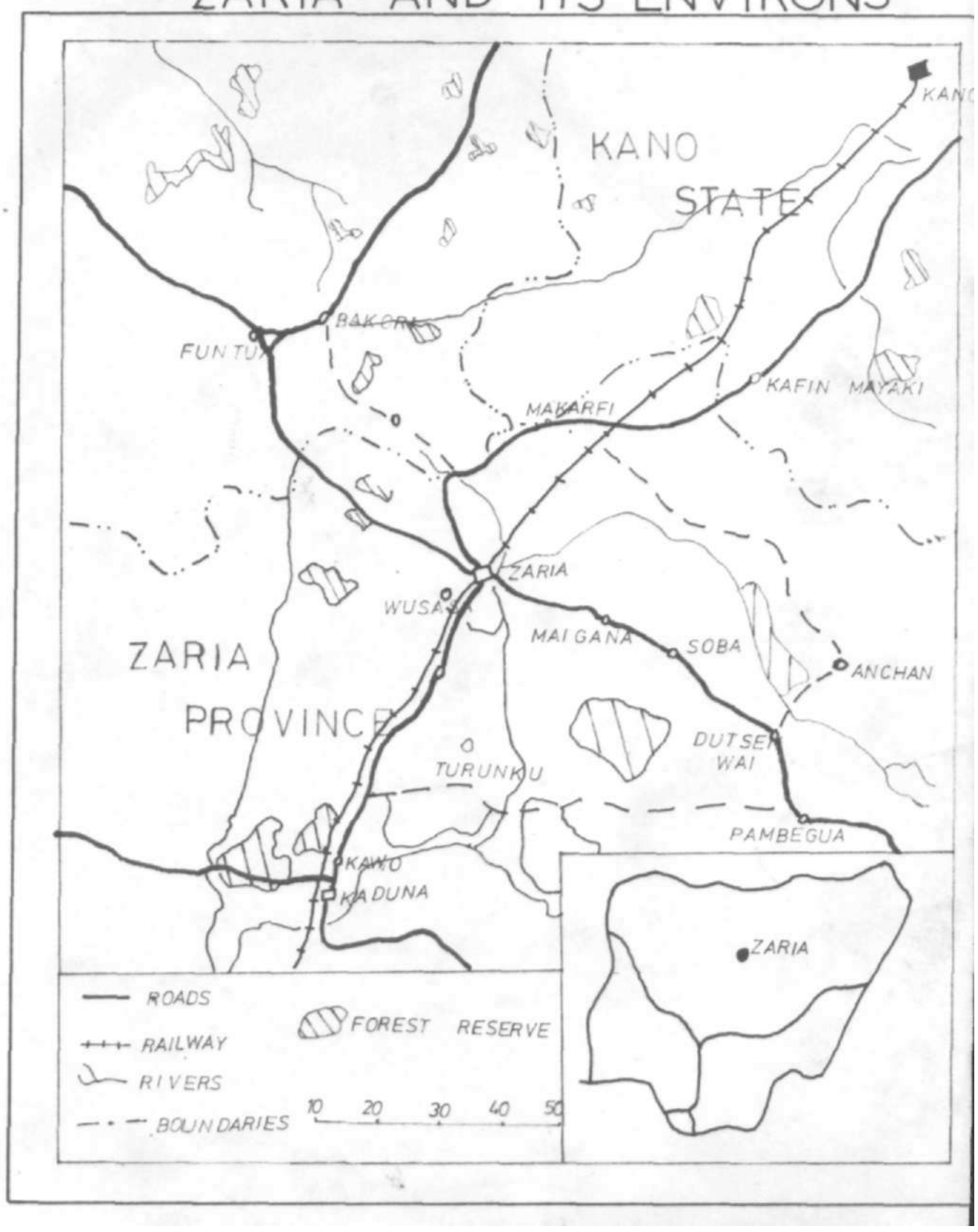
ZARIA AND ITS ENVIRONS



THE ECONOMIC FUNCTIONS OF THE ZARIA TOWN CENTRE

BY

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CERTIFICATE

This is to certify that this thesis has been submitted in partial fulfillment of the requirements for the award of the Degree of Masters of Science (Urban and Regional Planning)

APPROVED

ZARIA
June 1974

.....
Head of the Department

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CHAPTER I

INTRODUCTION

A large proportion of the Town Centre of Nigerian cities developed during the earlier period of the city's growth. Most of these centres also developed as part of the traditional institution. However with the development of modern economic sector the centre is required to play a more comprehensive role in the day to today activities of the city. The traditional centres are usually incapable in coping with the demands of the modern economy in terms of land area and facilities needed. The first group of commercial firms were established during the colonial era. They were usually located along a major road and close to the railway stations because of the advantages of accessibility. The new firms were attracted to the established sites because of the advantages of agglomeration. The residential units around this site were gradually displaced and a commercial centre

developed. There are two major disadvantages to this type of growth. The absence of any development plan results in the haphazard location of the commercial institutions. Secondly after some years of growth the centre is no longer able to expand and congestion and general inefficiency sets in.

There is therefore, a loud cry for the redevelopment of most of Nigerian City Centres. Although the commercial centre of Zaria was laid out by the colonial administration in 1914, no development plan was prepared. Amongst the problems of the centre is its declining tendency as the result of the growth of Kaduna as a major administrative, commercial and industrial centre of Nigeria. A number of the commercial firm that were formerly established in Zaria are moving their headquarters out into Kaduna and Kano because of the increasing importance of these centres. The decline in importance of the Zaria centre is obvious if one compares its growth with Kaduna over a period of time. Between 1940-50, the three most important trading companies - the UAC,

John Holt and PZ had their northern region headquarters in Zaria and only a branch of John Holt and UAC existed in Kaduna. However since 1956, these trading companies have moved their headquarters to Kaduna. The new Kingsway, Leventis and Bhojons supermarkets also located at Kaduna. Today Zaria cannot boost of a single supermarket. Zaria is no longer able to provide the range of goods and services required by the dependent regions and in many cases consumers have to make trips to other towns for the purchase of goods and services. Another problem is the poor organisation of the existing groups of institutions. In certain activities e.g. retailing there is the need for proximity between the individual shops to enable the mutual exchange of customers between the store and thus enhance the economic activity within each of the unit. Within the Zaria centres the establishment are located all over without any recognition of the special affinities between some institutions and the need to group them together. The development of

the trading street within the centre which is a common phenomena all over Nigeria present its own problems. Retails locate on the major streets so as to increase the proportion of potential customers within the traffic flow. This however leds to the congestion of this roads. This is especially so when pedestrian walkway are not provided.

The bottleneck at the railway crossing, the lack of infrastructure within the centre, the congested and poorly equiped market, are some of the other problems. The objective of this project is to examine the use and economic activities of the Zaria Town Centre and with the aid of the results obtained from the investigation, suggest solutions for the existing problems and guideline for the future development of the centre.

There are a number of difficulties envisaged in this project. The number of investigations into the central activities of the Nigerian towns are still very limited and a large part of this study must

start from scratch. In addition because of the limited time and resources not all the relevant elements affecting the functions of the centre can be fully investigated. The suggestions and proposals at the end of this project can only be a beginning to the quest of finding answers to the many problems confronting the town centre of Zaria and it is hoped that later researchers can draw useful hints from this study.

METHODOLOGY

1. REGIONAL SETTING: The role of the town centre can only be clearly understand when examined within the context of the region which it serves. The level of the functions performed by the centre depends to a large extent on the population, the purchasing power and other economic factors prevailing within the region. The project therefore starts with an examination of the rural economy and the life style of the people within region. Relevant data concerning the volume of products coming from the different surrounding areas were compiled and the

extent of the area of influence of the urban area assessed.

2. LAND USE: A base map of the scale of 1: 2,400 and showing the individual structures within the centre as compiled in 1962 was used for the survey exercise. During the survey each of the structures already mapped were checked to be present, and the new development were marked on the map. The use and height of each of the buildings were also compiled. Other important characteristics such as the infrastructure available within the buildings, the building material, the structural state of the units were also noted. It was also possible to obtain approximately when each of the buildings were built. The aim of the land use survey was to find out the present uses of the centre and how much area is presently devoted to the different categories of land-uses. It also aims to determine how the present pattern is affecting the economic and circulation processes within the centre.

3. The Commercial Activities: The objective of the economic survey was to determine the present level of commercial activity within the commercial centre and the market and find out if the present organisation is appropriate. Questionaires were prepared (see appendix) to determine the types of goods sold, amount of stocks, level of sales, ownership and number of people employed. A 15% random survey was conducted to cover the 3 different categories of commercial activities namely retail, wholesale and service.

The total number of establishment were obtained after the land-use survey and a 15% stratified random sample was conducted. The questionaires were later analysed and the results tabulated.

The stalls within the market were numbered and a 20% random sample was selected. The traders within these stalls were interviewed. Information needed to assess the present deficiency and the future needs such as mode of transport to market, sources of goods

sold, working capital and the present difficulties of the traders were obtained.

Circulation: A preliminary survey of all the roads leading into the demarcated centre was undertaken in order to determine the peak hour flow on this roads. A traffic count for six hours was done for each of the four roads leading into the centre. The volume count was done to obtain factual data concerning the movement of the different types of vehicles at selected points surrounding the Town Centres. All countings were done on full working days (Monday thru. Thursday) under normal operating conditions. The peak hour volume could be use to determined the present maximum demand for the use of any of the road and to determine where new facilities are required.

A pedestrian survey was also conducted because of its importance in shopping activities. The peak hour flow was obtained by counting the number of pedestrian moving pasted selected points within the centre. The pedestrian volume is a measure of the

intensity of the activities within the centre. Areas where pedestrian and volucular movements were at a conflict were noted as well as the provisions made for the pedestrians within the centre.

Summary of findings: All the conclusion reached under the different studies were found to be interdependent and in this chapter, the findings were all co-ordinated to arrive at some general conclusion and r ecommendation.

(iii) Delianation of the Town Centre

There is need for an accurate delianation of the town centre to ensure uniform basis for comparison. Most early studies of central place and shopping centre systems either discreetly avoided this problem or glorred over it but recent studies have advanced a number of procedures. The 1961 Census of Distribution defines the limit of a central shopping area as that 'where the ratio of shops to all properties fell below one in three'. (Leeming 1959 p.140), Davies (1967 p.70) included a shop in a centre 'if it lay within a distance equivalent to the frontage

of four terrace houses'. Other studies have defined a centre as 'an association of stores each one of which is within at least 200 feet of another retail store.' (Garrison 1959, p.206, Clark, 1967 p.24) Schell (1964) defines the centre as a contiguous group of retail stores, usually more than four or five in number, having at least two kinds of retail types.' However these definitions do not delimit the centre in an appropriate manner if the major shopping street are separated by non-retail land-use. There are other methods that aim to delimit the centre by the use of such data as the pedestrian flows and land values. Hafes and Schul (1965) delimited the retail core of Greensboro in North Carolina by minimum volumes of pedestrian flow. Equally arbitrary is to delimit centres on maps of land values by the subjective choice of minimum value. Murphy and Vance advance the use of a technique which involves the calculation of two indices; the central business height index (CBHI) which is the total floor area of central business use within a block divided by the

ground floor area of the block, the central business intensity index CBII, which is the percentage of all floor space in a block accounted for by central business use. In order to be included in the centre, a block must have a CBHI of at least 1, and a CBII of at least 50 percent. This procedure, given the aim of the study tends to be satisfactory in the towns of Western countries. Several studies have adopted modifications of the Murphy-Vance technique. In Cape Town D. H. Davies (1959) established by two independent delimitations based on land valuation and traffic destination and found that this technique was sound. In Lourenco Marques, Mozambique, de Blij (1962) found that almost all free standing retail establishments were only one storey high and occupied merely the outer edges of large blocks in which the centre were devoted mainly to storage and parking. Other shops were the ground floor tenants of multi storeyed apartment buildings. Under this conditions the Murphy-Vance technique was inappropriate. The centre was therefore delimited to include those blocks having

more than 27% of their total frontage occupied by retail establishments and banks. The author concludes that this method is not 'generally applicable' since the criterion was determined by reference to a scatter diagram of the percentage data.

In an attempt to delimit the Zaria centre some of its peculiar characteristic had to be taken into consideration. Firstly, unlike the developed countries, an appreciable percentage of the central retail establishments exist within the residential ~~until~~ area itself. The central functions which are usually separated from the neighbourhood actually exist within it. Secondly, shops are usually concentrated along the major roads, leading to the development of trading streets. This is a common development in most African cities. The shops seek the patronage of the relatively large number of pedestrians and private car owners who are passing by. A third characteristics is the sales of goods on the table and sometimes on the ground in the frontage of residences. While the number of shops or floor space occupied by retail

activities can be easily measured, goods laid on the ground and hawkers who are a sort of mobile shop do not lend themselves to easy empirical analysis.

In the attempt to delimit the Town Centre of Zaria, all the activities considered to be central users in the light of the special characteristics of the town were enumerated. The activities listed attract people from the different sectors of the urban area and if not centrally located will cause some inconvenience to people living within particular residential sectors of the town. The activities considered to be central users include

(a) The Administrative Offices: These are government establishments and they include the Provincial Office, the Township Authority and the Local Government Offices. Except for the Local Authority Offices which are located within the city wall, the other two are centrally placed. The Local Authority Offices are remote to people living in Samaru and Sabon Gari and is therefore not performing its functions as efficiently as it should.

(b) The Sabon Gari Market and other retail

Establishments. The Sabon Gari market is by far the largest and most important market in Zaria and its environ. It is the central market from which goods sold in the local markets within the other residential areas are bought. Traders from the different part of the urban areas bring their wares here. Surrounding the markets also are a number of shops involved in retail activities and service trade. Next to the market is the Commercial Area which is a central user.

(c) Wholesale: Wholesale activities are usually classified as non-central users in most developed countries. In Zaria however it is difficult to draw a line between wholesale and retail establishments. Except for a few establishments most of the wholesale houses are involved in some retail activities and the large retail houses e.g. Chellarams are involved in wholesaling, The market which is mainly a retail centre is also involved in wholesaling. This duplication in performance is due to insufficiency in the

number of wholesale establishments. In this study wholesaling is therefore considered as being a central user because of the above reason.

(d) Service Trade: Activities such as Printing, Laundrying, barbering and hair dressing, tailoring and so on are considered as central functions.

(e) Business and Financial Institutions: All banks, insurance offices and the Marketing Board are considered central functions.

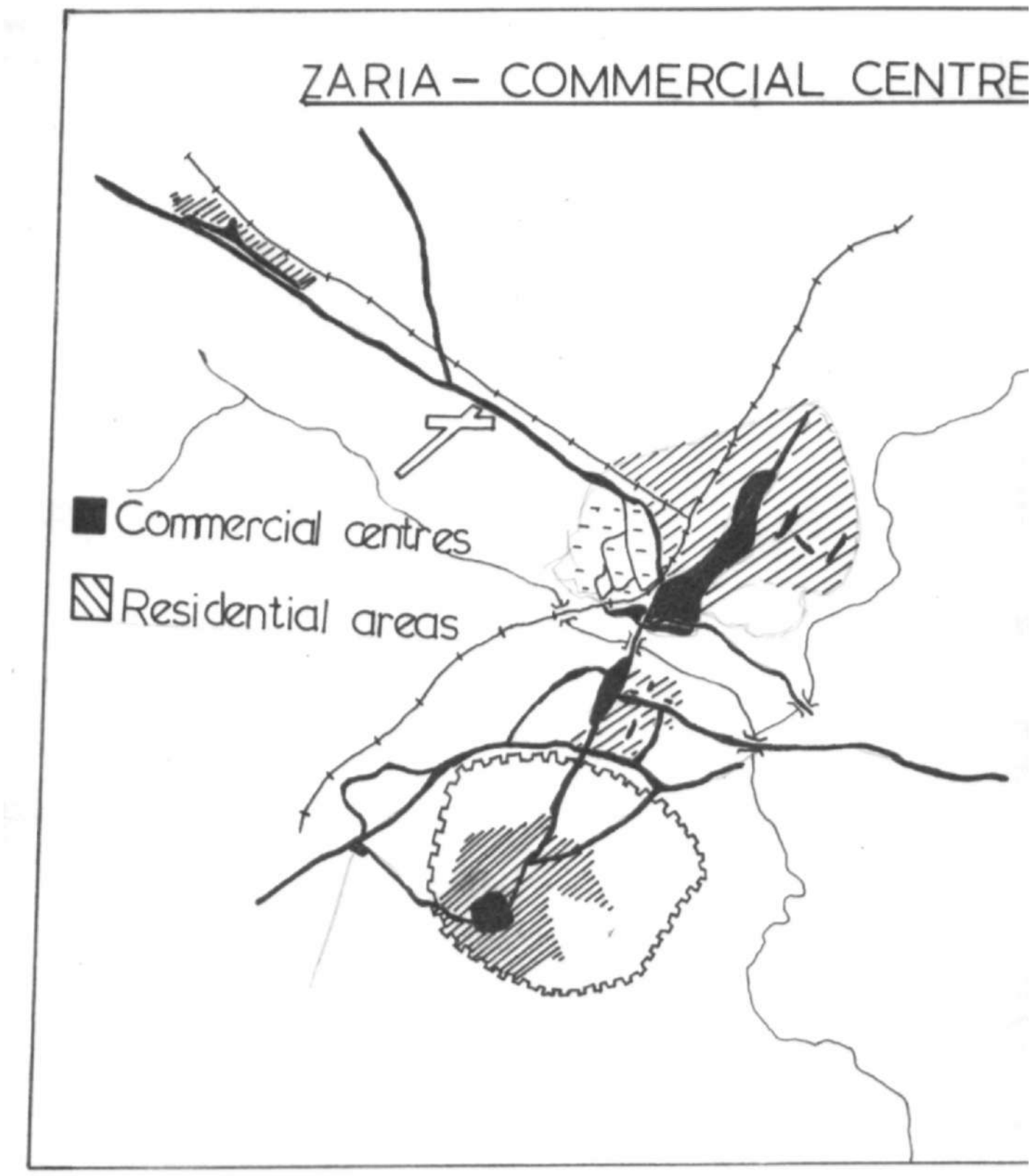
(f) Cultural and Entertainment Facilities: The Cinema, Hotels and Clubs are considered central

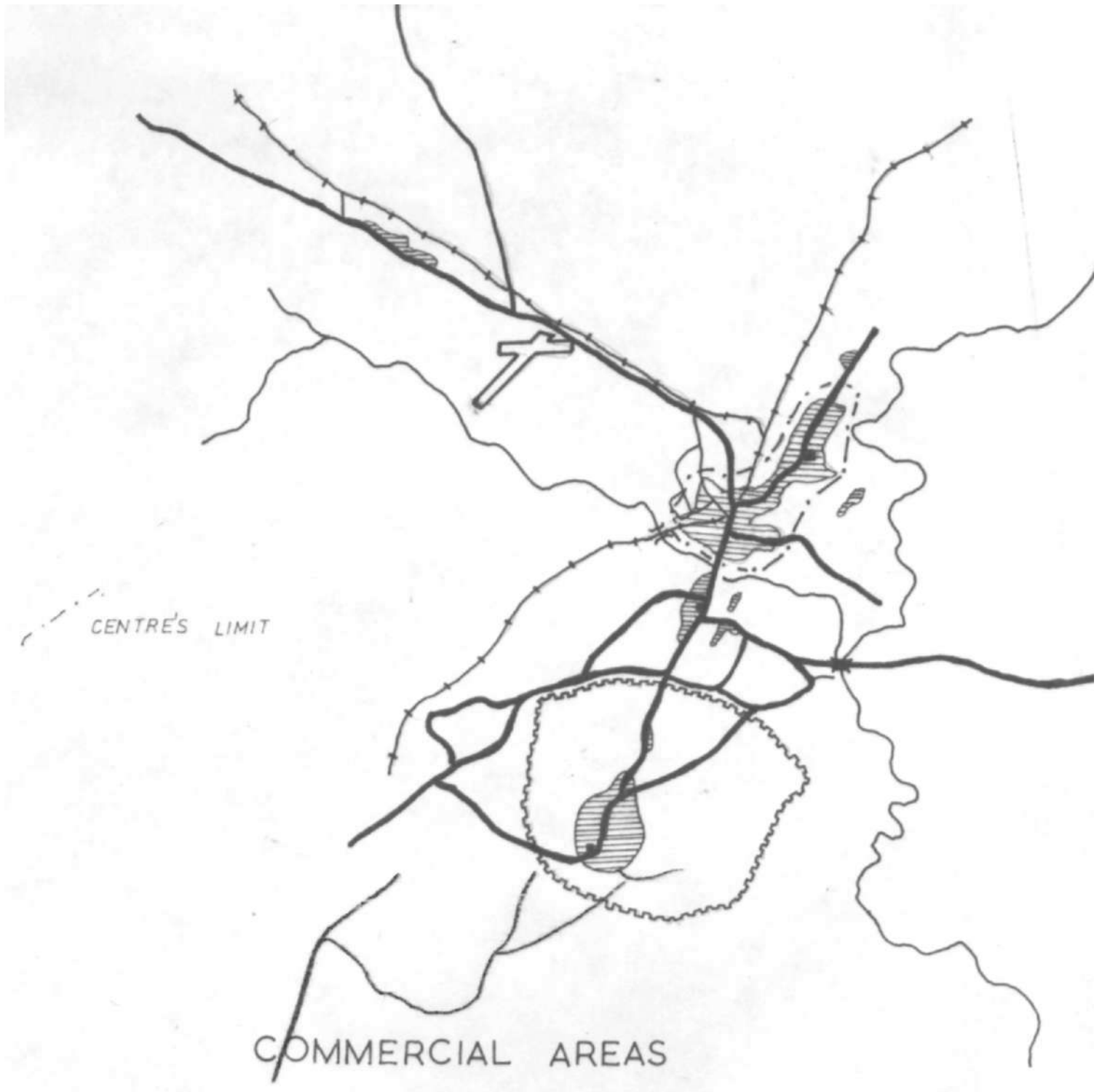
(g) Transient Residences - The Catering Rest House is a central user.

Other activities such as parking, cultural centres and auditorum which are presently not well established are considered central. The industry, residences, petrol stations and open mechanical garages which are presently existing within the Zaria centre are classified as non central users.

Method used in delimiting Zaria Centre:

In order to delimit the Zaria centre a screen interview survey was conducted at two points around the market and three points within the commercial area. The aim of the interview was to determine the area from which people came and where they considered to be the centre. An area where people are found to come from the different residential sectors for shopping purposes would obviously be a central area. The result of this interview was used to draw a line around the market and commercial centre. A land-use survey of the commercial area, the market and the shopping streets within Sabon Gari was carried out and all the buildings completely or partly used for commercial purposes were marked out.* The frontage of buildings used for commercial activities were also marked. Within the area delineated by the interview, the Central Intensity Index of all the buildings and frontage within each street block . were measured. In all case where the Central Business Intensity Index was up to 20%, the


ZARIA – COMMERCIAL CENTRE
Commercial centres
Residential areas


CENTRE'S LIMIT
COMMERCIAL AREAS
AND DELIMITED CENTRE

block was included in the centre. The street block was used as a unit area because of the layout of the area was based on the grid pattern and this made the boundaries of the blocks clear and convenient for use.

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*The building partly used for commercial purposes and largely used for residential purposes [illegible] majority and the extent of this [illegible] were marked.

CHAPTER II

BACKGROUND TO STUDY AREA

Zaria, which is located on a plateau at a height of two thousand, two hundred feet above sea level, lies on Latitude 11° 3'N and longitude 7° 42'E. It is situated in the centre of the Northern States of Nigeria and is about 400 miles away from the sea. It occupies an extimated area of 13 square miles and has a population of 200,000 people.

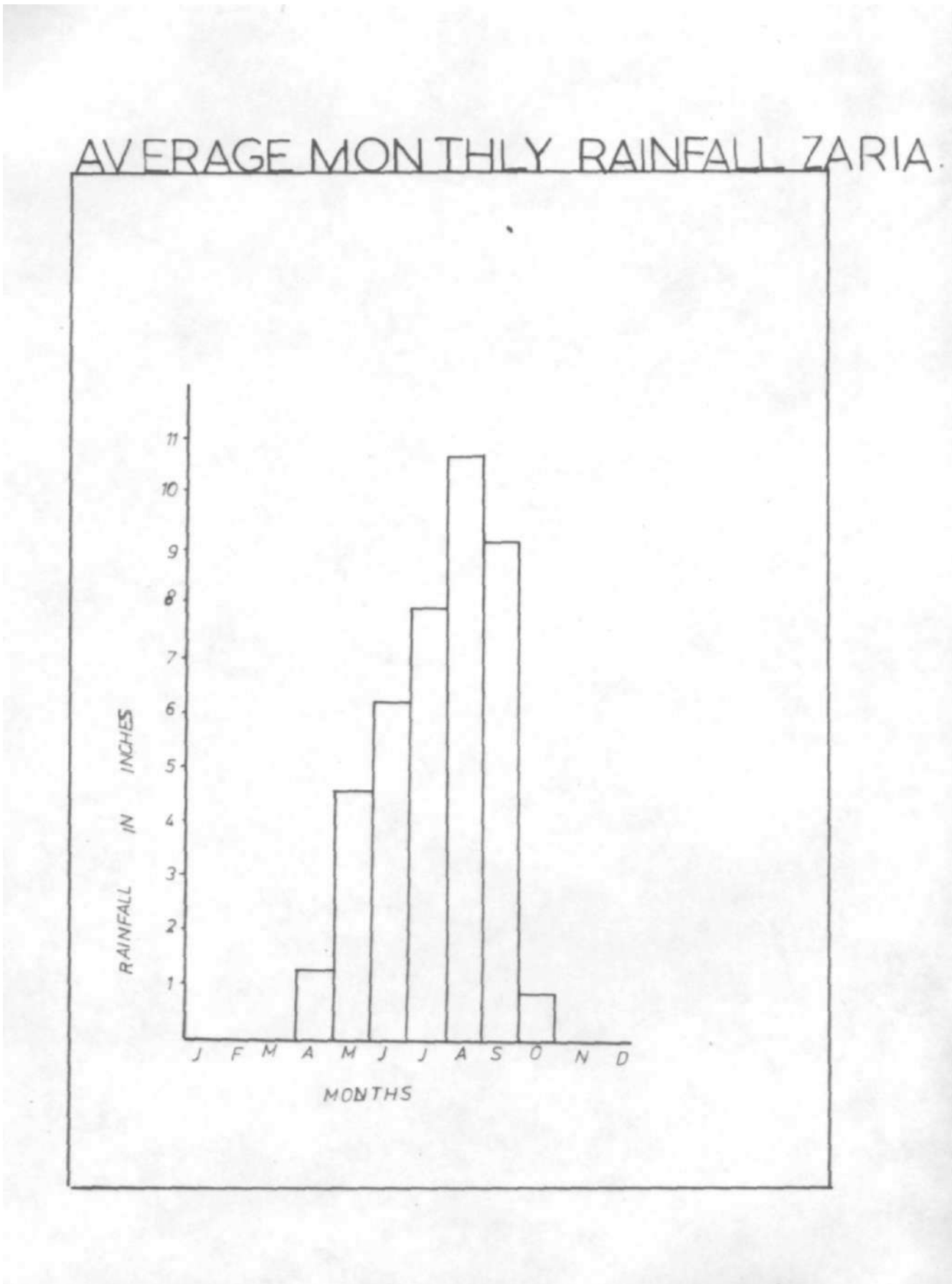
Local tradition ascribe the founding of Zaria Town to Barka Turunku at about 1536 A.D. He is said to have found Turunku too small a capital for his people and the water supply too precarious. Turunku is still an important settlement with extensive ruins and situated seventeen miles due South of Zaria. Bakwa was said to be a great ruler who freed his country from the terrors of Kororafa (Jukuns) invasions. During Queen Amina's (the daughter of Bakwa Turunku) reign, the influence of Zaria is said to have extended as far the Nupeland and the whole

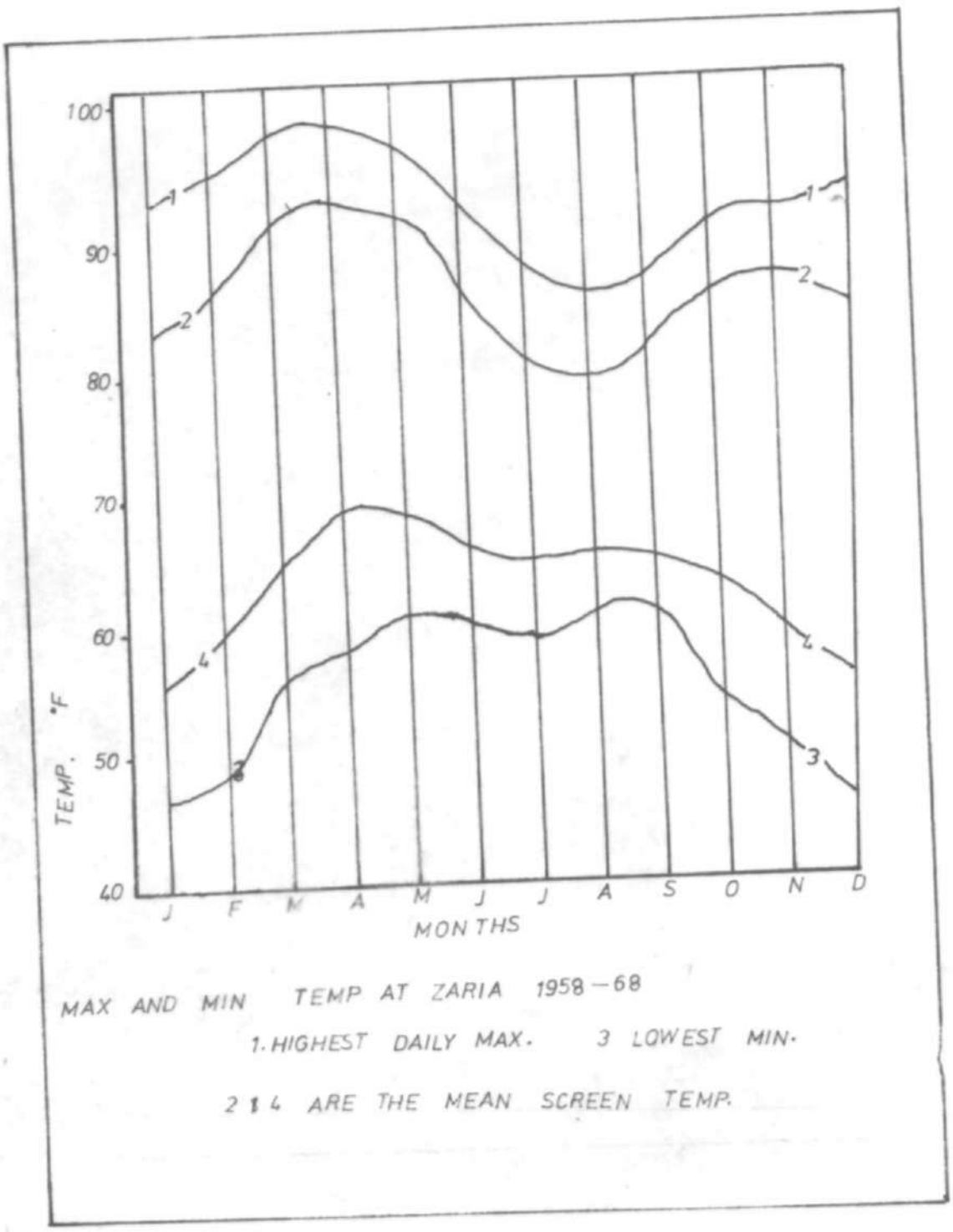
Gwari land was under her control. Zaria was always an important slave centre. Slave raiding operations were launched into the Southern Regions. The relationship of Zaria with its northern neighbours in the eighteenth century is not clear. The two northern kingdoms, Katsina and Kano were quite strong at this period. Except for an attempted invasion by Kano in the sixteenth century there are no records of any major war between the Kingdoms. In the early seventeenth century the Borno empire expanded westwards to a range of 80 miles from Zaria. There are no records of a Kanuri military penetration into Zaria territory.

In fact the Emirs were known to have exchanged plesantries and some Kanuri's immigrated and settled in several villages within the Zaria Region. The Muslim religion probably first took root in Zaria during the reign of Muhammed Rabbo in the second half of the seventeenth century. The influence of the Borno Empire probably consolidated and aided the spread of the religion. It has been suggested that by the end of the 18th century, Zaria enjoyed a form

of Islamic government and at this time the city was by and large an Islamic community in which the old beliefs and practices lingered on only in vestigial form. At the beginning of the nineteenth century the Fulanis expelled the Babe dynasty that had been ruling Zaria. They took over the government and ruled for almost a hundred years before the British established their rule at the beginning of this century.

The Zaria Region lies on a dissected portion to the extensive Hausa Plains which covers over fifty percent of the Northern States of Nigeria. The high plains is made up of crystalline metamorphic rocks of the Nigerian Basement Complex. Residual granitic inselbergs such as the Kufena Hills are a common feature all around Zaria dna they are said to have been useful for defensive purposes before the era of the colonial administration. Low quartsite ridges can be found here and there, especially in the Western sector of the region. The plain slope generally from the North to the South. The drainage system of Zaria


AVERAGE MONTHLY RAINFALL ZARIA.
RAINFALL IN INCHES
1
2
3
4
5
6
7
8
9
10
11
J F M A M J J A S O N D
MONTHS



MAX AND MIN TEMP AT ZARIA 1958 – 68

1. HIGHEST DAILY MAX. 3 LOWEST MIN.

2 & 4 ARE THE MEAN SCREEN TEMP.

is focused on River Galma a major tributary of the Kaduna River. This river carries water throughout the year unlike its tributaries which usually dries up between the months of January and June. However there are subsurface flow in the river channels from which water can still be tapped in the dry season. This is responsible for the high rate of soil erosion that is taking place in the surroundings.

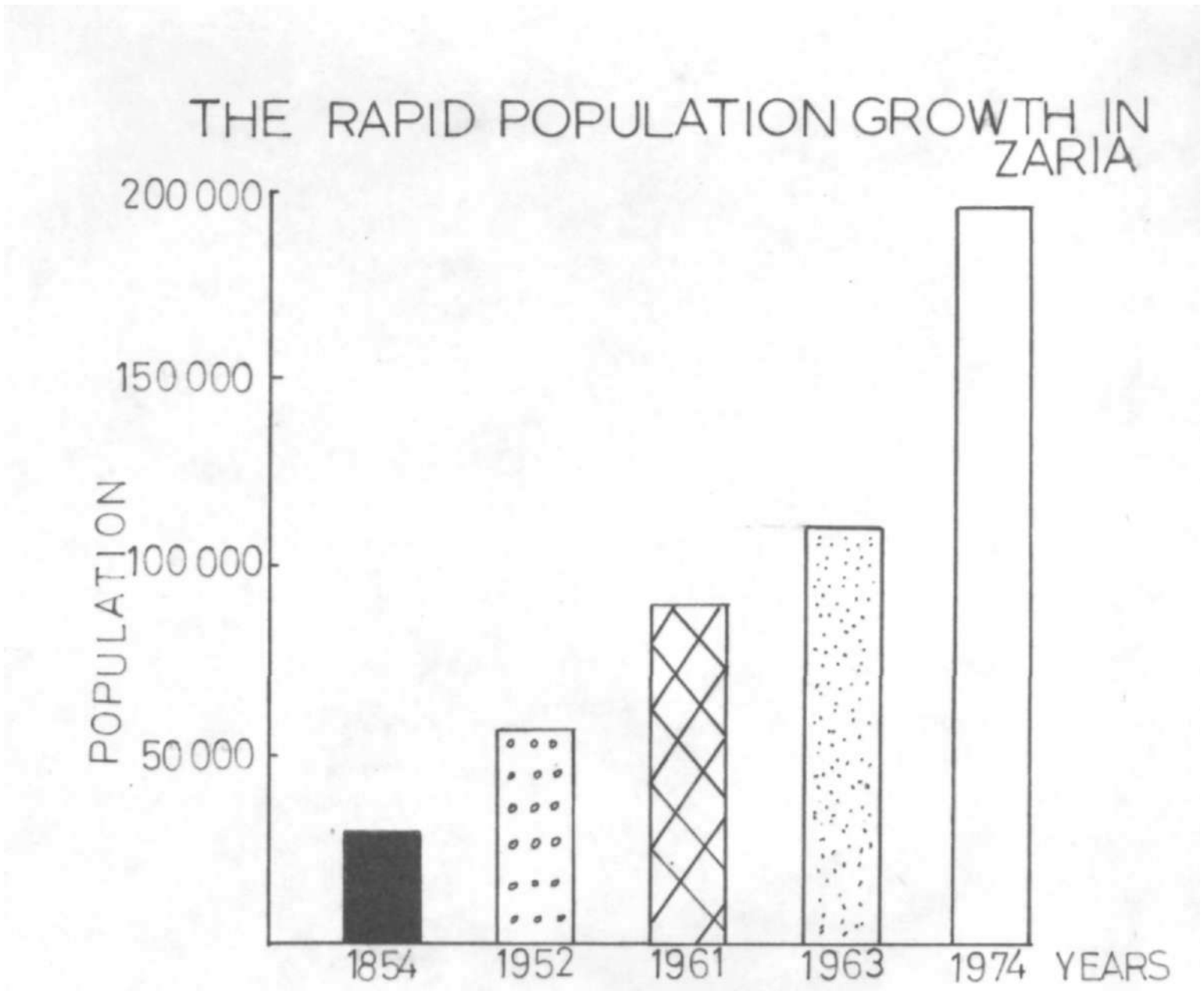
Zaria possesses a tropical continental climate (tropical Savanna type) and lies within a region with distinct wet and dry seasons; the wet season occuring in the high sun period. The mean annual rainfall is about 43.0 inches (see rainfall graph) with practically no rains between the months of November to March. The daily maximum temperature shows a peak in April (over 95^{oF}) and a minimum of about 57^{oF} in December. (See temp graph). Zaria is affected by two distinct air-masses. The North East trades is dry and continental in nature while the South Westerly is moist, cool and maritime in nature. The weather depends to a large extend on the type and depth of the airmass prevailing over the region. The dry season when the North East

Trades is prevailing usually last from November to April, while the rainy season cover the months of May to October.

Most of the soils in Zaria belong to the class of the leached ferruginous tropical soils. They contain about thirty to forty percent of clay at reasonable depth and this allows for good moisture retention. The soils are however inherently rather poor and cannot sustain intensive agriculture for long periods without the use of fertilizers. The soils form a surface 'cap' under the impact of rain which leads to low infiltration rates and rapid run off and a consequent soil erosion problem.

Zaria lies within the Guinea Savanna zone will scattered trees but a well developed grassland.

(a) POPULATION: The population of the town has been growing steadily. In 1894 it was estimated that the population amounted to about 30,000, confined to the city wall with only half of the area built up. In 1952 the census recorded a total population of


THE RAPID POPULATION GROWTH IN ZARIA
200 000
150 000
100 000
50 000
POPULATION
1854
1952
1961
1963
1974
YEARS

56,000 for the city, Tudun Wada and Sabon-Gari. In 1961, the population estimate was 91,000 and in the 1963 census the population of the town had risen to 110,000 making Zaria the tenth largest town in Nigeria and the third in the old Northern Nigeria preceded only by Kano and Ilorin. Today the population is extimated to be about 200,000 or more because of the increase in the number of educational institutions and the rapid expansion taking place within the existing ones.

(b) MORPHOLOGY: The Zaria urban region can be grouped into five areas in order to describe the urban setting

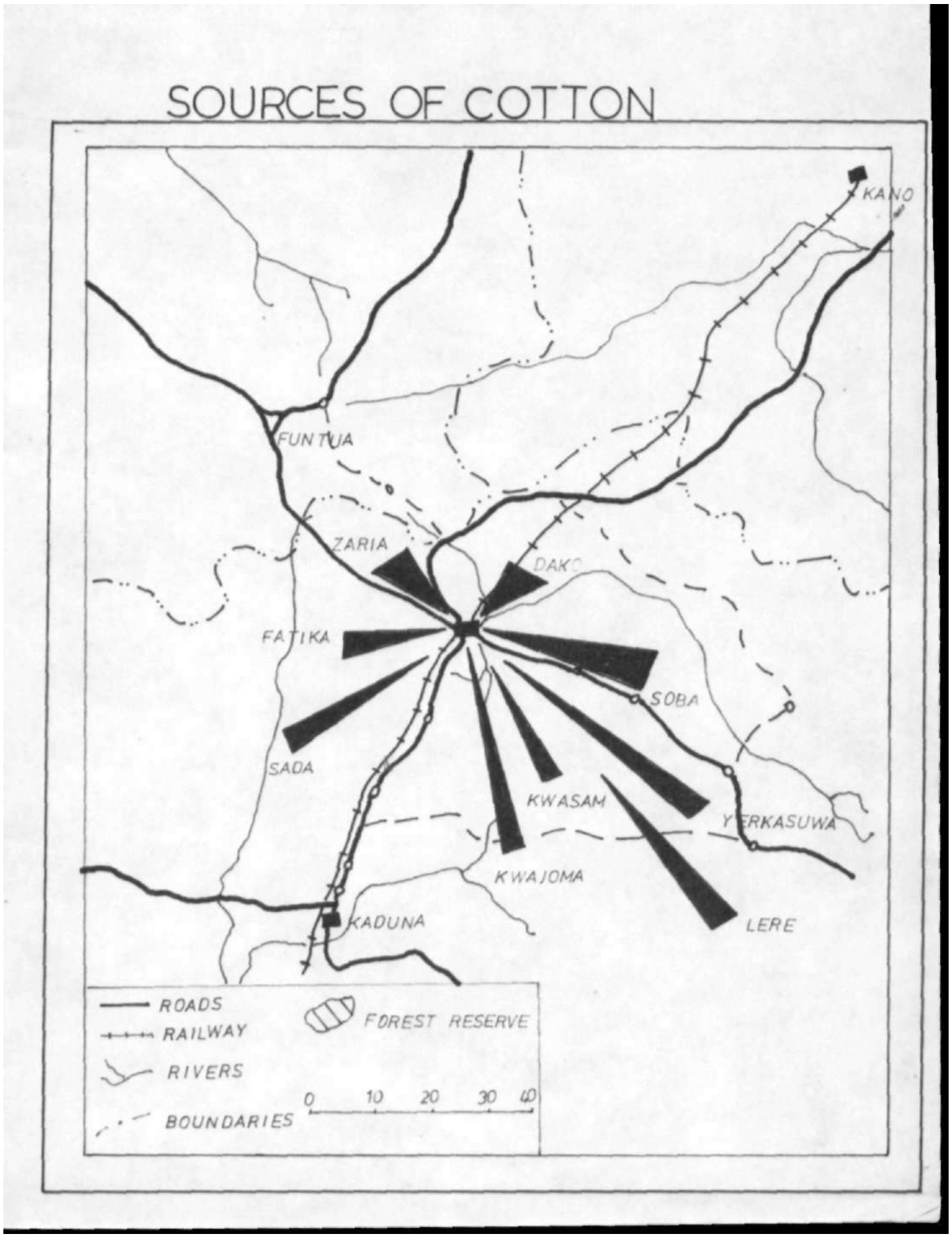
(i) The old city is the historical area and relicte of the wall that was built around it can still be seen today. The motorable roads in this area winds through the residential units because they are only recent development introduced into an already developed residential area. Most of the buildings were constructed with mud and a number of them have traditional artistic decorations. The residential area is surrounded with farmland within and outside the wall, and stable crops such as millet and guinea corn are gown

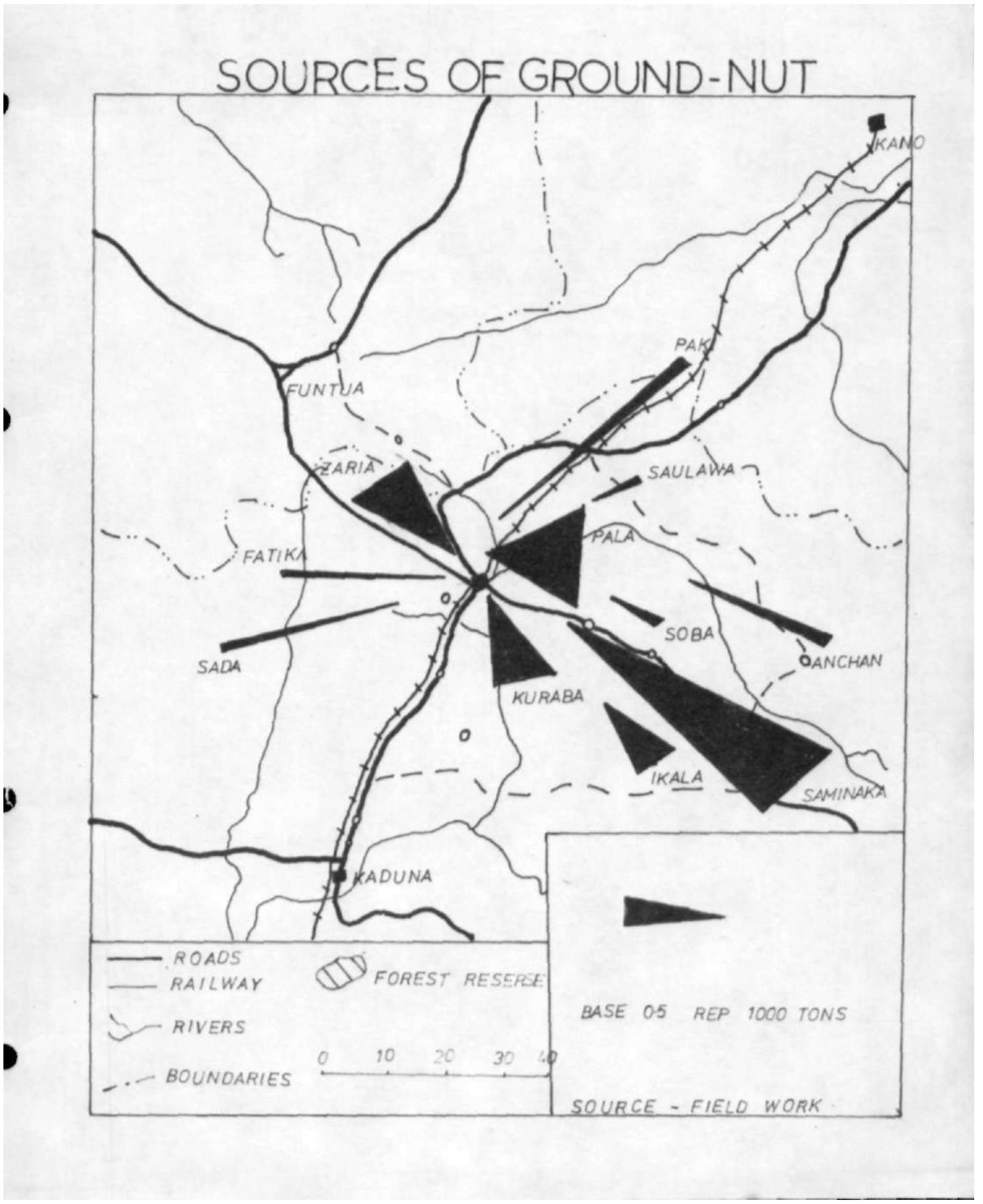
on this farms. The Emirs Palace, which was originally located close to the market was moved to its present central position in 1871. Today the Local Authority Administrative buildings and the main mosque are both located next to the palace.

2. Tudun-Wada - This area was originally planned as a residential area for migrants from other parts of Northern Nigeria. Today it has grown to be the residential zone for workers in the Institute of Administration and Teaching Hospital as well as the former indigenes. This zone is growing at a faster rate than the city because of the expansion of the institution mentioned above. The area was formerly dominated by traditional mud buildings but today the new buildings use concrete material and adopt modern architectural techniques. This area was laid out on a grid pattern by the colonial administrators with wide set backs. This has ensured accessibility to the area. However intersection problems have cropped (cropped) up of recent because of the many junctions with the main road and some of this junctions are being closed.

3. Sabon-Gari (New Town) - This area was formerly a labour camp occupied by migrants from other parts of the country who were employed in the railway construction department. It was laid out in 1911 and has since then grown from a population of over two thousand to over 70,000 today. This zone also include the Government Reserved Area where the colonial administrators used to reside. This unit is also based on a grid pattern of roads but the housing types are quite different from those in Tudun-Wada and the City. The southern architectural pattern of rectagular building made up of bricks and corrugated iron is dominant here and the compounds are relatively smaller and house a number of family groups. The most important market in Zaria is situated here and it sells imported and manufacture materials only unlike the smaller markets in Tudun Wada and the City that specialises in selling local goods and foodstuff..

4. Samaru .. Samaru village has developed mainly because of the demand for housing by the low income


SOURCES OF COTTON
KANO
FUNTUA
ZARIA
DAKO
FATIKA
SOBA
SADA
KWASAM
YERKASUWA
KWAJOMA
KADUNA
LERE
ROADS
RAILWAY
RIVERS
BOUNDARIES
FOREST RESERVE
0 10 20 30 40


SOURCES OF GROUND-NUT
KANO
PAK
FUNTUA
ZARIA
SAULAWA
PALA
FATIKA
SODA
SOBA
ANCHAN
KURABA
IKALA
SAMINAKA
KADUNA
ROADS
RAILWAY
RIVERS
BOUNDARIES
FOREST RESERSE
0 10 20 30 40
BASE 05 REP 1000 TONS
SOURCE - FIELD WORK

workers of the University. The roads are also laid out but most of the buildings are very poor.

5. Wusasa - This is a small Christian settlement with two Mission Schools and one hospital.

(ii) REGIONAL BACKGROUND

(a) The Rural Economy: The rural economy of Zaria is solely based on agriculture. The most important economic crops produced are cotton, tobacco, and groundnut[3] and these products are transferred into the centre of Zaria for sale to agents (Map 4). Other food products such as Guinea-corn, millet, vegetables, and livestock are produced for local consumption. There are certain factors that influence the productivity in the rural areas and a modification of any of these factors will affect significantly the quantity of material supplied by the region. The average population density of the Zaria Region is about 384 persons/square mile (Norman - An Economic Study of three Villages in the Zaria Province .. IAR Papers 1969). In areas with population density higher than average, the intensity of land use

increases and production also increases. It was found that the population density of the hinterland decreases as communication with Zaria becomes more difficult. It therefore follows that an improvement in the communications facilities will lead to an increase in the amount of product supplied by the hinterland. Generally the capital investment in agriculture in the surrounding rural area is very low. This is partly due to the fact that incomes are so low that the possibilities of saving are severely limited and partly because interest rates for credit obtained from money lenders are extremely high. The low capital investment is reflected in the poor and outdated farming equipments utilized and the resultant low production. If the amount of capital available to the farmer is increased (e.g. through facilities such as an Agricultural Bank Loan Scheme) the level of production of the farmer as well as his income will be raised and this may increase his activities in the Town Centre. There is a high degree of unemployment and under employment at certain periods of the year

in the rural areas because of the uneven distribution of rainfall which limits agricultural activities to the wet season only. During the dry season, a large proportion of the adult male move to other jobs especially in areas where fadamas (farmland that are irrigated) do not exist. Some move into traditional jobs such as barbing, trading and so on, while others move into the city for jobs in the industries and public agencies.

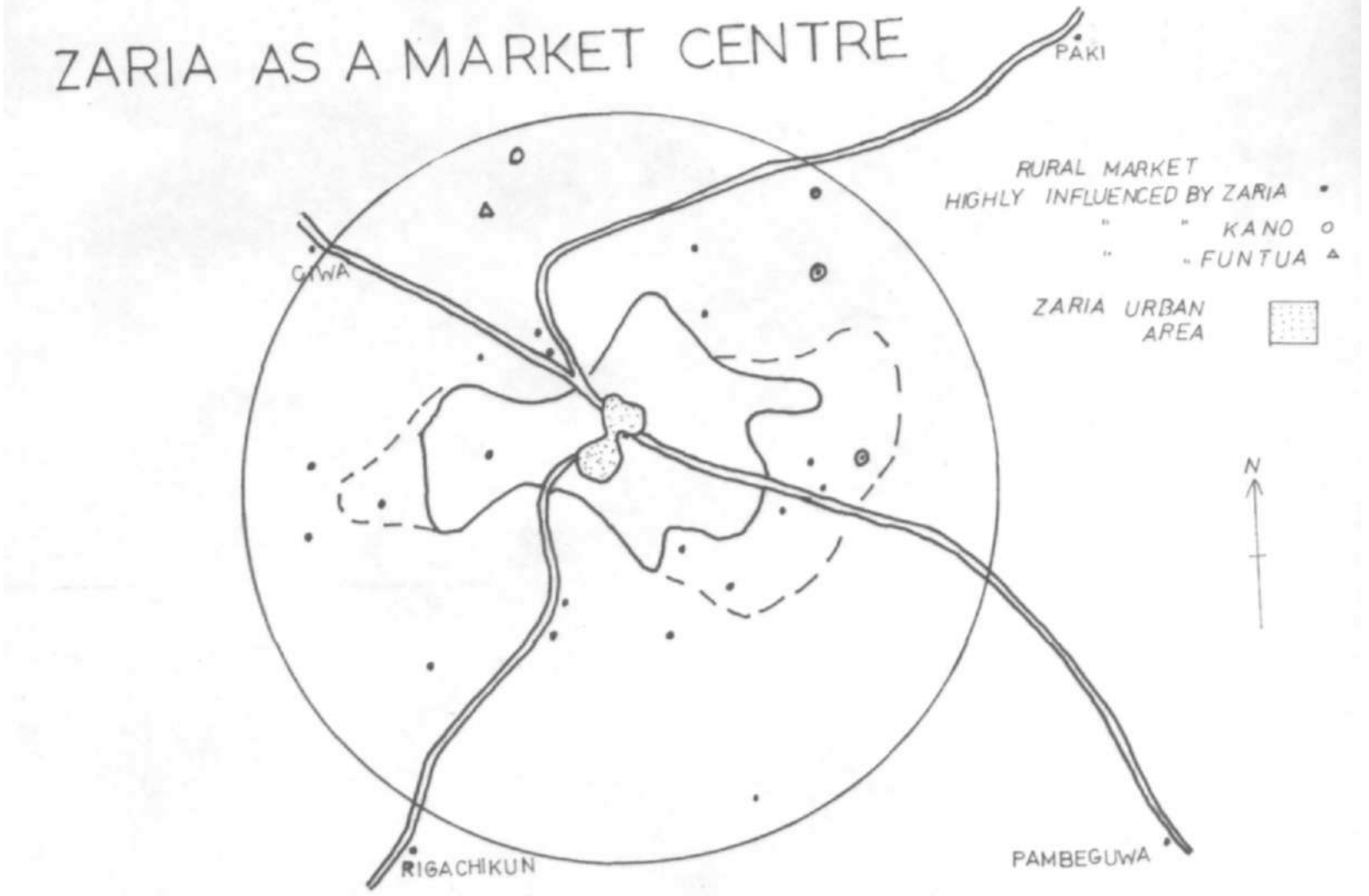
The average income from farming in the hinterland of Zaria is about ₦205 (Norman). This is an important measure of the degree to which household can participate in the shopping activities in the Town Centre. The purchasing power of the rural population is still very low and this fact is important in deciding what provisions to make available in the centre.

(b) The influence of Zaria on its Surrounding Region: Zaria has always had a considerable influence on the region surrounding it because of its historical importance and its nodal position in the communication

network of the country. It is both a road and railway junction. The rail line from the Southern part of Nigeria, Kaura Namoda, Kaduna and formerly from Jos meets here. Also the Trunk A road from the North-West, Kano and Benue-Plateau state meet in Zaria. It is also an important centre for marketing and processing of agricultural product. There is a ginnery, tobacco industry and groundnut mill in the town. There is also a control post where livestock movements are checked and regulated. It acts as a distributing centre for imports from the South and overseas. A number of long established ware houses distributed bulky materials to retailers for onward transmission to the consumers. However there are other very important centres that are located close to Zaria. Zaria is fast losing ground to the more important centres like Kaduna and Kano which are increasingly been used as major distributing centres in the Northern part of Nigeria.

The relationship between Zaria and the surrounding rural communities may be measured by the degree of

ZARIA AS A MARKET CENTRE



THE RURAL MARKET SHOWN SERVE VILLAGES WITHIN 20 MILES RADIUS OF ZARIA

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MILES

domination of the rural markets by those in the Zaria urban area. The Native Authority income from market fees for the three markets in Zaria is at least a hundred times greater than that from any other market within a radius of forty miles. Map shows the level of influence of Zaria markets on the Rural markets (Rural Market survey by H. R. J. Davies 1970). The rural markets surveyed are all within twenty miles radius of Zaria. Markets that are classified as being highly influenced by Zaria are those in which traders bought their goods in Zaria and more than ten percent of the traders are from Zaria. Markets influenced by Kano or Funtua are those in which over ten percent of the traders said they bought some of their trade goods from these towns. The Zaria market serves all markets within an area extending Paki in the North, Rigachikun in the South, from beyond Giwa in the West and Pambeguwa in the East. Beyond these points Zaria is in serious competition with Kano, Kaduna, Funtua and Jos respectively. The Zaria markets provide the goods for sale in these

markets, especially the manufacture goods and those imprted from other parts of the country. The Zaria market also collects rural product from the surrounding regions for sale to the urban community.

The impact of Zaria on the surrounding region in other sector is however limited. It offers very few employment opportunities especially in the non growing season when the demand for jobs are very great.

Although it is an education centre, Zaria is surrounded by a mass of illitrate folk and not much has yet been achieved in its drive for adult education.

THE DEVELOPMENT OF THE TOWN CENTRE

Like in the traditional Yoruba town, the centre of Zaria was around the Emirs Palace and the market within the city wall. These two establishments performed central functions (administrative and commercial) and there was the need to centralize their location and maximize their accessibility. The level of the central functions performed by these

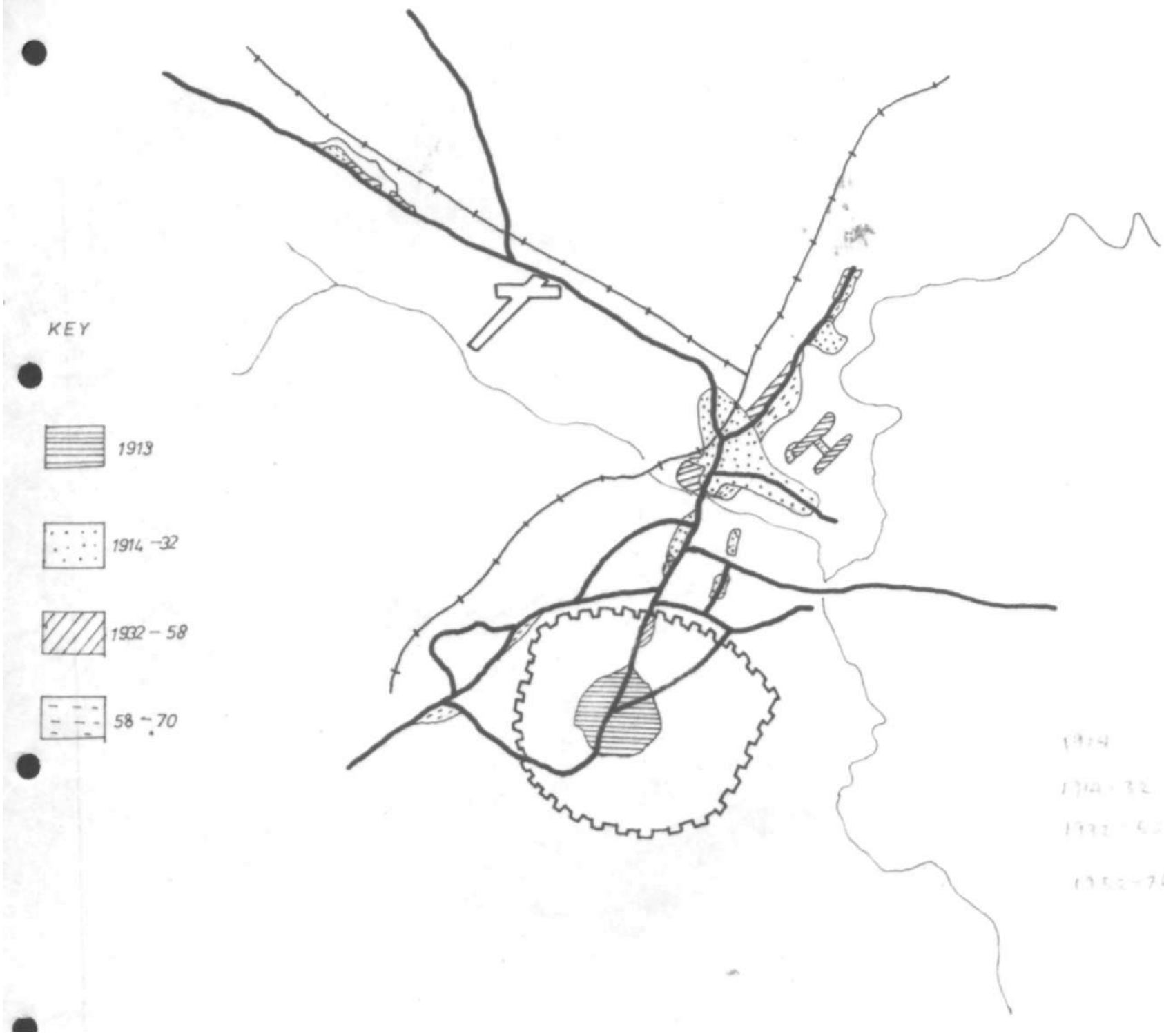
establishments are directly related to the extent of the service area. Historically, Zaria has always been an important centre with a large Kingdom. It has therefore always played an important administrative and military role. It was also an important commercial centre. In the 17th century it was a very important slave market. Slaves captured from the middle-belt region of Nigeria were sold off to merchants from Kano and Katsina region. The market was also important for its craft industry. Cloth weaving and dyeing, potery and metal work have long been established in Zaria.

In 1904, the colonial administration took over the control of government. Shortly after this a large number of migrants moved into the town to take up job opoortunities which were available because of the construction of the railway. Most of these migrants settled in the Sabon-Gari and Tudun-Wada wards of Zaria and there was a demand for a new commercial and administrative centre outside the walled city.

In 1904, the colonial administration took over the control of government. Shortly after this a large number of migrants moved into the town to take up job opportunities which were available because of the construction of the railway. Most of these migrants settled in the Sabon-Gari and Tudun-Wada wards of Zaria and there was a demand for a new commercial and administrative centre outside the walled city. In 1914 the colonial government prepared a plan on which the present development was based, for the residential and a new commercial centre around the railway station. The first commercial firms to establish their posts in Zaria were satisfied with the plan because of its central position and its closeness to the railway station from where goods could be unloaded and transfered easily to the commercial buildings. The growth of the commercial area was due to two events: (1) The extension of the railway from Lagos to Zaria in 1911 and the further extension to Kano in 1912. Also in 1911 the Bauchi light railway construction started in Zaria and reached Jos in

1914 Zaria then became a focal point in the communication network of Northern Nigeria. There were also roads linking Zaria with the surrounding towns. Various companies had to unload their cargo at Zaria Railway Station before transporting them to various towns such as Sokoto, Gusau and Katsina by road. Zaria then became a commercial centre for these areas, a feeder district for towns with no rail facilities. There were therefore demands for plots to erect commercial and residential buildings by various companies, where they could store their goods before distribution. The second event was the increase in the cultivation of cotton. This attracted many companies such as the UAC (Niger Company and the British Cotton Growing Association. The town then became a collecting centre for cotton and other crops such as groundnuts and tobacco. Later development such as the establishment of educational institutions and industries led to the growth of the centre. Map 5 shows the historical growth of Zaria.

HISTORIC GROWTH OF COMMERCIAL CENTRES



(1) First Phase of Development (1918-24): As early as 1904 some European Firms had developed keen interest in establishing their trades in Zaria but it was not until 1910 and after that these companies started to open stations and erect commercial buildings. The British Cotton and Growing Association were the first to establish a trading post in 1910 to collect the cotton grown in surrounding area. In 1911 the company erected a ginnery close to its offices. Other European firms such as the UAC, Miller Brothers, Messers W. B. MacIven soon followed suit and established trading posts and by 1918 there were 23 merchant firms all located close to the Railway Station. Also in 1918 the Bank of West Africa and Barclay's Bank established branch offices to serve newly established firms and the growing population.

2. Second Phase (1925-32) a number of Lebanese Traders established retail centres very close to the European Wholesale posts. The Lebanese still control a lot of the commercial activities in the centre today. It is interesting to note too that during this period

residential units to house the managers and businessmen developed next to the commercial buildings and in the case of the Lebanese on the first floor of their storey building.

3. Third Phase (1932-58) - This was a period of rapid development. In 1953 the NTC completed a large storage building in Manchester street while the Northern Chemist Limited, the CSS Nigerian Bookshop and Messers K. Chellerams acquired plots for trading purposes. Private developers started constructing houses and in 1954 the J. Allen Company established a branch in Zaria. By 1958 most of the roads within the commercial area were tarred. The construction of the road aided the rapid physical growth of the centre as new establishments always scrambled to locate near a new road.

Since 1958 there has been no major development in Zaria except for some few shops and banks that got established. This is because of the increasing importance of Kaduna as an administrative an

industrial centre. Many of the firms that originally located in Zaria have removed their headquarters to Kaduna. Kano to the North is also a prosperous town with a large population and it has attained a higher commercial standard than Zaria. Thus in the late fifties and early sixties, Zaria position is no longer commercially suitable as a regional centre. The two towns became the pulling forces drawing commercial firms and leaving Zaria to degenerate. As prospect became more uncertain in Zaria most of the big firms went out of retail trade leaving this sector to the indigenous Nigerians. Some firms like the John Holt decided to combine retail and wholesale activities while the UAC got involved in light industry. The movement of large firms away from Zaria commercial area is still in progress today. Another reason for the decline of the Zaria commercial area is the inadequacy in the supply of water and electricity. Zaria has limited electricity and water supply and cannot meet the needs of the large industrial and commercial concern.

With the departure of the large wholesale establishment, the smaller but consumer orientated retail shops are growing in number. There is a large demand for consumer goods by the increasing population attracted by the ever growing educational institutions.

Besides the commercial houses there were also some important institutions which were developing within the centre. The Provincial headquarters was established in the town in 1916 and a Secretariat to house the administrative function was built. The rest house, post office and mechanical workshop were constructed near the offices later.

CHAPTER III

LAND-USE IN THE TOWN CENTRE

This chapter aims to explain the present and trends of land-use in the centre of Zaria. In order to achieve this a lot of deductions can be made from comparative data and because of this the first part of this chapter will be pay special attention to the works of some scholars or land use in the Central Business District.

(i) PREVIOUS STUDIES

One of the most important articles that have been produced so far on the subject is 'The Comparative Study of Nine Central Towns Business District by Murphy and Vance in the United State of America. He selected nine towns of about the same size but located in different parts of the United States. The towns studied include Worcester Massachusetts, Gran Rapids Michigan, Salt Lake City Utah, Tacoma Washington, Sacramento California, Phoenix Arizona, Tulsa Oklahoma, Mobile Alabama, and Roanoke in

Virginia. The Central Business district of these towns differ from one another and certain elements such as the size, shape, orientation, location within the urban area and land-use were measured to illustrate these variations. These variations were considered in relation to site, regional setting, city area, city population, extent and buying power of trading area, city age, economic support of the city, wholesale and retail trade in order to arrive at some generalisation.

In order to compare the size of the centres, the central business floor space within the centre of each of the cities were measured. The Central Business floor space is the total floor space within the centre minus the floor space devoted to non-central business uses such as residence, industrial establishments and vacant land. It was found that the size of the Central Business District (i.e. the Central Business Space) was not closely related to the population as generally supposed. However some close relationship was established between the size of the

Central Business District and the population within the incorporated city. The explanation for this is probably the fact that outlying urban areas usually have their own stores and this tends to reduce the importance of the Central Business District in this area. A close relationship was found between the Central Business Space and the number of retail employees and secondly the number of wholesale employees.

This was especially true when figures for the incorporated cities alone were considered and it was found for example that for every one thousand retail employees in the incorporated cities there was about 12 - 13 acres of Central business floor shape.

Shape: There have been theoretical postutations of a star like or diamond shape for the CBD. In the Central Business Districts studied none of this shape were found. Most of the centres studied were rectangular in shape reflecting the grid pattern on which they were planned.

by nearby centres. State capitals and cities which were important for conferences were found to have floor space above average devoted to transient residence. The chart also showed which land-users were typical of Central Business District because of these occurrence in all the nine cities studied. These land-users include restraurants, clothings, furniture, hardware, departmental stores, drug stores, jewelry, amusement establishments, banking, insurance and real estate, personal services (barbers, beauticians) clothing services, general offices, commercial parking, hotels and other transient lodging.

Another important articles is that by Murphy, Vance and Epstein explaining 'The internal structure of the CBD'. They considered land value to be the basic aspect for the area variation in the CBD, and land-use an adjustment to the land value. The land value of six cities in the United States, Worcester, Grand Rapids, Salt Lake City, Tacoma, Tulsa and Mobile were compared. It was found that land value decreases rapidly at first as one leaves the peak

value intersection but this decline becomes less towards the edge of the district. The peak value intersections were found to be generally close to the geographical centre of the district. Other factors such as the street pattern and block sizes which constitute the framework of the centre were studied. The building heights were used in assessing variation in vertical heights, the central business intensity, the dynamic aspect of structure, traffic and pedestrian flow and communications were all studied to provide an insight into the characteristics of the centre. The land-use within the centre was also studied. The centres were divided into four concentric zones with the peak land value intersection of the centre. The first zone surround the peak land value intersection had the largest number of people on the street and the highest valuation placed on the land. Surprisingly this area on the average did not have the highest concentration of tall buildings. Retail activity was the most important in this zone and this was as expected since the area provides access to the maximum number of customers. Service

and financial institution occupy 30% of this zone and non-central uses 12%, the least for all the zones. Generally the service-business offices dominate the second zone but retail activities is still very important. The third zone usually has a concentration of headquarter offices and public and Organisational uses. The fourth zone generally has less retail activities and is dominated by non-central activities such as residences, factories and wholesale activity.

It was found that generally retail activities predominate on the ground floor because this is the level most accessible to the customers. Other activities such as wholesaling parking are important on the ground floor. Generally financial institutions are the most important on the first floor. On the second floor residential and industrial uses which are unable to compete for the ground floor become important.

Within the centre some rought clustering of establishments are noticeable. This is because

establishments within each group tend to depend on one another. For example departmental stores tend to locate near each other with smaller retail shops surrounding them. This association enables each of the stores to make itself available to the customer attracted by a neighbouring store. Layers, insurance brokers, real estate agents tend to locate near each other.

The studies showed that all centres tend to expand along certain fronts and retreat along others. This is a dynamic characteristics of the centre. It tends to grow towards area of higher residential quality as a result of the repulsion by wholesaling and low residential area.

The study of the structure of the Central Business District in Lourenco Marques, Mozambique showed that small African towns have characteristics that are distinquishes them from the American cities we have been considering. For example it was found that apartment building in the centre of Lourenco Marques commonly possess a retail frontage ground

floor and all uper floor are occupied by living quarters. This is different from the larger cities where the first fllor is mainly used by financial institution and upper floors by industrial and other users. Generally, the centre of small African towns (populationless than 300,000) do no possess characteristic of maturity. There are only four departmental stores in the centre of Lourenco Marques and presently only three exist in Zaria. The Central Business District is also widespread that distinct association are not easily established. There are parking and transportational problems generally within these centres.

A land-use survey of the city centre of Benin conducted by the Ministry of Lands and housing show that mixed uses are common in the centre and capital investment is limited. Most of the shops employ only one or two people and the predominance of single storey buildings show the extensive use of land.

The result of all these studies will be compared with the findings in the Zaria land-use study.

(ii) Present Pattern of Land-Use in Zaria:

Zaria has developed as a linear town with important developments along the major roads and generally the intensity of land-use is very low. The table below show the existing land-use allocation.

Land-Use Types	Area in acres	% of total dev. land
Residential	5103.6	40
Commercial	307.5	3
Industrial	197.0	1.5
Public - Semi Public	1585.0	14
Park, Layfield and Organised Open Space	482.0	3.5
Roads	879.0	9
Agriculture and Other Uses	2753.0	25

1973 Land-Use Studies Part I Planning Students

A close examination of the table will show some anamoly in the distribution of land for the various activities. The most obvious is the large acreage devoted to agricultural pursuit within the urban area. Over 20% of the developed land area is devoted to agricultural use. The explanation for this deviation is the large area devoted to agricultural use within the city wall. This has been an historical trait. The farmland were enclosed within the wall, so that farming activities could continue in case of a seige by the enemy. Today an appreciable proportion of the food crop (mainly Guinea corn, Millet and vegetable, grown by peasant farmers, is still within the wall and this gives a rural characteristics to the settlement within the city. The second reason is the important fadama farming activity around the River Galma and Kubani. The rains limits farming activities to only six months of the year. However farmlands close to the valley of the rivers can be irrigated during the dry season for the production of vegetables and some other food crops. The area surrounding the

two important rivers in Zaria is therefore completely devoted to this all year round farming and this explains the large percentage of land devoted to agricultural pursuit.

The area devoted to public and semi-public uses is also high for a town of the size of Zaria. The large figure is due to the fact that Zaria is an educational centre for the Northern part of Nigeria and a lot of land have been allocated for the many educational institutions. Today the Ahmadu Bello University and its affiliated institutions which are expanding at a very fast rate occupy a large expanse of land at different locations within the urban area. In 1961 there were only eight institutions of higher learning in Nigeria. Today the number has increased to seventeen. The Ahmadu Bello University has developed to replace the former College of Arts and Technology which was a much smaller institution. The Civil Aviation centre was established in 1964 to train commercial pilots and other aviation technicians. It was sited along the Zaria - Sokoto road, close to

the air strip and occupied an area of 25 acres. Over time, this institution has expanded tremedously and occupies a large area. The Advance Teachers College which was formerly located close to Barewa College on the Zaria - Kaduna road has moved and is now sited along the Zaria - Jos road. The new college of Arts and Science is located at the former site of the Advance Teachers College. Other institutions such as the teadhing Hospital, the leather Institute, the Women Teachers Training Colleges are new developments which have increase the prominence of public and semi public land-use within the Zaria urban region.

Generally like most other Nigerian Towns the area allocated for organised open space and recreational activities is very small. The 3.5% devoted to this use is mostly in terms of school playfields, parade grounds, and golf courses which are usually restrictive and private in nature. The largest open space for recretational activities is around the race course. This area was designed to provide recretational facilities for the colonial administrators who live

in the Government Reserve area near it. There are tracks for horse racing, a polo ground and a golf course. The Zaria Club with swimming and tennis facilities was also established here. Lately a number of Nigerians have enrolled in this club and they utilize the facilities provided, but the majority of people living in Sabon Gari and Tudun Wada have no open spaces to facilitate the circulation of the air and provide an avenue for relaxation.

The commercial land-use occupies only 3% of the total area. The bulk of this is within the town centre which is under study. There are other trading streets and local markets within each of the five residential zone. The growth of this trading streets are very much related to consumer demands. In the Samaru area, where because of the rapid expansion of the University a high demand for consumer goods has developed, the trading streets are expanding at a fast rate.

(iii) LAND-USE WITHIN THE TOWN CENTRE

The land-use pattern is one of the principal determinant which influences the functional efficiency of a Town Centre. It is a very important variable because it is readily observable and mappable, and reflects better than any other aspects the processes at work in the centre. The table below shows the existing allocation of land for different uses in the centre.

Land-Use	Area in Acres	% of Total Area	% of Developed Area
Commercial	61	32.8	32.7
Public and Semi Public	34	18.3	16.7
Residential	18	9.7	29.7
Service Industries	5	2.6	3.9
Roads and Streets	25	13.5	18.0
Vacant Dev. Land	27	14.5	-
Industrial	16	8.6	-

Source - *Field Study February, 1974

It is significant that over twenty-three percent of the land is occupied by public and semi-public functions. This is much larger than expected. The public and semi public category includes such institutions as the Provincial Office, the Licensing Office, the Ministry of Works, the Police Office, the Court, the Post Office, the Nigerian Power Authority headquarters, and the Nigerian Railway Corporation Premises.

All these establishments perform central functions and there is need to make them accessible to people within the town. However certain institutions have acquired very large parcel of valuable land within the town centre. The case of the Nigerian Railway Corporation is very striking. The construction of the North-South rail line in Nigeria was one of the first major project by the colonial administrator in the early part of the century. At that time, most of the towns which now exist on the rail line were very small and the railway was able to acquire a considerable acreage of land for its use. Like in

many other Nigerian town, the first group of commercial firm to establish in Zaria located near the railway station for reasons of convenient loading and unloading. The commercial centre of the town later developed around these firms.

The Railway Corporation which is an extensive user of land, is presently located in an area of intensive use of land because of the accident of history. There is need for some readjustment in the area the corporation is presently occupying.

Another peculiar characteristic of the Zaria Centre is the extensive area (15.9%) which is left vacant. This is a direct result of the peculiar land value and administrative system adopted. According to the Northern Nigerian land law, all land are held in common ownership and administered by the government on behalf of the people. The land within the town centre of Zaria is administered by the state government and leased out over a period of forty years to developers. The centre was laid out in 1914 and

most of it was earmarked for commercial purposes only. The land is divided into plots of about two hundred by a hundred feet each. The developer who requires a plot or more applies to the Lands Division of the Provincial Office in Zaria. The developer mu t pay a nominal deposit of one hundred naira (₦100) for each plot and cannot apply for an area exceeding two acres. The lands officer examines the plans and if the plot applied for is vacant, and the applicant considered capable of implementing the development which he specifies, the application is passed on to the Provincial Secretary for his recommendation. After this, the application moves to Kaduna with a site plan of the area attached. The application is processed in the Ministry of Land and Survey where the surveyors check the site plan to ensure that the boundaries are accurately demarcated. After the technical scrutiny the application goes through administrative processes before a certificate of occupancy is granted. This certificate is the legal instrument which permit the development of the land.

A rent of one hundred naira is changed annually on every plot. Failure to pay the rent can lead to the revocation of the Certificate of Occupancy.

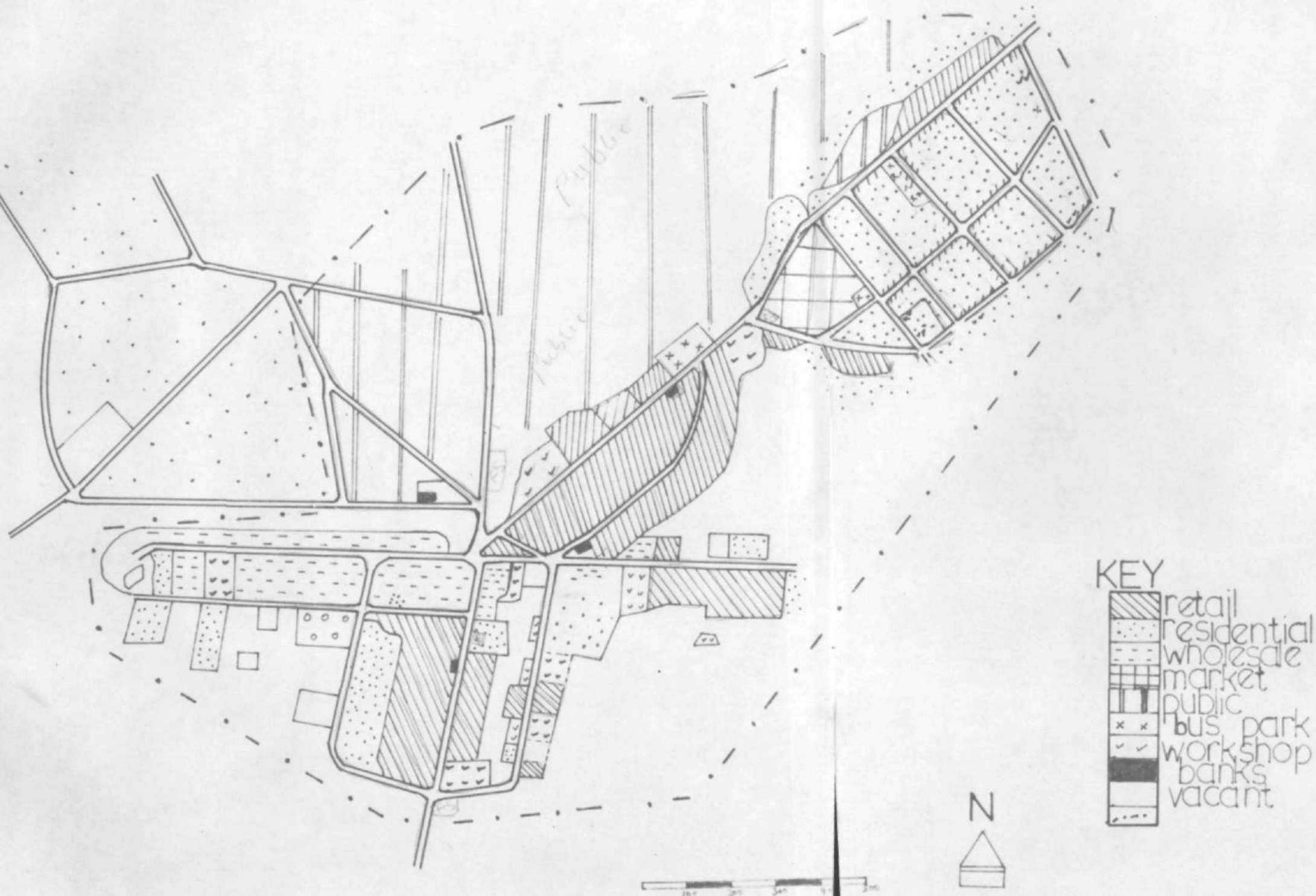
Previously, all developers were obliged to start the development of their plots, at the latest two years after the Certificate of Occupancy has been granted. This regulation was supposed to deter developers from engaging in land speculation and enable an orderly development of the land. Unfortunately, this regulation is no longer enforced.

The regulation enforcing the development of plots within the first two years has been relax in order to attract investors to the Zaria centre. In recent years large scale investment in estate development or retail activity has declined. This may be because entrepreneurs have found that they can make a large profit by investing in some other business such as transportation in Kano or Kaduna. The developers are therefore allowed a considerably longer period to obtain the capital necessary for investment.

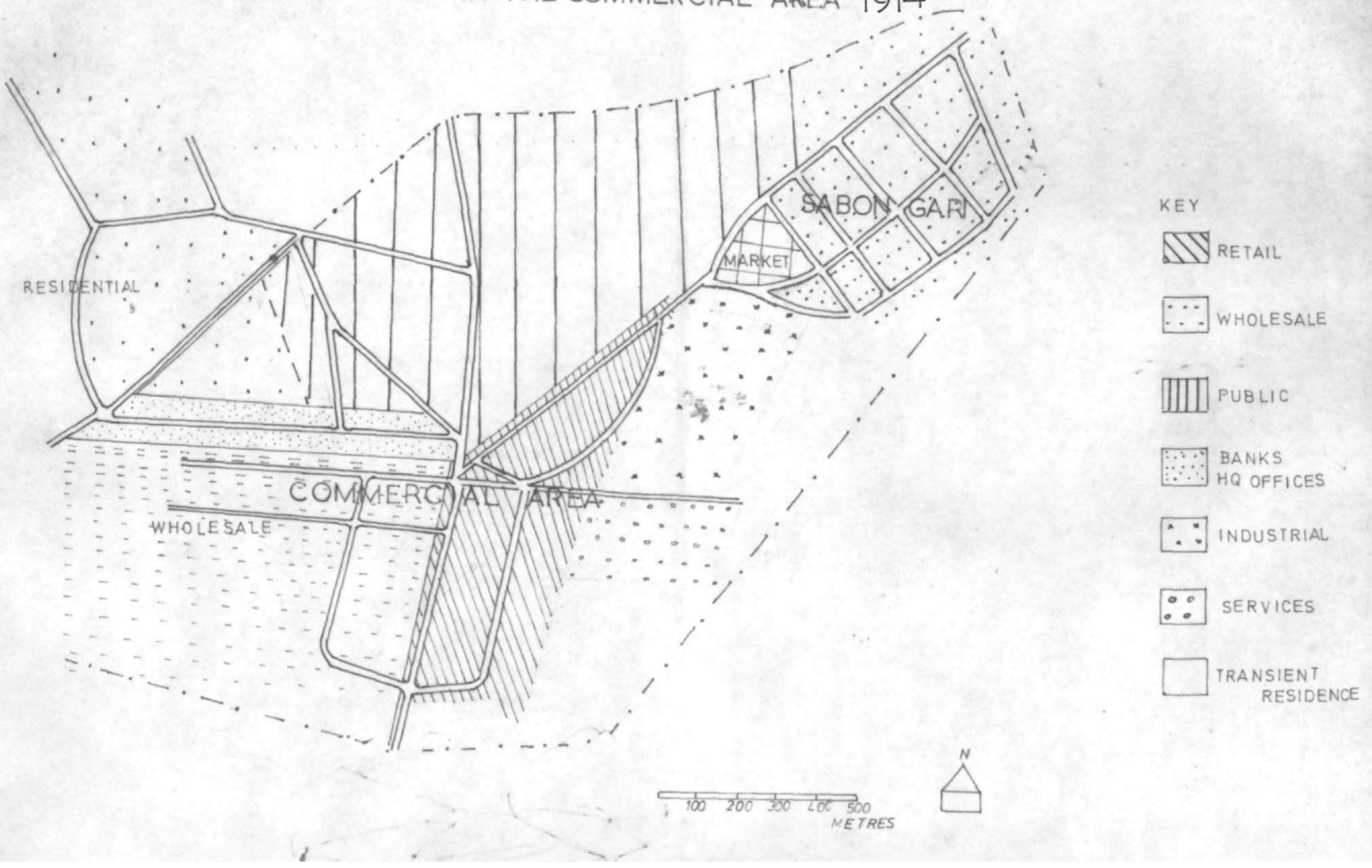
This has led to an appreciable number of plots that have been leased out, been left undeveloped and a consequent disorganisation of the area.

This peculiar method of land administration has a number of implication on the structure of the centre. In the Southern States and many other countries with an economy based on the capitalist system, land is mostly privately own and the value of a parcel of land is dictated by the demand for it. In this type of situation the land value within the central area of a town is much higher than in other area because of the special advantages it offers commercial establishments and the high demand for it. The high land value is responsible for the very intensive use of land in the centre and the high buildings found here. Since the sum paid for land in Zaria is only nominal, the intensity of use is very low and most of the structures have a relatively large compound area.

LANDUSE IN ZARIA TOWN CENTRE



PROPOSED LAND USE WITHIN THE COMMERCIAL AREA 1914



The land use maps 6a and 6b shows the existing land-use and the planned land use of 1914. It is notable that the plan was strictly follow only in the first few years and drastic changes have taken place. There had been modification of the original map in the light of new developments. The most important changes is the relocation of the banks from the area formerly zoned for them because of inadequate accessibility. Another important diversion is the location of residential units within the area earmarked for wholesale. This is because the wholesale area has not expanded as was expected.


LAND-USE WITHIN
THREE TOWN CENTRES
PERCENTAGE
45
40
30
20
10
MADRAS INDIA
COLUMBUS U.S.A.
ZARIA NIGERIA
RESIDENTIAL
COMMERCIAL
INDUSTRIAL
PUBLIC
ROADS
PARKING
VACANT · OPEN SPACE

(iv) LAND-USE WITHIN THE TOWN CENTRE: A COMPARATIVE ANALYSIS

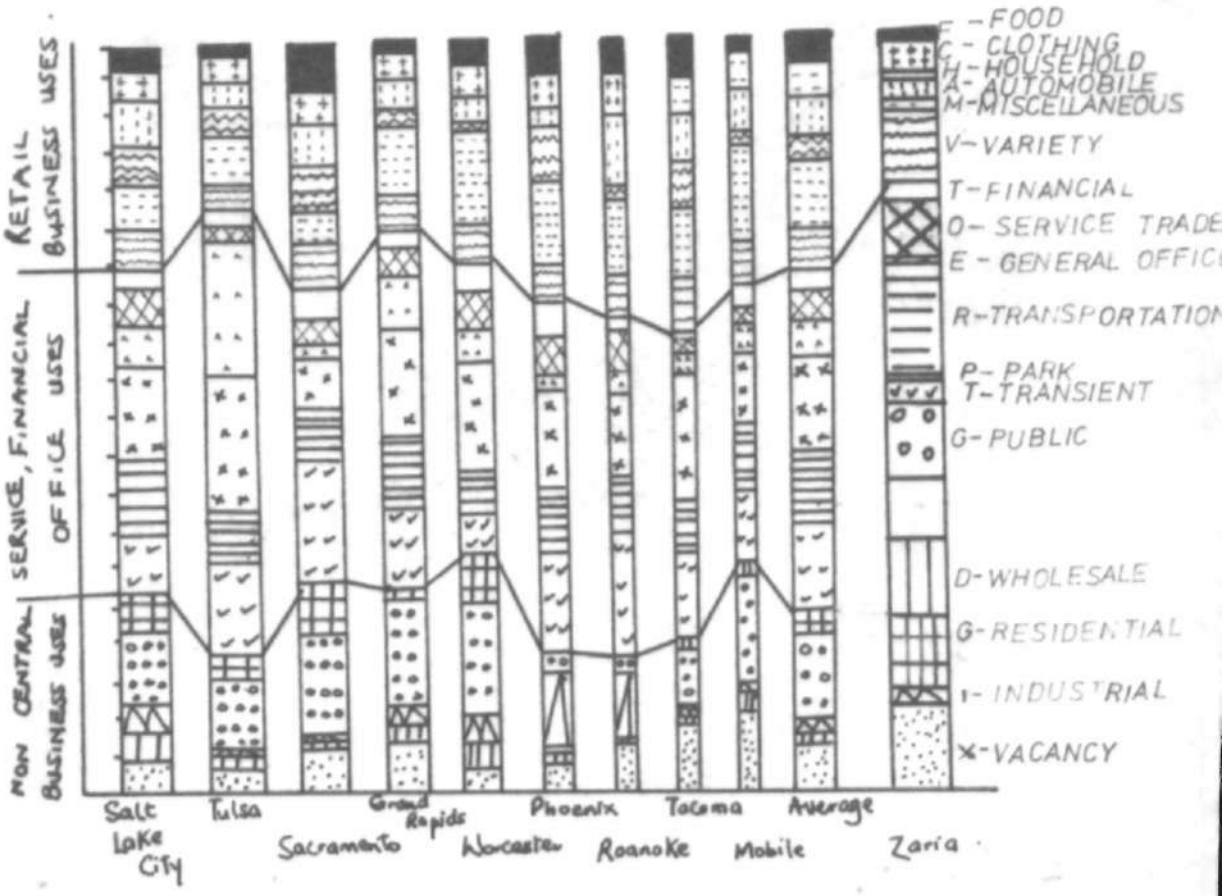
PERCENTAGE OF TOTAL DEVELOPED LAND

LAND-USE	MADRAS, BANDALORE PATNA, JAIPUR INDIA	COLUMBUS (U.S.A)	ZARIA (NIGERIA)
Residential	42.8	7.9	32.7
Commercial	18.4	17.1	32.1
Industrial	2.9	17.2	8.6
Public & Semi Public	12.4	9.1	16.7
Roads and Streets	20.8	40.0	13.5
Parking lot & Garage	-	7.9	-
Vacant	-	0.8	14.5
Organised Parks and Other Open Spaces	2.7	-	-

The table above shows figures for the different land-uses within the centre of the 3 towns. The residential land-use within the centre is very high in India and Nigeria and low in America. It is usual that residential land-use is high within the centre of the cities in the developing country. The exception of Zaria is explained by the fact that Zaria Centre was specifically laid out for commercial activities by the colonial administrators and they restricted the development of residential units within the area. The high percentage for commercial uses in Zaria is explain by the same reason above. The percentage of land for industrial uses is high for Columbus. This is as expected since it is a city within an industrial countries. The fact that the industrial sector of the economy of the other five towns are still growing is reflected in their figures. The percentage of total area used by Columbus for Public and Semi public uses is relatively low. However, the floor space used by this activity is probably higher than in the other two towns. Usually the buildings within the centre of American cities are

higher than in the developed world. The greatest contrast in the use of land is in the proportion used for roads and streets. Columbus uses about thrice as much land for roads and streets as Zaria and about twice that of the India city. The extensive use of private automobile in the United States explain this anomaly. It has been suggested for developing countries, that an average of 25 - 30% of the land should be allocated to road and streets. It can be noted that Zaria is under provided for and traffic problems may later develop within the centre if corrective measures are not adopted. The area devoted to parking lot and garage is neglegible within the centre of Zaria and the India cities studied. This is because of the relatively low figures for the number of cars presently using these centres. However as the ownership of private vehicle increases, provision must have to be made for this. The vacant land in the centres are generally low or absent for all towns and the exception of Zaria has been explained. Organised parks and open spaces exist

TOTAL FLOOR SPACE DEVOTED TO USES



PERCENTAGE CHART SHOWING PROPORTION OF TOTAL FLOOR SPACE OF EACH CBD DEVOTED TO VARIOUS USES

only in the Indian Town. There is a general lack of this category of land-use in the Nigerian Towns and efforts must be made to introduce them.

Figure II attached shows the breakdown of uses within nine American cities studied by Vance compared with the same uses within the Zaria centre. As is expected non central land users occupy a greater proportion of the centre in Zaria than in the American cities. The area devoted to residential uses and vacant land is much higher in Zaria. The area used by transportation and parking is also much smaller. While one must recognise that the American and Nigerian cities cannot easily be compared because of the marked difference in their development and level of functions, the centres of developed countries may likely develop. It is likely that more land will be allocated to transportation and parking within Zaria centre as car ownership grows and less area will be devoted to residences. Also the present vacant and agricultural lands will no longer exist in future.

(v) Mixed Land Use Within the Zaria Centre:

It is notable that 29.6% of the total area of the centre is occupied by residential development. This is anusual characteristics of the town centres of developing countries. There are differences in opinion amongst planners as to the appropriateness in the location of residential units within the town centres. Those who support the development of mixed land uses argue that the residences would provide the much needed life within the centre in the night. Gherally within the American Central Business District the streets are deserted in the nights when the offices and shops are close, and there seems to be a complete loss of life within the centre. The development of residences could completely eliminate this anomaly. Also mixed land use is a common phenomena in the developing countries and it should be preserved since it fits the socio-economic characteristics of the people. In the traditional Nigerian Towns the centre is usually around the Oba's Palace and the market and it also incorporates some of the houses of the

Chiefs. There were some element of mixed uses. Some planners however argue that the combination of shops and residences are generally undesirable from the point of view of the shops as well as the residences. A commercial centre offers a poor living environment especially for the children. Generally there is too much noise and traffic in the surrounding, for a desirable living standard. There are certain cities in Europe where temporary living quarters are provided, within the city centre, for businessmen to relax or even stay for a night or two, when their working schedule become cramed. This is the case in such cities like Amsterdam in the Netherlands. However the trend is in the outward movement of residences from the city centre to suburban areas. This movement is aided with the modern and efficient transportation facilities that are now available. There is also the preference of bungalows to the high buildings that are available in the city centre. It is only within the urban fringe that such low density apartment could be constructed economically.



Typical Shop-residential unit in centre

It is the stated policy of the Township authority to restrict any residential development within the commercial centre. However this restriction does not affect Sabon-gari which was originally developed as a residential unit. The town centre however includes part of the Sabon-gari and the whole of the Commercial centre. In the land-use survey of the centre which was undertaken, it was found that there were 56 residential units within the commercial centre, but all, except four, developed as annexes to commercial establishments. Of the 56 units, 13 were built by European firms within the premises of their shops for their managers and high ranking officials to live in. The other 43 flats are on the first floor of the many, one storey structures, that exist within the commercial centre. The storey buildings, with retail on the ground floor and residence on the first floor, developed because of the demand by the Lebanese traders to be housed within their trading establishment. The Lebanese were not provided for within the Government Reserve Area and prefered not to live amongst the

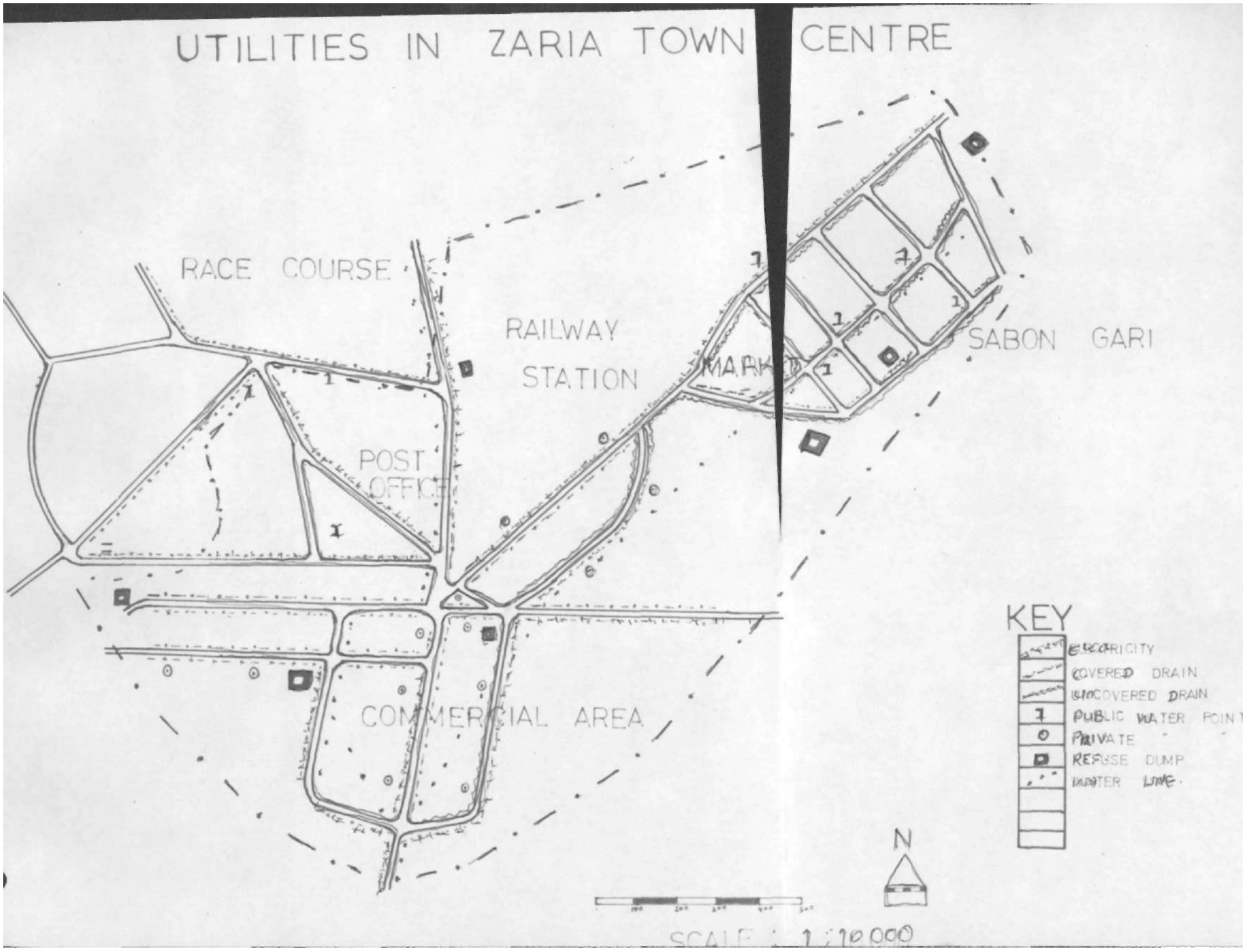
indigene. The only alternative opened to them was to live within their trading structures.

Within the Sabon-gari area the residences constitute 89% of land-use. The shops are usually part of the residential units facing the street. In a number of cases the sales are within Kiosk erected in front of the houses. The service activities are usually located between the pavement area of the roads and the housing units. The mechanical workshops are in the open and there are conflicts between housing requirements and these establishments.

(vi) UTILITIES IN THE TOWN CENTRE

(a) Fire-Services: The present fires station was establish only six months ago and presently has two vehicles and twenty firemen. They are on call for twenty four hours a day. In the last few months there has been only five fire outbreaks, one at the J. Allen and the others within Sabon-Gari. The fire outbreaks are common during the dry season. The provision presently seems adequate to cope with the present demand.

UTILITIES IN ZARIA TOWN CENTRE



(b) Water - Supply: The present total supply of water to the town centre is only 1.6 million gallons/ day while the demand is estimated to be 3.7 million gallons/day. However the new Zaria dam has been completed and a new waterworks is expected to start operating in July and supply the Zaria Township with 5 million gallons of water/day within the first phase and 10 million gallons/day by the end of the second phase. The new dam is expected to cost over 9 million naira. The average consumption within the centre is 20 gallons/head/day. Within the commercial area the water points are meteried and charges are 50K for every 1,000 gallon of water used. In the Sabon gari area which is mainly residential the charges varies between ₦1 and ₦2.50 a month depending on the size of the houses. The recurrent expenditure for water supply this year is about ₦120,000.

(c) Electricity: Electricity is supplied to all the houses in the centre. The consumer demand is presently been meet, as a result of the connection of



Refuse on the road



Refuse dumped into standing drain

Zaria to the National Electrical grid supplied by the Kainji Hydro-electric Station.

(d) Drains: The commercial area is provided with covered drains. Within Sabon-gari the drains are uncovered and very filthy. This is also the case within the market. The poor drainage condition in Sabon-gari is due to the poor financing and management of the Local Authority which is directly responsible for the maintainance of these drains. No attension whatsoever is paid to the improvement of this drains and they constitute a danger to the population living in the surroundings.

(e) Garbage Collections: There is also a marked contrast in efficiency in the collection of garbage with the commercial area and Sabon-gari. The township authority which is in charge of refuse disposal in the commercial area built 5 refuse disposal posts at different areas, The wastes are collected by special vehicles for treatment outside the township. In Sabon-gari the organisation of refuse disposal is

very poor. The wastes are dumped on the streets untreated and they constitute a health hazard to the people. This again is due to the fact that the Local Authority is unable to fulfil its commitments.

Generally the situation in the market is very poor. The area is unhygenic and environmental sanitation is below standard. There are five refuse posts at the fringe of the market. However these are seldom used since the traders prefer to dump wastes at street corners and in the drains. There are two toilets in the market but both are presently out of use because lack of care. Essential services such as electricity, mail boxes, telephones are lacking. There is an urgent need for the supply of vital utilities to the market. This can be done by reorganising the present administrative system of the market and provision of funds for development.

Map 7 shows the location of the present utilities in the centre. There is need for their expansion to cope with present demand and adequate attension must be paid to their maintainance.

CHAPTER IV

THE COMMERCIAL ACTIVITIES OF THE TOWN CENTRE

Zaria was one of the most important commercial centres in Nigeria before the colonial era. Since it was the seat of the Emir it had to perform central functions for the surrounding regions under its administration. Today it still continues to perform these central functions although the depending region is strinking becau e of the growth of Kaduna and Kano which are larger and more important centres and are encroaching on its service region. The economic activities are concentrated mainly in two areas (1) The commercial Area (2) The Market and the surround Trading Streets.

The Commercial Area: This area was laid out in 1914 by the colonial administrator for the development of wholesale, retail and service activities that are too large to be accommodated within the market. The plan envisaged the development of this area into a shopping centre providing goods that have been imported from abroad and other parts of the country to the consumers.

This area was sited in such a way that it could be within easy reach of the people living in Sabon-gari, the Government Reserve area and Tudun-Wada. All the departmental stores and the large retail shops in Zaria are located within the planned commercial area. The stores are mainly patronised by expatriates and Nigerians within the intermediate and higher income group because of the relatively higher prices of goods sold in this area. The banks, insurance companies, the automobile companies and most of the petrol stations in Zaria are sited within this area. The economic activities of the Commercial Area can be considered under the Wholesale and Retail Establishments.

A. Wholesale: The wholesale establishments are mainly located on the Western side of the Commercial Area along the Manchester, Walf and Liverpool Streets. This area which was earmarked for wholesaling in the 'plan', was provided with rail facilities, to ease loading and unloading activities, and important element in wholesaling activity. The European firms



A typical wholesale establishment



Rail facilities for wholesale establishment

were the first to establish in this area and they are still dominant today. Such European firms like the United African Company, Lever Brothers and the PZ own the large wholesale houses. Recently, individually owned, and much smaller wholesale shops owned by Hausa and Yoruba traders, have developed mainly on Walf Street. They specialise in the sales of goods produced by local industries such as detergent, tinned food, sugar, salt and textiles. The capital investment in these individual wholesale establishments are so low that one can recognise immediately the urgent need for some co-operative system amongst the trader to enable them benefit from economies of scale.

(a) Commodities Sold: The commodity sold vary a great deal, and each of the wholesale establishment seems to specialize in the sales of particular products. The UDS, an arm of the United African Company is the largest of the establishments and it specializes in the distribution of bottled drink (beer and soft drink), detergent, salt, flour and other household goods. These goods are also

distributed by John Holt Company. The PZ distributes mainly domestic equipment such as refrigerators, fans, mobylette etc. Bicycles and their parts, tyres, paint are also sold. The Lebanese shops are important for textiles. The Nigerian wholesale establishments which are much smaller distribute mainly cement, salt, textiles, and household good.

(b) Ownership: Over 54.6% of the wholesale establishments are managed by limited liability companies, 24.3% by Lebanese and Syrian businessmen and the remaining 21.1% by Nigerian Traders. Generally the wholesale establishments are large and efficiently managed. The British firms which were the first to establish are still by far the most important group. The UAC and John Holt are the largest of these firms.

(c) Working Capital:

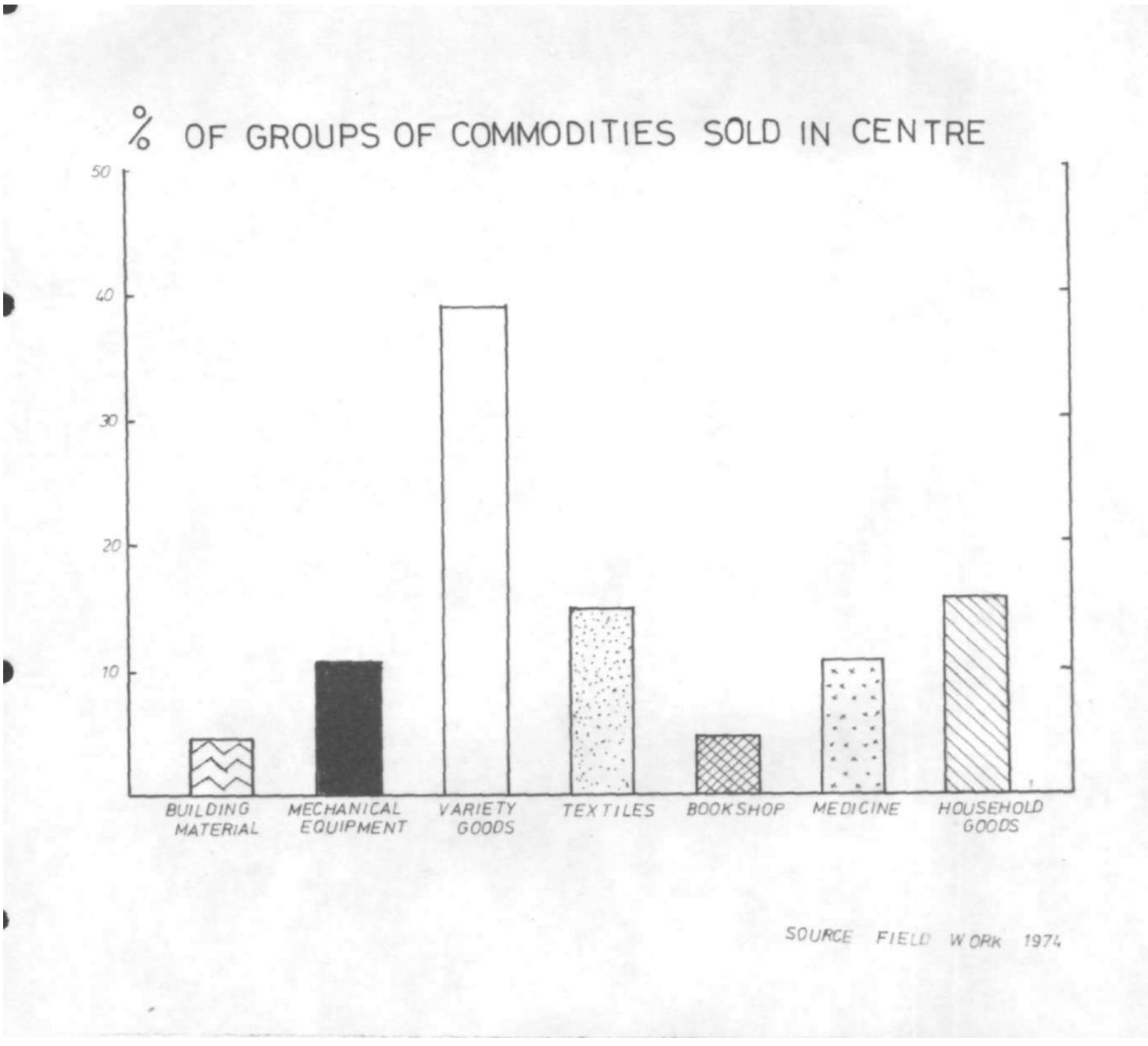
Sales/Month	% of Wholesale Establishments
₦500 - ₦1,000	18
₦1000 - ₦5,000	16
₦5000 - ₦10,000	23
Above ₦10,000	27
Above ₦20,000	16

The figures above shows the percentage of wholesale establishment in certain sales categories. The large wholesale companies generally make sales of over ₦10,000 every month. The United African Company, the largest and a typical example of this groups make sales worth over ₦20,000 a month. The headquarter of the Company is in Lagos and it owns a number of industries in Lagos and Kano Some of the manufature products from these industries are moved to the wholesale establishments all over the country from where they are distributed to the rural region. The wholesale

activities are just a step within the complicated distributive network. The wholesale shops owned by Nigerian businessmen are much smaller and sales/ month are usually below 1,000 a month. Wholesale activities are more efficient when they exist as large units. Large Capital investment in wholesale must be encouraged in Zambia. The Nigerian wholesalers within the centre can form a co-operative and operate as a larger unit so that they can enjoy the economies of scale.

No. of People Employed	% of Wholesale Establishment
1 - 3	20
3 - 5	17
5 - 10	37
10 - 15	29
Over 15	7

The table above shows the percentage of the wholesalers employing certain number of persons. Except for the government organisation, wholesaling is the most important employer within the centre. This has implications in terms of provisions necessary for the efficient operation of the centres. The employees must be provided suitable parking spaces as well as canteen facilities. The wholesale region is bound to generate a considerable amount of cars and trucks and provisions must be made to accommodate these.


% OF GROUPS OF COMMODITIES SOLD IN CENTRE
50
40
30
20
10
BUILDING MATERIAL
MECHANICAL EQUIPMENT
VARIETY GOODS
TEXTILES
BOOKSHOP
MEDICINE
HOUSEHOLD GOODS
SOURCE FIELD WORK 1974

B. RETAIL ESTABLISHMENTS

(a) COMMODITIES SOLD:

Commodities Sold	No. of establishment	% of Total
General Goods (Variety)	2	43.3
Textile	8	13.8
Medicine	4	7.8
Household goods	7	13.1
Services	5	9.2
Books and Stationary	1	2.0
Tools and Equipment	4	7.9
Building Material	1	2.9
TOTAL	60	100

It is significant that nearly 50% of the shops involved in the sales of general goods. The shops stock a variety of goods like tinned food, detergent, electric bulb, buckets and so on. The departmental stores are included in this group. The goods sold are

the type needed for the day to today running of a home. There is significant variation in the size and the range of goods sold by the shops within the group. The largest of these shops are the K. Chellarams, Hashims and Simhani which are departmental stores. These three shops are also important for their wholesale activities. They sell goods in bulk to people from the surrounding region. 50% of the textile shops within the centre are own by the Lebanese who sell imported materials to retailers. Generally the supermarkets within the Zaria centre lay emphasis on quality and service in contrast to the market which stresses lower prices and convenience, and therefore cater mainly for the middle and higher income group. This emphasis affects the structure of sales by commodity type. The super markets tend to have proportionately larger sales in commodities with higher prices since they generally tend to concentrate on lines with a higher margin of profit.

(b) Sources of Goods: Of the 122 shopkeepers interviewed, it was found that 36% buy their goods from wholesale houses within the centre, 48% get their material either from their headquarters in some other part of the country or from other importing agencies mainly located in Lagos. 16% ordered for at least part of their goods from overseas countries. 52% of the goods sold in these shops are imported from overseas and about 40% produced in industries in Lagos, Kano or Kaduna.

These figures indicate that ~~except~~ except for cigaretttes, all the goods sold are produced in other parts of the country and overseas.

81% of the wholesale and retail establishment have their goods delivered by road. This is a big contrast to the 1952 figure when 63% of the goods came by rail. The drastic change in the mode of transportation of goods reflects the great improvement of the Nigerian road, and the increasing importance of the flexibility which the road delivery system offers. Of the establishments with their source of goods outside the town 43% get the goods they order for delivered within 3 - 9 days. 30%

get delivery within 2 weeks. This is an indication of an efficient system for the in flow of goods.

(c) LEVEL OF SALES:

Sales/Month	% of Shops
Less than ₦200	0.7
₦200 - ₦500	19.4
₦500 - ₦1000	34.3
₦1000 - ₦3000	31.8
Over ₦3000	23.8

Field Survey February 1974

This is a very important measure of the economic activities within the centre. From the analysis of the survey of 112 shopkeepers it was found that there is a wide disparity in the sizes of the shops. About 54.4% of the shops within the centre are singly owned establishments with a sales of less than ₦1,000 a month. These smaller shops are mainly owned by Nigerian traders who came into the commercial life of this area

within the last five years. Another 31.8% of the shops are in the medium range making an average montly sales of over ₦1000 but less than ₦3000 a month. The last categories are the large departmental stores and Chemist shops with sales of over ₦3000. One of the largest companies, Chellarams makes an average sales of over ₦10,000 a month. These measures are important because certain establishments are only able to locate in towns where a minmum level of sales can be achieved. Retailers in the grocery, chemist, food and handware category can survive in small towns. On the other hand establishments in the clothing, jewellery and furniture trades increase in size steadily with increasing town size. Departmental and variety stores show the steepest climb of all (Scott 1970). This increase in size is attributed to the internal economies resulting from larger markets as well as the external economies resulting from favourable affinities. Therefore in the future proposal for Zaria, appropriate facilities must be made available for the rapid development of departmental and variety shops because of the rapid increase in population and income within the town.

Labour input is also an important measure of the general size of establishments. In general employment per shop varies with the level of sales. However the number of persons employed per unit of sales varies with the kind of business (Hall and Vinsten, 1963). Moreover as the size of the shop increases economies of scale results in an increase in average sales per person engaged. So that the level of employment rises less rapidly than the level of sales. (Bellamy 1946). At a certain points, in fact, depending on the type of trade, the average sales per person begins to decline. In almost all the shops examined within the Zaria centre except for the departmental stores, the number of persons employed never exceeded five and in a majority of cases it was one a two. This suggests that the size of the establishments like in most Nigerian towns are small when compared with those in the developed world. The composition of workforce by part-time and full time vary by type of trade, organisation and size of establishment. In Zaria most of the part time workers are employed in the variety stores and mostly in the large ones.

(a) GENERAL ORGANISATION

It is notable that in Zaria centre generally the degree of mix is very high as can be seen in table below.

No. OF THE 3 TYPES OF ESTABLISHMENTS WITHIN EACH ZONE

Zones	Retail	Wholesale	Residences
Retail	316	135	157
Wholesale	71	115	-
Residential	195	8	-

This is not a desirable development. According to Scott (1970) retail sites tend to be attracted to areas with proximity to particular complimentary facilities, e.g. near the market or the source of supply. This type of special accessibility confers economics on both entrepreneur and customer. Shops retailing certain goods varying in both size and price and unable to compete successfully when located some considerable distance apart may increase their sales sufficiently to become supramarginal when located in close proximity.

The specialisation makes possible the provision of a higher class of service and a greater variety of merchandise at lower prices. 'More potential customers are attracted, a higher proportion make purchases and probably more return to make further purchases' (Proudfoot 1958 P.373). Customers are therefore given greater opportunities for choosing their requirements within a given expenditure of time and money.

The retail affinities evident within a centre will also depend on the size of the urban area, the street layout and the imperfections in the property market. Just as the rent for a particular store type will tend to increase with increasing size of the city, so the larger centres will tend to be more specialised in retail structure than the smaller (Duncan, 1952, Reynolds 1960). This is evident when one compares the retail affinities of Kano and Kaduna with that of Zaria. It is much higher in the other two urban centres because their larger sizes. The imperfection of the property market are such that prefered sites may not be

available to the retail, who may be forced to accept a less satisfactory alternative. This is the case in Koforidua market in Ghana, where, 'certain commodities tend to be located in certain parts of the market but since it has become overcrowded, sellers have to take any space they can get' (McCall, 1962 P.671).

However in some case there may be conflicts in the promotion of general (in terms of traffic) accessibility. Retailers located in wide busy throughfares may well aim to increase the proportion of potential customers within the traffic flows and neglect the advantages of proximity to one another. This may be the case in Zaria since generally the retail establishment are all developed along the major transportation routes.

(e) FLOOR SPACE:

Floor Area(in s . t.)	% of Total Shops
Less than 10	5
100 -- 300	61.7
300 - 1000	24.3
More than 1000	9.0

One of the most striking features of retail establishments is the multiplicity of small shops and the wide range in shop sizes. Since the spatial structure of retailin is strongly affected by the size composition of s op it is necessary to examine the factors th t give rise to he range in shop size by type of trade and form of organisation. Since the retail establishments aim to maximise their profits it will be expected that they wil expand until they reach their optimum size, that is when they are operating at a lower average cost per unit of output than at any other level of output In practice however only a

minority of the shops are of optimum size and most small shops could lower their average costs if they had larger turnovers (Douglas 1962 1.184). For all shops to be of optimum size, the market will have to be perfectly competitive and this requires that the market is homogenous, rather than heterogeneous as the case is. This anomaly is brought about partly by the imperfections of the market and the pervasiveness of competition.

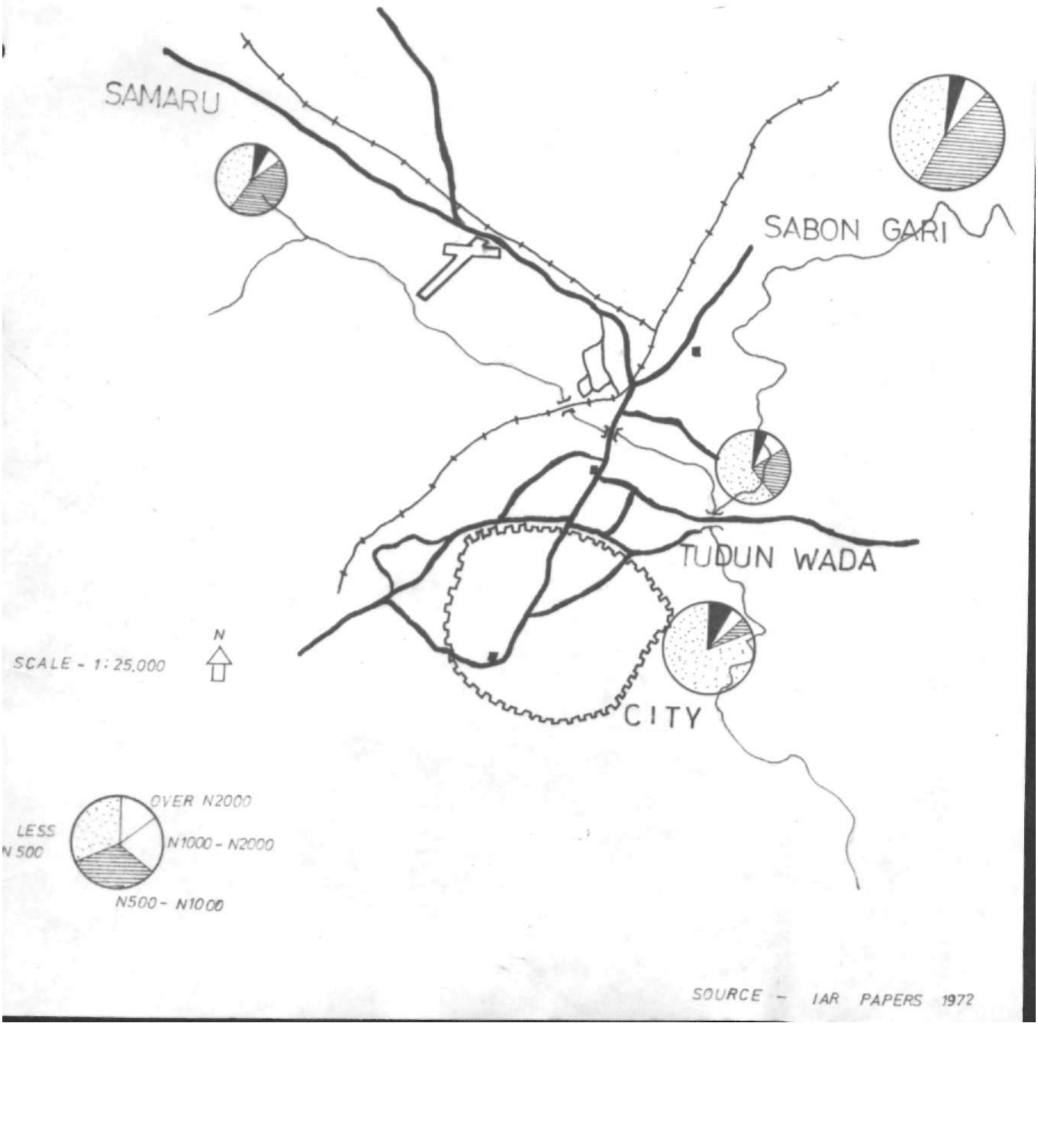
In the town centre of Zaria most of the shops are small in size. Generally they can be classified under 3 groups. Those located along the major thoroughfare and seek the patronage of those passing by are the smallest. About 70% of the shops along the Kaduna Road, from Tudun Wada to the centre, and those on Aminu road North (from the market to the abbatoir), have an average floor space of 150 - 300 square feet. These shops are individually owned and employ one or two people usually members of the household of the entrepreneur. The shops in the Commercial Centre along, Crescent, Walf and Main Streets generally have larger shops with an average floor space of 500 - 700 square

feet. The stock in this shops are larger and generally the goods sold are the more expensive type. The three departmental stores are much larger than the other stores and they have floor spaces between 3000 - 6000 square feet. As the town grows the floor space occupied by these establishments will increase on the average and adquate provision must be made to accommodate this increase.

(f) Consumer Shopping Trips

Numerous studies have demonstrated that socio-economic status affects consumer mobility. Consumers with higher income and social status living in metropolitan fringe patronise the city centre more and show more favourable attitude to it than do those with lower social status (Jonassen, 1955 P.91, Paw 1965, P. 56 - 8; Hess 1966). Moreover the greater mobility found among households with cars tends to become more pronounced the higher the socio-economic status. Kent 1964 attributes this to two factors - the tendency of the higher status households to shop at greater distances from their nearest centre and secondly the much greater use the higher status households make of

POPULATION AND INCOME IN RESIDENTIAL AREAS



SOURCE - IAR PAPERS 1972

their cars. However Pahl (1965 P.58) found that shopping trips between car owners and those who travel by bus do not vary much. The length of trips made are generally found to vary with type of trade. A study conducted in North Caroline by Hayes and Schul 1965 P.4 shows that the average distance travelled by consumers to the departmental store in Greensboro was found to be 12.3 miles, to a clothing and shoe store 8.4 miles, to a jeweller 7.3 miles, and to a furniture store 6.1 miles. Incidentally the rank order above bears some relationship to the ability of the above establishment to compete for the most accessible sites. In general the distance travelled for shopping purposes varies inversely with the frequency of shopping, while the tendency to patronise the nearest shop tends to decrease, with the frequency of purchase of higher order goods (Ambrose 1968 P.331). It has been found that public transport tends to be used proportionately more for shopping in larger than in smaller cities and for trips to central shopping areas than to suburban centres (Sweduer, 1962). In a screen survey conducted

in the centre, distinct characteristics of the consumer shopping trips were obtained. (See Map 10 in jacket). Over 53% of these interview said they shopped for the lower order goods such as foodstuff and household goods within the local market in their neighbourhood. This in itself demonstrate the importance of the local markets. Over 64% shop for textiles, footwear, household goods etc in the Sabon-gari market and its surrounding. Only 21% of those interviewed (a majority from Samaru and the Institute of Administration) regularly shopped in the departmental stores and 71% of these people are in the middle or upper income group.

(iii) THE MARKET:

The traditional market is a common phenomena in the developing world. It is defined as a public gathering of buyers and sellers at an appointed place and at regular intervals for the purpose of doing business under specified conditions. In most of the Nigerian towns the markets remains a major component of the entire exchange system. Even in those towns

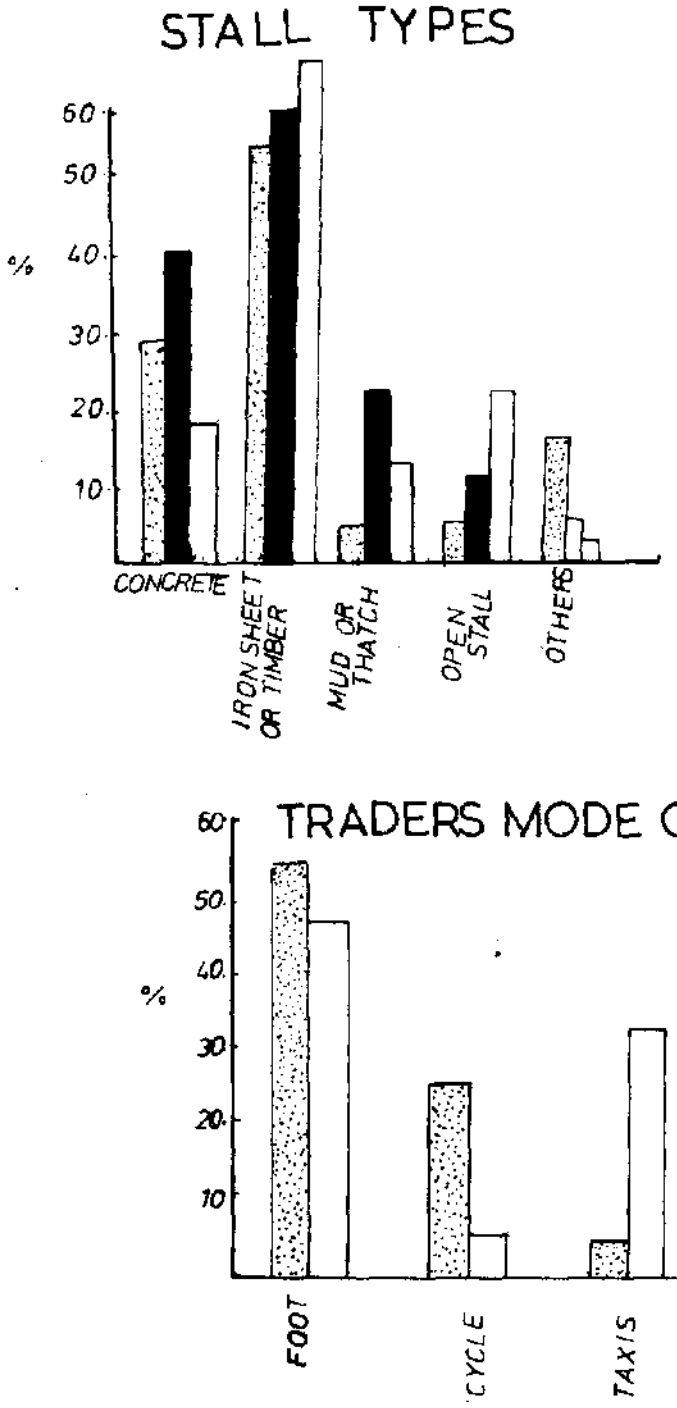


Retail trade on the road

where fixed shops have developed, the market still continues to dominate the retail pattern. This is the case in Zaria. The retail store derive an advantage by locating near the market so that they can attract customers whose main destination is the market. In Koforidua in Ghana, 'the street leading to the market are lined with retail outlets owned chiefly by Africans' (McCau 1962 p.670) and in Lourenco Marques the central market which senoes all ethnic groups form the nucleus for three distinct shopping areas, Also Mabogunje (1964) found that the core of most neighbourhood business streets is the daily market. Generally then, mixed market and shop systems constitute a continium. On the long run the markets will tend to decline in importance relative to fixed shops. In this decline socio-economic and cultural factors will influence the differential rates of change both among and within the retail system. This fact was not taken into proper consideration when the plan for the commercial area of Zaria was prepared by the colonial authorities. In the 1914 layout only 5% of the total area earmarked for

commercial purposes was demarcated for the market. The planners at the time were under the impression that most of the shopping activities of the population will be concentrated within the shopping centre. This assumption has been proved wrong. Over 80% of the population of Zaria purchase most of their items of goods, in Sabon-gari market except for convenience goods which are usually purchased in the local markets. The priority which was given to the shopping area has been misplaced and there is urgent need to correct this anamoly.

1. The Physical Features of the Site: The Sabon-gari market is situated withinthe town centre of Zaria town and perform central function for the region. It occupies a total area of 7 acres and is completely surrounded by built up residential area. The market is presently very congested and there is very little scope for expansion. The present congestion is a direct result of the misallocation of land for market purposes by the earlier planners. The market lies on


STALL TYPES
%
60
50
40
30
20
10
CONCRETE
IRON SHEET OR TIMBER
MUD OR THATCH
OPEN STALL
OTHERS

COMMODITIES SOLD
%
60
50
40
30
20
10
FOOD STUFF
TEXTILES
MEDICINE
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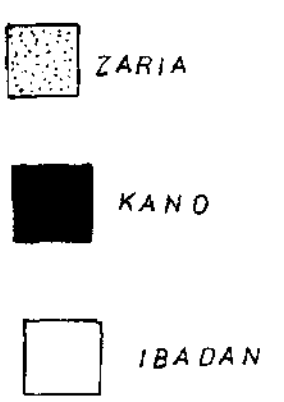

ZARIA
KANO
IBADAN

fairly level ground and a section is well planted. The site coverage is about 80%. However open air and temporary stalls exist in many part of the market.

UTILITIES:

The utilities provided within the market are grossly inadequate to cope up with the needs. For the successful operation of a market it is necessary to provide such facilities was water, electricity, public latrines and refuse disposal facilities. At present there are only two water point serving the whole market. Generally the present provision must be improved.

STALL TYPE:

PERCENTAGE OF DIFFERENT CATEGORIES

	(1974) Z'RIA MARKET	(1964) KANO	(1961) IBADAN
Permanent Concrete	28	38	16.1
Corrugated Iron Sheet	52	53	
Timber			61.6
Mud or Thatch	2.4	20	12.3
Open Stalls	3.4	5.6	8.7
Other type of Materials	14.2	3.4	1.3

The table above shows the percentage of stall in the specified categories within Sabon-gari market in Zaria, Sabon-gari market in Kano and Dugbe market at Ibadan. It can be seen that generally the number of the permanent concrete stalls are still low in all the markets. Stalls made of corrugated iron sheet account for more than 50% of the total in Zaria and

Kano and at Ibadan where timber is available they account for over 71.5% of the total. This figures shows the temporary character which most of the stalls within the Nigerians market seems to possess. In all the markets the authorities are only able to provide a few permanent structure to form the nucleus.

The traders who establish within the market, are not very sure of their tenure, and they generally prefer to construct cheap and temporary structures. According to Vogale (1972) the large percentage of the timber structure and the temporary nature of shop building is to a large extent due to the fact that shop-keepers do not own shop sites and the land owners do not permit the traders to put permanent structures. The use of timber for construction purposes explains the frequent fire outbreaks resulting in loss of material and human lifes.

Accessibility: The market is accessible through Aminu Road which is a major road in the town. A second approach is through the hospital road which is a rough and poorly constructed roads. These roads are very

congested because the market is already overspilling into them. There are no provisions for the pedestrians and usually a lot of accidents results from the constant conflict between pedestrians and vehicles.

Quality of the Environment: Like the other markets in most Nigerian towns the quality of the environment is very poor. There are no open spaces, but general congestions in many sites, dirt, inadequate drainage and general lack of necessary facilities. There are no effective rubbish collection facilities and the market presents a dirty and squalid appearance. During the rainy seasons the foot paths get flooded because the storm water cannot easily drain. The noise, dust, foul odour, fumes, flies and rodents pose perennial problems to the health and safety of traders as well as the clients.

COMMODITIES SOLD

% of Total Establishment Within each market

	ZARIA	KANO	(DUGBE) IBADAN
Foodstuff	39.2	37.1	42.9
Textiles and Footwear	26.4	29.1	8.9
Drugs and Medicine	0.1	0.1	0.7
Household Goods (provision + General wares and goods)	23.9	25.7	27.3
Service Trade	6.3	7.1	12.2
Books and Stationery	-	-	0.3
Tools and fixtures	2.1	2.1	0.5
Others	1.8	3.9	7.2

Field Work February, 1974

The most important category of commodity sold is foodstuff in all the 3 markets. However the percentage of the number of traders involved in the sale of food-stuffs are not as high as in Ibadan, where it was found that in the market, there were over 6,000 food stalls,

accounting for 63.1% number of establishment (Vagalo 1971). As shown in the table above the Sabon-gari market handles a large volume and variety of commodities. It provides a wide range of commodities needed daily for personal and family uses. It also acts as a central buying point, for purchasers, who buy and resell in other parts of the town. It is the main market supplying the modern goods, which are supplied from other parts of the country. The other local markets within Zaria (the Tudun Wada, Samaru and City markets) are more involved in the sale of foodstuff and local products. The traders in these local markets purchase most of their household and non-local goods from the Sabon-Gari market.

Generally, within the market, stall involve in selling similar products are located close to each other. The agglomeration of similar establishments, enhances the mutual exchange of customers between stores, and this raises the general economic activity within the market.

The percentages of goods sold in the markets of the 3 towns above are very similar. This is an indication that the purchasing power and traits within these centres are similar.

It was noted that the sales of certain commodities are dominated by certain ethnic groups. About 70% of the butchers are of Hausa origin while the sales of provision and general household goods are dominated by the Yorubas and Ibos. This ethnic affiliation is particularly noticeable in the sale of foodstuff. Foodstuff such as Gari and Palm oil are mainly sold by Southern elements who 'import' it from the Southern States. The Hausa are mainly involve in the sale of grain crops which dominates their menu. There is therefore a significant correlation between the type of foodstuff sold and the ethnic group to which the trader belong.

Mode of Journey to Market:

% of Total Traders

	ZARIA	IBADAN MARKETS
By foot	54.1	48.1
Bicycle	24.3	3.7
Taxis	4.5	28.7
Private Cars	4.5	3.2
Public Transport (Buses)	12.6	10.3

Source: Field Work - February, 1974

The figures for the two markets are similar. Generally most traders live near the market and they do not need any transportation means to convey them to the market. The use of bicycles and motorcycles is common in Zaria. The disparity in the figures for cycles is rooted in the social characteristics that prevail within the two areas. Generally the Yorubas at Ibadan do not approve the use of motor cycles which they consider to be too dangerous. On the other hand

motorcycles are very popular within the northern towns. Vagale claims that bicycles are unpopular because of 'the hilly terrain of Ibadan and the steep gradient of the roads which makes it difficult and risky to ride on bicycles'. There is also disparity in the use of taxis. This is because a greater number of taxis exist within the Ibadan urban area than in Zaria. In fact, the taxi service in Zaria is mainly between Samaru, Wusasa and the market. The other areas are essentially served by bus service.

The large majority of the traders in Zaria market (87.4%) store their goods in the market in locked up stalls with the aid of night guards to avoid stealing. Of the 12.6% who have to move their goods into the markets daily, a number convey these goods is small quantities as head load; while others use the donkey, hand cart and bus. The donkey is used for the movement of bulky foodstuff such as yam, and bags of guinea-corn and millet.

Generally, as is noted from the comparisons, markets in Nigeria are labour intensive rather than capital intensive.

SOCIAL CHARACTERISTICS OF TRADERS

Unlike the case in Ibadan (Vagale 1970), the female do not constitute a majority amongst the traders. This is because of the social system within the society, which confines the married women to the compound. However, an appreciable female population consisting mainly of women form non-Moslem household as well as the old amongst the indigenous population are actively involved in trading. The women are mainly confined to the sales of foodstuff and household goods. Generally, within the Sabon-gari market the working capital of the female traders are low, as most of them originally got a nominal sum from their husbands to engage in trade. Unlike their male counterparts, they seldom travel to other part of the country to purchase their goods. They buy mostly within the market itself and in some cases, from the wholesale establishments within the commercial centre.

	% of Total Trades in each group	
Age Structure	Zaria	Ibadan
0 - 18	3.8	5.5
20 - 39	60.9	51.1
40 - 59	34.3	30.1
Above 59	1	13.3

Field Work February, 1974

Generally the majority of the traders in both markets are between the age of 19 and 39. The younger traders are mostly apprentices, since in most cases they do not possess enough capital to set up their own trades. In Zaria 65% of those under 20 surveyed, were found to own at most, only part of the goods they were selling. In most of the cases, they were selling goods belonging to some relative, who was also engaged in trading within the same market.

The survey showed that 87.1% of the traders, live within the Zaria Township, as against 12.9%, resident within surrounding villages. This compares favourable with 85% for traders living within Ibadan town and 15% commuting from surrounding villages obtained for Ibadan (Vagale 1970 p.51). However most of the traders from the villages around Zaria, are involved in the sales of perishable goods and livestock, in contrast to the people around Ibadan who traded mostly non-perishable products, in the periodic market. A large proportion of the supply of vegetables, fresh tomatoes, fowl in the Sabon-gari market are from the surrounding villages.

CHAPTER V

CIRCULATION

An efficient system of motor traffic is essential to the prosperity of any town centre. A great deal of the business and commercial life of the town centre can be served by motor traffic. Shoppers and other visitors will want as car ownership grows to be able to come and go by car, to dispose of their cars conveniently and yet be able to walk and shop in the centre free from danger, noise and fumes of traffic. The planning of the town centre rests to a very large degree upon a well thought out communication and traffic pattern. Nowhere is the intergretion of land use and transport planning more vital. An inefficient traffic system threatens both the prosperity and amenity of a town centre. Traffic jams cost money and a centre congested with stationary or slow moving vehicles will lose much of its attraction for all those who come there whether as workers, shoppers or visitors.

Generally the circulation system with the Nigerian Town centre are not properly planned. Parking and other

open air commercial activities around the streets also adversely affect traffic movements on them. The number and sizes of roads are also not sufficient to serve the area. With the rapid growth in the rate of car ownership urgent steps must be taken to rectify some of problems within the centre of one city so as to avoid future difficulties.

The circulation problem within the centre of Zaria is not as acute as in many of the other traditional Towns in Nigeria.

This is because the commercial area was laid out and development strictly controlled at the early stages. Today however, because of the many changes that is taking place there is a need to review and amend the original plan.

SURVEY METHODS

The traffic survey undertaken was mainly directed towards obtaining the volume of vehicles and pedestrian on the roads leading into the centre and those within the centre itself. The volume census helped in measuring the present demand for service on the different roads. The volume count will help indicate places where traffic control is necessary and where the development of major road should be located. The second part of the survey was problem oriented. Areas where traffic congestion presently exist were noted, explained and suggestions made for correction. For example, there are delays at the level crossing within the central area and this is noted as a problem spot. A parking survey is also conducted to measure the present demand for parking facilties and the existing provisions. Since public transportation is an important aspect of the efficient circulation within the centre and estimate of the present state in its development is made and the needs assessed.

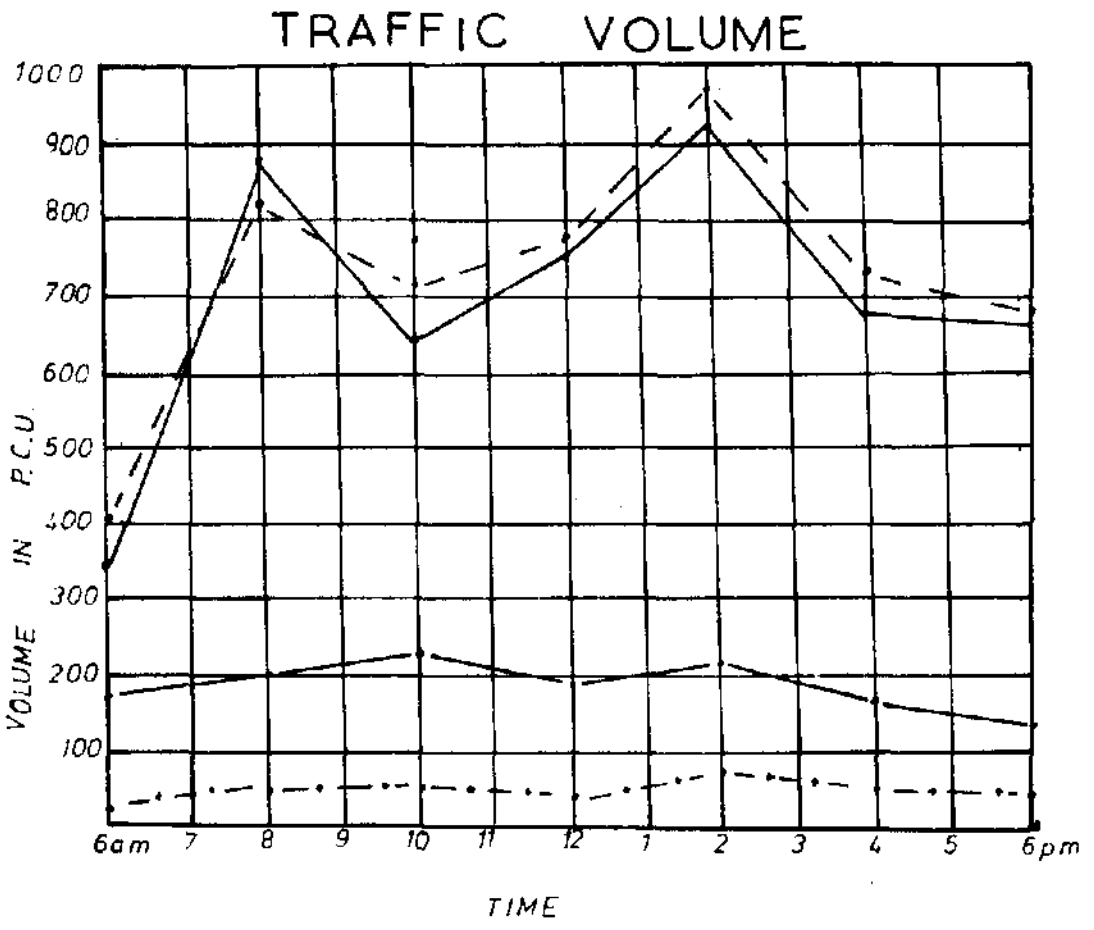
For the volume census a preliminary survey was first conducted on the four roads leading into the centre to determine the morning and evening peak during the weekdays and during the weekend. It was found generally that volume of traffic on these roads were highest between seven and eight in the morning when people are going to work and at two to three in the afternoon after the working hours. The lowest volume was between ten. and eleven in the morning and five to six in the evenings. During this preliminary survey notes were made of intersections at which delays are experienced, roads where parking or loading and unloading interfere with traffic volume, areas with traffic and pedestrian conflicts and establishment that tend to generate large traffic volume.

VOLUME OF TRAFFIC MOVING INTO CENTRE AT PEAK HOUR

ROAD	No. OF VEHICLES	P.C.U
Sokoto	980	1070
Kaduna	1018	1016
Aminu	594	416
Walf	70	42

(Survey 7th - 11th March, 1974)

The table above and the flow diagram shows the peak hour flow of two roads leading into and within the centre. The traffic volume is expressed (PCU) per car units which eliminates the differences in requirement for the various vehicle types. It is seen that the roads from Samaru and Tudun Wada have the highest traffic volume. This situation is explained by the fact that these are major roads and carry mainly traffic that just pass through the centre. All the vehicles passing through Zaria, except for those going into Jos have to pass through this roads. This situation is not appropriate and there is urgent need to create a by pass, so that vehicles coming from Kaduna and with no business in the centre can by pass it on to the roads that leads to



THE 4 ARTERIAL ROADS ENTERING THE CENTRE

Kano and Sokoto. This will reduce the present traffic congestion in the centre and enhance its efficiency. Similar situations exist in many of Nigerian urban centres except for the few that are planned for example Kaduna and the need for appropriate measures to rectify this anomaly is urgent. The second reason for the high traffic volume on the Tudun Wada - Samaru road is because of the relatively high level of car ownership within the University. It is extimated that over thirty percent of the traffic movements within the town is generated by the University alone. In effect this means that a relatively high percentage of the movement from the educational instition are made in private and public vehicles. This is especially so because these educational institutions are located at the fringes of the town which necessitate the use of vehicles for movements into the centre. The graph showing the mode of transport from the residential areas illustrates this point. The people in Sabon-Gari area living close to the centre move into it mainly on foot and bicycles. On the other hand people living in Samaru come mainly in taxis and private cars because of the distance.

Traffic movement within the centre is concentrated around the market. It is extimated from a screen survey that over forty percent of the shopping trips within the centre are made to the market itself. Over fifty percent of these market trips are made on foot and another 27% by public transport.

PARKING

Proper parking provision is an essential elment in a good traffic system. In the short run, parking policies and good traffic management are widely recognised as the best means of coping with the present and imminent growth of urban traffic. In the long run parking policies are an indispensable part of land use and transport plan for the town centre. There is need for positive action a bou' on street parking which if uncontrolled, impedes traffic is dangerous and visually unattractive. Provisions must be made for off street parking. There is also an urgent need for a comphrehensive and positive parking policy which is effective, flexible and integrated. Generally town centres are a complex mixture of land uses and interlocking activities and parking demands overlap.



Petrol Station and parking in centre

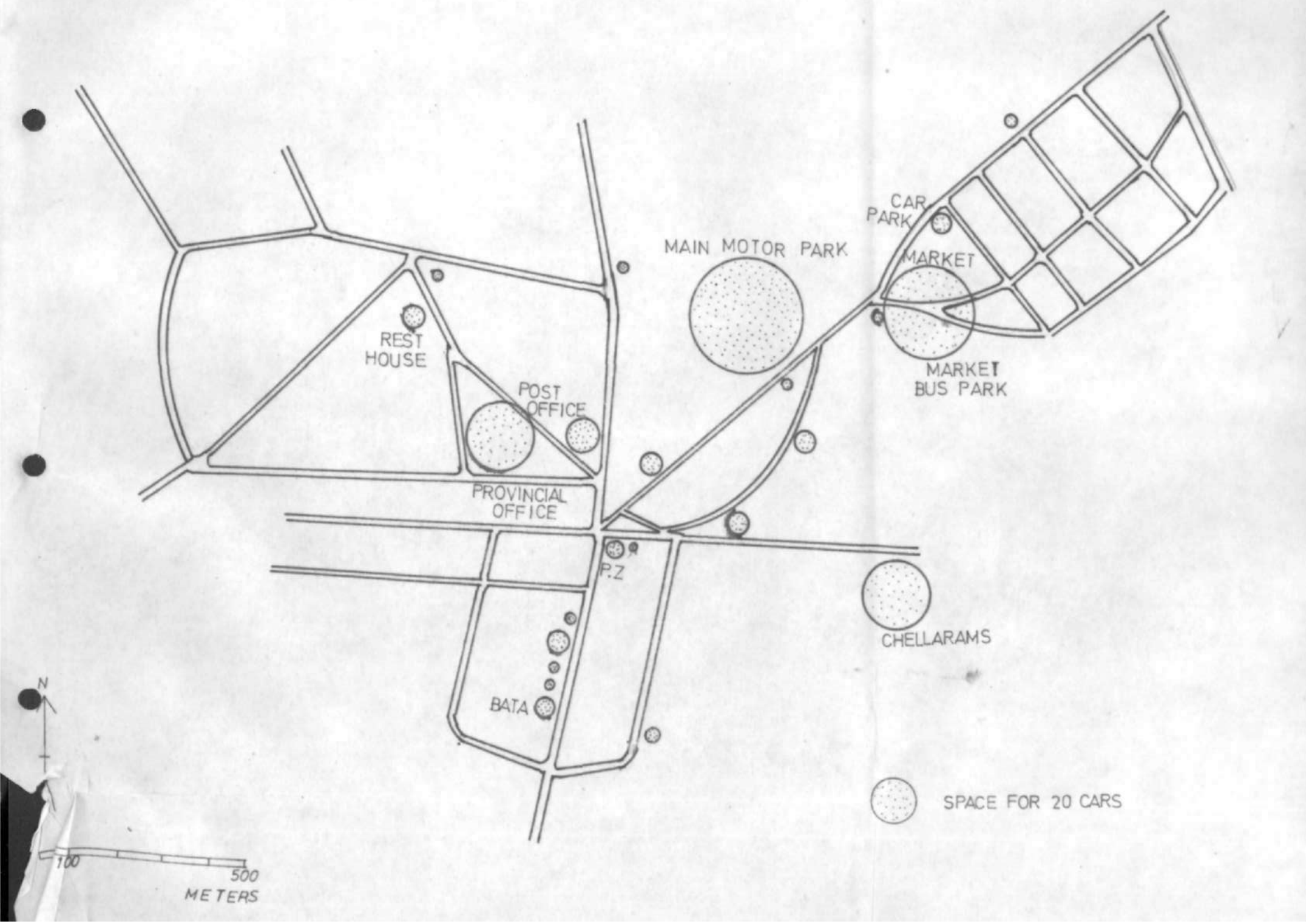
However the existing and potential parking space in the centre must be assessed and planned for.

Presently the parking facilities within the Zaria centre is inadequate. In most cases parking is on street and where off street parking is provided they are sometimes not able to meet the demand. The table below show the capacity and demand for the existing off street parking lots within the Zaria centre. All the parking lot except for the market, are private and are attached to the mentioned commercial institutions.

LOCATION	CAPACITY	DEMAND AT PEAK HOUR
Chellaram	40	32
Hashims	10	25
Simhani	15	20
PZ	10	12
Market	10	35
Bata	5	9

Field Survey February, 1974

LOCATION AND CAPACITY OF OFF STREET PARKING LOTS IN ZARIA CENTRE



The figures shows that the demand for parking at peak hour cannot be satisfied. The disparity between capacity and demand is most acute in the public parking area provided near the market. This park is poorly design and is too small. The park is usually congested and sometimes vehicles park in such a way that a lot of delay results. As private car ownership grows this problem will continue to be more acute except something is done to solve it. More parking spaces need to be provided within the centre and designed properly. Trees should be provided within the parking lot to provide shade and improve the environmental quality of surrounding.

PUBLIC TRANSPORTATION

Some kind of public transport must inevitably remain to major way to our cities, particularly the large ones and particularly during peak hours. Even in the most fully motorized part of the world, Los Angeles, with enormous road system and little concern in the past for public transportation more than half the people arrive at work by this means. Yet in the CBD 20% to

30% of the families own more than one car. In places like New York and London it is more like 90% who commute by rail or bus. Generally public transport has decline in favour of the private car. Some planners regard this as an inevitable trend and are making efforts to plan more for private cars thereby reducing public transport further. This trend can only go so far. Inevitably the private car traffic grinds to a halt and subsequently stabilizes at a rate and convenience level that make public transport attractive by comparison for many. Public transportation should not be profit making oriented. According to a U.S. transportation board 'mass transportation must be viewed as an essential public service and not solely as an enterprise from which a maximum financial profit is to be derived. Efforts to cover total costs, including those of attracting and supporting large capital outlays, have often proved self defeating when fares - generally the sole or principal source of revenue, have been increased. Those who can afford to pay the higher fares have been impelled to turn to private transportation, while those heavily reliant on public transportation the so called 'captive

transit rider in the low income group and the non drivers, mostly the youngsters and the oldsters are unduly penalized by being effectively restricted in their urban travels.

'Balance in local transportation is thus destroyed'. Generally in cities. Public transport should be cheap, frequent, quick, easily accesible, clean with attractive termini and polite staff. There is a significant correlation between increase in use, density and number of people per car. Beyond such general points it is important that stations are strategically placed. In new system such as those in Stockholm the stations are placed in the neighbourhood centre. Park and ride are also available in a number of cities in the U.S.

Public transportation is particularly important within the town centre. Usually the transport system within the centre is overstrained because it attracts traffic from every part of the town. With increasing use of private cars the roads within the centre have become congested and inefficient. There are a number of solutions suggested to resolve this problem. There are those who advocate the movement of offices and



Bus Parking on the road

shops out of the centre to the surburban areas. This is already taking place in a number of European and American cities. Others suggest the provision of a well managed public transportation system to link the centre with the other parts of the town.

The public transport available in Zaria are owned by private businessmen. Emphasis is therefore placed on the maximization of profits and this is not ideal if an efficient public transportation system is to develop. The only types of public transport are buses and taxis. Almost all these buses are the Ford transit type with capacity for only 16 people. Small buses are used because the businessmen are not prepared to invest large capital in this business. From the volume count survey conducted it was found that only 8% of the vehicles coming into the centre are public. This is grossly inadequate to meet the present rising demand and in many cases queues of passengers have to wait for long hours before they can get transport to their destination.

Another unfortunate characteristics of public transport in Zaria is that they ply only a few routes which they consider profitable because of the large number of waiting passengers on these routes. The

buses are always aiming to run at full capacity so that they can maximise their profits. This means that a large area of the town is not served by any form of public transports and people have to walk long distances to get to their destinations. Public transports are localised on the Samaru - Sabon - Gari Market, the City - Tudun Wada - Sabon Gari market, and the Sabon Gari Market - Wusasa routes. The others routes are not served except for some few cases when the taxis are hired at a high rate. The authoritics must step in to remove this anomaly.

PEDESTRIAN MOVEMENT:

The movement of pedestrians is becoming an important index in the assessment of the organisation and use of the city centre. The movement of goods and persons over pedestrian routes comprises and indispensable part of the centre's transportation system. There are needs for certain requirements to ensure mobility and safety. When possible the enjoyment of walking should be enhanced and conflict with vehicular traffic minimized. In the past these objectives have been subordinated to the more acute problem of alleviating vehicular congestion within

the centre. There were very few research work on pedestrian volume and movement. However in recent time with the growing interest in revitalizing the CBD, transportation studies are placing emphasis on pedestrian movements. There are now provisions such as malls, arcades pedestrian precinct and so on within planned centres So as to make the pedestrian circulation system as efficient as that for vehicles. The count can be used in the planning of pedestrian mobility, safety and pleasure

There are usualy conflicts between the pedestrian and traffic within the centre. The count is useful in the determination of the appropriate measure needed to resolve the conflict. For example the U.S. Bureau of Public Roads recommend that 'where for each of any eight hours of an average day, a total of 600 vehicles per hour enters an intersection from both approaches on a major street and the crosswalk with the highest pedestrian load carries at least 150 persons per hour (minimum pedestrian volume warrant), a pretimed traffic signal should be installed'. The pedestrian count can also help to determine the need or priority for the

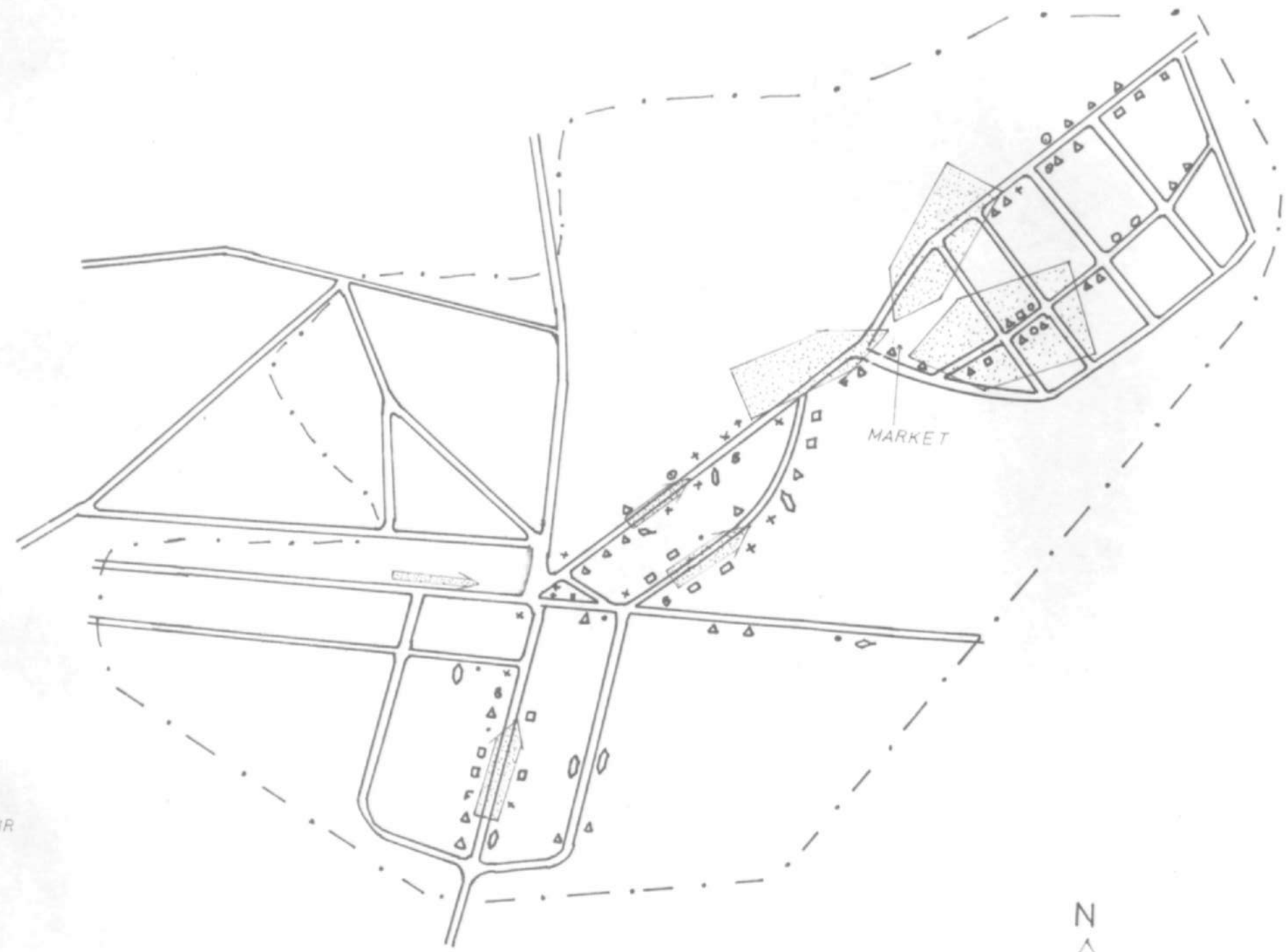
construction of painted crosswqlks, barriers, refuge islands, underpasses and overpasses. Pedestrian counts can be used to select retail store locations on the basis of pedestrian movement past prospective location and the location of important public building such as the library so that they are accessible to the centres of the central business district pedestrian movement.

The table below and the diagram show the volume pedestrian movement within the centre of Zaria.

Roads (Counting post) in brackets)	No. of Pedestrian/Hour at Peak Flow
Aminu Road (Court)	1020
Aminu Road (J. Allen)	831
Hospital Rd (St. Georgos Church)	2013
Walf Road (Limson)	90
Liverpool (John Holt)	50
Crescent Road(Buscoe)	483
Main Road(Hashims)	370
Kaduna Road (Bata)	500

Field Survey February, 1974

TYPES OF RETAIL ESTABLISHMENT AND PEDESTRIAN MOVEMENT



KEY

- △ VARIETY
- ⊙ MEDICINE
- □ TEXTILES
- X PETROL STATION
- ◊ DOMESTIC EQUIPMENT
- • BOOKSHOP
- + VEHICLE PARTS
- ◇ DEPARTMENTAL STORE
- F FOOT WEAR
- B BANK
- D DEPOT
- C FURNITURE

The peak flow was found to be between 11 a.m - 12 a.m. from the preliminary survey. The average counts taken over three days at the points in bracket are shown above. The highest movem nt of pedestrian movement is around the market area. This is an indication that the Sabon-gari market is core and focus of the commercial activities within Zaria. It provids the goods and services required by the people in the surround and is therefore intensively used.

The pedestrian - vehicular conflict within the centre is very acute especially around the markets. Vehicles, pedestrians and animals all move within the right of way. There are no pedestrian provisions such as side walk or painted crosswalk. This conflict is partly responsible for the present high accident rate around this area.

The present organisation of land use does not enhance pedestrian movement within the centre. Retail institutions which rely directly in pedestrian traffic for business are sited at too great a distance from each other and this reduces the mutual exchange of pedestrians

CHAPTER VI

SUMMARY OF FINDINGS, RECOMMENDATION AND CONCLUSION

The studies undertaken showed that Zaria historically was an important administrative and commercial centre whose influence was said to have extended as far as the Nupeland in the South and the Borno Emirate to the North. Today, it is still an important central place, though the region under its influence is much smaller. It is the provincial headquarters of the Zaria province in the North Central State and the educational centre for the six northern States. Its role as an educational centre has been the most important element responsible for its growth. The Ahmadu Bello University and a number of higher institutions and research centres are located within its boundary. The population of the town which stood at 91,000 in 1963, has risen rapidly to an extimated figure of 200,000 people for 1974. In 1904 the colonial government took over the administration of the town. In 1909 work began on the extension of the

railway from Kaduna to Zaria, and the further extension to Kano in 1911. A large number of migrants were attracted to Zaria for job opportunities because of the construction work. With the influx of popul tion, the colonial administrators decided to prepare a layout for the labour camp and a commercial area to avoid haphazard development. The layout was completed in 1914. The commercial centre was sited clo e to the railway station to facilitate loading and unloading activities within the wholesale and retail establishments. The large European firms were the first to establish in Zaria. They were mainly attracted by the advantages of using the town as a distributive centre. Zaria was located at the junction of a number of important roads leading to other parts of the Northern State and also directly linked by rail to Lagos. Goods were moved from the headquarters of the firms in Lagos, by rail to Zaria, from where they were distributed to the surrounding region.

REGIONAL CHARACTERISTICS: The area of influence of the town extend for about thirty miles radius. The most

important agricultural products within this region are guinea corn, millet, groundnut, cotton and tobacco. The last three are an important source of cash to the farmer and these goods are sold to the Marketing Board and firms located within the town centre. Zaria, thus serves as a collecting centre. Also the traders in the rural markets buy their goods from the centre. In all the markets within a radius of 10 miles over 30% of the traders come from the town. Further out, the influence of other towns like Funtua, Kano and Kaduna becomes important within the region.

LAND USE: The land-use survey conducted showed that 29.7% of the total area was under residential use and 14.5% was vacant land. The high percentage of residences is a common characteristic of the town centres of developing countries. As population grow and the centre mature, residential units within the centre will decline. The high figure for vacant land indicates the inability of the centre to attract large capital investments. A large proportion of the vacant plots have been leased out. However the developers do not consider it worth

their while to invest their capital immediately because there are no indication that there are demand for the central facilities that will be provided. The area under public uses (18.3%) in the centre is relatively large when compared with other centres in Nigeria. This is partly due to the large area presently occupied by the Nigeria Railway Corporation which acquired an extensive plot of land prior to the development of the centre. Only a small area 18.0% of the total, is devoted to transportation and parking. This is again a common characteristic of centres in developing countries. However, as car ownership increases and the population grows, there will be a need to expand the present roads and increase the parking spaces. This envisaged development must be planned for. Over 52% of the open mechanical workshops are located within the centre. These workshops have developed in response to the increasing ownership of vehicles and the demand for their maintainance. The centre offers an accessible and convenient location but the disposition of these workshops are not adequate for the centre. They are

usually poorly organised and they encroach on the roads. There is need to plan for the accommodation of these workshops within the centre.

The town centre is not adequately provided with needed utilities. Such items as an organised open space, street lighting, library and so on are comple· tely lacking. Other utilities such as drains, refus› posts, sewerage systems, when provided, are usually below standard and badly maintained. On careful examination it is notable that the commercial area which is under the control of the Township Authority is better managed than the Sabon-gari area which is under the Local Authority. This is probably due to the fact that the Local Authority lack competent personnel, equipment and funds. In any case the present provisions must be upgraded and new facilities provided.

When compared with the centre of some other Nigerian town the Zaria centre has some peculiar characteristics . The first is its planned nature. Except for some six cities that developed as the

administrative set of the colonial government, the Nigerian towns centres are not planned. Those that developed in accordance with a plan seem to be able to perform their functions more efficiently. However all the layout were prepared by Surveyors and therefore lack certain planning principles. The second, is the land value. Usually the prices of land is highest within the centre and only the highest bidders are able to locate here. The high land value naturally instigates intensive development and town centres are characterised by tall buildings. The land within the Town centre of Zaria is leased out by the government to developers for a nominal price. The incentive for intensive development is therefore lacking.

Circulation: The traffic survey conducted showed that the volume of traffic is highest on the Sokoto - Kaduna roads, passing through the centre. 51% of all the vehicles entering the centre pass through without stopping. The traffic passing through the town have to go through the centre. There are also no provision for pedestrian movement. The construction of the roads are such that

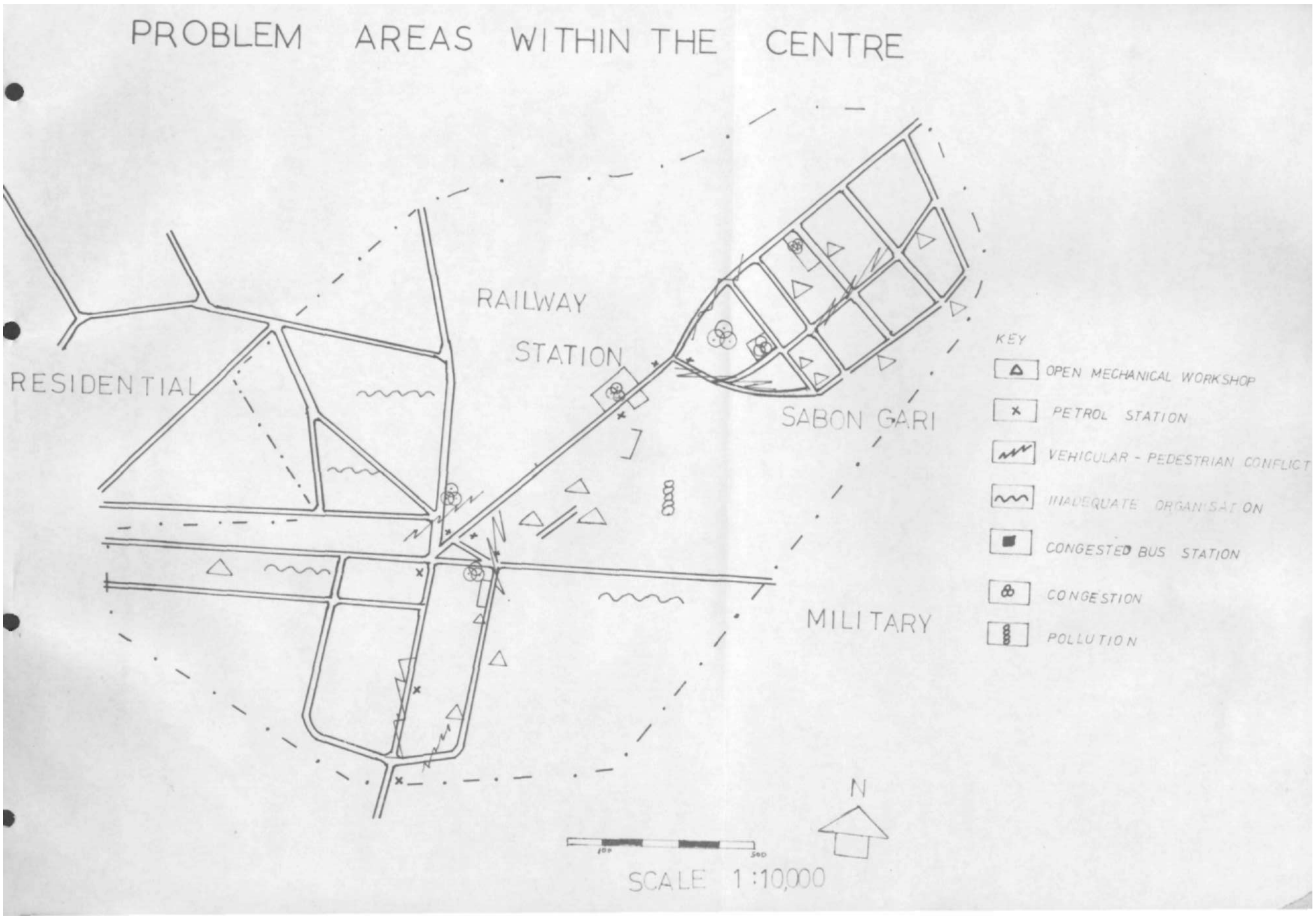
only the paved surface is developed and the pedestrians are left to find their way around it. This is quite unsatisfactory and it is responsible for the high vehicular pedestrian conflicts and some accidents. There is an acute shortage of public transportation facilities. A large area is not served by any form of public transportation and people have to walk a considerable distance to get to bus stations. The bus stations are congested and badly managed. There are no bus stops. The development of shops along the major route is also common. These shops locate along streets because they seek the patronage of pedestrians passing by. This development is common to each of the residential district in Zaria. This culster of shops along the major routes create a lot of problems. Retail activities generate a considerable amount of pedestrian movement. When the shops are located on the major road the pedestrian vehicular conflict that results is not surprising. Accidents are common on these roads and their capacity are greatly reduced. The movement of large trucks within the wholesale area contributes to the congestion within the centre. In some case the unloading of these trucks

is done on the road and this is partly responsible for the delay on the roads. The parking spaces available presently can not cater the peak demand and on street packing is common.

Commercial Activities: The main commercial activities within the centre are retailing, wholesaling and service trade. 60% of the wholesale activities are controlled by the large European firms. They stock manufactured goods produced in industries within the country as well as domestic mechanical equipment. These products included tinned food, and bottled drinks, tyres, cement, salt, refrigerators, fans and so on. The wholesales have registered agents, who are paid a fixed commission on sales. The wholesale houses are mainly concentrated along the Liverpool and Manchester road. They are provided with rail services which used to be the major transport mode. Zaria is no onger important as a major distributive post and most of the firms have moved their headquarters to Kaduna, where distribution to the different areas within the Northern States presently takes place.

The retail establishments are located along the major routes within the centre. The shops within the commercial area were formerly, mainly owned by Lenanese and Syrians businessmen who controlled 89% of these shops in 1956. Today over 56% of the retail activity in the centre is in the hands of Nigerians. There are three departmental stores, Simhani, Pashims and Chellarams. The shops within the commercial area are mainly patronized by people in the middle and high income groups. The people in the low income group prefer the market where the goods are cheaper and local products available. Presently the market is congested and poorly maintained. The investigation showed that the working capital of most of the Nigerians trader in the market is very low and there is an urgent need to examine possibilities of which will provide them with more capital.

PROBLEM AREAS WITHIN THE CENTRE



RECOMMENDATION AND IMPLEMENTATION:

I. ATTRACT INVESTMENT

The Zaria centre is presently underdeveloped. There exist large parcels of vacant land and a demand for shopping and entertainment facilities which is presently not satisfied. The poor response to investment in Zaria is probably due to the strong attracting forces of Kaduna and Kano which are developing at a rapid rate. These centres are presently performing the central functions for areas which were formerly affected directly by Zaria. There is need for the government through the Township Authority, to develop new policies to attract investors into the town centre.

This could be achieved by

(a) The provision of more utilities in the centre. The deficiency and lack of utilities in the centre is one of the factors that repels investment in the centre. Adequate provision must be made to see that the demand for infrastructure by the companies are satisfied. A detail account of how this would be accomplished is discussed later.

(b) Grant tax holiday to attract companies. The establishing establishment could be exempted from taxation for the first five years of their establishment

(c) The government could attract investors by granting loans to indigenous businessmen to form co-operative firms. Presently the working capital of most of the Nigerian traders within the centre are so low that they are unable to function efficiently. The formation of a co-operative company will enable them enjoy the economies of scale and hasten the economic growth of the centre.

(d) The State government should invest some capital in the provision of entertainment and cultural facilities within the centre. This could attract some other firms to establish because of the advantages of agglomeration.

II. IMPROVEMENT OF THE MARKET

The market is presently congested and exists in a poor state. The unhygienic state of the market constitutes a health risk and impedes the operation of trade. The colonial administrator gave too much emphasis to the

development of a shopping centre while what was really required was a big market. A large proportion of the population (67%) are in the low income group earning less than ₦400 a year. This group of people usually shop for convenience and low prices available in the market rather than the high quality goods available in the shops. Emphasis should therefore be placed on the proper development of a market. The state government should raise loans from the commercial or development banks for the reconstruction of the market. It is necessary to

(i) Expand the market - the space within the market is insufficient and there is need for its expansion.

(ii) Provision of permanent, weather - protected and fireproof stalls

(iii) Provision of access to all stalls by hand cart and trolley. Adequate pedestrian routes should be provided.

(iv) Provision of efficient water supply, surface drainage, refuse system and electricity

(v) Reconstruction of the present bus and lorry park

to facilitate loading and unloading activity.

The working capital of the traders in the market are very low and this limits their level of operation. 50.8% of the sample of traders interviewed in the market complained that shortage of capital was the main problem hindering the growth of their business. The authorities must therefore provide some credit facilities to eliminate this problems.

All the loan provided by the government could be repaid from the rates and taxes that would be collected from the stall owner on the completion of the development

The formation of co-operative societies should also be encouraged. It is worth noting that presently, most of the indigenous businessmen do not find the pooling of capital together attractive. One of the reasons for this is the inadequate accounting system presently used. It is hoped that with time the businessmnen will eventually recognise the advantages of co-operation and accept it.

III. PEDESTRIAN FACILITIES ON TRADING STREETS:

The development of retail activities along the major routes within the Nigerian town is common. A large pedestrian and vehicular movement is generated on the trading streets in Zaria but no provision whatsoever is made to eliminate the pedestrian - vehicular conflicts that results.

(i) There is need for the provision of pedestrian sidewalk on all the streets.

(ii) Painted cross walks, and barriers should be introduced on the trading street.

(iii) Adequate off street parking space should be provided to reduce the present on street parking that affects the capacity of the trading streets

IV. INTRODUCTION OF A PUBLIC TRANSPORTATION SYSTEM

Most of the streets within the residential areas are not served by public transport because of the acute shortage of buses and taxi. The public vehicles that are available ply the main routes where they are able to get a large number of passengers, so that they can maximise these profits. In fact regular public transport is only

available along three main route in Zaria all originating from the market to Samaru, Tudun Wada and City and Wusasa.

(i) It is suggested that the Township Authority with financial aid of the state government should purchase. Sufficiently number of buses to ply the major roads within the town. A programme extending for four to five years could be prepared so that the implementation of this recommendation is in stages.

(ii) A number of bus stops have to be provided. Presently the vehicles stop at any point on the road but this is not proper and the may cause delay to the other traffic

V. PROVISION OF UTILITIES

One of the major problem within the town centre is lack of utilities

(i) There is need to increase the present water supply because the demand is not met. This should not be difficult with the use of the new dam as from July this year. There are plans to raise the supply from 2½ million gallons at the present to over 4 million gallons within the year.

(ii) Construction of covered drains that can cope up with storm water

(iii) Construction of a central sewerage system for the town

(iv) Provision of telephones, postal agencies and open spaces within the centre.

(v) Provision of off-street parking facilities to increase the capacities of the roads with the centre.

(vi) There is urgent need to reorganise the present administrative system in charge of the maintainance of existing utilities. The local authority is presently in charge of the Sabon-gari residential district including the market. This authority is unable to perform its function efficiently because it lacks funds and competent personnel. The maintainance of the utilities within the town should be brought under one administration - the Township Authority in order to improve the quality of service which is available presently. This authority should be financially supported by the state government to provide social services.



Mechanical workshop on the road

VI. PROVISION FOR THE OPEN MECHANICAL WORKSHOP

The open mechanical workshop located at various points within the centre are unsatisfactory from an aesthetic point of view. These workshop should be screened by low walls and planted trees and should locate only in area within the centre where retail activity is not important. This is to eliminate the problem of a conflict between pedestrians and vehicles generated by this service.

VII. THE REORGANIZATION OF THE RETAIL AREA

The present retail distribution leaves much to be desired. The shops are scattered and this disrupts the unity required in a retail centre. It is suggested that (i) the retail shops be regrouped into a unit to ensure compactness.

VIII. CREATION OF A BYE PASS:

It was found from the traffic survey that over 57% of the traffic entering the centre, pass through it without stopping. The traffic from Samaru moving to Tudun Wada and the City as well as those from Sokoto and Kano (mainly big trailer) passing to Kaduna, complicate the traffic situation in the centre unnecessarily.



Ginnery in centre

Vehicles with no business in the centre should be diverted through the use of a bye pass. To this end a bye pass from the present Vehicle Inspection Office to join the Kaduna road at Wusasa is recommended to carry the heavy trucks from Kano and Sokoto to Kaduna. This will relieve the roads within the centre the unnecessary congestion that one presently witness.

IX. Presently, traffic is delayed at the level crossing within the centre (just beyond Barclay's Bank) because of the movement of the train. A bridge at the level crossing will eliminate this delay.

X. The ginnery which is presently located within the centre should be moved to the industrial area. The ginnery is a pollutant and it occupies too large a space.

IMPLEMENTATION

The implementation of the recommendations made should be administered at two levels - by the State Government and the Township Authority. The State government will have to be responsible for the construction and installation of necessary facilities because the capital and manpower involved in the implementation are too large

for the Township Authority to handle. The township authority, which will be involved in the implementation programme will be the sole body responsible for the maintanance of the completed developments. It is suggested that the present public administrative system within Zaria be reshuffled. All physical planning activities and the maintainance of public utilities should be the responsibility of the Township Authority only. The present multiplicity in the maintainance of public utilities and facilities is wasteful and inefficient.

The implementation could be phased out for a period of four years, preferably to coincide with the States development plan. If the scheme is accepted by the state government, it will provide fund every year, under it budget for the implementation of the recommendation. The Ministry of Works at Kaduna will award contracts to the firms to construct or install the necessary facility. The Township Authority, especially its planning unit will be actively involved when decisions as to which development should be tackled next

are made. On completion of the construction aspect, the Township Authority will take over the administration and maintainance of the facilities.

CONCLUSION

In the preceeding chapters, various deficiencies that hamper the centre from operating efficiently have been outlined. The main problem seems to be the inability of the public authorities to provide essential utilities and services needed by the population. This is due partly to poor financial position of the public authority and the lack of competent personnel. There is also the decline in investment by the large private investors, which in effect means that some of the demand of the populace is left unsatisfied. These suggests that the centre needs public and private investment to developed. The recommendations made hopefully, could improve the present situation and provide an adequate basis for future development.

The population and the demand for various services within the centre is growing. This is partly due to the establishment of new educational institutions and the

rapid expansion within the existing ones. It is therefore envisaged that in the next few years the centre will expand considerable and if efforts are made to promote proper development, it will be able to perform its functions efficiently and satisfactorily. To this end, the need for the preparation of a development plan and a competent administrative body to implement it cannot be over emphasised. This will ensure an orderly and co-ordinated growth and a more attractive centre.

APPENDIX

QUESTIONNAIRE PREPARED TO EXAMINE THE ECONOMIC FUNCTION OF ZARIA TOWN CENTRE.

1. Type of Establishment.

( ) Retail ( ) Wholesale ( ) Auto workshop

( ) Services ( ) Financial ( ) Others

2. Type of Commodity sold.

( ) General Provision ( ) Mechanical Equipments ( ) Household Goods

( ) Clothing ( ) Medicine ( ) Services

( ) Others

3. From whom are the goods bought/supplied.

( ) Wholesale Houses ( ) From Agents in other parts of the Country

( ) From Overseas ( ) Others

4. To whom are the goods sold.

( ) Agents ( ) Individual Customers ( ) Others

5. Are the goods delivered by road or rail.

6. What is the average time taken for the goods you ordered to get delivered.....

7. How large is your Store.....

8. Do you have registered Customers or Agents.....

9. Do you keep accounts.....

10. How much goods do you purchase in a month. ₦.....

11. How much goods do you sell in a month.. ₦.....

12. Do you save in the Bank. ( ) Personal Account ( ) Company Account

13. Do you enjoy their credit facilities.....

14. Do you offer your customers credit facilities.....

15. How do you get repayment.....Interest charged.....

16. Is the establishment individually owned/joint ownership/ Limited liability Company.

.....

17. What is the nationality of the Proprietors.

.....

18. To what ethnic group do you belong.

.....

19. How long have you been in this business.

.....

20. Was there any change in ownership.....

21. Any change in address.....

22. If so, what was the former one.....

23. How many people are employed in your establishment.

( ) Full time ( ) Part time

24. How many of your members of staff earns

( ) Less than ₦600 ( ) Less than ₦1200

( ) More than ₦1200

25. How many are ( ) Male ( ) Female

26. What is the size of the structure within which your establishment if contained.

( ) in squ. ft.

27. What type of building material is used. ( ) Concrete

( ) Aluminium Sheet ( ) Others

28. Is the shop accessible. ( ) Pedestrian ( ) Vehicular

29. Any parking problem.....

30. Any other general problem.....

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4/3/74.

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