AN APPRAISAL OF MINNA CENTRAL AREA REDEVELOPMENT SCHEME

M.SC.(U.R.P) THESIS

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DECLARATION

I hereby affirm that this thesis has been written by the author, and its a record of a thorough research. It has not been offered nor accepted in any previous application for a higher degree. All sources of information have been acknowledged by means of referencing.

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CERTIFICATION

This thesis entitled, an appraisal of Minna Central Area Redevelopment Scheme by **AHMED H. L.** meets the regulations governing the award of the Degree of Master of Science (U. R. P.) of Ahmadu Bello University and is approved for its contribution to knowledge and literary presentation.

.....	10.12.95 .....
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DEAN, POST-GRADUATE SCHOOL	DATE

DEDICATION

This thesis is dedicated to my husband.

A C K N O W L E D G E M E N T

I wish to express my appreciation and gratitude to Mallam Adamu Ahmed, the supervisor of this thesis, for his valuable guidance and suggestions throughout the work. I am also appreciative of the contributions of all the lecturers of the Department during the various internal Reviews and also to the memories of Late Dr. Y. K. S Wiredu who was my first Supervisor, may his soul rest in peace.

I must also register my indebtedness to my friend Mrs. Ramatu Baba for her unquantifiable moral and academic contribution throughout the work. I wish to express my gratitutde to all the members of my class for their assistance throughout my course.

My gratitutde also goes to Minna Town Planning Division for their assistance, my husband and son for patiently bearing with my constant absence throughout my programme.

Above all, I'm grateful to God Almighty for enabling me to start and successfully complete this work.

ABSTRACT

The thesis set out to highlight the functions and importance of a central area to the growth and development of a town or city and the differing roles it is seen to play in the developed and the developing countries.

It also examined the problems that afflict central areas and planning approaches used in solving these problems, such as slum clearance upgrading and renewal of facilities, improvement of traffic schemes and so on. Specific scheme examined include the slum clearance of the central business district of Tel - Aviv, the Bauchi central area redevelopment scheme to mention a few. This thesis further examined Minna central areas as a test case for investigating the effectiveness of these planning scheme in addressing central area problems.

However, it has been found out that most of these planning schemes are conceived towards solving the symptomatic effects of central area problems rather that the actual causes. This thesis therefore viewed central areas holistically and sought wholistic approaches to solving its problems.

Central area planning should be seen to vary in the developing countries from what obtains in developed countries because of differences in technical and financial capabilities and also in terms of the needs of the area. It is based on these and in addition to a comprehensive redevelopment of Minna central area that other physical planning measures are proposed and recommend such as re-organisation of land uses, relief road approach and others.

This will address Minna central area problems wholistically and hopefully, with effective and adequate financial backing solve short and long term problems efficiently.

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CHAPTER ONE

1.00 INTRODUCTION

The central area is seen to support the growth and development of a town/city because it is the most productive area from where all other activities of the town are co-ordinated. Planning and development of central areas therefore cannot be compromised. Central areas are however seen to play different roles in the developed and developing countries as such the concept of planning for central areas in the advanced countries cannot be super imposed on central areas in developing countries. Poverty in the conception of central area planning in developing countries, occur due to a lack of adequate understanding of the nature and function of central areas in the developing countries. Planning of central areas in developing countries must therefore, respect the perculiar uniquness of any locality such as sizes and hierarchy of the town or city in terms of its ability or inability to support a conventional central area and other criteria that could have significant influence on such central areas. This will go a long way in enhancing the creation of a central area that is both suitable and with lesser associated problems than have been observed so far.

1.10 The Research Issue:

The city centre is the main administrative, business, entertainment and cultural centre of a town. Gibberd F (1953). It is also the focal point for satisfying the city's economic and social need. Generally, the central area can be likened to the human heart, offering nourishment to the city as well as supporting the growth and development of the entire city.

Although vital for the survival of the city, central areas are usually afflicted by various problems that are usually addressed to in various ways that include upgrading and renewal of facilities, improvement of traffic and transportation, slum clearance, rehabilitation etc. Specific schemes implemented towards solving central area problems include the Ahmedabad urban renewal scheme, the Charles centre urban renewal programme in Baltimore, the slum clearance scheme of the central business district of Tel-Aviv, the Yougoslavia Koper city centre scheme, the Bauchi central area redevelopment scheme and the Sokoto central area redevelopment scheme to mention a few.

Most of these schemes have been designed towards solving specific problems that are experienced at particular periods. They have also been conceived mostly towards solving the symptoms of central area problems rather than the causes of these problem afflicted. Central areas must however, be viewed as one whole and a wholistic approach to central area problems be emphasized.

The concept of central areas in Gwari land is one where functions and activities are not centrally located as in other towns and cities. Minna central area was however, placed on a higher hierarchy to other centres in the sub-region when it became a State Capital, functions and activities that were hitherto unknown were introduced. These subsequently created problems of congestion, decay and obsalence that were to be addressed by a redevelopment scheme in the central area. There is no sign however, that these have been achieved as the problems still persist.

In this study therefore, an attempt is made to examine the extent to which the redevelopment proposal has been useful in solving the problems of Minna central area. A critical appraisal of the approaches recommended for solving the problems will also be carried out towards bringing into clear focus the issues and perspectives that must be brought to bear in planning and developing central areas.

KASHIM IB

1.20 Aims

The study aims to critically appraise redevelopment alternative proposals for Minna central area with a view to establishing the extent to which it has served in alleviating the problems of Minna central area.

Objectives:

1. To identify the concept, typology, characteristics and functions of central areas.
2. To examine central area problems and approaches to central area redevelopment in the developed and developing countries and to identify the limitations of these approaches.
3. To examine the concept of central area in Gwari settlement.
4. To examine the problems of Minna central area.
5. To appraise the redevelopment schemes carried out in Minna central area.
6. To make proposals based on the problems identified and also recommend policy frame work for implementation.

1.30 Scope

The scope of the work is focused on the central area of Minna town. Existing land uses such as light industrial, residential, public/semi public, roads/parking, commercial use survey, facilities and services within the central area were examined. A study of the structure of the central area, traffic and transportation were also conducted. Emphasis is on an appraisal of the master plan proposals as it relates to exisiting situation.

1.40 Methodoloy:

Two methods of data collection were used in the study. The first method, involved data collected through primary sources using questionnaires and interviews which were administered to provide information on volume of traffic within the central area between the hours of 6.00a.m to 6.00p.m on two days of the week. An origin and destination survey (o - d) using a 10% sample where every 10th vehicle was taken as a sample was also conducted. Other questionnaires were administered to provide information on infrastructure and socio-economic variables, provisions of adequate parking spaces etc.

Personal observations, where detailed reconnaisance and land use surveys, assessment of facilities, utilities and services were conducted to provide information on environmental quality and also to assess the problems of the study area.

Photographs were also used to illustrate existing situations within the study area.

Secondary sources used include the use of maps, some of which were updated to show uses that were not in existence as at the time of map production and what effect that could have in the long run. Other information were obtained from official records such as the master plan, population figures from national population commission etc.

CHAPTER TWO

CONCEPTS, TYPOLOGY AND CHARACTERISTICS OF CENTRAL AREAS

2.00 Concepts of Central Areas:

The central area is the area where central services of the highest order that can be supported by the town are found. Keeble, L (1952). As a business centre therefore, it supports luxury or high cost goods. It affords the opportunity to obtain a wider choice than can be found in the neighbourhood. Gibberd also defined it as "the main administrative, business, entertainment and cultural centre of the town as a whole.

According to Buchanan report, (1963) the town centre has the greatest concentration of activities. In consonance to this, Ojo (1966) sees the town centre as an area where commercial and public building are concentrated.

The town centre is an equivalent of the American central business district which is defined as the area where retailing of goods and services and the performance of office activities for private profit are completely dominant. In Britain, the term central area is often used. It is defined as the area where business functions are found mixed up with residential administrative and cultural buildings.

2.10 Typology and Characteristics of Central Areas

Central areas vary in nature and characteristics based on some general criteria like levels of development of a region, the culture of its people, and the size of the city. Central areas therefore vary greatly from those of metropolis to cities and villages.

2.11 Types and Characteristics of Central Areas in the developed countries

In the developed countries, central areas are seen as the life line of the town or city as a whole where most productive activities that sustain the town and its region are conducted.

The early central area of an American city for instance was boardered by close-in residential areas, manufacturing areas, and by a harbour front or rail yard where products are brought in or carried out. Access was mainly by foot, horse or wagon. As the cities grew however, the central area became restricted and its possible direction or growth limited, growth therefore, became linear in the direction of the city's general growth away from the harbour front or river side. Other fashionable areas were forced to develop in other parts of the city as both a complement or competitor to the central area. The city however, grew further, so early transportation system were built when people needed closer and direct access to the centre, as the population depended on the centre for its livelihood.

In the metropolitan areas, services and functions are increasingly spreading over the ever widening metropolitan area. This has been aided by the use of Automobile and other modes of transportation. Central areas are seen as show pieces, with high densities of development, high traffic volumes on roads, high intensity of organisation of activities and functions, they are the highest order central areas and have a more varied functions and arrangement. This is because, they cater for a wider range of people, functions and activities. The central area includes businesses and commercial areas such as a complete range of shopping facilities, offices of wholesale, warehouses,

civic areas which is mainly made up of administrative, cultural and social centres, like the town hall, public buildings such as educational and recreational buildings, light industrial manufacturing area made up of small factories and work-shops etc.

According to Kahn L. (1965) "the centre is the cathedral of the city". It is its soul and brain. To fulfill its role there must be physical evidence and embodiment of all that is best.

Central areas of metropolitan cities are thus characterised by intensity of vehicular movements which leads to the development of complex road systems, the convergence of pedestrains due to the varying nature of activities provided, seperation of vehicular/pedestrain circulation provision of ampule parking facilities to cater for vehicles etc.

There are district centres that serve a group of neighbourhoods depending on their total population to support the centre. The centres serve both those living in the immediate vicinity and sometimes those in the neighbouring districts whose own centres did not provide such variety. Apart from an adequate population size to support the centre; a district centre should ideally be close to a transit station the shops should meet the most basic and some specialised shopping needs such as a post office, clothing store, bank, pharmacy, furniture and jewelry stores, photo equipment; facilities such as a day nursery, medical clinic, a youth club etc. Suitable parking spaces of between 50 - 150 spaces or more depending on car ownership should be available.

A neighbourhood centre on the other hand is seen to offer less specialisation of functions and activities. Activities and functions found there are to take care of the day to day needs of local residence. In Chicago U.S.A. for instance, a residential neighbourhood centre was designed and within it provision was made

for commercial shopping and entertainment. The needs of small children, high school teenagers and adults were catered for by providing Nursery school and pet zoo, high school club and games room, Adult club, workshops, service shops and post office. C.I.A.M (1952).

In villages along the countryside, characteristics of the core areas is a departure from what has been previously described of the city. Kolsdal for example, is a small settlement of about 3,000 people in Norway. It is located on the outskirts of Kristiansand. The core is limited to the provision of small shops, Nursery school, a post office, a welfare clinic, a restaurant and a club room. Major shopping pleasure trips and work are attended to in Kristiansand which is a larger settlement of about 25,000 people. An intricate system of circulation and provision of parking spaces is not necessary. C.I.A.M., (1952).

2.12 Characteristics of Central Areas in developing countries

Central areas in the developing countries can be classified into traditional and modern. The later is seen more as a cultural centre from where the growth of the town started.

It is usually characterised by a dominant Obas and Emirs Palaca, a place of worship, the market, and a large open space that is used for commercial processions. The central area though a commercial area is principally a cultural area.

In Hausa towns of Northern Nigeria, for example, the dominant features in the central area include the Emir's Palace, which occupies an extensive land area. The Palace is flanked on the side by prison, a mosque, an alkali court, administrative offices and a large open space known as the "Dandali", which is used for ceremonial activities. The market is usually a little bit removed

from the rulers palace, figures 1 and 2 show sketches of the forms of traditional centres in Katsina and Bauchi.

In traditional Yuroba towns of the west, the central area is usually composed of the Oba's palace, the main open market known as the Oja Oba (Oba's market) a place of worship and an open space reserved for ceremonial purposes. The sketch of Ijero shows an arrangement of activities in the central area.

The central areas are generally characterised by narrow streets that are meant to serve as linkages and to provide access between houses and the areas of activities. They are therefore, presently seen as irregular, narrow and spaces within the area have awkward shapes. Hierarchy of spaces and buildings were created to reflect the power structure of the society and the pattern of socio-economic and cultural activities.

Modern central areas in Nigeria on the other hand, had their origin during colonial times. As colonialist set about their political and economic motives, traditional patterns began to give way and taste and ideas changed towards those of the colonialist. For instance in the Sabon Garis' of the North road network systems were not crooked as in the traditional cores but were laid out in grid iron patterns, offices, shops, cinema houses began to appear especially as this area served as the residential quarters for non-indegenes who were mainly traders.

In the western parts of Nigeria however, in some areas, colonial modern development occured alongside traditional areas. These traditional areas were forced to accommodate colonial developments mentioned above. This essentially influenced the forms of such central areas. For instance, entertainment were no longer sought out in open spaces provided in front of the Oba's palace but in cinema and the likes of it that were constructed

FORMS OF CENTRAL AREAS IN HAUSA LAND. FIG1.

KATSINA

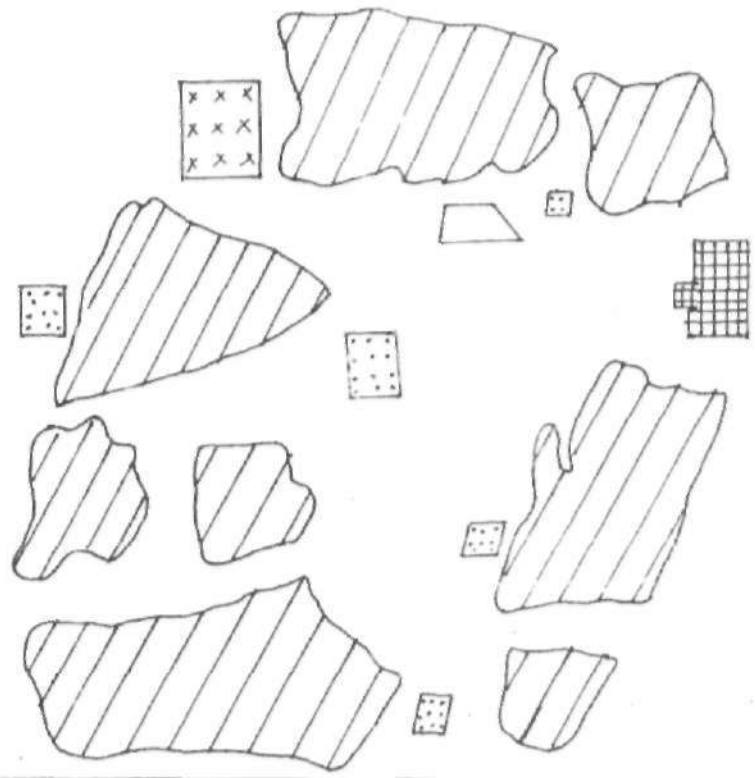
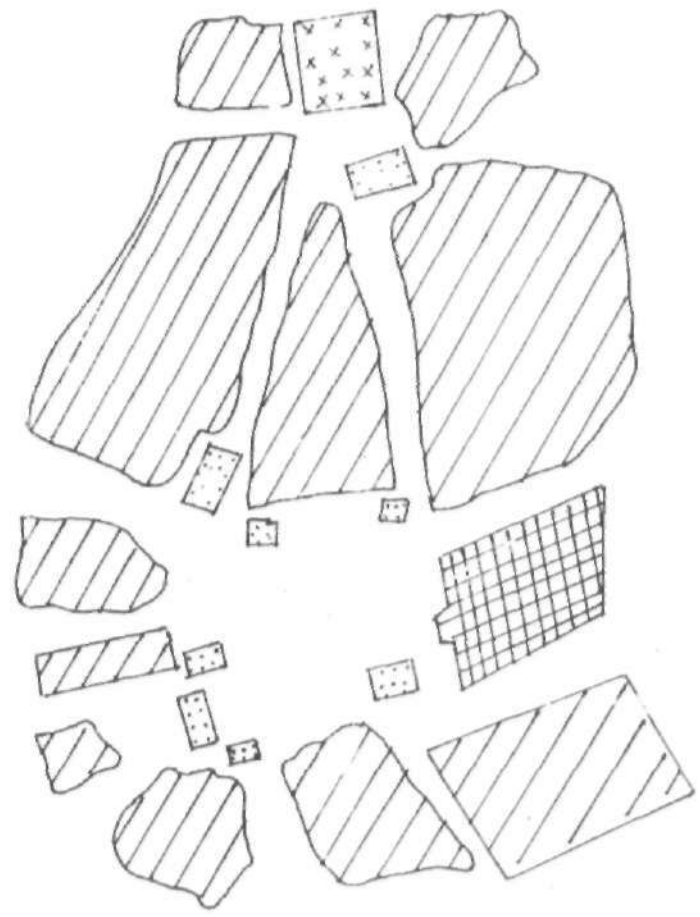


FIG 2.

BAUCHI



KEY

PALACE

PUBLIC USES

MARKET

RESIDENTIAL



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DEPT. U.R.P
A.B.U. ZARIA.

IJERO

Form of Central Area in Yoruba Land.

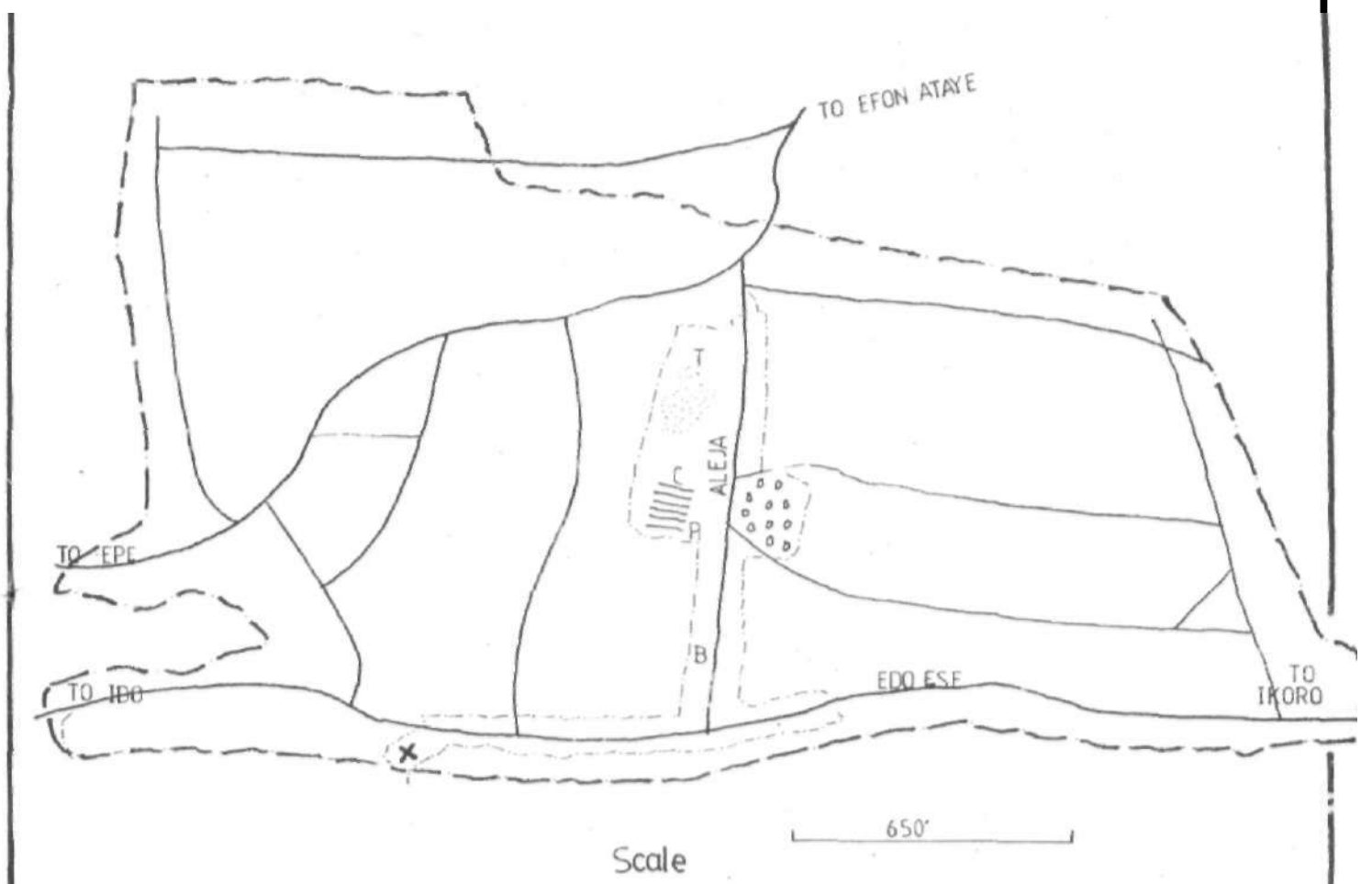


FIG. 3

in incidental open spaces or play grounds. Offices and shops were also built. The forms of these central areas became dense and congested because activities that were not meant for the central areas came to be developed. Attempts at broadening the existing narrow streets were not very successful because the roads were not meant for automobile, they were not straigth but winding within an already densely developed residential area. These areas expanded to serve as the central areas of the towns. Examples include the central area of Ibadan, where the Oja Oba market and other commercial activities are located and the central area of Zaira city in the North.

In the southern part of Nigeria, such as in Aba, the central area suffered enroachment as commercial and public services sought spaces in the central part of the town in order to have the greatest accessibility. This area started witnessing congestion due to improper organisation of land uses.

In other parts of Africa, in Arab cities of North Africa for instance, the mosque is found in the centre of the central area. A short distance away is the palace of the ruler, candle and perfume makers that supply the mosque with ceremonial requirements locate very close to the mosque. As a centre of learning, the mosque is boardered by the University which includes a large Library.

Rabat Sale in Morocco is a modern centre that has trebble in size in one generation due to recent industrialisation and the influx of people from surrounding villages. Traffic within the centre is segregated, foot-ways lead to residential sections and to school. A number of neighbourhood centres are also being provided to meet local needs.

2.20 The role of Central Areas in the development of cities

The central area is the central pivot around which revolves an area of a large radius. The central area is indispensable to the town as the life of a town depends on its activities. The central area being the highest order centre attracts people from both within the town and the sub-region to transact economic, political, administrative, social and cultural activities that directly or indirectly contribute to the growth and development of the town and indeed the entire region. Central areas vary in the role they are seen to offer to the town and the region. These roles range from commercial, financial, administrative to tourism etc.

In the developed countries, the central area of London for example, offer two roles:- As a financial and administrative centre, the financial core is within the medieval walls of the ancient city and it is grouped around two focal points, that is St.Paul's Cathedral on the west and the royal exchange on the east of the square mile. Banks, financial houses and brokage firms that serve the whole city are situated there, and most financial dealings are carried out within this financial core.

The west end forms the administrative and commercial core of the city. It is made up of houses of parliament, the white hall and Buckingham palace, all the big stores, theatres, hotels and the high density high cost residential district of may fair. All of these are very important organs within which decisions that affect the generality of the people are reached.

The role of some central areas are mainly administrative as the seat of the government. An example, is Washington D.C. Its central area is dominated by the monumental core consisting of the capital building, the mall the white house, a large complex

of public building known as the federal triangle which joins the capital and the white house. Benna (1976), The triangle has an imposing facade of buildings which house various federal departments and other activities of national importance. Major commercial activities are located adjacent to the monumental core mainly to the North of Pensylvania Avenue. The street network is laid out in grid iron pattern.

Some central areas serves as areas of tourist attraction prominent features found there include galleries, museums, monuments and ruins which are preserved and enhanced to serve as tourist attractions to people from within and outside the region. Examples include the Piazza delDuomo in Milan and Galleria Vittorio Emanuele. The Piazza consist of three important religious buildings which are the Cathedral, the baptistery and the campanile. Tourist from both within the region and outside pay visits to the area.

Some centres are however, significantly known as important commercial centres where people from the city and sub-region patronise the central areas. Commerce is however, found to be a very important function in all central areas except in some instances where other activities predominate such as is found in Washington D.C. Harlow the stow for instance is a shopping centre that was constructed in 1952 to serve three neighbourhoods, and was originally designed as a pedestrain precinct.

The central area therefore, plays several roles within the context of the region.

In the developing countries in Nigeria for example, the traditional market forms the core of the central area around which are found other economic, cultural and residential activities.

Kurmi market for instance plays a significant role in the central area of Kano and the whole sub-region, Kurmi market study team, (1972). In the survey carried out by the study team, Kurmi market was also found to be complementary to Sabon Gari market. Items of sales consisted of a large variety of foreign and local commodities. Out of a sample of 195 purchasers interviewed, about 51% came from Kano metropolitan area, while 26.1% came from outside Kano State. This reflects the regional function performed by the market within the area. 49.2% of customers interviewed live within distance of 5miles from the market while 14.4% live within a distance of between 5-20 miles. The remaining 18.5% live more than a 100 miles away.

Other central areas that support both the towns and other long distant areas within the region and sub-region are found in Lagos, Onitsha, Aba to mention a few.

Abuja in Nigeria serves as the new federal capital city. Its central area performs the dual role of being both a commercial and an administrative area. It is from Abuja as the seat of the federal government, that the affairs of the whole country is carried out. The central area accommodates the national assembly, legislative offices, ministrial residences, national monuments and the national botanic gardens. The national square is surrounded by the presidential villa, the supreme court and the municipal centre. Other building within the vicinity include embassies, conference centre and national theatre.

Central areas throughout the world have different roles to play within the region. Most are however, seen to play the roles of commercial centres while some play other fundamental roles such as administrative or cultural.

CHAPTER THREE

3.00 PROBLEM AND PHYSICAL PLANNING, APPROACHES TO CENTRAL AREA REDVELOPMENT

As a result of the role and functions which the central area is seen to serve in the sub-region various levels of interaction and activities found within the central area may generate problems which could be managerial, physical etc. Central area problems have been variously highlighted and solutions proferred for them by planners all over the world. Central area problems could be many and varied depending on the intensity and nature of land uses, circulation, density of development etc.

3.10 Problem of Central Areas:

A. Land -

Historically, many town centres have grown around cross roads forming a point of origin of the town, the position of greatest centrally and hence the most strongly competed for. Keebke,(1968) centrality was so important that even where land pressure within the town was slight, pressure becomes very intensive within the central area. Even where the central area is not centrally positioned within the town, accessibility to vehicles and pedestrains and availability of facilities and infrastructure serves as an attractive force to development. Land therefore, becomes scarce as it is more sought after and usually more valuable than land on the outskirts. Competition for it is greater and the tendency is all the more pronounced to pile upon them as much building accommodation as they will hold and sometimes a great deal more than can conveniently be handled by the public services. This is manifested in most central areas of the developed world where development is more vertical that horizontal in order to park more activities into a smaller land area.

B. Over crowding and congestion

Gibberd, (1953) maintain that the prime functional problem with most centres is that of over crowding of too many building and too much traffic on a small land area. He went further to state that this is not usually over the complete area but around important foci. Such as at intersection of major roads at a bus station or around a group of multiple stores. There is more financial gain to be made in providing floor spaces for building within the central area rather than external spaces for traffic. Increases in floor spaces however, means more people, traffic and greater pressure on external spaces resulting in traffic jams on streets. Spaces around grouped buildings degenarate into car parks or traffic roundabouts.

Congestion and traffic problems are re-emphasised by lynch (1971) according to him "the relationship between circulation or cars, service trucks and shoppers on foot are a standard problem. Central parking, a short walking distance, easy service and a pleasant pedestrain environment are all desired and they are in conflict". To address the problem of traffic congestion for instance, the city of Amsterdam has embarked on an effort to drastically reduce the number of cars in the down town (central area) area by 2005.

C. Pedestrain/Vehicular conflict

In developing countries, central area problems include pedestrain/vehicular conflicts. This occurs when pedestrains cross over from one side of the road to the other. The problem is also manisfested where vehicles are forced to park on pedestrain paths due to absence of parking facilities or its inadequacy. Lack of pedestrain/vehicular segregation has resulted in a lot of accidents resulting in loss of lives and serious injuries to pedestrains in particular. Technology

presently available does not warrant for the vertical separation of pedestrians and vehicular circulation. Zebra crossings are however, provided where the need arises. Unfortunately, motorist do not respect signs nor do pedestrians. Overhead bridges are sometimes provided for the use of pedestrians.

D. Inadequacy of parking facilities

Unavailability or inadequacy of parking spaces is a very pressing problem which bedevills the central area. This is due to increase in car ownership rate in our urban centres and by virtue of the fact that most people prefer trekking distances to be as short as possible to the destination of the driver even where no provisions are made for parking. Sometimes unavailability of parking spaces cause problems of double parking on roads leading to the closing up of roads especially where the roads are narrow. Closing up of roads reduce the accessibility to the central area especially where roads leading to the central area are poorly developed or are in a state of disrepair.

Other central area problems include incompatibility of uses, such as location of schools in close proximity to markets etc; obsolence of structures where whole areas are no longer suitable for their functions as such they go into decay; inadequacy of facilities and services etc.

Central areas in the developing countries are in most instances the origin of growth of the city as such structures found within the central area are sometimes as old as the central area itself. Structures are therefore found to be old and delapidated making the environmental quality poor.

Hawking activities on road reservations are carried out in temporary structures erected for the use of some traders. This is a very common problem especially on roads leading to the central area or even within the central area.

3.20 Approaches to solving central area problems in developed countries:

Central areas are dynamic, undergoing change and development. They are never static in form or function and they grow as the surrounding community grows especially where there is adequate accessibility between the central area and the surrounding.

In most old European towns, the centre consist of an important building, a cathedral, a palace or a castle and a civic space usually the market square which forms a nuclei around which dwelling are claustered. There were dominant buildings and a dominant space but no central area as is understood today. This area had no distinct character say for shopping. Infact, the whole town was often no larger than a present day central area. For instance, the city wall delineating the centre of Avignon was once the perimeter of the whole town.

As cities grew however, the central areas became constrained this necessitated some form of redevelopment, slum clearance, urban renewals, upgrading or improvement of traffic and transportation within the central area.

With there redevelopment, renewals etc old civic and market groups expanded into large civic areas, such as the Plazza and Plazzetta San Marco in Venince, shopping centres as the coventry and Harlow to mention a few. The central area is thus, one which is presently distinct and well defined by a contrast in scale and mass of building and sometimes by topography. Civic centres that

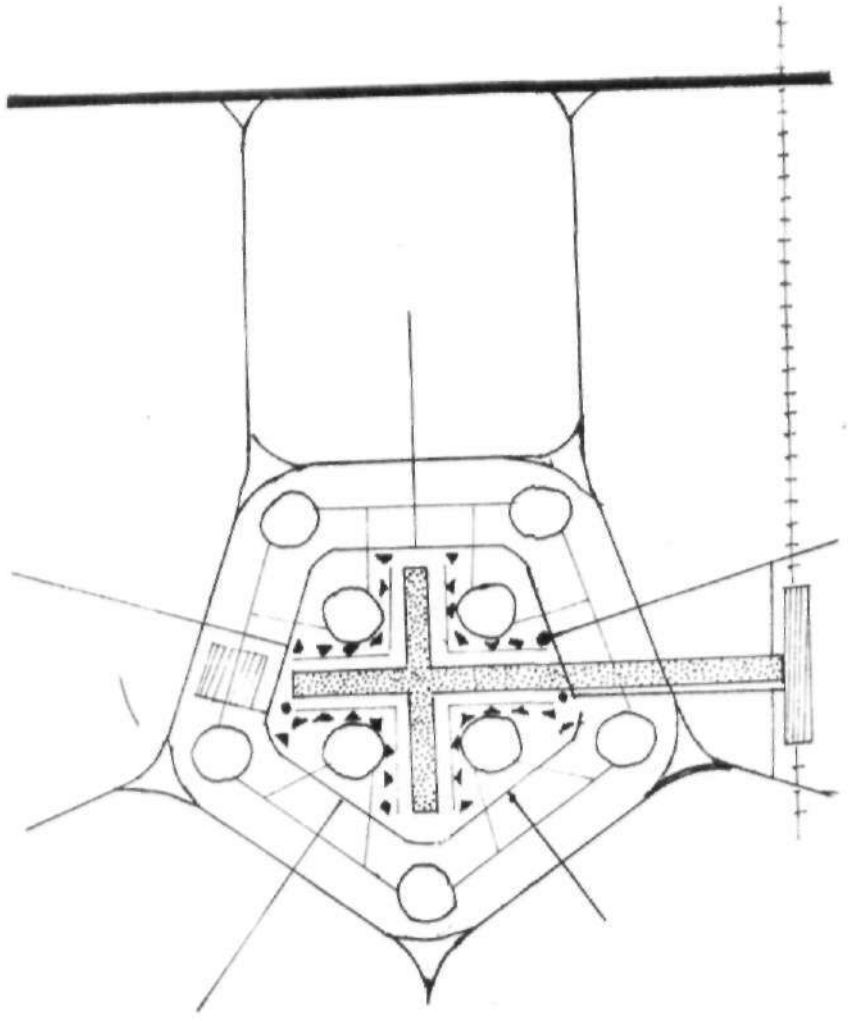
were devastated by war were redeveloped after the war. Others were due to increasing personal property requiring more shops, increased sizes of grocery stores, development of super markets that needed good accessess and parking spaces. Redevelopment schemes, upgrading of facilities, slum clearance etc were all aimed at producing both a beautiful and an economic environment.

A few specific examples from different countries where proposals for redevelopment upgrading, renewals of central areas were carried out will illustrate some fundamental problem and solution for them.

Redevelopment of the covent garden

Plans for the redevelopment of covent garden area of London were drawn up so as to revive the coventry after the damage wrought upon it by bombing, to provide for the unexpected increase in car ownership and also to obtain a fully comprehensive vehicular and pedestrain segregation. In the plan, the central area is prescribed by a ring road which intersects the radials converging on it as shown in fig. 4. Another ring is developed inside this and light industrial and ware houses are sited between the two rings. The heart of the area is broad-gate, the historic centre. Shopping, business, entertainment and civic activities are found within the inner ring and it is characteristised by a pedestrain precinct replacing the old west road. The most central part is laid out as a formal garden. These objectives were achieved by ensuring that the road besecting the upper and lower precincts (market way) is replaced by a pedestrain shopping street, (as seen in the diagram) and the central square. Broad-gate has

FIG 4. THE COVENT GARDEN



- Light indust & ware houses sited btwn the two ring roads
- BUSS, ent, shopping & civic uses within the inner ring road
- Heart of the c.a. characterised by pedestrian precinct

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traffic removed from the three sides adjacent to the upper precinct. An inner distributor road intended primarily for buses and services vehicles follow the line of the outer ring. Multi-storey or roof-top car parks surround the centre and intercepts motorist from the approach road.

B. Ahmedabad Urban Renewal Project:

This scheme which is residential in character seeks to evolve concepts to guide the development in this particular situation. The situation being that the Fort walled area which is a Residential sector of the central area was built in the 14th century to cater for a population of about 78,000. As at the time of renewal however, the population residing there was more than 50,000. This resulted in congestion of people in houses and of houses on land, making the streets and lanes narrow and the whole area devoid of open spaces and fresh air. Cross traffic through the area was totally absent. (Figure 5 below).

The scheme was therefore aimed at decongesting the area. The area is divided into planning modules of one hectare which are disposed on the site to create continuous open space. The housing sectors have wide pedestrain paths between them. From these pedestrain paths filter smaller paths which lead onto the housing groups and spaces formed by the disposition of housing structures. All social, educational and commercial activities have been placed on large communal spaces. (Figure 6 shows the plan after renewal, creating a less congested and pleasant environment).

05

FORT WALLED AREA OF AHMEDABAD SHOWING OVERCROWING OF HOUSES

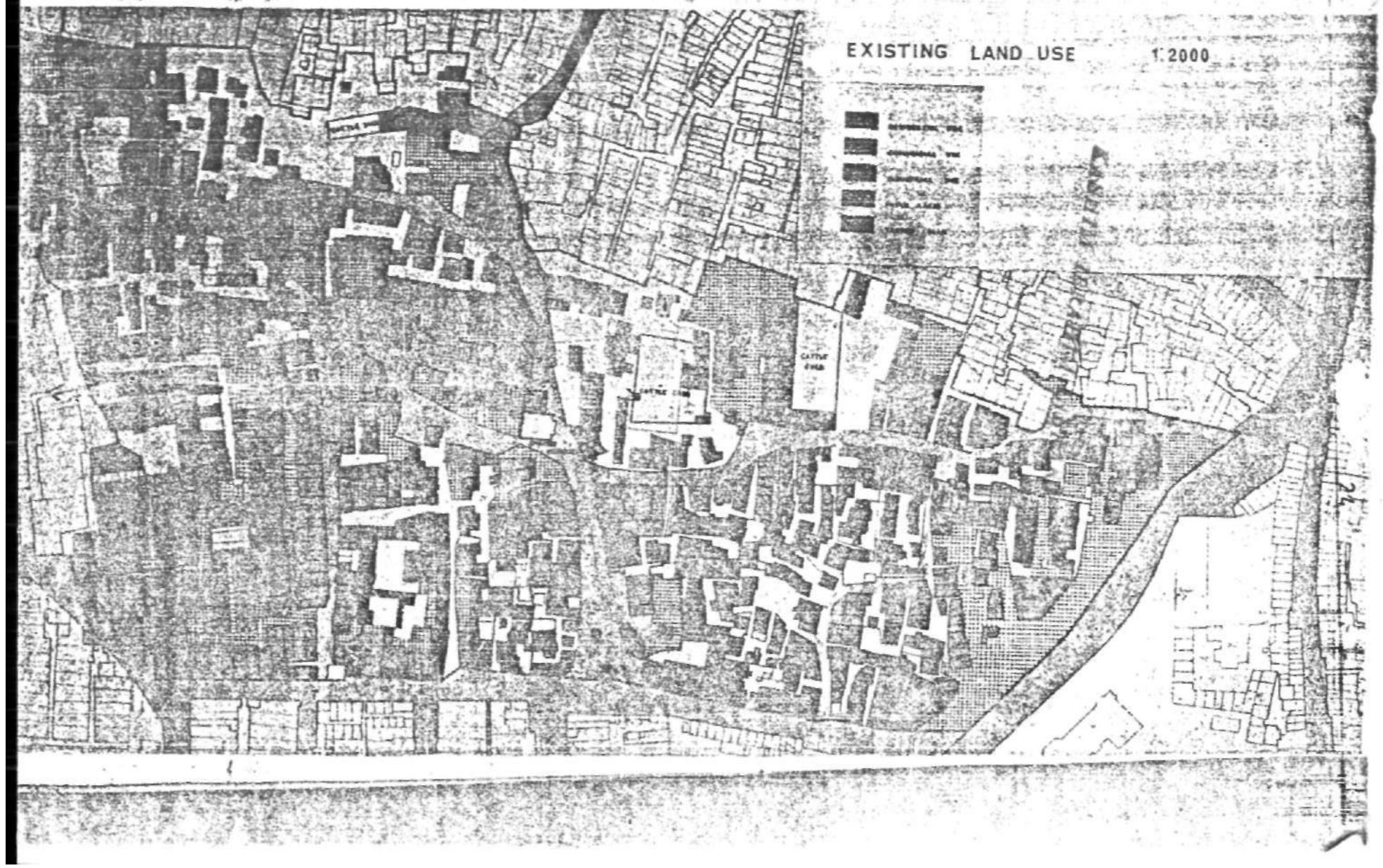
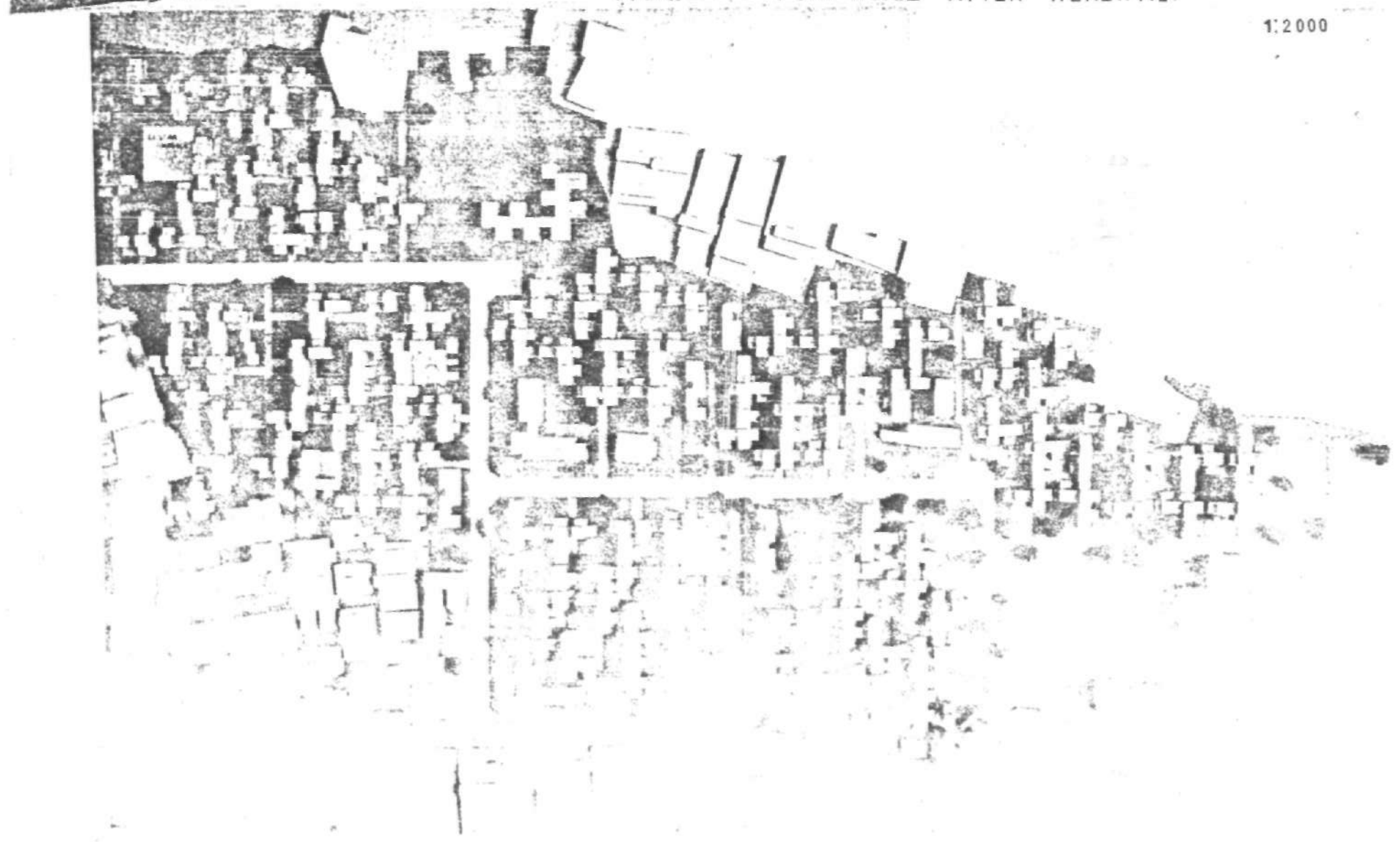


FIG 6. FORT WALL AFTER RENEWAL

1:2000



C. Slum Clearance Scheme of Tel-Aviv:

The district was built initially as a residential quarter. It however, acquired central business characteristics in a vary short period. In consequence, it has narrow streets, obsolete services and dilapidated structures and lacks any adequate circulation facilities or parking facilities of any kind.

The aim of the scheme were therefore -

1. The extension and creation of a modern, adequate central business area for Tel-Aviv metropolitcan area.
2. Renewal of a dilapidated area while at the same time solving problems of clearance and rehabilitation of a residential slum area.
3. Improving the Tel-Aviv area transportation network.
4. Providing for beach facilities, as well as a general "face-lifting" of the long existing beach.
5. And the creation of a generality suitable architectural order.

To achieve these, the layout plan offered an efficient organisation of commerce and administrative functions. Care was however taken not to creat a purely office - store complex that could be deserted at certain periods. This was achieved by laying out two wide pedestrain boulevards at right angles to each other. One stems out from the existing central area towards the sea, where a large civic square is planned as terminus. The other one bringe existing commercial streets into the project to connect the two parts of the city.

These boulevards develop into squares, parks, etc while providing entrances into one and all structures bordering them. Building of every use open into them, while preserving residential

hygiene and preventing circulation hazards as car parks and entrances are separated and placed behind the main structures. These create the best condition for the longest possible day and night activities.

Also 40 new traffic lanes were planned for, 8 of which were to be free way lanes. Parking is provided in under structures. The total parking accommodation is put at 25,000 car spaces.

D. Urban Renewal Programme of Charles Centre, Baltimore:

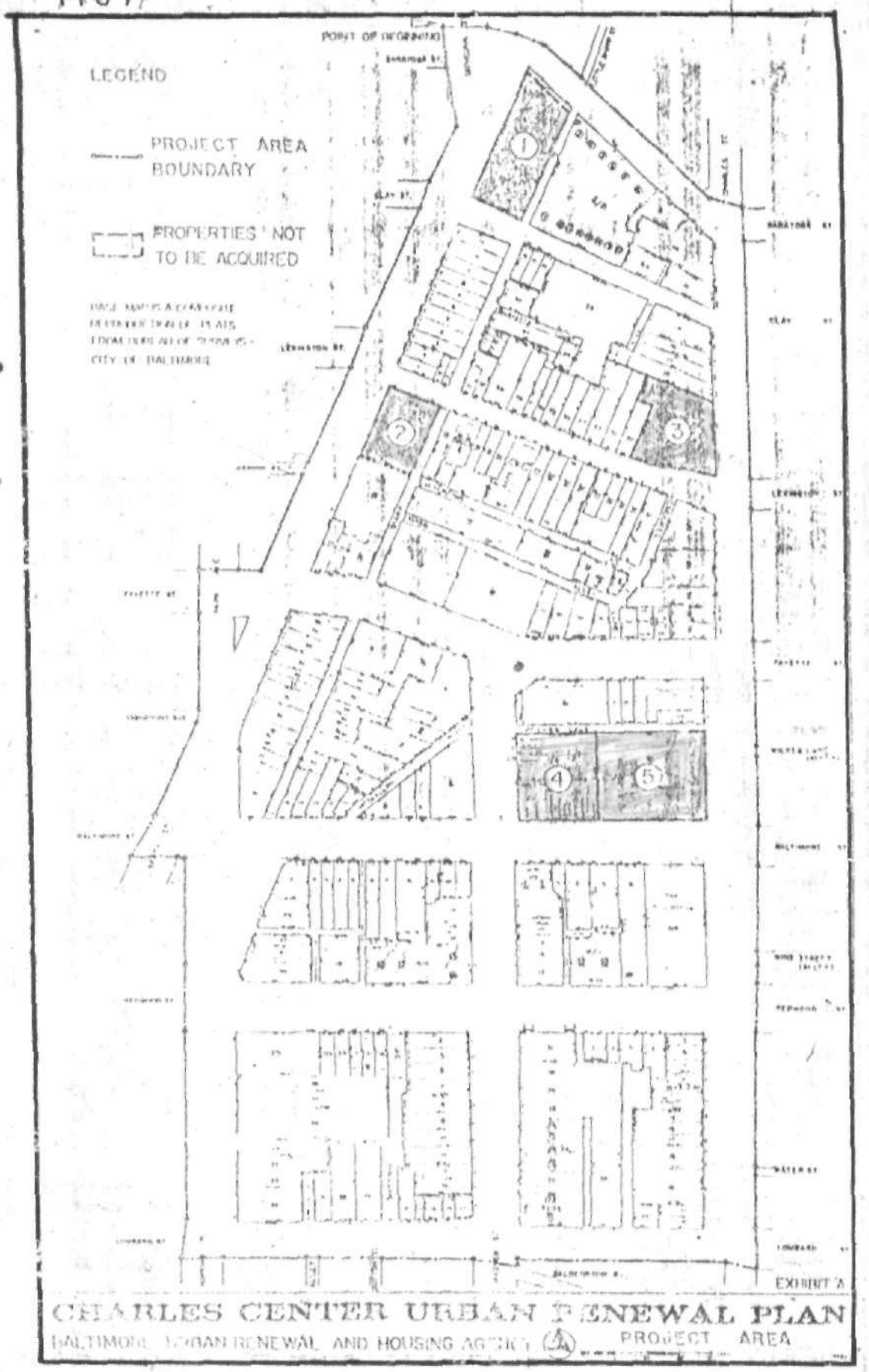
Before the undertaking of the Charles Centre Project, the core of the city was afflicted by severe blight symptoms where obsolete and inefficient loft buildings, deterioration, traffic congestion inadequate parking and servicing facilities and a lack of such amenities as light, air and greenery. (As observed in the Figure 7 below).

The basic objectives for undertaking the Charles Centre Scheme are to to obtain the best possible development, to have the greatest increase in tax return to the city and the highest price for the land consistent with the first two objectives.

The scheme provided for the creation of an area of high density development without sacrificing the amenities of light air and open space. The separation of vehicular and pedestrain traffic and the institution of comprehensive design controls which have resulted in a high degree of architectural excellence. As shown in Figure 8 below.

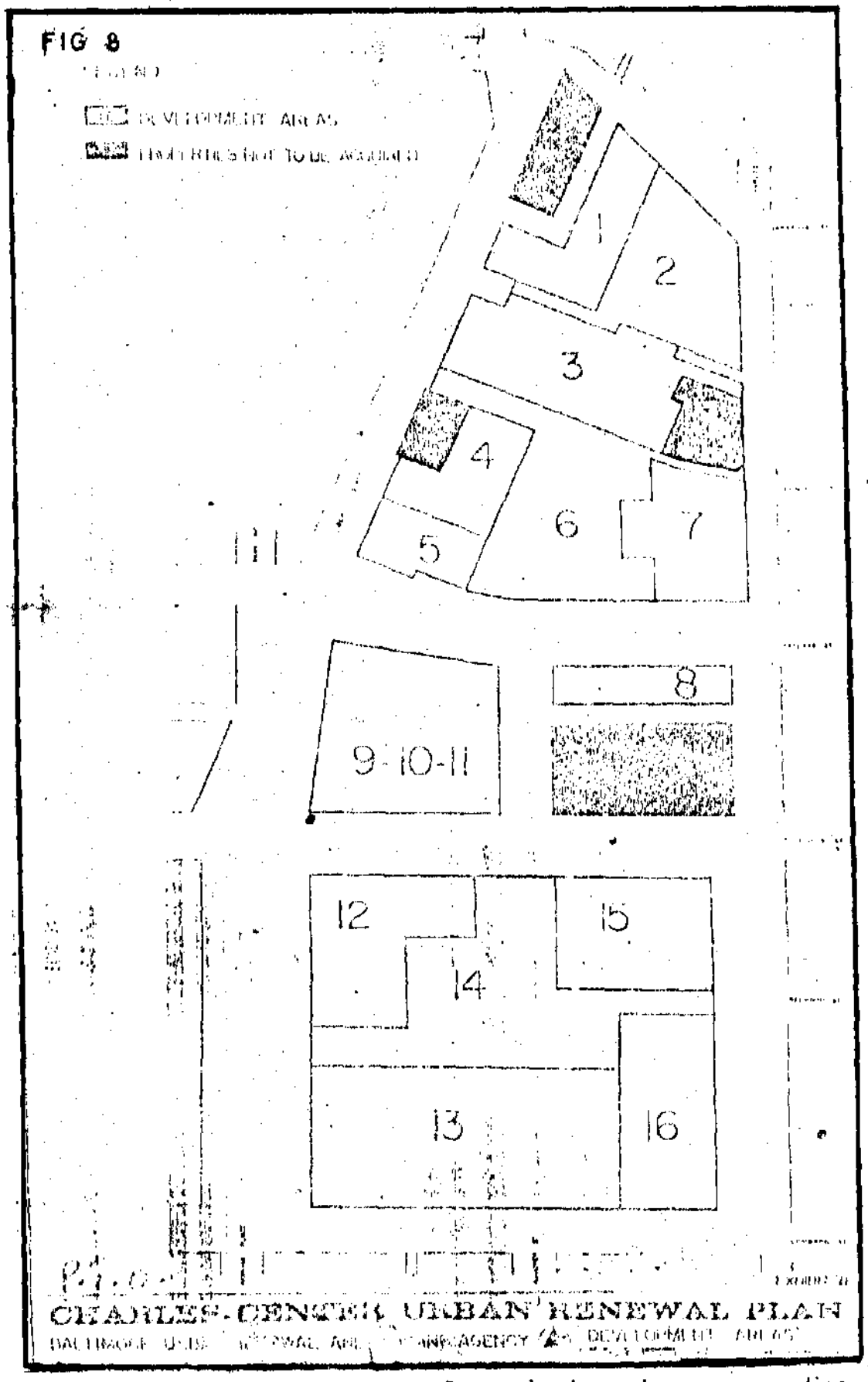
In terms of density, people employed in the centre were doubled, availability of parking was improved from 1,700 to 4,000 car spaces and open spaces provided strategically.

FIG 7



Map showing dot lines before Charles Centre was born. Shaded areas indicate properties retained as anchors for new construction.

Source Cress Well R. (1979)



Developed area (Charles Centre) shows how properties were assembled for the new construction and how street pattern was altered within the 22 acre tract for separation of vehicular pand pedestrian traffic.

Source:- Cress Well R(1979)

Separation of vehicles and pedestrains was also achieved by use of sidewalks, thorough fares at the second storey level, plat forms, over-passes escalation. Vehicular traffic is channeled on two major one-way through fares. Parking and servicing facilities were placed underground so that flow of pedestrain traffic can be separated from vehicular traffic by tunnels and ramps leading below the street and bridges and walk ways above.

Limitations on building placement and design have been established in the plan to assure that high standards will be maintained.

Redevelopment of dilapidated central area is necessary. According to Juchnowiczs (1962). In his comparative studies of the central areas of American cities, he mentioned that "the main purpose of actually carrying out of proposed improvement is to safe-guard the economic bases for the development of central areas to take maximum advantage of the land, to increase floor spaces and to creat conditions for its best possible use." It is therefore, not surprising that in the developed countries, complete pedestrain precincts are made use of in the central areas for the economy of space because pedestrains use less space than the space provided for the accessibility of the motor car which demands an increase of space for parking purposes.

3.30 Redevelopment of Central Areas in developing countries:

Redevelopment of central areas in developing countries is usually carried out mostly within the modern central areas. It is usually as a result of pressure on central area infrastructure and amenities, improper land use planning, congestion of traffic and inadequacy of or total lack of parking facilities etc.

A. Bauchi Central Area redevelopment scheme:

Bauchi central area redevelopment scheme was conceived primarily to rid the area of existing problems which were - the problem of intersection of two main highways which meet in the middle of the old walled town at market roundabout. Three nodes of traffic at the Wunti gate, post office and market roundabout were created. These all lie on the east-west road through the centre of the town. All urban and regional traffic pass through this area. Conflicts and accidents are created. Another hazard is created by the disposition of the lorry park and market on opposite sides of the roundabout. The market area is cramped and unsatisfcatory with no room for further expansion. Continuous frontage commercial development was rendering Waziri street useless as a traffic route. No provision of car parking or delivery of goods was made. The lorry park on the opposite side of the market makes the connection between it and the market dangerous with many accidents. Combined with these is the high number of pedestrains that the market generates. The problem is further emphasised by high density development that has restricted cross town routes for intra-urban traffic. Other problems include lack of adequate water supply which is expected to worsen with expected growth of the town, unco-ordinated drainage system and harphazard refuse disposal.

A redevelopment was therefore proposed. The contents of the plan were that, as the town is to become a state capital, there was a shift in order of priority. There is expected to be a rapid increase in number of development proposal and major land applications which will mainly be for office, housing, commercial and industrial sites. Therefore, these requirements cannot be met

within the walled area without considerable demolitions, and disruptions, so there was to be a new town centre development to the west of the walled area. A decision was made to enlarge the existing market, while rehabilitation and reconstruction was being carried out on the existing market area. It was however, decided that, that was far too small and badly served to be developed as a central market and retail area to serve the needs of Bauchi as State capital. So there was a recommendation for the setting aside of an area for a large market in the new town centre development.

In the design, proper provision is made for pedestrain segregation from traffic, car parking goods delivery and unimpeded access to a taxi and bus park.

The main objective of the plan is to create a new central area which is to sevce Bauchi town adequately on its new status as a State capital, to reduce the rates of risks and accidents within the older core area by segregating traffics by its destination, nature and speed, and also improve on the existing facilities and services.

Assessment: As was earlier mentioned, central areas in the developing countries are either the traditional or modern. However, problems of congestion, chaos etc could arise due to improper planning of uses within these central areas. It is therefore rational to attempt to solve these problems so as to enhance the proper development of the town or city. Contents of plans must however take cognisance of the type of central area and the role it is expected to perform before any meaningful solution can be carried out.

In Bauchi central area redevelopment decision was taken to site the new development outside the old walled area as the walled area was both densely populated and developed, and any additional development will tend to attract more people to an already congested area. While there is a plan to site new development outside the walled area however, there is another plan to enlarge the existing market within the older core, improve on existing facilities and so on. This will tend to create a less chaotic commercial environment on a temporary basis only because eventually all the improvements being made will not only serve to reduce congestion, and risk but will also tend to be a pull factor to more people into the old walled area.

Redevelopment of the older core (within the walled area) should consider that these area is the traditional core area, which should have only a minimal level of commercial activity which would have been adequately catered for by the older market as it were,without any enlargement of its land area. This being the case, a new commercial area should be developed outside the walled area with every available facility and services which will act as a strong attracting force to users. The innder traditional area will thus become less congested and whatever commercial activity found will serve mainly residents of the walled area, and not the whole town.

Therefore while the central area remains as a traditional/ cultural area, a new commercial area will be developed elsewhere that will take care of the whole town, and problems of congestion will not necessarily arise.

B. Sokoto Central Area Redevelopment Scheme:

The central area of Sokoto town comprises four important sectors which are :-

Kantin Daji commercial area:

This is the focus of commercial activities in Sokoto. The area is bounded to the North and West by Ahmadu Rufai Road and western bye-pass respectively. To the east, it is defined by Ahmadu Bello Way.

The Civic Centre:

Is the traditional centre of the city. It runs the length of Sultan Bello Road, from the Palace in the east to the old market in the west. It is the centre of socio-cultural and religious life of Sokoto. It also contains the tomb of Shehu Dan Fodio, Sultan Bello Mosque, the Palace and Dan Fodio Mosque near the old market.

The Dandali is the open space immediately in front of the Sultan's Palace extending along sultan Bello Road as far as to the Alkali court. This area is traditionally where the Sultan addresses the people or they come to pay homage during annual ceremonies.

The plan was conceived to bring about some kind of unity in the diverse positioning and location of central area functions and activities and also to re-orient the commercial centre from Abdullahi Fodio road onto Aliu Jodi road so as to ensure greater safety for the students and staff whose schools (numbering about five) face onto Abdullahi Fodio road.

The objectives of the plan include:-

- Producing a strong link between the traditional and commercial core by guiding development along Aliu Jodi thereby defining a clear spine of cultural civic, commercial and research oriented activities.
- The plan for the civic centre sought to meet present day needs of Sokoto and yet respect, preserve and enhance the existing architectural values.
- The Dandali was to be enlarge to be functionally and ceremonially appropriate for the traditional activities that occur.
- The tomb was to be integrated with the surrounding landscape and existing building.

Content of the plan:-

Within the commercial area, the plan considered the provision of additional government administrative facilities, business and commerce to be developed at three levels, creation of small scale development, medium scale commercial, wholesale and manufacturing businesses that require offices etc. Large scale businesses and light industrial facilities with other support facilities such as car parking area, petrol stations, bus/taxi parks etc were also provided.

An efficient vehicular circulation that recognises the various levels of inensity and speed were provided.

In the civic centre, the plan is for a design that relates positively to the surrounding contexts. It should be flexible to meet demands of varied uses, it should be visually sensible and economically sound, easy to implement and a pedestrain and vehicular system that can respond to the needs of the civic centre;

and also intergrate it with the existing pattern and proposed changes. The plan proposes for a mixture of Federal, State, Local government agencies and private organisations.

At the tomb existing approaches to the tomb are to be upgraded with provision made for the separation of vehicular and pedestrain traffic. Parking arrangement and landscapping are to be carried out. A new gate house is to be constructed at the second access point. A small museums is also to be constructed.

Assessment:

The plan for the Sokoto central area has taken into consideration the fact that central areas in developing countries are seen to play dual roles which are as a commercial or cultural centres which could exist together in one centre or separately in different centres, as is the case in cities with dual centres. The plan for Sokoto sought to create a continuity and linkage between all central area functions that were located far away from one another thereby merging all functions and creating one large central area with dual functions of serving the cultural and commercial needs of the town.

To a large extent, the plan proposals were implemented. for instance, the main essence of the plan which is to produce a strong link between the traditional and commercial centres has been achieved. Other plans however, that touches directly on the culture of the indigenes such as those that relate to the tomb, the Palace and its Dandali were initially resisted. This could be due to the fact that the people that are directly affected by this plan did not actually participated in the decision making for the development as such do not feel any commitment to the project but rather resisted because they saw it as an intrusion into their cultural lives. for

for example, there are officially alloted visit hours to the tomb, by sitting a museum within this premises it was felt that these visit hours can no longer be restricted and that the tomb will be open to visitors at all times. This, it was felt would destroy the serene, peaceful and quiet atmosphere in the tomb. To fore stall future re-occurances therefore, the people to be affected by plans should be invited to take an active part in the decisions and planning for activities so that their total commitment and cooperation can be assured. Subsequently, improvements on the palace and the Dandali were carried out.

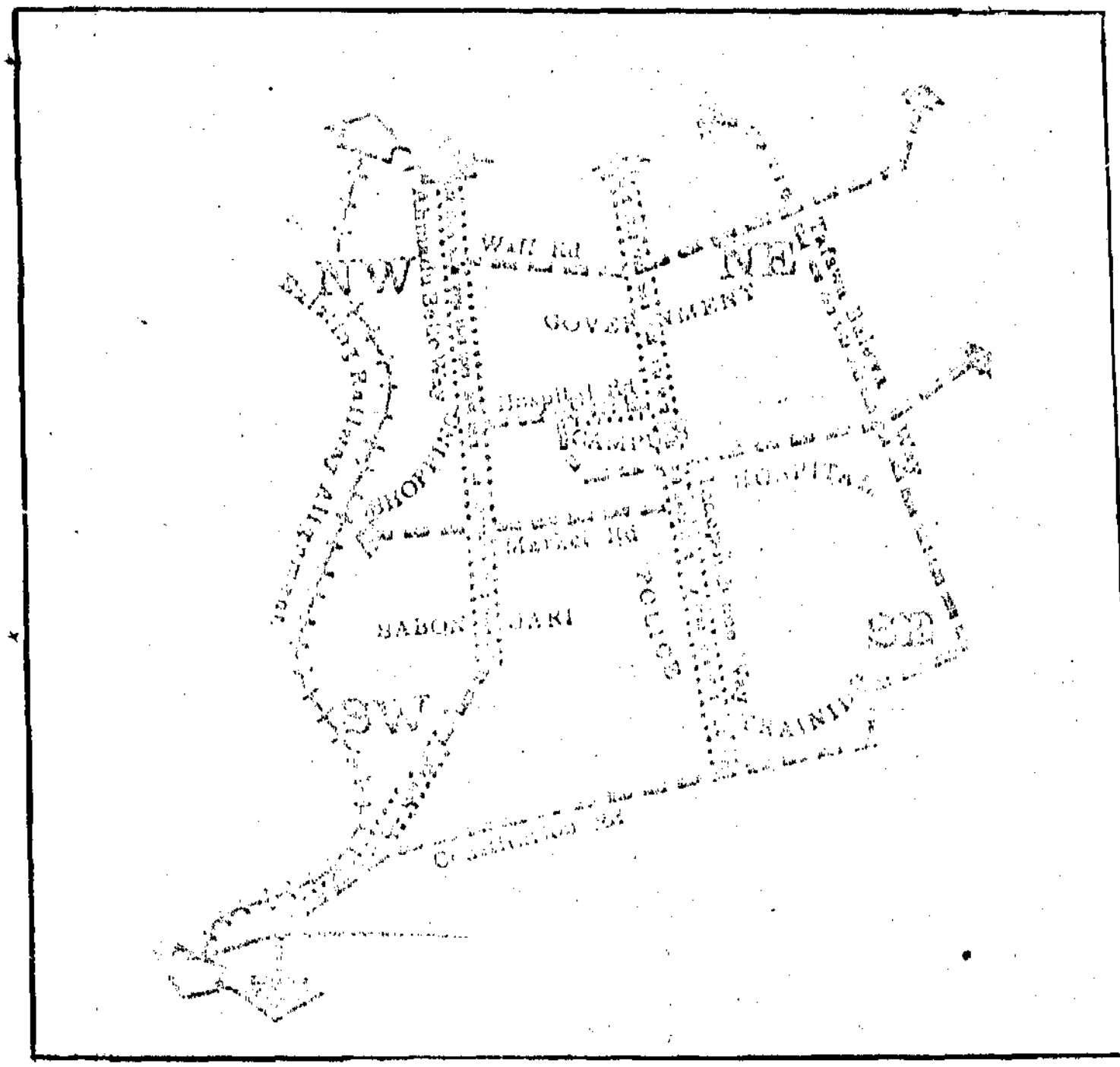
Some other none implementation of designs were as a result of administrative bottle necks and shortage of finance.

C. Kaduna Central Area Redevelopment:

The principal motive for Kaduna central area redevelopment scheme arose from the fact that the main roads of Ahmadu Bello Way, hospital road and Independence way were congested and dangerious, they were therefore to be relieved of some of the traffic which passes through the centre of the main shopping centre, Sabon Gari and the Government campus as they were becoming more congested, dangerous and disruptive. (Fig.10 shows a sketch of the central area).

The main parts of the central area are bounded by existing roads that have been incorporated into the plan as primary distributors. They are Waff Road on the North, Tafawa Balewa Way on the east and Constitution Road on the South. The remaining link on the west to complete the Box around the central area will be the new regional spine road when the railine is re-aligned As shown in fig.11 below. Traffic is taken out of these area and it is in turn made into attractively planted malls that are uncongested, varied, shaddy and pleasant such as is obtained in

IG 10. KADUNA ; THE PRESENT CITY CENTRE FIG 10



Railway to be re aligned to provide for a new regional spine road to relieve traffic congestion on the main roads.

Source:- KADUNA MASTER PLAN

FIG 11



Source:- KADUNA MASTER PLAN

The southern section of Ahmadu Bello Way is the civic centre. it was to be dominated by a tall column or other strong vertical feature. Other uses will include a hotel, police office, other offices, central mosque etc. The mall shall pass straight through the civic square. Daily traffic down the mall will circulate round the square before proceeding to its southern end. Adequate car parking facilities are also provided.

The central market is located on the North-west corner of Sabon Gari. All routes in Sabon Gari lead to the market. Along the roads are proposed site for Ambulance station, public baths and wash house. People come to the market across the tracks from Tudun wada district. The Market serves two of the largest centres of population in Kaduna, half of whom must cross the dangerous level crossing to get to the market. The re-alignment of the railing will remove this hazard, but there is still a need for an under pass, by use of several pedestrain ways t link both Tudun Wada and Tudun Nufawa to the market. Three under passes were therefore, proposed.

There was a programme of rehabilitation of the market because of the obvious chaos and confusion, lack of lorry parks, the one on Broadcasting road being quite inadequate for current needs, inadequate provision for private car parking, public lavatories and toilet facilities. Water surface drainage channels were defective, circulations impeded throughout the whole market area.

All these were to be remedied by a programme of rehabilitation which was to be carried out in five stages. A lorry park was to be constructed, lorry access, lay-byes for cars, wagons and taxis were to be provided. A total of 350 private car parks were to be provided etc.

Most of these plan was never implemented. This can be attributed to the fact that the railine that was to be re-aligned was not re-aligned as such the commercial feeder road that was to replace the track is not built. Therefore, Ahmadu Bello Way still experience heavy traffic which is generated by offices and shops on Mogadishu site. This was to have been relieved by the feeder road.

Also, the notion of the designers in terms of what a central area in Nigeria should be and what role it is to perform seems to have been influenced by their knowledge of central areas in developed countries. For example, it was specifically mentioned that in the civic square, there is to be erected a dominant tall column or other strong vertical feature to mark the real centre of the township like is found in trafalgar square. The statue of Lady Govinda in covent garden or the Liberty statue in New-york. These however, are of certain historical significance and importance to the people found in these areas. The presence of such statue or columns are on the other hand, insignificant to the people of Kaduna.

A lot of importance was also attached to the landscapping of the pedestrain malls by planting of trees, shrubs, flowers etc to create a pleasant relaxing environment. All these are not important features that are sought out in any central area in Nigeria. Maintainance of such areas would have been problematic in terms of both resources to be expended and manpower. Other uses such as public baths and wash houses were a new phenomena to an average citizen. The siting of hotels, pools, etc in close proximity to the mosque is considered a violation of the cultural values of the people.

The implementation of the plan was also to be undertaken by the government itself or other public agencies such as the Northern Nigerian Development Corporation. When the civil war broke out in 1967, however, all government resources had to be channelled into financing the war. Therefore, a temporary set-back was experienced.

It has been seen that while central areas are known to be afflicted by problems, these problems have been addressed in various ways in both the developed and developing countries. Solution to central area problems have been able to adequately solve central area problems in some cases. While in other cases, such solutions have only aided on a temporary basis either as a result of non-implementation of proposals due to inadequate finance, lack of commitment to proposals, unsuitability of proposals etc.

CHAPTER FOUR

4.00 PROBLEMS AND PLANNING SCHEME FOR MINNA CENTRAL AREA

4.10 INTRODUCTION:

Minna lies between latitude $9^{o}37'$ North and lontitude $6^{o}33'$ east, it is basically a Gwari town which got its name from ritual performed yearly by the founders of the town. Minna owes its growth and importance to the railway settlements established in 1918. As a result of this establishment, immigrant settlers were settled first in Keteren-Gwari, Kwangila, Limawa and later Sabon Gari.

In 1951 under the colonial administration Minna was made the provincial headquarter of the then Northern Province, in 1967 under the defunct North Western State. It was made the headquarters of the Minna division and later in 1976 it become the Capital city of Niger State.

Minna consequently expanded to include outlying villages like Tudun Wada, Bosso with the old township as the core residential area. The central area which was within the older core area experienced some growth and expansion. Activities that were unknown within the central area came to be introduced. These include offices, restaurants, financial institutions arts theatres etc. Most of these were not properly planned for and well sited. To create a befitting image for the new capital city therefore, the master plan set out to redevelop the central area that was bedevilled by, congestion, traffic problems and obsolate buildings.

4.20 Composition of Central Areas in Gwari Lands:

Gwari settlements are made up of small clausters of residences of between five to ten house holds, these clausters are spread over a large area. With time these small clausters

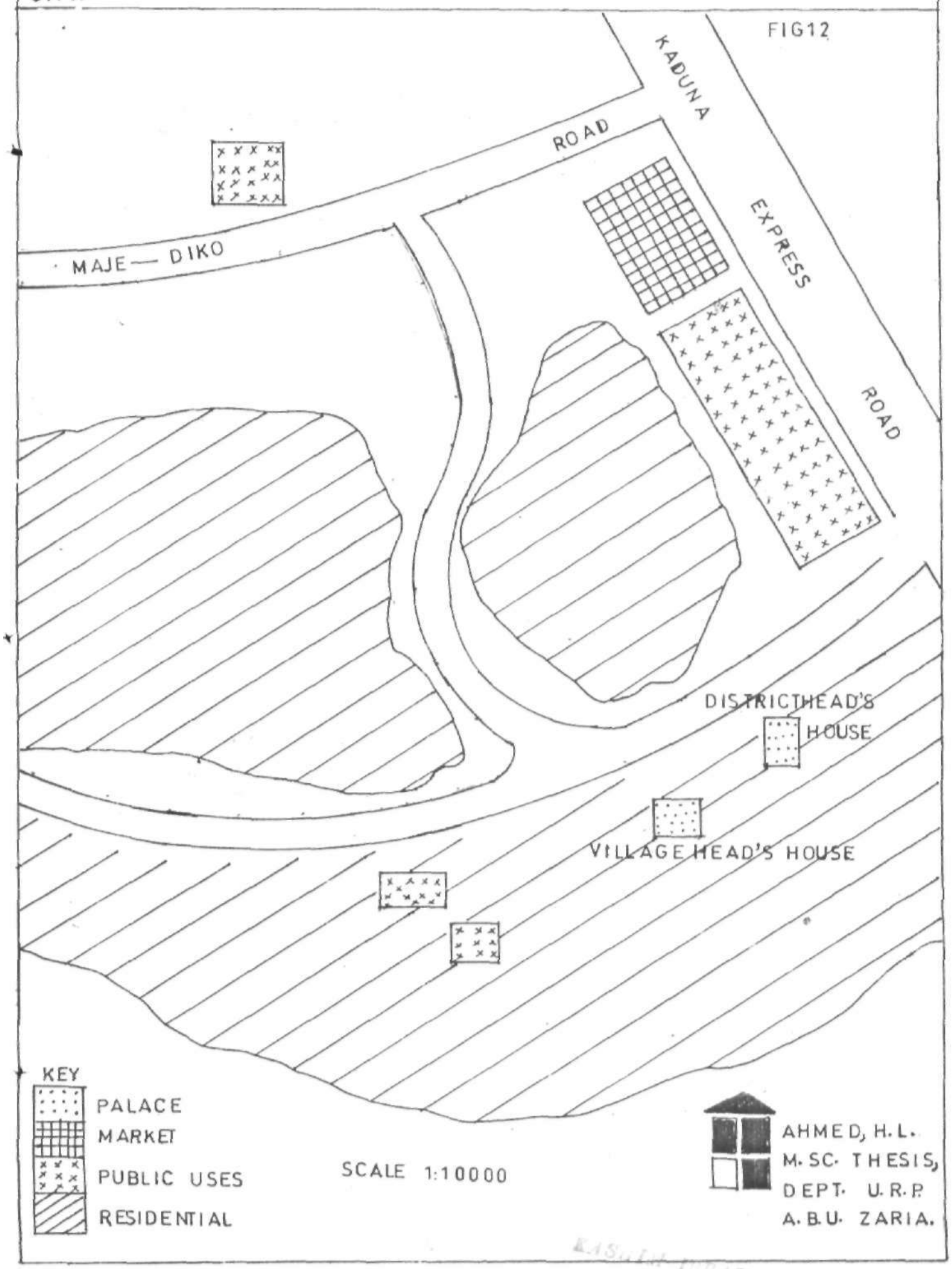
expand and develop and specialisation of activities begin to manifest. The internal structure of these areas is such that, places of worship (usually shrines located in forested areas before the advent of foreign religions) are located far away from the settlements because women and children are supposed to be kept out. Chieftaincy titles rotate amongst a certain group of villages. so the rulers palace is seen as being of a temporary nature in any one village. Markets are usually located on the outskirts. This is because, commerce is carried out on a periodic basis usually after a five day interval. Traders and farmers from surrounding area converge to buy and sell, thus the need for a large open area to accommodate all activities. This structure can be seen clearly from the sketches of Dikko and Izom villages both Gwari settlements in Gurara Local Government of Niger State.

A distinct arrangement of central area functions such as the convergence of the market, place of worship, rulers palace and other public uses as found in other parts of the older cities of the North is abscent. Rather, the rulers palace forms a point of focus around which the older residences locate.

This setting is slightly different in larger towns such as Local Government headquarters where some central area functions and activities are deliberately sited to assume features and characteristics of central areas elsewhere. Minna occupies a different statute in the state and its rate of development was influences by the authorities. This is because of the political influence it experienced during the stages of its development it experienced colonial administration and was made a provincial headquarters, then a divisional headquarters and a state capital. While these transition were made, attempts were also made to ensure

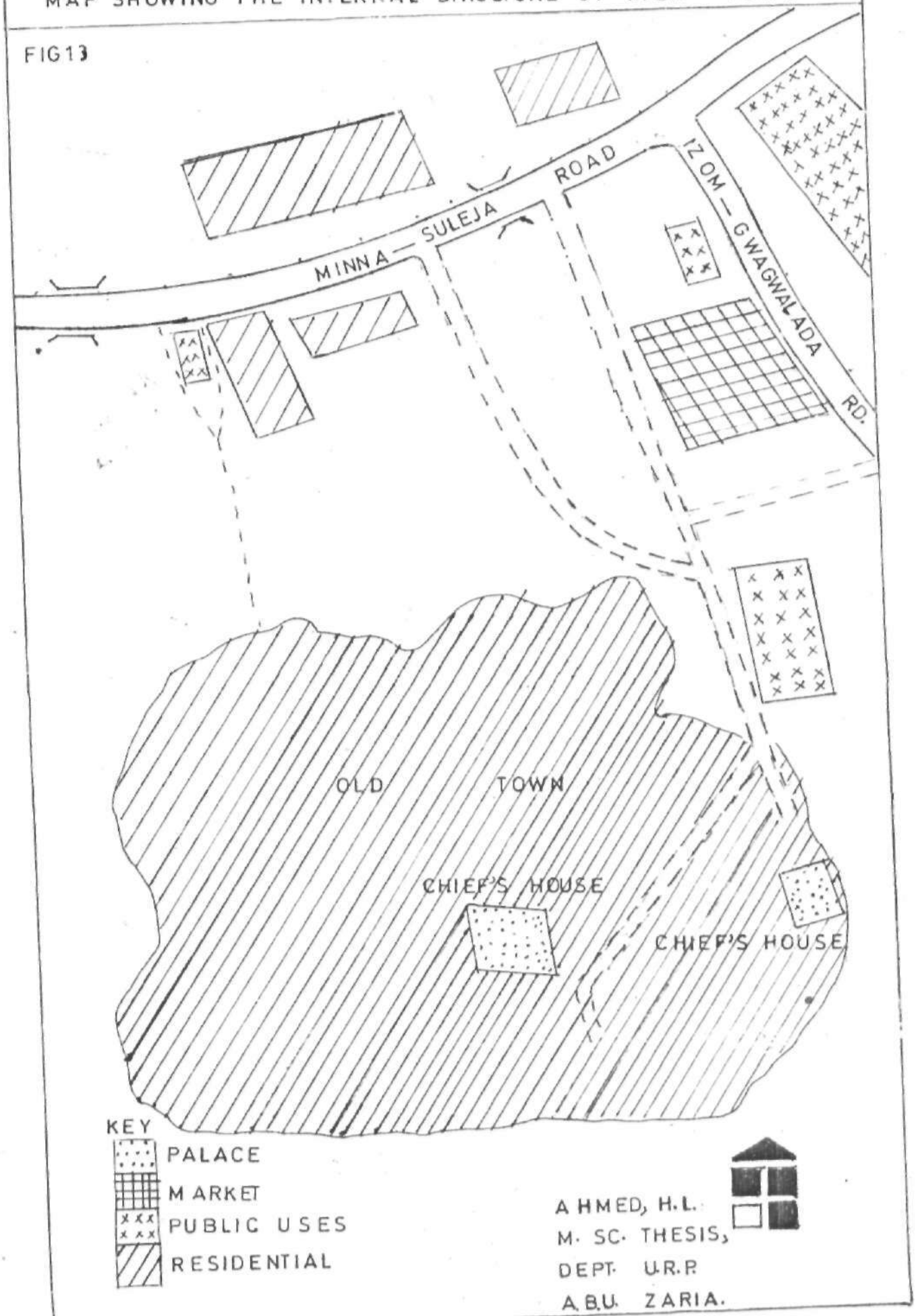
DIKO TOWN SHOWING THE LOCATION OF THE MARKET IN RELATION TO THE CITY.

FIG12



MAP SHOWING THE INTERNAL STRUCTURE OF IZOM TOWN

FIG 13



that physical developments were similar to what obtained in other towns of a similar political status. So central area functions were introduced into the central area to influence the growth and development of the town as a whole.

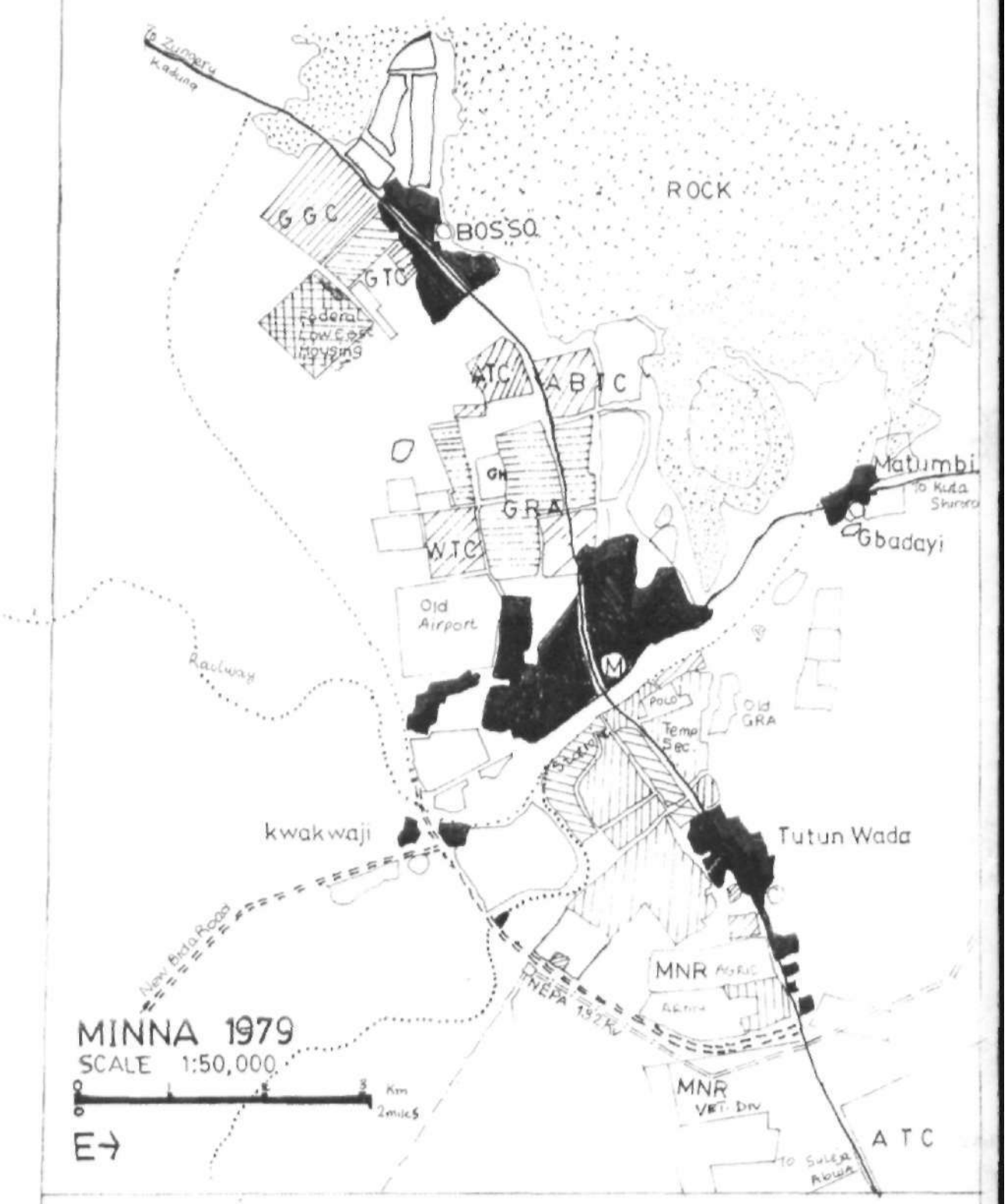
At is were, central area functions/activities came to be located within the oldest residential quarters of the town, which is located a short distance away from the railine which served as a boundary to the central area beyond where there was no physical development as at the time when Minna became a state capital. The market was located close to the railine.

4.30 Origin of Minna Central Area:

Minna was a small Gwari settlement before the establishment of the railway. It had two outlying villages, Bosso to the North and Tudun Wada to the South. The railine passes between Minna and Tudun Wada. As shown in fig. 14 below.

Minna existed as a town on its own while Tudun Wada and Bosso were considered as villages outside Minna. Minna being the largest settlement served as the seat of the chief, it had a market on the outer limites of the town close to the railine. Wednesdays were observed as the market days when buyers and sellers come from surrounding villages such as Pyata, Chanchaga, Tudun Wada, Bosso etc.

Other sectors of the central area include the chiefs palace which is situated a kilometre away from the market. Close to the palace is the alkali court which was presided over by the Judge who settles frequent disputes that arose between labourers of the railway and other citizens of the town. Local Government offices, mosque, police stations were later developments that occured when the town became a provincial headquarter.



SPATIAL RELATIONSHIP BETWEEN MINNA AND BOSSO/ TUDUN WADA

M MOTOR PARK

AHMED. H.L
M.SC. THESIS
DEPT. U.R.P. A.B.U ZAR.

FIG-14

The central area therefore, developed to perform the role of being the commercial and cultural centre.

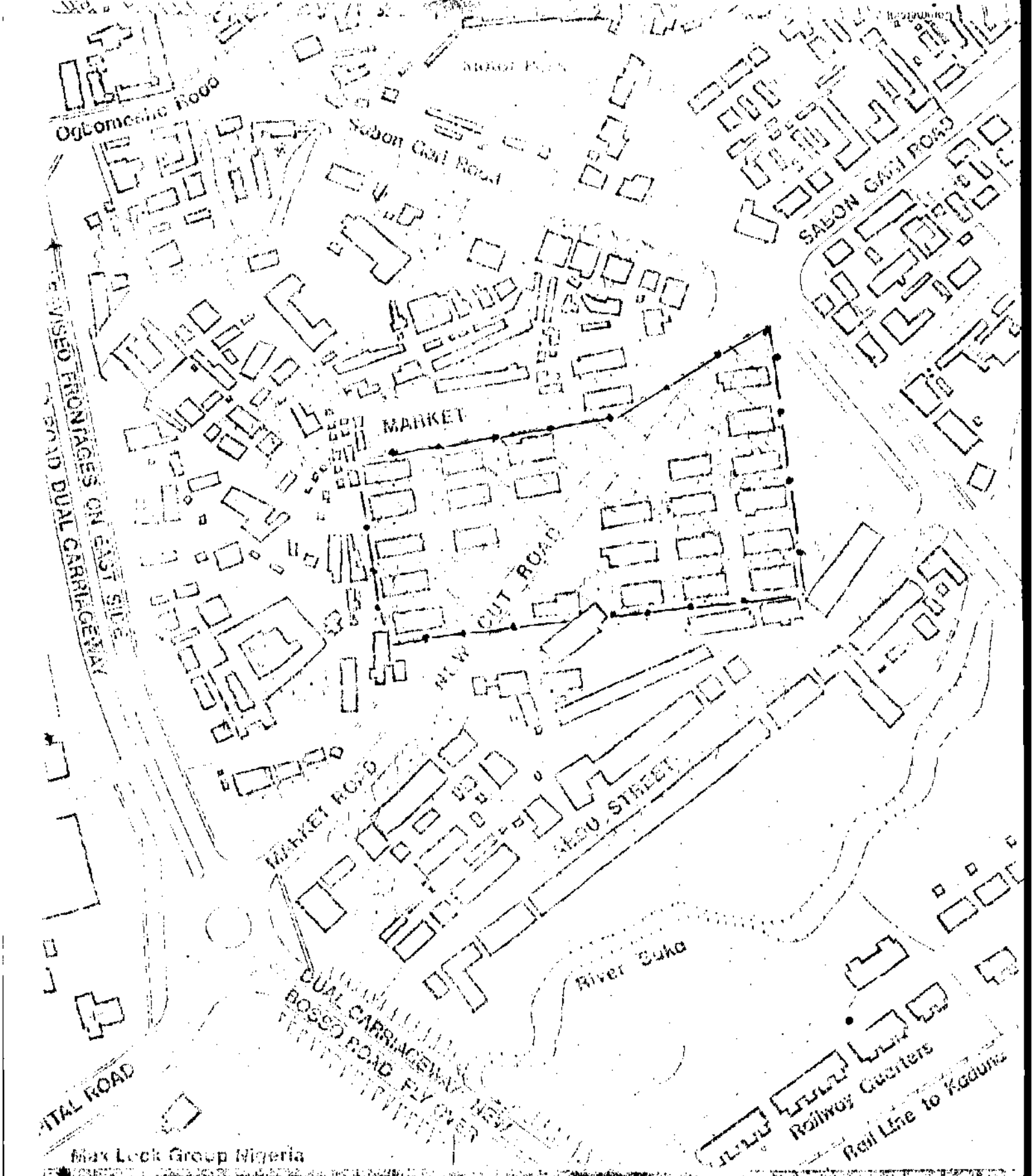
Minna expanded to meet up to the outlying villages of Bosso/ Maikunkele and Tudun wada. Commercial activities usually associated with traditional markets that were erstwhile located on the fringes of the town came to acquire a central position. Consequently, other commercial activities came to be established around and within these areas.

4.40 Area Coverage and Characteristics of the Central Area:

Minna central area is defined in the master plan as being bounded to the North by Kuta road, to the west by Bosso road and to the south and east by river suka which runs north eastwards almost paralled to Abdu street as shown in fig. 15 below, the area covers about 31.1 hectres.

Kuta road passes through a residential area and serves as the main linkage between Bosso road and Sabon Gari. These are two areas where commercial activities are intensively carried out. By virtue of this fact therefore, Kuta road frontage is also a commercial street where building materials, spare parts, furniture show rooms etc are found. Beyong the shopping streets are found residential quarters.

Bosso road which forms the eastern border of the central area can be termed the focal point of commercial activities in the central area. The road frontage is taken up by all kinds of commercial activities, business, financial institutions, offices, shops, stores etc. Beyond Bosso road is also found residential land uses and a mixture of residential commercial uses.



Minna Town Centre 1979

FIGURE 15

Showing Old Market Boundary

1:2000

Existing Trees

Existing Buildings

Upgraded Roads with Drains

Old Roads

Old Market Site

To the south and east of the central area is river suka which forms a natural boundry to the central area. Road net works that lead to the central area include Bosso road, Paiko road, Ogbomosho road, Airport road, Lagos street and Hospital road. These roads are tarred and have a network of drainages that drain surface water away from the central area. This central area defination by the master plan however, is a great departure from a central area structure as found in traditional gwari settlements which is usually made up of the rulers residence as the core focal point of the town around which are found other public uses interspersed among the residential area.

4.50. Criteria used in defining the central Area by the Master Plan:

No specific mention was made as regards the parameters used in delineating the central area, except that the area offers the highest order activities and was observed to be fast becoming congested and problematic. The master plan which was prepared by a foreign firm therefore carved out a functional area for the convenience or carrying out redevelopment. The central market and the immediate surrounding uses were taken to form a part of the central area. This was done without necessarily considering the fact that central areas in gwari land are different in the sitting of their functions and activities. While for instance the commercial activities in the central area of most cities in the country, commerce is usually relegated to the outskirts of traditional gwari settlements.

The civic/cultural area was also cerved our of the defined central area because no immediate problems were associated with

the area, this is wrong. Central areas, are expected to satisfy not only commercial uses but also the cultural needs of the people. The civic area, in the cases of Minna should form the most important focus in the town, and as such should have been addressed as a part of the central area. All together, the central area has been represented wrongly. It does not include the important functions that are associated with gwari central areas but made up mainly of commercial activites.

4.60 Minna Central Area Redevelopment Scheme:

Minna core area is the oldest part of the town. It accommodates the earliest residences including the Emirs and other Chieftains. It is the cultural core of Minna. The gwari market as it was then known was close to the railine on the way to Tudun Wada before the level crossing.

The town became more economically viable only after the establishment of the railway, many traders then came to establish their businesses. Most of those that sold perishable goods such as vegetable and fruit were located at the railway station and along the railine. Those that sold more durable goods however, sought more central positions close to or in the market. Other shops and offices therefore, started springing up along the roads loading to the market, on other available spaces between structures and in structures whose uses have been converted from residential to commercial uses.

Apart from the establishment of the railway was the added influence of the state creations and the making of Minna its capital city. The city therefore experiences more influx of people and activities both of which had direct bearings on the

central area. The central area thus started witnessing the problems of congestion, obsolence of structures where such structures could not adequately serve the purpose they were being put to. Inaccessibility of the central area was also experienced as only one road was tarred, while the others were narrow, untarred and almost impassable during the rainy season. Problems of overcrowding in houses within the core area, congestion in the market, poor refuse collection and a generally poor environmental quality existed.

For instance, more than 52% or over half of the houses were so congested that they were described as "at risk" compounds in the master plan. This was due to the fact that there were five or more house holds or 20 or more persons living in a house. The plan proposed for reduction in the number of tenants in the compounds to four or less house holds, while the vacated rooms be demolished to provide space for the construction of extended facilities in the house. Displaced persons were to be provided with new housing accommodation since they were considered to be the poorest people and they depended on the town centre for their economic livelihood.

Facilities such as storm water drainages were sadly lacking. The roads were as a result, eroded to develop natural waterways. Where roadside ditches were provided, the channels and culvets were often blocked with refuse leading to local flooding during the rains. In addition, there were pot-holes and muddy areas throughout the rainy season. The area was therefore subject to an improvement scheme.

There were no sewage treatment facilities for the town therefore, septic tanks and soakaways were in use within the central

area, while majority of the population used pit laterines and a few used bucket laterines.

An appealing situation concerning the disposal of refuse existed, there were many widespread heaps of decaying dirt and rubbish which combines with waste water and contribute to the smelly and dirty look of the central area. Refuse is usually collected without being disposed. the environmental quality was squalid, dirty and unhealthy.

The roads in the central area were in a poor condition. Bosso road which runs North-South through the town was a two lane road which has since been reconstructed to a four lane dual carriage way including a fly over the rail line to replace one of the two level crossing. It is the main access to the central areas, it generates more traffic and urban traffic and also connects places of work to residential areas. Other roads within the central area that needed reconstruction include Kuta road, Airport and Hospital road.

Conflicts were observed between pedestrains and motor vehicles especially at the section where primary schools are located. This is particularly dangerous to school pupils. Plans were therefore, drawn for overhead foot bridges within the vicinity of the schools.

Parking problems abounded in the central area this seemed more intensive since the roads are narrow and in bad condition of repairs. Parking problems are more noticeable along the market road and around the market because visitors to the market all tend to park there indiscriminately. The volume of on-street parking however, reduces the capacity of the road causing congestion.

Pipe borne water supply and distribution to the central area was considered effective and adequate as at the period under review. A 30 metre water main was being built along Bosso road to serve the central area. Water pipe were not however, properly buried under the ground. This cause some pipes to burst when heavy traffic mounts them.

Electricity supply on the other hand was very unreliable all over the area. It was hoped that its supply and distribution will improve when the hydro electricity project at Shiroro and Jebba are completed.

A new telephone system was also taking over the defunct wrought iron poles and multiple tiny cables replacing it with neat wooden poles and neat thick single wires. As at then only a few offices and business used the phone service in the central area.

The market and its immediate surrounding area generate activities in the town, with the sitting of additional shops and other similar uses around the market, and an improper planning of land uses, congestion resulted.

Based on these problems that existed within the central area, the master-plan proposed to carry out a redevelopment scheme that was to address and solve the problems.

4.61 Proposed Redevelopment Alternatives:

Alternative A:

In an attempt to address congestion within and around the market, the plan proposed the retention of the market on its present site, it was to be enlarged by acquiring its old boundries which were taken up by old and dilapidated buildings. Commodities of whole sale such as fire wood, food stuffs were to be transferred

to Tudun Wada and Bosso markets to decongest the central market and make it a solely shopping market. Renovations and improvements were to be carried out on the market. Commercial buildings were recommended to boarder the market on Bosso road, Ogbomosho road and Abdul street. Pedestrain alleys were to be maintained. The motor park was to be moved from its present site on Ogbomosho road to block the market road from an undesirable traffic. The site for the motor park was to be used for car parking for visitors to the market and other public users. The filling station opposite the motor park was also to be moved out to Kuta road to ease traffic concentration around the market as can be seen in figure 16. Ogbomosho - Sabon Gari road was to become a two way traffic against the one way traffic while the central Island that allows for turning to both Lagos street and Bosso road was to be linked up. River Suka was to be covered and constructed to receive waste water from the market and surrounding area.

4.62 Alternative A:

Involved the movement of the central market to an alternative site while a comprehensive redevelopment was to be carried out over a long time period. The proposal was in view of the fact that in the future, Minna was seen to be likely to attract large scale trade. Commercial layouts were then lacking. The plan therefore, proposed for Bank, Insurance institutions, department stores, clinic, cinema, restaurants etc to be located on the acquired site. A dual-carriage way (A2) was proposed for parts of Ogbomosho road to deflect traffic and also ease traffic on Bosso road. A semi circular road (B1 and B2) each with about 20m reservation was proposed. B1 is to function as shop frontage to p6 and feeder road to p7 and p8. A proposed road B3 links Abdu street with part



Minna Town Centre Redevelopment Scheme
Alternative A FIG 16

of the existing market. Parallel to Bosso road, Al is an access road and parking for cars making a stop in opposite direction to park and transact business.

The motor park on Ogbomosho road was to remain while lorries and trunks are to park in provided lots besides the motor park. Central car parking space was also proposed. Alley ways are also provided between properties. A Friday mosque is also to be located with adequate toilet and water facilities. Refuse collection points were evenly distributed.

4.63 Implemented Scheme:

Figure 10 shows the proposed details of the master plan guide for central area redevelopment that was prepared for implementation by the city centre implementation task force.

The details were based on redevelopment proposal A where by the central market was retained in its position. The old market boundry was acquired, increasing the land area of the market. Some rehabilitatior and renovation were however, carried out within the market boundry.

Of the proposal for shops, stores, offices etc. to be provided around the market, only along Bosso road was the proposal implemented, while on the opposite of Bosso road, (Paiko road), commercial activities are still carried on in old dilapidated residential structures where parking and other allied facilities are totally absent.

Provision for entertainment, parking and other civic uses on Abdu street were not implemented. Commercial/residential activities are also being carried out in old residential structures along Sabon Gari, Ogbomosho roads. (Plate 1 show Abdu street as it exists presently).

Both the filing station and motor park along Ogbomosho road that were recommended for relocations to other areas have however, been retained.

Drainages have been constructed to collect storm water and domestic waste water from the central area. Some roads within the central area have been improved. upgraded with the exception of Ogbomosho and Abdu streets. Though some facilities and utilities such as electricity and water supply have been improved upon, short falls still abound in their adequacies. Pedestrain/ vehicular conflicts have not been adequately addressed. Residential areas still consist of old dilapidated structures.

While it can be said that almost $\frac{3}{4}$ of the proposals have been implemented, central area problems cannot be said to have reduced by any meaningful proportion.

A number or reasons can be aduced for the persistence of central area problems part of which could be the none implementation of the whole proposal. For instance, some critical aspect of the design proposal such as the provision of organised public parking spaces was not implemented. Its provision however, would have made a whole lot of difference to the problem of traffic congestion which is presently experienced. The provision of entertainment and other public/civic uses has however, been taken care of, by the construction of an arts theatre located close to the central area, which caters adequately for the proposed uses.

Investigations however, revealed that non implementation were mainly as a result of financial incompetence. Other reasons include inadequacies of the plan and so on which would be discussed in greater details.

4.70 Criticism of Technique used in defining the Central Area:

Techniques used in delineation of central areas should be based on the functions that the central area is expected to offer such as satisfying the main administrative. business, entertainment, cultural and even residential needs of the town or city. Based on this fact therefore, it is obvious that in the defination of the central area of Minna town, the criteria used, falls short of the standards for an objective delineation of a central area.

The boundary of the central area as per master plan delineation can best be termed the central business district (C.B.D) which is known to be mainly commercial in outlook. It is not therefore, an adequate representation of the central area that is supposed to cater for not only commercial but all the other needs.

Techniques commonly found in literature such as F.I.I. F.A.R. building heights etc. are all techniques used in the developed countries to delineate the central business district. This will hardly suit the purpose for a central area delineation in the developing country. In addition to these techniques which can be used to delineate the core commercial areas(CBD). Other techniques that will take care to include other uses of the central area should also be considered. Additional criteria could also include land values which are usually highest in the central area due to accessibility and competing uses. location of cultural and civic uses. the presence of economically more expensive structures and buildings and the inclusion of techniques to take care of mix commercial/residential uses.

4.80 Appraisal of Minna Central Area Redevelopment Scheme:

Redevelopments are known tooccur where existing land uses are cleared to provide a vacant land where subsequent uses that are planned for could either be in line with previous land uses or totally new developments and uses are planned for.

It would therefore be right in saying that, what the master plan termed redevelopment alternative A is not in the strict sense, a redevelopment proposal but rather a rehabilitation scheme where previous land uses are retained on site while some kind of re-organisation and restorations of uses are carried out so as to inject new life into the central area. Based on this therefore, alternative B can be seen more as a redevelopment of the central area as compared to alternative A. It is therefore more appropriate to address the scheme as Minna central area rehabilitation scheme.

The rehabilitation scheme could have been better planned than the general improvement on market, provision of drainage, shops etc. that was carried out. Other areas that should have been adequately addressed by the scheme should have included gabbage and refuse receptades which is considered indispensable in any central area due to the activities of buyers, sellers and even residents of the central area since they generate refuse that has to be disposed of in one way or another.

Other necessities include water pumps and faucets which are very important especially with the prevalent trend of market fires which have been on an increase. The importance of water faucets cannot therefore be over looked.

The provision of public toilets should also have been considered. This is to enhance the convenience of visitors to the centre area and also its cleanliness, otherwise visitors may

have to use inappropriate areas as toilet. As can be seen in Plate 2 where a boy can be seen deficating in a refuse collection area.

Open spaces also provides a relief from the monotony of the congestion associated with the central area. Open spaces are therefore considered a necessity. Day care centres are also very important in designs of central areas. Workers, traders, visitors and even residents of central areas could deposit their children and wards for any number of hours to enable them conduct their businesses.

An effective system of vehicular/pedestrain separation in their circulation, should also be provided to enhance the safety of pedestrians within the central area and forestall accident rates.

Effective systems of traffic management control would also fore-stall the problems of traffic congestion, parking problems and even the rates of accidents within the central area.

4.81 Appraisal of the design elements:

Some elements of the design were laudable and appropriate as they were made with a view to improving the central area by injecting new life into an area that was feared to be becoming stagnant. For instance the problem of congestion of central area roads as a result of on street parking was to be addressed by the provision of a well organised off street public parking facility.

No proper design standard was however, used to determine the space standard required for the provision of the parking space, rather, the site was just arbitrarily selected because the designers decided that the use previously existing was not suitable. The vacated site was therefore reserved for off-street parking.

In selecting a site for off-street parking however, certain criteria such as the character and income level of the trade area, the size and type of central area (major, regional or miner) should be

considered as these will determine the number of vehicles to be expected and catered for, at any time of the day. The community building council of London (1949) worked out a ratio of 5.5. car parking spaces/thousand square feet of gross leasable area. This, they found suitable for their designs. Other ratios could however, be derived to suit other areas.

A motor park was provided for, to close the entrance of the market from the roundabout on Bosso-Paiko road as shown in fig.16 The only other major entrance would have been through the other end of the market road which is still in use at the Sabon Gari - Gwari market road junction. The traffic that will be generated at that point however, will be almost impossible to manage due to the volume of traffics presently being experienced and an additional traffic due to the effect of traffic movement through the entrance. The traffic volume being experienced presently is due to the effect of commercial activities that is carried on all along Sabon-Gari, market roundabout and Ogbomosho road.

The location of the motor park will also be another sources of traffic generation. This, in relation to surrounding commercial uses is also unsuitable.

The scheme proposed for the standardisation of commercial properties on Bosso road side only. This involved the acquisition of residential properties boardering the market on Bosso road as shown in Alternative A and developing it into commercial properties. The implication of this is that the commercial activities found within this site necessitates vehicles slowing down to either drive into specific properties or park on-street to conduct businesses. Unfortunately, the vehicles take-off from a fast moving dual carriage road (Bosso - Paiko road). An obvious problem is therefore,

created. Vehicles cannot move as fast thereby causing a lot of traffic congestion and accident.

A part from the Bosso road side of the dual carriage way, the opposite side (Paiko road) also accommodates commercial properties that have not been standardised to commercial properties as the ones on Bosso road. While this areas is unplanned, it still attracts as much people and traffic as Bosso road. It therefore generate planning problems as well as being unattractive.

In the residential sector, the plan proposed a reduction in the number of persons living in a compound to reduce the densities and general congestion in order to provide additional facilities as against slum clearance due to the cost involved. This has not however, helped in any way to improve the general condition of the residential area as structures are still old and dilapidated as seen in Plate 3.

The specific plan that was drawn by the city centre implementation task force could not be implemented to any great detail because of the huge expense involved. This is based on the fact that Niger State does not have any significant source of revenue apart from its monthly federal government allocation to supplement its financial obligations. The design that was drawn up by the task force was rather ambigious and expensive. Such expensive ventures as the construction of such structure as cinema - tography theatre, city hall, civic centre, landscaped gardens etc were all provided for in the designs but their implementation was not possible.

As a result of all these, problems still exist in the central area as can be seen from the data collected in the succeeding chapter.

CHAPTER FIVE

5.00 EXISTING SITUATION OF MINNA CENTRAL AREA

Based on the lapses observed in the central area design by the master plan, there is a need for an appraisal of parameters that will address issues not adequately addressed in the design.

5.10 General Description of Existing Land Use

Land uses found within the central area include, Residential, Commercial, Light industrial, Public/Semi Public, Open spaces and roads. The table below shows the percentage total of land area covered by each use.

TABLE 1.00: DISTRIBUTION OF MAJOR LAND USES WITHIN THE CENTRAL AREA:

LAND USES	LAND AREA COVERED (HECTRE)	PERCENTAGE TOTAL
Residential	7.8	25
Commercial	9.2	29.6
Light Industrial	.8	2.6
Public/Semi Publi:	1.2	5.5
Parks/Open space	3.6	10
Roads/Paths	8.5	27.3
Total	31.1	100

Source:- Field survey 1994.

5.11 Residential Land Use:

The residential area covers about 25% of the total land area. 90% of all units that are fronted by roads have been converted to mixed residential/commercial uses. Tertiary services such as electronic repairs, cepentary workshops and retail activities are found in the outer rooms fronting the roads while the inner rooms are reserved for residential uses. In some instance, residential houses are converted to bookshops, banks, offices, shops etc. the areas experience congestion and even more so with the conversion or residences to commercial uses, added to the fact that facilities such as parking cannot be provided for.

5.12 Commercial Land Uses:

Commercial activities are concentrated within the central market, Gwari market, shops, stores, at Sabon-Gari, and even along roads leading to the central area. Commercial activities are grouped into commercial wholesale, retail and services.

TABLE 2.00: Distribution of Major Commercial Functions in the Central Area:

FUNCTION	LAND AREA (HECTRE)	%COMMERCE
Commercial Retail	6.4	69.56
Commercial Wholesale	1.6	17.04
Commercial Services	1.2	13.04
TOTAL	9.2	100

Source Field Survey, 1994.

The distribution of commercial wholesale is mainly found along the rail-line behind Gwari market at P.Z and along kuta road. They include offices of wholesale were houses and Industrial distributors items of sale include merchandise, hardware goods, building material etc.

Distribution of commercial services in the central area is found scattered all over the town centre and in a higher concentration along Paiko-Bosso road. These include Tailoring, Berbing shops, Dry cleaning services, shoe repairing and Cobbling, Photography, service garages, Banks, Insurance companies etc.

Commercial retailing is carried on in the markets and shops along Bosso road and other distributor roads within the central area.

Generally, commercial activities attract the highest concentration of both pedestrain and vehicular movement of people that either come to buy or sell goods. Commercial buses and cars require places to park for a time period. This may constitute a general inconvenience to the generality of people found within the vicinity, problems are therefore, created.

The concentration of commercial activities within the central area can be said to have led to concentration of both pedestrain and vehicular confliet/congestion.

5.13 Distribution of Public/Semi Public Uses

Public/Semi Public uses found within the central area include Institutions such as place of worship (Church and Mosque). Police Office, State Government and Local Government Offices, Hospital and Clinics, Schools etc. The table below shows specific functions and percentage of total land uses:

TABLE 3.00: Public/Semi Public Uses in the Central Area:

FUNCTIONS	LAND AREA (HECTRE)	%TOTAL
Public park	0.2	16
Offices	0.6	50
Church	0.4	34
TOTAL	1.2	100

Source:- Field Survey 1994.

5.14 Light Industrial Uses:

Include bakeries, tinkering, Brass/Gold Smithery, furniture making etc. Furniture makers are found at strategic positions along Bosso road within the central area. This is to enable as many people as possible to patronise their Wares as Bosso road is the most accessible road within the central area. Tinkers are situated in a greater concentration at the gate of the market. Smithery is mostly practiced within the core residential area. The totality of those indulged in light industrial activities are quite negligible taking up that about 1.2% of the total land within the central area.

5.15 Roads and Paths:

The roads within the central area include hospital road, Kuta road, Ogbomosho road, Sabon-Gari road, Bosso-Paiko road. Bosso - Paiko road is the only collector road while all other roads are

distributors. There are other aterial roads that are untarred. The access roads especially within the residential areas are untarred and narrow. The total land area covered by roads and paths constitute about 27% of the total land area. This therefore shows that the central area is very accessible to visitors of the central area.

5.16 Parks and Open Spaces

There is general absence of parks and open spaces, Kasuwan-Dare (Night Market) used to be an open area for all forms of entertainment and served as a children play area. At night all forms of commercial activities were observed. This area has however, been acquired and formally planned into a park (David Mark Square). It is planted with shade trees and flowers and sitting arrangements provided.

Organised public car parking spaces are not provided within the central area. Parking is therefore, observed on-street thereby reducing the carrying capacity of roads within the central area. This has led to the problem of vehicular congestion on roads.

5.20 Facilities and Utilities Within the Central Area:

A survey was carried out within the central area to determine the availability and adequancy of utilities and facilities in achieving the desired levels of efficiency, convenience and safety of users.

5.21 Pipe Borne Water Supply:

Supply and distribution of pipe borne water is carried out by the State Water and Sanitation Board. A total of about 478,320 gallons of water is supplied and distributed by the Board on a daily bases. Using standards of Water Board however, domestic consumption rate of an individual is about 30 gallons/day. Based on the population of about 28,350 persons living in the central area. Therefore, a short fall of about 380,000 gallons is experienced. Due to this short fall, 42% of the residents get their water supply from

water vendours like "Yan garuwa" and water tankers. This is usually from an untreated source and therefore, poses a threat to the health of residents. Short falls also affect sanitation levels and the general efficiency of functions that require adequate Water Supply.

5.22 Electricity Supply

The National Electric Power Authority is responsible for the distribution of electricity to consumers from the National Grid. The present power demand is supplied by a 5 MVA, 33/11 KV transformer with a maximum ot about 131 amps.

This is already 9 amps over loaded to about 140 amps due to the high consumption rate in the central area thus necessitating the load shedding being experienced from time to time, within the central area. The power distribution is carried out by only 5 distribution transformers with a capacity of about 11/415 KV. This shows the inadequacy of power supply and distribution in the central area.

The central area however, needs a very regular supply of electricity because of the activities that are dependent on its supply such as the hospitals and clinics for laboratory text, medical examinations operations, storage of drugs or the offices for photo-copying, printing, typing and oven in cold stores in the market and stores etc. Inadequacy in supply could lead to inefficiency and subsequently stagnation in the development of central area activities in particular and the whole town in general.

5.23 Telephone Services

The present telephone exchange for the central area has a capacity of 1,000 lines with an 8-10 way duct network system but only 500 lines have been commissioned so far. With a population of about 28 thousand, this is considered inadequate because it can only adequately, cater for less that half of the population. Telephone service is however, almost indispensable in the conduction of day to day affair that are found within the central area for the achievement of greater efficiency and convenience.

5.24 Refuse Collection and Disposal

Refuse collection and disposal is the responsibility of the local authority. Minna being the State Capital, the State Ministry of Health renders some assistance. A Sanitation Task Force was set up to be responsible for the proper collection and disposal of refuse among other things. Between the two authorities, there are seven refuse collection vehicles, 5 of which are off the road due to maintainance problems. There are about 2 organised collection points that are managed by the Task Force.

Some residents collect refuse in drums and plastic containers which are usually kept in front of houses for collection on a weekly basis. This is not very effective, because collection vehicles sometimes go round only once in a month. There is also a private collection firm which renders its services for a fee. As at the time of the survey, only 21% of residents patronise the private firm while 52% utilize the government agency for a minimal fee too. Where the government collection van does not come round regularly, residents on one street are sometimes forced to collect their refuse at one point on any available site for burning. Ashes from burnt refuse is left to be blown away by wind and what is left merges to form a part of the dirty environment. 18% claim that they dispose their refuse by either throwing away in any bushy area around the residences and by burning too. While the ashes are treated as above. Other methods include dumping in drainage chennels to be washed away by water during the rains. This is because the drainage channels are very large and the force of water can wash down collected refuse.

Scarvengers however, reduce the quantity of refuse by removing the-cyclable objects such as bottles, plastic containers, rubber slippers, tins etc. Burning has ironically become the predominant

method of disposing refuse especially on sanitation days. Nothing is however, done to the ashes from burnt refuse. This constitute a nusaince in the environment, such as air pollution, emmissions of pungent odour, etc.

TABLE 4.00: REFUSE COLLECTION AND DISPOSAL

METHOD OF DISPOSAL	NO. (HH)	PERCENTAGE
By private firm	20	21
By government agency	50	52
Burning/throwing in bushy area	18	18
Others such as dumping in drainage channels, filling up gully/vallies	9	9
Total	96	100

5.30 Aesthetic Quality of Residential Area:

A survey was carried out to determine the aesthetic quality of the central area in terms of building quality, safety to occupiers and general apnearances. The table below shows the type of material used for building, the number of building and their percentages.

TABLE 5.00: MATERIAL USED IN HOUSE CONSTRUCTION

BUILDING MATERIAL	NUMBER	%OF TOTAL
Mud block/aluminium roofing	70	578
Burnt block/Corrugated roofing	4	3
Burnt block/aluminium roofing	7	5.7
Concrete block/aluminium roofing	10	8.2
Concrete block/corrugated roofing	9	7 4
Total	100	100

Source:- Field survey 1994.

A survey of the ages of building also revealed that over 75% of structures are 20 years of age while the others are between the ages of one to twenty years in existance.

TABLE 6.00: AGE OF BUILDING WITHIN THE CENTRAL AREA

AGE OF BUILDING	NUMBER	PERCENTAGE
1 - 10 years	5	5
11 - 20 years	14	14
21 - 30 years	65	65
30	16	16
TOTAL	100	100

Source:- Field survey 1994.

A further study of the conditions of building revealed that a greater percentage of buildings were in a medium state, 30% were in good state and 25% were poor. Plate 3 shows a view of the residential area.



PLATE 3: DILAPIDATED RESIDENTIAL STRUCTURES.

TABLE 7.00: CONDITION OF BUILDING STRUCTURES

CONDITIONS OF BUILDING	NUMBER	PERCENTAGE
Poor	25	25
Medium	45	45
Good	30	30
TOTAL	100	100

Sources: Field survey 1994.

Based on the foregoing information therefore, it can be inferred that the aesthetic quality of the built environment can be said to be not good enough. This means that the environment is not as attractive as it is expected to be bearing in mind that this area is situated within the central area of the State Capital. This is because of the age of building where over 70% of structure are 20 years of age which means they are not in the best condition of repairs.

The fact that about 75% of the total structures are built with mud and roofed with aluminium sheet most of which have been corroded and coloured brown also shows the poor aesthetic quality.

5.31 Inconveniences Experienced by Residents of the Central Area

A cross section of respondents in the residential area reveal that 20% were civil servant, 71% were traders and 9% were either farmers or were employed in the private sector.

68% of respondents interviewed prefer living in the central area while 32% would prefer to reside elsewhere if they could secure accommodation this on account of the fact that there were noise disturbances and pollution, congestion and over crowding, lack of security to both property and ward, health hazards as a result of the disturbances and fume inhalation and such other inconveniences as result from communal togetherness i.e looking out for one another, no privacy etc.

The group of respondents were mainly civil servants. The other group of respondents that would rather stay in the central area were found out to be mainly traders and the self employed. This is mainly because they indulge in some form of retail business around their houses, in the market or in shops. Some claim that the commercial core of the city was within easy reach to them, therefore, they enjoy the advantages of buying the cheapest goods without additional transport cost. Others claim that the central area being the focal point of all means of transportation afforded them the ease of movement from one area to another. Some maintained that their residences were within a tracking distance to their places of work. While others had psyco-emotional attachment to the abode.

TABLE 8.00 INCONVENIENCE EXPERIENCED BY RESIDENTS

INCONVENIENCE EXPERIENCED	NUMBER (8)	PERCENTAGE
Noise disturbance	32	40.5
Lack of security	25	31.6
Health Hazards	15	18.9
Others	7	9.8
Total	79	100

Source:- Field survey 1994.

TABLE 9.00 PREFERENCE FOR LIVING IN THE CENTRAL AREA

PREFERENCES	NO.	PERCENTAGE
Commercial/Private businesses	12	34.7
Within reach of commercial core	8	21.6
Ease of Transportation	6	16.2
Within trekking distances to place of work	7	18.9
Attachment to abode	4	10.8
Total	37	100

Source: Field survey 1994

From the fore-going information therefore, it can be observed that the largest group of residents have one form of business or another commercial/private employed as a pre-occupation in the Central Area. They are thu forced by circumstances to reside within the central area which ordinarily they find to be both unsuitable and inconvenient. This shows an attachment to place of work irrespective of other inconveniences.

5.40 Traffic Survey:

A traffic survey was conducted to find out the existing road capacities as against their design capacities and the combined total volume of traffic going into the central area or just passing through. To achieve this,

a volumetric coun was carried out on all distributor and collector roads leading to the central area for a period of 12 hours from 6.00am to 6.00 pm on Monday the 21st March 1994 which is the first working day of the week. Another survey was conducted on 23rd March, 1994 Wednesday which is the market day when villagers from surrounding villages converge into the market to sell farm produce and also to make purchases.

Surveys were conducted on Bosso - Paiko road, Airport road, Kuta road, Hospital road, Ogbomosho road. From the collected data it was observed that there was some increase in volume of traffic on all roads leading to the central area on Wednesday which is the Market day.

It has also been observed that at peak traffic periods between 7.00am - 8.00am and 3.00pm - 4.00pm. The practical capacities were exceeded on all roads within the central area. The graphs at appendix gives an illustration of the traffic situation in the central area.

TABLE 10.00 PRACTICAL CAPACITIES OF ROADS WITHIN THE CENTRAL AREA

STATIONS	PRACTICAL CAPACITY IN P.C.U/Hr.
Bosso Road	1000 P.c.u. in each direction
Hospital Road	600 P.c.u. combined
Airport Road	600 P.c.u. combined
Paiko Road	1000 P.c.u. in each direction
Kuta Road	400 P.c.u. in each direction
Ogbomosho Road	400 P.c.u. in each direction

Source:- Minna Master Plan 1979 - 1 2000.

From the data collected, it can therefore be seen that vehicular congestion is observed in the central area particularly on Wednesdays and at the peak traffic periods.

5.14 ORIGIN AND DESTINATION SURVEYS:

An origin and Destination Survey was carried out to determine the movement pattern of vehicles by journey purpose. Usually, movement into the central area was through Airport road, Kuta road, Hospital road, Bosso road, Paiko road and Sabon-gari road. Movements from different residential areas into the central area through these roads were classified as A,B,C,D and E.

The table below shows the percentages of central area bound vehicles and those that are passing through the central area to other places.

TABLE 11.00: O - D SURVEY

	DESTINATION				
Origin	Central Area		Passing through		
Origin	Number of Veh.	%	Number of Veh	%	Total
A Airport road	554	68	261	32	816
B Bosso Road	657	47	739	53	1396
C Hospital road	403	58	297	42	695
D Paiko road	778	56	612	44	1390
E Kuta road	139	63	83	37	222
Total	2531		1992		

Source: Field survey 1994.

It was further discovered that the journey purpose of those going to the central area were for shopping in the market and shops, visit to friends and relations in the central area, work, business transactions or they lived there.

TABLE 12:00: VISIT TO CENTRAL AREA

JOURNEY PURPOSE	NUMBER OF VEHICLE	%VEHICLE
Shopping	1291	51
Visit	203	8
Work	450	18
Business	405	16
Live there	126	5
Others	50	2
Total	2531	100

Source: Field survey 1994

The duration of visits were classified in different time limits as shown om the table below:

TABLE 13.00: DURATION OF VISIT TO CENTRAL AREA:

DURATION	NUMBER	PERCENTAGE
30 minutes	355	42
1 hour	237	28
1 hour 30 minutes	102	12
Longer than	68	8
Total	762	100

Source: Field survey 1994.

From the survey conducted, it was discovered that cars/taxis and mini buses made up 57% of the mode of transportation used to get to the central area. Incidentially, this group (cars) stay longer than 1 hour 30 minutes in the central area either for work or to conduct businesses.

TABLE 14.00: MODE OF TRANSPORTATION INTO THE CENTRAL AREA

MODE	NUMBER VEH.	PERCENTAGE
Car/Taxi	1063	42
Mini Buses	379	15
Trucks/Trailer/Large buses	253	10
Motor cycle	734	29
Bicycle	101	4
Total	2531	100

Source: Field survey 1994.

From the survey conducted it was observed that there is a high percentage of vehicles that pass through the central area without stopping to conduct any activity. This means that vehicles whose destination are not in the central area have to pass through

because there is only one spine road which passes through the town and the central area joining the Northern and Southern parts of the town and also places of work to residential areas. It also follows that these non central area bound vehicles increase the level of congestion already experienced in the central area.

Cars/Taxis constitute about 42% of all vehicles found in the central area. However, its P.C.U is just 1.000. This mode of transport therefore constitute more of a traffic problem in terms of congestion as against a larger bus with 3.00 P.C.U with a much longer carrying capacity than the 4 passengers of the Cars/ Taxis.

5.42 Inventory of Roads Within the Central Area:

The roads within the central area include Hospital road, Airport road, Ogbomosho road, Kuta road and Bosso - Paiko Dual Carriage Way, Most of the distributor roads have a right of way of 10 metres in width and a carriage way of metres. There are arterial roads that are about 5 metres or less in width especially within the core residential neighbourhood. These roads are mostly untarred. Most of the distributor roads are in good condition. Plate 4 shows the condition of arterial roads within the residential area.



PLT FOUR: AN ARTERIA UNTARRED ROAD WITHIN THE CENTRAL AREA



PLT FIVE: PEDESTRIAN / VEHICULAR CONFLICT IN THE CENTRAL AREA



PLATE SIX: ON STREET PARKING CAUSING A REDUCTION IN THE ROAD CARRYING CAPACITY AND CONGFSTION IN THE CENTRAL AREA.



PLT. ONE: ABDU STREET AS IT EXIST PRESENTLY



PLT. TWO: REFUSE DUMPED IN AVAILABLE OPEN SPACES

5.43 Pedestrian/Vehicular Conflict

From the survey conducted it was discovered that pedestrian walk ways and crossing have not been provided on distributor roads within the central area. There is only one Zebra Crossing which has been provided on Bosso - Paiko road to enable pedestrians cross over to or from the market gate. Pedestrians are however, restricted even in the use of that as cars are seen to park in a manner obscurring it. Pedestrians are therefore, forced to cross the road at any one point thus creating an unsafe environment to pedestrians.

Pedestrian paths along the roads are also not clearly defined and paved for their exclusive use. On street parking is therefore, observed on these paths. Only on Bosso - Paiko road are pedestrian walk-ways paved for their safety. Pedestrian/vehicular conflict is therefore evident in the central area; as is seen in plate 5.

5.44 Availability of Parking Spaces within the Central Area

A survey was carried out to determine available parking facilities within the central area. It was discovered that there was no organised public off street parking within the central area. Niger State Transport Authority Booking office/Terminal and the central motor park form the organised parking but for long distance travels outside the town. A few banks and offices along Bosso road have however, provided some parking facility for their customers and staff, while on the possite side (Paiko road) there are none. Vehicles are therefore, parked on street at the convenience of either the driver, passenger or both as shown in plate 6. Though accessibility to the central area is adequate, non-availability of parking spaces cause drivers to park-on street and on pedestrian paths thereby reducing road capacities causing accidents and congestion

A study was carried out to determine the duration of parking by most drivers. About 68% of all motor cycles which have become a very widely used mode of transportation are parked for a period of between 0 - 10 minutes while 22% are parked for between 10 - 20 minutes.

Trucks are used for conveyance of goods. 35% trucks in the central area park for between 0 - 10 minutes especially to off-load goods in the market and shops. 49% were parked for between 10 - 20 minutes.

Buses are used to comute passengers between the city and the central area. Niger State Transport Authority Buses park and collect passengers within NSTA garage which is located around Modil roundabout within the central area. Private commuter buses however, park and collect passengers on street. The buses park for sometime periods to allow the buses to be filled to capacity before, take-off. Thus some Buses are seen to park for between 0 - 10 minutes where commuters are already waiting and in some cases up to 30 minutes. The table below shows the distribution and duration of parked vehicles.

Private cars park for longer periods while their drivers attend to the businesses, shops or work. Taxis on the other hand park for relatively shorter periods to either pick-up or drop passengers, over 78% park for between 0 - 10 minutes.

TABLE 15.00 PARKING DURATION WITHIN THE CENTRAL AREA

	DURATION OF PARKING IN MINUTES								
	8 - 10		10 - 20		20 - 30		30		Total
Vehicles parked	No.	%	No.	%	No.	%	No.	%	Total
Motor Cycle	384	67	132	23	57	10	-	-	573
Trucks	18	38	23	49	5	10	2	3	48
Buses	38	16	178	76	16	7	2	1	234
Cars	118	12	98	10	245	25	520	53	981
Taxis	588	78	143	19	23	3	-	-	754

Source: Field Survey 1994.

A sample view was collected from drivers of parked vehicles to find out why they parked in unsuitable locations such as at road junction, on-street, double parking etc. Their reasons ranged from unavailability of alternative parking spaces, to the fact that they parked closest to their destination or that passengers in the vehicles demanded to be dropped as in the case of commercial vehicles. The table below shows a break down of their reasons and the percentage for each reason.

TABLE 16.00: REASONS FOR PARKING IN UNSUITABLE LOCATIONS

TYPE OF VEHICLE	ALTERNATIVE REASONS			
	Nearest to destination	passenger Demand	No alt.	others
Private car	125	-	31	4
Taxi	-	103	24	3
Commercial buses	-	38	15	3
Trucks	23	-	14	2
Motor-cycle	138	113	16	7

Source: Field Survey 1994.

It was therefore observed that most drivers parked in unsuitable and dangerous places because they had no alternative spaces and so on. A further enquiry revealed that some drivers would be prepared to pay for parking for a time duration in a public organised parking space. 75% of the respondents interviewed accepted, while 25% opted out of such arrangement. Among those that accepted off-street parking with charges, 52% agreed to pay a token fee of #1.00 for every five minutes while 37% agreed to pay #2.00. The table below shows a further distribution of acceptable charges.

TABLE 17.00: PARKING CHARGES BY TIME DURATION

FEES FOR EVERY 5 MINUTES	NO. OF PARKERS	PERCENTAGE OF PARKERS
#1.00	249	52
#2.00	178	37
#5.00	38	8
More	14	3
Total	479	100

Source: Field Survey 1994.

Offices in the central are also found to be faced with problems of inadequate private parking facilities. In the survey, it was discovered that about 90% of offices within the central area were established within the last 8 - 12 years. The council offices are older and they served as provincial offices before the creation of the State in 1976. The Police station and Area Court have also been in existence for a very long time period. The more recent offices are however, established in the central area because of the locational advantages they derive from other central area functions and the availability of infrastructures. They however, suffer the disadvantage of having to develop within limited inadequate space. Some offices took over from residential units. Due to this inadequacy of developable land, most offices cannot provide for the parking requirement of their staff and customers.

5.50 Commercial Use Survey

A commercial use survey was conducted in the markets to determine the adequacy of both the central market and the adjacent Gwari market. An inventory of market stalls revealed that there were about 700 Lock-up stalls and 300 open stalls. All of these have however, been allocated to traders. There is a spill-over of traders onto open spaces that are to serve as accesses particularly to service and delivery vehicles within the market.

These traders have organised themselves into units groups that sell like items and have erected illegal structures in which to sell their wares. The administrative structure is therefore, from time to time forced to displace such traders as the need arises. This therefore indicates that these markets are inadequate to serve the need of traders in the town.

5.51 Hawking on Road Reservation

Displaced traders eventually erect illegal temporary structures on road reservations to sell their wares. This is especially evident on Sabon-gari road, market road and Ogbomosho road which lead to and are closiest to the markets. Illegal structures are located as close as 3 metres away from the carriage way. Drivers that park their cars to purchase goods on display sufficiently reduce the capacity of the road and cause congestion. Parked cars on pedestrain walk-ways sometimes force pedestrains to walk on the carriage way therefore causing accidents and a lot of wear and tear to vehicles. Poor environmental qualities are also created by hawking activities.

SUMMARY OF FINDINGS

The survey that was conducted, revealed that commercial land uses formed the highest percentage land use within the central area. Other land uses include residential, light industrial, public/semi public parks, open spaces, roads and paths. It was gathered that while the central area is accessible to visitors of the central area, the concentration of these activities within the central area attracts a lot of pedestrian and vehicular movements so much so that practical capacities of roads are exceeded especially at peak traffic hours and on Wednesdays which is the market day when villagers from around the town converge in the market to sell and make purchases. Congestion problems are therefore encountered. It was also understood that

non-availability of public organised parking spaces and inadequacy of private parking facilities increases the congestion problems due to on-street parking.

Inadequacy of facilities and utilities was seen to cause a lot of inconvenience, inefficiency and an unsafe environment to visitors and residents of the central area..

In the residential sector of the central area, the aethetic quality of both the building structures and the environment were very poor. Some buildings were found to be very old and dilapidated and unfiit for human habitation. The environment is not as attractive as should be befittings of a State capital. residents were also seen to experience a lot of inconveniences in the central area but are forced by circumstances to stay in the central area.

An Origin - Destination survey revealed that large percentage of traffic found within the central area are through traffic and have no business being in the central area. They therefore increase to the congestion problem problem experienced in the central area.

A commercial use survey indicated that the markets within the central area were inadequate for traders. This is causing the traders to build temporary structures on road reservations around the markets causing alot of pedestrian/vehicular conflict and accidents.

CHAPTER SIX

RECOMMENDATION AND CONCLUSION

6.00 Introduction

It is a well known fact that the rates of development is quite different between the advanced and the developing countries. While the Western countries are at the computer age where activities are carried out at the touch of a botton, the developing countries are still at a state where technology is at a very basic level, efficiencies in production are therefore, two totally different issues in the two areas of the world.

It is because of this very basic difference that in planning for a suitable central area in the developing countries, certain issues that will be of significant importance be considered. Such criteria, should include the level of development of the town in the region or sub-region, its size, its culture, tradition, its economic strength etc. The study will thus make some policy recommendations as regards how planning of central area in the developing countries should vary, whether there is a need for centralised central area in Gwari settlements, what criteria should be applied. Based on the lapses that have been observed in the redevelopment proposals of the central area by the master plan, the study also propose to carry out a redefination of the central area to serve as a frame work for the proposed design.

6.10 Policy Recommendation

Central area planning should be seen to vary greatly in the developing country from what obtains in developed countries because of differences in technical and financial capabilities and also in terms of the needs of the area. Central areas in the developed countries are a reflection of

The study therefore, proposes that in addition to some/any of the standard techniques that may be practical in use, other techniques should be propounded to suite the delination of central areas in the country taking into account mixture in uses. The fact that the rulers residential/palace, usually in the core area around which older residential settlements are found and other strutures of cultural and traditional importance should also form an important sector of the central area. Its delination should include commercial/residential uses, cultural and traditions uses etc.

Based on all these, it shows that Gwari lands have not reached the stage where a centralised central area emerges, it thus means that the need for it has not arisen, rather community centres can adequately serve its needs.

Minna however, is a different matter. Minna has extended linearly in growth to include Bosso and Chanchaga villages to the North and South covering a distance of more than 20 kms. changing the basic characteristic of a Gwari settlement. It experienced political/ administrative transformation. overtime, when it attained the status of a state capital, a redevelopment plan of the central area was drown by a consultant firm. This was partially implemented by a central area redevelopment task force.

A central area plan for redevelopment was conceived at a level beyond which Minna could support. Redevelopment should ideally be embarked upon when there is an absolute need for it where most items/ structures are beyond redemption and there is an adequate source of finance to support redevelopment. Bearing this in mind therefore,

a rehabilitation programme should have been more ideal for Minna because it seeks to revitalise, reorganise, restore and inject new life into an existing environment that is experiencing decay, stagnation and problem of improper planning as Minna was experiencing. Rehabilitation would have addressed issues of improvement of traffic and transportation, rehabilitation of the existing market, urban renewal in the residential sectors and the provision and improvement of acilities and utilities that were not available or are inadequate.

6.20 Physical Planning Proposals to Central Area Problems

Recommendations towards solving the central area problem are made bearing in mind the fore mentioned criteria.

6.21 Re-organisation of Land Uses:

From the analysis of traffic data that was collected, it was seen that traffic congestion is a serious problem observed in the central area. Though traffic has been seen to contribute substantially to this congestion, therefore to enhance the accessibility of the central area, the study proposes that the centrally located motor park which is located behind the market be decentralised to various peripheral motor parks on the fringes of the town. Thus Kontagora bound vehicles will be situated at Bosso, while Suleja, Kaduna, Abuja vehicles will be at Tudun-wada park. Bida bound vehicles be at Kpakungu while Kuta/Shiroro bound vehicles will be at Maitumbi motor park etc. As shown in Fig. 14. This will ensure that all vehicles passing through (i.e non central area bound vehicles) are removed. This will substantially reduce the rate of congestion experienced.

The site that is consequently acquired is converted into an organised off-street parking for private cars visiting the central area, which the survey revealed, park for longer periods in the central area.

6.22 The Change in Use of the Central Market:

Commercial activities have not always been a strong feature of the central area of most Gwari settlements. Therefore, the central market which is small in size and insufficient even with the enlargement and renovations that have been proposed and carried out by the redevelopment scheme. This was done towards ensuring that Minna central areas becomes as commercially viable as any other central area. This enlargement and improvements made on the market has serve to attract more commercial activities into the central area thereby increasing the congestion rate.

The study therefore, proposes that the central market, which as a tradition is located on the fringe of the town, should be vacated of all forms of retail commercial activities to neighbourhood markets at Tudun-wada, Bosso and new commercial centre, while the market be made solely a whole sale market since it does not attract as many people as conventional retail market. This will also reduce congestion within both the market and the central area and ensure that the traders would have more room in the other markets or a new commercial centre.

6.23 Relief Road Approach

The study proposes. the upgrading of a side street to provide relief to the central spine road which carries the greatest flow of traffic.

Bosso road is the main spine road and it passes through the central area. The road connects places of work to places of residence. Congestion is observed during peak traffic periods due to the

Convergence of a large number of vehicles going to both the central area and to other various places of work and back. Based on surveys carried out, it is expected that the demand on the road will increase when the permanent State Government Secretariat moves from its present location along Keteren-Gwari road to Paiko road.

Polo club road is therefore, proposed in this study to be upgraded from its present width of 6m to 15 metres. A two directional flow and provision for kerb side parking is then possible.

The relief road will serve motorist bound for work place that do not particularly have to pass through the central area. Traffic congestion will then be adequately lessened. Free flow of traffic will then enhance maximum manpower labour inputs in the economy by increasing the average numbers of hours put in. This will also ensure higher levels of productive and subsequent development of the town in general.

By widening the relief road (club - Ogbomosho road) the capacity of Ogbomosho road has been increased. It presently has a 10 metre right of way, it is however, a one way street, and collects traffic from the central market, Gwari market and Sabon-Gari which is a Residential/Commercial area. This has therefore made the road congested with on-street parking observed throughout the day. Figure 20 shows a re-design of proposals within the central area.

6.24 Parking Control and Time Restriction:

It has been observed that even a few parked vehicle along a road effectively reduces the width of the road and therefore its ability to carry the traffic flow. Wells, (1970) observed that "only three vehicles parked along a one kilometre stretch of road will effectively, reduce a 3.5m wide road down to only 4.6m"

In order to prevert or reduce on street parking then, adequate off-street parking facilities have to be provided in the central area. The provision of surface parking will however, prove very adequate for Minna central area. With time however, it is expected that the pace of development, adequate finance and technology will necessiate the construction of a more sophisticated system of parking such as upper level parking.

Central parking which is to be provided on acquired site is however, considered too far from some locations within the central area. Also, delivery of goods to shops along roads without rear accesses will become a problem if total parking restrictions are placed on central area roads. Parking will therefore, be permitted on central area street for some time periods.

For example, parking of vehicles will be allowed at all hours except during peak traffic hours between 7.00am - 8.30am in the mornings and between 2.30pm - 4.00pm in the evenings. This is because, parking of vehicles along the road during these periods will reduce the road capacity and consequently causing congestion and traffic jams. At other periods however, when traffic flows on roads are lighter, parked vehicles will not constitute as much problems as during peak hours. This time restriction will therefore, enable the roads to carry full traffic capacity during peak hours and congestion at peak hours are limited.

Enforcement to time regulation on all roads should be carried out by traffic wardens on a daily basis or by placing no parking signs.

6.25 Pedestrian Walk Ways:

. The provisions of pedestrian Walk Ways does not necessarily have to be whole wide areas of long stretches of pedestrians malls but rather pedestrians paved walk ways along the road right of ways. This will be more practical and cheap enough to be implemented by the Authorities. Pedestrians ways will reduce pedestrian/vehicular conflicts and accident rates. Apart from ensuring an added degree of safety to pedestrians, paved pedestrian way would add to the orderliness and attractiveness of the central area.

6.26 Street Marketing

In conjunction to parking restrictions, traffic points of conflict between pedestrians and motorist can be reduced by traffic marking such as pedestrian crossing (Zebra crossing). This is to be provided on all crossing points from Bosso road over to the market and other roads too.

6.27 Separation of Commercial/Residential Uses in the Central Area:

Based on certain parameters such as the adequacy of accessibility to the central areas, provision of parking facilities within the centre and efficient transportation system, the central area has been relatively brought closer to the people. This is because no matter the distance of a residential area away from the central area, transportation will not pose a problem nor would parking. Based on this therefore, the residential/commercial uses within the central area is to gradually be taken over by other uses that are considered necessary but not provided for due to limited land area.

In Minna for example, respondents living in the central area claim to prefer living in the central area due to its proximity to work places, ease of transportation etc, that being the case, a long time policy of acquiring residential/commercial land use is to be set up by the appropriate authority to acquire such uses.

6.28 Improvement Area Option:

An urban improvement area approach towards addressing residential area problems within the central area is being adopted. A clean sweep approach such as applied in slum clearance is not feasible since it will be entirely financed by the public sector. Administrative procedure will be lengthy and compensation expensive. An improvement area option is therefore adopted. The town centre society is closely interdependent with many economic, social and kinship ties between compounds and household occupants. More often than not, places of work or trade are close by within the central area.

This study therefore, proposes an improvement area option. Owner occupiers are to make improvements based on standards to be drawn by planners. Standards of improvements will match their income. Where occupants are not owners, then arrangements will be made between the landlords and occupiers where for example, the monthly rents for a certain time period could be collected to effect improvements. Planners are to offer advices as to ways of carrying out negotiations between landlords and tenants in order to achieve the most satisfactory method of individual compound improvement. The use of improvement option is advantageous in the sense that it is selective.

It will affect only structures most in need, it causes least physical and social disturbance to the people and it relies on a system of helping people to help themselves. For instance much experienced man power will be needed to carry out the varied negotiations with landlords and tenants. It also requires skill and ingenuity to improve and adapt existing infrastructure with least disturbance which can be done by the planning authority.

Standards proposed by the study to serve as a yard-stick for assessing priorities between house-holds that are eligible for housing rehabilitation and improvement should include practical aspects of physical improvements such as:-

- Availability of at least two toilets which are either the water system or V.I.P toilets.
- At least two bathrooms with finished plastered floor and efficient drains that will drain water into guther.culverts within the residential area.
- At least one stand pipe to provide pipe borne water to the house hold.
- Plastered building that are without cracks on the walls.
- Painted.
- And the provision of plastic refuse collection containers with covers to keep out moisture.

Over crowded compounds with more than five house holds are to be reduced in size. The aim is to reduce the number of persons living in the most crowded compounds so that vacated rooms and spaces are to be used for improving the condition of the remaining tenants. A legal frame work will however, need to be drawn up so that action can if necessary be enforced.

6.29 A programme of new housing to accommodate displaced persons should be embarked upon by the State Housing Corporation which has access to banking facilities. The quality, style, design and location should however be carefully considered.

Utilities and Facilities:

Provision of pipe borne water supply, electricity and telephone services should be stepped-up. This is because they ensure the efficiency and convenience within the central area. These also ensures the realisation of maximum productivity.

Refuse Collection and Disposal:

Refuse should be sorted out and recyclable objects collected for recycling. The bulk of refuse should however, be used for land in filling of agricultural land. This subsequently decomposes and adds to the fertility of the soil. Whatever part of refuse that is not collected from the central area can be burnt and the ashes used for soap making.

6.30 Policy Implementation: Phasing:

Where huge capital investments are required to finance projects, then it is not feasible to do so within a short period of time because resources are scarce and limited and may not be available at the required time. Where available resources cannot finance the whole project at a time, it will have to be broken down into sub-projects for implementation on an annual bases. In the case of Minna, the Projects need not be broken down into sub-projects because it does not involve too much financial cost.

Phasing of the whole central area programme is broken into two parts.

Phase One (1995)

- Decentralisation of the central Motor Park to allow for the immediate taken-off of the laying out of parking lot.

- Imposition of parking restrictions on central area roads.
- Paving of pedestrian walkways.
- The programme of housing improvement and rehabilitation.
- The improvement of the supply of utilities and services.
- Relocation of retail activities to other markets.

The Second Phase (1996).

The Second phase will involve the construction of the relief road. This is the main capital project.

6.40 Financing the Programmes:

For any meaningful impact to be made in the implementation of programmes in the proposals made, sources of financing should be identified and specific responsibilities assigned to appropriate bodies and organisation.

Minna is the capital city of Niger State and as such the seat of the government. It is also the headquarters of a Local Covernment A whole range of interest will therefore be vested in the central area. This means an equality varied source of finance. Other parastatals and Federal Government agencies also have varied functions to play in the implementation of the proposals.

Sources of funding for the construction of the relief road which has been proposed in this study is to be a State Government responsibility. Government could source for loan from Urban Development Bank or direct State Government allocation, repayment could be through taxes and user charges collected by the State.

Paving of pedestrians walkway could be a joint effort of the State and Local Covernment.

Improvement of utilities within the central area is to be carried out by the various parastatals concerned, etc. to finance the improvement of utilities and services, parastatals would have to collect loan, from Urban Development Banks. Repayments will be made where user charges are revised to cover additional cost.

Niger State Housing Corporation which is to embark on housing projects to house displaced residents of the central area could secure loan from Mortgage Institutions such as Niger House Building Society, Union Trust Bank, and Merry Building Society.

Individual investors could also acquire loans of housing programmes through investment companies.

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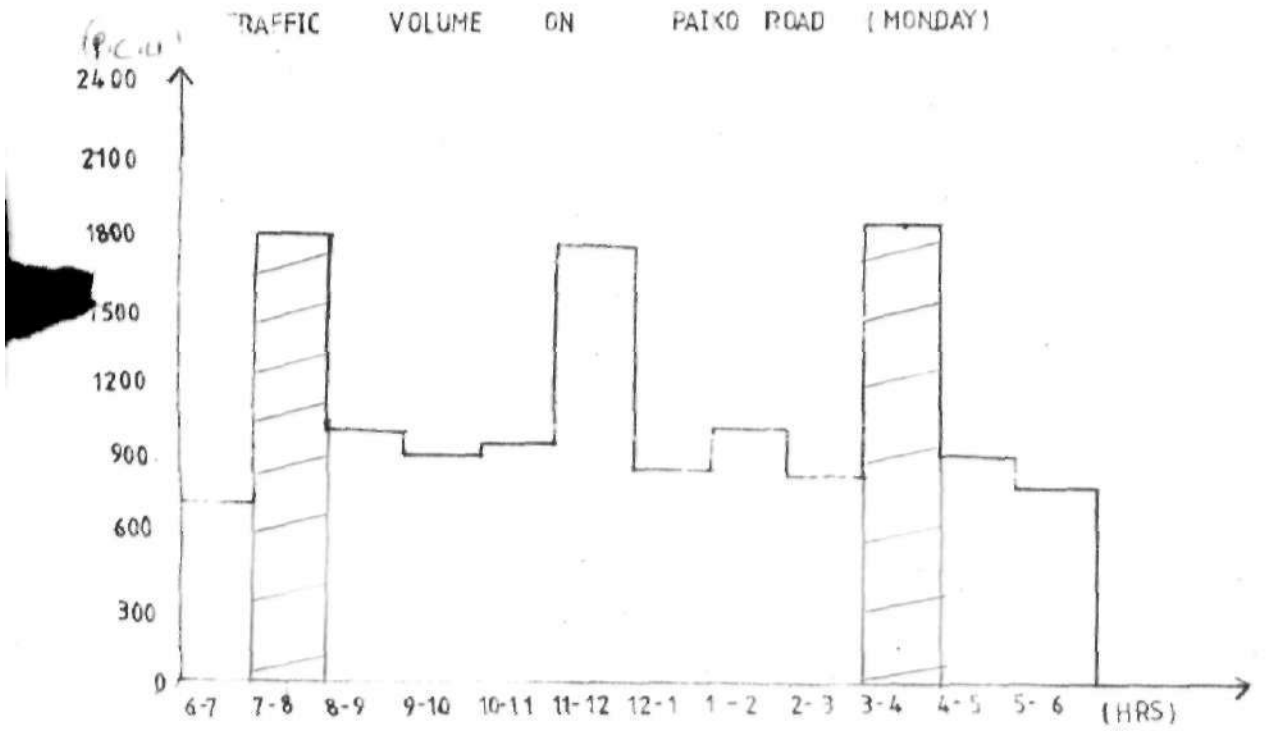
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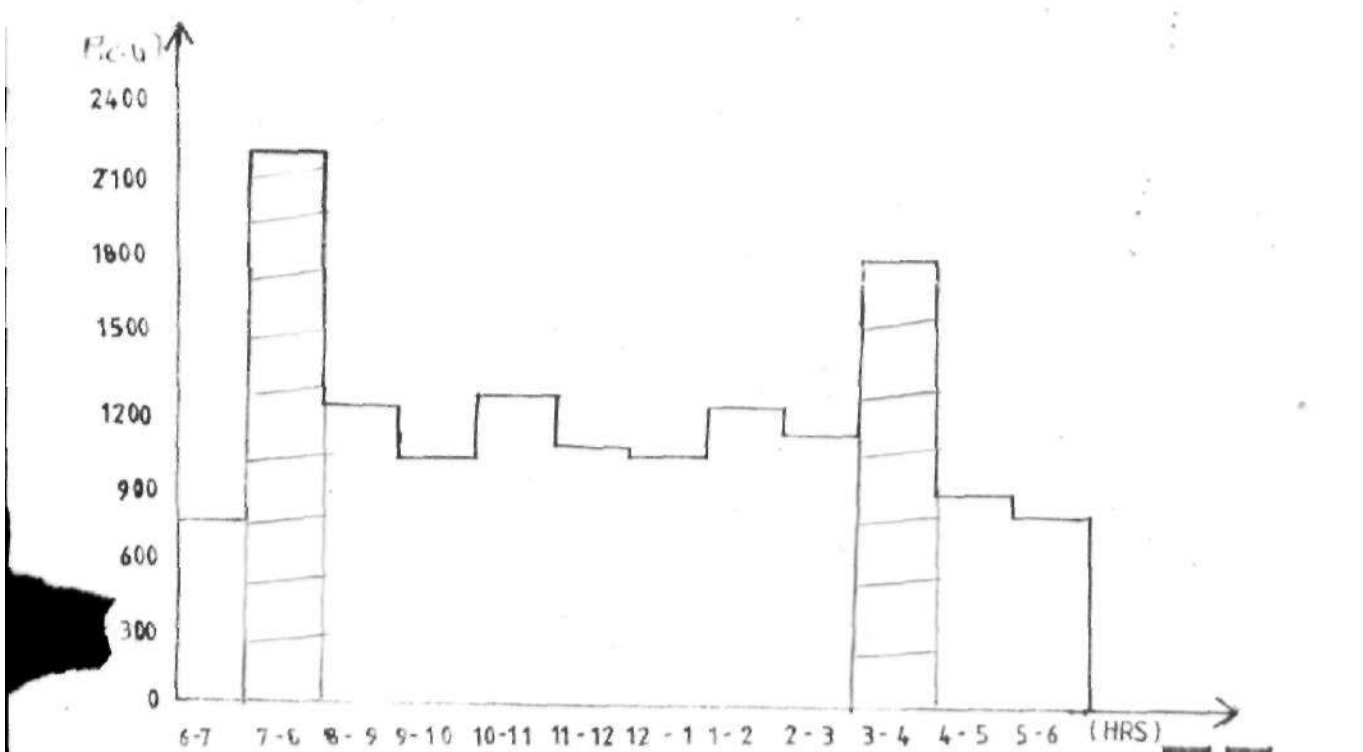
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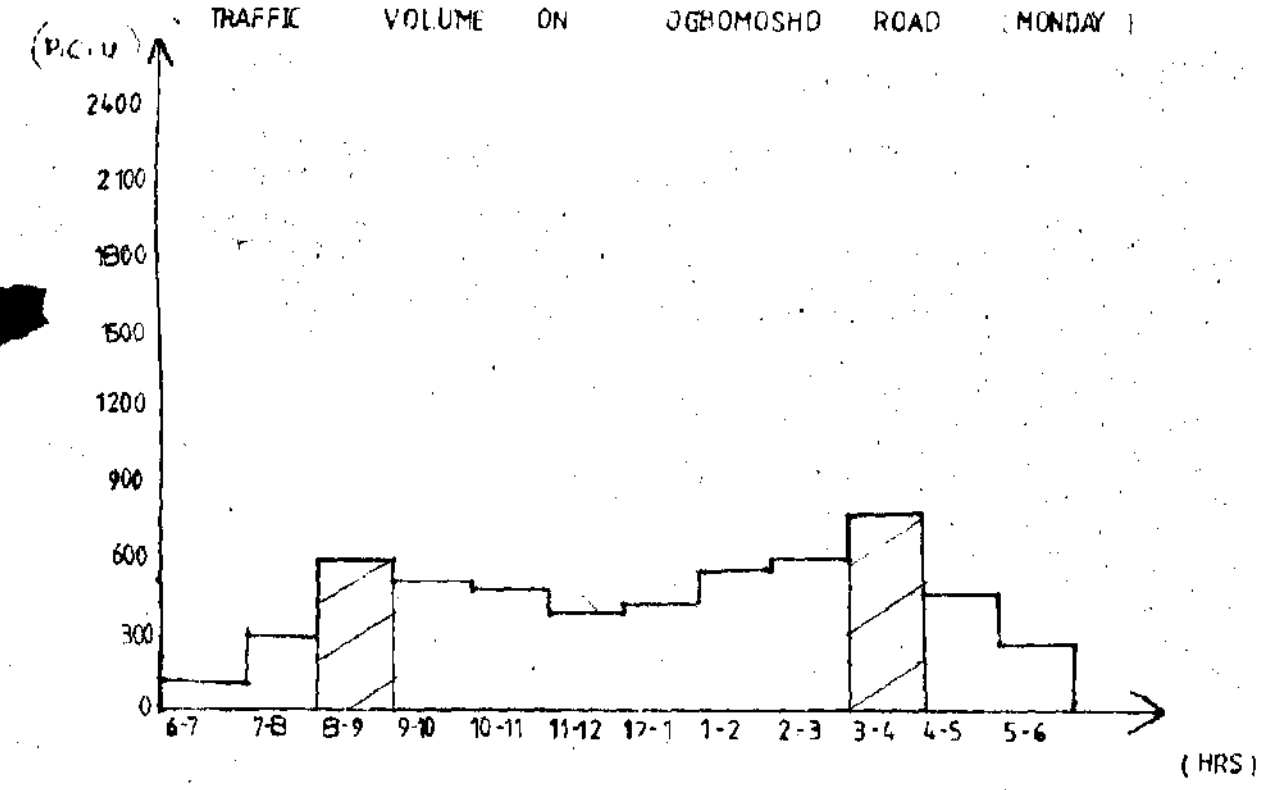
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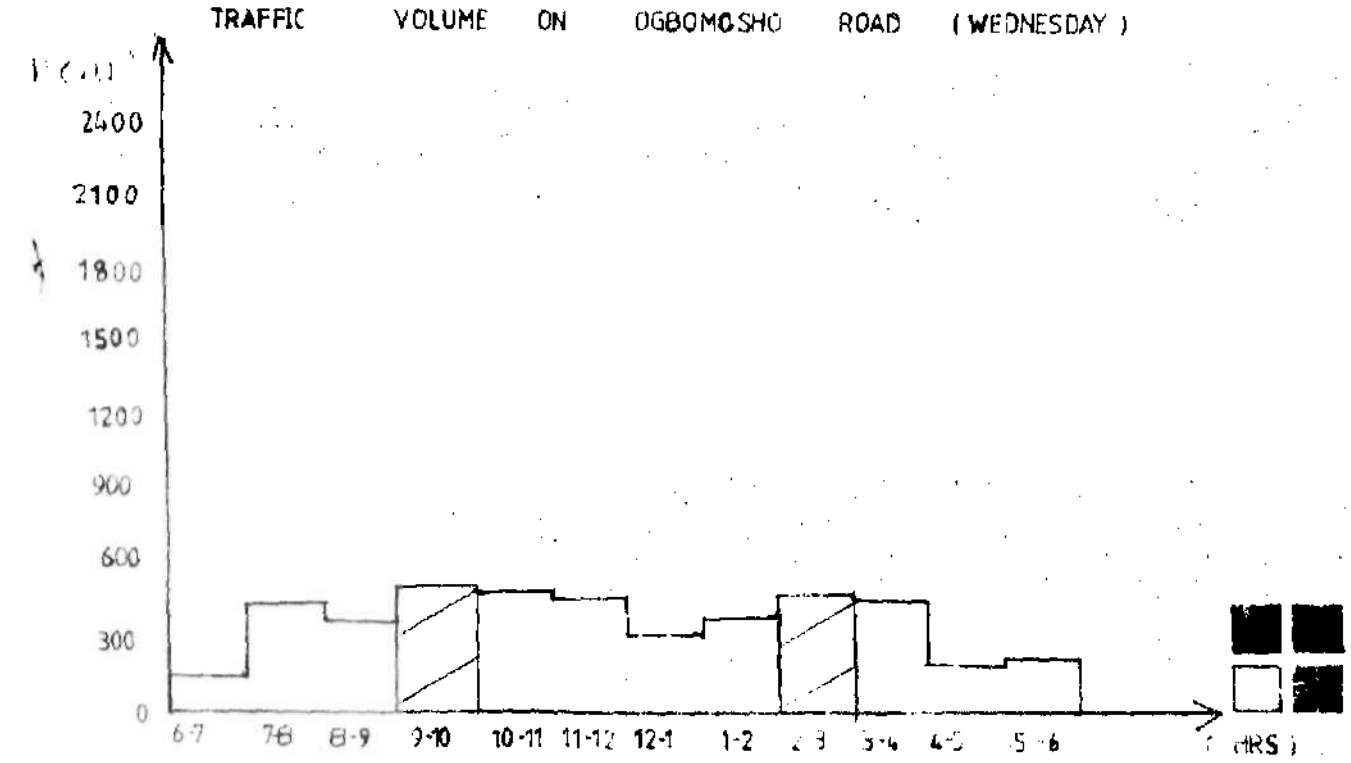


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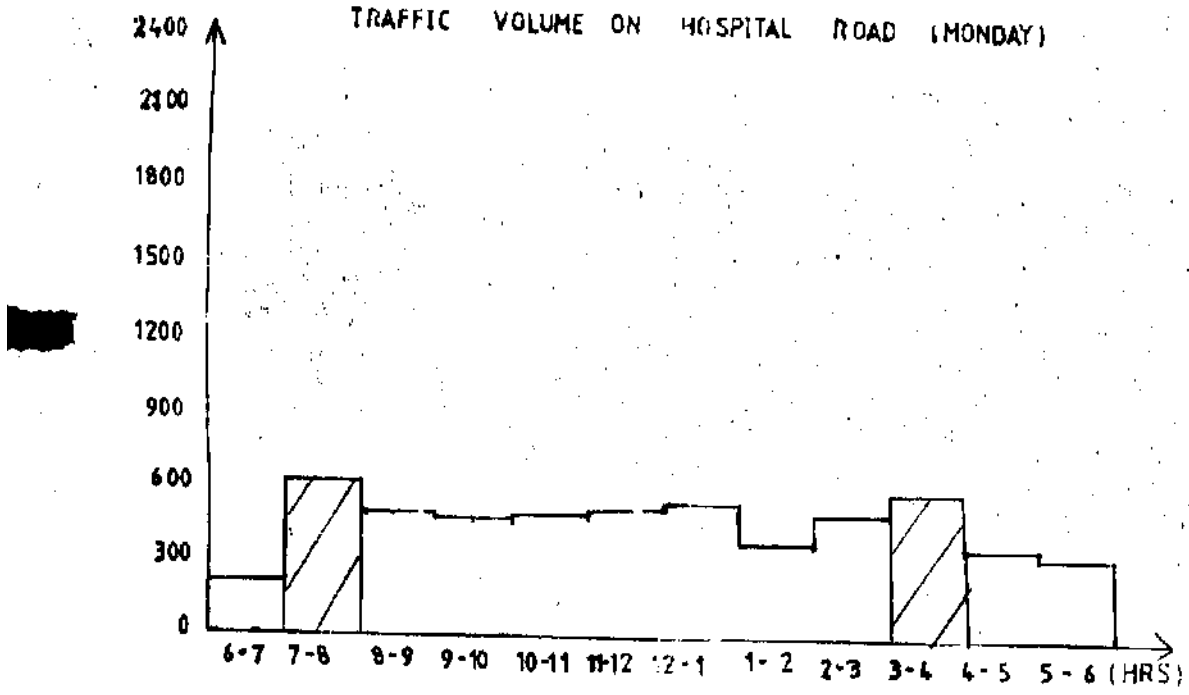
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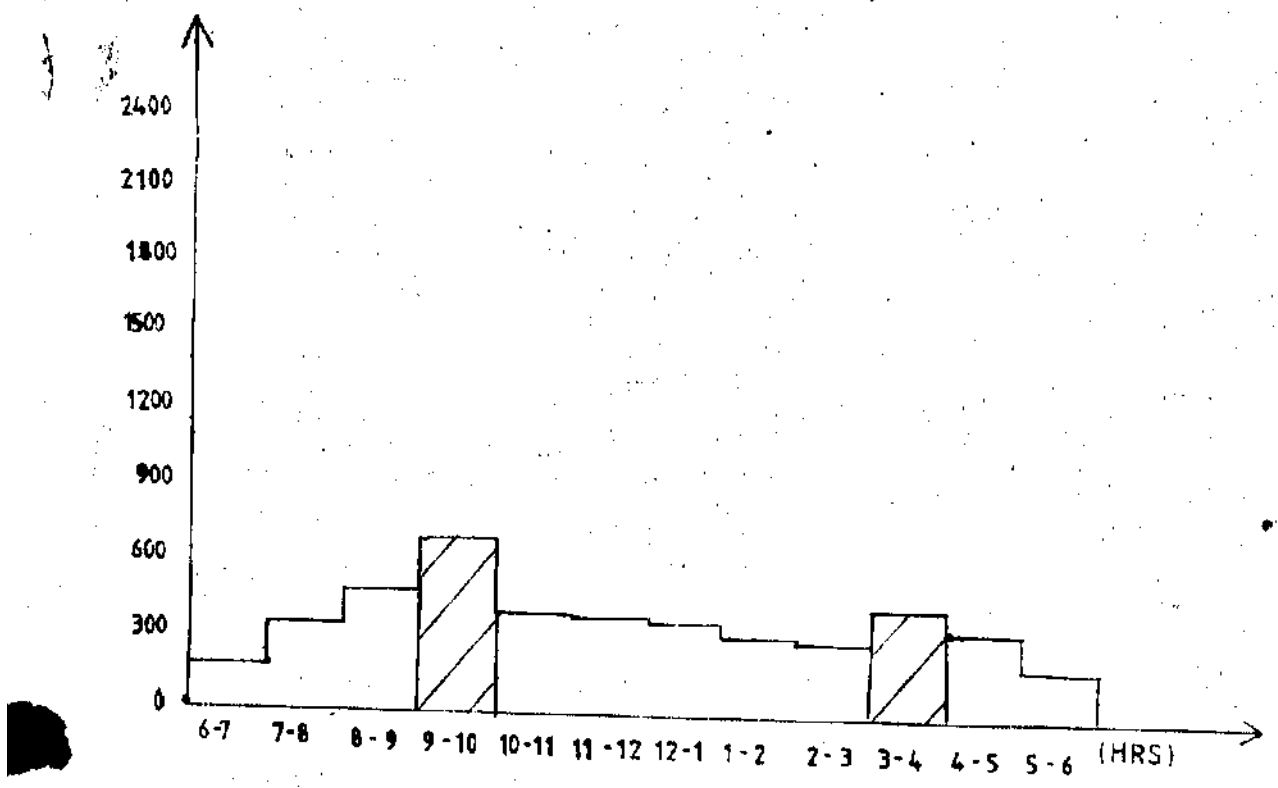


TRAFFIC VOLUME ON OGBOMOSHO ROAD (WEDNESDAY)



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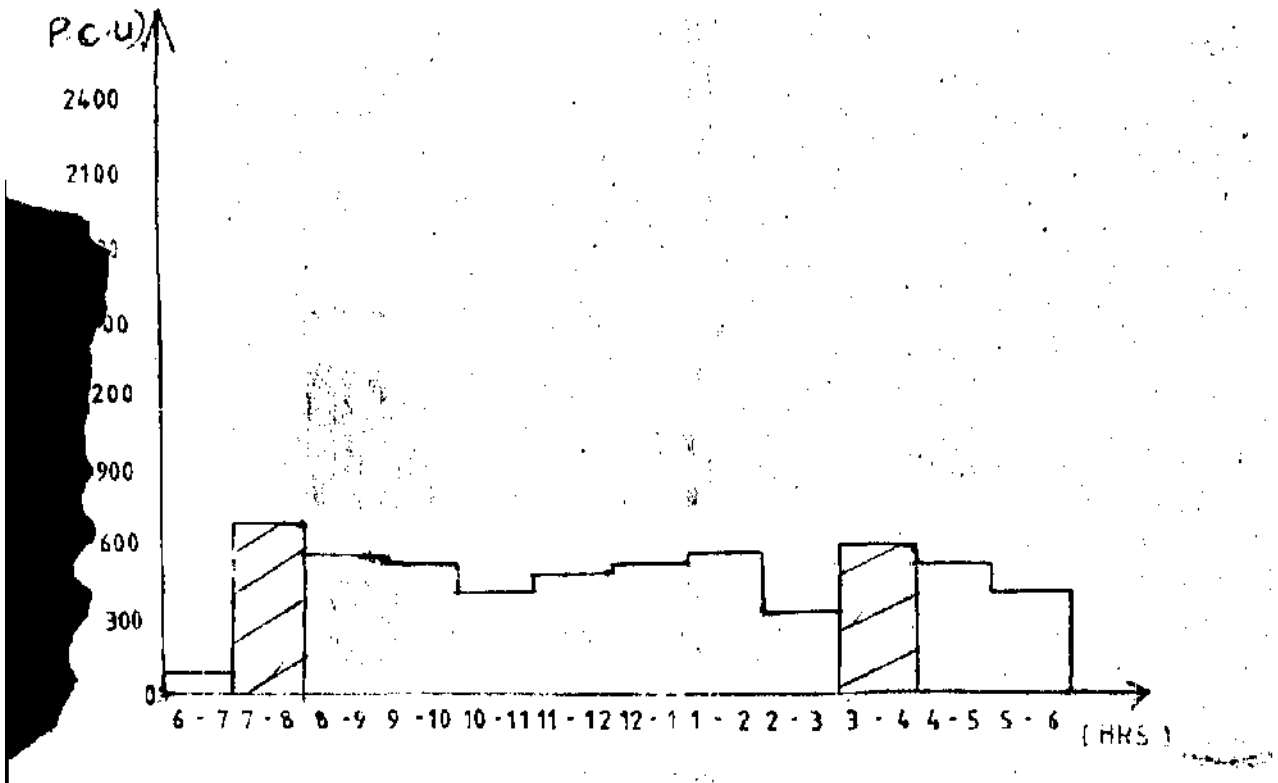




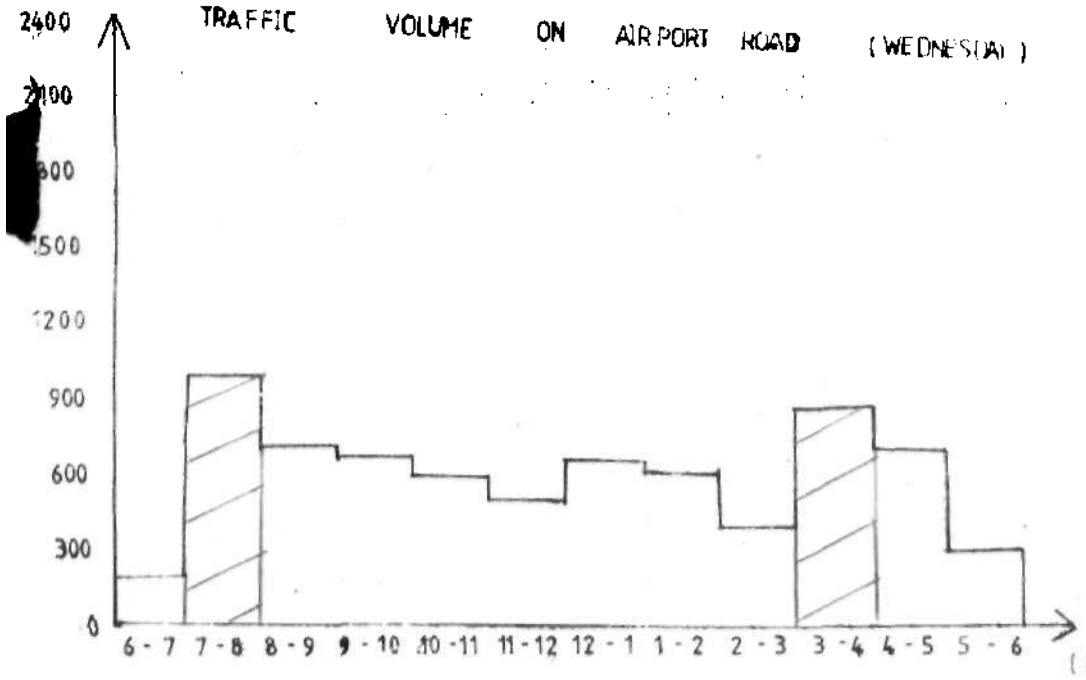
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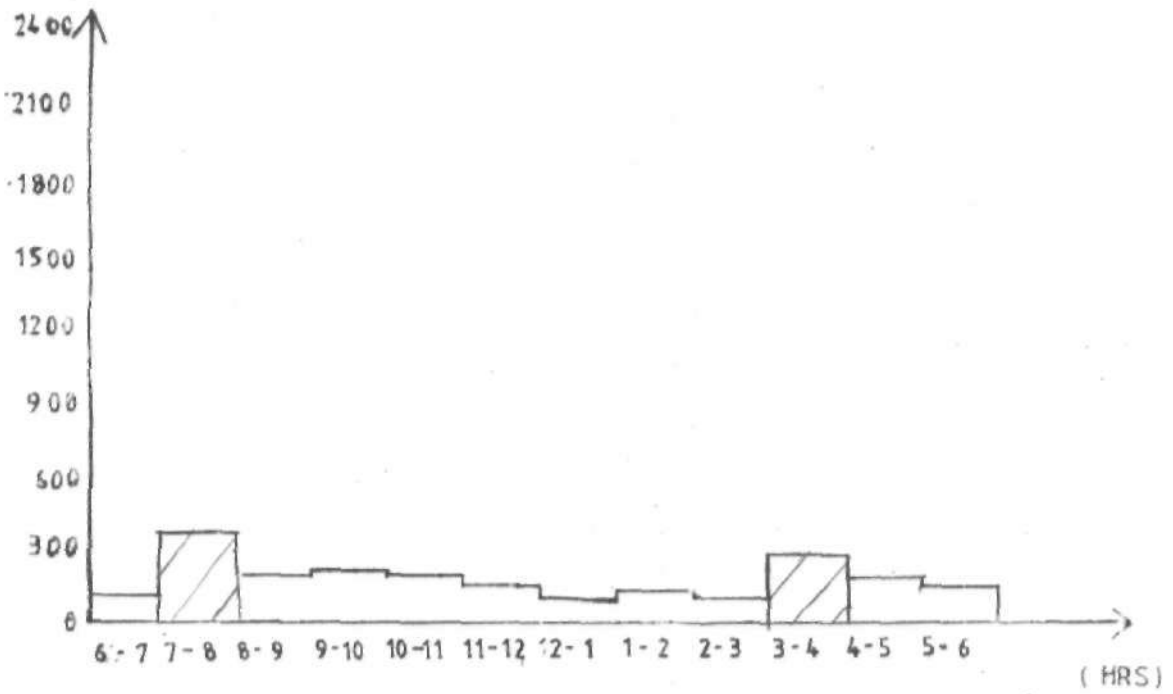


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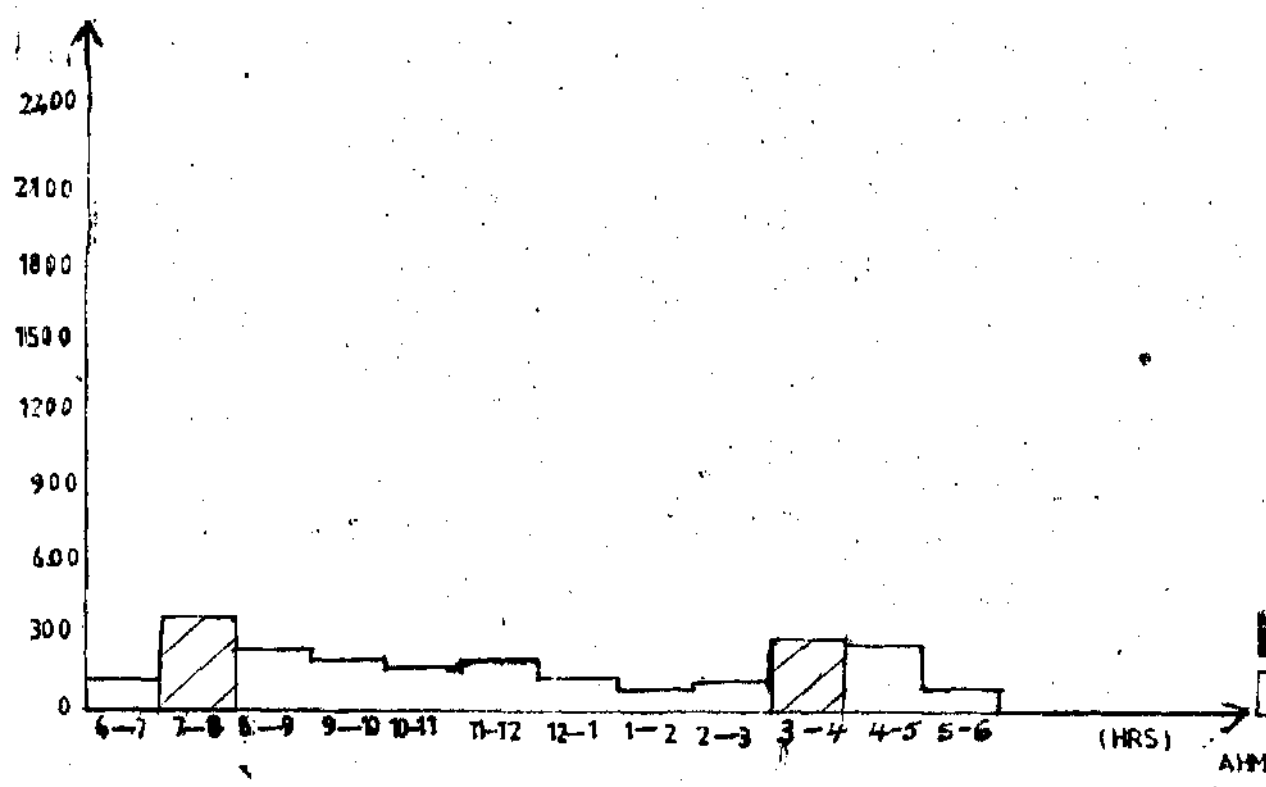


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TRAFFIC VOLUME ON KUTA ROAD (MONDAY)



TRAFFIC VOLUME ON KUTA ROAD (WEDNESDAY)



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