STUDY OF EXISTING TRADITIONAL MARKETS IN ZARIA URBAN AREA (A Proposal for their integration with the proposed hierarchy of shopping Centres)

M.Sc. (U.R.P.) Thesis

Chinyere Faith Arinze
B.Sc. (Hons) Geography

Department of Urban & Regional Planning,
Faculty of Environmental Design
Ahmadu Bello University
Z a r i a.

June, 1976.

D_E_D_I_C_A_T_I_O_N

THIS WORK IS DEDICATED TO

" M U M "

ACKNOWLEDGEMENT

I am specially indebted to many people who have contributed directly and indirectly to the preparation and success of this thesis. Firstly to my Head of Department Professor S. Juchnowicz and to all the Academic Staff of the Department of Urban and Regional Planning Ahmadu Bello University, Zaria for the useful suggestions made.

I should like to express my appreciation to my supervisor Mr. Satish Kulshreshtha for the guidance given to me throughout, for the patience he had to go through the manuscript and for his useful suggestions and constructive criticisms.

I also thank Mr. Tom Girhring especially for the information I gathered from his surveys and for the help offered in programming the data collected.

I am very grateful to many people outside the Department who offered a great deal of help one way or the other to see that this study was a success especially Dr. J. A. Gana of the Department of Geography, Mr. Eades of Sociology Department, Mr. Raslaff of the Computer Centre, all the ladies at the key punch room, the Administrative Secretary, Zaria City, the Iyangari Sabon Gari and all the market masters in the four traditional markets. I am also grateful to William Obadofin and Christopher M. Shaibu.

Special thanks also go to my typist Mr. C. E. Ekke.

I am indeed very grateful to my mother Mrs. I. C. Arinze and my sister Mrs. Joy Ubahakwe for the financial help and moral support

given to me. I also thank my younger sisters Ukamaka and Nkiru for their continued interest and the moral encouragement given.

Finally I should like to express my deep appreciation to Ndi for the support given.

Department of Urban and Regional Planning,
Faculty of Environmental Design
Ahmadu Bello University, Zaria.

CERTIFICATE

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

APPROVED

PROFESSOR S. JUCHNOWICZ
HEAD OF THE DEPARTMENT.

DEPARTMENT OF PLANNING
FACULTY OF ENVIRONMENTAL DESIGN
AHMADU BELLO UNIVERSITY
ZARIA NIGERIA

ZARIA,
JUNE, 1976.

TABLE OF CONTENTS

	PAGE
ACKNOWLEDGEMENT	i
LIST OF PLATES	ii
LIST OF TABLES	iii
LIST OF FIGURES	iv
CHAPTER I	
Synopsis	1
Introduction	
Identification of Study Area	
Aims and Objectives	
Survey and Methodology	
CHAPTER II	
Theoretical Framework	13
Review of Past Literature	
Definition of Terms	
CHAPTER III	
Zaria and its Environs	30
Brief Historic Background	
Physical Layout of Zaria	
Socio Cultural Characteristics	
Educational Characteristics	
Transportation System	
Economic Base	
Population Distribution	
CHAPTER IV	
Characteristics of Existing Traditional Markets	44
Location	
Social Characteristics of Traders	
Physical Conditions	
Design Characteristics	
Commercial Characteristics	
Existing Planning Principles and Standards	
CHAPTER V	
Location	83
Physical Condition	
Design Characteristics	
Commercial Characteristics	
Consumer Behaviour	
Existing Planning Principles and Standards	

PAGE

CHAPTER VI
Analysis and Synthesis of Findings 101
Summary of Findings
Relationship between Existing Traditional
Markets and Shopping Centres
Identification of Hierarchies
Identification of Planning Principles
Identification of Planning Standards
Conclusion

CHAPTER VII

Recommendations 115
Proposed Hierarchy of Shopping Centres
Recommended Planning Principles and Standards

CHAPTER VIII

Conceptual Design for A Hypothetical Site 131
Choice of Type Design
Schedule of Area
Design Concept
Site Layout
Proposal for Implementation

CHAPTER IX 147

C O N C L U S I O N

A P P E N D I C E S 148

LIST OF PHOTOGRAPHS

4.01 Open Spaces Converted to Commercial Space.

4.02 Makeshift Stalls

4.03 Example of ramshackle Stalls

4.04 Lock Up Stalls

4.05 A "Kanta".

LIST OF TABLES

Figures		Page
4.01	Location zone of Traders	
4.02	Social Characteristics of Traders	
4.03	Stall Type	
4.04	Stall/Door Type	
4.05	Stall/Type of Wall	
4.06	Commercial Characteristics of Traders	
4.07	No. of Traders by Commodities Sold	
4.08		
4.09		
4.10	Derivation of Existing Hierarchy	
4.11	Consumer Purchases	
4.12	Location of Consumers	
4.13	Stall Commodity Relationship	
5.01	Structural Classification of Shops	
5.02	Service Activities in Zaria	
5.03	Consumer Purchases	
6.01	Hierarchy of Commercial Centres	
7.01	Proposed hierarchy of Shopping Centres	
7.02	Standards for Stall Allocation	
7.03	Standards for land allocation	
7.04	Recommended Planning Principles and Standards.	

ILLUSTRATIONS

Figures		Page
1.01	Map of Nigeria	
1.02	Map of Zaria	
2.01	The Market	
2.02	The Shopping Precinct	
2.03	The Shopping Precinct	
2.04	The Shopping Precinct	
2.05	The Shopping Precinct	
4.01	Location of Markets	
5.01	Location of Shopping Area	
5.02	Service Activities	
5.03	Retail Activities	
5.04	Consumer Behaviour in Zaria City	
5.05	Consumer Behaviour in Tudun Wada	
5.06	Consumer Behaviour in Sabon Gari	
5.07	Consumer Behaviour in S a m a r u	
6.01	Development of Hierarchy	
8.01	Conceptual Design	
8.02	Conceptual Design	
8.03	Conceptual Design	
8.04	Conceptual Design	

CHAPTER ONE

SYNOPSIS

a) INTRODUCTION

This study elucidates the major organizing principles behind the location of traditional markets and more westernized shopping centres in Zaria Urban Area.

In developing economies like Hausa-land (Zaria), development of intra urban trade relations is epitomized in the net-work of market places which function as physical loci for the exchange of commodities.

The market place therefore is the most important trading institution in developing countries. Bearing this in mind the urge to undertake this research stems from the idea that:

1. markets play a vital role in the economic and social life of the people;
2. they are essential links in the chain of commodity distribution;
3. they strengthen the economic base of a town;
4. traditional markets as major commercial and business institutions have given a large measure of social security and economic opportunity to traders;

5. more westernized commercial activities tend to locate around traditional markets;

6. lastly the inadequacy of site area for the markets has resulted in not only extreme congestion but also encroachment on public roads and open spaces.

Recently in developing countries like Nigeria, situations of social and economic dualism exist because it has been discovered that traditional markets are chiefly used by the lower income classes while large shops which locate around the market cater chiefly for the needs of the upper income class consumers. Therefore it is characteristic of Urban Centres e.g. Zaria to have several such traditional markets and shops growing together at different parts of the town. The ineffective mechanisms or weak organizing principles of these commercial centres in a town tend to produce weakly connected arrangement of supply points and consumption units which could represent major constraints in economic development.

The rationale for this postulate stems from the fact that various economic activities are invariably seperated in space and consequently a certain proportion of a societies

resources is inevitably dissipated in overcoming spatial friction. Secondly is mans locational behaviour which varies from settlement to settlement. In Zaria Urban Area locational habits have shown a cluster pattern around four main zones.

There is therefore a need for spatial and hierarchical clustering of commercial activities to serve the Zaria Urban Area Community more effectively than the present system.

The identification of these principles and the analysis of related spatial arrangement of traditional markets and commercial centres in Zaria.Urban Area constitutes the core of the present study. This study therefore is mainly intra-urban since it is limited to Zaria Urban Area.

The study is divided into Nine Chapters and each chapter has sub headings and sub-sub headings.

The first Chapter identifies the study area, talks about the aims and objectives, scope of study and and limitations, and the survey and methodology used.

The Second Chapter is a review of past literature related to the thesis topic and it also defines the terms used in the study.

The Third Chapter is a brief historical background of Zaria Urban Area.

The Fourth Chapter examines the characteristics of existing traditional markets in Zaria Urban Area in terms of their location, physical condition, design characteristics, commercial characteristics and existing standards.

The Fifth Chapter like the fourth examines the characteristics of the four main shopping areas in Zaria.

The Sixth Chapter analysizes and synthesizes the findings from Chapters four and five. It identifies the relationships between traditional markets and shops considering many factors, identifies hierarchies of commercial establishments and shopping centres, Identifies planning principles and standards and makes a conclusion of the findings.

Chapter Seven makes recommendation in terms of future shopping area requirements, commercial and service requirements for shopping areas, recommends the number of centres and hierarchy of shopping centres for Zaria Urban Area in the next fifteen years and recommends some planning principles and standards.

The eighth Chapter is a conceptual design of a shopping centre at the District Centre level demonstrating my idea of integration. It discusses the design concept and makes proposals for implementation.

The nineth Chapter concludes the whole work on the thesis.

b) Identification of Study Area:

The area chosen for this study focuses on the present day human settlement of Zaria Urban Area.

The area is formed by four fairly distinct urban quarters namely: Zaria City, Tudun Wada - Wusasa, Sabon Gari - Zaria Township, and Samaru - University Complex.

Zaria Urban Area occupies a North Central position in the interior of Nigeria.

The historic City of Zaria until the recent growth of Kaduna dominated the area now known as North-Central State for many years. Zaria Urban Area also occupies a nodal location in the Sub-regional network of transport routes in Kaduna State making it accessible to all district market towns. In the National Context it is connected to the rest southern states by roads and railway lines. Its nodal position in the national

transportation system has also attracted, commercial, administrative, educational and religious institutions especially prior to the growth of Kaduna.

Approaching Zaria Urban Area from the South the first part is the original Birni (Walled City) referred to in this thesis as Zaria City. It retains much of its physical characteristics that matured during its evolution.

It is a complex maze of mud-walled compounds tightly arranged into groupings which are seperated by narrow foot paths and open drainage canals. A single major street cuts through the whole of it from its Northern Gate to its Southern Gate. It leads to the market, the Emirs Palace and the adjacent friday Mosque which are the focal points of Zaria City.

The second area is Tudun Wada which is situated immediately North of Zaria City it was the original settlement of non-Zaria natives of former Northern Nigeria although today quite a number of non-Northerners and expatriates live there.

The third district is Sabon Gari. It is a larger and more modern strangers quarters and was a direct result of colonial policy makers. This district has become the

main commercial and entertainment centre for Zaria containing the large commercial firms, Lebanese Shops and the largest of the four traditional markets.

To the north of Sabon Gari lies the distinctly seperated Government Reservation Area.

The fourth district Samaru, was once a rural Village and is typical of the unplanned boom town which accompanies the rapid expansion of a major employment centre.

These four districts, Zaria City, Tudun Wada, Sabon Gari and Samaru each has a traditional market and a shopping zone or area.

c) Aims and Objectives

1. To study the existing traditional markets and commercial areas within Zaria Urban Area with a view to identify the existing system and hierarchy of commercial centres.
2. To study the characteristics of existing traditional markets and commercial areas with a view to identify the planning principles and standards developed through ages of practice.
3. To propose a hierarchy of shopping centres and

suggest a system of integrating the existing traditional markets with the proposed hierarchy of shopping centres.

4. To make a conceptual design of a district shopping centre taking into account the planning principles and standards identified and those to be proposed.

5. To add to the information needed for commercial area planning in the eventual preparation of a master plan for Zaria.

6. Finally if the above aims and objectives materialize they will help in the creation of a pleasant and quality environment that will help commercial activities establish in a properly laidout and planned sites instead of being established naphazardly in almost every residential apartment as is the case presently.

d) Scope of Study and Limitations

The study is mainly an intra-urban study of the four main traditional markets in Zaria Urban Area and the adjoining shopping areas.

The study of these four traditional markets, Zaria City, Tudun Wada, Sabon Gari and Samaru covered such areas as their locations, physical conditions, design characteristics mode of transport, goods sold and

problems encountered by the traders.

The second major part of the study was a comprehensive study of the adjoining shopping areas to the markets. This study of the shopping area covered a formal interview with the entrepremuers in terms of the nature of their business, space occupied, number of customer visiting them and the business contacts they make.

The third study was a consumer survey to know which centre they visited more frequently.

The three studies were aimed at comprehensive analysis of locational, physical and commercial characteristics of markets and shopping areas to determine how far the existing ones have satisfied the shopping requirements of the Zaria Urban Area population.

Apart from the above the study also tries to identify all places of reasonable trading activities in Zaria Urban Area.

The population is projected to fifteen years and this is to help in determining the number and hierarchy of shopping centres that will exist in Zaria Urban area. in the next fiften years.

Because of the difficulties encountered during the

survey due to the limited level of understanding of the general public, of the usefulness of the study, the study, does not offer information on amount accrued in each centre. Therefore it does not use the standard method of percentage sales in calculating the area and number of shops. Instead I have found out the average population served by each shop in the traditional market since the figure can be worked out and applied it with some caution and modifications.

This study was limited to the resident population of Zaria Urban Area. The final outcome of the study is to provide basis standard requirements for planned shopping centres as part of large commercial centres.

c) Survey and Methodology:

For the collection of data needed for the purposes of this study the methods adopted were:

1. Use of questionnaire for social survey;
2. observations;
3. information from Ministry of Trade and Industry and the Administrative Offices governing Zaria Urban Area.

Three social surveys were conducted. One survey was conducted for the traders in the four traditional

markets. The sample population was chosen by quota sampling. 100 respondents were interviewed in each of these three markets, Zaria City, Tudun Wada and Samaru while 600 respondents were interviewed in Sabon Gari market.

Right in the market choice of traders was by stratified random sampling. This helped to cover all the activities in the markets.

The two other social surveys were conducted by Mr. Tom Girbring of the Department of Urban and Regional Planning for the benefit of the Zaria study which is presently on in that Department. One of the surveys was an entrepremuer survey for the whole of Zaria covering a wide range of goods and services the method of choosing the sample population was quota sampling and the respondents were randomly chosen. A population of 1118 respondents were interviewed.

The third survey for this study also by Mr. Tom Girbring was an individual travel behaviour with each individual representing a household. The useful part of the study was travel related to shopping. A total of 1365 households were interviewed throughout Zaria.

Observation method was used in locating other

types of commercial activities in Zaria Urban Area.

A 100% information was given in Sabon Gari and Zaria City district offices on

a) number of traders;

b) type of stalls;

c) commodities sold; and

d) sex of traders.

Information on consumer purchase to the traditional markets and shopping areas came from Federal Office of Statistics, Kaduna.

For easy identification of areas Zaria was divided into four main zones initially and then thirty zones in the surveys on individual travel behaviour and Entreprenuer contact diary.

Problems:

An experimental survey conducted to help determine the monetary turnover in each centre was a complete failure. The reason is because the entreprenuers grew suspicious of the whole idea. For the analysis of the information gathered on the field the Computer was used and programmes were written in zasp language.

CHAPTER TWO

THEORETICAL FRAMEWORK

a) Review of Past Literature

Traditional West African Markets have not been studied widely. Most literature available on this topic are mostly by Geographers, Economists, Sociologists and Historians. Physical Planners have done very little in contributing to any literature helpful for the purpose of planning traditional markets. The result of the above is that studies on traditional West African Markets have left out the physical design aspect of it.

The review of available literature on markets and shopping areas is broken up into three parts. The first part reviews literature which surround the Historic, Social, Economic and Geographical characteristics of traditional markets, the second part reviews literature on consumer behaviour and thirdly is a review of modern conceptual designs of shopping centres.

The most widely read and quoted literature is that of "Hodder and Ukwu" in their book "Markets in West Africa".

They have defined traditional market as, "an authorized public concourse of buyers and sellers of

commodities meeting at a place, more or less strictly limited or defined at an appointed time." This definition has been used very widely by most Authors who have written on this topic.

They went further to say that in the above definition markets are strictly that of an institutionalized activity occuring at a definite place and involving the meeting of traders there at a particular time. This definition, therefore, excludes those innumerable small places of ad hoc trading involving a handful of women meeting at street corners in front of compounds or building sites.

Most important still this excludes the theoretical concept of markets as for instance the whole of any region in which buyers and sellers are in such free intercourse with one another that prices of some goods tend to equality easily and quickly. They further mentioned that traditional markets are purely not merely economic institutions but are associated with several non-economic aspects of the peoples culture. Such non-economic functions are religious, social, cultural and political.

Bromley writing on markets says that the market

place is the most important trading institution in developing countries, but regrets that little study has been done on this particularly as concerns internal trade.

He further said that "in studying the developing countries Geographers and Economists traditionally paid a great deal of attention to agriculture and industrial production. With the exception of international trade, they have until recently given little attention to the marketing of the goods produced.

He recognized that in most of Africa, Asia and Latin America, a much larger volume and variety of goods is handled in internal trade than international trade, thus internal trading deserves as much attention.

He also observed that as a city grows and becomes more complex and sophisticated, the traditional market experiences a relative decline within the face of economic competition from shops which are permanent establishments. He mentioned also that the permanent shop has several marked advantages of the market. It offers the proprietor greater security, better facility for storing and displaying goods and greater advantage to sell goods of high value and quality. Normally the

Customer receives extra comfort and better service.

C. Y. Yang in his description of markets in Northern China discovered what Bromleg said above and says further that shops require relatively high capital investment and have high running costs. He and Bromleg conclude therefore that in general the shop represents quality and service while the market offers cheapness and that the market also affords one an opportunity to bargain. I have found Bromley's and C. K. Yangs studies very relevant to this thesis since they have studied both markets and shops. Other authors have treated them in isolation.

There is a general acceptance of Hodders classification of traditional markets in terms of their occurence, and he has deduced the terms, periodic and daily markets,

Polly Hill and R. H. T. Smith writing on, "Spatial and Temporal Synchronization of periodic markets in the four emirates of Northern Nigeria noticed that the frequency of occurence of these traditional markets varies widely throughout Africa. So that meetings occur every nth day where n is rarely greater than eight.

T. H. Eighamy in his article on "Rural periodic markets

and the extension of the urban system" observed that rural markets usually operate on a periodic regime but that urban markets operate on a daily regime because of increased demand and the inclusion of more westernized central place functions in the urban markets.

He went on to say that an increase in the central plade functions of markets is a material manifestation of rising expectation and a greater diffusion of information which are so characteristic of developing areas today.

Now to consider literature on consumer behaviour it will be seen that a lot of such studies have been conducted for U.S.A. and Western European Countries. Nevertheless the salient aspects of consumer behaviour do not differ so much from African or to be more precise Nigerian situations.

Writers on consumer behaviour have taken into account christallers central place theory and much of the findings hover around the assumptions of the theory. Christaller advanced the idea that there were two limits to the market sizeSan upper limit beyond which the consumer would not travel for the good and a lower limit below which there would be insufficient consumers

to support the function. From this emerge the words Range of a good and threshold population that is the minimum expected to support a function. He also deduced from this theory that hierarchy of centres and functions exist. He used the words lower order and higher order hierarchies. He says that at any level of hierarchy such a centre will offer all the functions in all centres lower than it in the order of hierarchies plus its own specialized functions, From this one will deduce that the highest order hierarchy offers all the functions in such an area while the functions of the lowest order hierarchy will be performed at every hierarchical level.

Dr. J. A. Gana, in his thesis on "market centres in Zaria Division Nigeria" discovered that a hierarchy of markets exist ranging from rural to urban centres. From his Chapter on the behavi ur of the urban consumer, he discovered that in Zaria Urban Area, Consumers purchases were higher in Sabon Gari market than in the other three markets thereby placing Sabon Gari market as a central city market.

His results revealed that whereas consumers travelled only short distances for frequently demanded goods and

services such as meat and green grocery longer journeys were made to purchase less frequently demanded goods. The significant point is the general tendency to visit nearest centres more frequently.

W. A. V. Clark notes that "it is necessary to understand the relationship between households and central places because it is the consumer who supports the central places. He adds that we may then treat shopping centres as central places because central place theory can be employed in physical planning to determine the spatial structure of shopping centres within a city in terms of their hierarchy, functions performed and minimum threshold population to support the function.

B. I. L. Berry observed a hierarchy of Business Centres within a city and says that the hierarchy results because different commerdial functions have different demand levels. Consumers spend differing proportions of their income on different goods and services and purchase them with different degrees of frequency. He says that functions with low threshold have high frequency e.g. convenience goods and goods with high threshold have low frequency of purchase e.g. furniture.

Goods with high threshold are found in few specialized centres while goods with low threshold are found widely in geographic space.

Studies by physical designers have ended up with suggestions on the pattern and concept behind the design of shopping centres.

Frederick Gibberd in "Town Design" says that the "Success of a shopping centre depends a great deal on the whim of the shopper and that no planning can take place without a thorough investigation into his shopping habits. Whether he travels by foot, bus or private car whether he prefers to telephone for ~~few~~ branded goods or bargains over the counter.

He says that the only way to approach this problem is to start with goods which he classified into three broad categories depending on the frequency of purchase namely:

i. Convenience goods
ii. Demand goods
iii. Impulse goods.

He says that these various categories of goods are sold through four main forms of shopping groups:

i. the Market

ii. the Shopping Street

iii. the Department Store

iv. the Precinct.

In Nigeria they are sold through the first three categories but in this order,

i. the Market

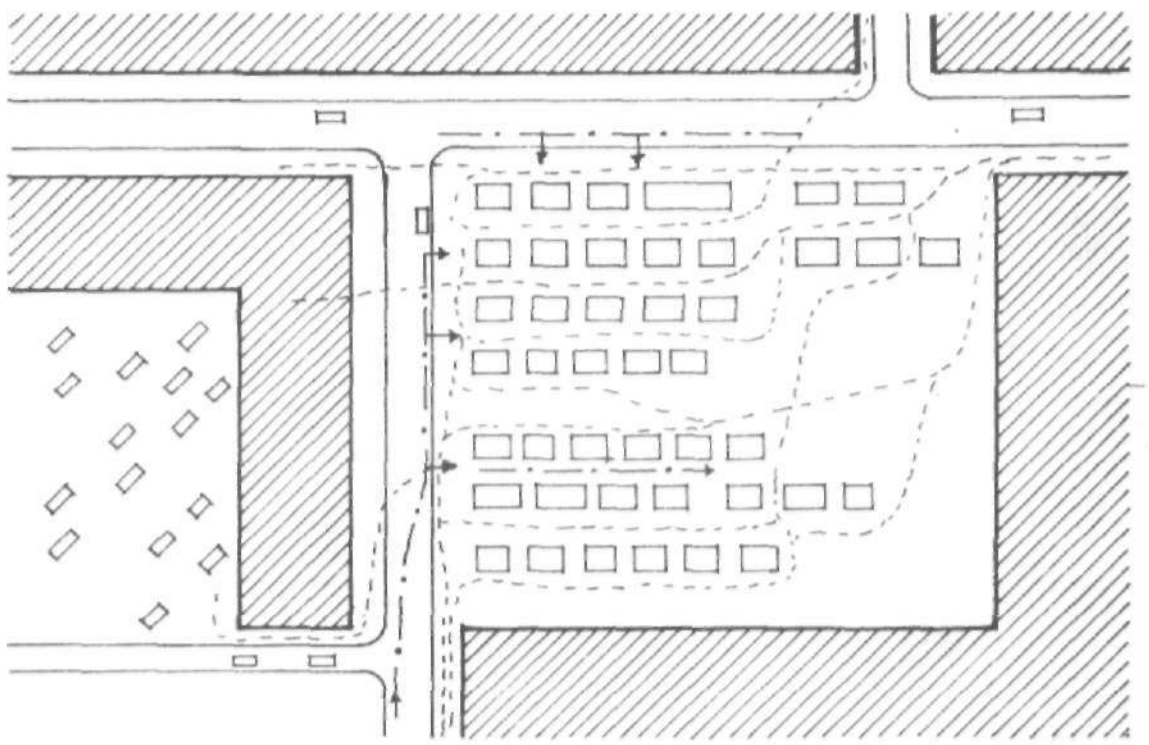
ii. the Shopping Street

iii. the Department Store.

Gibberd defines the market as the oldest form of shopping centre. Consists of a series of stalls or booths ranged in rows in an open or sometimes a covered space around which the public can circulate goods are mostly convenience goods and they are arranged in stalls or even on the ground which performs the functions of the display window.

There is no seperation between the shopper and the merchandize so that the former fingers the goods. Sometimes without purchasing and can bargain about the price. The market is characterized by a lively jostling crowd of people. Usual arrangement of stalls is to place them end on in parallel rows.

Fig. 2.01



CONCEPTUAL SKETCH

THE MARKET

Shops

Cars

Market stalls

Service routes

Pedestrian circulation

Source: Town Design, by F. Gibberd

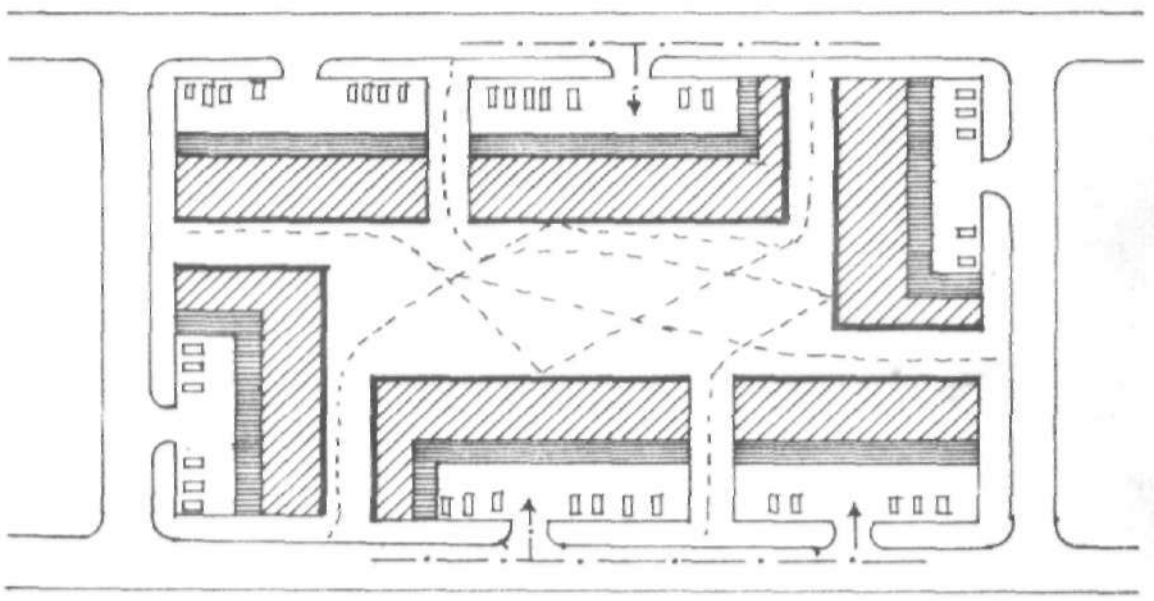
Although circulation is in theory a lineal one, frequent spaces are arranged between the rows so that the shopper can out across from row to row thereby setting up a gyfatory movement.

The shopping activity is essentially a pedestrain one and the only times when vehicles appear on the scene are before the market opens and the stalls and their display are set up, and when it is over and they are dismantled. It is important to note that Gibberd is discussing European situations where stalls are not permanent but in Nigeria they are permanent structures. Ref. Fig. 2.01

The shopping street fig. developed through the market stalls becoming more permanent structures consists of a street bounded on both sides by shops which have show windows and entrance doors at the back edge of the pavement and storage space and goods access at the rear facing a service way or road.

The shopping precinct (refer figs 2.02, 2.03, 2.04 and 2.05) developed from the removal of the motor car altogether. It has three broads Allegs, shopping streets, which are closed to wheeled vehicle and precincts.

Fig. 2.02



CONCEPTUAL SKETCH

THE SHOPPING PRECINCT

Shops

Service area

Cars

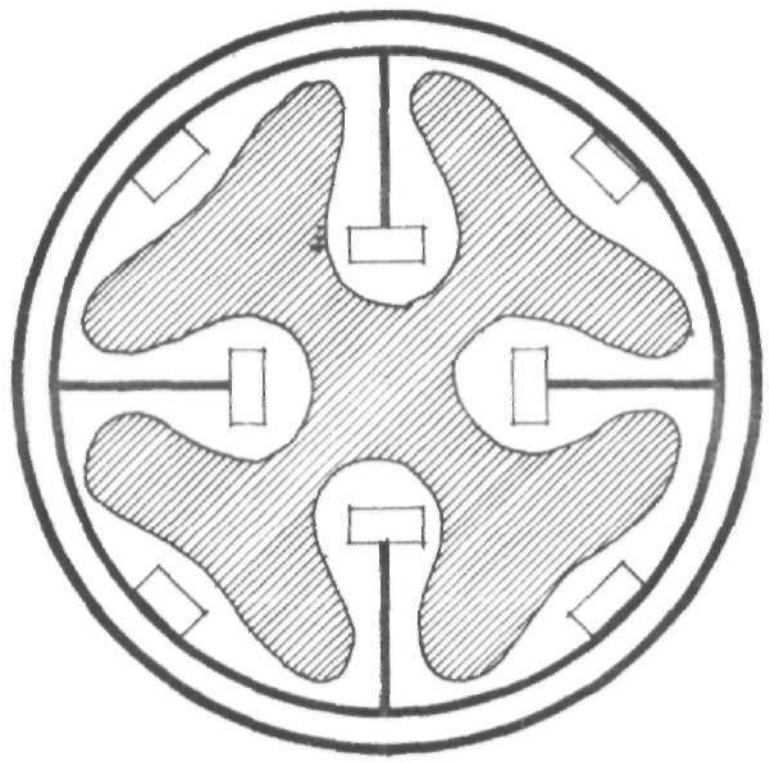
Display window

Service route

Pedestrian circulation

Source: Town Design, by F. Gibberd

Fig . 2 .03

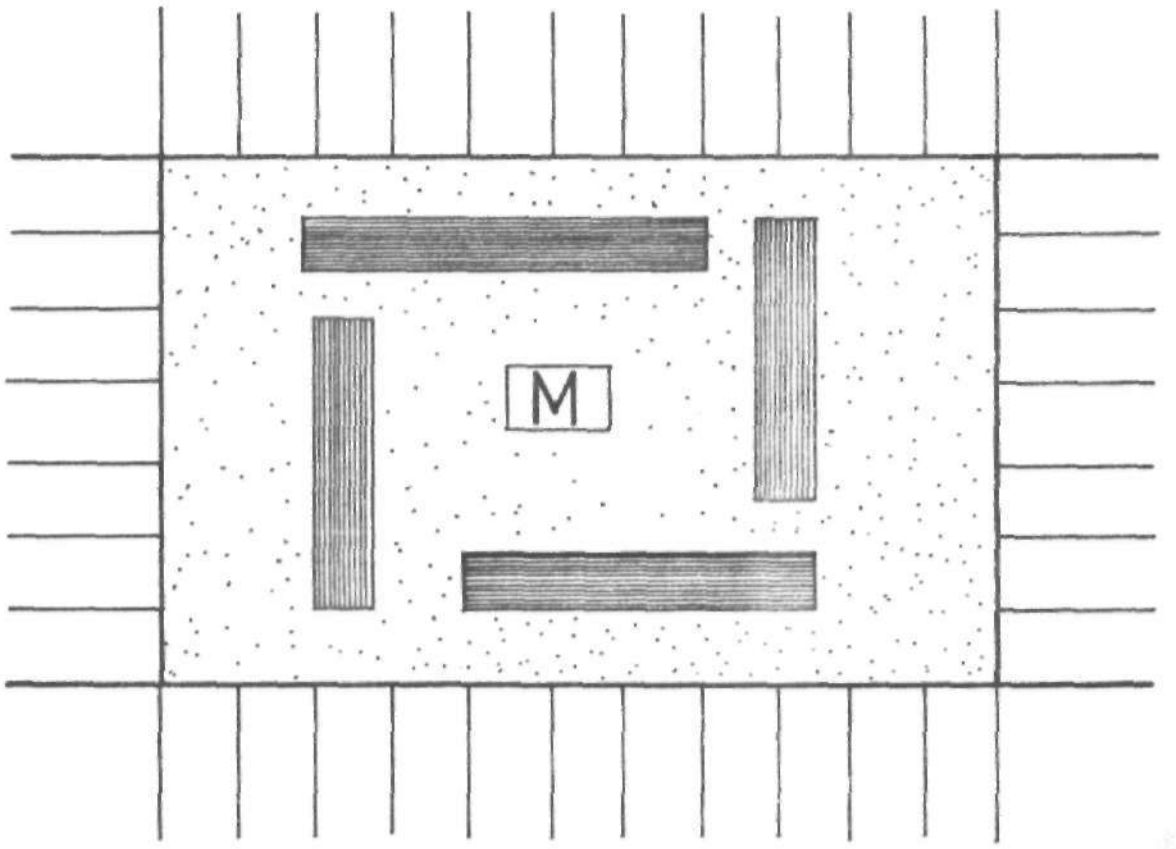


CONCEPTUAL SKETCH.

An inner ring road with roads running inwards and terminating at inner cul - de - sac .

Source : Lewis Kebble.

Fig. 2·04



CONCEPTUAL SKETCH: Source: Shopping Towns U.S.A. by Victor Gruen & Larry Smith.

CLUSTER MALL: Centrally located magnet. Main Tenant is exposed to shopping traffic only.

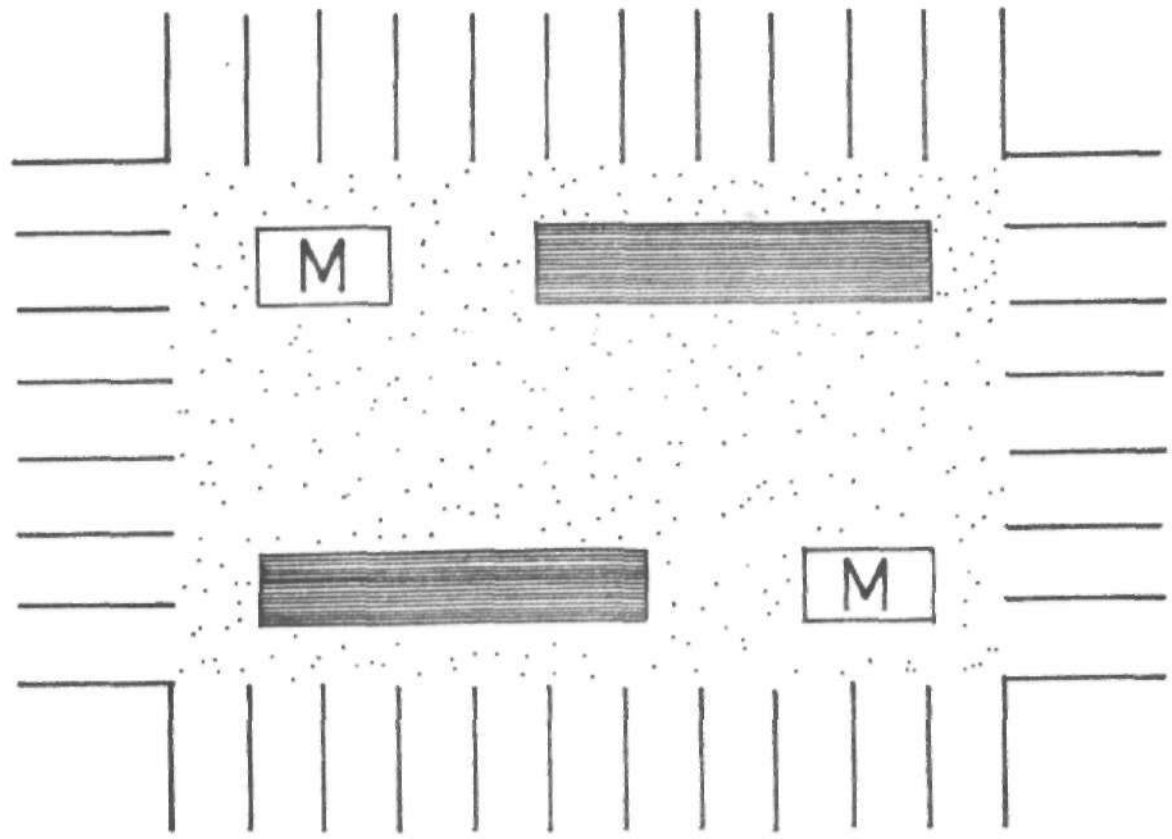
Car parks.

M Magnet.

Rows of shops.

Pedestrian mall.

Fig. 2.05



CONCEPTUAL SKETCH :

Car parks

M Magnet

Rows of shops

Pedestrian mall

Source: Shopping Towns U.S.A, by Victor Gruen and Larry Smith.

It will in time supersede the shopping street.

R. L. Davies writing also on the precinct says that roads for both private and service vehicles are on the periphery of the precinct and service bays are provided to the shops. Numerous short cuts are made between the buildings to connect the car parks to the shopping parades and they are generally designed as display windows to make the approach as attractive as possible.

A study undertaken by the Distributive trades E DC recommends the precinct development and says that the idea is inherently more attractive to shoppers than the usual extended High Street. They recommended the siting of access from car parks at the disposition of magnets (e.g. department stores) and says that the mall would be narrowed to encourage impulse shopping. In "shopping Towns, U.S.A." Victor Gruen and Larry Smith recommended as part of design concept the precinct and suggests

a - malls, courts lanes, plazas

b - covered pedestrian areas such as public corridors.

They have considered the shopping traffic in deriving this model and described them as walking from stall to

stall comparing prices.

The Department Store which Gibberd likened to several different kinds of shops under one roof has characteristics of both the market and the shopping street. Different stores may specialize in different types of goods and their merchandize may be aimed at different sections of the Community. The goods are displayed in show windows facing the street as in a shopping street but in addition to this there is an internal display which may be likened to the market stall.

Today in the design of precincts Department Stores have also been incorporated.

Gillian M. Pain in "planning and the shopkeeper" recognizes the different categories of shopping and the hierarchy of centres, ranging from convenience shops to Regional Shopping centres.

Gillian Pain further viewed the problem of planning and design in towns as one of matching accessibility against environmental standards within the financial capabilities of a society. This she said has influenced planning and design concepts. She also talks of the precinct. She says that the precinct forms the basis of designs planned to create horizontal segregation of

vehicles and pedestrains. Lewis Kebble in his book also discusses the precinct and sets out two main layout types which could achieve pedestrainization of the shopping area using the inner ring roads. Ref. fig.2.04 & 2.05. Standards offered by Vagale, for the Western State, Joseph Dechiara and Lee Koppelman in Design criteria were also studied.

b) Definition of terms used

MARKETS:

Market has been defined by Hodder and Ukwu as "an authorized Public Concourse of buyers and sellers of commodities meeting at a particular place more or less strictly defined at an appointed time. I accept this definition in general and for the scope of this study "markets are those authorized public sites where transactions in goods and services take place in an organized manner at a particular site recognized by the governing local body".

SHOPPING STREETS AND SPOTS

"They are unplanned competition featuring convenience and shopping goods developed on major arteries around traditional market zones and residential areas. Stores

are widely spaced over length of artery and in residential buildings".

SHOPPING CENTRE:

I have defined this as " a group of commercial establishments, planned, developed owned and managed as a unit. With off street parking provided on the property (in direct ratio to the building area) and related in size and type of shops to the trade area that the unit serves".

This definition theoritically defines what the idea of integration is all about.

References

a) Hodder and Ukwu: "Markets in West Africa."

b) Bromley J. "Markets in developing Countries."
A Review Geography Vol.56 1971

c) Polly Hill and R.H.T.Smith: "Spatial and Temporal Synchronization of periodic Markets. Evidence of four emirates in Northern Nigeria."
Economic Geography Vol.48 1972.

d) Eighamy T.H. "Rural Periodic Markets and Extension of the Urban System. A Western Nigerian Approach."
Economic Geography Vol.48 1972.

e) Gana J.A. Market Centres in Zaria Division Nigeria. An analysis of their evolution and locational structure. P.HD Thesis. University of Aberdeen November, 1973.

f) Clark W.A.V.: "Consumer travel patterns and the concept of range"
Animals of Association of American Geographers Vol. 58 1968.

g) Berry B.J.L.: "Market Centres and Retail Distribution."
Prentice Hall, Englewood Cliffs New Jersey 1967.

h) Berry, Barnum and Tennant: "Retail location and Consumer behaviour."
Papers and proceedings of the Regional Science Association Vol.9 1962.

i) Gibberd Fredrick: "Town Design": Architectural Press London 1959.

j) Davies R.L.: "The retail pattern of the Central area in Coventory."
Institute of British Geographers. Occasion Publication No.1. Urban Study Group Dec., 1972.

k) National Economic Development Office: "The Future Patterin of Shopping."
Distributive Trades E.DC April 1971.

l) Victor Gruen and Larry Smith: "Shopping Towns" U.S.A.:
Reinhold Publishing Company 1960.

m) Pain G.M.: "Planning and the Shopkeeper":
Barrie and Rockliff. 1967:

Vagale Edited: "Commercial Centre for Ijebu-Ode Design and Layout":
Ibadan Polytechnic:

Vagale Edited: "Anatomy of Traditional Markets in Nigeria. Focus on Ibadan City."
Ibadan Polytechnic.
Town Planning Division 1972.

Joseph De Chiara & Lee Koppelman:
"Design Criteria".

CHAPTER THREE

ZARIA AND ITS ENVIRONS

a) Brief Historic Background:

Zaria is the most southernly part of ancient Hausaland and was known originally as Zazzau.

It is not known precisely when Hausa-speaking people settled in this area but we may surmise that their coming was originally associated with the desiccation of the Northern lands which drove them from their earlier home in the central sahara and they lived in Zazzau for more than a millemium.

Before Islam the existent religion played an important role in the foundation of the state of Zazzau as the early wall cities were built around the great inselbergs of Kufena and Tukur Tukur.

The settlement was characterized by walled fortification surrounding the town settlement. What is known today as Zaria City was a new walled town which later replaced Kufena sometimes after 1500 A.D.

History records that Zaria did possess a degree of societal complexity and heterogeneity within its fortification which distinguishes its urban character

from the surrounding rural areas.

It also possessed an administrative organization based on a ward system which collected taxes, supervised markets and maintained defence in the city.

Birnin Zazzau was the political and economic expression of the state. Its wealth was a function of the prosperity of the state and security within its walls depended on the power of its rulers.

Its market was a hub of trade its tributary areas were dependent on it for protection and provided taxes agricultural produce and slaves.

The close political ties between Zaria and its more immediate environs allowed the growth of a pattern of rural-urban relations which found expression in socio-political intercourse.

Great changes have taken place in the pattern of settlement since the beginning of colonial rule. In Zaria a modern town has been erected outside the gates of the walled city e.g. Tudun Wada, Sabon Gari and Samaru. Similar developments on a smaller scale have taken place else where at Funtua, Malumfashi and Dutsenwai. New streets, plot layouts, the arrival of immigrant populations and the setting up of trading

premises have followed in the wake of the railway and the motor road.

c) Physical Layout of Zaria:

The present day human settlement of Zaria is formed by four fairly distinct quarters, Zaria City, Tudun Wada, SabonGari, and Samaru.

Zaria City which is the original settlement of the Zazzau people lies in the south of Zaria Urban Area. It retains much of its physical character e.g. the city wall. It retains the character of typical Hausa settlement and has not been influenced to any considerable extent by western influence.

Tudun Wada situated immediately north of the main city gate is a strangers quarters for both non-Zaria natives of former northern Nigeria and Southerners.

Its streets are laid out in a grid pattern. It is in this quarters you have most of Zaria's Academic Institutions.

To the North of Tudun Wada lies Sabon Gari a relatively more modern strangers quarters which was a result of colonial policy and plans. The area is characterized by non traditional medium sized plots which are laid out in block fashion. This area is

occupied mainly southern wage employees and merchants. Like I have mentioned earlier it is the main commercial, business and entertainment centre. To the north of it lies the distinctly seperated Government Reservation Area. This was a typical brain child of the colonial government and it is characterized by more western European oriented physical planning. The roads are properly laidout, plots are mainly detached and there are a lot of organized open spaces. It was meant for the high class government workers and it is still the same today.

After the G.R.A. travelling north are a few native settlements Kwangila and Hauwa. Kwangila is laidout in Compound form like Zaria City and it is seperated from another native settlement - Panlladan by the Zaria - Kano railway line.

Panlladan situated at the Kano road junction offers some convenience shopping facilities to residents of Aviation I and Basawa.

The Northern most section of Urban Zaria is the Samaru - University Complex. Samaru Village a former native settlement owes its growth to the influence of

the University which offers job opportunities to many people. Proximity to place of work has influenced the settlement of the University workers in Samaru. The area has taken a strip character of development and the evidence of the basic grid street system does little to organize the growth of the area. In general, present day Urban Zaria has developed mainly along Sokoto - Kaduna road which cuts across the whole of the town. Now a new byepass has been constructed by the Federal Government passing from Wusasa to Hauwa thereby cutting off Tudun Wada and Sabon Gari. This we assume will influence the growth pattern of Urban Zaria.

c) (i) Socio-Cultural Characteristics:

The estimated population of Urban Zaria in 1975 according to Niger is 275,000. The composition of this population is less heterogeous than that of Kaduna or Kano. 15% of Urban Zaria population are of non-northern Nigerian origin. The religious composition of Urban Zaria is predominantly Muslim. According to the 1963 census, Zaria division had 64% Muslims population while in the southern Jama'a division there is a 61% majority

of christians.

(ii) Crafts:

Indegenous small scale crafts industry has been traditionally a fairly well developed complex system of interdependent family owned enterprises. So that within Zaria city one quickly becomes aware of the importance of traditional occupations amongst the inhabitants.

Although large number of sewing machines dominate the market place, Zaria City has long been noted for the production of clothing, and tailoring may be regarded as a modern expression of a traditional activity.

Small group of tanners, leather workers, dyers, potters and blacksmiths are to be found normally concentrated in a small cluster of nearby compounds in one or possibly two wards of the City. These Cfaft occupations are hereditary and within each group the craftsmen are linked together by kinshipties. The seasonal character of the climate allows farmers to practice other trades particularly during the dry season. Among types of crafts are making of grass mats, hats and ropes, wearing and embroidery.

Modern craft is concentrated in Tudun Wada and

Sabon Gari quarters. This is a reflection of the role played by immigrants. Sabon Gari houses the commercial centre, all the large firms and greatest number and widest range of modern crafts and small industries.

These are concentrated in an area adjacent to the market such modern crafts are capentary and silver smith.

d) Educational Characteristics

On approaching Zaria from any direction Educational Instituions mark the way. The Educational Institutions in Zaria range from primary schools, secondary schools, teachers' colleges, University and speciality schools like, school of pharmacy,school of Aviation, School of Nursing and Military School.

With regards to the distribution of these Institutions one general feature can be identified. If not physical detached from the urban area they tend to be sited near main routes in the rural urban fringe of twentieth century Zaria.

It is of course not surprising that educational Institutions combine quiet surroundings with ready

accessibility. All but one of the post primary institutions are outside the walled city. The only one in the walled city is the government secondary school which was opened as a primary school as early as 1912. The walled city has little to offer in the way of western education but this is due largely to its having stood for long time as a centre of Islamic tradition and learning.

Education forms a central place activity in Zaria and in fact it is regarded as the most important ~~central~~ central place function in Zaria. Compared with other Northern Nigerian towns Zaria ranks first in terms of education.

Although other central place functions may be identified there is no doubt that it is Zaria educational function that today most influences its character and gives it distinction as an urban settlement.

The growth of the educational ministry has not come about in isolation from other activities.

Administration, Commerce and transportation preceeded it but education provided an added impetus to Zaria's economic life.

The grade of workers attracted to Zaria, by these

institutions may probably account for the high purchasing power of Zaria.

The education industry also adds to the urban character of Zaria by the cosmopolitanism and morphological diversity it has occasioned. The concentration of educational activities in Zaria has considerably diversified the composition of its inhabitants bringing together people with different Nationalities and ethnic groupings.

e) Transportation System:

Generally Zaria has a poor intra-city transportation system. The single major road which cuts across urban Zaria experiences a lot of congestion because it serves both the internal traffic passing from Sokoto, Kano, Jos, Kaduna, Gusau and Funtua.

As a result there is a lot of congestion caused by all kinds of vehicular traffic, animal traffic and pedestrians.

In Zaria City the width of the single pared road is narrow. This road is plied mainly by private cars and mini buses. There is no pedestrian walkway along this road and the right of the way is so narrow that

many houses are just built next to it with no set-backs. This creates a lot of hazard to the immediately adjoining compounds and the market area where you have the greatest congestion. This road also lacks adequate bus stops and terminals. Movement by public transport to other parts of Zaria City is very poor.

Tudun Wada has more motorable streets this can be attributed to the grid pattern of street layout. There are three main paved roads the Kaduna - Sokoto road, Jos road and the Wusasa bye-pass. The short distance between the intersections on Wusasa bye-pass and Jos road creates a lot oi traffic chaos.

Taxi cabs, private cars, mini buses dominate the vehicular traffic along Tudun Wada. The notorious one mile strip presents a serious traffic hazard to all of its competing ~~uses~~ users.

There are properly designed bus stop bays along Kaduna-Sokoto road to handle adequately the large volumes of mini buses using the road. Secondly the make shift Taxi terminus infront of the Ahmadu Bello University Teaching Hospital creates its own traffic problem.

Sabon Gari - Township zone controls a lot of

internal traffic. The level crossing on Sokoto road, increases the problem of congestion. All the intersections inSabon Gari lack adequate traffic devices and the result is traffic congestion and confussion particularly at the Hospital road - Aminu road intersection and Waff road - park road intersection.

In the G.R.A. traffic movement is easier because the area is properly planned and majority of the occupants own cars, so there is no addition to the traffic volume by public transport vehicles.
In-side Sabon Gari the streets are not paved but are motorable and are adequately served by taxi cabs.

In Samaru Town the streets are unimproved and nearly impassable by motor cars. The Village beyond the railway line is completely cut off from vehicular access.

Generally speaking road linkage to the major urban network is a problem for all the non-urbanized area within Zaria region.

The seven mile length of the Sokoto road between N.T.C. road intersection and the I.A.R. Golf Course is rapidly becoming subject to linear development of various use types, thereby creating additional demands for road

access.

This fact combined with increasing traffic volumes compounds the problems of safety hazard and congestion. It is also important to note that the congestion on the seven mile stretch along Sokoto road from I.A.R. to N.T.C. intersection is not caused mainly by traffic generated from Kano and Sokoto but more by the traffic generated from the A.B.U. Main Campus, I.A.R., Samaru and Aviation I.

Public transportation system within Zaria Urban area is not well developed because there are no planned bus routes and bus stops. Other forms of public transportation are taxi cabs which are owned by private business entrepreneurs. Even the mini buses are privately owned and managed.

From observation of all roads in Zaria Urban Area both paved and unpaved no provision is made for pedestrian walkways.

f) Economic Base

Farming both for subsistence and exchange forms the major basis of the Hausa economy. Approximately 80% of the population in Zaria and its environs engage in Agriculture as their main occupation.

Following transportation, cash crop, farming of cotton and groundnut has assumed great importance, although food production remains of considerable significance.

Average farm sizes are relatively small and are about five to six acres. This is clear manifestation of the heavy reliance on hand-lavour and technology. According to D.W. Norman some of the factors determining farm size in Zaria Division include size of family and labour force length of tune each household is prepared to work and the availability of financial resources for non-farmily labour.

Because of the simple production technique per capita farm incomes are low.

Other forms of economic activity are local craft production and trading. Most of the commercial activities take place in the traditional markets.

In the more recent times small industries and modern crafts have also added to the economy of Urban Zaria.

This reflects the impact role played by immigrants in bringing new activities from elsewhere in Nigeria.

g) Population Distraction

The estimated population of present day Zaria using N.I.S.E.R. recommendations is 276,000. The accuracy of this figure is not very dependable since the projection was made from 1963 Census at growth rate of 5.48%. In 1963, Zaria had a popul·tion of 167,000.

Zaria Urban area has four main population cluster zones and these are Zaria City, with an estimated population of 57,000; TudunWada with an estimated population of 104,000; Sabon Gari - G.R.A. Complex with an estimated population of 81,000 and Samaru with an estimated population of 32,000. Zaria population is not as heterogenous as that of most Nigerian towns.

A great majority of the residents in Zaria are of Zaria origin. Over 90% of the residents in Zaria City are of Zaria origin. Nevertheless Sabon and Samaru population are more heterogeous in character. There are a lot of southerners, and expatriates from Britain, America, India, Pakistan and Lebanon.

Until Nigeria is able to conduct a worthy population census it would be difficult to have a near accurate breakdown of the population composition and distribution in all Nigerian towns and villages.

CHAPTER FOUR

CHARACTERISTICS OF EXISTING TRADITIONAL MARKETS:

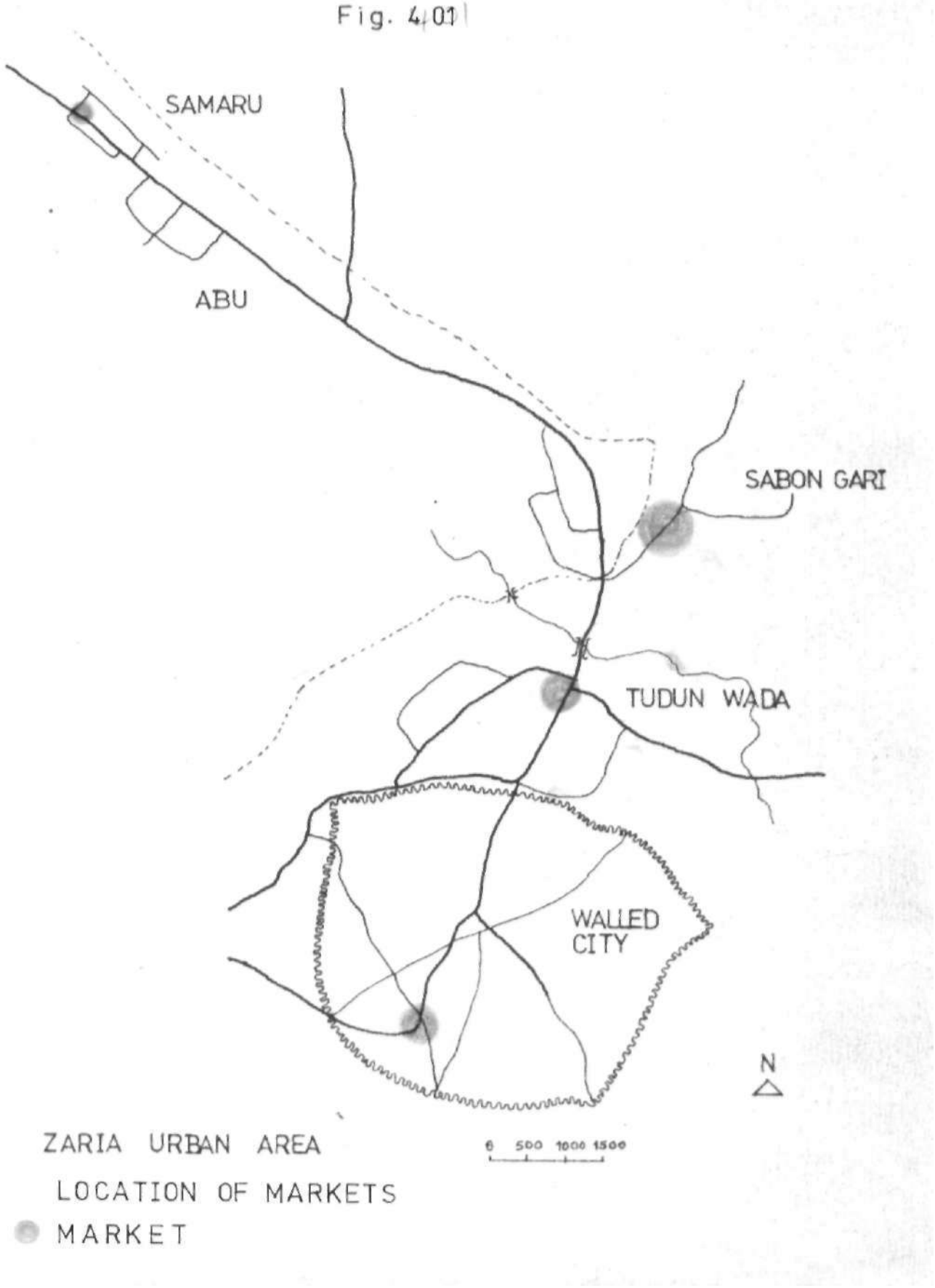
In this Chapter the four traditional markets are considered under each sub-heading and inferences are drawn as to their similarity and dissimilaritird.

a) Location:

Judging from the information gathered from the market masters in the four markets there is no evidence to show that these markets were located under any principles of planning. But from observation the location of these markets are within the confirms of the four urban quarters in Zaria Urban Area. In short one can safely say that these markets have been located to serve the needs of the residents who live around them.

In terms of their physical location Samaru Market, is located at the north-west corner of the Samaru Village. It has an area of about 1.5 hectares. To the immediate North, East and South of the market are residential, apartments. On the western side immediately next to Sokoto Road is a Petrol Filling Station and

Fig. 4.01


SAMARU
ABU
SABON GARI
TUDUN WADA
WALLED CITY
N
ZARIA URBAN AREA
0 500 1000 1500
LOCATION OF MARKETS
MARKET

across the Sokoto road is the University Campus.

Sabon Gari market the largest amongst all of them has an area of about 5 hectares. It is located in the central business district of Urban Zaria. It is surrounded on all three sides by three trading streets Aminu road, Lagos Street and Hospital Road. These three streets form a big triangle in-side which the market is located. Some residential quarters are located very close to the market. The market derives its name from the local area which it is located. Opposite the market on the Aminu road side of it is a Police Station, an Area Court, Tax Office and the Administrative Office.

Another characteristic of its location is that it lies in the densely populated strangers quarters of Urban Zaria. Being the main market, its physical location is not very central to urban Zaria. It lies seven kilometres North of Zaria City market, two kilometres North of Tudun Wada market and eleven kilometres south of Samaru market.

Tudun Wada market is located to the West of the Jos - Kaduna road intersection. It has grown into Kaduna road. To the eastern side of it is the more

densely populated part of Tudun Wada quarters. Along this side is the Ahmadu Bello University Teaching Hospital which lies in South of the Market and to the East on Jos road are the Institute of Administration and the Advanced Teadhers' College. To the West along the old bye-pass are several schools which include the famous Barewa College and the Kaduna State College of Arts and Science.

The market is surrounded by Commercial Service and Business activities on all sides including some residential and recreational land uses. The market has an area of 1.5 hectares. To the west of the market are residential houses which could be mistakenly taken as part of the market.

South of the Tudun Wada Market is Zaria City the original settlement of Zaria people. The City market is located to the south of the walled city along the single major paved road which cuts across the city. It occupies an area of about 2 hectares and it lies at a distance of about 0.75 kilometre to the Emirs Palace, where you have the administrative offices and a police station. On the east the market has grown almost into the carriage way of the market street.

Opposite the market on the other side of the market street are commercial and residential apartments. Behind the market to the North are residential apartments of typical traditional architecture with dye pits all round.

It is iiportant to note that all the four markets have mosques and praying ground in th. vicinity. Sabon Gari market in adaition to this has a church located directly next to it with no roads seperating them.

Most residential apartments immediately around the markets hardly have any barriers seperating them from the market. What obtains then particularly in Samaru, SabonGari and TudunWada markets is that you can walk straight from the market right into a residential building. The only areas where you have any form of physical seperation are places with streets or roads.

All the four markets have taken their names from the areas where they are physically located hence you have Samaru, Sabon Gari, Tudun Wada and Zaria City Markets.

It is worthy to note that apart from the four markets studied there also exist some old markets most of which have dwindled a great deal due to the present influence of the four main markets which were first discussed.

One of such markets is the Muchia market located in the Muchia Area of Sabon Gari quarters. The functions of this market has dwindled so much interms of the variety, quantity and intensity of goods sold there.

The reduction of functional activities is attributed to the nearness of the biggest market Sabon Gari.

There is also along Warri Road a night market called "Kasua Lahadi".

There are also special markets that specialize in sale of a single commodity or commodities that can be classified as one group. One of such market is the cattle market or Zango as it is locally called. It is located opposite Aviation II in Ugwan Mallam Isofo. The second type of this special market is the tomatoe and vegetable market located along Kaduna road at the Wusasa Road junction. 'Sayar Gari' market near the Institute of administration

a) (i) Location Zone of Traders:

It was equally necessary to relate the location of traders to the markets they traded in to see if physical location of a market had any influence on where the traders came from.

The results are to be found in the Table below.

TABLE 4.01

CHARACTERISTICS OF EXISTING TRADITIONAL MARKETS IN ZARIA:

CLASSIFIED BY LOCATION ZONE OF TRADERS - 1975/76

MARKET	LOCATION ZONE OF TRADERS					
	CITY	TUDUN WADA	SABON GARI	SAMARU	OUTSIDE ZARIA	TOTAL
City	83%	6%	1%	3%	7%	100%
Tudun Wada	7%	86%	4%	3%	-	100%
Sabon Gari	8%	20%	41%	23%	8%	100%
Samaru	11%	2%	3%	81%	3%	100%

Source: Market Survey.

From the table above we can see that on the whole the percentage of traders who come from outside to trade is very small and it is highest in Sabon Gari market and city market which we can say have some degree of regional influence.

Within Zaria more traders come from outside the location zone of the Sabon Gari market to trade there. In the three other markets Zaria City, Tudun Wada and Samaru over 80% of the traders in each case live within the location zone of the market.

4. (b) Social Characteristics of Traders:

Some of the most striking and distinctive characteristics of traditional west African markets are to be found in the social structure of the market. Results of the survey conducted for the four traditional markets in Urban Zaria shows that women play a great role in trading.

This fact is also reflected in the writings of previous Authurs in their study of traditional markets.

Professor Vagale writing on Anatomy of Traditional Markets in Nigeria (Focus on Ibadan) said that most of the trading is in the hands of women. He went further to say that to the market-woman, the market place not only offers cash rewards through trading but also serves as a meeting ground for social and cultural activities. He also notes that "The market as a business Institution has given a large measure of economic opportunity and social security to women who form the bulk of the traders.

The dominance of women is calculated from the overall number of female and male traders in all the four markets in Zaria Urban Area. Looking at each

market critically the dominance of women exists actually only in Samaru and Sabon Gari markets. The reason for this is hot far fetched. Majority of the residents in Sabon Gari and Samaru Southern are non-Hausa wage earners.

TABLE 4.02

SOCIAL CHARACTERISTICS OF TRADERS IN THE FOUR MARKETS IN ZARIA CLASSIFIED BY SEX: - 1975/76

M A R K E T	MALE No.	%	FEMALE No.	%	ROW TOTAL
Zaria City	378	77%	108	23%	100%
Tudun Wada	234	71%	94	29%	100%
Sabon Gari	1001	34%	1865	66%	100%
Samaru	122	31%	278	69%	100%
Column Total	1735	42%	2345	58%	100%

Source: Market Masters Register.

The low percentage of women in Zaria City and Tudun Wada markets is attributed to the religion of the people. Among the few women found in the city market majority of them are Yoruba women of Ogbomosho origin. In Tudun Wada the women traders are Ibo women, Yoruba women and non-Moslem women from non-Hausa parts of former Northern Nigeria.

On the average in the whole ofZaria women account

for 58% of all the traders while men account for 42%.

Considering the age structure of traders in all the markets it was observed that a large number of them fell within the ages of 20 - 50 years but a greater percentage were between the ages of 30 - 40 years.

People below the age of 18 years found in the markets were either sitting for their parents or guardians. There is some relationship between type of commodities sold and sex. A great majority of those who sold local foodstuff and Household goods like enamel plates, pots, pans and other cooking utensils were women. More men sold variety goods and the sale of meat and fresh fish was dominated by men.

In the wears and appreals section more women sold wrappers traditional jewellery and men sold mainly imported ready made clothes and shoes.

4. (c) Physical Condition:

The physical condition in all the four markets has been considered under four sub-headings:

4. (c) i. Physical Layout:

All the four markets except for the new blocks in Tudun Wada and Samaru markets have a generally bad layout plans. Bad stall layout in the market are

attributed to the fact that no detailed layout plan of stalls was drawn before they were built. Secondly a great deal of the stalls have been put up by the traders not considering any layout pattern.

Despite this the general stall layout pattern is to place them in rows forming a grid pattern. The spaces between the stalls are not uniform. The general impression considering coverage is that the stalls have been placed in such a manner to achieve maximum site coverage thereby leaving little room for circulation and no rooms for open spaces.

4. c)ii. Sanitation and Health:

The State of environmental sanitation in all the four markets is very poor. There are no proper drainage systems;where you have a few gutters they are filthy and covered with garbage sand, dirty water, bones papers sticks etc. These harl substances in the gutters and the sand prevent liquid waste from flowing out swiftly. Secondly these gutters are open so that hard wastes can be easily dropped inside by traders, buyers and even wind.

The drains and stagnant pools of sewerage are a veritable source of horrid odour and breeding places for flies and mosquitoes which usually plague the

markets. During the wet season the narrow walk-ways in the market becomes muddy because the walk-ways are not paved and this increases on the difficulties encountered by buyers in finding their ways through the market.

Garbage receptacles in the markets are few and are not suitably placed. The few drums provided as refuse disposal are inadequate in number as a result they become very easily filled up. Secondly they are not emptied regularly the result is that the over-flowing refuse spills all over the whole area. Coupled with this the drums have no cover (lid) so the exposed refuse attract a lot of flies and insects.

In Sabon Gari market there are a few refuse disposals, particularly in the section where we have temporary open stalls were a lot of local foodstuff and fresh food are sold.

In the northern section of the markets where the permanent stalls are located there are hardly any garbage receptacles.

The old mission street adjacent to the market on the east has been completely blocked from any vehicular or through pedestrian traffic because it has been converted by the traders and consumers as trading spots and refuse dumping ground.

Most fresh food naturally attract flies and in the markets you have a lot of flies patching on meat, vegetables and other commodities which attract flies. The number of these flies are increased by those attracted by the dirty open drains. In Samaru the space between the fuel station and the market is used as a refuse dumping ground. The situation is worse in Tudun Wada market where only 10 butchers stay in built up apartments to sell while the rest stay out.

There are no adequate toilet facilities. In Sabon Gari market no improvement has been made to the existing toilet since the plan of the market was made in 1953. Despite the fact that the number of traders have increased from 682 in 1953 to 2,866 in 1975 no improvement has been made to the toilets in terms of building a better one with more rooms.

Toilets are non-existent in the other three markets. The environmental sanitation in the markets create a great deal of public nuisance. The result is that we have leafs, tins, sticks pappers, bottles, littered everywhere. Refuse often pile up in huge heaps which spread on to the roads blocking the carriage ways and also the odour from the refuse makes life unbearable for the adjoining residential houses.

c) ii. Service and Infrastructure

The situation with regards to services is very poor. In all the four markets the only service provided is water. There is no provision for essential fire fighting facilities, electricity and telephone.

Considering the fact that these markets grew organically there are inadequate or no planning for parking facilities.

Sabon Gari market has a public transport parking facility but no parking allowances for private cars, motorcycles and bicycles. Of all the markets Sabon Gari is the only one which has a taxi and bus terminus.

In Samaru market there is a make shift Bus and Taxi terminus which creates accident hazards along Sokoto road. No parking facilities have been provided for private cars although private car owners use the petrol filling station in front of the market for parking.

In Tudun Wada there are no parking spaces or Taxi and bus stands.

In Zaria City there are unplanned bus stops along the market street particularly near the market. Zaria City is peculiar in that no Taxi cabs ply tne routes except buses. These buses have turned the space in front

of the residential buildings directly opposite the market and the market masters office as a terminus. This causes a great deal of traffic congestion and confusion around the market.

In the market the roads and streets near the market are used for curb parking although these have not been provided for during the road construction. Curb parking helps to norrow down the width of the carriage way and results in more traffic congestion. The situation is worst in Sabon Gari and Tudun Wada.

c) (iv) Circulation:

Circulation in the four markets is very poor. The reason is because stalls have been badly laidout and spaces between blocks and narrow. Coupled with this, because of lack of display facilities in the design of stalls and shops traders have converted the circulation routes into display spaces and this further narrows down the space.

This deplorable state of circulation causes a lot of congestion between shoppers, traders and hawkers. Hence walking from one part of the market takes a lot of time. It is generally believed that shoppers spend more time finding their way through the market than they



Makeshift Stalls



spend on actual buying of goods.

The resultant effect of this poor circulation system inside the markets is overcrowding.

There is also congestion on the access routes to the markets. Though most of the markets are accessible the approach roads are poorly designed and laidout. They are characterized by defective intersections, curb parking, heavy encroachment by traders (particularly in Sabon Gari and Zaria City markets) and location of petrol filling stations very close to the markets e.g. in Samaru, Tudun Wada and Sabon Gari.markets.

4. d) Design Characteristics

d) (i) Lay Out

In considering the design characteristics of the existing markets the first thing that comes to mind is the layout.

With reference to Fredrick Gibberd in his book "Town Design" markets are characterized by series of stalls and shops ranged in an open or sometimes a covered space. The usual arrangement is to place them end on in parallel rows the alternative spaces between the rows being for the public and the traders, standing behind the stalls back to back. The rows tend to be in

parallel pairs. The situation described above may be found in a planned market with stalls properly laidout e.g. the Kaduna Central market and the Onitsha Main Market. The Onitsha Main Market is a very good one which epitomizes what the trend of design for markets in the tropics should be like. It is completely under cover with roof lighting so that the traders and buyers are shaded from rain and glare from the sun.

In Urban Zaria Commercial activities in traditional markets take place in stalls and shops. Some of the stalls are properly laidout while others are not thereby creating some blind spots. In theory the stalls should be laidout in parallel rows or pairs to create lineal pedestrian circulation.

In Samaru market some new blocks which are presently under construction are properly laidout in a lineal fashion. But in the older section of the market the stalls are not properly laidout. Most of the stalls are make-shift and have been put up by the traders. The worst area in the market whose layout causes a lot of circulation problem is the butchers section.

In Sabon Gari market the 1953 plan shows some planning behind the layout of stalls and other uses.



Example of ramshackle Stalls

Today the situation is completely changed. The section where food condiments and meat are sold shows some good layout but the area where grains and tubers are sold is very improperly laidout.

The reason for the change in the layout situation of the market between the 1953 plan and what exists today is not far fetched. The volume of traders and shoppers have increased about four times so that traders in the absence of council provided stalls have put up their own stalls and placed them any where they found sufficient space.

In Tudun Wada market there are twelve new blocks of shops laidout in a parallel form. On each side of a block there are eight shops so that each block has sixteen shops. These new blocks were recently built and rented out to traders by the local Authority.

The other half of the market are open stalls laidout very haphazardly.

In Zaria City the layout tends towards a grid pattern but the spacing of stalls are irregular and this has resulted in a disorderly layout.

4. d) (ii) Structure Type of Stalls

Stalls can be classified according to structure and type. It was discovered that there are two main types



Open Spaces Converted to Commercial Space

of stalls namely open and lock up stalls.

TABLE 4.03

DESIGN CHARACTERISTICS:

STALL TYPE IN ZARIA
CLASSIFIED BY MARKETS

MARKET	STALL TYPE		TOTAL NO. OF STALLS IN ZARIA
	OPEN	LOCK UP	
Zaria City	300	186	486
Tudun Wada	138	190	328
Sabon Gari	2548	318	2866
S a m a r u	400		400
Type Total	3386	694	4080

Source: Market Masters Register.

There are a total of 4,080 stalls in all the four markets in Zaria. 486 in Zaria City, 328 in Tudun Wada, 2,866 in Sabon Gari and 400 in Samaru. Out of these 3,386 stalls are open stalls while 694 are lock up. This means that 83% of the stalls are open while 17% are lock up. It is important to note here that the terms open and lock-up are those used by the market Administrative Authority. Any stall which has no iron or wooden doors have been classified as open.

Further breakdown classification of stalls by the authorities are permanent lock-up stalls, medium lock-up,

open stalls, temporary sheds and medium open stalls. This classification I found out is according to the type of door.

From this I have derived my own classification to avoid ambiguity.

TABLE 4.04

DESIGN CHARACTERISTICS STALL/DOOR TYPE IN Z A R I A

CLASSIFIED BY MARKETS

MARKET	T Y P E O F D O O R				STALL TOTAL
	PERMANENT IRON DOORS	PERMANENT WOODEN DOORS	ALLUMINIUM MAKESHIFT DOORS	NO. OF DOORS	
Zaria City	-	186	57	243	486
Tudun Wada	-	190	8	130	328
Sabon Gari	288	30	350	2198	2688
Samaru	-	-	76	324	400
Type Total	288	462	435	2895	4080
%	7%	11%	10.7%	71.3%	100%

Source: Market Masters Register.

In all the markets stalls with iron and wodden doors are rcferred to as permanent and lock-up by the authorities while those with make shift doors or no doors at all are referred to as temporary open stalls (See tables 4.03 & 4.04).



Lock Up Stalls

Under this heading we shall consider the type of walls in the market. These are three main types of walls, those built with either concrete walls, and mud walls, alluminium sheet and the fourth type are those with no walls at all.

TABLE 4.05

DESIGN CHARACTERISTICS:
STALL/TYPE OF WALL IN ZARIA
CLASSIFIED BY MARKETS

M A R K E T S	TYPE OF WALL				Total No.of Stalls
	Concrete	Mud	Alluminium	No Walls	
Zaria City	-	54	132	300	486
Tudun Wada	190	10	8	120	328
Sabon Gari	318	-	350	2198	2866
S a m a r u	-	56	33	311	400
TYPE TOTAL	508	120	523	2929	4080
%	12.5%	2.9%	12.8%	71.8%	100%

Source: Market Masters Register.

From the above table 71.8% of all the market stalls have no walls 12.8 have make-shift Alluminium sheets walls, 12.5% have concrete walls and 2.9 have mud walls.

These results are not encouraging for health and security reasons. Alluminium sheet walls will generate a great deal of heat at the same time they can be easily removed by thieves so they do not provide adequate security atall.

Open walls create a lot of insecurity and will easily encourage traders to encroach on the already narrow spaces because they are not confined. This will result in great degree of congestion.

Commodities sold in stalls which have no walls are easily liable to attach from flies.

d) (ii) Space of Stalls

The range of the floor area of stalls ranges from $4m^2$ to $30m^2$. There is a noticeable relationship between type of stall and space. Temporary stalls with no walls and doors are usually about $4m^2$ - $6m^2$. Temporary stalls with make-shift doors and Alluminium walls are about $10m^2$ to $20m^2$. While permanent stalls with either iron doors or wodden doors have floor areas which range from $20m^2$ to $30m^2$. In Tudun Wada the new 190 stalls built with

concrete blocks and with wooden doors are $20m^2$. The distance between block of stalls is about one meter which is very small and narrow for purposes of pedestrian movement in the markets. The spacing is equally very irregular. The extreme nearness of the shop blocks to one another has resulted in overcrowding and lack of air and ventilation. This has also increased the vulnerability to fire hazards.

4. d) i. Commercial Characteristics of Traditional Markets

Commercial activities in the traditional markets can be divided into two broad groups. They are Retail activity and Service Activity.

Retail activity involves the exchange of a goods by the retailer for money which comes from the buyer. Service activities are all such functions which a consumer obtains in the market without actually taking home any additional good e.g. hair dressing.

For convenience in analysing commercial activities in the markets they have been classified into thirteen groups. Twelve of these fall under Retail activity and the last one under service activity.

The twelve groups for Retail activity classifying commodities which are related under one

heading and there are also sub-groupings in a major group.

An attempt is further made to show the number in each group in each of the markets. This is necessary because some functions engage more people than others. The tables below show the situation in the four different markets seperately while another table adds up everything to derive a single breakdown for Zaria Urban Area as a unit.

Zaria City Market:

Zaria City market has the greatest percentage of people engaged in service activity when compared with other activities. Service activity is 12.9% of all commercial activities in the market. Out of these people engaged in service 80% are tailors and there are no hairdressers at all. This has to do with the muslim religion which forbids women to expose their hair in public. 48% of the people sell locally produced food items. 15.8% of the traders sell wears and apperrels. Ref. Table 4.05.

TABLE 4.05

COMMERCIAL CHARACTERISTICS
NO. OF TRADERS BY COMMODITIES SOLD IN
ZARIA CITY MARKET

	COMMODITY TYPE	NO. OF TRADERS	%
11.	Green Grocery	61	12.5%
2.	Grocery-Fish	7	7.5
.	-Meat	37	7.6%
3.	Local Food Stuff		
.	- Grains	50	12.3%
	- Tubers	20	4.1%
	- Vegetable Oil	14	2.9%
	- Soup ingridients	16	3.3%
4.	Livestock	28	5.8%
5.	Wears and Apparels	77	15.8%
6.	Variety Goods	42	8.7%
7.	Household Goods	30	6.2%
8.	Electrical Equipment	14	2.9%
9.	Furniture	-	-
10.	Tools and Fixtures	11	2.3%
11.	Crafts	13	2.6%
12.	Drug	-	-
13.	Services	63	12.9%
	T O T A L	486	100%

Source: Market Masters Register

TABLE 4.07

COMMERCIAL CHARACTERISTICS:
NO. OF TRADERS BY COMMODITIES SOLD IN
TUDUN WADA MARKET

COMMODITY TYPE	NO. OF TRADERS	%
1. Green Grocery	78	23.8%
2. Grocery - Fish - Meat	44	13.3%
3. Local Foodstuff		
- Grains	38	11.6%
- Tubers	12	3.6%
- Vegetable Oils	8	2.4%
- Soup Ingridients	18	5.6%
4. Livestock	15	4.6%
5. Wears & Apparel	24	7.5%
6. Variety Goods	46	14 %
7. Household Goods	2	0.6%
8. Electrical Equipment	16	4.8%
9. Furniture	-	-
10. Tools & Fixtures	9	2.7%
11. Crafts	2	0.6%
12. Drug	-	-
13. Services	16	4.9%
T O T A L	328	100%

Source: Market Masters Register.

In Tudun Wada market 95.1% of the traders are engaged in retail activity while only 4.9% engage in service activity.

Hair plaiting as a service function is conspicuously absent like in the Zaria City market. Out of the few people engaged in service functions about 90% of them are tailors.

0.3% of the retailers sell locally produced food stuff and 4.8% sell electrical equipment. The electrical equipments sold are mostly bulbs and transistor radios. Variety goods rank next to food stuff. 14% of the traders sell variety goods.

It is important to note that both inside and outside the market only two women were engaged in the sale of household goods such as plates, plastic buckets, cups and pans.

TABLE 4.07

COMMERCIAL CHARACTERISTICS:
NO. OF TRADERS BY COMMODITIES SOLD IN
SABON GARI MARKET

COMMODITY TYPE	NO.OF TRADERS	%
1. Green Grocery	700	25.4
2. Grocery - Fish - Meat	335	11.6
3. Local Foodstuff		
- Grains	101	3.5
- Tubers	89	3.1
- Vegetable Oil	43	1.5
- Soup Ingridients	620	22.6
4. Livestock	90	3.1
5. Variety Goods	190	6.6
6. Wears & Appareals	160	5.5
7. Household Goods	148	5.1
8. Electrical Equipment	90	3.1
9. Furniture	50	1.7
10. Tools and Fixtures	70	2.4
11. Crafts	60	2
12. Drugs	34	1.2
13. Services	86	3
T O T A L	2,866	100%

Source: Maket Masters Register

In Sabon Gari Market 97% of the traders are engaged in retail activity while only 3% are engaged in services.

The nature of service activities in Sabon Gari market is in form of hair plaiting, grinding and repair works.

70.8% of the retailers sell food stuff which is locally produced. Out of these 25.4 sell Green Grocery 11.6 sell Grocery and 3.1 sell livestock such as birds and 22.6% sell local soup condiments.

Household goods account for 5.1%. Household goods are mainly enamel bowls, cooking utensils and plastic products like cups, plates buckets and drinking glasses.

Electrical equipments include transistor radios, table fans, hot plates, ring boilers, straighthening courts and lower order goods like bulbs plugs etc. It is the only market that sells Household furnishing goods.

TABLE 4.08

COMMERCIAL CHARACTERISTICS:
NO. OF TRADERS BY COMMODITIES SOLD IN SAMARU MARKET

COMMODITY TYPE	NO. OF TRADERS	%
1. Green Grocery	54	13.5
2. Grocery - Fish Meat	52	13
3. Local Foodstuff		
- Grains	53	13.25
- Tuber	34	8.5
- Vegetable Oil	31	7.75
- Soup Ingridients	43	10.75
4. Livestock	32	8
5. Wears & Apparels	17	4.25
6. Variety Goods	21	5.25%
7. Household Goods	16	4
8. Electrical Equipments	9	2.25
9. Furniture	-	-
10. Tools and Fixtures	10	2.5
11. Crafts	8	2
12. Drugs	-	-
13. Services	20	5
T O T A L	400	5.

Source: Market Masters Register.

In Samaru Market 95% of the traders are engaged in retail activities while 5% are in service. Among these retailers 74.75% sell locally produced food ranging from vegetables to grains. 4% of the traders sell household goods. 2.25% of the traders sell Electrical equipment which are mainly low order electrical equipment goods like bulbs, electric wires and plugs.

In trying to compare all the different activities in the four markets Zaria City records the highest relative percentage of people engaged in services. This helps to explain the over-whelming number of tailors found in Zaria City market. It equally records the lowest relative percentage of traders selling local foodstuff. We shall also note that drugs and furniture were found only in Sabon Gari market.

TABLE 4.09

COMMERCIAL CHARACTERISTICS:
NO. OF TRADERS BY COMMODITIES SOLD IN
ZARIA URBAN AREA

COMMODITY TYPE	NO OF TRADERS	%
1. Green Grocery	893	21.8
2. Grocery - Fish - Meat	468	11.5
3. Local Foodstuff		
- Grains	254	6.3
- Tubers	155	3.8
- Vegetable oil	96	2.4
- Soup Ingridients	697	17
4. Livestock	165	4
5. Wears & Apparels	278	6.8
6. Variety Goods	299	7.4
7. Household Goods	196	4.8
8. Electrical Equipments	129	3.2
9. Furniture	50(Only in Sabon Gari)	1.2
10. Tools & Fixtures	100	2.5
11. Crafts	81	2
12. Drugs	34(Only in SabonGari)	0.8
13. Services	185	4.5
T O T A L	4,080	100%

From the foregoing results from Table 4.09 it has been found that 66.8% of the traders in Zaria Urban Area are engaged in the sale of local foodstuff ranging from Green Grocery to livestock.

Variety goods, wears and apparels rank next with a total of 14.2%. 4.5% of the people engage in service activities. It is equally important to mention here that service functions in the markets are mainly: 1,

1. Tailoring
2. Repairs
3. Hair Plating
4. Grinding.

All of these service functions are present in Sabon Gari and Samaru markets. Hair plaiting as was previously mentioned in absent in Tudun Wada market and Zaria City market due to religious reasons.

TABLE 4.10

COMMERCIAL CHARACTERISTICS:
CLASSIFIED BY THE FOUR MARKETS IN ZARIA URBAN AREA;
DERIVATION OF EXISTING HIERARCHY

COMMODITY	SABON GARI		ZARIA CITY		SAMARU		TUDUN WADA		TOTAL P.C. OF SALE
	P.C. Sale	Rank Position	P.C. Sale	Rank Position	P.C. Sale	Rank Posi.	P.C. Sale	Rank Posi.	
	%		%		%		%		%
1. Green Grocery	74.8	1st	6.9	3rd	6	4th	8.7	2nd	100
2. Grocery	71.6	1st	7.9	4th	11	2nd	9.4	3rd	100
3. Local Foodstuff	70.9	1st	9	3rd	13.4	2nd	5.6	4th	100
4. Livestock	54.4	1st	17	3rd	19.4	2nd	9.1	4th	100
5. Wear & Apparels	57.7	1st	27.8	2nd	6.1	4th	8.6	3rd	100
6. Variety Goods	63.6	1st	14	3rd	7	4th	15.4	2nd	100
7. Household Goods	75.5	1st	15.3	2nd	8.2	3rd	1	4th	100
8. Furniture	100	1st	-		-		-		100
9. Elec. Equipment	69.8	lst	10	3rd	7.8	4th	12.4	2nd	100
10. Tools & Furnitures	70	1st	11	2nd	10	3rd	9	4th	100
11. Crafts	74	1st	16	2nd	10	3rd	-	4th	100
12. Drugs	100	1st	-		-		-		100
13. Service	48.1	1st	34	2nd	10.8	3rd	8.6	4th	100

4. d) (ii) Identification of Existing Hierarchies

The above table 4.10 tries to establish the existing hierarchy of markets in Zaria.

From tables 4.06 - 4.09 Sabon Gari Market caters for 70.2% of all commercial activities inside the market 12% in Zaria City 9.8% in Samaru market and 8% in Tudun Wada Market.

To derive a hierarchy, the percentage sale of each commodity has been identified for each of the four markets. (see table 4.10) and scores have been awarded to each market depending on its rank position in the sale of each commodity. From this each commodity has four rank positions 1st, 2nd, 3rd and 4th. Likewise each rank position has been awarded arbitrary scores like this:

First Position	=	10 scores
Second Position	=	5 scores
Third Position	=	1 score
Fourth Position	=	zero.

From Table 4.10 Sabon Gari market ranks first in 13 places so its total score is, Sabon Gari 13 x 10 = 130 scores.

For Zaria City it ranks second in five places and

third in another 5 plades so that its total scores is (5 x 5) + (5 x 1) = 30 scores.

Samaru ranks second in three places and third in four places thereby bringing its total number of scores to (3 x 5) + (1 x 4) = 19 scores.

Tudun Wada ranks second in three places and third in two places ending up with a total score of (3 x 5) + (1 x 2) = 17 scores.

From the above scores we can derive three hierarchy levels:

1st Order Hierarchy - Sabon Gari Market

2nd " " - Zaria City Market

3rd " " - Samaru Market

Sabon Gari market serves as the city centre market, Zaria City serves as a district centre market while Samaru and Tudun Wada Markets can be called Community Centre Markets.

4. d) iii. Consumer Behaviour

Table No.4.11 is drawn to show percentage of consumer purchases for some commodities in Zaria Urban Area Markets.

An assumption of fundamental importance is made that functions which attract a very high percentage of

Consumers at one centre, is a high order function. While functions which attract consumers at a fairly equal percentage at all centres are lower order functions. From the table 100% of consumers who purchase furniture from markets do so in SabonGari Market.

TABLE 4.11
COMMERCIAL CHARACTERISTICS:
% OF CONSUMER PURCHASES FOR DIFFERENT
COMMODITIES IN THE FOUR TRADITIONAL MARKETS

Commodities	Sabon Gari	Zaria City	Tudun Wada	Samaru	Total
Grocery	30.7	26.4	24	20.9	100%
Convenience Goods	26	27	22	25	100%
Variety Goods	61	29	6.6	3.4	100%
Wears & Apparels	80.6	10	6.7	2.7	100%
Household Goods	17.8	12.6	10.9	4.7	100%
Wholesale	84	10.4	5.1	0.5	100%
Local Food Stuff	52	15.6	14.4	18	100%
Furniture	100	-	-	-	100%
Services	32.8	24	23.2	20	100%

Source: Data compiled by the Federal Office of Statistics, Kaduna.

Most purchases in Zaria Market are done in Sabon Gari market. Only Grocery, Convenience goods and local food stuff are the purchases fairly well distributed in the other markets.

4. d) iv. Location Zone of Consumers

TABLE 4.12

LOCATION ZONE OF CONSUMERS
TO THE FOUR MARKETS IN ZARIA

MARKETS	LOCATION ZONES			TOTAL P.C.
	Within Zone	Within Zaria	Outside Zaria	
Zaria City	85.1	13.4	1.4	100%
Tudun Wada	56.8	40.7	2.5	100%
Sabon Gari	48.4	47.8	3.7	100%
S a m a r u	61.2	36.8	2.0	100%

Source: Entrepreneur Survey.

The table shows that 85.1% of the customers to Zaria City market live in Zaria City. While only 13.4% come from other parts of Zaria. The distribution of customers to the other markets is fairly equal. Only a few customers come from outside Zaria so that the regional influence of the markets is not very much.

In Zaria City 90.4% of the customers travel 1 - 2 km to do their shopping. Samaru 93.7 travel 1 - 5 km to do their shopping there. For Tudun Wada 86.7% travel 1 - 5 km and Sabon Gari 90.3 travel 1 - 10km. From this the influence of the areas can be drawn. Ref. Fig. 4.02

4. e) Existing Planning Principles & Standards

There is a tendency for traders selling related commodities to be located in the same area of the market. Although in some cases certain non conforming uses are located very close to those who sell fancy goods, wears and apparels. The zonning of uses is poor.

This means that although there is a general tendency for traders selling some commodities to be located in some area the general zonning of uses is very poor. There is an identifiable relationship between type of stalls and commodities sold and the space allocated to them.

TABLE 4.13

STALL/COMMODITY RELATIONSHIP IN MARKETS OF ZARIA URBAN AREA

COMMODITY TYPE	STALL TYPE
Grocery	Open
Tubers	"
Soup Ingridients & Grinding	"
Grains & Vegetable Oil	Makeshift lock up
Crafts & Services	" "
Electrical Equip., Household Goods	Permanent lock up
Wears & Apparels, Variety Goods	" "
Tools, Drug & Furniture	" "

Source: Market Survey.

From the findings with regards to design characteristics some standards also exist. Stalls built with concrete and mud blocks had more space and they were occupied by traders who sold unperishable items who had large quantity of goods to sell. These stalls were also lockable. Stalls which had no walls otherwise open stalls had smaller spaces and traders who sold perishable goods were located in such stalls.

From the analysis on design characteristics and the identified relationship between location of traders and the commodities sold, it would be safe to infer that there exists some standards in the traditional markets only with reference to the above mentioned.

But considering the lack of standard parking facilities and adequate circulation there exists no standards and this needs to be considered seriously.

CHAPTER FIVE

CHARACTERISTICS OF EXISTING SHOPPING AREAS

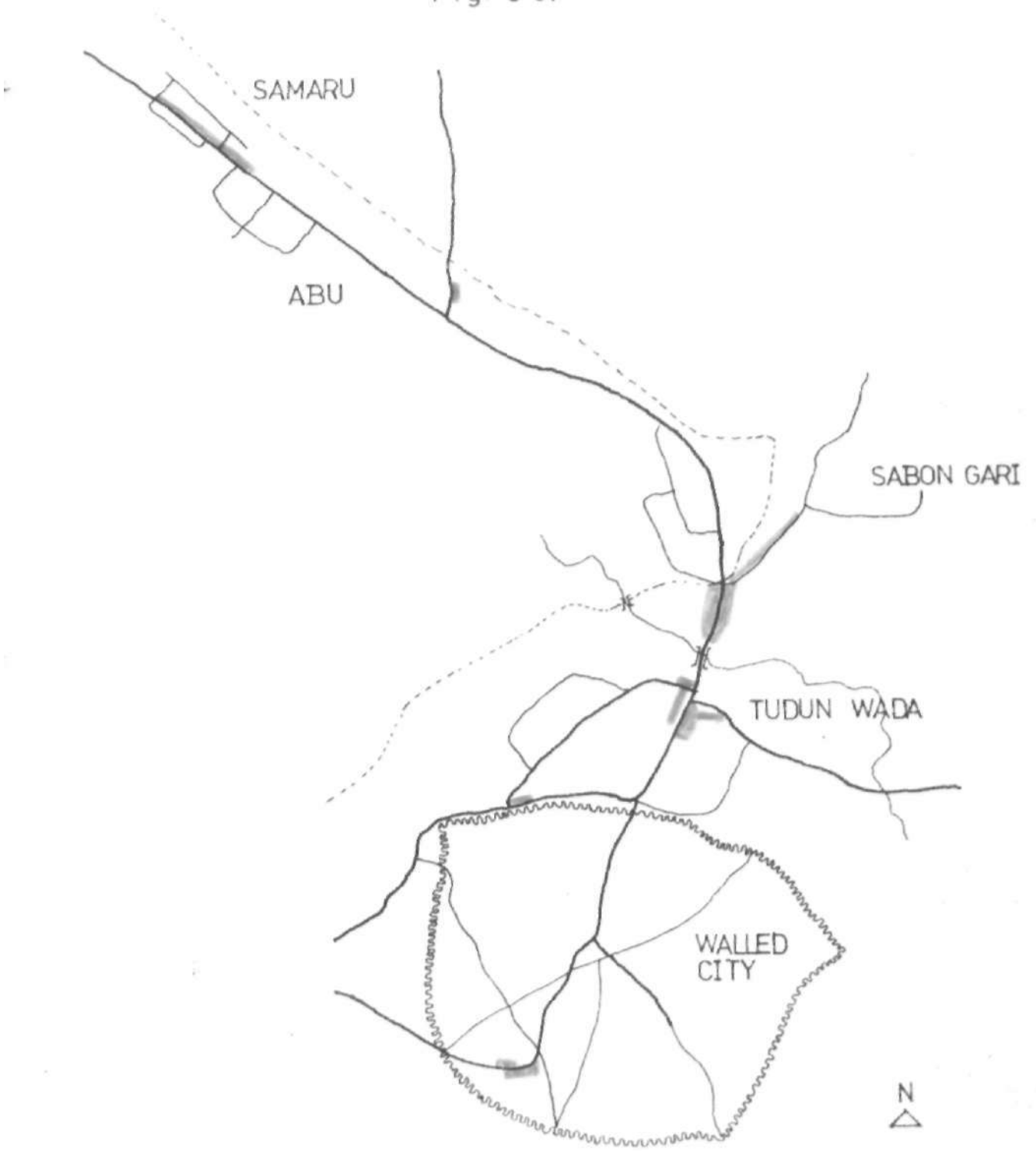
5. Location:

In considering shopping activities which happen outside the defined area of the traditional markets, four main areas have been identified namely: Zaria City, Tudun Wada, Sabon Gari and Samaru. The names given to these four centres correspond with those of the traditional markets to allow for easy comparison and the suggested integration.

In Samaru area a shopping strip has been identified stretching from the Barclays Bank South of Samaru Village up to the Petrol filling Station in front of the Samaru traditional market. This lineal development of commercial activity is mainly on one side of Sokoto road, opposite the Ahmadu Bello University Main Campus. Behind this lineal development are also some commercial functions mainly in the adjoining residential streets which are quite close to the market.

The second zone of shopping is the Sabon Gari - Township commercial complex. This area includes, commercial establishments along Aminu Road (before the Abbatoir) Hospital Road, Main Street, Park Road, Waff Road, Crescent and Sokoto Road (from the level crossing

Fig. 5.01



ZARIA URBAN AREA

LOCATION OF MAJOR SHOPPING AREAS

SHOPS

to the intersection with Park Road). This area controls a great percentage of the hub of commercial activities in Zaria Urban Area. In this zone you have the central motor park and the railway station. Also around this area is the Sabon Gari Market some administrative offices and cinema houses.

The third zone is the Tudun Wada commercial area. This includes the"notorious" one mile stretch of commercial establishments along Kaduna Road which starts after the Kubani River bridge up to A.B.U. Teaching Hospital. It also includes the shopping strip along Jos road. Also around this area is situated the Tudun Wada Market.

The fourth zone is the shopping strip along market street in Zaria city. It starts from the Northern boundary of the market to the south-west boundary of the market along the same market street.

Other areas of considerable shopping activities have been identified and these are mainly in the residential areas. Such areas are characterized by the sale of convenience goods. They are often found located in intersections or open spaces or under big trees. Such centres have been identified in twenty nine zones out of

the thirty zones into which Zaria was divided for the purpose of this study. Some example of such zones are Palladan, Cikaji, Dogon Bauchi or Independence and Wusasa to name a few. (Ref. Fig. 5.01)

5.b. Physical Condition:

5.b.(i) Layout

The shopping zones have grown organically so they lack any planned layout in terms of any form of physical planning more attention has been given to the traditional markets. Because the shops were not planned for they have developed lineally but organically on both sides of the streets and roads. Due to lack of planning they are located usually in residential apartments.

5.b.ii) Sanitation and Health

The shopping streets are not as filthy as the markets. The buildings in which shops are located perform dual function because they serve two purposes (commercial and residential) as a result they offer poor residential environment particularly for children. Usually such areas are overcrowded and infectious diseases spread very fast and easily.

They lack refuse receptacles and dry and wet refuse

are littered all over along the sides of the streets. The few gutters are very badly constructed and they are filled with stegnant pool of dirt which emit unbearable odour. Such filthy gutters are not only typical of the markets and shopping areas but are also found all around the residential areas in most of Urban Zaria.

5.b.iii) Infrastructure and Services

There are basically no provision of essential services for public use. In the few departmental shops, speciality shops, Banks and Super markets the services provided are mainly for the use of the workers. It is only in these type of establishments do you have pipe borne water, telephones, fire extinguishers and refuse receptacles.

5.b.(iv) Circulation and Parking

Accessibility to these shops are poor because majority of them are located in major streets that have a lot of traffic congestion e.g. the one mile stretch of commercial activity in Tudun Wada located directly on the congested Kaduna road and the location of commercial establishments along Hospital road, Aminu road, Main Street and Park Road in Sabon Gari. These areas experiende a lot of traffic congestion.

There are no pedestrian walkways on the roads. This creates a lot of accident hazard for the pedestrian and vehicle drivers.

There are no offstreet or curb parking provided in the shopping areas. The narrow streets are characterized by unauthorized curb parking facilities. It is necessary to mention here that a few department stores, speciality shops and the banks have provided off-street parking facilities. No service roads are provided for delivery purposes. What exists now is that loading and off-loading are done right on the major streets.

5. c. Design Characteristics

Majority of the shops were not initially designed to be shops, they were mostly designed as rooms for residential use but were converted into commercial establishment spaces.

Only the departmental stores e.g. Chellarams and the Speciality stores e.g. Bata, Limson and Lennards were designed as Commercial buildings with display windows. All other shops including some departmental stores have no display windows which facilitates window shopping.

5.c.i Structure Type

The structure of shop buildings were classified into five types:

1 - Makeshift
2 - Kiosk
3 - Mud block
4 - Concrete
5 - Temporary

The makeshift ones are those put up by traders who have no houses to rent. They are usually made of woodden poles no walls and are found in the Railway zone, opposite the main motor park. These are usually placed on unauthorized ground so they are built in a form that can be easily removed.

Kiosks are found in many areas in Zaria Urban Area. They are usually made from timber and are usually rectangular in shape with wooden sides and roof. The other forms of structures are more permanent. Temporary means people who have a shop that is structurally okay but are staying at the site temporarily until a better alternative is found.

TABLE 5.01

DESIGN CHARACTERISTICS:
STRUCTURAL CLASSIFICATION OF SHOPS IN DIFFERENT ZONES IN ZARIA URBAN AREA

Z O N E	STRUCTURE TYPE					TOTAL
	Make-Shift	Kiosk	Mud Block	Concrete Block	Temporary	
Zaria City	18.7	9.3	49.3	13.3	9.4	100%
Tudun Wada	24.1	15	24.1	35.7	1.1	100%
Sabon Gari	20.4	8.5	14.2	47.7	9.2	100%
S a m a r u	17.9	8.5	24.9	42.8	6.0	100%

Source: Entreprenuer Contact Diary.

This table No. 5.01 compares structure type in each zone seperately.

The general high percentage of shops in mud and concrete blocks is because they are permanent. The high percentage of shops in mud blocks in Zaria City could be because of the dominant use of local building material in construction of housing.

5.c.ii Space

The area of makeshift shops range from $4m^2$ to $6m^2$. This area is also common to kiosks. Shops in mud block and concrete building range from $15m^2$ to about $45m^2$

and above for department stores and speciality shops. Generally shops in the shopping area occupy more space than stalls do in the traditional markets.

5.d. Service

Service functions range from low order personal service functions to high order establishments like commercial Banks. For this study service activities have been further classified under three broad groups with sub-headings:

1) Personal Services
   - a. - Laundry
   - b. - Hairdressing in Beauty Saloons
   - c. - Tailoring
   - d. - Small scale repairs of watches, shoes, bicycles etc.

2) Large Scale Repair Services
   - a. - Electrical Equipment repairs
   - b. - Automobile service & repairs.

3) Commercial service Offices
   - a. - Banks
   - b. - Insurance
   - c. - Business Offices
   - d. - Post Office
   - e. - Filling Station.

In Zaria Urban Area perdentage of service activities are distributed in this order.

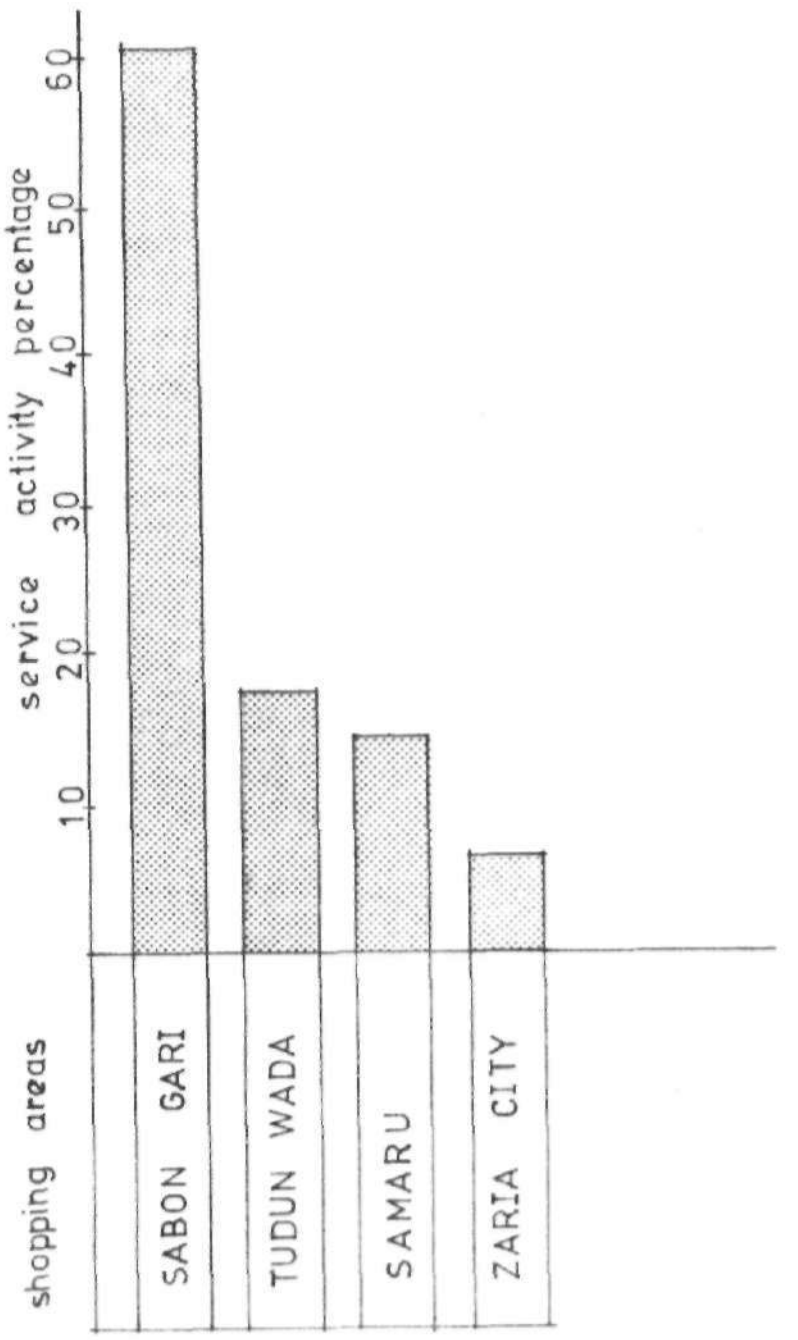
TABLE 5.02

COMMERCIAL CHARACTERISTICS OF SHOPPING AREAS:
DISTRIBUTION OF SERVICE ACTIVITIES
IN ZARIA URBAN AREA.

Z O N E	% OF SERVICE ACTIVITY
Zaria City	6.8
Tudun Wada	17.5
Sabon Gari	14.7
S a m a r u	61
T O T A L	100%

Table 5.02 shows percentages of all types of services lumped together. It is important to mention that the nature of service functions in different areas differ a great deal. Some areas have more of personal services and repair services. Although an area may have several service establishments they may be in a lower order in the hierarchy, depending on the nature of the services. Service functions which are common to many zones are of a lower order than

Fig. 5·02



SERVICE ACTIVITY IN THE FOUR MAJOR SHOPPING AREAS IN ZARIA.

Source : Field Survey 1975/76 Session

services obtained in a few zones. A detailed analysis of service functions found in each zone will be made.

In Zaria City there are no Banks and Insurance Companies. The nature of service functions are mainly personal services particularly tailoring. There are a few barbars, no laundries and one Filling Station.

In Tudun Wada the nature of service functions is dominated by automobile repairs, electrical equipment repairs personal services, hotels and filling stations. The high percentage of Automobile repairs is attributed to the large number of shops which sell automobile parts.

Sabon Gari has the greatest number and types of service functions. It has all the three main types of service functions including all the individual service types under each main type.

It has Insurance Companies, five Commercial Banks. It has two big Automobile repairs firms: J. Allen and Co. and Mandilas Ltd. It also has several electrical equipment repair shops. All low order services ranging from watch repairs to hairdressing are found in this zone.

It is the only zone in Zaria which has a modern Hairdressing Saloon. This zone has seven Filling Stations and six of these are located in the Central area. This zone habours the main Post Office.

Samaru has all the three main kinds of service functions, that is, Personal Services, Large Scale Repair Services and Commercial Service Offices.

Under personal services it has hairdressing and tailoring. It has one Electrical Equipment repair shop and has two commercial banks and a post office.

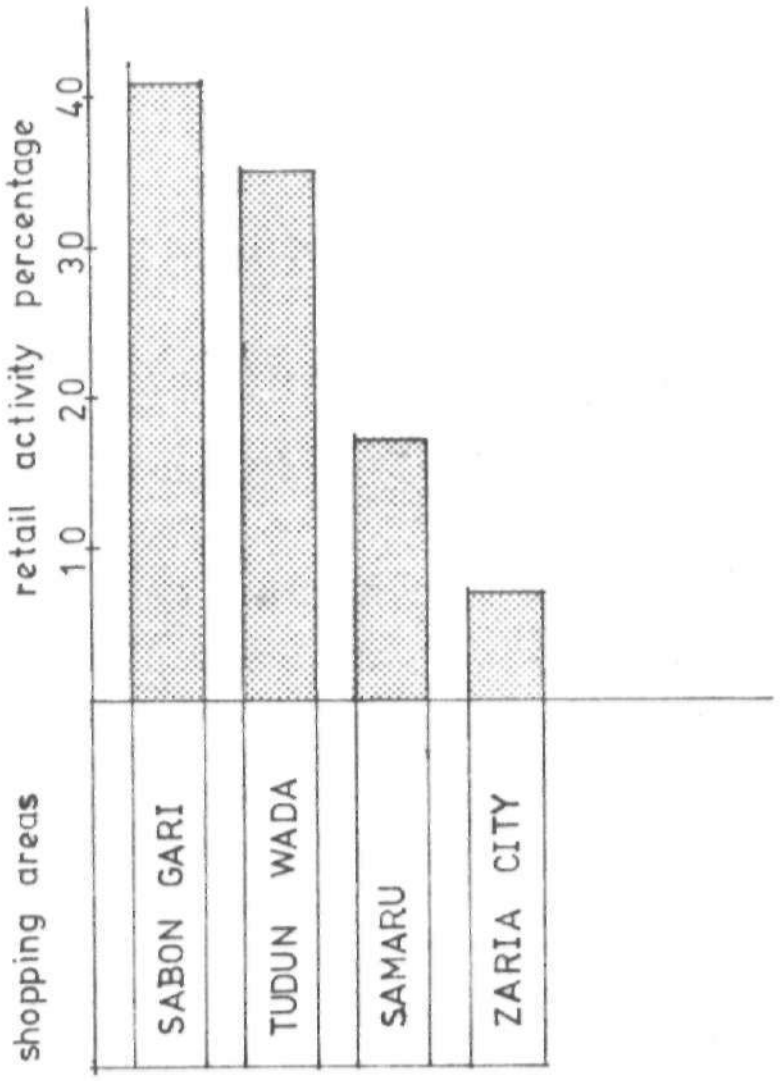
From the foregoing analysis only Sabon Gari and Samaru officer some high order services like Banks and post offices.

5.d.ii. Retail Activities, Ref. Fig. 5.03

Retail activities in the shopping areas have been broken down into thirteen groups dependong on the scale of the retail function and secondly on the type of commodities sold. These thirteen groups are mainly:

1. Kanta (a Nigerian adopted word for small scale selling of goods on tables, and small cupboards)
2. Convenience goods shops e.g. Kiosks
3. Variety shops
4. Books and Stationary
5. Household goods
6. Tools and appliances
7. Super Markets

Fig. 5·03



RETAIL ACTIVITY IN THE FOUR MAJOR SHOPPING AREAS IN ZARIA.

Source : Field Survey 1975 / 76 Session

8. Department Stores

9. Fashion Stores

10. Electrical Equipment Stores

11. Furniture

12. Automobile Parts

13. Automobile Scales

14. The general characteristic of these different retail establishments is that they sell mainly industrially manufactured goods and high order goods. Goods like grocery are usually not sold in these establishments except in a few super markets and departmental Stores. Not all retail activities are found in each of the four main zones hence there is a need to discuss each zone seperately. It would be necessary to mention here that for the purpose of this study Zaria Urban Area was divided into thirty zones initially to be able to identify all kinds of retail and services functions. But an intensive study was carried out for the four main shopping areas already mentioned. These areas are also parts and parcel of the thirty zones.
The Zaria City zone is zones 1 - 4; Tudun Wada zone 5 - 12; Sabon Gari zone 13 - 24 and Samaru zone 25 - 30. In this case all the residential areas were considered.



A "Kanta"

It was necessary to do this because some degree of commercial functions are identified in residential buildings.

In Zaria city most of the shops are Kantas, Convenience shops, small scale electrical equipment stores and drug stores. They are (except for Kanta) located along the market street and majority of them are found around the traditional market: Kanta is found in all the residential zones in Zaria City.
Certain shopping establishments are conspicously absent such as super markets, fashion shops, stationery stores and departmental stores.

In Tudun Wada the main shopping area is along the notorious one mile stretch along the Kaduna Road. Shopping facilities in the residential areas are mostly Kantas and convenience shops. Along Jos Road there is a Super Market, some fashion Shops and Variety Shops. Shops along Kaduna road sell mainly motor parts, and bicycle parts. This area is the major spot for Automobile parts sales. There are also some convenience shops, supermarkets and drug stores. The large number of drug stores could be because of the nearness to the A.B.U. Teaching Hospital.

Sabon Gari area acts as the city centre and is characterized by high order goods. Inside the residential areas of Cikaji, Muchia, Dogon Bauchi and Tsugugi you have a lot of Kantas, convenience shops and small scale drug stores.

The main commercial zone can be broken into two. The Aminu Street, Hospital Road and Lagos Road area which have a lot of retail shops selling different categories of goods. This area is very close to the traditional market. The second half of the zone is the Main Street, Park Road, Waff Road and the PZ area or the retail and wholesale zone. In the zone surrounding the traditional market the shops are mostly Drug Stores, Variety Shops, Small Fashion Shops, Furniture Shops, Household goods shops and a Supermarket located almost inside the market. There are also shops which sell small scale electrical equipments, building materials and parts. In the other zone you have department stores, variety shops, wholesale, furniture shops, motor parts and automobile sales. Shops in this zone are larger in scale. This area is about 0.25km from the Sabon Gari traditional market so that consumers can actually move from the market to these shopping areas.

This Sabon Gari zone sells allgoods sold in the other shopping areas plus its own specialized goods like Automobile sales and Furniture.

Shopping activity in Samaru has developed lineally along Sokoto Road opposite the University. The Southern boundary is the Barclays Bank and Northern boundary is the residential apartment beyond the market. In Samaru area as a whole I have identified these type of shopping activities:

Kanta, Convenience shop, Variety Shops, Household shops, Stationary Tools, Super Markets and Drug Stores. Kanta is found in almost every compound in Samaru. There is only one super market Kowa Stores. All other Stores which sell goods are variety shops. There are also several Convenience shops which are main Kiosks. Household goods are mainly cups, plates and plastic buckets. There are shops which sell small scale electrical appliances like bulbs there is also a record shop..

5.e. Consumer Behaviour in the Four Main Shopping Areas in Zaria Urban Area.

TABLE 5.03

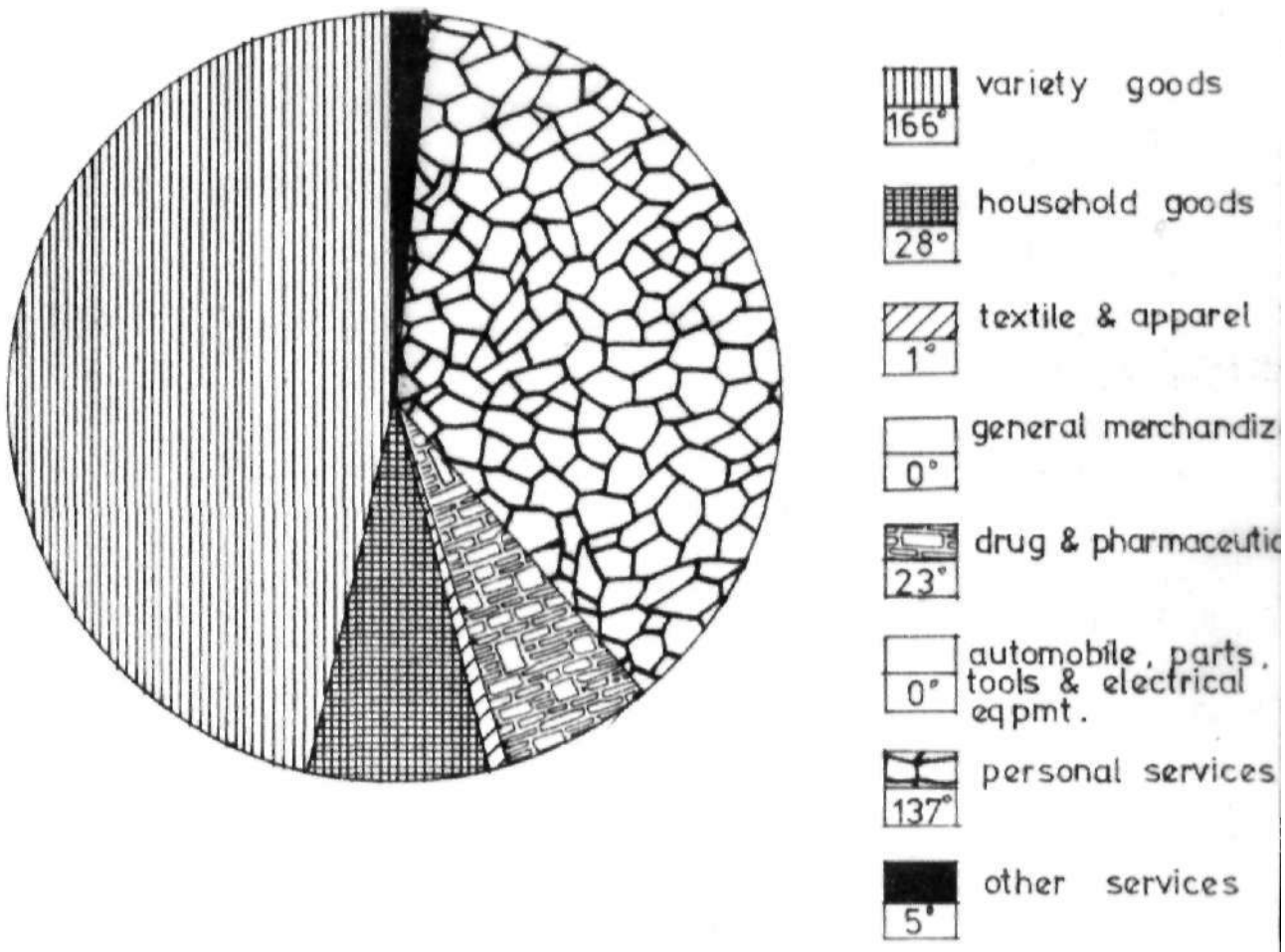
% OF CONSUMER PURCHASES OF DIFFERENT GOODS IN EACH SHOPPING AREA IN ZARIA URBAN AREA

COMMODITIES	% PURCHASES IN EACH ZONE			
	Sabon Gari	Tudun Wada	Samaru	Zaria City
Variety Goods	34	36.1	53	46
Household Goods	23	20.6	19	7.9
Textile & Apparels	11.2	6.3	0.2	0.2
General Merchandize	9	2.8	2.4	-
Drug & Pharmaceutical	5	2.2	4	6.4
Automobile Pars) Electrical) Equipment &) Tools)	12.2	16.7	7.3	-
Personal Services	6.2	11	10	38
Other Services	0.4	4.3	4	1.5
T O T A L	100%	100%	100%	100%

Source: Federal Office of Statistics, Kaduna.

In the table above No. 5.03 Kantas have been left out.

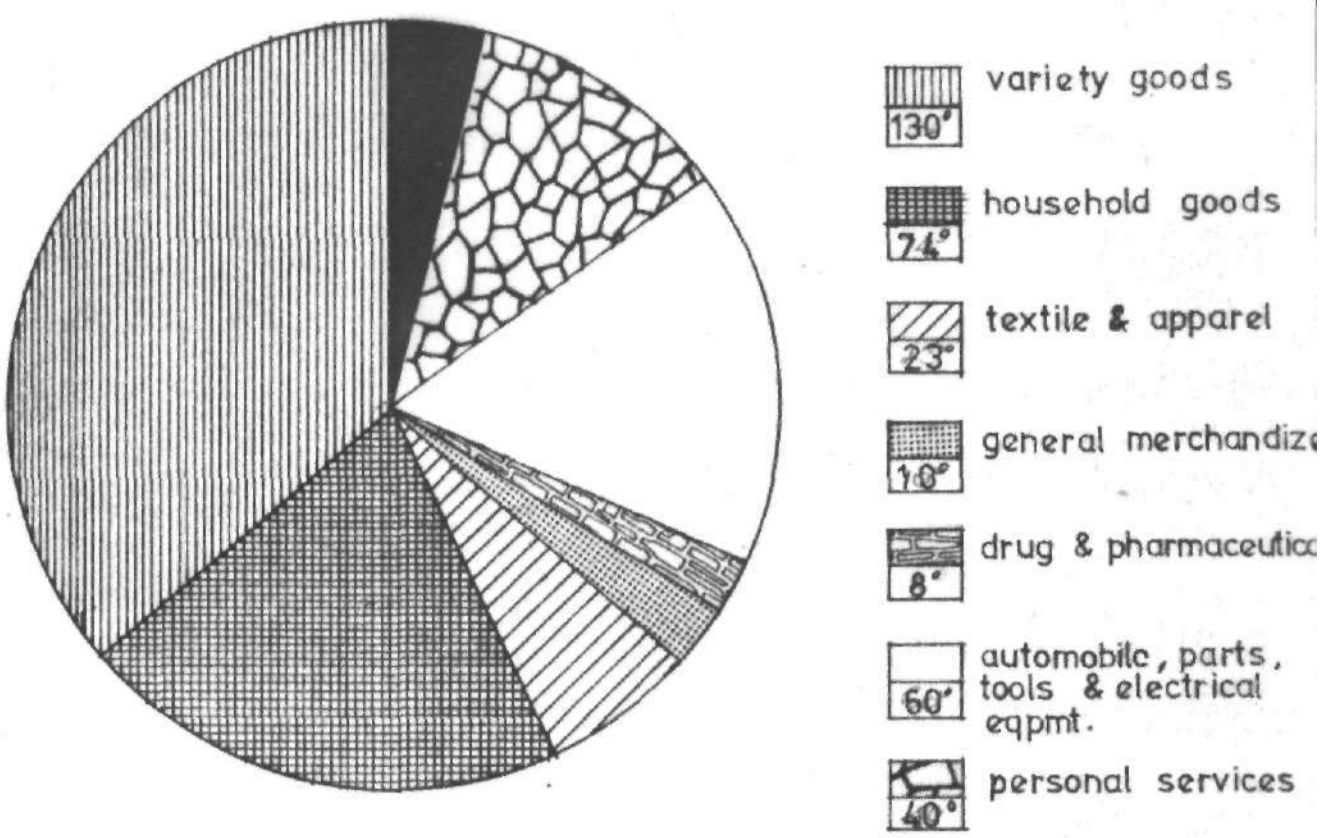
Fig. 5.04



PERCENTAGE PURCHASE OF DIFFERENT COMMODITIES IN ZARIA CITY.

Source: Field Survey 1975 / 76 Session

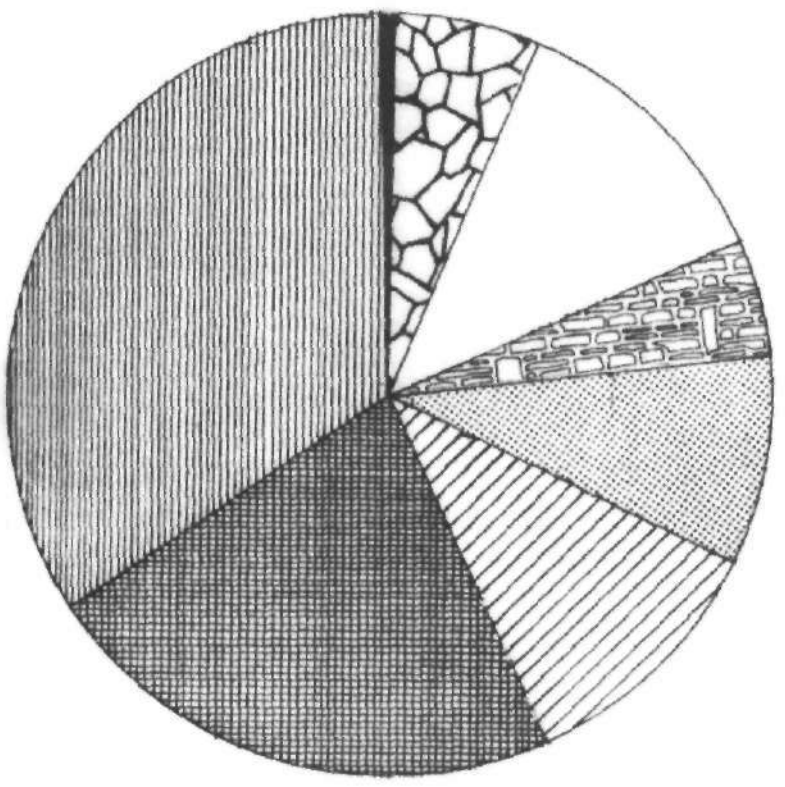
Fig. 5·05



PERCENTAGE PURCHASE OF DIFFERENT COMMODITIES IN TUDUN WADA.

Source: Field Survey 1975/76 Session.

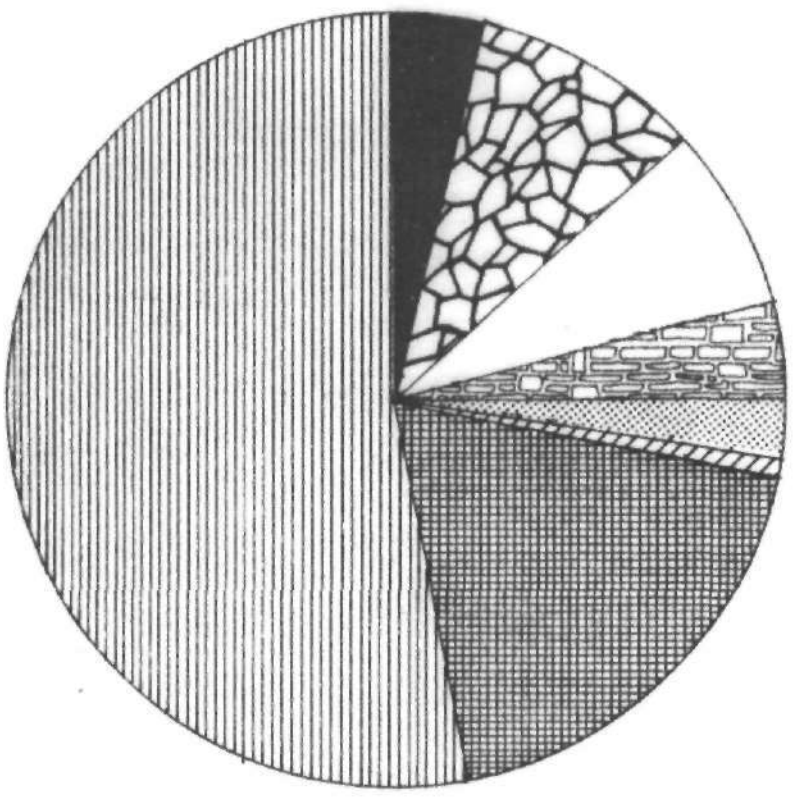
Fig. 5·06



PERCENTAGE PURCHASE OF DIFFERENT COMMODITIES IN SABON GARI.

Source: Field Survey 1975/76 Session.

Fig .5·07



PERCENTAGE PURCHASE OF DIFFERENT COMMODITIES IN SAMARU.

Source: Field Survey 1975 / 76 Session.

Super Markets and Departmental Stores have been grouped under General Merchandize and Automobile Parts, Electrical equipment and appliances and Tools have been grouped together under one heading.

The percentages are relative and refer to each centre seperately. Although Sabon Gari generally offers the greatest amount and variety of services yet it recorus only 0.4%. This percentage has been derived by comparing the number of services to other functions.

From observation a large percentage of people who received Automobile repair services did so in Tudun Wada and Sabon Gari. Likewise commercial bank services were only obtained in Samaru and Sabon Gari so also is Postal Services.

The degree of specialization and the intensity of each commercial function has a direct influence on the amount of consumer purchases and frequency of visit to that centre. This is elaborated in Chapter Six.

Ref. Fig. 5.04 - 5.07

5.f. Existing Planning Principles and Standards

So far from the analysis of findings there are no standards or principles as regards the number of each type of commercial establishment to be located in each

shopping area. The present situation was not planned so there were no guiding principles behind this. There areno guiding principles behind the type of shop and structure. The fact that bigger shops are located in buildings built of concrete and mud blocks is expected naturally. These buildings usually offer more space and security hence the rents are higher. So it is only logical that only such shops which can occupy the space effectively, and be able to pay the high rents would occupy such spaces. There are no zoning principles. Shops and other commercial activities have developed organically. Hence you find Garrages and Repair Shops located between variety shops e.g. J. Allen & Co. is located behind a speciality shop and variety shop.

From the analysis on Parking and Circulation there are no planning principles and standards. All the roads in the commerdial district are busy yet there are no provision for offstreet parking and curb parking. There are also no pedestrian walks and zebra crossings to facilitate pedestrian movement.

I can therefore draw a conclusion that shops have developed organically wherever they are located wity no planning principles and standards governing their location and operations. Secondly no planning principles and

standards governing the nature of circulation to be provided in such areas.

CHAPTER SIX

ANALYSIS AND SYNTHESIS OF FINDINGS

A SUMMARY OF FINDINGS

6.a. Relationship between existing Traditional Markets and Shopping Areas:

6.a.i. Location

In all the four main shopping zones studied namely Zaria City, Tudun Wada, Sabon Gari and Samaru shops have located next to the traditional markets. In Samaru the shops are located all around the traditional market on Sokoto road within a distance of 0.25km. In Sabon Gari the shops along Lagos Road, Hospital Road and Aminu Road actually surround the traditional market. They extend from this area westwards to Main Street, Park Road, Waff Road and the PZ area.

In Tudun Wada Shops and other Commercial establishments are located very close to the traditional market, particularly on Kaduna road.

In Zaria City 90% of the shops are along the market road starting from the northern boundary of the traditional market to the southern boundary and along the residential road that forms an immediate boundary with the traditional market on the western side. The distance again is less than 0.25km. In Conclusion there is locational relationship.

6.a.ii, Commercial Relationship:

There is a great deal of commercial relationship between the markets and shopping centres.

A very important factor to note is that they sell basically same commodities. The difference is in the degree of specialization and prices. Markets specialize in lower order goods particularly food. Where they sell the same kind of goods the markets specialize in the lower order one e.g. Electrical equipment. In the market there are cheap brand electrical equipments like cheap transistor radios, Irons, Ring boilers while bigger shops sell quality goods and high order goods like television, refrigerators, electric hairdriers and electric cookers that have ovens.

Local foodstuff is found only in the markets. One important thing about the market is that it affords one a chance to bargain which does not obtain in the shops. We can then say that while shops specialize in quality and high price goods which are sold at fixed prices the market on the contrary stands for quantity, cheapness and affords one a chance to bargain. In this instance the market serves the low income group who prefer to bargain and are shy and afraid to enter such

big shops like department stores to buy what they need.

6.a.iii. Interdependence:

The proximity in their location creates some interdependence. For the entrepreneurs they can easily notice change in prices offered by others by comparing and adjusting to such changes. The m..ket and shops depend on the same consumers for their sales so that one can be a source of attraction for the other, e.g. The market can act as a magnet in a properly planned shopping centre. The survey findings revealed that markets are visited more frequently than shops so that the location of other commercial establishments near a market means that customers to the market can be attracted to the shops easily. The situation can be also reversed.

Looking at it from the consumers point of view their nearness in location will afford her a chance to combine shopping from both of them in a single trip, thereby saving time. She could also compare the prices of same goods sold in the market and shops and decide where to buy from.

6.b. Identification of Hierarchies

To identify the hierarchy of shopping centres that is considering markets and other commercial

establishments together two criteria have been used.

The first criterion classifies all commercial establishments into twenty types and tries to find out in how many zones out of the thirty surveyed zones each type occured.

The other criterion is used to support the first criterion. This other criterion finds out the catchment area of each hierarchy of centre. In short it is only the first criterion which establishes the hierarchy.

To be able to locate the lowest order type of commercial establishment, Zaria Urban area was divided into thirty arbitrary zones. These thirty zones form the four urban quarters already discussed. In this case zones 1 - 4 represent Zaria City; 5 - 12 Tudun Wada; 13 - 24 Sabon Gari and 25 - 30 Samaru. It was also necessary to identify the actual zones out of these thirty zones which haboured the traditional markets. Zaria City market is located in zone 1, Tudun Wada market in zone 11, Sabon Gari market in zone 19 and Samaru market in zone 30.

This lengthy explanation is necessary to avoid ambiguity. These thirty zones refer only to studies

devoted to shopping generally, hence the traditional markets were also included.

Using the first criterion commercial establishments were divided up into twenty types:

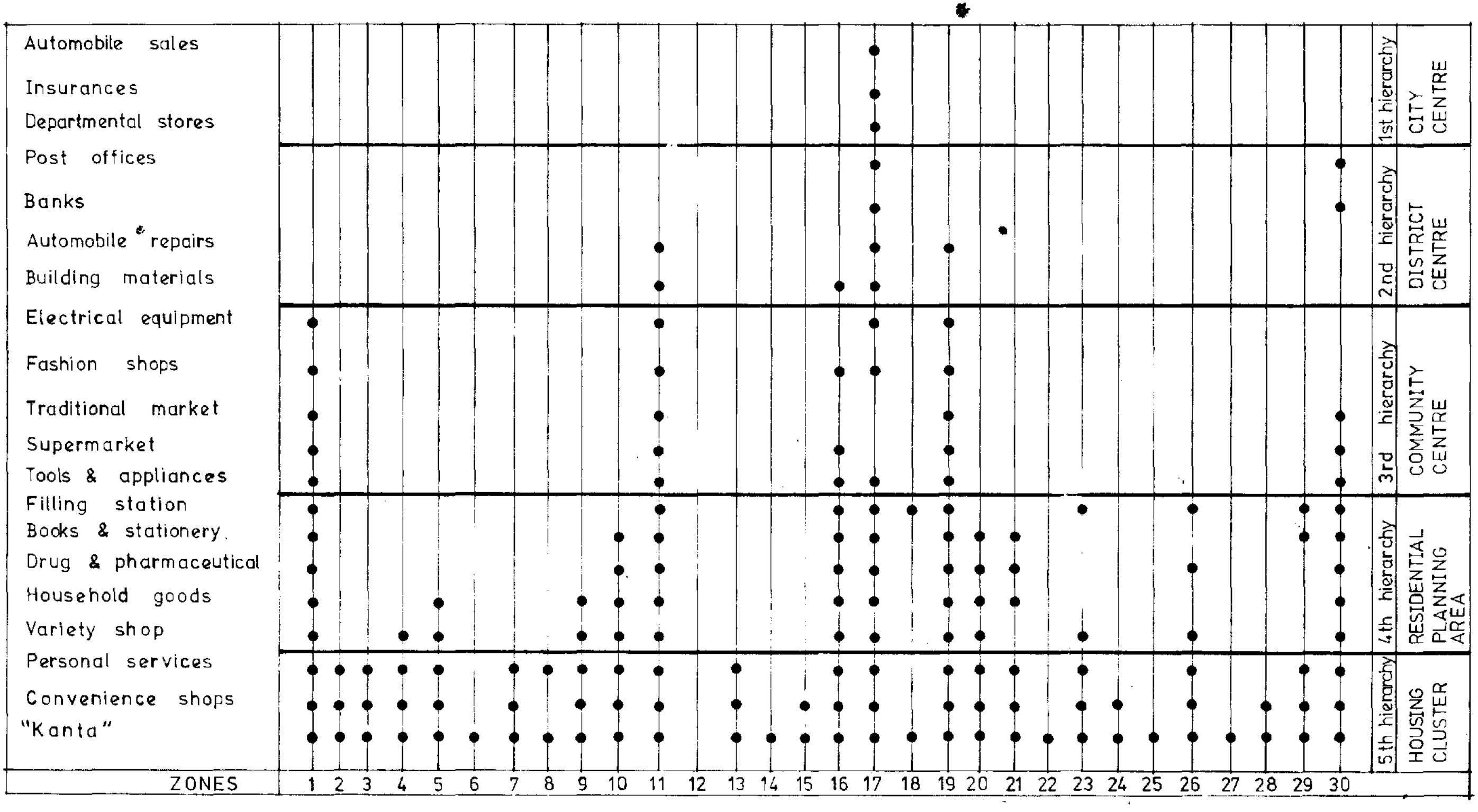
1.	Kanta	11.	Traditional Market
2.	Convenience Shop	12.	Fashion Shop
3.	Personal Services	13.	Electrical Equipment
4.	Variety Shops	14.	Building Materials
5.	Household Goods	15.	Automobile Repairs
6.	Drug & Pharmaceutical	16.	Banks
7.	Books & Stationary	17.	Post Office
8.	Filling Station	18.	Departmental Stores
9.	Tools and Appliances	19.	Insurance Company
10.	Super Market	20.	Automobile.

(Please refer to Fig. 6.01)

Looking at the graph Fig. 6.01 vertically we can identify four clusters of commercial activity around Zaria City, Tudun Wada zones 10 & 11, in Sabon Gari zones 16 - 19 and in Samaru zone 30. These are the existing four major shopping areas.

To be able to derive a hierarchy of commercial centres the graph is read horizontally. Following christallers assumption in central place theory the more often a particular function appears in space the lower

HIERARCHICAL DEVELOPMENT OF COMMERCIAL ESTABLISHMENTS



its order.

Reading horizontally therefore starting from Kanta and going upwards to Automobile sales, five hierarchy of centres have been derived.

TABLE 6.01

IDENTIFICATION AND ESTABLISHMENT OF COMMERCIAL CENTRE HIERARCHIES

ORDER OF HIERARCHY	Commercial Establishments	Planning Unit
5th Hierarchy. Lowest Order	Kanta-Personal Services	Housing Cluster
4th "	Kanta-Filling Station	Residential Planning Unit
3rd "	Kanta-Elec. Equipment	Community Centre
2nd "	Kanta-Post Offices	District Centre
1st " Highest Order	Kanta-Automobile sales	City Centre

From Table 6.01 and Fig. 6.01 the lowest order hierarchy in this instance serves the needs of a few housing clusters and goods are mainly convenience goods sold in Kantas and Kiosks. The fourth order hierarchy services the needs of people in the residential planning units and functions are all those found in the 5th hierarchy plus its own special functions. In this order the highest

hierarchy offers all functions in all the hierarchies lower than it plus its own specialized functions.

The information got on distance travelled by consumers to different centres shows that the higher the order of the hierarchy of a centre the longer the distance people will travel to such a centre.

From Chapter four we found the latchment areas of these zones to be so. In Zaria City 90.4% of the Consumers shopping in that area travel 1 - 2 km. In short its patronizers live within the walled city. In Samaru 90.4% of the customers travel 1 - 5km and in Tudun Wada 86.7% travel 1 - 5km while in Sabon Gari 90.3% travel 1 - 10 km.

From the above the trade areas of these four main centres are:

Sabon Gari	1 - 10km
Samaru	1 - 5km
Tudun Wada	1 - 5km
Zaria City	1 - 2km.

All other centres below these in hierarchy are engulfed in larger trade areas first by the City Centre, District Centre etc. The trade area of each level of hierarchy falls within the trade area boundary of all centres

higher than it in the order of hierarchies. As such housing clusters will have the smallest trade area while the city centre has the largest trade area.

6.c. Identification of Planning Principles:

From the analysis in Chapters four and five little was identified in terms of any planning principles.

i. Use of Space

There is a general poor space allocation to different uses. Both commercial and non-commercial uses have developed over space with time. For instance there are no organized open spaces and no set standards to follow in spade allocation.

ii. Circulation:

In the markets, stall buildings have occupied alot of space and very narrow strip of walks are left for the pedestrians. There are no provision for vehicular or push car delivery of goods to stalls.

Goods are therefore delivered by head portage through the very narrow circulatory routes used by both customers and the traders. The narrow pedestrian walks are further narrowed down by traders who display their goods right on the routes.

The resultant effect is congestion and the reason is lack

of adequate planning considerations for different land uses.

Along the shopping areas there are no pedestrian walks, no service routes for delivery vans. In effect the pedestrian uses the same road as the delivery vans, through traffic and push cars.

iii. Parking Facilities

Only Sabon Gari market has a parking facility for commercial vehicles. Non of the markets has parking for private cars. Markets and their nearby shopping areas are characterized by curb parking which creates a lot of congestion.

iv. Zonning

A little bit of zonning exists in the traditional markets because traders selling same commodities locate close to one and the other. But in some cases traders selling unrelated commodities are located not far from each other. This has been mentioned in Chapter four. There is no attempt to seperate the dry and wet markets. In the shopping area zoning is also very poor. Shops are located in residential buildings. Commercial landuses have not been zonned seperately from residential landuses due to lack of planning. In some cases, Hotels,

Restaurants, Bars and Noisy record Shops are located in residential buildings and this creates a poor environment particularly for children.

v. Locational Criteria

Markets have been located organically and have also attracted shops which have also located organically. The result of this organic location is that many people travel a long distance to get to any centre. No centrality in location. People in Wusasa must travel at least 5 km to any of the traditional markets nearest to them. Same is true for people who live in Basawa, Bomo and Palladan. The distance between Tudun Wada market and the shopping centre is very short from the Sabon Gari shopping complex. This reflects lack of planning and no consideration for centrality.

6.d. Idrntification of Planning Standards

There are no standards governing the area allocated to markets and shopping areas. The area which the markets occupy are small compared with the number of stalls in each market.

To some extent the market has some standards. There are standards with regards to structure type, space and type of commodity sold in the stalls.(Ref. Chapter 4).

Despite this the spade allocated to each stall type is small this tempts traders to spread their goods on to the pedestrian walks.

In the shopping area there are no standards for commercial and non-commercial uses also. The roads are the same width with little set backs. No standard between the number and type of commercial activity in each area with the population served.

Generally there are no standards governing the design criteria of shops and stalls hence most of them lack essential things like display windows that will facilitiate window shopping.

6.b. Conclusion

From the foregoing synthesis and analysis there is a need to integerate markets and shopping centres and locate them together.

The reason for integration is that in terms of location they have naturally grown together in the same zone. In terms of commercial relationship they offer similar commodities though at different levels and scales and they cater for different categories of a cities population. In short a situation of social dualism exists. Any integration of them will mean better use

of space which will create a quality environment.
An integration of both will increase on their economies of scale and for the consumer he will save a lot of time and money commiting over space.
These two are so related that they need to be integrated and not seperated. They should be planned for and planning principles and standards should be set to prevent them from further organic development.

From the identification of hierarchy of centres it is now evident that they exist and must be planned for, for the good of urban Zaria.

Finally if any integration is to be proposed and adopted there should be a creation of hierarchy of centres catering for different degree of commercial functions there must be planning principles and standards to guide the planners whom this task would face.
In Chapter seven a series of recommendations will be made with regards to the inferences drawn from this conclusion.

CHAPTER SEVEN

RECOMMENDATIONS

7.a. PROPOSED HIERARCHY OF SHOPPING CENTRES

In identifying the existing and future hierarchy of shopping centres in Zarua Urban Area the nature of goods sold was used as the first criterion. In Chapter six under identification of hierarchies five hierarchies of commercial centres were derived namely:

1. City Centre
2. District Centre
3. Community Centre
4. Residential Planning Area
5. Housing Cluster.

To derive the number of each type of commercial centre or planning unit is a function of the proposed population to be served.

From population estimates and projections Zaria Urban Area population is estimated at 224,000 in 1975. Projected Zaria population using 2.5% rate is

1980 - 252,000

1985 - 280,000

1990 - 308,000

The 2.5% growth rate used for the population estimates and projections is that recommended by the Kaduna State

Government.

The proposed population for each planning Unit in 1990 is:

City Centre	308,000+		
District Centre	80,000	-	100,000
Community Centre	25,000	-	35,000
Residential Planning Area	6,000	-	10,000
Housing Cluster	750	-	1,500

TABLE 7.01

PROPOSED HIERARCHY OF COMMERCIAL CENTRES IN RELATION TO POPULATION SERVED AND EXCEPTED NO. OF EACH TYPE IN ZARIA URBAN AREA 1990

A	B	C	D
PLANNING UNIT	POPULATION SERVED	NUMBER	TOTAL NO OF EACH TYPE IN ZARIA
City Centre	308,000+	1	1
District Centre	80,000-100,000	3	3
Community Centre	25,000- 35,000	2-3	6-9
Residential Planning Unit	6,000- 10,000	3-4	21-30
Housing Cluster	750- 1,500	6-9	160+-

Note: (Column C of Table 7.01 refers to the total number

of each type of planning unit to be found in the next higher order planning unit e.g. 2 - 3 centres Community Centres in each District Centre. The last column D gives the total of each type in Zaria Urban Area). Future commercial requirements at each planning unit is related to the findings in fig. No.6.01. The figure refers to the existing situation which I have adopted for the future with certain modifications.

Following the present situation Banks and Post Offices are located only in Sabon Gari District (which acts presently as the city centre) and in Samaru District.

It is therefore recommended in this study that Banks and Postal services should be located in all proposed District Centres and Community centres while only postal services should be located in proposed Residential planning areas and some post boxes in Housing Clusters. There should also be some number of market stalls in the community centres and residential planning areas.

5.b.i. Recommended Planning Principles and Standards

To determine future shopping centre requirement we have to recall situations of existing space standards and commercial establishments. In other words the existing

density of uses in the markets and shopping areas have to be calculated. There is also a need to determine stall/person ratio and shop/person ratio.
In doing this it is essential to bear in mind that from the analysis of the existing planning principles .. and standards, Parks, Roads, Pedestrian walks and Open spaces have been very poorly provided for in all the markets and shopping areas studied.

To find out the area required at each planning unit, the area required for the traditional market and shopping areas are each calculated seperately. The addition of these areas will be the required area for a shopping centres.

Before the calculation a brief review of some standards for area allocation and shop allocation is made briefly. These standards are not accepted in entirety but with some caution.

The following table below is the recommended standard for land allocation to different landuse type in a traditional market, prepared for the former Western State of Nigeria by Professor Vagale.

Source: Anatomy of Traditional Markets By Prof. Vagale

NO.	LANDUSE	% OF DEVELOPED AREA
1.	Stalls	30 - 40%
2.	Organized Open Space	15 - 20%
3.	Utilities Services & Facilities	10 - 15%
4.	Street, Walks Parking lot	'5 - 20%
5.	Other uses	10 - 12%

This standard to some extent gives some idea of the different uses to be provided for in the market. But while it may be adequate for situations in Ibadan it is not totally adequate for Zaria.

Stall & Shop Allocation:

To calculate the number of shops and stalls needed or to be allocated to each planning unit the method used is that adopted from the New Delhi Master Plan. In the absence of any standards for Nigerian situation this method has been adopted. India is a developing Country and its commercial activity is not too different from that of other developing country like Nigeria.

The number of shops and stalls to be allocated to each planning unit depends on the nature of goods sold and market size required.

The table below which has been adopted from the

New Delhi Master Plan shows the percentage total of shops and stalls to be allocated at each planning unit.

TABLE 7.02

% ALLOCATION OF STALLS & SHOPS TO EACH PLANNING UNIT

PLANNING UNIT	% NO. OF SHOPS AND STALLS TO BE ALLOCATED
City Centre	15% - 20%
District Centre	20%
Community Centre	30%
Residential Planning Area	15 - 18%
Housing Cluster	15 - 18%

Source: New Delhi Master Plan.

There are presently a total of 4080 stalls in Zaria Urban Area on a total land area of 10 Hectares.

From this therefore the density of stalls on land is 408 stalls on a Hectare of land. It is important to mention that stall coverage is presently about 80% of the land area in a market.

With this high percentage coverage the walk ways in the market are very narrow, there are generally no provision for community facilities except toilets and most of the markets have no parking facilities.

Present stall person ratio is 1:55, that is one stall to every 55 persons. From the findings of the present study it is agreed that this ratio is very high. One of the reasons is that many traders who have no stalls . use open spaces and some roads for displaying and selling their goods. Since all these traders help to solve the need of the consumer it is only proper that they should be provided with adequate shelter where they can sell their goods confortably. Secondly the accommodation of these traders in built up stalls will help save the markets from their present state of congestion and environmental degeneration.

It is therefore proposed that the ratio to be adopted for planning purposes between now 1975 to my target year 1990 should be 1:40 that is one stall to every 40 persons.

Assuming this ratio is already already in operation the number of stalls in Zaria for 1975 should have been 5600 and would be

6300 stalls in 1980

7000 stalls in 1985

7700 stalls in 1990.

With the above number of stalls for the different years, and accepting that 20% of these should be located in the

three district centres, it therefore means that in 1975 there should have been 1120 stalls for the district centres and 1540 for them in 1990. It means that each district centre in 1990 will have 513 stalls while if this had been in operation now there should have been 373 stalls in each district centre in 1975.

If we assume a market of 408 stalls to have one Hectare of land at 60% stall coverage while other land-uses occupy 40% the total area of a market of this size will be $\frac{100}{60}$ x 1Hec. = 1.67 H.
Using this as a standard then a market of 513 stalls will occupy a land area of $\frac{513}{408}$ x 1.67 H = 2.1 Hectares.
From this the total area to be allocated to district centre market in 1990 considering all landuses will be 2.1 hectares.
This method is used to find market requirement for other planning units in 1990. (Ref. See Table 7.04).

Shopping Area Requirement

In calculating shopping area requirement the present shop/person ratio has to be considered. Secondly a proposal is made in terms of area adequate for different kinds of shops. This proposal is made from the observed situation as regards the floor space of different shops.

The present number of shops in Zaria is 876 and the shop/person ratio is 1:253.
From the results of the survey it was also found that many people who used makeshift constructions for shops did so because they had no proper shop allocation. From the point of view of the consumer the shops in Zaria are few and concentrate in one main zone so that people outside this have to commute a long distance to buy certain goods. It is therefore important to increase the number of shops in Zaria so that more entrepreneurs can be adequately accommodated so that our present open spaces which have converted into shops can be saved.

From this therefore it is proposed to reduce the present ratio of 1:255 to 1:200 to allow for the growth of more shops in Zaria Urban Area.

From this ratio the future number of shops to be located in Zaria in 1980 should be:

	1260	shops
1985	1400	shops
1990	1540	shops.

For the present assumin that this ratio had been in

operation Zaria should have had 1120 shops in 1975. It is suggested that 20% of the shops should be located in the district centres. It follows that there will be 309 shops in the three district centres in 1990 and 103 in each centre.

Three sizes of shops have been recommended namely:

Large shops = $150m^2$ - $200m^2$

Medium shops = $50m^2$ - $80m^2$

Average shops = 30m2 e.g. ordinary shops

The size recommendations are made to facilitate the calculation of area needed by shops in a shopping centre. It is also proposed that:

5% of the shops should be large

35% of the shops should be medium

60% of the shops should be average.

From this a district centre shop with 75 shops will need an area of 0.4350H. It is suggested that actual shop coverage should be 40% of the total area. While 60% of the land should go to other uses.

From this therefore a shopping area with 75 shops will will occupy a total area of $\frac{100}{40}$ x 0.45 = 1.2 Hec.

Using the above as a standard a shopping centre with 103 shops will occupy an area of $\frac{103}{75}$ x 1.24 = 1.4 Hectares.

A district shopping centre in 1990 with 103 shops and 513 stalls will occupy a total area of 2.1 Hectares + 1.4 Hectares = 3.6 H. This method is applied also in determining the number of shops stalls and the subsequent area required in the other shopping centres of different planning levels. It is suggested that from the total number of shops and stalls required in a city 15% - 20% of them should be allocated to the city centre.

This study does not calculate the area required for a shopping centre in the city centre because at the city centre level commercial activity is very complex and depends a great deal on many factors. Ref. Table 7.03 for the recommended standards for other planning units other than the city centre.

TABLE 7.03

RECOMMENDED LAND ALLOCATION TO DIFFERENT USES IN A SHOPPING CENTRE IN PERCENTAGE

LANDUSE	% COVERAGE OF TOTAL AREA
Shops & Stalls	50%
Open Spaces	5%
Community Facilities	20%
Roads, Parks, and Paths	25%
T O T A L	100%

TABLE 7.04

RECOMMENDED PLANNING PRINCIPLES AND STANDARDS FOR SHOPPING CENTRES AT DIFFERENT PLANNING LEVELS FOR A TARGET POPULATION OF 308000

	PLANNING UNIT	POPULATION RANGE	NUMBER OF UNITS	TOTAL NO. IN ZARIA	AVERAGE DISTANCE	NO. OF STALLS & SHOPS		TOTAL AREA IN HECT.
						MARKET	SHOPS	
1.	City Centre	308000+	1	1	7km	2695+	539+	-
2.	District Centre	80000-100000	3	3	3 - 5km	513	103	3.6H
3.	Community Centre	25000-350000	2-3	6-9	2 - 4km	320	64	2.3H
4.	Residential Planning Area	6000-100000	3-4	21-30	1 - 2km	47	10	0.35H
5.	Housing Cluster	750- 1500	6-9	160+	0 -25km	A convenience shop and 3 - 4 "Kantas"		-

TABLE 7.05

STANDARDS RECOMMENDED FOR RELATED FACILITIES TO BE LOCATED NEAR SHOPPING CENTRES

DESCRIPTION	STANDARDS	REMARKS
1. Post & Telegraph Office with Delivery & Booking	50m x 50m Floor Space with Parking	One to be located in every District Centres.
2. Postal Agencies	20m x 25m Floor Space	One to be located in every Community Centre.
3. Electric Sub-Station	A plot of about 15m x 15m	In city and District Shopping Centres.
4. Police Station	Size of Plot will depend on density and No. of Storeys.	In District Centres.
5. Police Post	Size Varies from 25,000	In District Shopping Centres and some community Centres.
6. Fire Station	One for every 35,000 pop plot area varies not less than 0.25H	In Community Centres.
7. Cinema Hall	One for every 60,000 pop.	One in every District Centres.

TABLE 7.05(CONT'D)

DESCRIPTION	STANDARDS	REMARKS
8. Religious Building (Mosque or Church)	For a pop of 10,000	One in every Residential Planning Area.
9. Community Hall & Library	For 35,000 population	In Community Centres.
10. Petrol Filling Station with Service Garages	With suitable Parking Facility.	In District and Community Centres.
11. Commercial Banks.	One for every 10,000 Parking to be adequately provided.	In District and some Community Centres.

7.b.ii Proposed Landuses to be located near a Shopping Centre:

A shopping Centre is an integral part of a City Centre. As it was mentioned in the scope and limitations of the study this study is expected to make recommendations as regards the landuses to be located near the shopping centre.

It is necessary to make these recommendations because shopping activities usually start operating in the mid morning hours and end in the later afternoon. If no other landuses are planned for the area, the shopping centre would remain dead at night and this may add to the insecurity in the whole area. Goods attract thieves so shopping centres should be kept warm at night.

In the shopping centre apart from stalls, shops and banks which facilitate monetary transactions, restaurants, night clubs, police post should be located within the precinct of the shopping centre. Also within the shopping centre should be mosques and fire stations.

Likewise the shops should be so designed that they would afford people window shopping facilities which

majority of the shops lack presently.

There should be service functions like Postal Services, Petrol pumps, and garages.

Religious buildings are very essential in this zone. A large majority of Zaria Urban Area population are moslems, praying grounds should be provided very near the shops and stalls and central mosques to facilitate Friday Mosque attendance.

The field survey revealed that a lot of the moslems suspend selling to pray at every praying hour and to attend the mosque.

With this in mind it is essential to locate a police post in the zone to keep off robbers.

With our poor electricity supply system it would be ideal to have an electric sub-station in all District and Community Centres.

Lastly some degree of residential landuse should be within this zone. It is suggested that some commercial business, recreational and public activities can function in the ground floor of a storey building in the commercial centre so that the upper floor can be used for residential uses.

Finally the total area devoted to the city centre, District Centre of Community centre should be the area

devoted to the shopping centre plus all other areas devoted to the other uses which are located within the city, district or community centre respectively.

CHAPTER EIGHT

CONCEPTUAL DESIGN FOR A HYPOTHETICAL SITE

1. The reason to design a shopping centre hypothetically is because there is no master plan for Zaria Urban Area. Right now it is difficult to choose a particular site because the area may be allocated for a difierent use when the master plan is finally prepared.
So for the idea behind the conceptual designs is to guide anyone who may have to plan a shopping centre for Zaria in future. Factors which are common to shops and markets have been considered in evolving the concepts. Likewise the problems encountered by both have also been evaluated to facilitate evolving the conceptual designs.

The choice of designing a shopping centre at the District level is partly related to the findings of the study. Presently in Zaria Urban Area three markets are functioning as district markets and are very much related to the settlement pattern. It is my assumption that these district markets play important roles in solving the day to day needs of the residents and are therefore visited more frequently than the Central market.

If this is so designed it would save residents the problem of commuting long distance to the city centre.

2. SCHEDULE OF AREA

In a shopping area different percentages of land has been devoted to different landuses.

Market Stalls	=	25%
Shops	=	28%
Open Spaces	=	5%
Roads, Paths, Parks	=	25%
Common Facilities	=	15%

A total of 1.5 Hectares of land has been allocated to the market. These includes the stalls, common facilities, parking and pedestrian walks.
Out of these 60% of it was allocated for actual stall coverage. That brings the stall coverage to 0.9 Hectares. This means that in the whole shopping centre of 3.6 Hectares 0.9 Hectares which is 25% of the land for a district shopping centre is allocated to market stalls. It is further suggested that out of this 0.9 Hectares of land different areas should be allocated to different sizes of stalls. Ref. Table 8.01

Out of this roads parking, parks and walkways occupy 30% while common facilities occupy about 17 - 20%.

3. DESIGN CONCEPT: Integration

The idea behind the study is to integerate markets and shops to form a shopping centre. The concept therefore tries to locate market stalls, shops and facilities common to them in a defined area.

With this in mind the concept first aims at traffic segregation, Vehicular traffic, pedestrian traffic and Goods traffic. To segerate these forms of traffic different things have been provided for.
Off street parking spaces are provided for private cars and delivery vans. Right inside the shopping centre every other movement outside the parking spaces are pedestrianized. In short the idea is behind the design of a precint. Where the pedestrian crosses the roads used by vehicular traffic, zebra crossings are provided and where the shopping centre has a road crossing through it, the pedestrian walk is passed under ground to avoid traffic chaos.
The shops are allocated in relation to the circulation routes to afford chances for adequate goods display which will also facilitate window shopping.

Different conceptual designs have been given suggesting the difierent ways in which markets and shopping areas have to be integrated. Ref. Fig. 8.01 - 8.04

4. SITE LAYOUT

a) Zoning

The different uses in the shopping centre have been zoned. The market is zoned seperately from the shops and common facilities. The common facilities have been seen to be the link between the shops and markets so that they have been placed in such a way that they lie somehow in between, or in such a way that both bodies can use them effectively. In side the market different retail activities have been zoned seperately. Traders selling same type of commodities have been placed together.

Generally wet and dry market have been placed in defined sections. This is so because the wet market is often very messy and requires the use of water a great deal.

Likewise in the shopping area it is proposed that related commodities should be placed in the same area. It is equally suggested that common facilities should also be placed in a defined area but in such a way that

it will facilitate the idea of integration since they serve both the markets and the shops.

b) Circulation

Circulation within the shopping centre is such that would facilitate pedestrian movement
In the market the width of walks vary. There are major walks which can allow a lot of shopping traffic and push cars. Along these it is suggested that bigger stalls be located there. There are also small walks which leads one inside the area occupied by smaller stalls. In general every stall is accessible from a walkway.

Also in the area devoted to shops every shop is placed in such a way that a pedestrian walk passes in front of it. Likewise those which adjoin the vehicular streets are also accessible from the pedestrian walks on the side of the roads.

c) Goods Display

The idea behind making every shop accessible and facing a road or a walkway is to allow for display windows. This is expected to facilitate window shopping hours and outside shopping hours.

SITE LAYOUT OF CONCEPTUAL DESIGNS 8.02 - 8.4

1st CONCEPTUAL ALTERNATIVE - 8.02.

This alternative tries to show what the existing situation is like. The market is centrally located with roads passing on all four sides of it. There are parking spaces at the Northern side and Southern side. On all the adjoining streets are the shops and other commercial activities streeting sometimes on the whole length of a street. The immediate neighbouring land use of the commercial area is residential. The problem of this type of plan are numerous.

1 - There is often alot of Traffic congestion around the market.

2 - Pedestrians crossing over to the shops from the market find it very hard.

3 - Because there is no limit to the shoppingstreet it grows uncontrolled often to the end of the street.

4 - No common facilities are adequately planned and located to serve the people in the commercial centre.

2nd CONCEPTUAL ALTERNATIVE - 8.03

This alternative development is aimed at retaining the traditional growth pattern of commercial activities, but with some modifications.

The site is cut into two by a major road. The market is located one side of the road while shops are located on the other side. On the fron of both the market and the shops are common facilities. There are also parking spaces on both sides which are used for both loading and unloading and for private parking. This site has open spaces incluled on both sides of the road.

Problem:

1. The problem of this type of conceptual design is that it creates alot of problem for the pedestrian who wants to cross from side of the shopping centre to the other.
2. The common facilities hide both the shops and the market from direct access from the major roads.
3. The road makes the physical seperation to be more consciously felt.

Advantages:

1. It has included open spaces which can be used as points of relaxation.
2. It has included common facilities.
3. Shopping is pedestrianized to some extent.
4. Pedestrian walkways are provided and where it crosses the major road it forms an underground pass.

3rd CONCEPTUAL ALTERNATIVE - 8.04

This alternative is developed from the second one. It is a shopping precint and demostrates more effectively the idea of integration.

Advantages:

1. Shops are located near the major roads to afford opportunity for window shopping, for passers by.
2. Concept of integration has been considered by making the common facilities the physical link between the market and the shops.
3. Attempt has been made at segregating vehicular traffic from pedestrian and goods traffic.
4. The whole of shopping centre is thus virtually pedestrianized.

HYPOTHETICAL DESIGN - 0.05

This is a more detailed design. Show the number of market stalls does not show number of shops as this may vary depending on size. This shopping centre is crossed by a major road which has three lanes. On this road there is carb parking. The other two roads are access and service roads. Each of them has two lanes of 8m wide. The pedestrian walk ways are 2m wide.

The whole shopping centre is pedestrianized.

Zoning:

There is the traditional market with 396 stalls and stall sizes are: 2m x 3m

3m x 4m

4m x 5m

5m x 6m

Shops:

Shop sizes vary both the general width except for the dept store is 6m - 12m. Open spaces are inter spaced and the common facilities are located between the shops and market.

Parking:

There are parking spaces at the perphery and there are a total of 54 parking spaces. The shops are nearer the parking spaces and in the market the bigger stalls are near loading and unloading.

Public toilets are located at major entry points.

The landuse at the side is residential except the area to the East which is reserved for future expansion.

5. PROPOSALS FOR IMPLEMENTATION

a) Phasing of Programme

The implementation of this to take place in about fifteen years time that is 1990. Hence the population has been projected to that time and the requirements calculated for that time.

Implemtnation

1) To implement the ideas in this study the Zaria Master Plan which is presently under preparation should indicate the location of the city centre, the district centres and community centres.

2) The different hierarchies of commercial centres should be planned and integrated with the Residential areas and also with the master plan.

3) It is suggested that each district centre should be developed one after the other, but where the fund and personnel are available two can be developed simultaneously.

4) At the site the area for shops and stalls and other landuses should be adequately marked out.

5) Since planning is a continuous process it is suggested that the plan should be reviewed from time to time.

ADMINISTRATIVE SET UP

The shopping centres should be administered by the local council. It should owe its allegiance diredtly to the local council and not to the ministry of Trade and Industry as is the case now with shops. This will also help to avoid the overlap of powers.

The area devoted to shopping centres should be developed by the state government but the administrative management should go to the local council. This suggestion calls for a clearly defined degree of authority given to the state government and local council. In "Zaria Study" (preliminary Report) it was suggested that Zaria should be declared a "planning area" with its own planning board. Should this materialize the affairs already suggested for the state government should then go to this body.

Each shopping centre should have an administrative office physically located at the site and this office should coordinate the affairs of traders in the market stalls and entrepreneurs in the shops. It it also proposed that the land should belong to the local council and they should also build and own the market stalls. They can build and own some shops whose development is within their financial reach. Otherwise areas for shops

should be clearly demacated, and leased or sold to private developers. But building regulations should be set and each private developer must be compelled to adhere to the architectural requirements.

Finally each hierarchy of shopping centre should be directly responsible to a central city office which will coordinate the affairs of the different hierarchies of shopping centres.

CHAPTER NINE

C O N C L U S I O N

So far the results derived in this study confirm with the aims and objectives set.

The study has been able to identify the existing hierarchy of shopping areas and markets. It has also derived a hierarchical set up of shopping centres as planning units, bearing in mind the population to be served.

It has suggested what range of population each shopping centre should serve, how many shops and stalls to be allocated in each hierarchy and has estimated the area to be allocated to a shopping centre at each level.

The study has equally made recommendations with regards to planning principles and standards to be adopted in design of shopping Centres. This study has theoretically brought shopping facilities closer to the people but in a planned manner. It has equally improved the bad environmental and physical situation that are characteristic of shopping centres by planning and providing uses that are presently lacking in markets and shopping areas.

It is my belief that the findings, recommendations and proposals enumerated in this study would in one way or the other be useful to the Zaria study team and any other person interested in the planning of commercial activity for Zaria Urban Area.

B I B L I O G R A P H Y

1. Abiodun J. O: "Urban Hierarchy in developing Country." Econ Geog. Vol.43, 1967

2. Berry B.J.L.: "Market Centres and Retail Distribution". Prentice Hall, Engle wood Clifs New Jersey 1967.

3. Berry Barnum & Tennant: "Retail location and consumer behaviour." Papers and proceedings of the Regional Science Association Vol. 9 1962.

4. Bromleg R.J.: Markets in Developing Countries." A review Geog. Vol. 56 1971.

5. Clark W.A.V.: "Consumer travel patterns and concept of range. Annurals of Association of American Geographers Vol.58 1968.

6. Davies R.L. : "The Retail Pattern of the Central Area in Conventry" Institute of British Geographers No.1 Dec. 1972

7. Eighamy T.H.: "Economic Geography Vol.48 1972." Rural periodic Markets and extension of the Urban System. A Western Nigerian Approach." Economic Geog. Vol. 48 1972.

8. Gana J. A. : Market Centres in Zaria Division. Ph.D. Thesis University of Aberdeen November 1973.

9. Gibber Fredrick: "Town Design" Architectural Press London 1959.

10. Hodder and Ukwu: Markets in West Africa. University of Ibadan Press 1969.

11. Joseph De Chiara & Lee Koppleman: "Design Criteria."

12. Mortimore: "Zaria and its Region."

13. National Economic Development Office: "The future Pattern of Shopping Distributive Trades EDC April, 1971.

14. Pain G.M.: "Planning and the shopkeeper." Barrie and Roc.. L.ft. 1967:

15. Polly Hill and R.H.T. Smith: "Spatial and Temporal Sunchronization of periodic markets. Evidence of four Emirates in Northern Nigeria." Economic Geography Vol.48 1972.

16. Vogale Edited: "Commercial Centre for Ijebu Ode Design and Layout." Ibadan Polytechnic 1971.

17. Vagale Edited: "Anatomy of Traditional Markets in Nigeria. Focus on Ibadan City." Ibadan Polytechnic 1972.

18. Victor Gruen and Larry Smith: "Shopping Towns in U.S.A." Reinhold Publishing Company 1960.

19. Thomas Gibring: "Zaria Study." Preliminary Planning Report 1974. Dept. of U.R.P., A.B.U., Zaria.

Zaria Markets' Research — Stall Holders' Survey

Date _____ Market Area No. _____

Number of Interviewer _____

Identification Number of Informant _____

A.B.U. is drawing up a plan to develop Zaria and wants to find out about the importance of the markets and the problems traders have in their work. All information about individuals will be kept secret and will not be given to either the L.A. or the Government.

1. Name of Informant _____

2. Age (Code as number of years) _____

3. Sex 1M
2F _____

4 Place of origin

Town _____ Division _____ State _____

01	North Central	08	Lagos
02	North West	09	Rivers
03	Kano	10	East Central
04	North East	11	Midwest
05	Benue Plateau	12	South East
06	Kwara	13	Other _____
07	West		

5. Ethnic Group

01	Hausa	07	Idoma
02	Yoruba	08	Nupe
03	Fulani	09	Dakarkiri
04	Ibo	10	Igala
05	Edo	11	Urhobo
06	Ishan	12	Calabari

13 Other _____

6. What work do you do in the market?
a) Trading Code 0 or 1
b) Other Code as follows
1. Tailoring
2. Shoemaking or repairing
3. Cycle repairing
4. Watchmaking

5. Grinding pepper
6. Griding mills
7. Manufacturing palm oil or other
8. enop bar
9. Other _____
0. No other work besides trading

7. Which ward of Zaria do you live in?

1. Old City
2. Sabon Gari
3. Tudun Wada
4. G.R.A.
5. Samaru
6. Village near Zaria _____
7. Other _____

8.. How far is this from the market?
Code as number of miles _____

9. How do you travel to the market?

1. Foot
2. Cycle
3. Bus
4. Taxi
5. Motor Cycle
6. Donkey
7. Private Car
8. Other _____

10. How much does it cost you and your assistants to travel to the market each week?

1. Under 50K
2. 50k - ₦1
3. ₦1. - 1.50
4. ₦1.50 - 2.00
5. ₦2.00 - 2.50
6. ₦2.51 - over

11. Do you store your goods in the market or elsewhere?

0 Stores them in the market
1 Takes them home
2 Stores them in another stall in market (friend etc.)
3 Leaves some in market, takes some home
4 Other _____

12. Do you employ a guard in the market? 0 or 1 _____

13. How do you transport your goods to the market?

1 Headload - self
2 Headload - porters
3 Donkey
4 Cycle
5 Bus
6. Push-cart
7 Taxi
8 Motorcycle
9 Other _____
0 Leaves goods in market

14. How much does it cost you to transport your goods to the market each week?

0	Nothing	3	₦1.00 - ₦2.00
1	0 - 50k	4	₦2.00 - ₦5.00
2	51-₦1.00	5	Over ₦5.00

15. Why did you come to this market to trade?

Have always been trading here
Market conditions here attractive
Market near place of residence
Came because of relatives/husband
Came because a stall was available here
Came because of advice from others
Inherited a stall here
Moved here from rural areas when trade improved
Because I am a native of this area of the town.

16. Do you sell goods mainly retail or mainly wholesale?

0	Not trading	3	Does both
1	Mainly Wholesale	4	Other _____
2	Mainly Retail		

17. Number of Market Stall (if any) _____

18. Type of Walls

0	No Walls	3	Mud
1	Grass	4	Brick or concrete
2	Pan	5	Other _____

19. Type of roof

0	No roof - open space	3	Pan
1	grass	4	Other _____
2	Mud		

20. Can the stall be locked at night _____

21. Length of stall in feet
Code as number of feet _____

22. Breadth of stall in feet
Code as number of feet _____

23. How many years have you been in this stall?
Code as for number of years _____

24. How was the stall acquired.

0 No Stall
1 Erected it for self on land allocated by Council
2 Inherited it
3 Bought it from another trader
4 Hired it from another trader
5 Loan from friend or relative
6 Allocated it by the council
7 Moved in after stall abandoned by previous owner
8 Other _____

25. How long did you have to wait before you could get a stall in this market?

Code as number of years
0 Did not have to wait
1 up to one year
2 up to two years etc.

26. Why did you chose a stall in this part of the market?

It was the only available stall
No choice - allocated by council
Inherited a stall here
To be near others selling same goods in the same place
To be near friends/relatives
Near to the motor park
Considered the stall superior
No choice - someone else acquired the stall for trader
Good place to attract customers
Informant trading on this spot before market built up
To be with other traders to control prices effectively
Asked to look after stall by previous owner when he left

27. Do you trade in the market every day?

0 Yes
1 Not on Sunday
2 Not on Friday
3 Other _____

28. How many hours a day do you spend in the market?
Code as number of hours _____

29. Whare the main problems you have in trading?

Fluctuating Sales/Lack of Sales
Lack of materials for work
preserving unsold perishable stock
toilets
Dirty state of the market
High prices
shortage of goods
short of capital
Fear of fire
Fire of thieft.

86. Do you have enough room in your stall?

87. Could you pay more if the market amenities were improved?