liturgy together provided the church with a splendid opportunity for creating a living architecture, an architecture firmly rooted in tradition and yet wholly of its time. Fig 2.9

Modern architecture is not simply a matter of stylistic convention, new materials and structural system. It is also the product of radical approach to building which breaks through the crust of formal concept to the underlying social realities. Human activities, relationships and values which the building exist to serve and articulate.

Thus, the design of a house will start from the consideration of a particular pattern of family life, that of a school from the analysis of a curriculum, that of factory from the patient unravelling of a manufacturing process and so on. Applied to a church, this kind of approach will involve forgetting all about apses, spired and stained glass. It will mean thinking not merely about visual relationship between font and altar but also about theological relationship between baptism and Eucharist, not about pulpit and lecterns but about ministry of the word.

It will mean about all, asking basic questions about nature of the Christian community itself, its distinctive and characteristic activities and its relation to society at large.

2.10 CHURCH HISTORY IN NIGERIA

Leadership crises, revolt and disintegration among Christians in Nigeria dated bark to the inception of Churches in the country, and these dividing factors still prevail in the churches today.

Christianity was effectively established in Nigeria in the 18th century when religious societies in England sent out missionaries to convert.

C.M.S. was founded as the missionary arm of the Anglican church of England, and close on the heels of C.M.S. were the church of Scotland foreign mission committee (C.S.F.M.C.) and the united Presbyterian mission (U.P.M.).

With the abolition of slave trade, religious bodies began taking increased interest in the conversion of Africans but the high mortality of Europeans along the coast effectively hindered their progress. Finally, Africans were trained as missionaries and carried the greatest burden of the work of the church. Large numbers of these missionaries migrated to the Cities along the coast, especially to Abeokuta and Lagos where both Methodist and Anglican Missionaries had begun work in 1842 and 1846 respectively.

In 1846, Rev. Samuel Ajayi Crowther became the first African to be consecrated Bishop of the Niger Diocese. At his death, the Hamiltion - Allen Clergy recommended that an European should succeed him. This aroused the hostility of many Nigerians against the domination of the Local churches by foreign clergymen. Such leadership roles, coupled with the determination of C.M.S. to maintain an English episcopate which will effectively control its activities, resulted in a

revolt among some African members of the church and led to the establishment of the African church movement.

Similar policies pursued by the Methodists and Baptist also resulted in steady growth of disgruntled and disillusioned Africans who began to move out of the missions to establish the African Churches. The United African Methodist Church (UAMC) was formed in 1917 by a group of expelled Methodists who had been found guilty of marrying more than one wife.

It was not until 1857 that the C.M.S. succeeded in penetrating the heart of Ibo land by opening a station in Onitsha. Later in 1885, the Roman Catholic Mission (R.C.M) was also established in the town. The Church of Scotland Mission (C.S.M) had however been operating in the Cross River Basin since 1846.

Early attempts to bring Christianity to the Northern part of Nigeria were unsuccessful because of the vastness of the area, the difficulty in finding an easy route for travelling missionaries and the existence of an already large and expanding number of practising Muslims who were hostile to the spread of a new religion in their land.

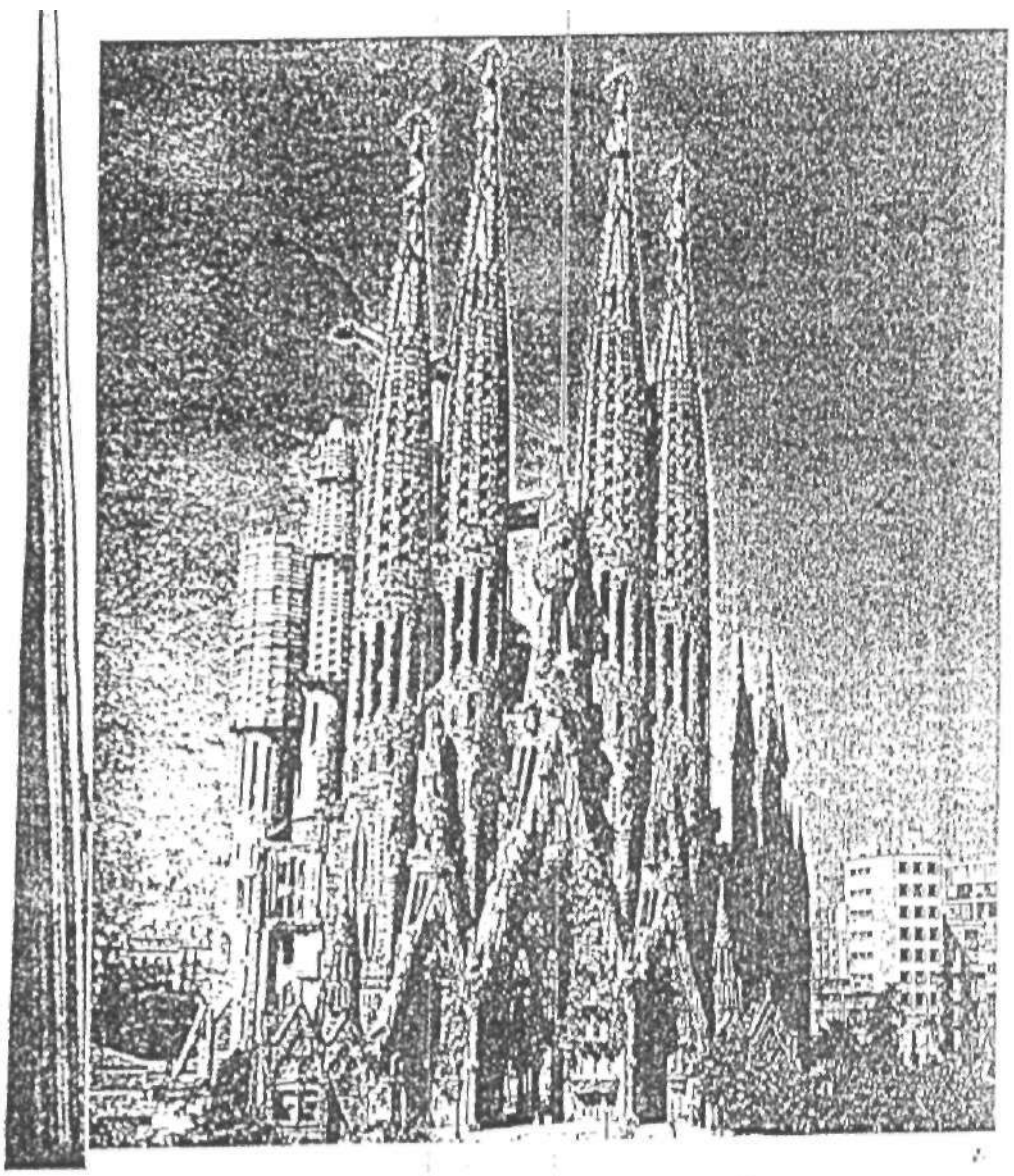
The Sudan interior mission (S.I.M) then succeeded after several attempts in establishing aa station at Pategi (now in Niger State). Today, the S.I.M. is the largest single mission in Northern Nigeria with about 101 missionary stations.

Pentecostalism was first noticed through a man called Joseph Babalola around 1930 who was a stark illiterate but was ministering under a new unction of the Holy Spirit. Through oral information, it was discovered that Babalola hailed from Odo-owa in the present Oke-ero local government area of Kwara State in Nigeria. Based in Ilesha, Oyo State, he was said to have a touch of God. He showed this by healings, miracles and wonders ministered to people on the ground floor while standing on the balcony of his upstair residence. Though poor communication

hampered his wide spread, this unction was later denominationalised through C.A.C. Around 1970, there was another manifestation through one J.K. Solomon. Later Iyanda took over the baton and eventually, the great charismatic movement emerged which was pioneered by Archbishop Benson Idahosa. Simultaneously, there were gradual infiltration of pentecostalism to the Northen part of Nigeria. Churches like Living Faith World outreach, Deeper Life Bible Church with headquarters in Lagos, Rhema Chapel International Churches with headquarters in Ilorin, Nigeria blew open and many other ministries spread across the nation making Pentecostal churches a household name in Nigeria.

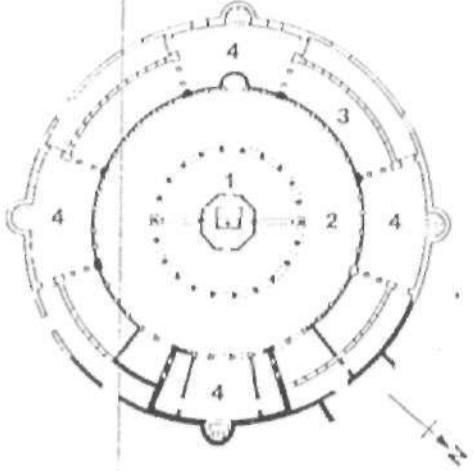
These churches are founded on common biblical background which includes emphasis on preaching the concentrated Gospel and ministering spiritual power to human beings through the anointing of the Holy Spirit.

Residential houses, ware houses and in fact any internal spacious accommodation are now converted to Pentecostal churches. Crusade grounds have now become paramount in the propagation of the gospel. Hotel conference rooms are used for worship meetings. Presently also stadia are not left out as usable ground for Crusades.



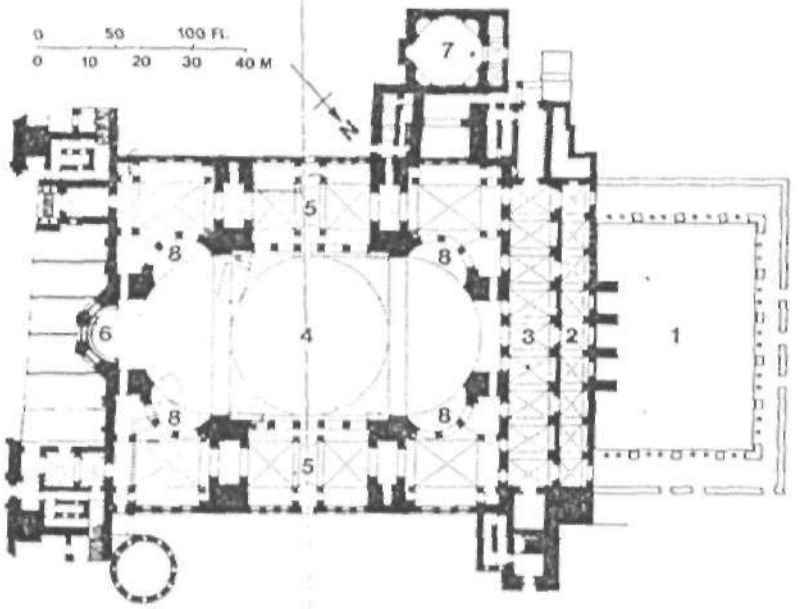
Left
SAGRADA FAMILIA CHURCH, Barcelona. Begun 1882. Architect: Antonio Gaudi.

Opposite
PARC GUELL, Barcelona. 1900–14. Part of a garden suburb laid out by Gaudi.



S. STEFANO ROTONDO, Rome. Plan:
1 central area,
2 inner ambulatory,
3 outer ambulatory,
4 chapel.

Fig 2.1



Left
St Sophia (Hagia Sophia), Constantinople. *c.* 532–37. Plan:
1 atrium destroyed,
2 outer narthex,
3 inner narthex,
4 oval shaped central area,
5 aisle with gallery over,
6 apse
7 baptistry
8 exedra.

Below
St Sophia (Hagia Sophia), Constantinople (Istanbul), Turkey. *c.* 532–37. Part of the huge central dome and one of the two giant semi-domes have been cut away to show the interior. In the left foreground, one of the minarets and part of the outer and inner narthex have been cut away to show more of the anatomy. The outline of the destroyed atrium in front of the entrance is indicated on the ground. At the east end of the oval hall, part of the apse (with windows) and an exedra can just be seen.

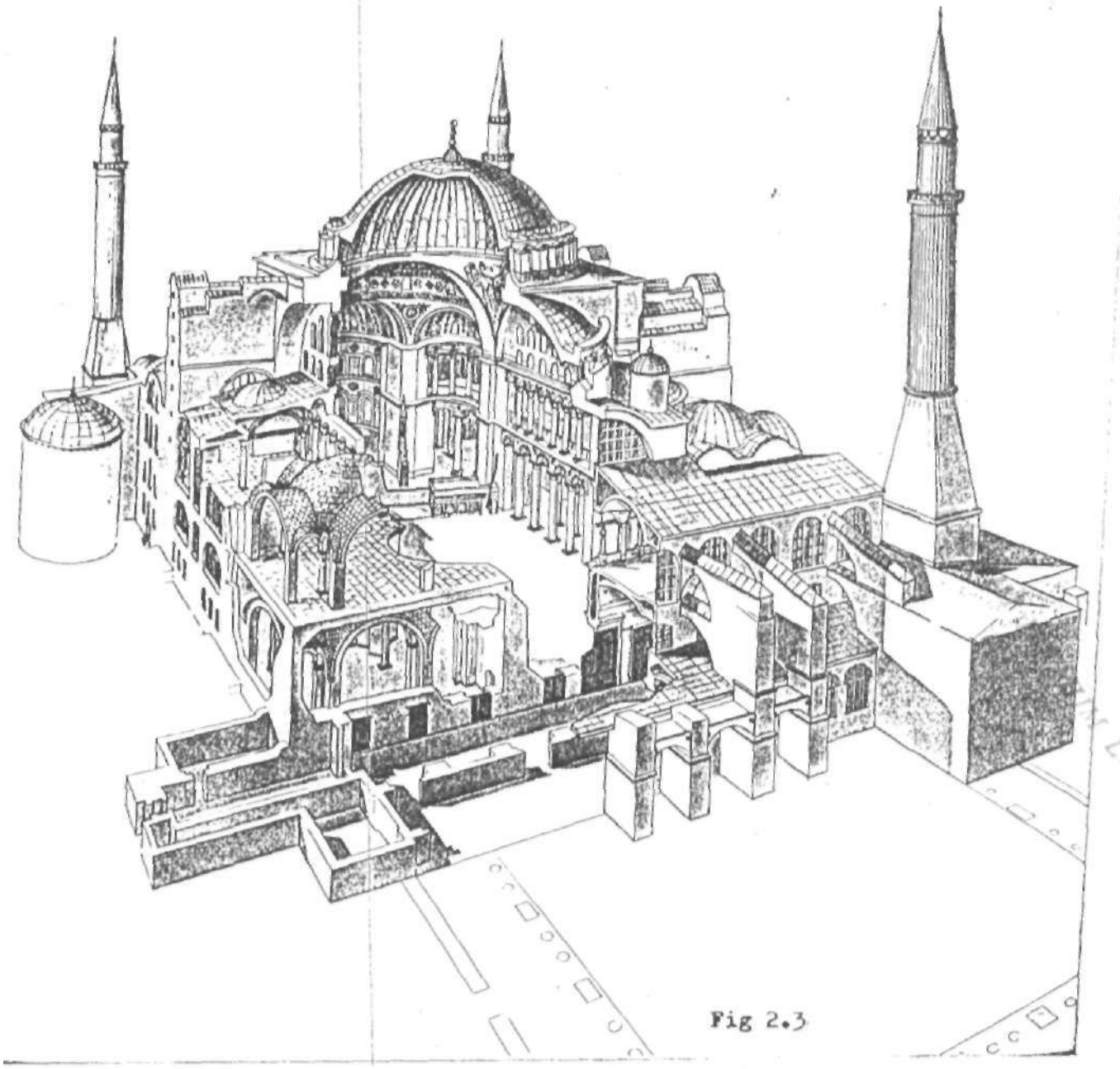
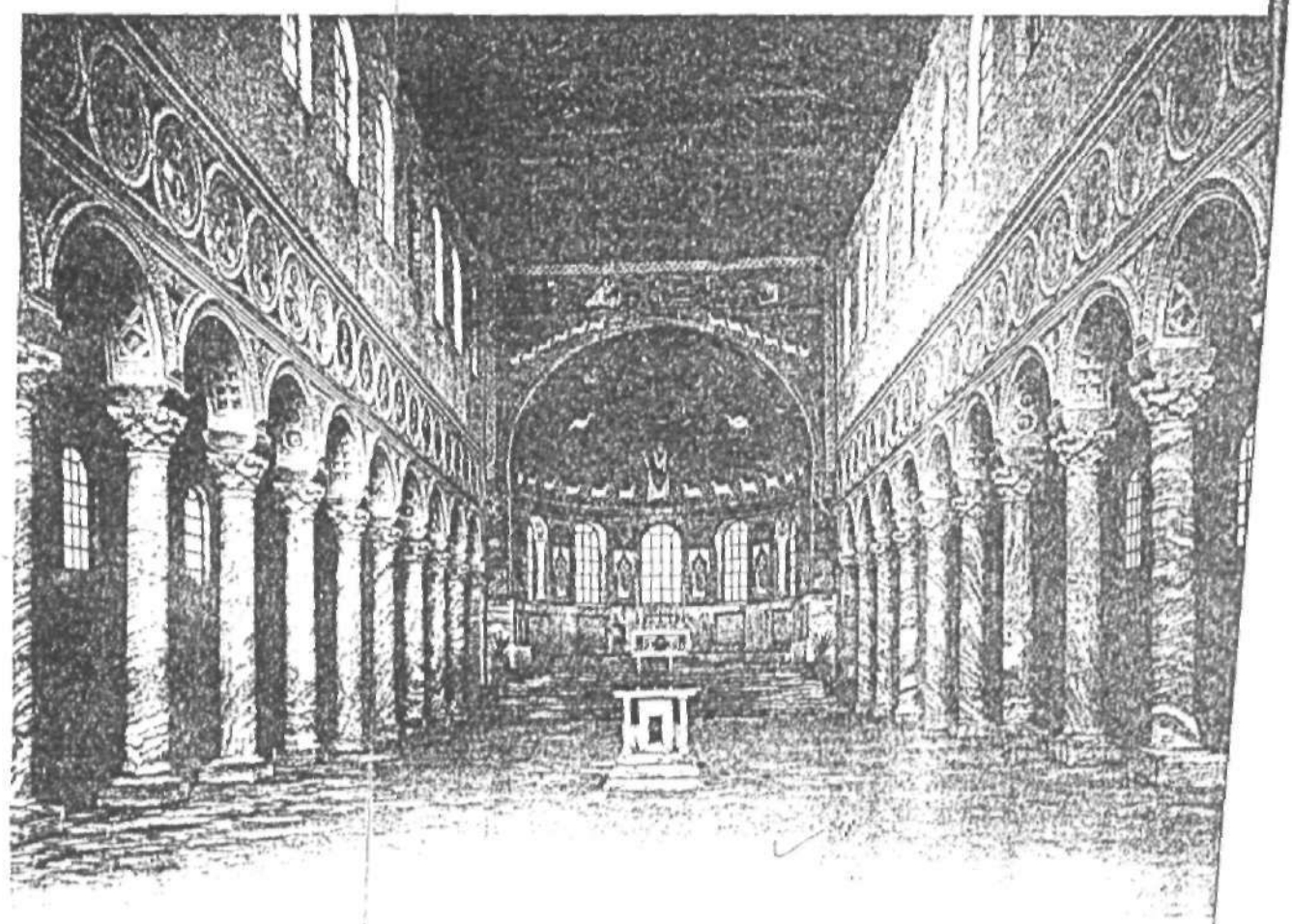


Fig 2.3



Above
S. Apollinare in Classe, Ravenna.
Mid-sixth century.

Right
S. Apollinare in Classe, Ravenna.
Section showing apse (left) and semi-dome beneath the pitched roof.

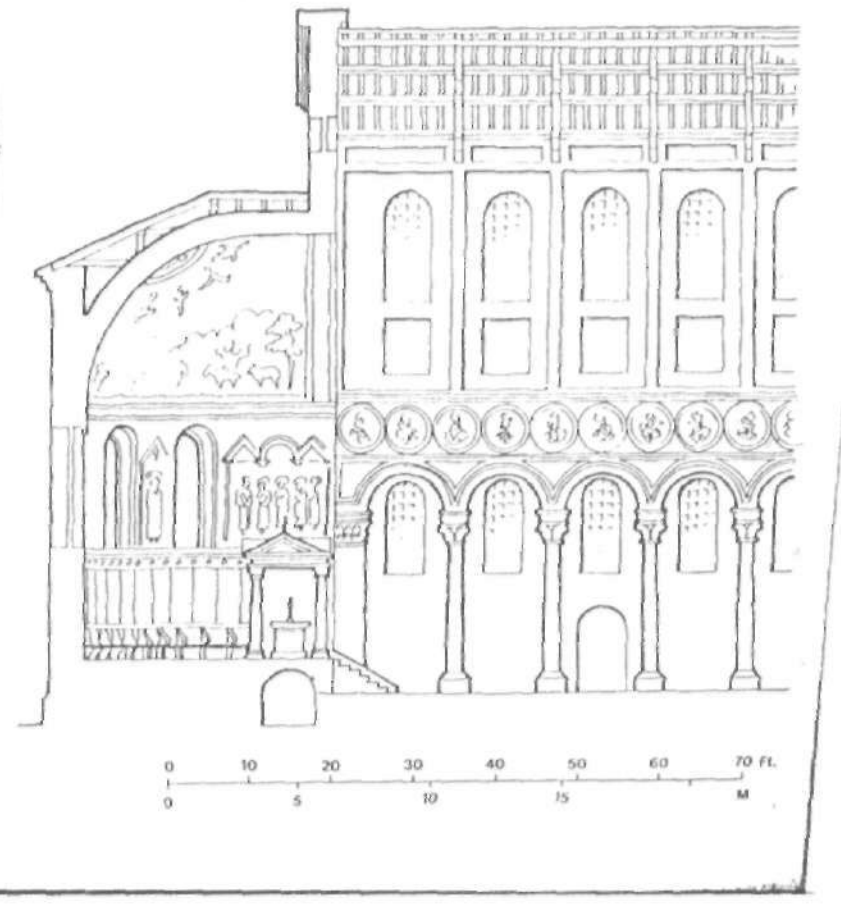
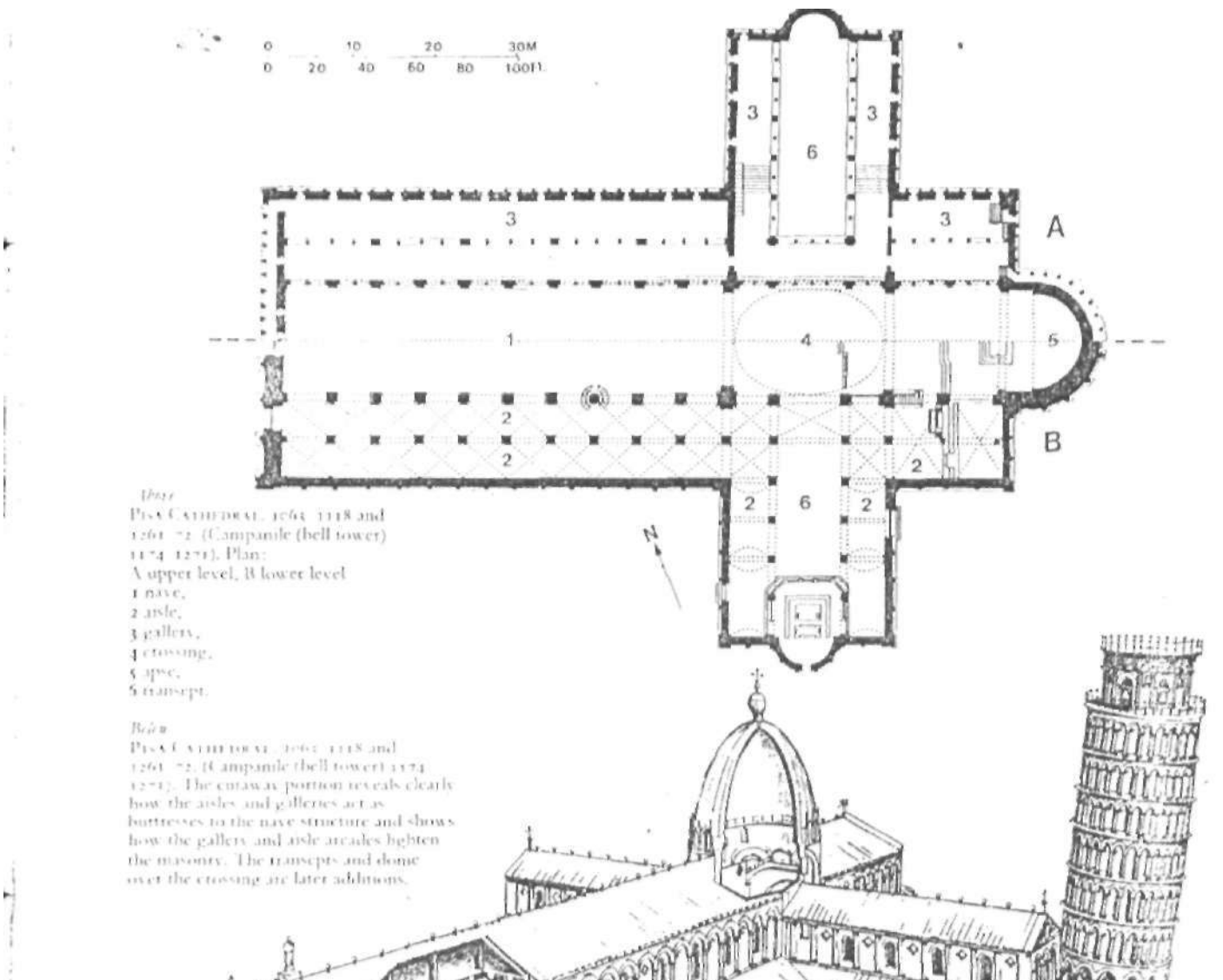


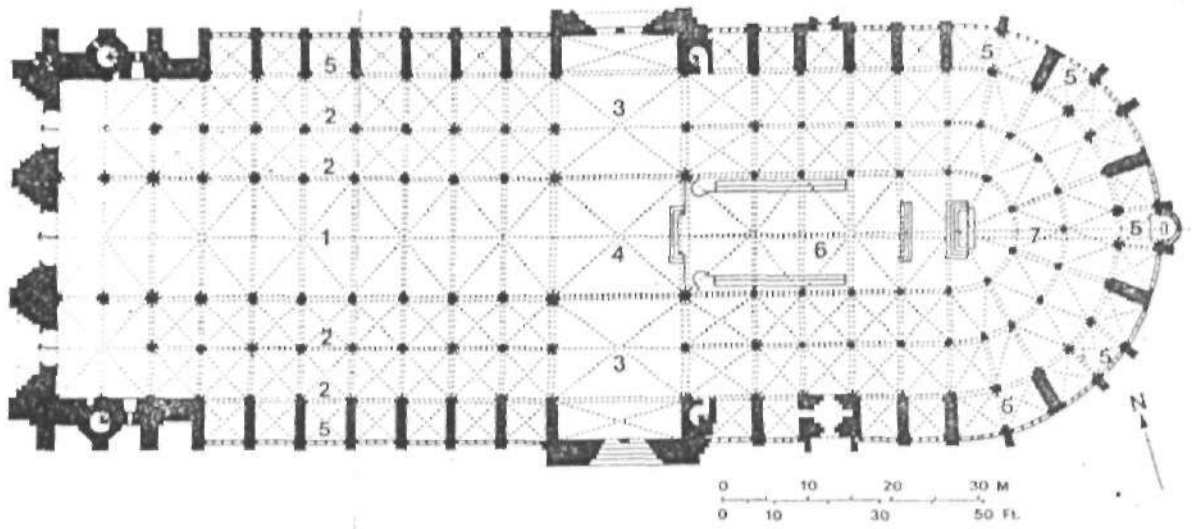
Fig 2.4



Plan
PISA CATHEDRAL, 1063–1118 and 1261–72. (Campanile (bell tower) 1174–1271). Plan:
A upper level, B lower level
1 nave,
2 aisle,
3 gallery,
4 crossing,
5 apse,
6 transept.

Below
PISA CATHEDRAL, 1063–1118 and 1261–72. (Campanile (bell tower) 1174–1271). The cutaway portion reveals clearly how the aisles and galleries act as buttresses to the nave structure and shows how the galleries and aisle arcades lighten the masonry. The transepts and dome over the crossing are later additions.

Fig 2.5



Above
NOTRE DAME CATHEDRAL, Paris. Begun 1163. Plan:
1 nave,
2 aisle,
3 transept,
4 crossing,
5 chapel,
6 choir,
7 chevet with double aisles and chapels (1)

Below
Flying buttress. The diagram shows how the Gothic structure works with a flying buttress. Direction of thrust:
1 nave roof,
2 semi-arch,
3 pinnacle,
4 semi-arch,
5 flying buttress,
6 nave pier,
7 aisle wall.



Opposite
NOTRE DAME CATHEDRAL, Paris. Begun 1163. West front. Thirteenth century.

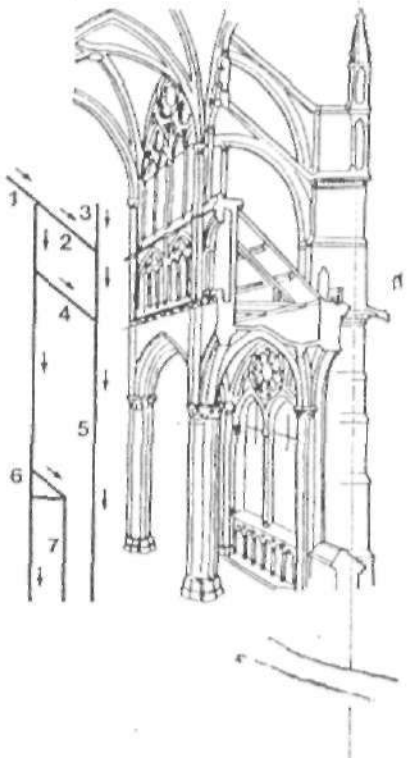
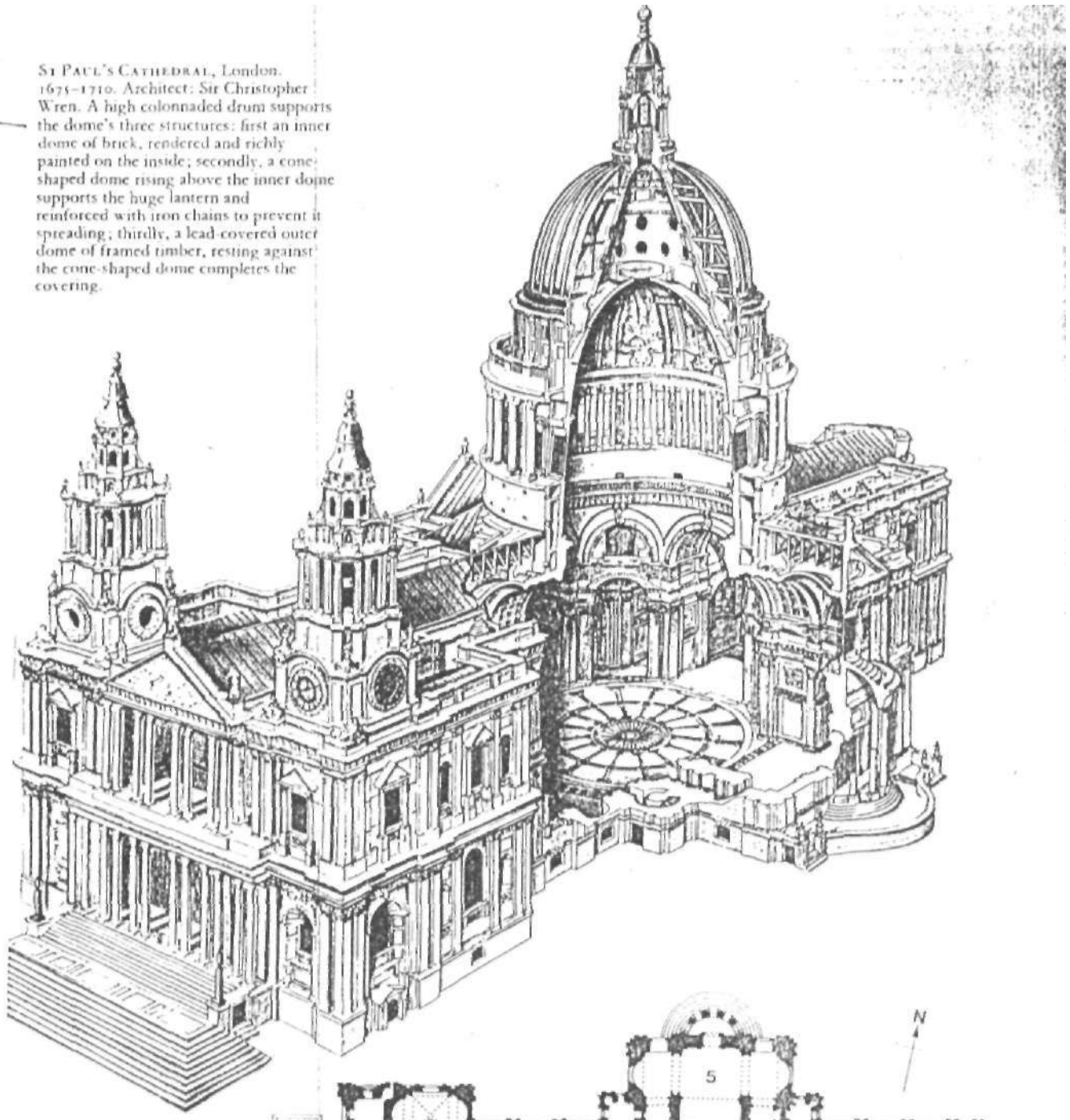
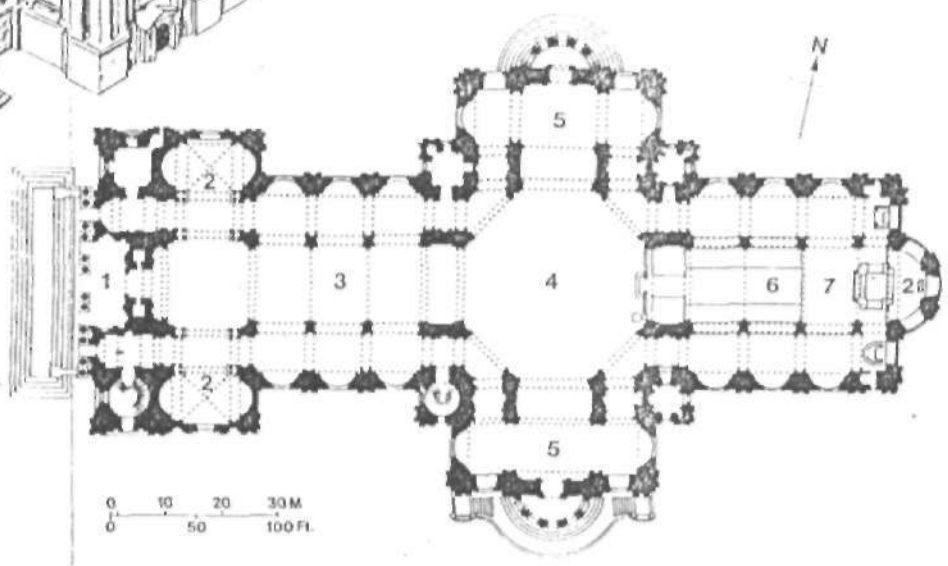


Fig 2.6

ST PAUL'S CATHEDRAL, London. 1675–1710. Architect: Sir Christopher Wren. A high colonnaded drum supports the dome's three structures: first an inner dome of brick, rendered and richly painted on the inside; secondly, a cone-shaped dome rising above the inner dome supports the huge lantern and reinforced with iron chains to prevent it spreading; thirdly, a lead-covered outer dome of framed timber, resting against the cone-shaped dome completes the covering.





Right
ST PAUL'S CATHEDRAL, London. Begun 1675. Plan:
1 portico (entrance)
2 chapel,
3 nave,
4 crossing,
5 transept,
6 choir,
7 high altar.

Fig 2.7



Left
SAGRADA FAMILIA CHURCH, Barcelona. Begun 1882. Architect: Antonio Gaudi.

Opposite
PARC GUELL, Barcelona. 1900–14. Part of a garden suburb laid out by Gaudi.

Fig 2.8

CHAPTER THREE

CLIENT AND NEED FOR INTEGRATED FACILITIES FOR CHURCH ADMINISTRATION

3.0 CHURCH ADMINISTRATION DEFINED

Administration can be defined as the act of putting something into operation by someone or people with official power (spiritual and physical) to do so.

It is a process of management of affairs which includes monitoring, controlling, training and execution of various duties of the church.[1]

3.1 ADMINISTRATIVE FUNCTIONS: This involves

i. Monitoring

ii. Execution of duties

iii. Effective distribution of information

iv. Training for excellence and performance

v. Management

vi. Controlling and Motivating

vii. Actual Operation and practice to achieve aims and objectives.

3.2 ADMINISTRATION IN CHURCH HISTORY

The history of administration is dated back to creation when God put Adam and Eve in the garden of Eden to dress and keep it.

In the old testament times, when David and Solomon were kings over Israel respectively. Jerusalem was the spiritual and administrative Headquarters of the nation of Israel it was the seat of the Jewish Temple.

The new testament gave birth to the first century church which had its headquarters at Jerusalem where missionaries were sent out. It was the seat of the chief Apostle in person of Apostle Peter. The Apostles usually travelled around other cities to oversee the local churches and plant new ones as and when due. They constitute local administrators and appointed leaders to manage this spiritual centres. This style administration still obtainable in both otherdox and Pentecostal circles today.[2] See Fig 3.1 and 3.2

3.3 CRITICISM

There is a general lack of corporate participation and the problem of unilateral communication do exist. The people at the other locations apart from Jerusalem were kept in the dark of the happenings at the Headquarters hence their exist Divisions, strife segregation doctrinal problems.

3.4 PENTECOSTAL APPROACH TO CHURCH ADMINISTRATION

The movement become more popular due to its sharp deviation from many othordox Christian beliefs and practices. The dynamism of this movement also has influence on its mode of administration.

The administration is a more centralized and integrated within the headquarter complex where adequate facilities for effective administration are available. This has ensure and facilitated corporate participation, bilateral communication, accountability, training, regular conventions.

retreat, congresses, seminars and awareness programmes all of which are organized to foster unity and aid the spread of the work of the Gospel. It also allows for doctrinal uniformity of faith.

3.5 THE NEED FOR INTEGRATES FACILITIES

At the moment, administrative problem exist in the ministry and this is not because there are no capable hands to administer but due to problem lack of facilities.

The administrative structure is also haphazardly located due to lack of central facilities i.e. The Directorate of Pastoral care is located in Lagos and receive information from Ilorin for her Operation. This leads to constant need to travel from Lagos to Ilorin. The Word Outreach Arm (GAWO) is located in Britain and Kenya and United State and also plagued by distance and communication problems.

At the Headquarters, the word processing unit, the office of the president and Bible Training Institute exist at different locations from what is officially available as the main administrative office. Because of this disintegration of functional units of the ministry, effectives co-ordination and management has not been easy and it as in turn affects the actual operation and pursuit of the ministry objectives.

All the above reason coupled with the enormous cost implication of having to rent facilities for this administrative function culminated into the need to build an integrated facilities.

3.6 NATURE OF FACILITIES AND USES

3.6.1 Word of Victory Bible Training Institute

This provide training for Pastoral and other administrative staff of the ministry. It also trains ministers who will take the word to the Nations. This institute is equipped with Library, Classroom and other necessary teaching aids.

3.6.2 Offices

This will accommodate various administrative functions to ensure effective management, controlling and monitoring the activities of the ministry.

3.6.3 Printing and Publications Facilities

There must be space for printing and publication so that vital issue can be put into printed pages for proper information and awareness.

3.6.4 Audio-Visual Facilities

This will be made available by the Directorate of facilities. In which case necessary materials are put on audio and video tapes for the use of individuals, the local churches and various extensions of the ministry.

3.6.5 Conference Facilities

Conference facilities in form of a conference hall or an auditorium is provided to serve larger meetings meant to motivate and teach people involved at various Board of Deacons, Board of H.O.D. and general church workers including administrative staff of local churches Pastors and Allied workers retreat which holds quarterly on schedule based on ministry calender. Worker congress hold once a year and representatives are sent from various installation in Nigeria and abroad.

3.6.6 Accommodation Facilities

This are provided for ministers and visitors from other ministry under the apostolic jurisdiction of the ministry.

3.7 TYPES OF INTEGRATION

The types of integration within the context of the thesis is divided into two.

(i) Total Integration

In this case all the facilities within the centre is within the complex integrated together.

(ii) Partial Integration

In this case all the facilities needed are within the centre at the same site but is integrated with functions relating to one another.

3.8 ORGANISATIONAL STRUCTURE OF RHEMA CHAPEL

The administrative structure of the Rhema Chapel International Churches is organised in such a way that there is ample provision for fluency, efficiency and effectiveness. To this end, the structure of the RCIC is divided into the office of the President/Senior Minister-in-chrage, Vice-President/Senior Minister-in-chrage, the Board of Trustees and six (6) Directorates.

These directorates are:

i. Administration

ii. Christian Communication

iii. Music

iv. Facilities

v. Pastoral cares

vi. Living Word Dramatists

Apropos the above, each directorate is headed by a Director and other subordinate officers (see Table 1).

3.8.1 President

This is the head of the Ministry. He spiritually and administratively has the overall responsibility for planning, organising, directing, coordinating the meetings of the Board of Trustees and President-in-charge (PIC), of whom he is the Chairman. He is the Senior Minister-in-charge of all the Rhema Chapel International Churches Installations world wide. He also presides over various cardinal committees.

(ii) Vice President:

The Vice President shall act for the President, in the latter's absence, in every sense of the word, at the express request of the President.

(iii) Board of Trustees (BOT):

The Ministry has a Board of Trustees which reflects it's International Status. The Registered Trustees of the Ministry consist of the President, Vice President and three other members.

(iv) Director of Administration:

He oversees the smooth administrative running and organisational structures of the various installation. With the help of his subordinates, he ensures good effectiveness and maximal efficiency of the Ministry.

(v) Director of Christian Communications:

He oversees the publication aspect, audio and visual means of communications. With the Printing press, Television studio and Audio equipment, the publishing of books, production of video and audio materials of the Ministry at the times.

(vi) Director of Music:

Music is a rudimental aspect of Christianity. The Rhema Chapel International Churches has a directorate of music, which oversees the music life and activities of the Ministry. It is headed by the director of music.

(vii) Director of Facilities:

He is responsible for the proper keeping and maintenance of technical equipment and facilities in the Ministry. He also ensures that such equipment/facilities are bought or disposed with "full protocols observed".

(viii) Director of Children Ministry:

He heads the Children Section of the Church and also runs the Sunday School of the Church.

(xi) Director of Pastoral Cares:

He heads the Pastoral Staff of the Ministry. He ensures a smooth coordination of Pastoral, administration and welfare within the Ministry.

(x) Director, Living Word Dramatists:

Dramatists, a theatrical Ministry, in the Ministry.

3.9 ARMS OF RHEMA CHAPEL

In conformity with vision of the Ever Increasing Word Ministries a.k.a Rhema Chapel international churches. There are various arms serving different functions but working towards the same goal i.e. the realisation of the vision. The arms of the Ministry are:

1. George Adegboye World Outreach (GAWO)
2. Word of Victory Bible Training Institute (WOVBTI)
3. Rhema Chapel International Churches (RCIC)
4. Campus/Youth Ministries.

These Ministries are the basic components that merge into what is generally known as the Ever Increasing Word Ministries.

(i) George Adegboye World Outreach (GAWO)

According to Rev. George Adegboye, "In 1981, I was given a commission by God when He said to me, 'I have called thee, chosen, ordained and anointed thee. to take my word to the nations, emphasizing it's integrity". My obedience to this commission has given birth to about thirty Rhema Chapel Installations in Nigeria, an extensive Radio and Television ministry, seven bible training institute, over a thousand messages on audio and video tapes widely distributed globally, a trainers ministry that has transformed several young men into firebrands making them gifts in the body of Christ and outreaches to several nations of the world".

From the above, it is glaring that the George Adegboye World Outreach is a very important arms of the Ministry. The success of this arm is directly proportional to the success of the other arms of the Ministry. From the International headquarters. It engages diverse forms of outreaches such as witnessing, evangelism and mission, church planting and any programme throughout Nigeria and in any part of the world with a view to winning souls for the Lord Jesus Christ and

prepare men and women to function in the church age and for His second coming. It also holds Crusades, Revivals, Camp-meetings, Gatherings, Conventions, Conferences, Fellowship, Deliverance, Seminar, and any other meetings whatever name called in pursuance of it's aims and objectives. Headed by a director, GAWO is indeed a very busy arm of the Ever Increasing Word Ministries.

(ii) Word of Victory Bible Training Institute (WOVBTI)

This is a tertiary, theological Institution of the Ministry. It is involved in the formal training of Ministers. Equipped with the necessary facilities and a formidable academic staff, the institution has produced seasoned ministers and church workers. It offers theological courses at the certificate and diploma levels. It is also affiliated with the International Bible Institute of London (IBIOL) United Kingdom.

As a citadel of knowledge, the Bible School (i.e. WOVBTI) enjoys an efficient organisational structure and firm administration. It has the president of the Ministry as the chairman at the very head, followed by the Director Vice, Chairman, Dean of Students, Registrar, Faculty Board and Administrative Secretary (See Table 2).

PRESIDENT/CHAIRMAN	
DIRECTOR/VICE-CHAIRMAN	
	(SATELLITES CAMPUS)
DEAN OF STUDENTS	
	PRINCIPAL
REGISTRAR	SUB-DEAN
FACULTY BOARD	
	FACULTY BOARD
SECRETARY	
	ADMIN SECRETARY

Table 2

(v) Youth/Campus Ministries:

The youth of this nation are the trustees of prosperity. "This arm is specifically setup with the youth in mind. Given the spate of juvenile delinquencies, the sporadic adoption of evil influences and the inevitable consequences of run and despondency, this arm of the ministry is primarily set up to address the "Youth Question". The main objectives of this arm are:

i. To stir up unexplored and unused gift(s) potentials in all youth in church and on campus.

ii. To reach the world of youth through music, drama, academic success seminars, career talk etc.

iii. To help the youth to discover and establish a definite direction for their lives which will make them pacesetters in any field and location.

iv. To educate them (youths) on how best to conduct and carry themselves in such area as mode of dressing, speech and presentation of self, so that no man will despise their youth in the society.

Headed by a National Co-ordinator, the YOUTH MINISTRIES has spanned all the RCIC installations and about forty campuses in Nigeria today. Indeed, it is a success story written in letters of gold all over the nation.

3.10 Tenets of Faith in Rhema Chapel International Churches

i. Salvation as the beginning of our experience.

ii. Soul winning church.

iii. Studying church where the integrity of the word of God is emphasised.

iv. Spirit filled church.

v. Separated church.

vi. Steadfast church.

vii. Second coming church.[3]

(iii) RHEMA CHAPEL INTERNATIONAL CHURCHES (RCIC)

This is the Church arm of the ever-increasing Ministries it is also a fundamentally important arm of the ministry currently, the installations, branches and satellite churches of this arm are about thirty with an approximate total of fourty thousand and six hundred people in about twenty five cities nationwide.

Basically, the ministry is an association of Born Again Christians who have accepted Jesus Christ as their personal saviour and Lord. It follows, therefore, that membership of RCIC is open to all Born Again, spirit filled Christians of any calling or denominational back-ground. Not withstanding, however, the foregoing provisions of the above 2nd, the programmes of the ministry can be opened to and attended by non-members irrespective of their race, denominational and/or religious body ground.

The objectives of this ministry are as follows.

1. Embark on witnessing, evangelism & missions, church planting and any other programme worldwide with the view to winning souls for the Lord Jesus Christ.

2. Organize prayers meetings and conduct prayer sessions in any matter at any place as may be deemed fit in the interest of the church.
3. Make it's programme known in any media including radio, television and other wireless media in connection with Christian teachings and Bible knowledge for the purpose of evangelization and promotion of the Christian faith and making known the Lord Jesus throughout the world
4. Encourage the study, understanding and practical application of Bible truths in everyday life.
5. To commission, ordain and consecrate Christian leaders and ministry gifts as Deacons Bishops etc. and others to function in areas of calling.
6. To carry out marriage ceremonies in Holy Wedlock in accordance with the Holy scriptures and to issues marriage certificate or other documentary proofs as may be required.

The Rhema Chapel International Churches is run, under God the president/Senior minister-in-charge, vice president/Asst. senior minister-in-charge, Board of ministry Board of Deacons and the Board of Heads of Departments in that order invariably, worship is the primary responsibility of this arm of the ministry.

(iv) Women in Ministry: This is the arm of the ministry that specifically trains women and groom them into respectable and able ministries in their various fields of ministerial calling. It is an important arm of the ministry which strives to work at its very best to refine the raw talents and potentials talent in women, for the expansion of God's work. Headed by the vice-president of the ministry, the growth of this arm has known no bounds.

Foot Note:

1. Mahoney R. 1993. The Shepherds Staff published by World MAP California. U.S.A.

2. Thompson Chain Reference Bible

3. The Constitution of the Ever. Increasing word Ministries a.k.a. Rhema Chapel International Churches.

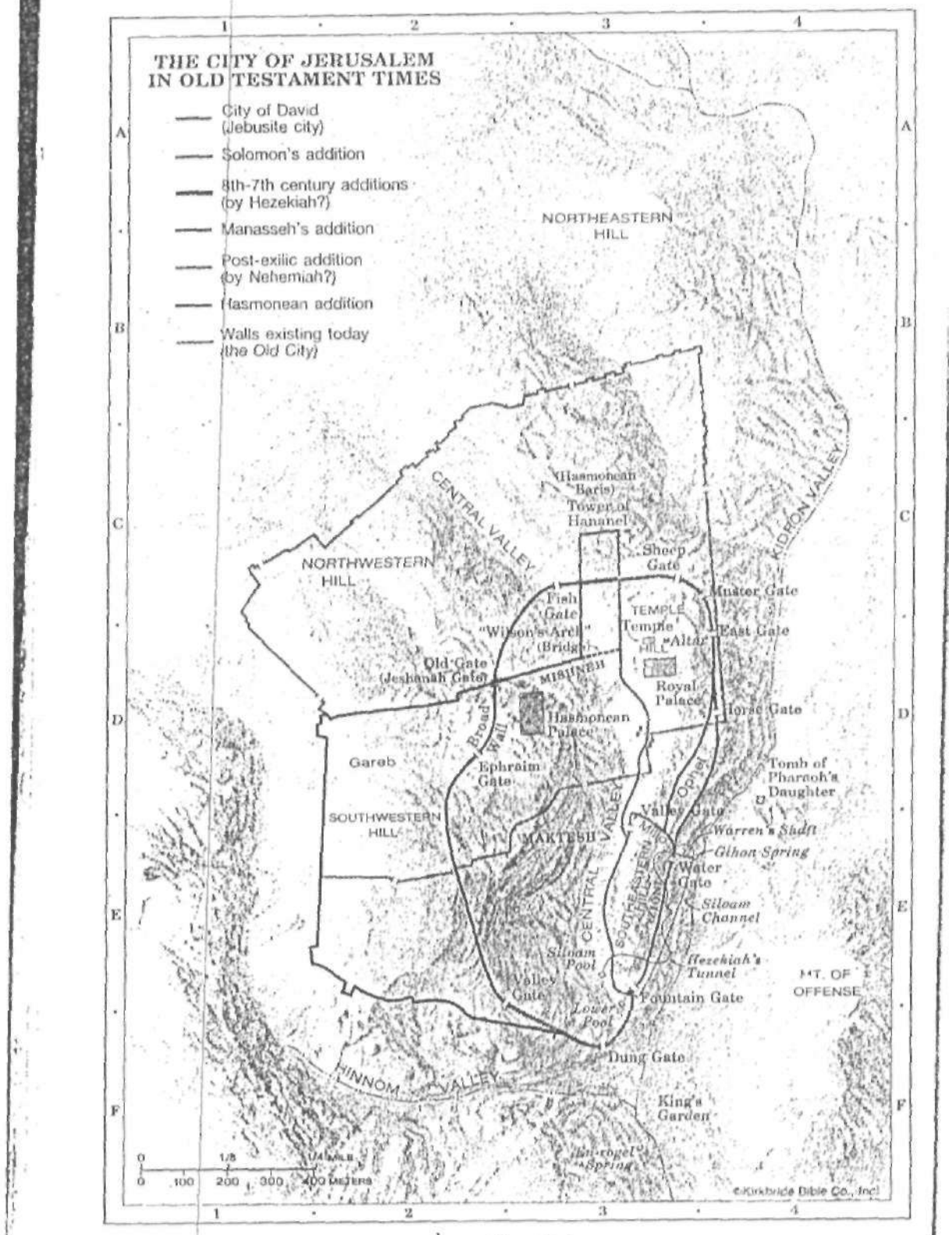

THE CITY OF JERUSALEM
IN OLD TESTAMENT TIMES
City of David (Jebusite city)
Solomon's addition
8th-7th century additions (by Hezekiah?)
Manasseh's addition
Post-exilic addition (by Nehemiah?)
Hasmonean addition
Walls existing today (the Old City)
NORTHEASTERN HILL
CENTRAL VALLEY
KIDRON VALLEY
NORTHWESTERN HILL
Hasmonean Baris) Tower of Hananel
Sheep Gate
Muster Gate
Fish Gate
TEMPLE HILL
Temple
East Gate
"Wilson's Arch" (Bridge)
Altar
Old Gate (Jeshanah Gate)
MISHNEH
Royal Palace
Hasmonean Palace
Horse Gate
Broad Wall
Gareb
Ephraim Gate
Tomb of Pharaoh's Daughter
Ophel
SOUTHWESTERN HILL
MAKTESH
Valley Gate
Warren's Shaft
Gihon Spring
Water Gate
Siloam Channel
SOUTHEASTERN HILL
Siloam Pool
Hezekiah's Tunnel
MT. OF OFFENSE
Valley Gate
Fountain Gate
Lower Pool
Dung Gate
HINNOM VALLEY
King's Garden
En-rogel Spring
0 1/8 1/4 MILE
0 100 200 300 400 METERS
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Fig 3,1

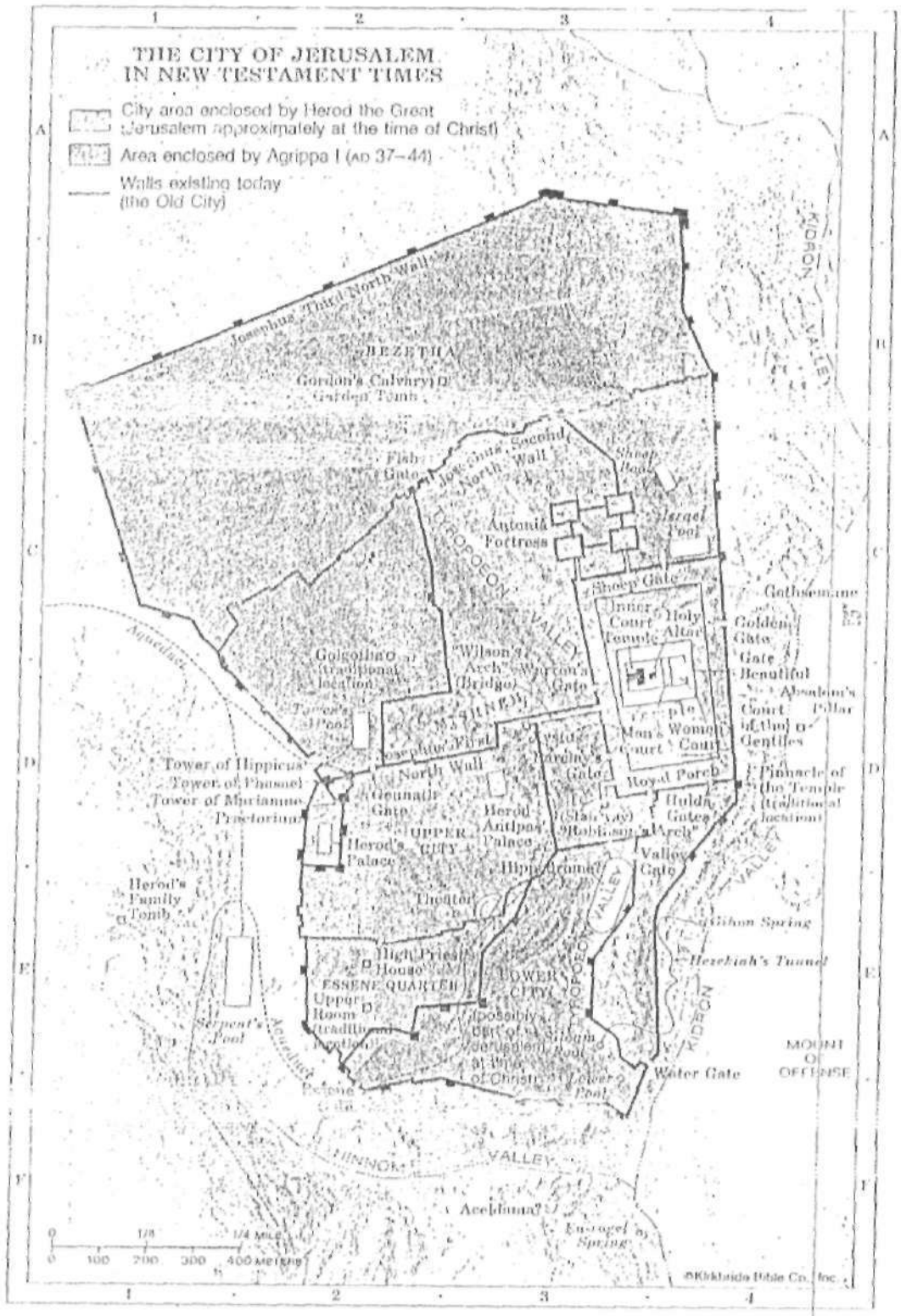

THE CITY OF JERUSALEM
IN NEW TESTAMENT TIMES
City area enclosed by Herod the Great (Jerusalem approximately at the time of Christ)
Area enclosed by Agrippa I (AD 37–44)
Walls existing today (the Old City)
Josephus' Third North Wall
BEZETHA
Gordon's Calvary
Garden Tomb
Fish Gate
Josephus' Second North Wall
Sheep Pool
Antonia Fortress
Israel Pool
Sheep Gate
Gethsemane
Inner Court
Holy Temple
Altar
Golden Gate
Beautiful Gate
Absalom's Pillar
Court of the Gentiles
Golgotha Traditional location
Wilson's Arch (Bridge)
Warren's Gate
Tyropoeon Pool
Aqueduct
Tower of Hippicus
Tower of Phasael
Tower of Mariamne
Praetorium
North Wall
Gennath Gate
Herod's Palace
UPPER CITY
Herod Antipas' Palace
Hippicus
Theater
Huldah Gates
Robinson's Arch
Valley Gate
Herod's Family Tomb
Gihon Spring
Hezekiah's Tunnel
High Priest's House
ESSENE QUARTER
Upper Room
Traditional location
LOWER CITY
Possibly part of Solomon's Pool at time of Christ
Serpent's Pool
Water Gate
Lower Pool
MOUNT OF OFFENSE
VALLEY
Aceldama
Fuller's Spring
0 1/8 1/4 Mile
0 100 200 300 400 Meters
©Kirkland Bible Co., Inc.

Fig 3.2

CHAPTER FOUR

SITE INFORMATION AND ENVIRONMENTAL PHYSIOGRAPHY

4.1 HISTORICAL PROFILE OF ILORIN

4.1.1 REGIONAL LOCATION

Ilorin is a town located on the South Western part of Nigeria. It is the capital town of Kwara State by virtue of the state creation decree of 1967. Before then, it served as the capital/headquarters of Ilorin provide in the old Northern Region. It is a town founded several hundreds of years back. Originally, it was occupied by the Yorubas. The 18th century Sokoto Jihad which extended its frontiers to many parts of Northern Nigeria reached Ilorin. The Fulan is later inhabited the town as a result of the spread of Islam to the Southern Part of Nigeria.

Ilorin is generally regarded as the gateway between the Northern and Southern parts of Nigeria. It is classified as a middle belt area. Its central location accounts for its moderate climate as the effect of both the North-Easterly Trade Winds and the South-West Trade winds are felt at one time or the other in the year. Civil servants always like to live there because of climatic favourability.

The land is generally flat except for some exemptions like the Sobi Hills and flowing rivers like Asa, Aluko and Ogun Rivers that waters the Old City. River Asa flows across the town and almost bisect it into the old and new districts. The growth of Ilorin started in 1800 but more rapidly since 1968 when it became the capital city of Kwara State. The population of Ilorin as at 1980 was 436,000. It was estimated that it would be about 537,000 by the year 1990.

4.1.2 Settlement Pattern

Ilorin is a typical twin city seemingly divided into two districts, namely traditional and the new Administrative Districts. The two districts are physically divided by River Asa with the traditional settlement on the West Bank while the new Administrative block occupies the eastern bank of the river. See fig. 4.1

The traditional districts consists of a number of large compounds enclosed with wall. The new administrative district is made up of two axis, one along Ajaso-Ipo-Kaduna road main axis and the other formed the Government Reserved Area which terminates at University of Ilorin permanent site.

4.1.3 Religious Inclination

Basically, the population are predominantly Moslems and the Moslem community exist majority in the traditional district area. The Administrative district which compose of modern buildings and well planned city scope is dominated by Christian populace and this is seen in the numerous churches, cathedrals, theological seminaries and Christian teaching centres that are scattered in this area. In a nut shell, the city accommodate very sizable Christian population expecially the immigrants composed of Yorubas and Ibos.

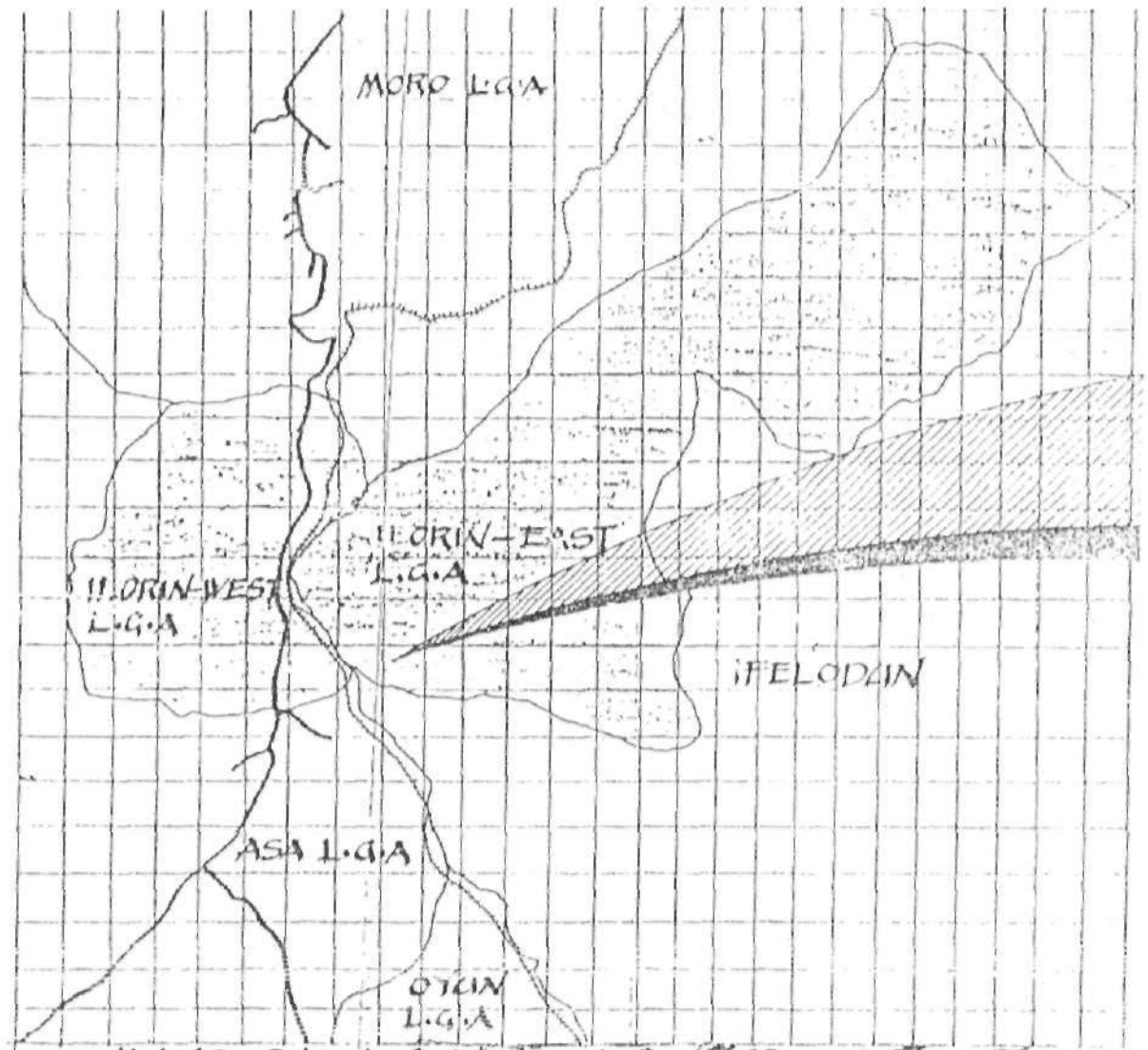
4.2 CLIMATE CHARACTERISTICS

Obvious climate seasons in Ilorin are

West Season:- April - October

Harmattan Season:- November - January

Hot Season:- January - March



MAP OF LOCAL GOVERNMENT AREA SHOWING ILORIN CITY

Fig 4.1

4.2.1 Rainfall

The dominant wind during the wet season is the South-West monsoon trade winds that brings rain usually from April to October. Rain fall distribution varies between 2 to 20 centimetres (source University of Ilorin Meteredogical Station). The minimum occurs in January at the inception of the Hot dry season which spans from November to March with monthly average less than 2 centimetres. The annual maximum rainfall of 20 centimetre occurs. In June and August the rainfall is sometimes accompanied with thunderstorm at the start and towards the end of the season. The mean monthly rainfall for Ilorin and the environs is presented in fig. 4.2

Design Implication

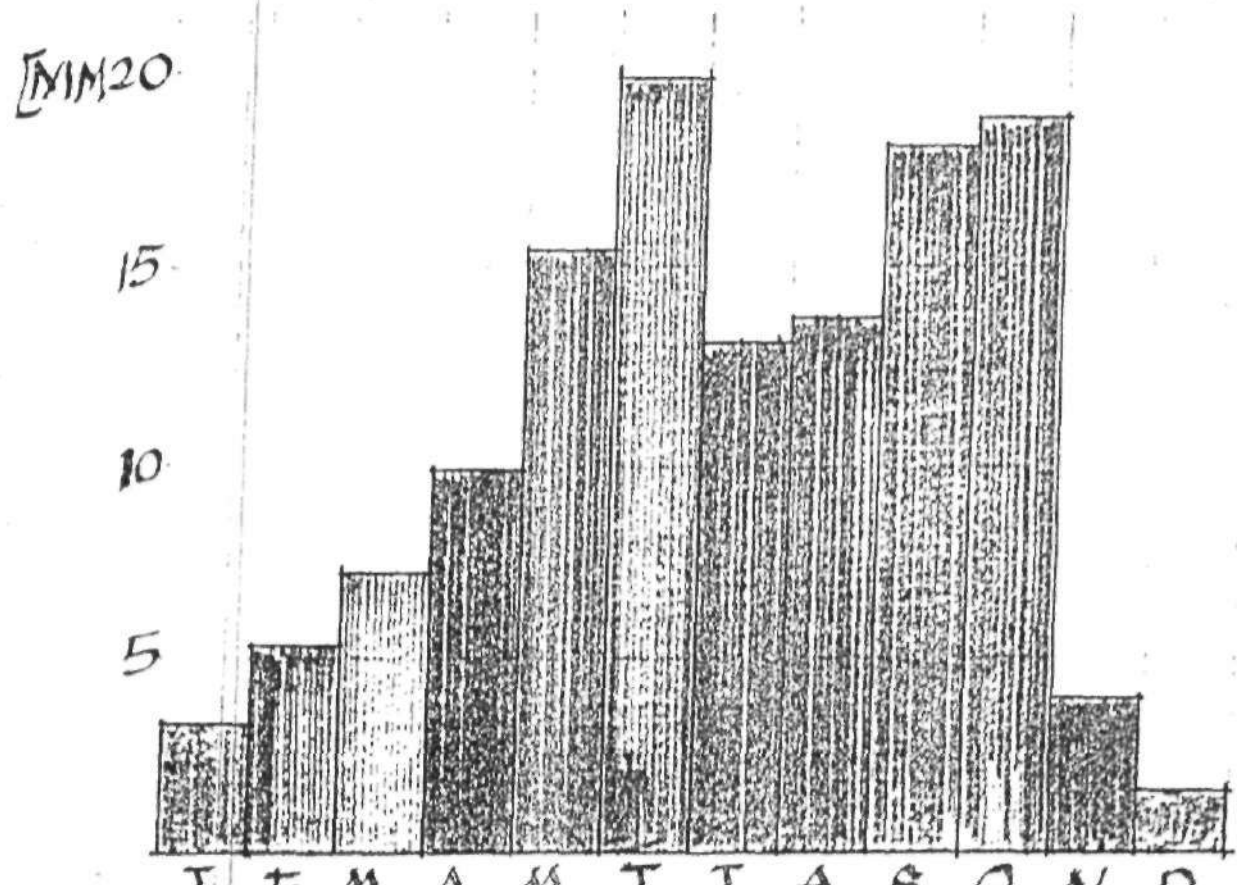
- Adequate drainage to be provided to take care of the large volume of water during the torrential down pour.
- Proper detailing of roof section shall be carried out particularly the ridges valley and parapet wall as well as roof joints.
- The use of concrete roofs shall be minimised in order to reduce maintenance cost.
- Adequate clearance shall be sought and obtained when planting trees around the building.

4.2.2. Wind

Two types of winds blows across Ilorin city. The North East Trade wind and the South West monsoon wind.

- North-East Trade wind blows from Sahara desert. It is characterised by dust and dryness which

ILORIN: MEAN MONTHLY RAINFALL. (1988/91).



RAINFALL.

period of seven months in a year (April - October) bringing coolness and the accompanied comfort see fig. 4.3

Design Implication

- A screen of trees and shrubs shall be planted as buffers to offset the effects of the dry, dusty wind.

- Building shall be aligned to take advantage of the favourable South-West Trade winds.

4.2.3 Temperature

Monthly average temperature in Ilorin is quite uniform, with February and March being the hottest months (40°c) and this occurs during the dry season where there is virtually no cloud cover that acts as blanket cover over the sky. Most of the rainfall occur during this time. The coldest and dry period is between December and January (28°c). The annual mean temperature is 27°c. The average monthly temperature is shown in fig.4.4

Design Implication

- Buildings should be aligned in the North-South direction to prevent over heating and glare in the interior.

-The use of Sun shading devices should be encouraged.

4.2.4 Relative Humidity

The Relative humidity like the temperature experience rapid changes. It is usually influenced by equatorial air mass. The highest relative humidity occurs during the rainy season between April and October (75-85) percent.

4.2.5 Solar Radiation And Its Effects

Solar radiation is the heat generated from the sum. It reaches the earth's surface through a form of heat transfer known as radiant heat transmission. During the day, about 40% of this heat

CLIMATIC

ILORIN: MEAN MONTHLY TEMPERATURE.



Fig 4.4

TEMPERATURE.

COMFORT ZONE.

COMFORT ZONE IS BEING DEFINED BY A SET OF CLIMATIC CONDITIONS AND DIFFERS WITH INDIVIDUALS, SE: CLOTHING, ACTIVITY RATE, GEOGRAPHIC LOCATION, AGE AND ENVIRONMENT.

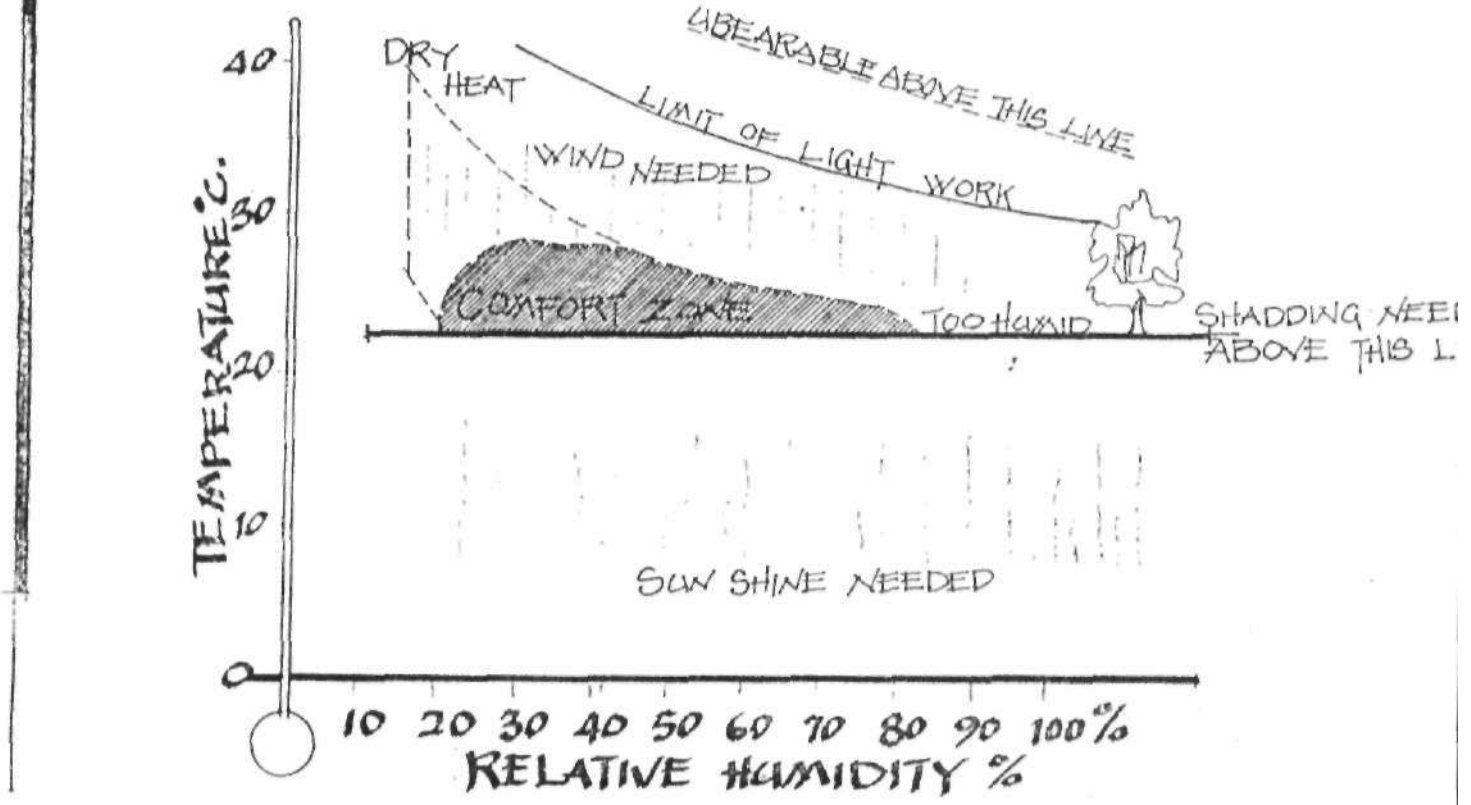


Fig 4.5

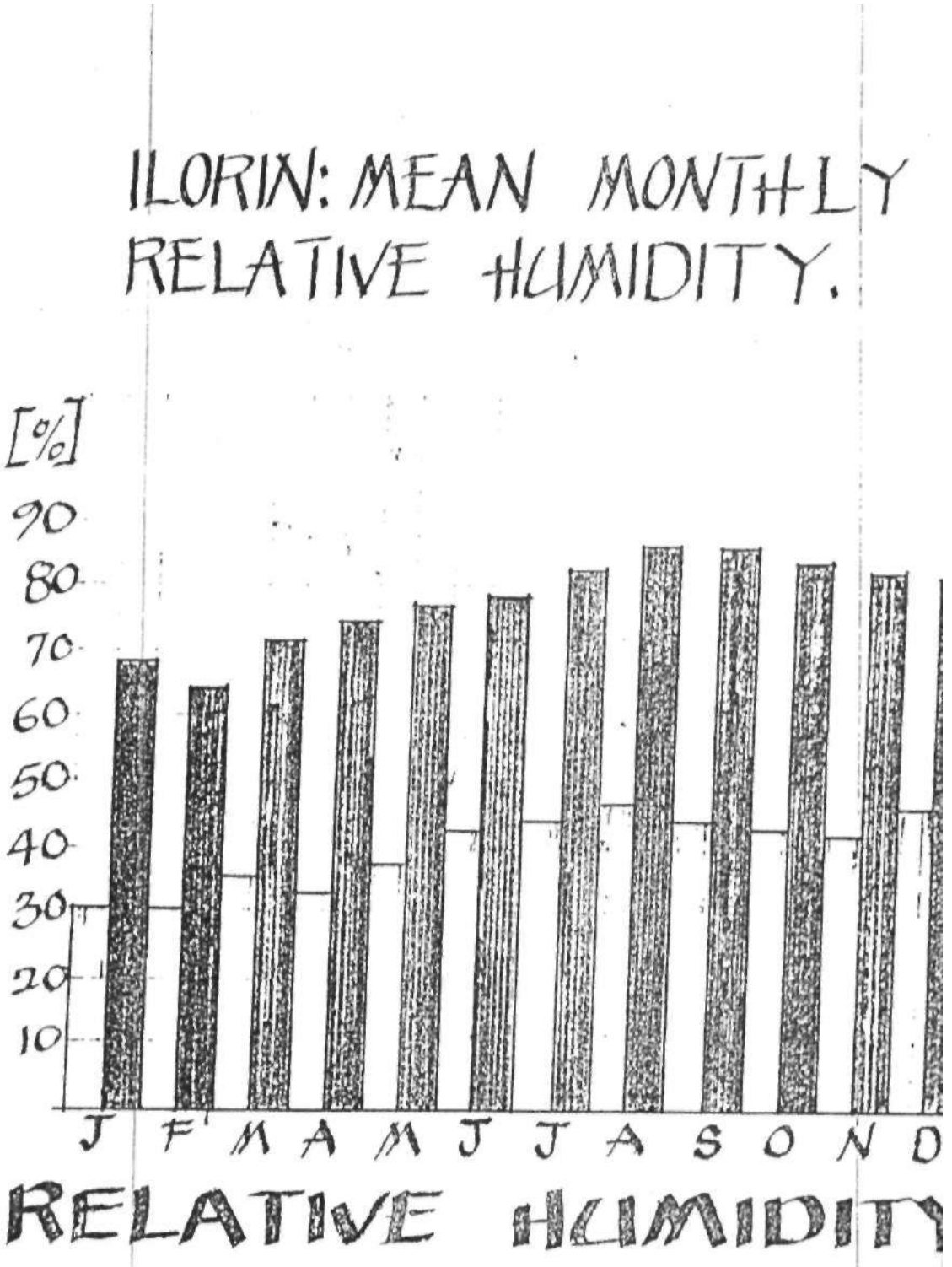

ILORIN: MEAN MONTHLY
RELATIVE HUMIDITY.
[%]
90
80
70
60
50
40
30
20
10
J F M A M J J A S O N D
RELATIVE HUMIDITY

Fig 4.6

reaches the ground while the remaining 60% is reflected back by the cloud surface absorbed by the atmosphere and scattered by the air molecules before penetrating into the buildings through openings. The reverse takes place at night when about 58% of heat absorbed by the earth surface during the day is released into the atmosphere thus creating a cooling effect of the immediate environs. This phenomenon should be studied properly and considered in the choice of building materials to create interior comfort and habitable environment see fig.4.5

The treatment of the building interior can enhance good indoor comfort through good material selections.

- Praving: This reflect about 40% of Solar radiation into the building, stores 30% on the grained, hence shall not be located very close to the building especially opening.

- Grass Lawn: Moderate heat absorption capacity and it reduces temperature and helps to stabilize the environmental conditions. It is a good practice if located close to the building particularly openings. Adequate use of shading devices should be considered in designs.

4.3. PHYSICAL DATA ANALYSIS

4.3.1 Geology And Soil

The type of soil that generally covers Ilorin township is made up of mainly laterite substrata of undifferential basement complex of metamorphic rock.

The town is located in the Southern part of Kwara State in an undulating plain. The major contour lines of 300 metres passes through the heart of the town in a semicirluar nature towards the ground rise from both the west and the east. An existing analytical survey of the town shows that the soil formed from the parent rock (metamorphic) is capable of withstanding heavy structures. Any special foundation may be considered.

4.3.2 Drainage System

The basin system of River Ogun and its numerous tributaries (main ones being Asa, moro and Aluko Rivers) drains the whole town. Out of these tributaries, the two most prominent ones; Asa and Aluko rivers runs through the town and clearly demarcates it into two blocks.

The purely indigenous residential/administrative area is demarcated from the new residential/Administrative and commercial/Industrial block of the town. These rivers Asa and Aluko drain the town adequately with only a small area being liable to perennial flooding.

4.3.3 Vegetation

The town lies between the rain forest to the south and Guinea Savannah to the North of the country. Hence it exhibits combined characteristics of the two vegetational zones.

4.4 THE SITE MICRODATA ANALYSIS

The site for the proposed international headquarters for Rhema Chapel International Churches was acquired in 1992 by the Ministry from the Tanke community who are traditional owners of the land. The area is among the places that are mapped out for religious and Administrative/commercial purpose.

The land Area spans 28,000 Square metres. It is located at Tanke area of Ilorin and particularly close to the NNPC pipeline where it meets University permanent site road.

4.4.1 Approach And Access

The site is demarcated by two major Roads in the metropolis. This are the ever busy University of Ilorin permanent site arterial road and the NNPC pipeline Road.

The interception of this major Roads which formed the boundaries to the site makes it highly conspicuous and suitable for the proposal.

Other possible Access points is from the Feeder road that originate from the University road.

4.4.2 Services Available On Site

The fact that the site falls within the built up residential and commercial area of the town, necessary facilities and services such as water mains and electricity lines are existing within the site premises. The water mains and electricity lines run parallel to one of the shorter sides of the site along the University of Ilorin road and the same exist along the longer side of the site by the NNPC pipeline road. NITEL line is also located at close proximity and thereby facilitate easy communication locally and internationally.

4.4.3 Visual Survey

At the moment, the entire site is a cultivated farmland with shrubs interspersed within it. Belawu Akanke ultramodern Restaurant and guest house form an impressive view towards the Western part of the site along the busy University of Ilorin Road. The North-Western and Northern end route were dominated by residential buildings and churches along the feeder road that originate from the University road.

The Eastern boundary is a developing residential area along the link road enroute the Tanke Village and NNPC pipeline road.

4.4.4. Suitability Of The Site

The site location is along the popular University of Ilorin, and is considered prime and strategic for the erection of the proposed Rhema Chapel international headquarters. By virtue of its good location which is accessible through the arterial and feed roads it is easy to be reached by the people from any part of the town and outside. Because of its proximity to University of Ilorin permanent site, visitors and tourists alike can conveniently locate it.

The site is considered suitable in terms of economy, because of proximity of service lines and telecommunication line to the site will go a long way in cutting down the installation costs of these essential services. The strategic location of the site will enhance easy accessibility from within and outside the residential and commercial areas of the town.

4.4.5 Soil And Geology

The soil and geology of the site is typical of Ilorin soil which is mainly laterite substrata with high load bearing capacity.

4.4.6 Topography

Purelr flat site with very gentle slope towards the Western end. Easy Drainage can be achieved by taking advantage of the slope.

4.4.7 Drainage System

The site generally drains towards the Western and due to the gentle slop that exist along that direction there is a well defined-crainage channel along the University road that drains Westward and this can be taken as advantage by causing the entire site to drain into this major drainage.

4.4.8 *Vegetation*

It is naturally that of combined characteristic of Rain forest and Guinea Savannah vegetation/zone. The site is covered by grasses with few trees and shrups found sparely located within it.

4.5 Thesis Position

The strategic location of the site shall be tapped by opening up the point of ingress/egress from the major University of Ilorin road. To evolve a scheme that satisfy the functional and

structural requirement of the client as well as reducing maintenance cost of the building, consideration are given to the following:

- All climatic factors affecting a building form and orientation
- It's construction
- Choice of building materials

Sun

- Solar radiation
- Natural lighting

Wing

- Air infiltration into building (potential heat loss or gain)
- The ventilation of interior spaces and outdoor courts
- The stress load on structure

Precipitation

- The roof form, its construction and the resultant stress load to the structure

Temperature

Air temperature and thermal comfort are affected by all the factors mentioned above (sun, wind and precipitation).

CHAPTER FIVE

CASE STUDIES

5.1 CONVENTARY CATHEDRAL ENGLAND

(i) Architect

Sir, Basil Spence

(ii) History

In 1940, conventary's old Gothic was bombed with incendiaries by the German Air force and burnt to the ground.

An international competition was held and spence won it. This marked the commencement and completion of the project between 1951 - 1962.

(iii) Philosophy Of Design

He preserved the old cathedral ruins by turning it into a garden of remembrance, placing his new cathedral at right angles to it.

(iv) Structures And Construction

The alter of the new church face the North instead of the usual East. the exterior of the cathedral is unadorned hollington stone. Between the entrance of the new cathedral and the ruins is a right of way down one side of the ruins leading to the city centre.

(v) Appraisal

The adornment of the cathedral is remarkable. The high alter is backed by the huge tapestry showing a figure of Christ the king seated in glory. When the tapestry is floodlit at night it makes an interesting view to passer-by along the right of way.

5.2 METROPOLITAN CATHEDRAL OF CHRIST THE KING LIVERPOOL

(i) Date Of Project

1960 - 1964

(ii) Architect

Sir, Fredrick Gibbered

(iii) Form And Function

The building is circular in plan with the high altar in the centre, fulfilling the Arch. Bishop's requirement that the congregation should be as close to the altar as possible for the celebration of high mass.

(iv) Structure And Construction

Above the altar rises the huge reinforced concrete ribbed lectern. Round the base of the lectern is a reinforced compression ring. From the ring, huge reinforced concrete struts descend to the ground in support of the lectern and ten-shaped roof.

5.3 BRAZILIA CATHEDRAL

(i) Architect

Oscar Niemeyer

(ii) Date Of Project

1960

(iii) Form And Function

The cathedral is a graceful structure curving outwards into points at the top like fingers of supplicating hands.

(iv) Construction

The structure is made up of reinforced concrete columns. Converging at the centre and in the air where they also radiate outwards to denote a praying hand. The roof material is glass and the floor finish made of marble.

(v) Appraisal

Symbolism and monumentality clearly expressed.

5.4 YABA PRESBYTERIAN CHURCH LAGOS

(i) Status

Existing

(ii) Site And Location

The site is located at the central part of Yaba Lagos and exists very close to the proposed metroline station.

(iii) Client

Yaba Presbyterian Church

(iv) Date Of Project

1969 - 1971

(v) Form And Functions

The concept of the building reflects hands that are lifted up to heaven in corporate worship. No segregation among worshippers but unity achieved by the circular building. The towering roof light of the building provides transparency which is an attribute of God.

The building was designed to accommodate about 2000 worshippers at peak capacity. At one storey administrative building was sited within the same site while the ground floor of the administrative building was made open to serve the children church.

(vi) Structures And Construction

The structure is mass of reinforced concrete with radiating columns given the impression of an uplifted hands worshipping God

It also has concrete louvres and aluminium roof. The roof light and windows are made of coloured glass and this gives aesthetic value to the entire structure.

(vii) Appraisal

Its high visual scope coupled with a strategic location makes an interesting view. It is a celebrated monumentality especially with the uplifted hands of praise. Circulation treated as a microcosm of city street and seat arrangement uniting.

(iii) Criticism

Problems of inadequate offices and other spatial requirements for effective administrative work. Inadequate toilets to serve the 2000 capacity crowd and few parking spaces.

5.5 SAINT DOMINIC CATHOLIC CHURCH YABA LAGOS

(i) Status

Existing

(ii) Site Location

Herbert Marcauley street, Yaba Lagos

(iii) Client

Saint Dominic Catholic Church

(iv) Date Of Project

(v) The Brief

The project was planned as an ecclesiastical centre. The necessity for the building came up when the old building could not accommodate the teaming crowd of worshippers who are members of the church.

(vi) Failure

There is a feasible evidence of an over-reinforcement due to the numbers of columns used.

Considerable distance separates the toilets from the main church building. Lack of integration between the administrative block and the main church.

(vii) Appraisal

Effective and proper use of the material noticeable around the perimeter walls and the interior finishes are articulate.

The altar is well adorned with soft landscape. On the overall, it is a study in structure and form and how they can be used to express function.

(i) ***Status***

Proposal

(ii) ***Site***

Jos, Nigeria

(iii) ***Architect***

Amos Oguntoye

(iv) ***Client***

Prevailing faith Ministries.

(v) ***Sponsors***

Supporters and partners of the prevailing faith Ministries Worldwide.

(vi) ***Birth***

Intended towards Evangelism basically by mass media. Godly inspiration under an atmosphere of Godliness and genuine love. Coordination of activities including missionary work with other churches. Enhancing of music as great tool for Evangelism.

(vii) ***Components And Functions***

1600 seater auditorium with total Audio-visual coverage to be installed with orchestral and traditional Nigerian instruments. Equipped Audio and video recording studio for production of radio, TV, and video programmes. Recording, waxing and cassette fabrication department. School of musical arts majoring in Christian Mass communications, musicology etc. Libraries (Books, films, slides ETC.). Prayer hall for 24 hours intercession for world revival.

Faith clinic and prayer lines.

Charlet for accommodating guests for all programme Telephone booths for Evangelism, counselling and prayer.

(viii) Construction

Materials are glass and reinforced concrete. Furthermore, there is a tent structure over the open theatre. An interesting mass of plastic and planner structures.

Good blend of solids and voids. Estimated cost of construction as at time of proposal was N0. 5 Billion.

(ix) Appraisal

A study in space and form organisation functional requirements follow generally the contemporary trends in free church design.

Fluidity of design expresses the necessary freedom of conscience required for enjoying worship.

(x) Criticism

Too many materials were used. By using a multiplicity of building materials. It produces clusters and busyness which makes visual peace impossible.

The architecture of the church should be at peace, reflecting the peace with God and man.

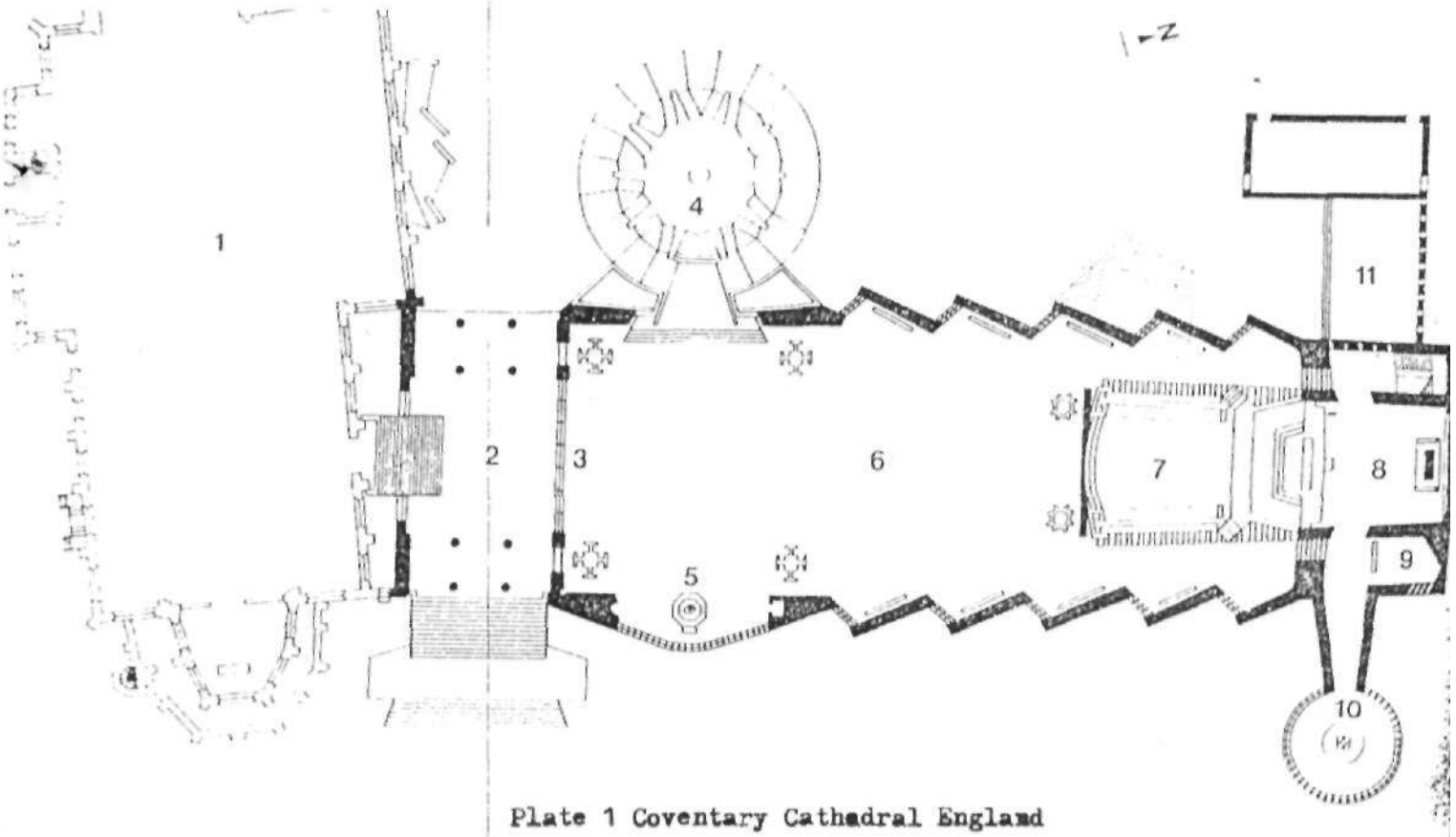
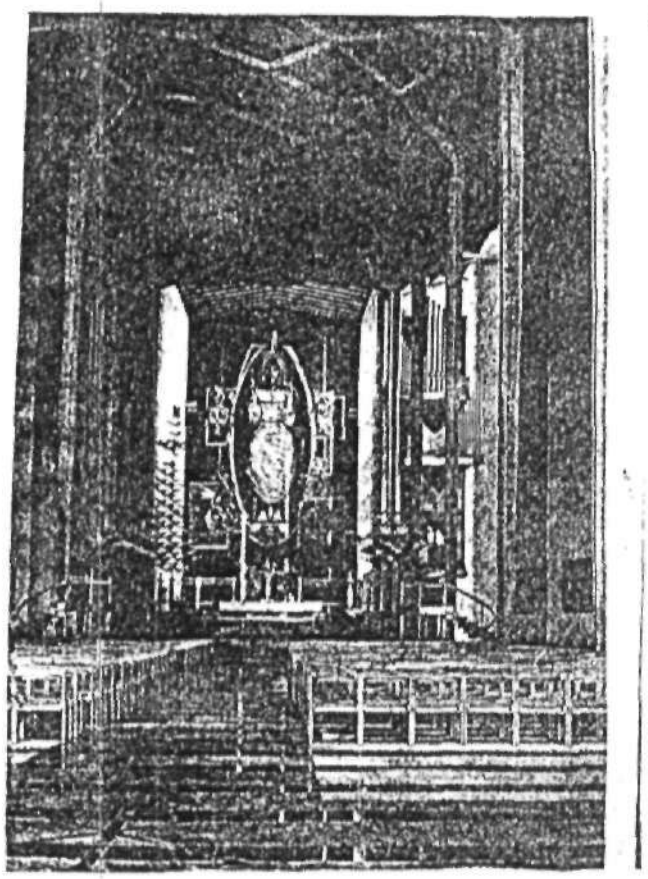


Plate 1 Coventary Cathedral England

(Plan) .



Interior View

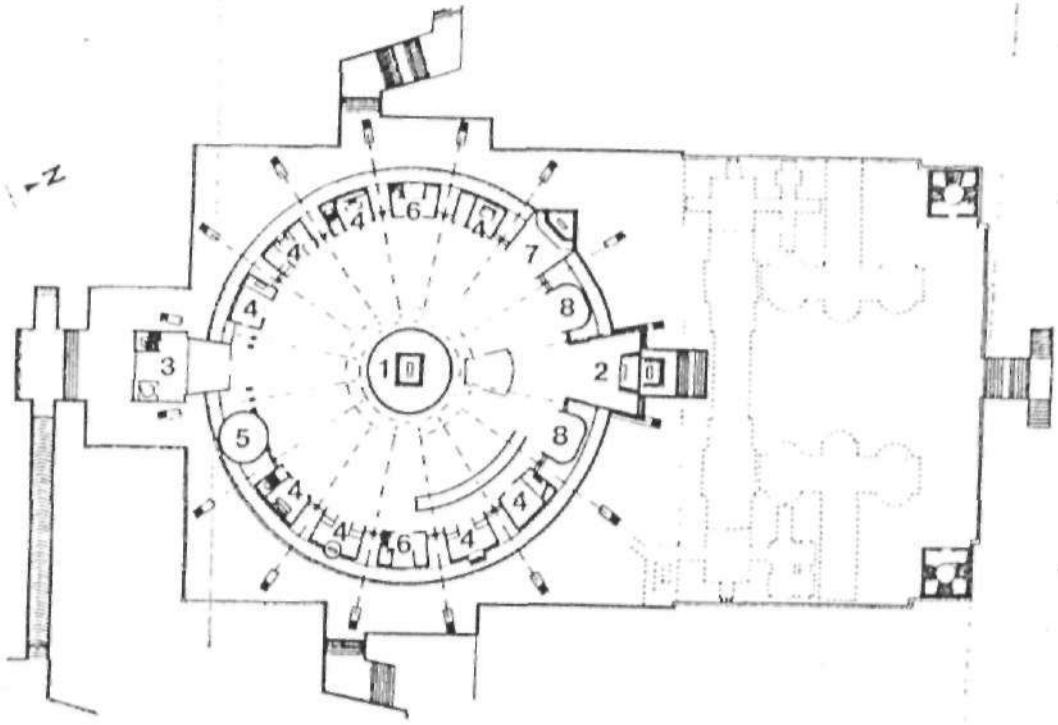
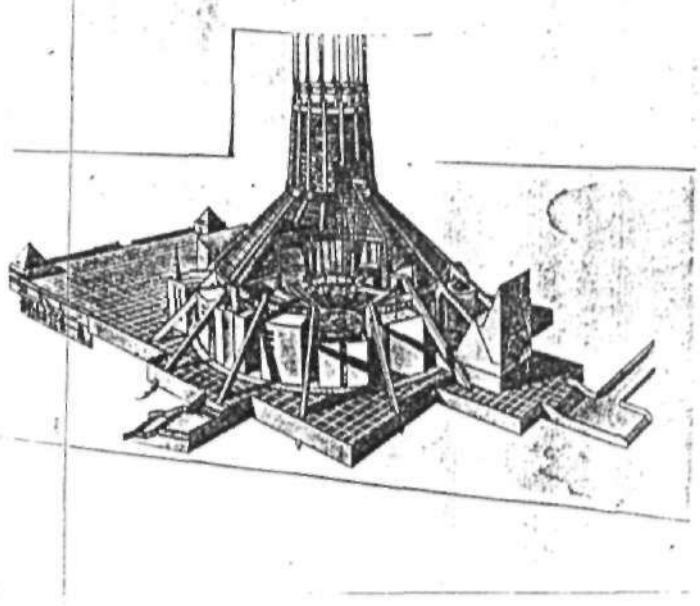
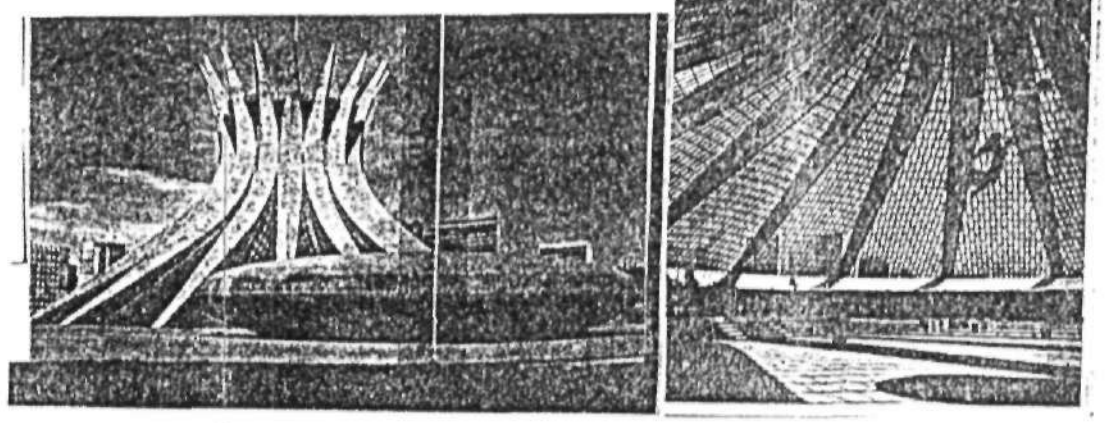


Plate 2 Metropolitan Cathedral of Christ the King Liverpool (plan)



Model

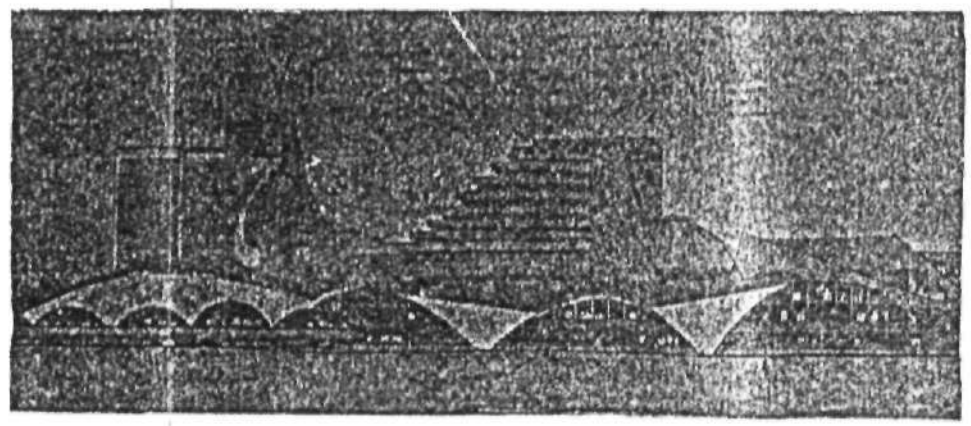
Plate 3. Brazilia Cathedral



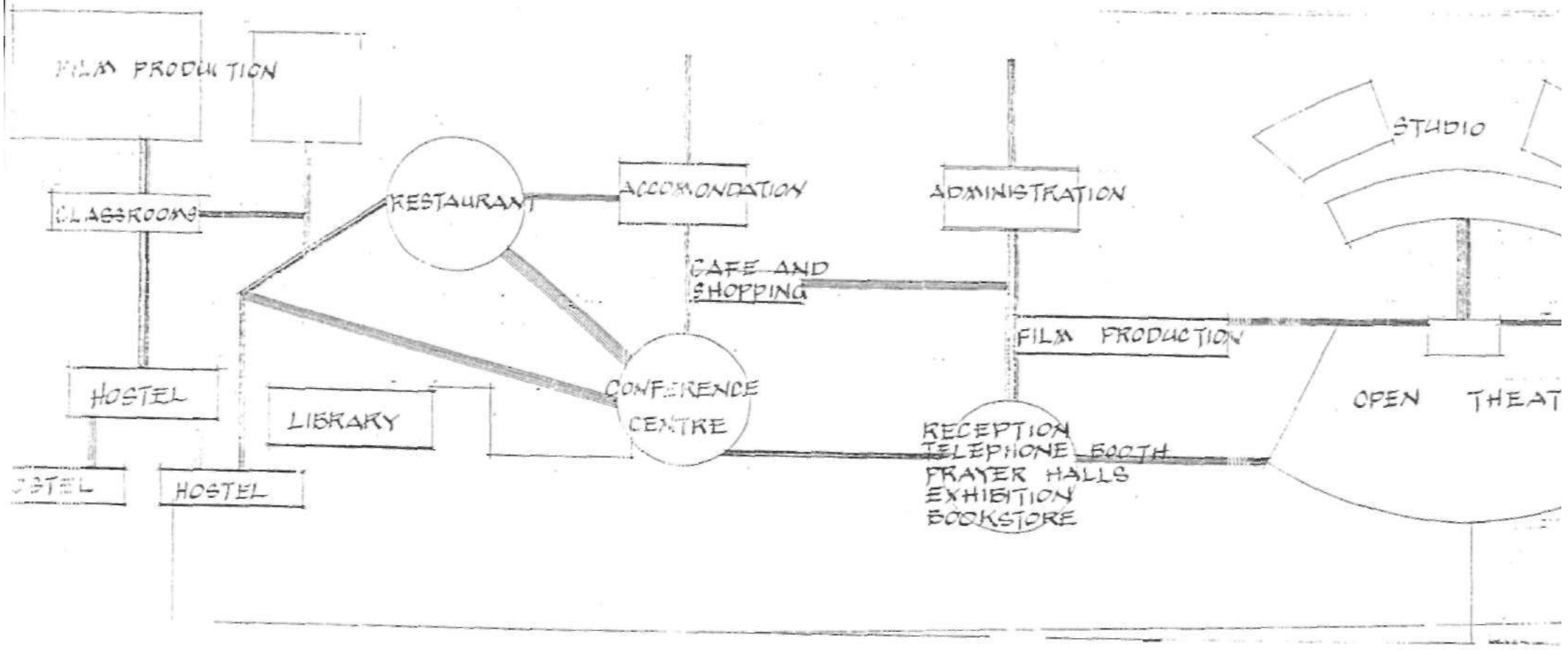
Exterior

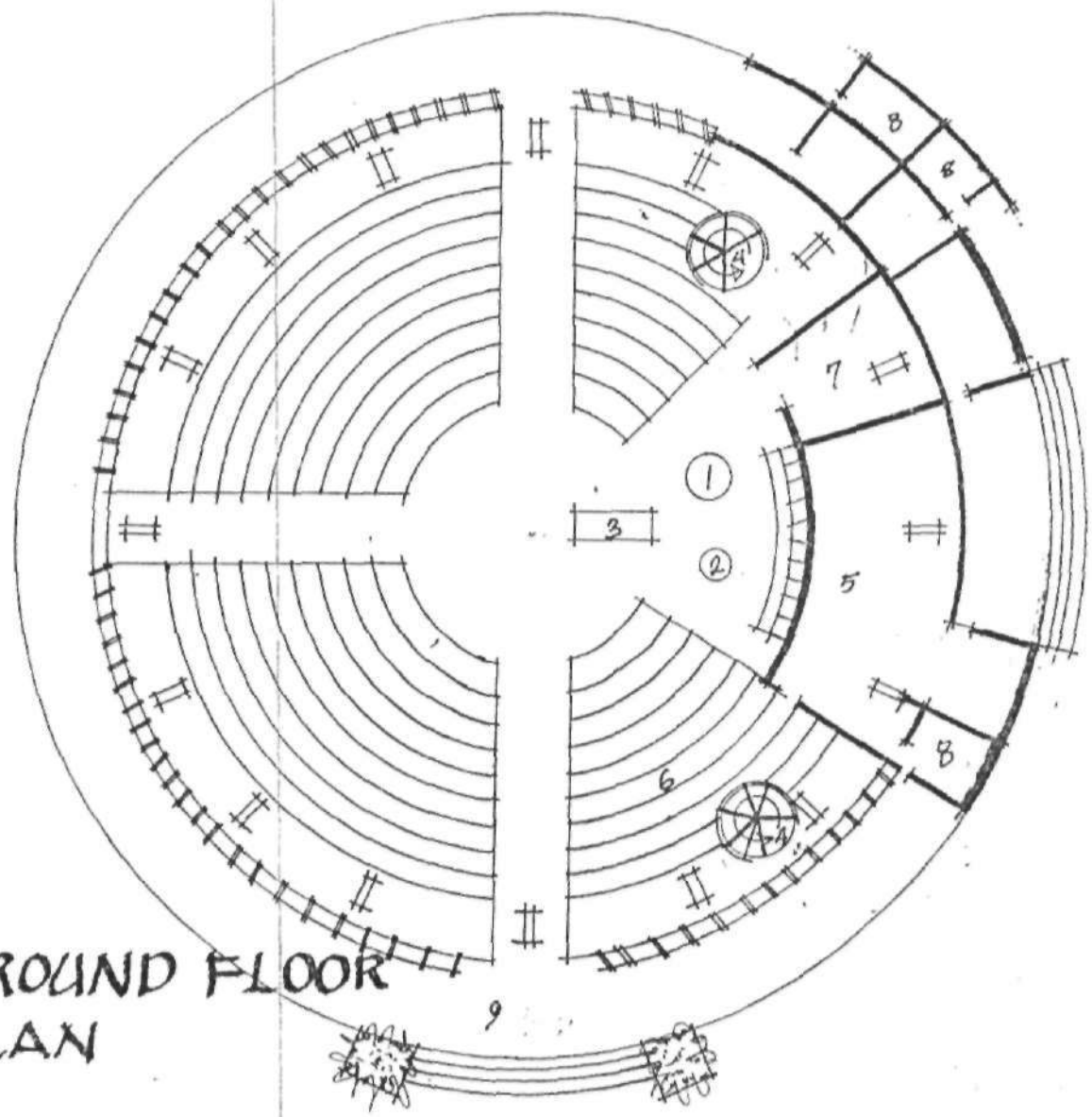
Interior

Plate 6. International Christian Festival Centre For Jos



International Christian Festival Centre for Jos Site Layout





GROUND FLOOR PLAN

Yaba presby terian Church
Lagos (Plan)

KEY	
1	PULPIT
2	LECTERN
3	COMMUNION TABLE
4	SPIRAL STAIR
5	CHANCERY
6	AUDITORIUM SEATING

Plate 4.a Yaba presbyterian Church

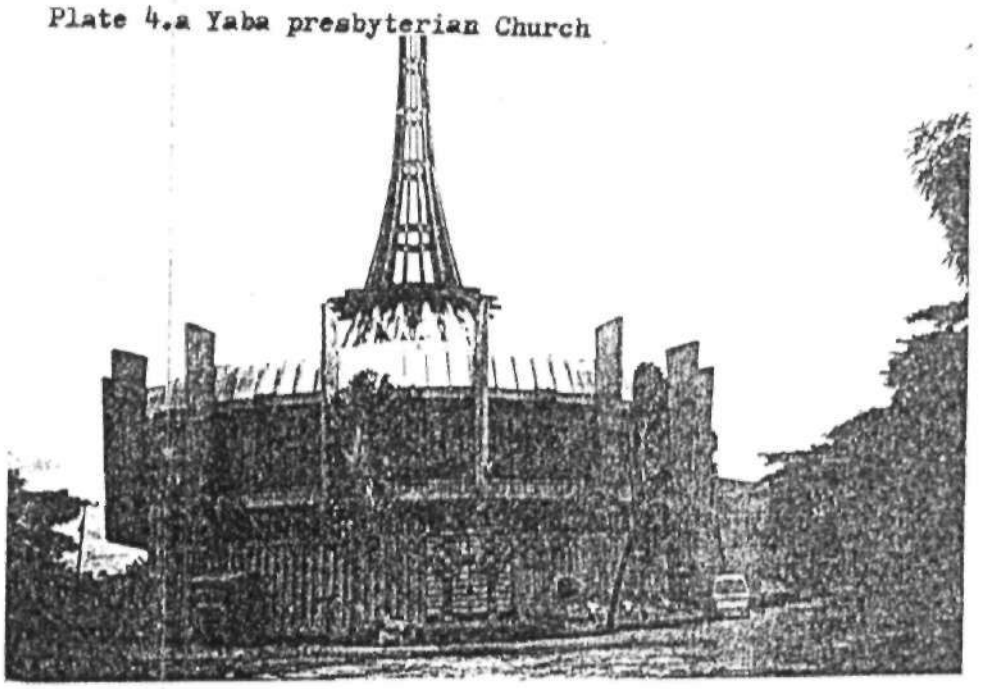


Plate 4.b

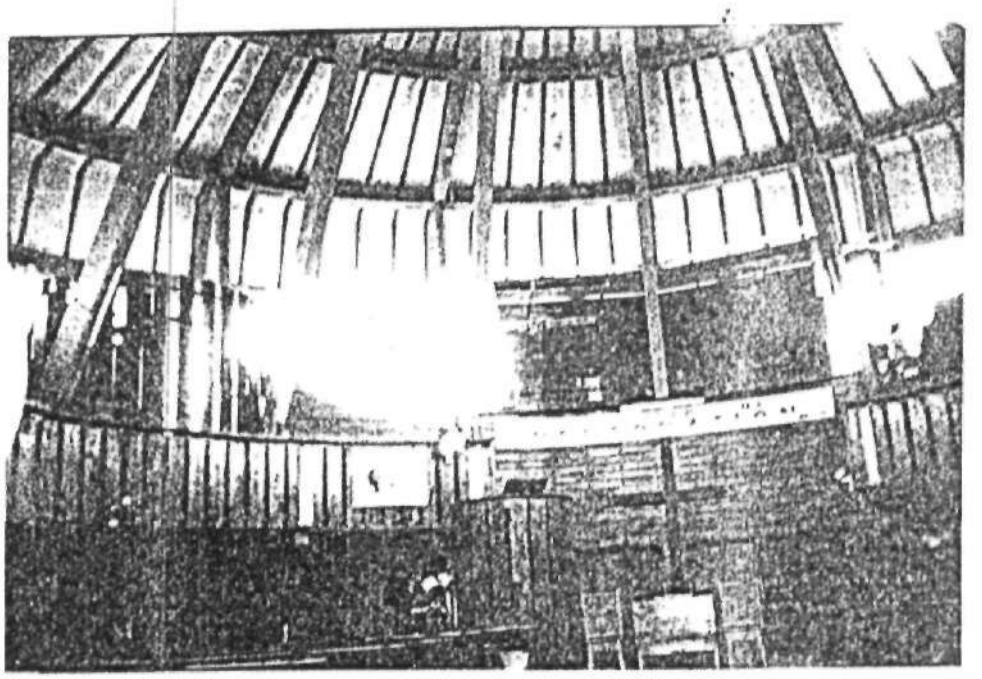
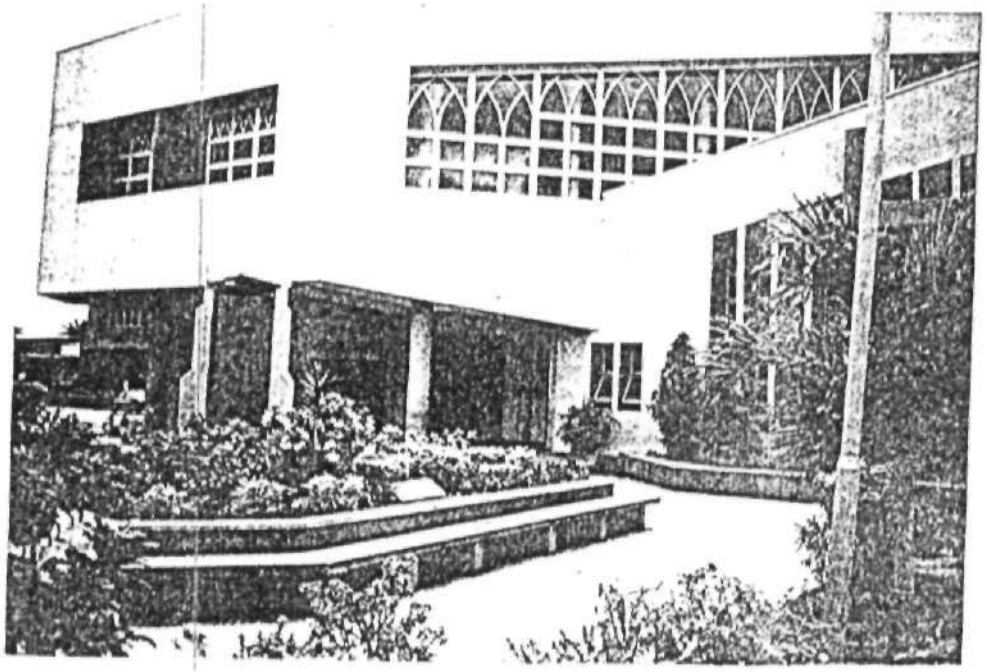


Plate 5.a Saint Dominic Catholic Church Yaba Lagos



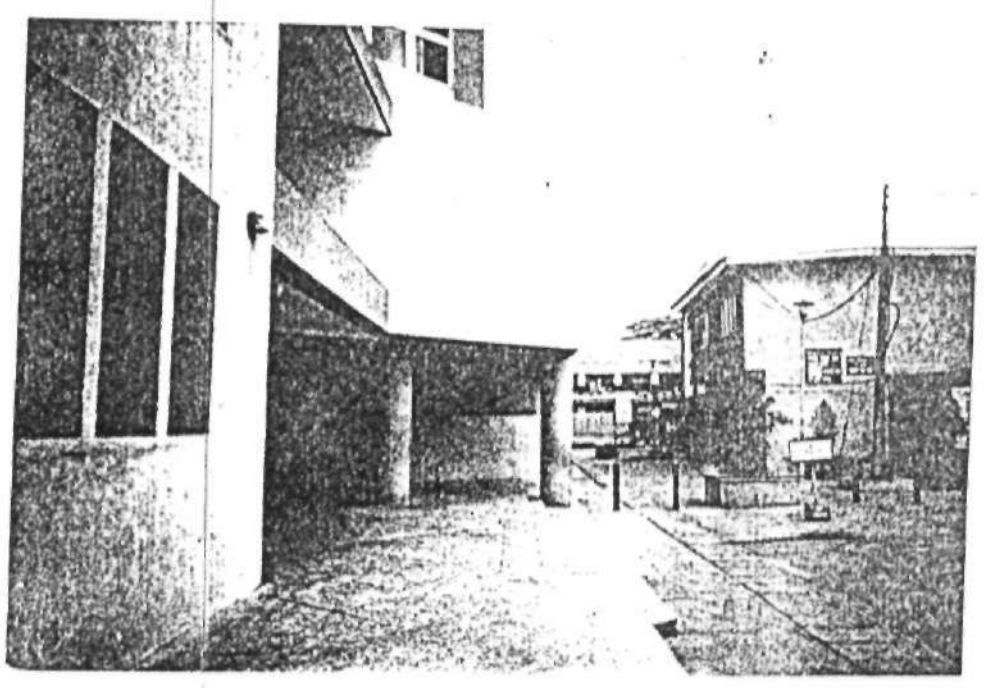


plate 5.b

CHAPTER SIX

BASIC DESIGN CONSIDERATION

6.1 THE BRIEF

The president of the ever increasing word ministries, also known as Rhema Chapel gave a brief on the 3rd of February 1997 concerning the international headquarters proposal.

He indicated that three major structural units are the immediate necessity of the headquarters and named them as a main Auditorium, Administrative complex and the Bible institute block. In his brief, he indicated that the main Auditorium should exhibit contemporary Architecture accommodating about 1500 worshippers. Other internal details were also specified.

The planning of the Administration block should separate local administration from international administration. The Bible training institute should contain classrooms, library, Audio-visual rooms and other facilities that will facilitate effective ministerial training. There should be conference halls to house smaller programmes like seminars, symposia etc. The headquarters complex must also contain space for a small restaurants, or accommodations and other social facilities. However, the Architect was given the right to use his professional inclination, discretion and freedom to perfect the raw idea given by the client concerning the project.

6.2 SITE CONSIDERATION

In siting the church headquarters complex, the following factors were considered.

1. Accessibility - The ease of access to the facility
2. Cost/quality of the site - Refers to capital costs of the site and its suitability for the purpose
3. Design implications of site - The site constraints or advantages which would affect design
4. Availability of service accesses
5. Microclimate - favourable
6. Availability of support facility

6.3 MAIN AUDITORIUM

6.3.1 Circulation

As a large population of people are regular worshippers in the auditorium, the major problem is that of circulation. The idea of circulation is two fol. viz.:

(a) Separation of vehicular from pedestrian traffic

(b) The case of finding one's way within the complex.

The idea of separating vehicular traffic from pedestrians goes a long way to help especially when large crowds are being dispersed especially after service as safety is a major factor. Zoning should be made to favour pedestrian and vehicular patterns woven around them as effects of fatigue will be less felt by cars.

It might also be necessary to separate staff parking lot from public parking lot. This would aid the smooth running of the complex. For effective running of the complex, car parks should be provided for about 15% of the guests.

Other major problem area as regards circulation is the area of dispersion of the incoming population. When Auditoriums are attached to offices or hotels, their circulation pattern are usually zoned differently. The major advantage of this is to avoid the crowd at the church Auditorium from congesting the office block. The comfort of the office users is also important. Large entrance lobbies are used to solve this problem firstly to accommodate and secondly to disperse the crowd.

6.3.2 Seating and Sight in Auditoria

Although there is a lot of debate on what the exact criteria for seated comfort in auditoria should be, it is generally accepted by modern scholars that the attention span of the seated adult is generally lengthen beyond that of a standing adult. This is as a result of the fact that physical discomfort or distractions due to muscular and nervous fatigue is minimised. This relaxed position makes the mind more receptive and sensitive to optical and aural stimuli. Fig 6.1.

Whether seating should be hierarchical is another subject in design of auditoria. Although this is not totally the case in church auditoria. This is not implying that hierarchy is completely erased in such auditoria but they are minimised and based on every criteria except the price of one's ticket.

Two major seating patterns are noticeable in church auditoria. The fully enveloping auditorium i.e. the central stage and the second group includes the rectangular and fan shaped auditorium. Fig 6.2.

The fan shaped auditorium fans up to a maximum of 140, the major interior being the horizontal sight line. A maximum eye rotation of 30° is possible while the normal limit is 15 degrees for comfort. A cone of vision developed from this would give a 60 degree maximum and a normal range of 30 degrees. A cone of 27 degrees is a attained when people on the same level

view the same object while one is sitting behind the other using standard auditorium seating requirements.

The vertical sight line is also very important in the design of auditoria. It is the angle of vision in the vertical plan over or under impediments. The impediments in case of auditoria, heads of spectators in the rows in front. Since the angle of vision will be too high if spectators were right behind each other, the horizontal sight line is taken advantage of. Immediate rows of spectators therefore do not sit right behind each other but between two heads. This way, at half the required spacing between two heads, the next spectator would see clearly. e.g. Wudale (1987) recognised the seven points which guide satisfactory vision in auditoria as follows:

i. The polychromatic vision (no eye movement) is approximately 40 degrees.

ii. The horizontal angle (six) to a flat projection sheet at which distortion on the screen becomes substantially intolerable is 60 degrees measured to the far side of the projected image.

iii. Curvature introduction into the screen may render the distortion less from the extreme seats on the opposite sides of the center line.

iv. Judge by audience ability to recognise shapes and confirmed by free audience choice of seats, the following is the desirable order of location.

a. Front center except if screen is close to front row

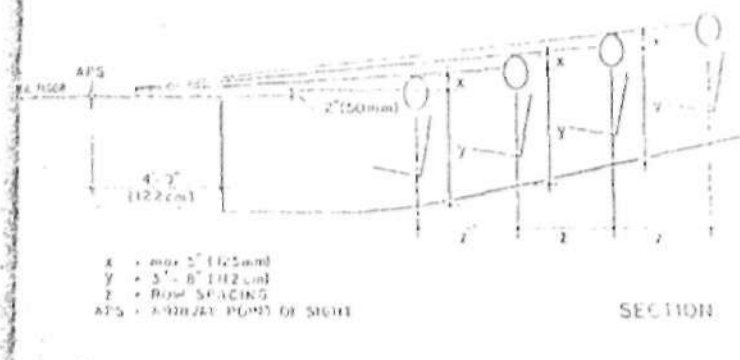
b. Middle center

c. Middle side

d. Front side

e. Rear center

f. Rear side



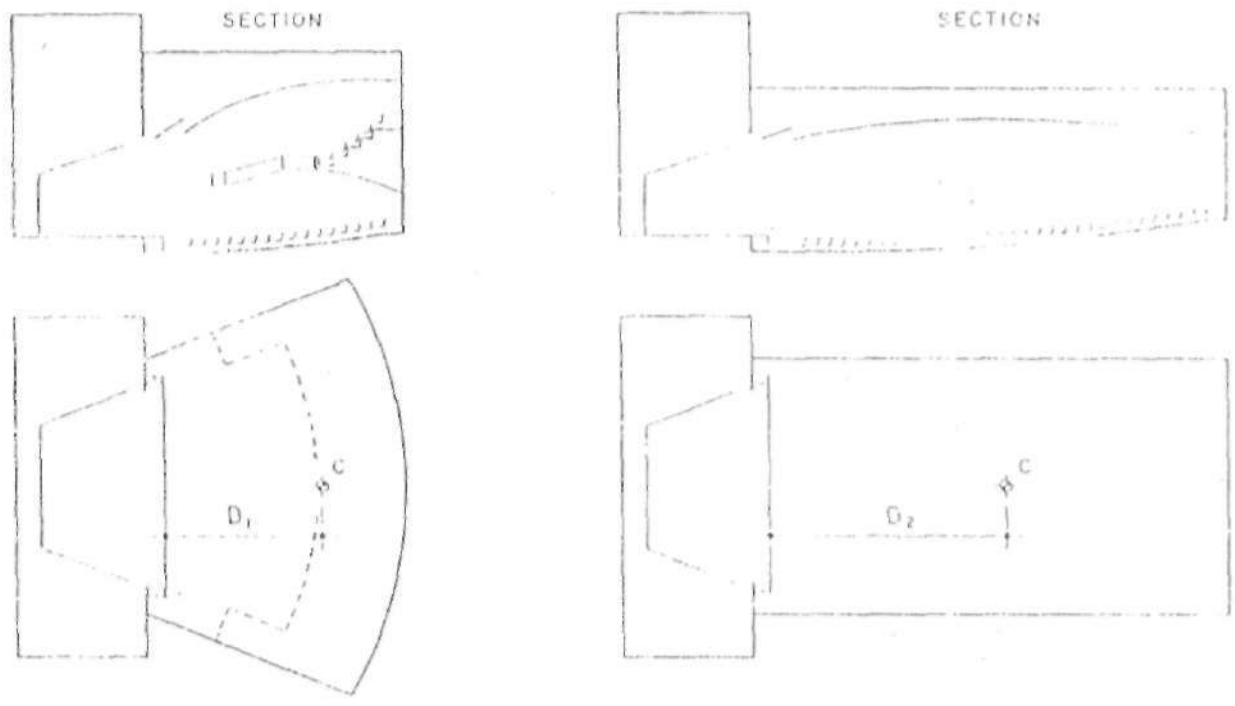
x = max 5" (125mm)
y = 3'-8" (112cm)
z = Row SPACING
AFS = AUDIBLE POINT OF SIGHT

SECTION

Method of establishing good sight lines based on one-eye vision.

Source: Doelle, L.L., Environmental Acoustics

Fig 6.1



FAN-SHAPED PLAN WITH BALCONY

RECTANGULAR PLAN WITHOUT BALCONY

In a fan-shaped auditorium with a balcony, the audience can be seated closer to the sound source than in a rectangular auditorium of the same capacity without a balcony. C, center of gravity of listening area. D_1, D_2, ... distances between sound source and listeners

Fig 6.2

Comparison of Plan Shapes; Fan Vs Rectangle.

Source: Doelle, L.L., Environmental Acoustics

v. Audience would not choose location beyond a line approximately 100 degrees to the proscenium

vi. The vertical angle beyond which ability to recognise standard shapes falls very rapidly is approximately 30 degrees

vii. The recommended maximum angle of motion picture projection to the horizontal is 12 degrees.

6.3.3 Hearing Lines

This is the path through which sound or radiated acoustic energy passes through from a performer to the hearing position of a spectator in an audience. The diagrams below show the two types of hearing lines; the direct and the reflected. The direct hearing line is said to be good when unimpeded by other members of audience or by the architecture of the auditorium. It is conceptualized as operating like a sight line but in the reversed direction. The reflected hearing line follows any path from performer to spectator by the aid of a reflect or is specifically designed to serve that purpose.

6.4 THE OFFICE BLOCK

6.4.1 Modern Officer Building

The modern office building is unique and has special characteristics that distinguishes it from other structures. The characteristic features of the modern officer which differentiate it from all other is the audience it alone stands to serve.

An office building should be built around the functions it houses. An office should be planned so that its space is broken down into separate units which still functions as a cohesive whole. It should be planned so that its space is flexible so that the size and grouping of these units

can be changed when the need arises to meet the varying uses. It must perhaps more than any other type of structure be planned as dynamic building. It is one adaptable to changes. The office building by a new concept must allow for extreme fluidity within its wall. and more often today.

6.4.2 Core

This refers to the space needed for support of buildings for example lifts, stairs, ducts, lavatories etc. Not usually more than 20% of total area.

i Lifts and elevators - Size and number depends on population of building, number of floors and required waiting time. They are grouped so that availability of free elevator can be easily spotted.

ii. Ducts - Vertical ducts are required for heating, telephone, electricity cables, drainage and water supply and air conditioning vertical air movement, drainage, electrical, water supply and tele-communications.

For services, careful planning is needed to ensure economy of the system. Points of entry of services are determined at an early stage. Type of distribution layout could either be horizontal, vertical, radial or perimeter. Access to ducts should be adequate to accommodate maintenance works. Walkways of up to 200 x 700 are usually allowed. Fire stops are used on floor levels or fire resistant construction and access panels. All pipe penetrations should be sealed air tight and access panels of adequate sound reduction should be used to prevent sound transmission.

Lavatories: Lavatories should be designed to accommodate changes in proportion of men to women.

Cleaners cupboards - should be provided on every floor of multi-storey office buildings.

Stairs - Usually for escape or fast movement between successive floors.

6.4.3 Escape Routes

In the event of fire incidence and panic situations, escape routes become very desirable for the evacuation of occupants to safety. In storey buildings, the major component of escape route consist of unobstructed circulation spaces and well positioned escape stairs. The requirement for means of escape are summarized as follows:

1. Maximum travel distances with escape possible in one direction only 12.2 metre except for the ground floor and first floor when it may be 30.5 metres.
2. Maximum distance between two adjacent exists from a storey - 61 metres.
3. Fire fighting start at least one fire fighting stair is required in buildings with floor over 18.3 metres above ground level which should
   - be continuous throughout building
   - have access at ground level direct to open air
   - have openable windows at each landing level
   - have permanent ventilation at the top of the enclosure of minimum 5% of enclosed area.
   - have protected and ventilated lobby at each floor.
4. Maximum travel with escape possible in alternative direction - 46 metres with no point more than 12.2 metres to nearest exist door.

6.4.4 The Functions of Offices

Office works primarily involves handling information and decision making based on these information. Although office work is highly sedentary, spaces for ancillary acidities an take up to 1/3 of space required.

6.4.5 Relationships

Relationships between parts of organisation should be expressed in plan so as to ease the burden of excess office work. Departments doing similar function should be arranged such as to enhance efficiency.

6.4.6 Terminologies used in Institutional Architecture

a. The efficiency of office building is usually measured in terms of ratio of usable office area to gross area of building.

i. ***Usable area (work place area):*** These are spaces in which it is possible for people to work at their desk. It includes secondary circulation.

ii. ***Primary Circulation:*** Circulation essential to provide access and means of escape to work place areas.

iii. ***Special Areas:*** Spaces dedicated to particular functions e.g. archives, restaurants etc.

iv. ***Gross outside are (G.O.A):*** The sum of all constituent office areas including core, structure and perimeter walls.

v. ***Net usable are:*** What remains when core, structure and perimeter walls are subtracted from gross outside area.

b. ***Services:*** Servicing could be perimeter, floor grid, false floor, false ceiling or through distribution for walls. Nature of services is discussed wider under "Core" above.

c. ***Scenery:*** The fitting of office spaces to meet organisational demands. For varying periods, usually 5-7 years.

d. ***Sets:*** Refers to immediate minute changes in scenery to meet organisation needs. Usually 3-4 months.

6.5 SPECIAL REQUIREMENTS

6.5.1 Acoustics

Acoustic problems can be avoided or minimised in buildings if considered during the design stage. To sound insulation, and room shape and quality.

Noise sources could either be internal i.e. when produced from outside the building road traffic, air craft and railways. The basic problem with these is that they are not easy to curb. At the design stage it is therefore necessary that a comprehensive analysis of site is undertaken to ascertain possible noise sources which can be buffered in design. Sound is transmitted in two basic ways: as impact borne or as air borne. Impact borne noise is transmitted through a material on impact and is affected inversely by the density of the material. Concrete, because of its dense nature is used to protect against impact noise while air borne noise is transmitted by air and through openings. Openings should therefore be tightly sealed.

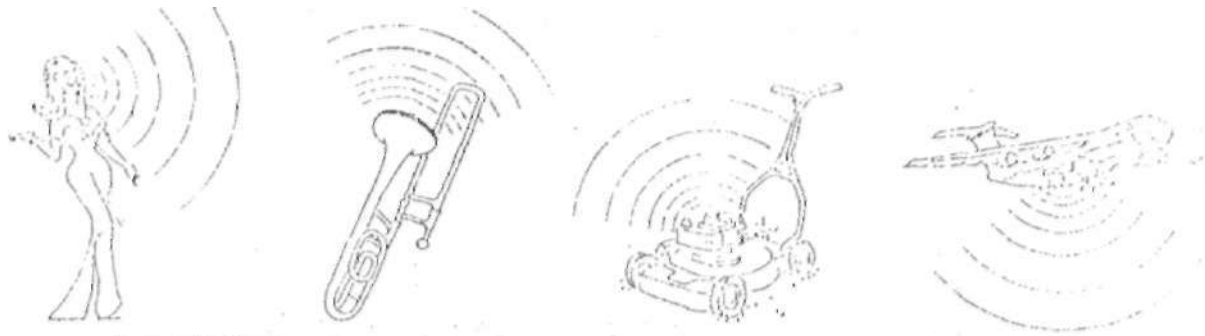
On floors, thick carpets (or rugs) are used to reduce or eliminate the noise generated from footsteps. Also where noise sources are considerable, false ceilings and false floors are used. Special considerations are given to walls in church auditoriums because sound quality is of utmost importance. Sound absorbent materials are either used on walls or thick walls are used.

Varying levels of required reverberation levels also dictate differences in room shape and quality. Longer reverberation is required in rooms for orchestral performances. This clashes with the requirements for "rooms for speech" where clarity is of most importance. The factors which therefore affect hearing are:

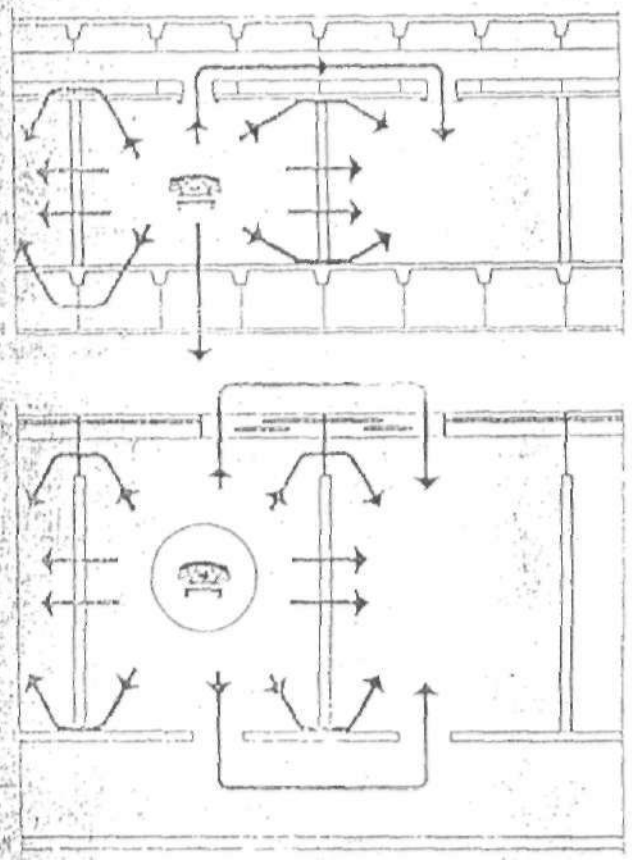
i. Quietness

ii. Loudness

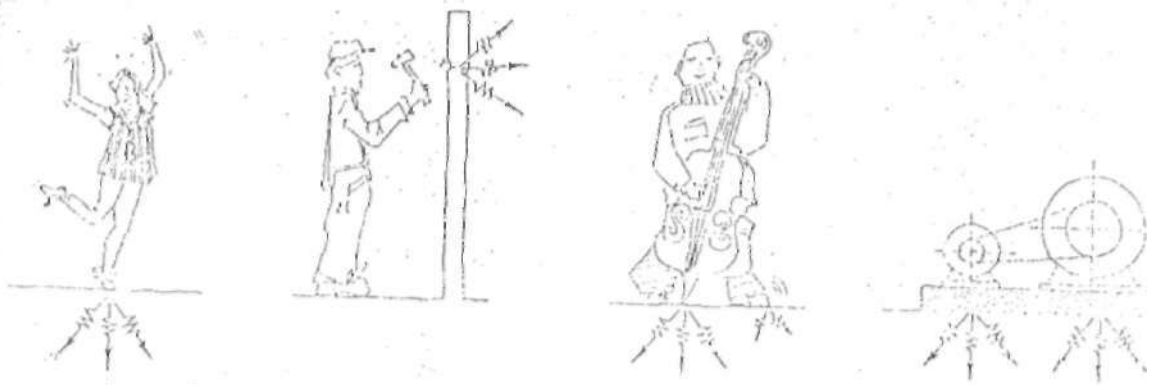
iii. Distribution of sound (whether uniform or not)



Sources of airborne sounds.



Transmission of airborne noises in a buildi



Sources of structure-borne (or impact) sounds.

Fig 6.3

source: Doelle, L.L., Environmental Acoustics

iv. The length of reverberation time.

Criteria For Good Acoustic Environment

A satisfactory acoustic environment is one in which the character and magnitude of all sounds are compatible with the satisfactory use of the space for the intended purposes.

Although saying how much noise is required in qualitative terms might be difficult, what kind of noise or what pitch continuos or not that is expected must b specified. The human ear appreciates sound from about a lower limit of 6 dB to upper limit where he feels pain (120 dB) sounds up to 140 dB are said to be deadly. For worship purpose sounds of more than 20 dB are usually not allowed except as intrusions and may be 1 or 2 decibels higher while the normal sound levels are left at about 10 - 15 dB. The decibel (dB) is the SJ unit for sound intensity and is defined as a measure of comparing noises, being a logarithm of the ratio of one to the other.

Criteria For Reverberation

Reverberation is the persistence of sound after the source has stopped caused by repeated reflections of the sound wave. The time required differs from function to function but is given by 0.5 x V/A where V = Volume of the room and the total room absorption is given by A.

Sound Absorption

Sound absorption is necessary for the following purpose

i. Noise reduction (reduction in noise level)

ii. To shorten reverberation

iii. Echo control

The mechanism of sound has to do with the conversion of sound energy in the body of the absorber into heat energy. Different kinds of absorbers exist. They are classified as good or poor

depending on how much sound they can absorb usually referred to as their absorption coefficient.

The requirements for large rooms are:

i. Strong direct sound from source.

ii. Source (direct sound) should not be obstructed.

iii. Early reflections should be ensured to help distribution of sound.

iv. No listener should fall out of the 140^0 fan in plan

v. Seat absorption values when unoccupied should be about the same when occupied.

vi. Every member/seat should provide an absorption equivalent to handling $2.83m^3$ of space.

vii. Determination of absorbent values and treatment by formula

$RT = 0.16\ V/A$ (RT = Reverberation Time, A = Absorption coefficient, V = Volume).

The limits for worship auditorium is usually 1.0 secs for speech and 1.6 secs for concerts.

A design for good hearing therefore must include:

i. Quit background

ii. Sufficient loudness

iii. Proper distribution

iv. Adequate blending and sound separation.

Proper distribution is achieved by the means of reflectors placing audience on a steep angle or by raising sounds sources.

Sound reinforcement system like microphones and loud speakers to aid sound transmission for long distances. They can also be used to aid recordings. Lesli Doell in Environmental Acoustics identifies reasons for this.

Firstly, the directionality of human voice of a horizontal plane and secondly the inverse square law of sound transmission which states that in a free field the intensity of sound at any point

is inversely proportional to the square of the distances from the source to that point. In other words, for a distance of D and an intensity of I. If the distance D is tripled, the intensity is decreased by a factor of $3^2 = 3 \times 3 = 9$.

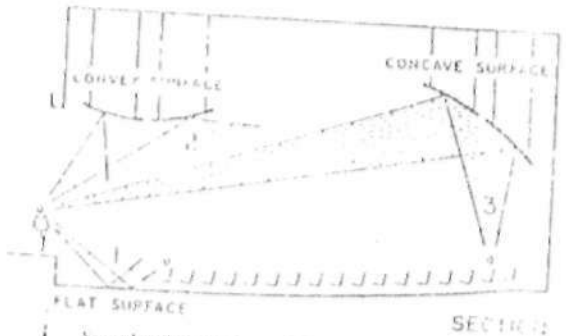
The loud speaker system could either be central or distributed loudspeaker systems. Although it is preferable to use a central loudspeaker system, it requires deep interior space and is not convenient for large halls where maximum flexibility is required to amplify sound source in any part of the hall and where amplified sound has to over-ride high background noise and it would require very high acoustic energy at the stage. Sound amplification system are required when the listener to speaker distance is 18 metres and above.

Plan shapes can also affect acoustic quality. A rectangular room has a high degree of uniformity and balances early and late sound. Its susceptibility to flutter echoes (rapid succession of reflected waves from a single source) makes it best for opera halls in the case of large occupation.

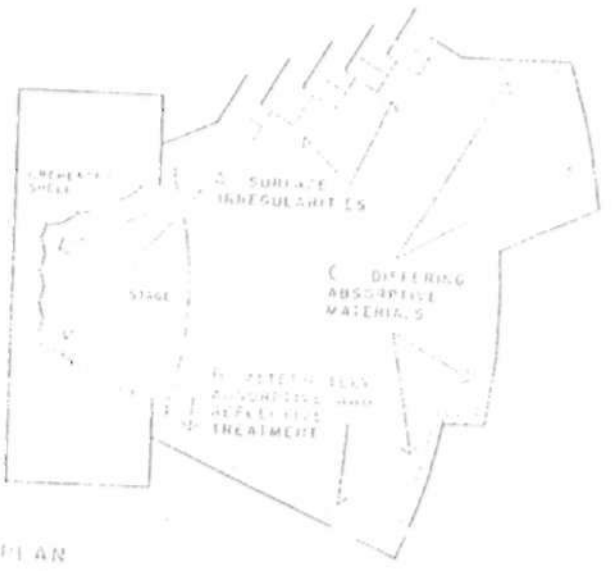
The horse shoe shape is good for opera and minimises the speaker, audience and distance. The concave surface can focus the sound which could be a disadvantage. The fan shape has a limitation in not being able to afford early reflections but is good economically allowing multipurpose use for the auditorium.

The circular shape has two basic short comings, the complete absence of lateral reflections and the difficulty in the use of scenery.

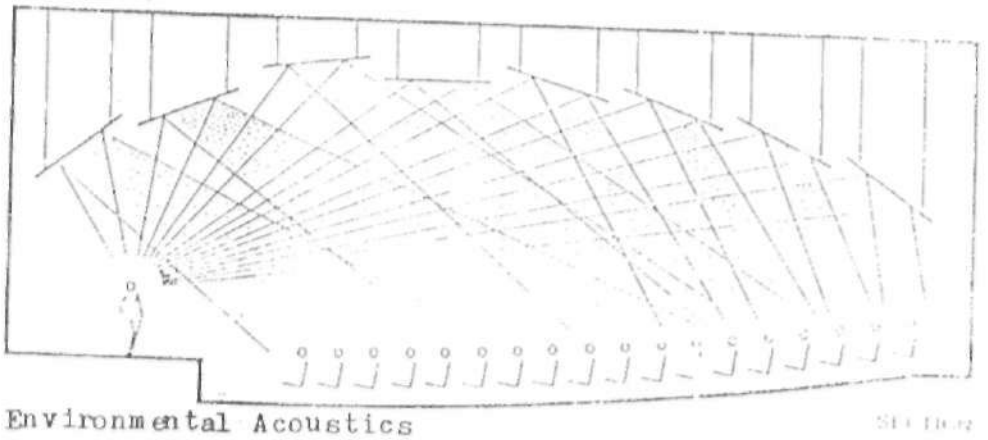
The design of halls is such as to enhance speech and allow for sighting. Aids such as suspended ceilings and acoustic absorbs are used to facilitate these. Whereas the fan shape is one of the best for speech, unnecessary long spans are the result and although raked seating and suspended ceilings make a very good combination other design parameters might over ride them.



Sound reflection from differently shaped surfaces: (1) uniform reflection; (2) sound dispersion; (3) sound concentration



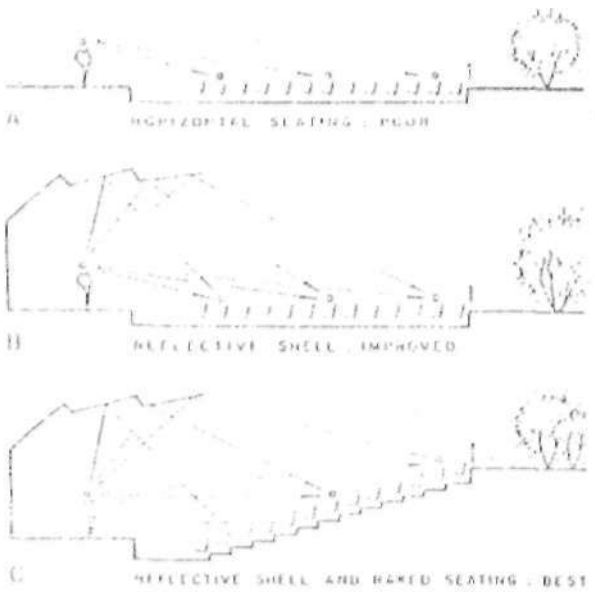
Sound diffusion (dispersion), in the uniform distributions of sound energy in auditoriums, can be achieved by the use of (A) surface irregularities, (B) alternately applied sound-absorptive and sound-reflective treatment, or (C) acoustical treatments of differing sound-absorption

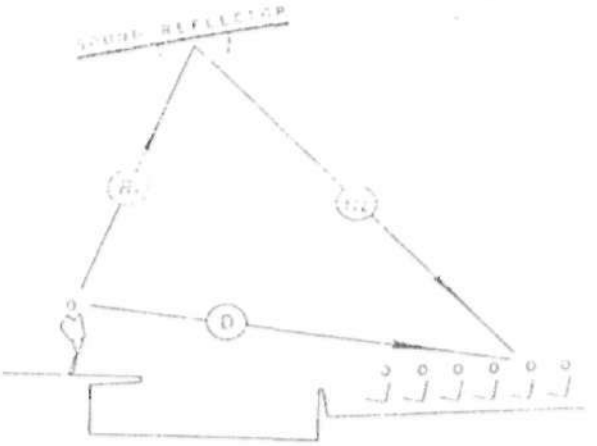


Frequently, unwanted ceiling reflections progressively increasing sound [illegible]

Source: Doelle, L.L., Environmental Acoustics

Fig 6.4



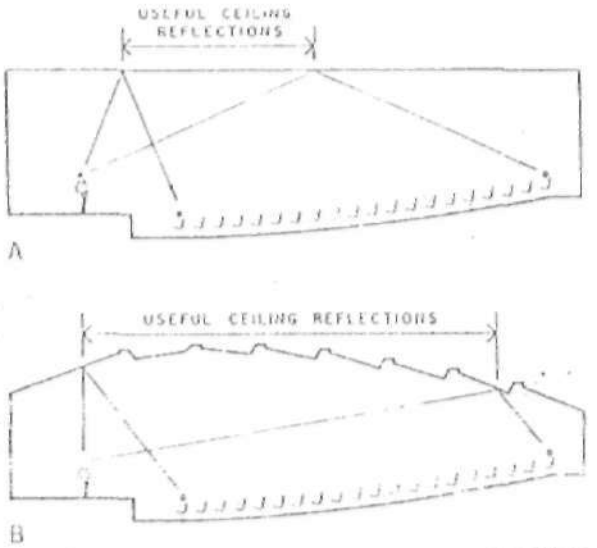


TIME DELAY IN MILLISECONDS :

$\frac{R_1+R_2-D}{113}$ IF DIMENSIONS IN FEET

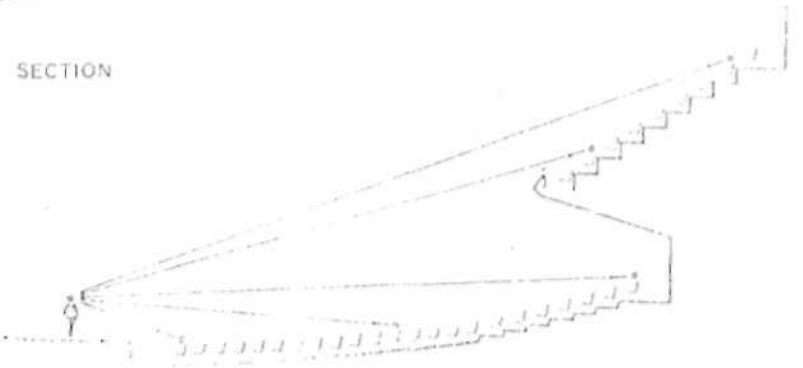
$\left|\frac{R_1+R_2-D}{034}\right|$ IF DIMENSIONS IN METERS

Reflected sound beneficially reinforces the direct sound if the time delay between the two is relatively short, that is, a maximum of 30 msec.



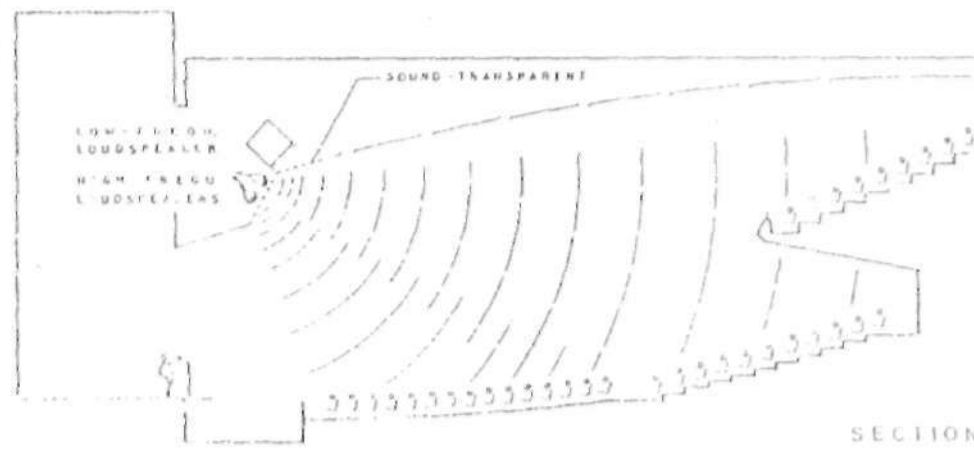
SECTION

A horizontal ceiling (section A) provides only a limited amount of the desirable short-delayed reflections. Properly tilted ceiling surfaces (section B) contribute more to the provision of useful sound reflections, that is, adequate loudness.

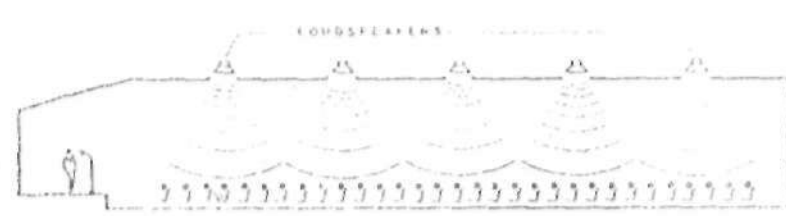


SECTION When listeners are exposed to ample direct sound waves, loudness benefits

Action of sound Reflectors and Raked Ceilings. Fig 6.5
Source: Doelle, L.L., Environmental Acoustics.



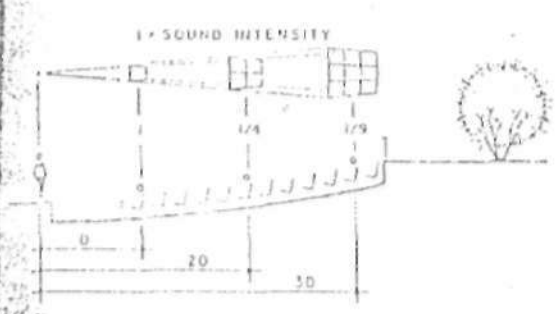
Central, or lo
oudspeaker system



Distributed loudspeaker system

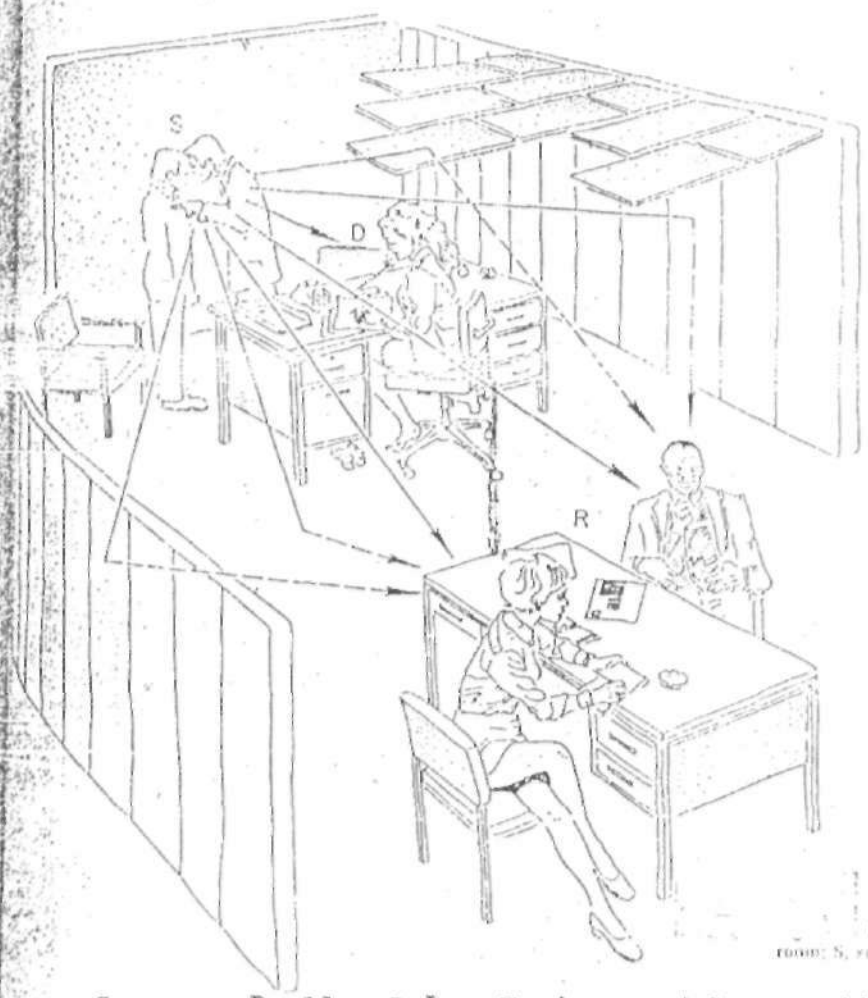
Comparison of the Central loudspeaker system with the Distributed Loudspeakers.

Source: Doelle, L.L., Environmental Acoustics. Fig 6.6



Inverse-square law. In a free field the intensity of sound at any point is inversely proportional to the square of the distance from the source to that point. For instance, when distance D is tripled, the intensity of sound will be decreased by a factor of 9; it will be 1/9.

Source: Doelle, L.L.: Environmental Acoustics



Direct (D) and reverberant (R) sound fields in a room; S, sound source.

Source: Doelle, L.L., Environmental Acoustics Fig 6.7

In summary, one needs to achieve a hybrid and reach comfort requirements. The following are nevertheless to be taken into consideration as it might be difficult to achieve a raked floor in multipurpose auditoria design.[1]

1. The bending end should be elevated as high as sight lines will allow.
2. A large amount of reflective surface (panels) should be placed near the sound source and if necessary suspended from ceilings to provide short delayed, reflected energy. These reflective surfaces should be oriented to secure even distribution of sound throughout entire auditorium.
3. The stage floor should protrude into audience area as much as possible.
4. An attempt should be made to accommodate a raked or raised portion of the audience floor, at least at sides or at the rear of the main audience area.
5. Optimum reverberation time should be secured for half of capacity to accommodate fluctuation in attendance.
6. When auditorium has a flat floor, the loud speaker used should be placed higher than in an auditorium with a raked floor.

6.5.2. Lighting

Lighting is required for the following purposes:

i. To ease performance (helping to perceive details)

ii. For comfort

iii. Safety (areas of danger should be properly lit)

iv. aesthetic purposes

Light of considerably high intensity will affect performance as will light of frequency much lower than what is required. Therefore, activities categorize lighting types.

The following can be identified

- General uniform intensity lighting
- Stage lighting
- aisle lighting
- sign lighting
- lighting for close activities

All of those are required in a Church auditorium. Care therefore has to be taken in the design of such lighting. Control rooms are used so that a stage light controller can effectively monitor light effects and effect changed when necessary. The best position for this room is usually behind the audience and directly facing the stage. Illumination values for different functions are give below.

Table 6.1

SPACES	ILLUMINATION LEVEL (LIM)
Offices	400
Conference Suites	600
Exhibition halls, Objects	200
Auditorium	700
Lounges	100
Dining room	100

Table showing illumination levels for different spaces.

Aesthetic lighting (decorative lighting) is used to reveal or enliven values of spaces, shapes or forms. Although decorative lighting could be used for practical purposes, the most important aspect of it is aesthetic. It is defined in terms of intensity and colour composition.

Natural lighting is not a problem in the tropics. Shading should be such as to prevent glare.

6.5.3 Ventilation

The purpose of ventilation is to prescribe conditions and cleanliness of the air in a given environment. It also involves temperature, air velocity and concentration.

A general equation for ventilation goes thus:

Natural Environmental Condition	+	Comfort Conditions	=	Environmental Control task

Environmental control task could be divided into active and passive control. The need for ventilation is for thermal comfort and for hygiene.

Thermal comfort involves physiology (tolerable maximum body temperature 37°C with ± 2°C), evaporative cooling, and reducing of air temperature while hygiene involves the removal of smoke, gas concentration (industries especially) and reduction of humidity.

a. **Passive Ventilation:** The instrument of passive control include orientation, windows, materials, construction, planning, building spacing and colour finish. The Givolis angle of tilt is also taken into consideration. The Givolis angle of tilt is the best angle at which a compromise between sun shading and ventilation (natural means) can be reached.

b. **Active Ventilation:** Involves the use of air conditioners, fans, dehumidifiers etc. these help to remove exhaust gases quickly. There are three basic types of air conditioners:

i. The Central Station system

ii. The Unitary System

ii. Combination system

Central station system does the air conditioning in a machine room and is conducted to the main building by means of ducts. They could also be Roof Top Units. It has an advantage over other types in auditorium and conference halls.

Unitary System Unit could be divided into different groups:

1. ***Single Package Units:*** Could be a vertical free standing window unit on a residential unit. It contains the refrigeration unit, air handling equipment and controls in one unit.
2. ***Split Units:*** The condensing unit is separated from the air handling unit and connected by tubing. Has capacities up to 100 - 120 times.
3. ***Roof top Units:*** The condensing unit is on the roof and it is connected down to the interior spaces by ducting. Prominently used in banks, departmental stores libraries, restaurants etc.
4. ***Unitary System for multi-room buildings:*** In multi-room buildings except for aesthetic and structural reasons, unitary systems are used, the best location being on the outside world and under a window. The feature of such system is individual room temperature.

Combination Systems are those which are hybrid of central units and unitary units.

In summary, air conditioning systems are engineered to provide environmental conditions for building occupants by controlling indoor thermal comfort factors in response to out door conditions.

Distribution could either be radial, perimeter or lateral. Ducts conveying air must also be insulated thermally to reduce loses during transmission. Locations of units should be such as to reduce the lengths of run of the ducts.

6.5.4 Fire Prevention

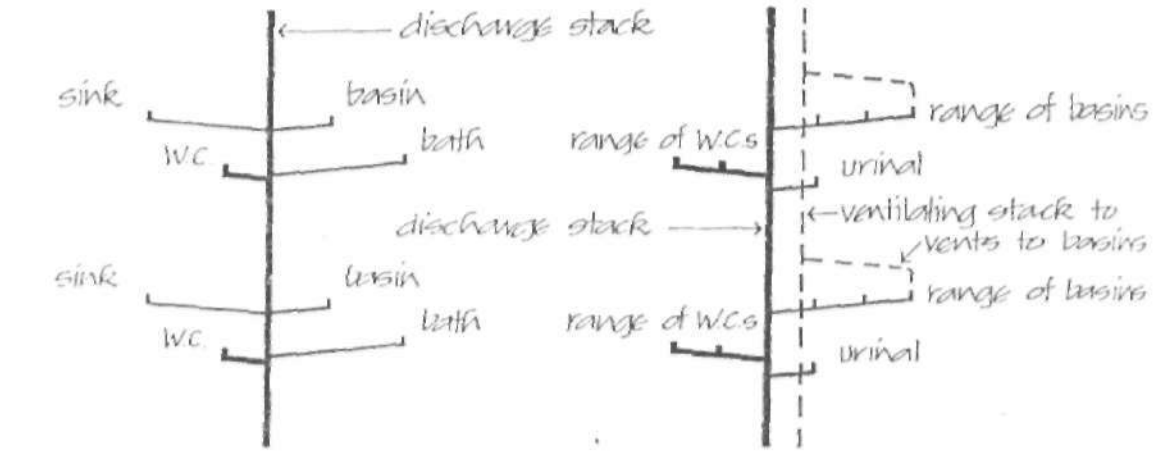
Fire fighting involves the right planning techniques and availability of equipment. While the architect is faced with the problem of zoning away possible fire sources e.g. kitchens, accidental fire causes and "Acts of God" (providential origin) cannot be adequately provided for. The safety of the structure of a building in case of minute or major fire incidence could be enhanced. Fire proof (spray) materials are used as an undercoat in plastering.

Fire detection equipments and fire fighting equipments should be installed especially near possible fire points. Five check doors can be used to prevent the spread of fires and aid escape of people. Information could be sent on installed loudspeakers to direct the occupants out of the building. In site planning, fire prevention should be taken into consideration for example wide streets and fire hydrant pumps should be provided.

6.5.5 Water Supply and Drainage

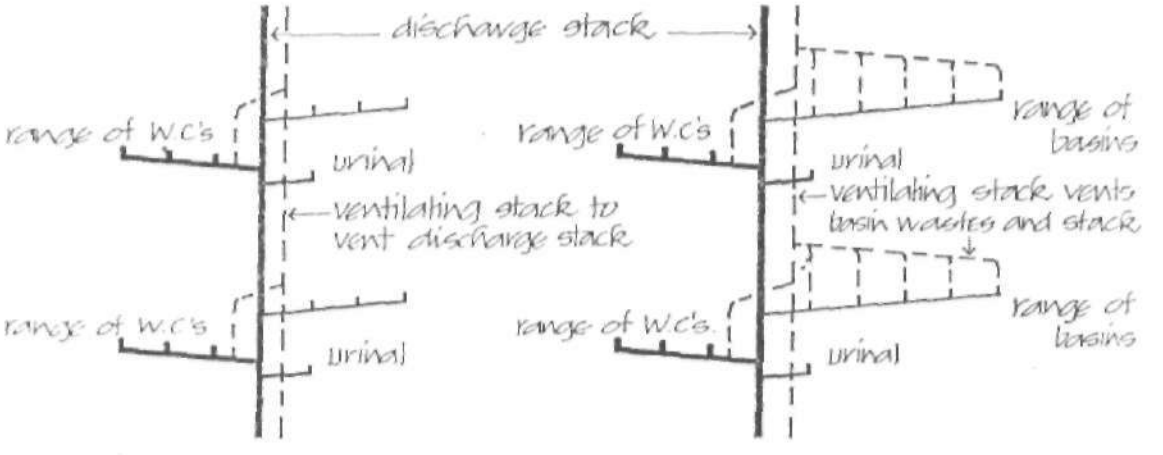
Water supply to multi-storey building takes the sequence below main water is supplied from a reservoir or pumped water head under pressure. When pressure is not enough to reach the top of the building or on service floors in very high building successive service floors to serve installations and storage cisterns. The cisterns serve as reservoirs to allow for time when water pressure is sufficient. A delayed action ball value is used in the cisterns to limit number of pump operations.

Foul water drainage follows pattern of rising mains. The sewage pipes are connected to a discharge stack which runs down to an inspection man hole on the ground and is ultimately connected to a soakaway pit. There are three basic types of discharge **stack** . The single stack system, the modified single stack system and the ventilated system surface water drainage should be patterned to follow site slope. See fig 6.8.



Single stack system

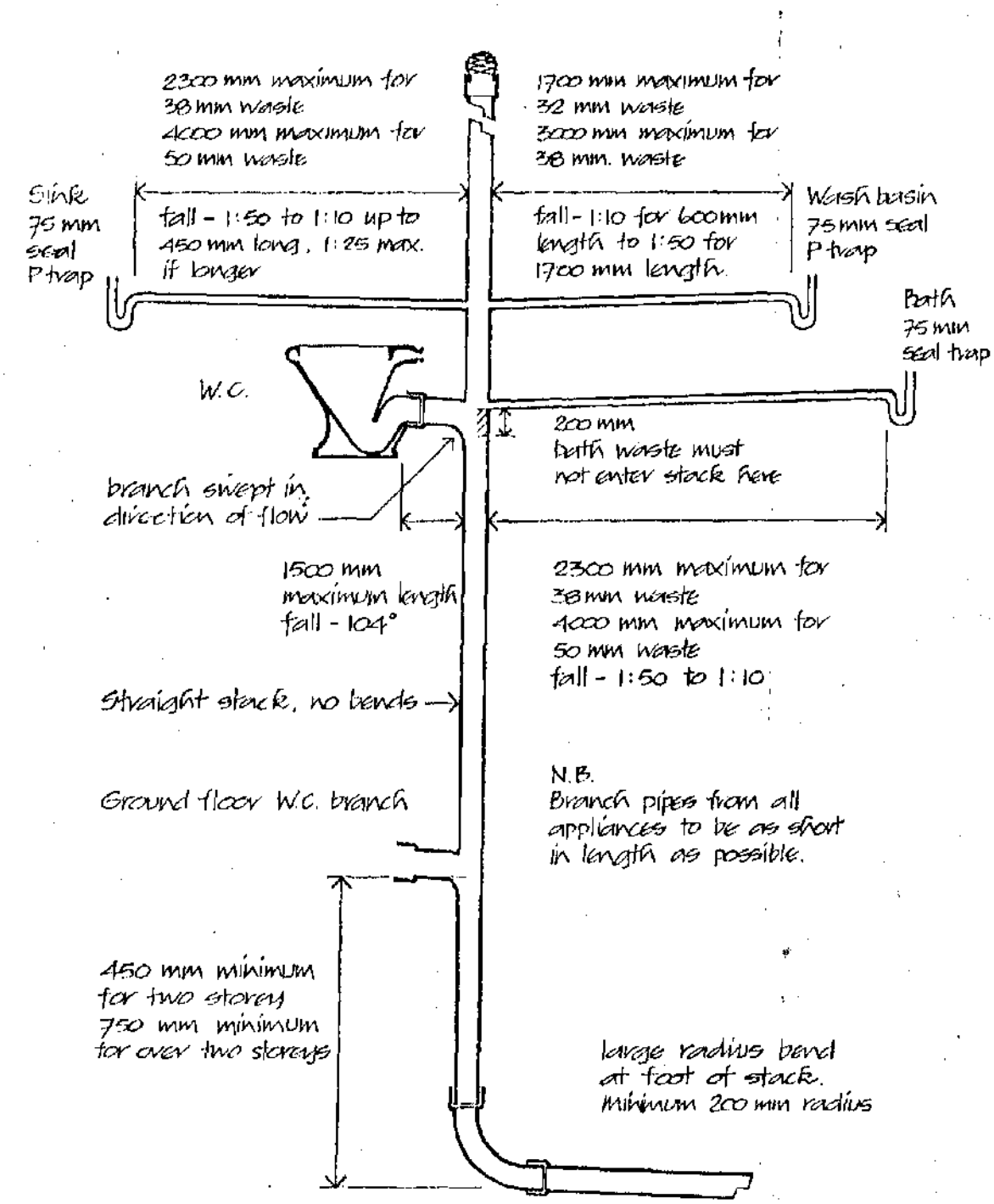
Modified single stack system



Ventilated stack system

Ventilated system

Fig 6.8



Single stack system

Fig 6.9

CHAPTER SEVEN

THE DESIGN DEVELOPMENT

7.0 DESIGN PHILOSOPHY

7.1 ABSTRACT

"If you are going to build ..... you are going to create a thing which speaks. It will speak of meanings and of values, and it will go on speaking and if it speaks of the wrong values it will go on destroying. There is a responsibility here."

Robert Maguire.

"Symbols are means of communication and relationship. A symbol should always be alive..... It is a symbolism not a drama or a playlet and it should simply be distinguished from it."

Adopted from Frank ching's form space and order.

Peter Hammond.

"Before we turn to profit the fascinating possibilities which modern and postmodern architecture opens up ..... We have to ask ourselves whether the symbols which still dominate the church's thinking posses any real validity ..... now

LAO-TSE.

7.2 CONCEPTUAL ANALYSIS

The conceptual analysis is based on the idea of relating the existing site situation to functions which are based on zoning i.e. hierarchical zoning of the functional units. It also involves the organisation of the total land area as well as air space of the site for the best uses. A well integrated concept takes into consideration the following; Architecture, Engineering, Landscape design and planning.

7.3 DESIGN METAMORPHOSIS

Below is presented the sequence of the evolution of the design from concept sketches to site system. The comments besides shows the architects thinking. See fig. 7.1

...ITECTURALLY FIXI... PLACED TO ENHANCE VISUAL ...FRONT, DUE TO ...KING BY PEOPLE COMING INTO THE COMPLEX. ...KING IS SHIFTED TO THE SIDE FOR EASY ACCE... AND PURPOSE OF SEPARATING PEDESTRIAN CIR- FROM VEHICULAR AS MUCH AS POSSIBLE.

...CEPT

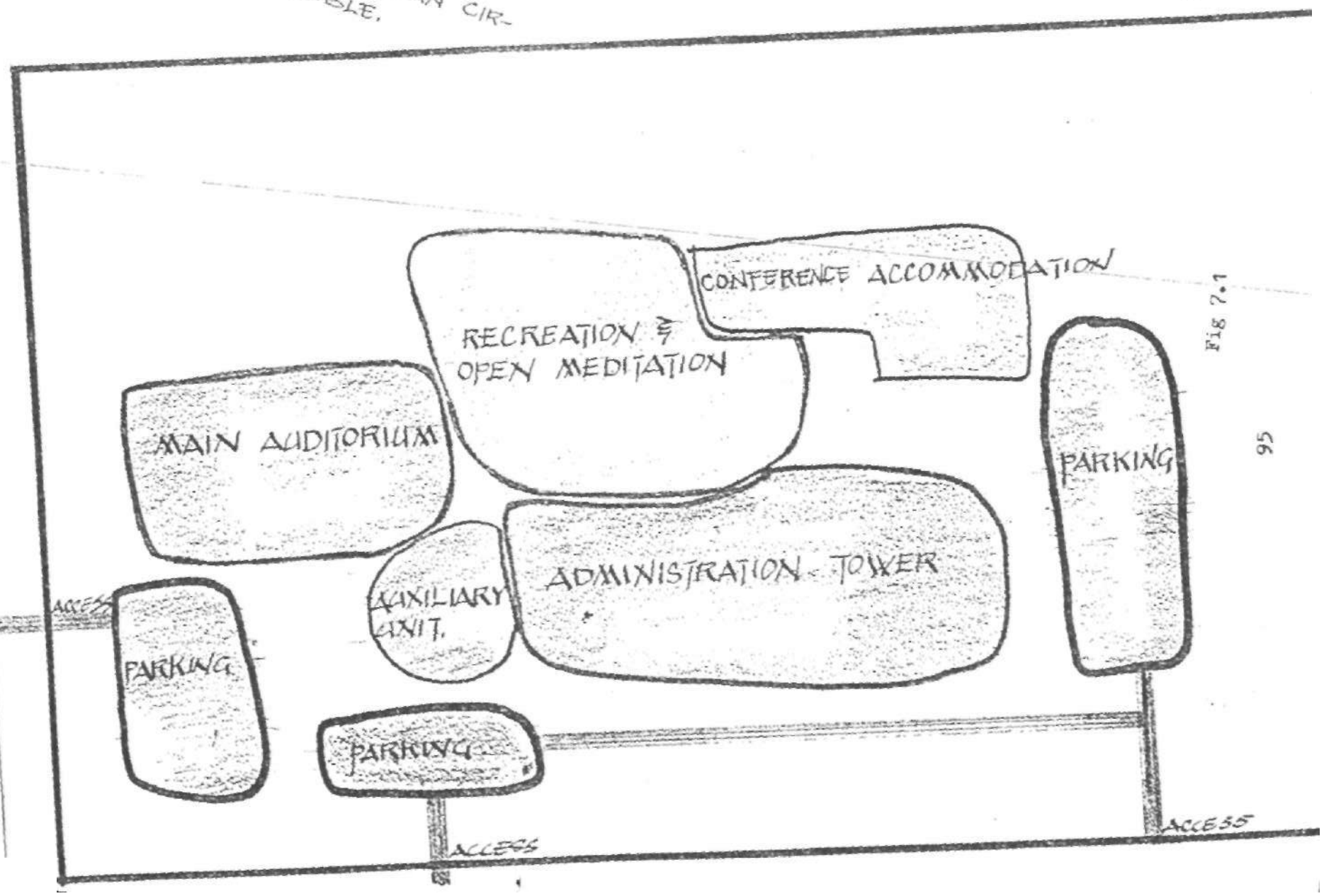


Fig 7.1

95

...S LINKS ...THER ...MODA- ...TO EN- ...ANTS.

7.4 SCHEDULE OF ACCOMMODATION

DESIGNATION	FLOOR	NUMBER	UNIT AREA (M^2)	TOTAL AREA (M^2)
CORPORATE OFFICE BLOCK				
EXECUTIVE PRESIDENT/FOUNDER	7th			
Secretary Board of Trustee		1		25
Waiting and Reception		2		45
Vice President		1		25
Private secretary		1		25
Public relation officer		1		35
Executive president office/toilet		1		44
Personal assistant		1		25
Board of Trustee's Room		1		50
Presidential Archives		1		18
PENTHOUSE	8th			
Presidential Suite				
Kitchen				25
Store				12
Lounge				63
Machine Room				40
WORLD OUTREACH DEPARTMENT	6th			
Administrative manager				35
Administrative officer				25
International outreach coordinator				25
Planning officer				25
Computer Room				22.5
Reception and waiting				47.5
General office				25
Conference Room				60
Director of music				25
Private secretary				18
YOUTH & CAMPUS MINISTRY DEPT.	6th			
Coordinator				30
Deputy Coordinator				25

LIBRARY

Secretary				30
General office				25
WOMEN IN MINISTRY DEPARTMENT	5th			
Personal Assistant to the V.P.				35
President				25
Vice president				25
Private secretary				22.5
Archives				25
Conference Room				60
Reception and waiting				47.5
CHILDREN MINISTRY DEPARTMENT	5th			
Director				30
Personal secretary				30
General office				25
Deputy Director				25
Extra offices		2	18,25	43
DIRECTORATE OF ADMINISTRATION	4th			
Reception and waiting				47.5
Account clerk				22.5
Internal Auditor				25
Auditor general				25
Director of Administration				25
Private Secretary				25
Administrative Manager				35
Conference Room				60
DIRECTORATE OF PASTORAL CARE	4th			
Monitoring officer				25
Administrative Secretary				25
General office				25
Archives				18
Director of Pastoral care				30
Private secretary				39
DIRECTORATE OF FACILITIES	3rd			
Store				18
Director of facilities				30

Private secretary				30
Computer Room				25
Archives				25
Ass. Head of Technical				25
Audio-Visual Room				58
Recording Room				58
General Room				35
Head of Technical				25
Technical staff		5		25
Estate manager				25
Equipment Room				60
WORD OF VICTORY BIBLE TRAINING INSTITUTE	2nd			
Certificate course class room		2	78	156
Diploma course classroom		2	50	100
Vacation Bible course class room		1		60
LIBRARY	2nd			
Lending section				25
Reference and General reading				116
Librarian				25
Book store				25
FACULTY OFFICE	1st			
Head of sections		2		25
Staff Room				35
General office				35
Faculty Board Room				58
Seminar Room				58
Dean of faculty				25
Private secretary				25
Academic Secretary				25
Registrar				20
Sub-dean				30
GROUND FLOOR	0			
Word processing unit				
Printing office				

Manager				78
Computer and Typing pool				25
Telephone Room				25
CANTEEN	0			25
Dining Area		70 people		145
Kitchen				30
Store				20
Toilets		2	3	6
Entrance lobby, Reception and waiting				23.4
Stair Hall				30.5
Lift Room and lobby				39
Toilets		10	3	30
MAIN AUDITORIUM				
Main lobby				150
Auditorium seating 0.48 - 0.6m²/p		1500	0.5m²/P	750
Stage				50
First aid Room				30
Drug Store				15
Conference Room				72
Instrument Room				30
Preparatory				36
Treasury				15
Retreat Coordinator				30
Private Secretary and waiting				36
Camp commandant				30
General Office				36
Prayer Room 1				30
Prayer Room 2				54
Projector Room				25
Auxiliary Conference Room				48
Toilets		15	3	45
Accommodation	0-4th	up to 4% of total conference capacity		
Double bedrooms				
BOOKSHOP				
Display Area				100

Cashier				18
Book store				25
Snacks				
Recreation				
PARKING	up to 7% of conference capacity.			
Parking for Administration		21	12.5	
Parking for Auditorium		61	12.5	
Parking for Accommodation		18	12.5	

CHAPTER EIGHT

THE DESIGN

8.1 SITE CONCEPT

The nature and location of the site calls for the chosen site concept. The possible egress and ingress to the site is directly from the main university of Ilorin permanent site road. The zoning concept is based on the noise level, public zone, semi public and private zone. The parking lot is the most noisy zone. Therefore, it is very close to the noisy zone (main road). The Auditorium for retreat and conferences is semi-noisy and is located at the western part. This position for the Auditorium also allows a separation of pedestrian circulation from vehicular circulation since more people will need to access the auditorium. A major pedestrian entrance was created exclusively from the road along the west end for easy access to the Auditorium.

The Administration Tower which is located at vantage point on entering the complex is strategically position to convey a sense of order in the body of Christ I Cor. 14:40 and its towering height catches all attention.[9]

The administration is buffered from the noisy road by the trees planted along the entire length of the site and the parking lots that further breaks the air borne sound of the road traffic.

The accommodation wing which is the quiet and private zone is located at the North Eastern part of the site and it is shielded from all sorts of noise. Workshops and support facilities are located at far Eastern end.

8.2 DESIGN CONCEPT (Based on Zoning Criteria)

The design concept is based on the following factors such as zoning of functions based on noise tolerance, public, semi-public and private zone. The design concept is a total integration and also allow compactness of the functional units.

8.3 PLANS

The building complex can be approached from two directions but both points of ingress are along the main university of Ilorin road. The complex unsymmetrical nature is a reflection of the dynamism of the Gospel. The nature of the plans has been dictated by some important factors as follows;

1. The need for the building form to be integrated and a wholistic design that will harmonize all the functional units achieved.
2. The need for the building that would satisfy all the space requirements and more if possible.

The administration tower which is the central focus or focal point of the entire complex is closer than other units. The main concept of the Administration in plan is that of a flying dove. And that symbolise the Holy Spirit who is the administrative and spiritual head of the new covenant church.

The tail of the dove forms the entrance canopy, the head forms the core comprising a stair hall and lift hall. The trunk forms the reception, telephone room and waiting, while the wings accommodates the offices.

The administration unit is a total integrated unit that contains the information unit, printing press, Bible institute, library, restaurant, Audio-visual departments, committee room, offices for

international administration staff and equipment room. A presidential suite is located at the pent house. The Auditorium accommodates retreats, conventions and conferences that holds seasonally and has a total capacity of about 1500 people with two stair cases leading to the gallery on the first floor.

There are offices in this units too for the use of the convention committee and staff.

Accommodation block is made to house 110 people and this is linked to the Administration and the Auditorium by a covered walk way.

Auxiliary facilities also exist as a snack joint and bookshop linking the auditorium with the administration also linking recreation to the parking is the maintenance workshop. And a generator house is also positioned remotely from other unit and within the noisy zone.

8.4 ELEVATIONS: Symbolism

On approaching the complex, the impact of integration and pentecostalism is immediately felt. In terms of integration a sense of corporate wholeness and harmony was achieved among the functional units and this is obvious in the massing of the forms. In terms of pentecostalism, the towering height of the administration has tree levels representing the father, son and holy spirit while the entrance podium represent the church (body of Christ) with the figure of a Dove prominently seen been the symbol of the Holy Spirit coming to dwell in the body of Christ.

The elevation of the auditorium shows an open bible concept. And the accommodation wing reflect a residential outlook, so as to make the resident fill at home. In the entire complex certain ecclesiastical elements were emphasised e.g. columns and Arches.

8.5 CONSTRUCTION METHODS AND MATERIALS

The construction materials used here are of high quality and durability. This is to reduce cost of maintenance and also to indicate permanence.

The materials used here can be categorised according to their location in the building and are classified as follows;

1. Roofs
2. Structural system
3. Floors
4. Surfaces

(1) Roofs:

The Roofing materials are mainly of three types and they are as follows:

i. Longspan aluminium roofing sheets

ii. Villatile roof

iii. Concrete decking with protective layers.

The longspan aluminium roofing sheet have been used to cover the administrative tower, with the exemption of the pent house where villatile is used in order to enhance high thermal insulation, Aesthetic, fire resistance and corrosion resistance. The auditorium, accommodation block, the bookshop and maintenance unit were also roofed using longspan aluminium roof because of its light weight and reflective properties.

Concrete have been used as a material for roof deck over the terrace, gate house, walkway, lobby as well as those area with complex or irregular forms.

(2) The Structural System

The structural system used are as simple as possible in order to ease difficulties in construction. The roof over the administration is of structural steel trusses and that of the auditorium also. While that of accommodation is timber trusses.

The columns and beams of the entire complex are reinforced concrete. The columns are in a variety of shapes depending on the position in the building. The floor slabs over the terrace are waffle floors. This is due to the large span and also the amount of load to carry.

All structural walls used are 225mm with 12mm plastering on both sides.

(3) Floors

The floor finishes of the Administration and Auditorium are hard-wearing resilient surface in order to prevent excessive wear due to high concentration of traffic in these units.

The surface will also have to be of high quality and very well polished. Rug is used in the Auditorium in order to reduce acoustic problems. Pigmented terazo is used in area like the office, toilets, corridors and so on. The colour used are complementary and certain interesting pattens are introduced.

(4) Surface Finishes

The interior surface of the Auditorium is finished with acoustic tiles in order to reduce the acoustic problems, while toilets and the kitchen walls are finished with clay tiles. Other places are the 12mm rendering with 3 coat of paint to finish.

The exterior surface of the Auditorium building are claded with Aluminium sheets. While the administration building wears curtain walls on most of the perimeter walls. The service ducts of the accommodation unit are cladded with vertical aluminium louvers.

8.6. CIRCULATION

The circulation pattern have been such that the crowd have defined pedestrian access to all parts of the complex and also such as help to disperse the crowd after meetings at conferences. The main Auditorium which accommodate 1500 people have been designed in such a way that there is a clear pedestrian walkway that leads to main entrance and the exclusive pedestrian entrance as well. This enhances easy dispersal of crowd after meeting. A ramp is also incorporated in the Auditorium to serve the disable people.

All offices have a lobby and all toilet are opened to a lobby.

CHAPTER NINE

DEVELOPMENT AND CONCLUSIONS

9.1 IMPLEMENTATION STRATEGIES (PHASING)

The entire project has been phased to be completed in three years, there are three phases. The project is expected to take of in 1998 and completed latest by the year 2000.

Phase I 1998

Phase II 1999

Phase III 2000

Phase I. 1998

This phase involves the provision of those facilities that will cater for the immediate needs of Rhema Chapel Administratively and that is the Administration are expected to be developed at this phase.

Phase II 1999

It is expected that during this phase the interest of the people would have arisen. The phase will mainly be consolidating phase one. This include the construction of the Auditorium and other support facilities.

Phase III 2000

At this stage of the development exercise, it is expected that the entire complex would have full utilisation and the interest level would have risen to about 90%. This phase will mark the completion of the project. The accommodation wing and the recreational facilities will be constructed at this stage. Final Road network within the complex will also be constructed at this

stage. Final Road network within the complex will also be developed and all drainage channel taken care of.

9.2 FUTURE EXPANSION

It is expected that in future, there will be need for expansion and this is the fourth phase. The expansion can only be towards the North-West end of the site and more land expected to be purchased.

9.3 PROJECT FINANCING

God's work done in God's time and in God's way will never lack God's provision[1].

When God had great work for Moses he gave him 3 principles in other for him to execute the project.

i. Share the vision

ii. Collect an offering from the people for God

iii. Let the people give willingly[2]

With strict adherence to the above divine specification all the financial sources of the ministry will be sensitised and give to see to the completion of the project. The financial sources includes:

i. All the 30 installations of Rhema Chapel International Churches.

ii. All World out reach Churches

iii. All satellite churches

iv. All Campus churches

v. The word processing department

vi. The Feedwell Books

vii. The Audio Visual Ministry

vii. All Gawo partners Worldwide.

9.4 RECOMMENDATION AND CONCLUSION

The thesis has been concluded with recommendation for the adoption of the design proposal which provides integrated facilities for administrative efficiency.

Constant retreat, convention and awareness programme should be organised involving representatives that cut across the tentacles of the ministry in other to imbibed the vision in them and ensure uniformity in their mode of daily ministerial functions.

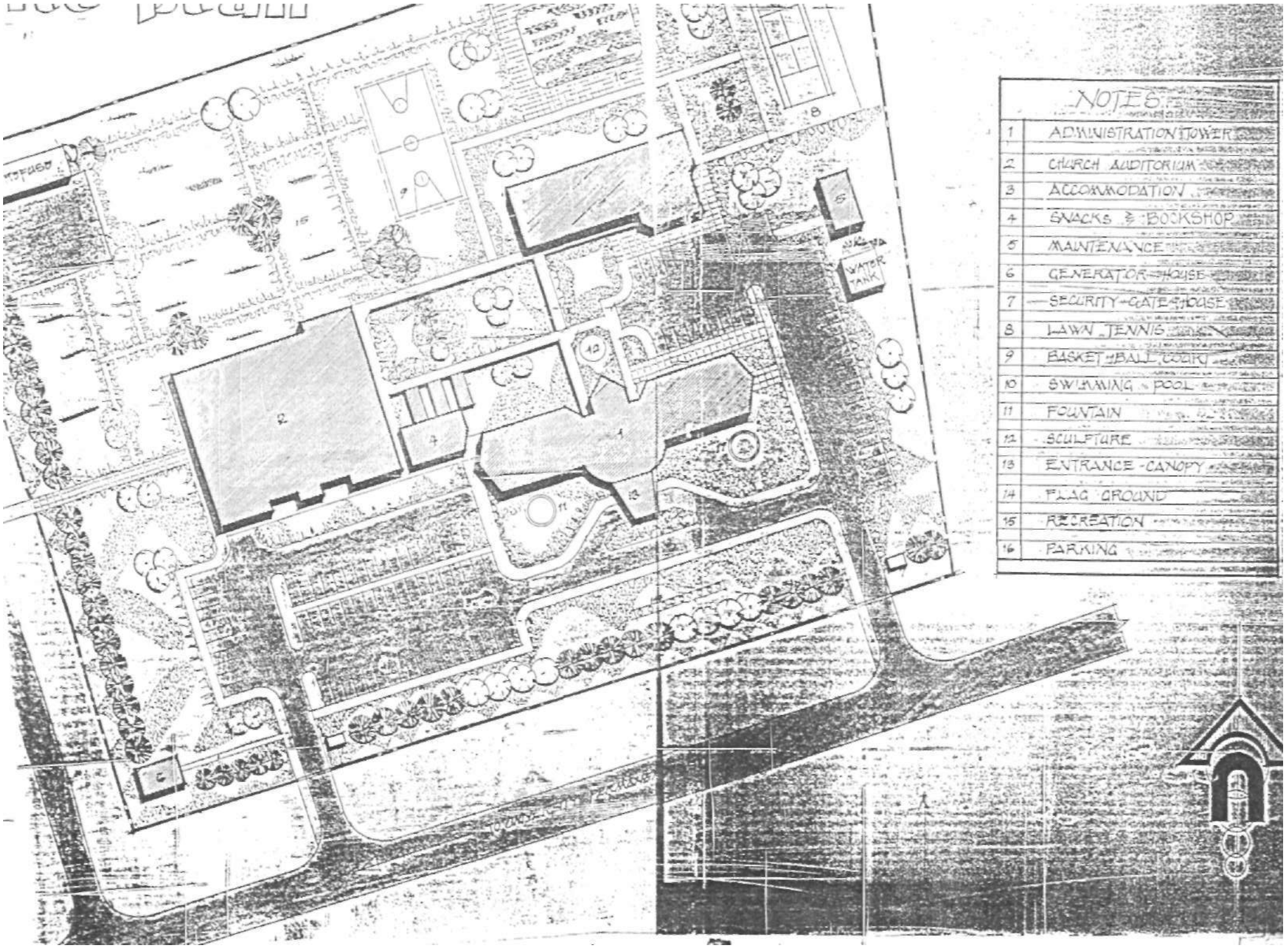
The training facilities when judiciously used will solve the problem of incompetence by individuals involved at various strata of the church organisation.

There is therefore the need to have an active information unit. This unit will be responsible for the enlightenment at all times, it will also see to proper and effective communication with the various arms of the ministry.

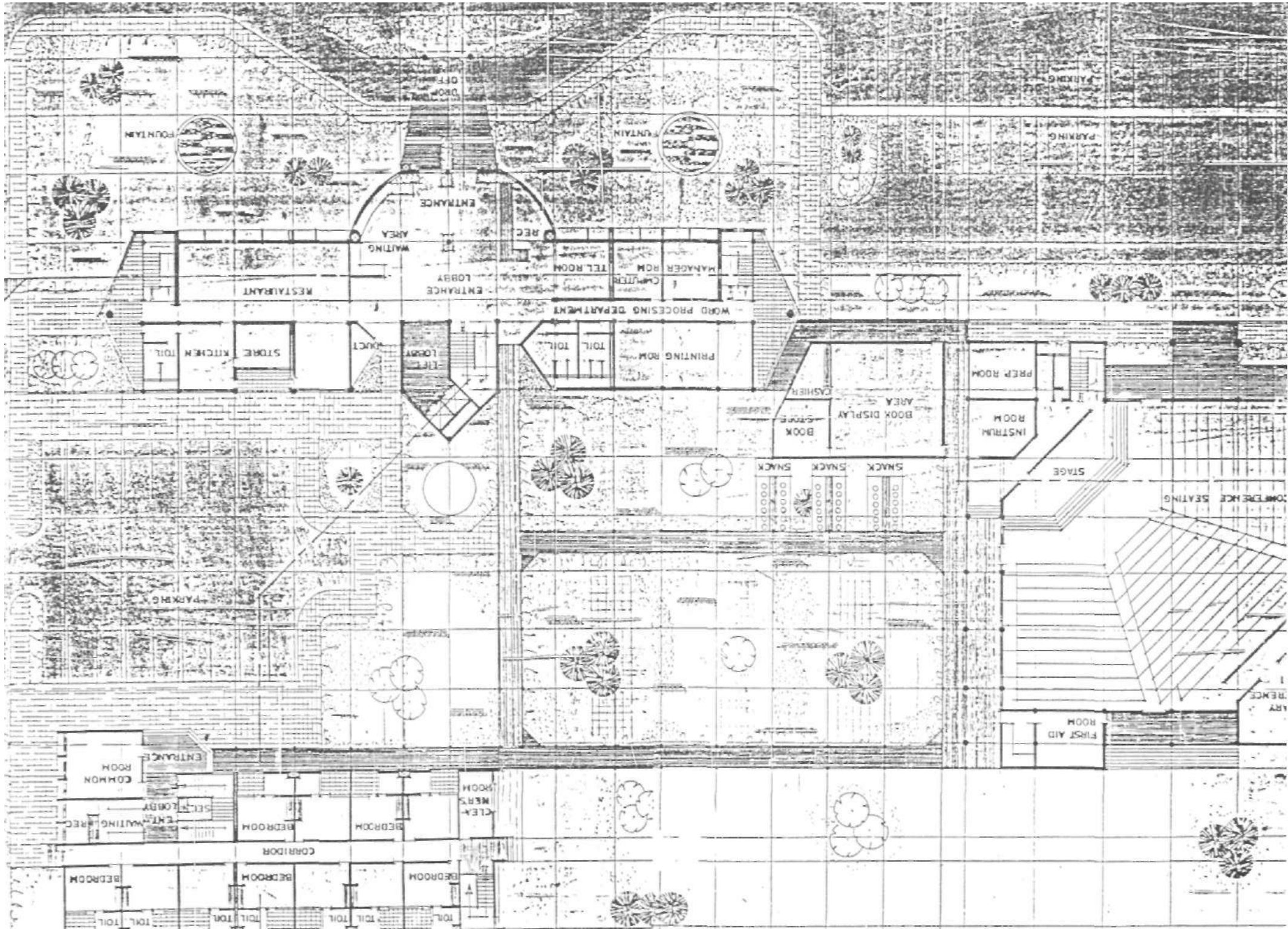
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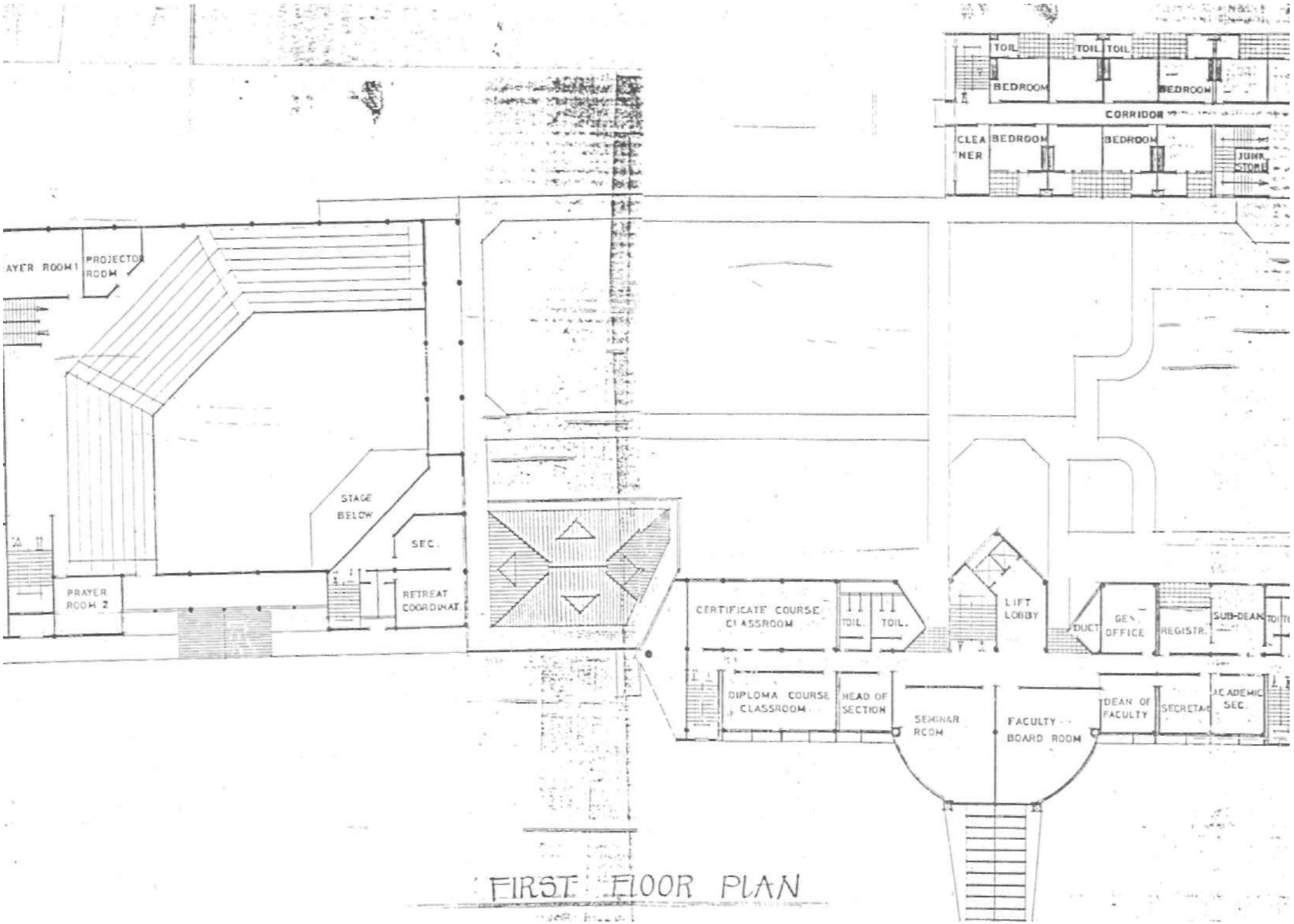
1. Hudson Taylor (Founder of China Inland Mission)

2. Exodus 25:2.

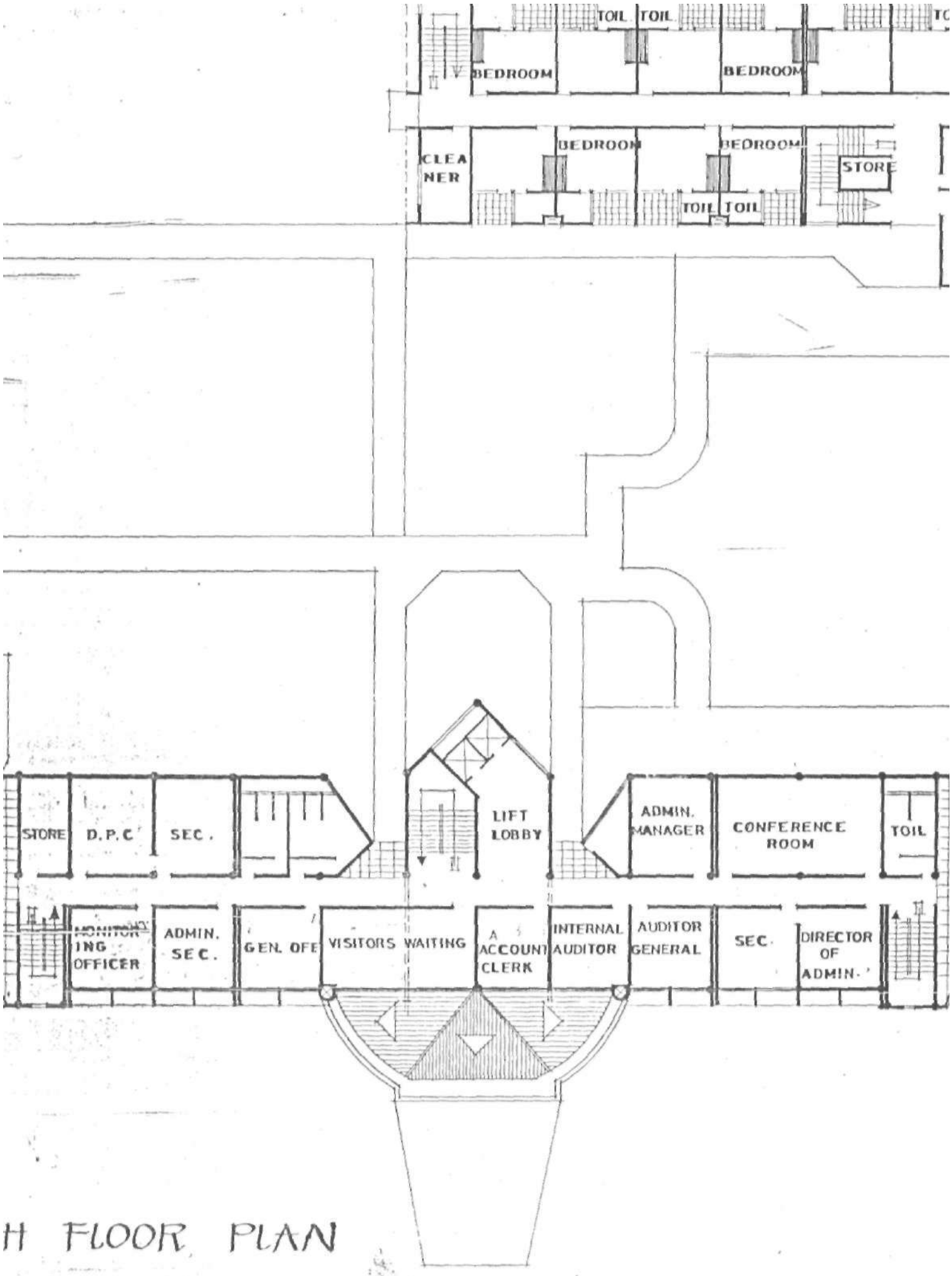


NOTES	
1	ADMINISTRATION TOWER
2	CHURCH AUDITORIUM
3	ACCOMMODATION
4	SNACKS & BOOKSHOP
5	MAINTENANCE
6	GENERATOR HOUSE
7	SECURITY GATE HOUSE
8	LAWN TENNIS
9	BASKET BALL VOLLEY
10	SWIMMING POOL
11	FOUNTAIN
12	SCULPTURE
13	ENTRANCE CANOPY
14	FLAG GROUND
15	RECREATION
16	PARKING

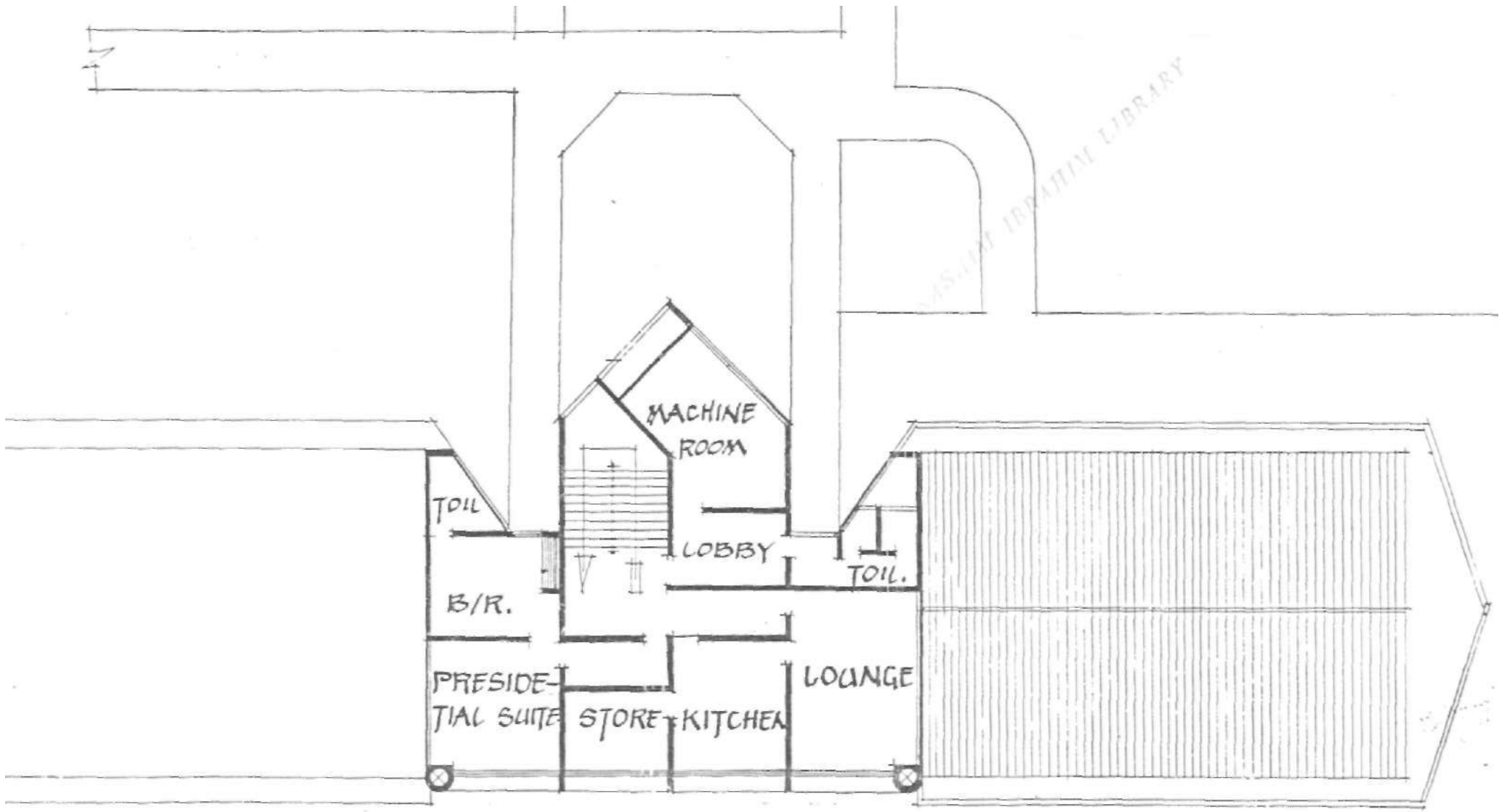

PARKING
FOUNTAIN
ENTRANCE
RECT.
WAITING AREA
ENTRANCE LOBBY
TEL. ROOM
MANAGER ROOM
WORD PROCESSING DEPARTMENT
RESTAURANT
STORE
KITCHEN
TOIL.
DUCT
PRINTING ROOM
BOOK DISPLAY AREA
CASHIER
BOOK STORE
PREP ROOM
INSTRUM ROOM
SNACK
STAGE
FIRST AID ROOM
COMMON ROOM
BEDROOM
CORRIDOR
CLEANERS ROOM



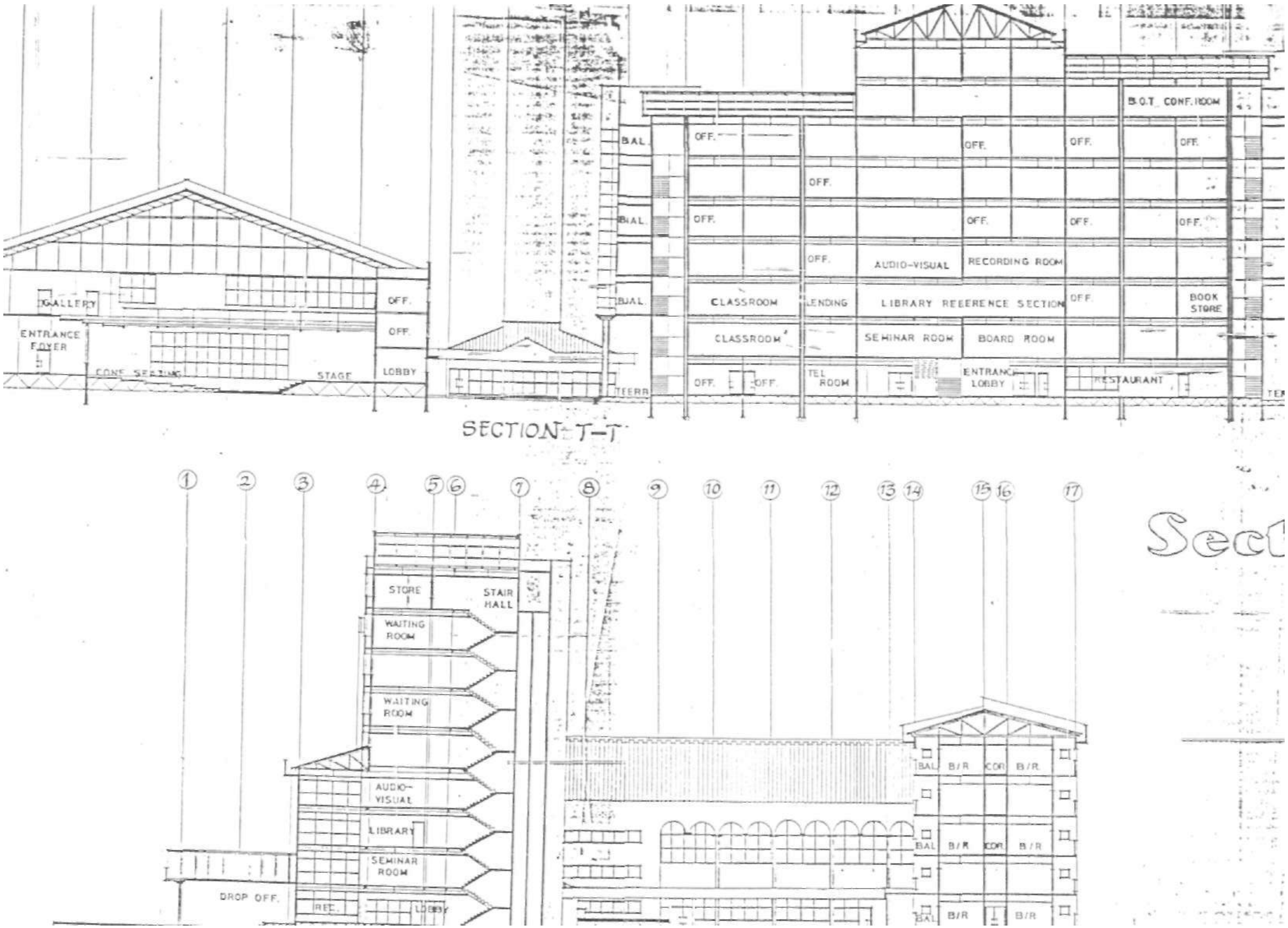
FIRST FLOOR PLAN


TOIL
TOIL
BEDROOM
BEDROOM
CLEA
NER
BEDROOM
BEDROOM
STORE
TOIL
TOIL
STORE
D.P.C
SEC.
LIFT
LOBBY
ADMIN.
MANAGER
CONFERENCE
ROOM
TOIL
MONITOR
ING
OFFICER
ADMIN.
SEC.
GEN. OFF
VISITORS WAITING
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AUDITOR
AUDITOR
GENERAL
SEC.
DIRECTOR
OF
ADMIN.

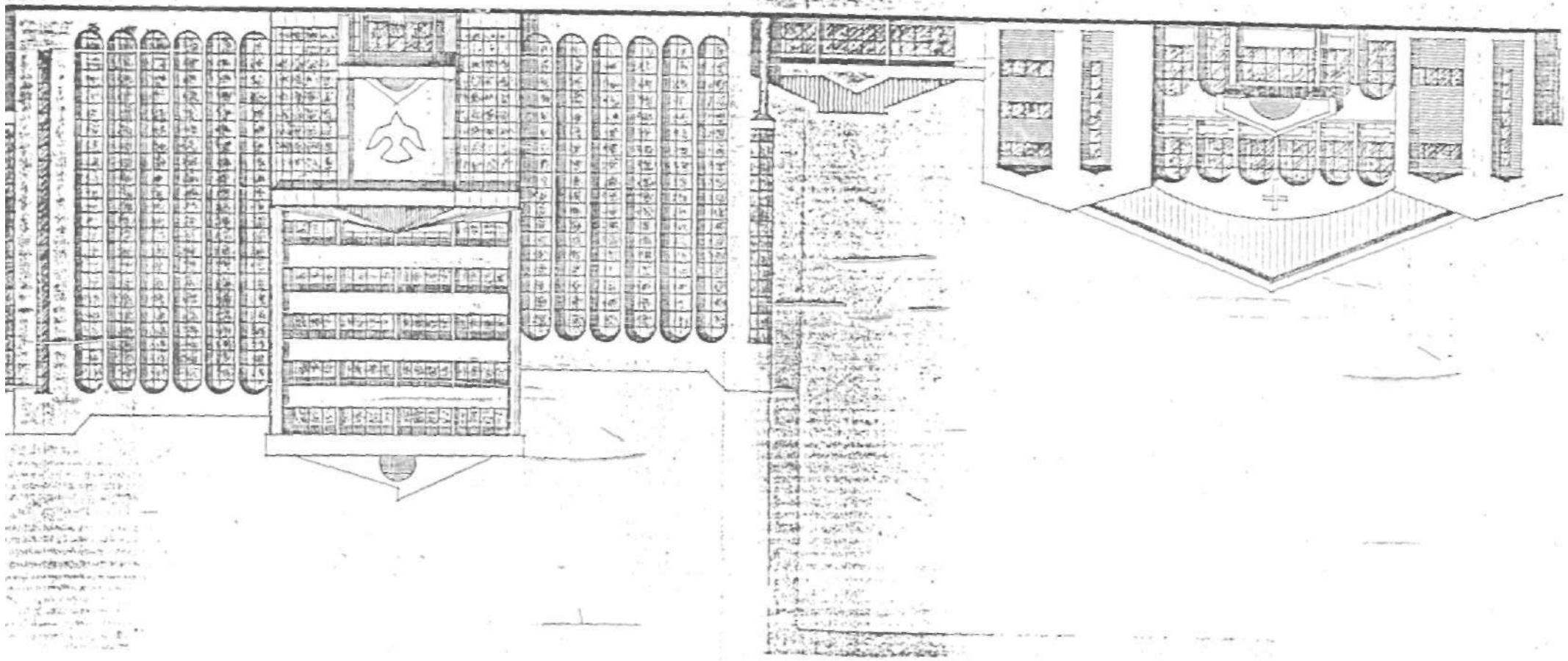
H FLOOR PLAN

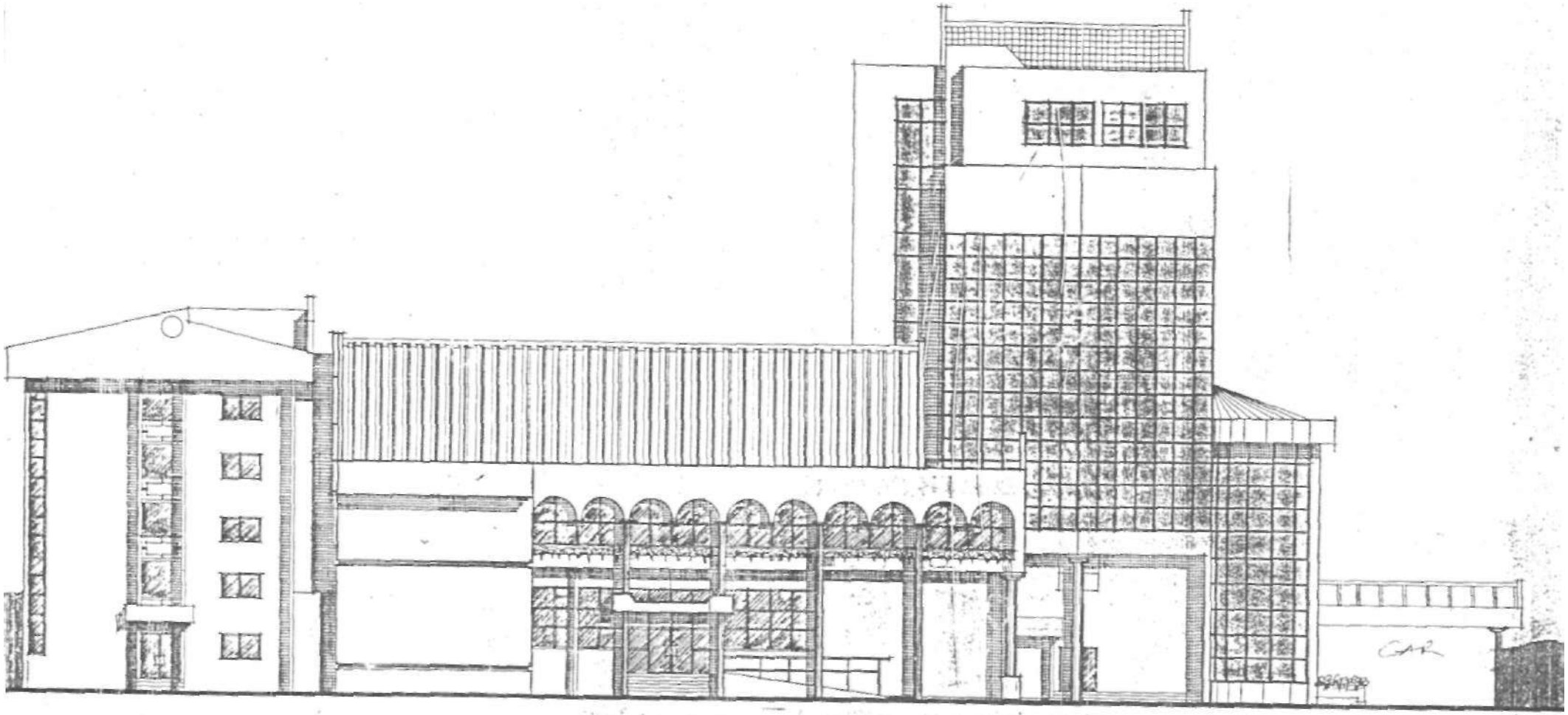


PENT HOUSE FLOOR PLAN


GALLERY
ENTRANCE FOYER
CONF. SEATING
STAGE
OFF.
OFF.
LOBBY
BAL.
BAL.
BAL.
TEERR
OFF.
OFF.
OFF.
OFF.
OFF.
OFF.
OFF.
OFF.
OFF.
OFF.
OFF.
OFF.
B.O.T. CONF. ROOM
AUDIO-VISUAL
RECORDING ROOM
CLASSROOM
LENDING
LIBRARY REFERENCE SECTION
BOOK STORE
CLASSROOM
SEMINAR ROOM
BOARD ROOM
OFF.
OFF.
TEL ROOM
ENTRANCE LOBBY
RESTAURANT
SECTION T-T
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
STORE
STAIR HALL
WAITING ROOM
WAITING ROOM
AUDIO-VISUAL
LIBRARY
SEMINAR ROOM
DROP OFF.
REC.
LOBBY
BAL
B/R
COR
B/R
BAL
B/R
COR
B/R
BAL
B/R
B/R

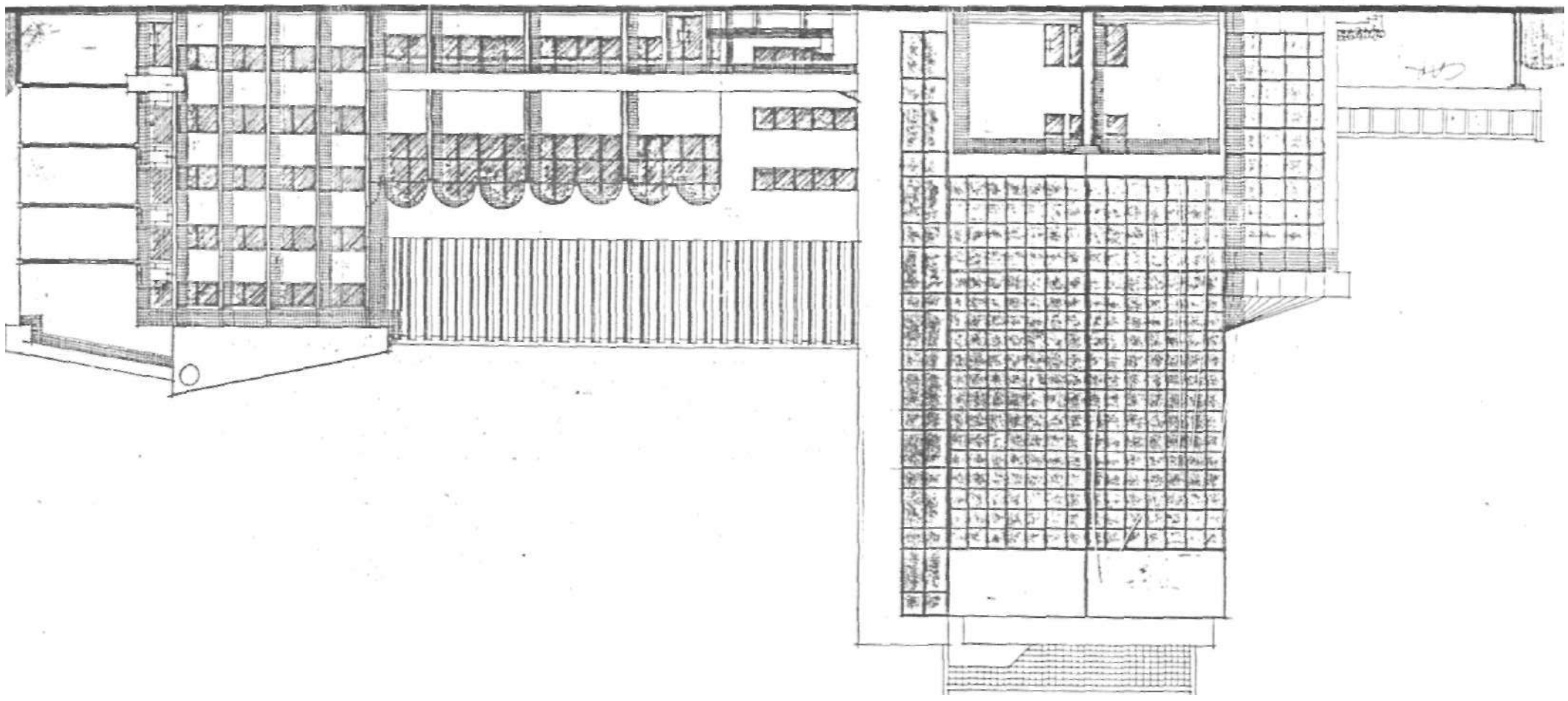
Approach elevation

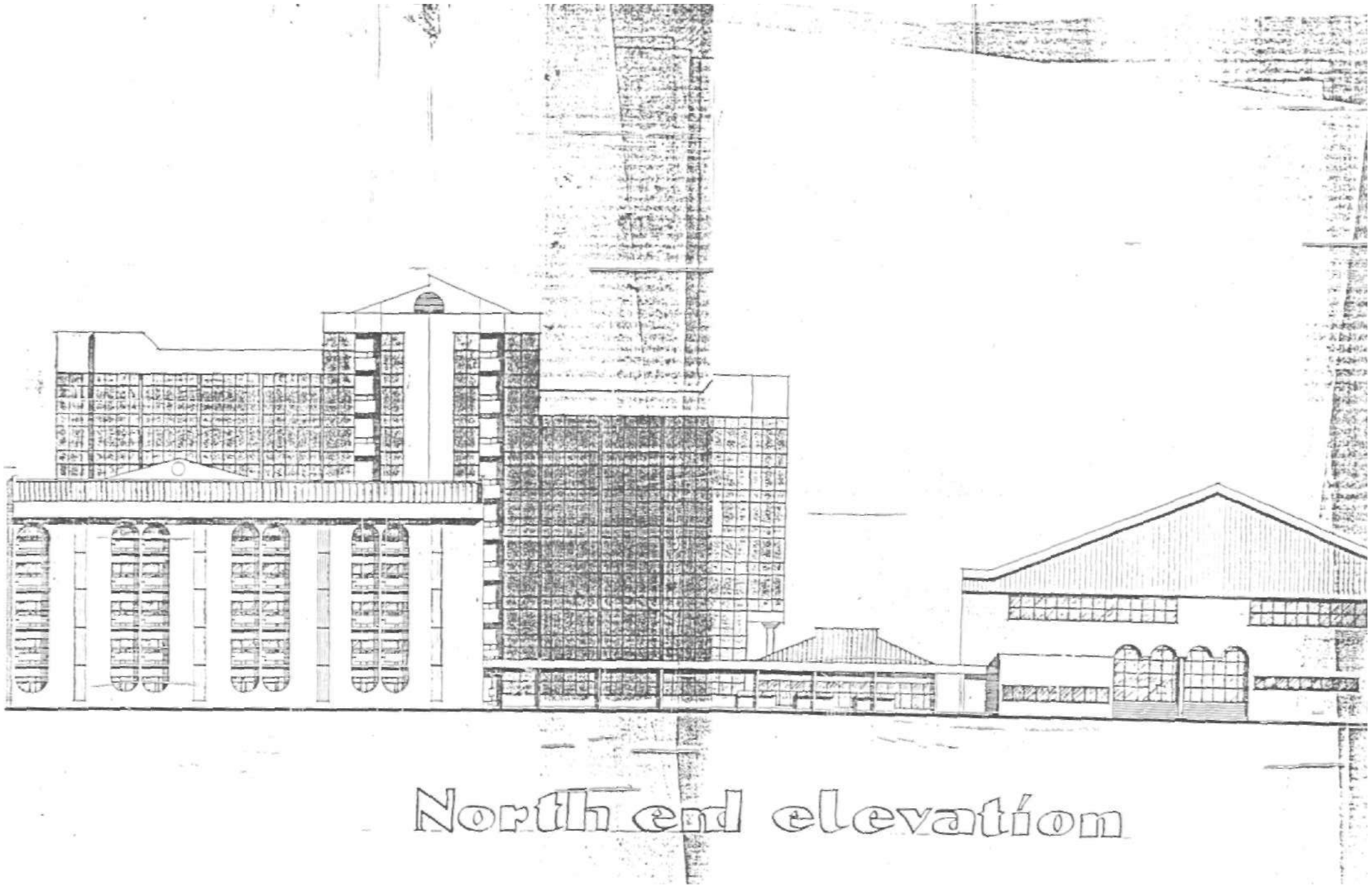




West end elevation

East end elevation





North end elevation

BIBLIOGRAPHY

1. Adeboye, A.B. 1990. Living Faith World Outreach Centre Kaduna (Unpublished M.Sc. Arch Thesis) Available at K.I. Library and Department of Architecture, Ahmadu Bello University Zaria, Nigeria.

2. Anatomy of Architecture. A and W publishing inc. New York U.S.A. 1979.

3. Awoleye S.T. 1994: Fire Control in High rise Buildings case study of Defence, Net and Investment Buildings. An unpublished B.Sc Terminal Essay available at the department of Architecture Ahmadu Bello University Zaria.

4. Barry, R. (1978). The Construction of Buildings Vols. I-V. The English language Book Society and Granada. London Toronto Sydney New York.

5. Benoit J.D. 1958, Liturgy Renewal Studies in Catholic and Protestant Developments on the Continent, Scm press Ltd., London.

6. Bruggink D.J. Dropers Cot 1965, Christ and Architecture William B. Bardmans publishing Company, Grand Rapids, Michigan.

7. Bruno Z. 1957 Architecture as space, New York

8. Casey T. 1994 Church Management Christian faith center and Casey great Ministries Seattle, WA. U.S.A.

9. Ching Francis, D.K. 1979, Architectural Form, Space and Order., Van Nostrand Reinhold Company inc. New York U.S.A.

10. Collins, V. 1957. The Holy Bible, King James Version, Glossglow.

11. Davids, H. 1961 Worship and Theology in England 1690 - 1850. University press, Princeton.

12. Davids, O. 1953, Early Christian Worship Smc Press Ltd., London.

13. Doelle, L.L. (1972) Environmental Acoustics. Mc Graw Hill book Company N.Y.

14. Encyclopaedia Americana (International Education) (1966) Vol. 6 Americana Corporation.

15. Fasagba J. 1989. An International Christian Convention Centre, Abuja (Unpublished M.Sc. Arch Thesis) Available at K.I.L Library and department of Architect Ahmadu Bello University Zaria.

16. Fletcher, S.B. 1975, A History of Architecture 18th Edition

17. Giedion, S. 1967. Space, Time and Architecture. Harvard University Press Cambridge, Massachusetts U.S.A Fifth Edition.

18. Gniadzik, J.S. (1984) Structural Systems in Architecture Ahmadu Bello University Press.

19. James, E.O. From Cave to Cathedral

20. Jenks, C. etal 1980. Signs, Symbols and Architecture

21. Krautheiman, R. Early Christian and Byzantine Architecture.

22. Mahoney, R. 1993, The Shepherds Staff. Published by Word MAP Califonia U.S.A.

23 Moore, C. and Allen G. 1976, Dimension: Space, shape and Scale in Architecture. Architectural record books New York.

24. Neufert, E. 1970, Architects Data, Cross by Lockwood staples.

25. Rawson P. 1987 Design. Prentice Hall, Inc., Englewood Cliffs.

26. Thompson F.C. 1988. The Thompson Chain reference Bible. Fifth edition. B.B. Kirkbride Bible Co., Inc. Indianapolis, Indiana U.S.A.

27. Wright F.L. 1994 Architect. Museum of modern Art New York.