

CITY CENTRE FOR ZARIA

WITHIN THE FRAMEWORK OF THE PROPOSED ZARIA-MASTERPLAN

M.SC (URP) THESIS

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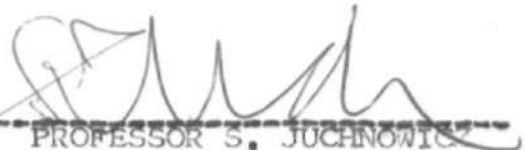
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CITY CENTRE FOR ZARIA

C E R T I F I C A T E

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

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DEDICATION

This work is dedicated to my parents, my cousin Shehu Boji and to my two good friends Abdullahi Yakubu and Abubakar Musa.

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Chapter I

1.1

INTRODUCTION

Zaria has always been considered as the centre of education in the Northern part of Nigeria in both historical and modern times. This is evidenced from the numerous educational institution located within the City; but growing in scale and popularity are commercial and industrial activities evidences of which could be seen in for example - the increasing number of retail and service shops, departmental stores, whole sale areas etc. Small scale industries are also springing about.

Unfortunately this growth in economic activities can not easily be discerned due to two major reasons. Firstly, most of these activities are un organized and scattered in obscure locations. Secondly, other neighbouring cities like Kano, Kaduna and Jos have consistently much more bigger commercial and industrial activities to the extent one fails to appreciate the relative growth in the economic activities of Zaria Urban Area.

It is a basic fact however, that any economic growth has a spatial manifestation which needs to be well planned so as to facilitate an orderly growth in the whole structure of the city. The economic growth taking place now in Zaria - no matter how insignificant it might appear should therefore be considered in spatial terms if a meaningful development is to be achieved in the future.

The dual urban structure of most Hausa - Fulani cities created by the intervention of the colonial rulers in the economic and administrative structures of Nigeria, also created a lot of disparity between the traditional cities and the new towns with the later under going rapid physical transformation while the former remain relatively dormant. It is now realized

these traditional cities should in the light of changing conditions - be integrated with the new towns so as to achieve a uniform out look in the whole urban structure.

These and other pressing urban problems are some of the tasks under taken by the Department of Urban and Regional Planning , Ahmadu Bello University, Zaria, when it was entrusted with the preparation of a new development plan for Zaria which will - among other things - provide the frame work for the spatial development of Zaria by 2,000 A.D.

One of the objective of this master plan is to integrate development around the presently four loosely related areas of Zaria Urban Area. It is on this basis that in one of its proposals, the Zaria Master Plan envisages a sectoral development pattern whereby the whole Zaria Urban Area is divided into four districts; viz the walled city district, the Sabon Gari district, the city - centre district and the University district. All communities in a district are integrated through a district centre while the four districts comprising the Zaria Urban Area are integrated through a new city centre thereby creating a hierarchy of centres for a more efficient social and economic activities.

The significance of the role of the proposed city centre in integrating all sectors of Zaria and also its role to the general development of Zaria as an urban area, can not be over emphasised. In any part of the world, the city - centre is the heart of the city; it provides the economic and social frame work through which the city strives for self-sufficiency, self esteem and means of liveliness.

Creating a new city - centre for Zaria will bring all sectors of Zaria closer together, since the people will now have a common place for social, cultural and business interactions. Spatially the centre will link all parts of Zaria Urban Area by virtue of its location and the level of services it offers.

The existing central area of Zaria can not by virtue of its location and size - serve these purposes hence the need for a new one.

This thesis is an attempt to design within the frame work of the proposed Zaria Master Plan a city centre that will reflect the traditional values of the people at Zaria.

1.2 Goals and Objectives:

The main goal which this study seeks to achieve is:-

To design a functional, accessible and attractive city centre that will reflect the values and concept of the people of Zaria.

The above goal is hoped to be achieved through the following objectives.

- (a) To assess the existing central area of Zaria with the view to finding out the various problems and level of activities.
- (b) To assess the Zaria traditional centre with the view to identifying traditional planning concept.
- (c) To study and analyse the proposed site of the new city centre.
- (d) To prepare a schedule of requirements for the proposed city centre based on projected population by 2,000 A.D.

- 4
- (e) To look into various design standards and where ever desirable make adjustment to reflect traditional concept.
 - (f) To make design proposals based on the above set of objectives.
 - (g) To recommend policy for implementation. *stop here*

1.3 Scope and Limitations:

This study is limited to assessing the existing situation in the existing central area, with the view to identifying all possible problems, assessing the traditional city centre, with the view to identifying traditional planning concept and reviewing some of the proposals given in the Zaria Master Plan.

The problems encountered in this study are:- Lack of adequate up-to-date data on the existing centre except the one based on few field survey, absence of traditional design standards and the problem of time within which this study is carried out.

1.4 Methodology:

The methods adopted to achieve this study are as follows:

Data Collection:

All the data necessary for this study are collected through the following sources:

- (a) Wind screen survey of the existing Zaria central area.
- (b) Wind screen survey of Zaria traditional centre.
- (c) Land use survey of the above two centres.
- (d) Field survey of the proposed site.
- (e) Topographic maps, aerial photographs etc.

- (f) Informal interview with some government officials and some shop owners.
- (g) Other relevant data from the proposed Zaria Mater Plan. *step two*

1.5 Definition of Terms:

The "Dandali"

The term "Dandali" quite often echoes whenever a reference is made to the structure of Hausa - Fulani traditional cities. Quite a number of students and writers have made use of this term in their works; some calling it the "Dandal" which is just a matter of dialect. In Zaria it is called "Dandali".

This term has a number of related meanings. The most popular meaning amongst writers and students of Urban Design in Nigeria, refers to the "Dandali" as the long pedestrian mall, which forms the main axis of most Hausa - Fulani traditional cities. It is the ceremonial approach to the dominant Emir's Palace in the traditional centre.

In any typical Hausa society however, the "Dandali" often refers to any open space or square where youths perform various cultural activities like dances, local wrestling, story telling, courtship and so on. The Murtal Mohammed Square in Kaduna for example is quite often referred to in Hausa as "Dandaling" Murtala".

To avoid ambiguity there fore, this study will use the term "Dandali" to mean the ceremonial approach to the civic square.

1.6 Literature Review:

Quite a number of students and professional consultants have made attempts in the field of city centre design in Nigerian traditional cities with varying degree of successes. Unfortunately however, observations show that only the students and a few of the consultants spare any effort to reflect the peoples traditional values in their designs. Yunusa's thesis whose central theme is the integration of the traditional cities and the modern townships, makes a great effort in this directions, when in her introduction she writes:- One is not purporting the extreme alternative where all previous values and concepts which are embodied in the design and layout of our traditional cities are ignored and allowed to perish while our cities are developed entirely on modern and especially western concepts of planning and design.⁽¹⁾

Other students works which show a bit of traditional consciousness include:- Adeyemi's "traditional centre for Akure" and Amego's "city centre for Idah".

The town centres of Bichi and Gaya as proposed by the Department of Urban and Regional Planning, Ahmadu Bello University Zaria also portray a bit of traditional concepts where the district heads' palaces and other socio-cultural facilities are sited around a "Dandali".

In a paper delivered during the inaugural meeting of the Nigerian Association of Town Planning Students, A.B.U. Branch in March, 1978, Professor Juchnowicz emphasises the importance of

(1) Yunusa M.L. (1980) City Centre for Greater Yola unpublished M.Sc. Thesis Dept. of U.R.P., A.B.U., Zaria.

(2) Prof. Juchnowicz, S. (1978) "Problems of Contemporary City Centres" A public Lecture delivered to NATPS, A.B.U., Zaria.

reflecting the traditional values in any urban design when he writes:- "Preservation and Rehabilitation of Historic part of the City should be incorporated in any development plan, for this is important not only for the possibility of nations being exposed to the external destructive forces, but also for the nations building their history and national identity.

The proposed city centre for "Abuja" the new Federal Capital of Nigeria designed by KENZOTANGE a Renowned Japanese Architect-Planner does not reflect true traditional values of any part of Nigeria. An attempt to incorporate the concept of locating the presidential palace and other administrative functions around a central square is more than up set by the introduction of an intensity index of 6. This is too large compared to the intensity index portrayedⁱⁿ existing Nigerian City Centres which ranges between 1 and 1.2.

It should be re-emphasised here that any design in any part of the world should-for it to have meanings-be acceptable to the society it is meant for; and this is only possible if the design incorporates certain elements with which the people can identify themselves.

2.00 BACK GROUND TO ZARIA URBAN AREA

2.1 Physical Layout of Zaria Urban Area:

The existing pattern of settlement of Zaria Urban Area is composed of fairly four distinct quarters - Zaria City, Tudun Wada, Sabon Gari and Samaru.

Zaria City which lies the South of Zaria Urban Area is the oldest and the original traditional settlement of the indigines. It retains most of its physical and traditional characters such as the city wall and architectural design of buildings. The Emir's Palace is located in the traditional city centre. Except in few places, the whole city is characterized by narrow winding roads.

Tudun Wada is situated immediately to the North of the walled city's main gate (Kofor Doka) and is occupied by both indigines and non-indigines of Zaria. The houses in Tudun Wada are laid-out in grid pattern.

Sabon Gari lies to the North of Tudun Wada and it is relatively more modern in out look. The greatest number of commercial and business activities are found here. Sabon Gari used to be the seat of the colonial administrator. The physical lay out of buildings here is a combination of grid pattern and block fashion. The main motor park, railway station and few industries are located here.

To the North but within the influence of Sabon Gari is the government reserved area (G.R.A.), which used to be the residences of the colonial administrators. The buildings here are more westernized than any where in Zaria. Houses are detached with well designed roads and ample open spaces.

Between Sabon Gari and Samaru to the North of the G.R.A. are small traditional settlements. These are the Hanwa Village which is rapidly giving way to modern settlement, the Kwangila village and the Panladan village. Panladan is laid out linearly in compounds form, along the Funtua road and it offers some commercial services to the Nigerian civil aviation training centre located on the opposite side of the Zaria - Funtua road.

Samaru is the Northern most part of Zaria Urban Area, and it developed to what it is now because of the influence of the Ahmadu Bello University, Main Campus which is separated from it by the Zaria Funtua road. Like Panladan Samaru also offers commercial services to A.B.U. and is also the largest source of local labour to the University.

Generally, present Zaria Urban Area has developed linearly along the Zaria - Funtua road. Two new by passes have been constructed and these are the Kano - Zaria by pass and the Jos - Zaria by pass.

2.41 Population:

The population of Zaria has been growing steadily. In 1894 the population was 30,000 consined to the walled city. In 1952 it was 56,000 for Zaria city and the newly developed Tudun Wada and Sabon Gari. In 1961 the population was estimated to be 91,000. In 1963 it rose to 110,000 and based on an annual growth rate of 3.5% and using the 1975 figure which is 176,000 the population of Zaria in 1980 was projected to be 238,000.

2.12 Socio-Cultural Characteristics:

15% of the population of Zaria Urban Area are of non-Northern Nigerian origin,⁽¹⁾ indicating a less heterogeneous population than neighbouring towns like Kaduna and Kano. The vast majority of the people are Muslims.

2.13 Craft:

The history of local arts and craft in Zaria is as old as the history of the town itself and the indigenous small craft industry has been traditionally well developed and owned by a system of interdependent family.

Prominent among the traditional arts and craft of which the people show marvellous skills are pottery, local dyeing, black smithing, local tannery and leatherworks. These are mostly concentrated in the walled city and are handed down from generation to generation.

Around Tudun Wada and Sabon Gari areas also modern crafts like tailoring, barbers and carpentry are flourishing.

2.14 Educational Characteristics:

Zaria is a well known educational centre in the Northern part of Nigeria, especially with the coming of the Ahmadu Bello University. Before the creation of 5 other Universities in the North, A.B.U. has been the main source of higher education to the people of Northern Nigeria. Quite a number of Secondary and a lot of Primary Schools are located in and around Zaria emirate.

(1) Arinze C. (1976) Study of the Existing Traditional Markets in Zaria Urban Area.
Unpublished M.Sc. Thesis Dept. of U.R.P., A.B.U., Zaria.

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Other educational institutions include: The Nigerian Civil Aviation Training Centre, the Military School, the Advanced Teachers College, the State's College of Arts and Science and the School of Nursing.

Education is the most central place function in Zaria and the numerous institutions of higher learning provide a large source of employment to the people.

2.15 Transportation:

Generally the internal transportation system in Zaria is to say the least - poor. A single major road - the Zaria - Funtua road until a few years back serves both the internal traffic passing from Sokoto, Kaduna, Jos, Funtua and Kano and also provide the only link between the traditional city and other parts of the city. This road still experiences a heavy congestion despite the construction of two new by passes (The Kaduna and Jos by passes).

Zaria city is served by only one paved road which was originally a pedestrian road. Absence of pedestrian walkways and sub-standard right off-ways are the major characteristics of this road.

Tudun Wada has better motorable roads than the city and this is by virtue of the grid pattern of building lay out. Even so, some of the roads experience congestions, as they are used by vehicles, pedestrians and animals.

Traffic movements within the G.R.A. is easier and better than most other areas in Zaria, due to more proper planning of both roads and buildings.

Except the Funtua road and the roads within A.B.U. owned lands, the roads in Samaru are generally unmotorable especially during the raining season. All the roads are untermed and are full of dangerous pot holes.

In generally road linkages to the major Urban Network is poor for all the non-urbanized areas within Zaria region.

Public transportation system within Zaria Urban Area is also poor due to lack of organized bus routes and bus stops. Observation also shows that all roads in Zaria urban area have no provision for pedestrian walkways.

2.16 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.

Average farm size are relatively small and there is a heavy reliance on hand labour, and because of this the per capita farm incomes are low. Factors determining farm size in Zaria division include, size of family and labour length of time each house hold is prepared to work and the availability of financial resources for non-family labour.

Other forms of economic activities are local craft production and trading. The later which mostly takes place in the traditional markets is fast growing in scale and popularity.

In the more recent times small scale industries and modern crafts have also added to the economy of urban Zaria. The influx of immigrants also play an important role in this

direction as can be witnessed by the amount of diverse new activities which are introduced from different parts of the country. Table (i - ii) show the existing land use composition of Zaria urban area. ALSO SEE FIGURE ONE

TABLE (i)

Particulars	Area in HA	% of Total Area
Developed Area	2309.3	30.6
Vacant Developable	1661.9	22
Vacant Un-Developable	170.3	2.3
Area under Agriculture	3160.8	41.9
Land under Defence	240.3	3.2
TOTAL:	7542.6	100

TABLE(ii) EXISTING LAND USE COMPOSITION

Land Use Category	Area in HA	% at Total Devpt Area
Residential	1122.8	48.6
Commercial	69.4	3%
Industrial	18.5	0.8
Public & Semi Public	379.1	16.6
Park and Open Spaces	23.9	1.0
Roads	588.0	25.1
Railway	36.1	1.7
Airport	55.3	2.4
Valant Developable	15.7	0.7
Mix Land Use	0.5	0.02
TOTAL:-	2309.3	100

Source:- Zaria Master Plan.

2.20 Characteristics of the Existing Central Area:

Discussion on the characteristics of the existing central area of Zaria falls into two main parts.

- (a) The general physical condition.
- (b) The nature of activities in the area.

(a) General Physical Condition:

The existing central area of Zaria urban area lies within the Sabon Gari district. The location of Sabon Gari and its relation to other parts of Zaria has already been discussed earlier in this chapter; but what could be considered as the core of the centre, is bound on the North by Aminu/Hospital roads junction, in the South by the Kubanni River, in the West by the Zaria - Funtua road and in the East by the Hospital road which is lined by an array of retail shops.

In terms of accessibility this area is poor with persistently congested roads confused junction and lack of pedestrian walkways.

Public facilities like toilets, refuse collection points street lightnings, fire extinguishers, are lacking in this area. Storm water drainage and overall sanitary condition in this area is poor. There is no organized parking facilities and except in few departmental stores, shoppers park their vehicles haphardly in small building frontages and in the process, add to an already intolerable congestion along the roads.

Though the structure and condition of buildings may not be the best one would hope for any centre of urban activities, those in this centre are better than any other commercial area in Zaria. More than 90% of the buildings are constructed with concrete and aluminium or zinc roofings. There is a general lack of organized open spaces either paved or green.

(b) Nature of Activities in the Central Area:

Commercial activities in this area can be devided into two main parts:-

(i) Whole Sale:

This is found in the area known as the canteen area. It handles all of the whole sale activities in Zaria urban area. The whole sale establishments are located along the Funtua road about 200 metres from the level crossing to G.B. Olivant and also along Liver Pool road.

(ii) Retail Activities:

Apart from the market which forms the nucleus of commercial activity in this area, the bulk of retail activities exist in mix land uses. Most of the buildings

along Park road, Main road, crescent street are of two to three storeys levels with the ground floor serving as retail or service shops while the other floors serve as residences. Table (iii) shows the distribution of floor spaces in the existing central area.

Table (iii) total % distribution of floor spaces in the existing central area.

Floor Level	% of Total Floor Space
Ground Level	84.35
First Floor Level	10
Upper Floor Level	0.65

Source: Amego J. (1976) The C.B.D. of Zaria un-published B.Sc. Thesis, Dept. of Geography, A.B.U., Zaria.

Majority of the shop owners revealed during an informal interview that they favour the residential commercial coexistence for fear of lack of security for their properties and also for lack of adequate shops in the market. Observation however, shows that these shops were originally built as residences only but were later converted to commercial uses.

The market and the shopping areas sell basically the same commodities; the only difference stemming from the degree of specialisation and prices, with the market specializing in lower order goods, particularly food stuff.

Major retail activities include:- Books and Stationeries Assorted House-hold Goods, Tools and appliances, electrical appliances, automobile spare parts, furniture etc. This

constitute 40% of the total retail activities in Zaria.⁽¹⁾

Major services include; personal services like laundry, hair dressing, tailoring, shoes and watch repairers, automobile and electrical repairs and commercial services like banks, insurance, business offices, post office, filling station. This constitute about 60% of the total services in Zaria urban area.

Sizes of market stall range from 4m² to 15m² most of which are either open or have doors of poor security. Sizes of shops in the shopping area range between 15m² - 45m². These sizes are found to be rather inadequate, for the increasing volume of commodities the traders can afford.

There are a few large departmental stores but most of them are owned by expatriates. These are stores like the K - Chellorams, the Leventis Stores and the Bata Shoes Stores.

There are quite a number of entertainment facilities scattered among residential and commercial areas. There are two cinemas which occupy a combined area of about 0.2 HA⁽²⁾ and a lot of bars and beer palours. The only sport stadium in Zaria Urban Area is also located here. It covers an area of about 1.6 HA⁽³⁾ and has not been built according to a satisfactory design standard.

(1) Arinze C. (1976) Studies of Existing Traditional Markets in Zaria. Unpublished M.Sc. Thesis, Dept. of U.R.P., A.B.U., Zaria.

(2) Field Survey.

(3) Ibid.

Some of the administrative functions located here include the Sabon Gari district Heads Office a magistrates court Area Courts and part of the Zaria Local Government Offices. Close to the Market along Aminu road is located the Sabon Gari Police Station. Figure⁽²⁾ shows the existing land use in the existing Zaria central area. Looking through the various problems of this centre, i.e. the problem of traffic, sanitation, infrastructure, lack of land for expansion, conflicting land use, disparity of travel time coupled with the need to integrate the presently loosely connected sectors of the city, one can easily see the justification for proposing new city centre on a suitable site in order to give Zaria the qualitative image it deserves.

2.3 The Existing Traditional Centre:

The Zaria traditional centre is strictly a socio-political and socio-cultural centre of historical value. Though the whole traditional city has developed organically, the traditional centre portrays a traditional physical planning concept. This is the concept of the "Dandali" which is typical of most Hausa - Fulani cities.

The physical out look of the Zaria traditional centre is that of a long mall-the "Dandali" which forms the main axis of the centre. It is about half a kilometre long and stretches from the "Babban Dodo" round about with a width of 20m. and finally widening into a small square in front of the dominant Emir's Palace. Residential buildings, Friday mosque and parts of the Zaria local Government Offices are disposed on both sides of the Dandali. The long stretch of

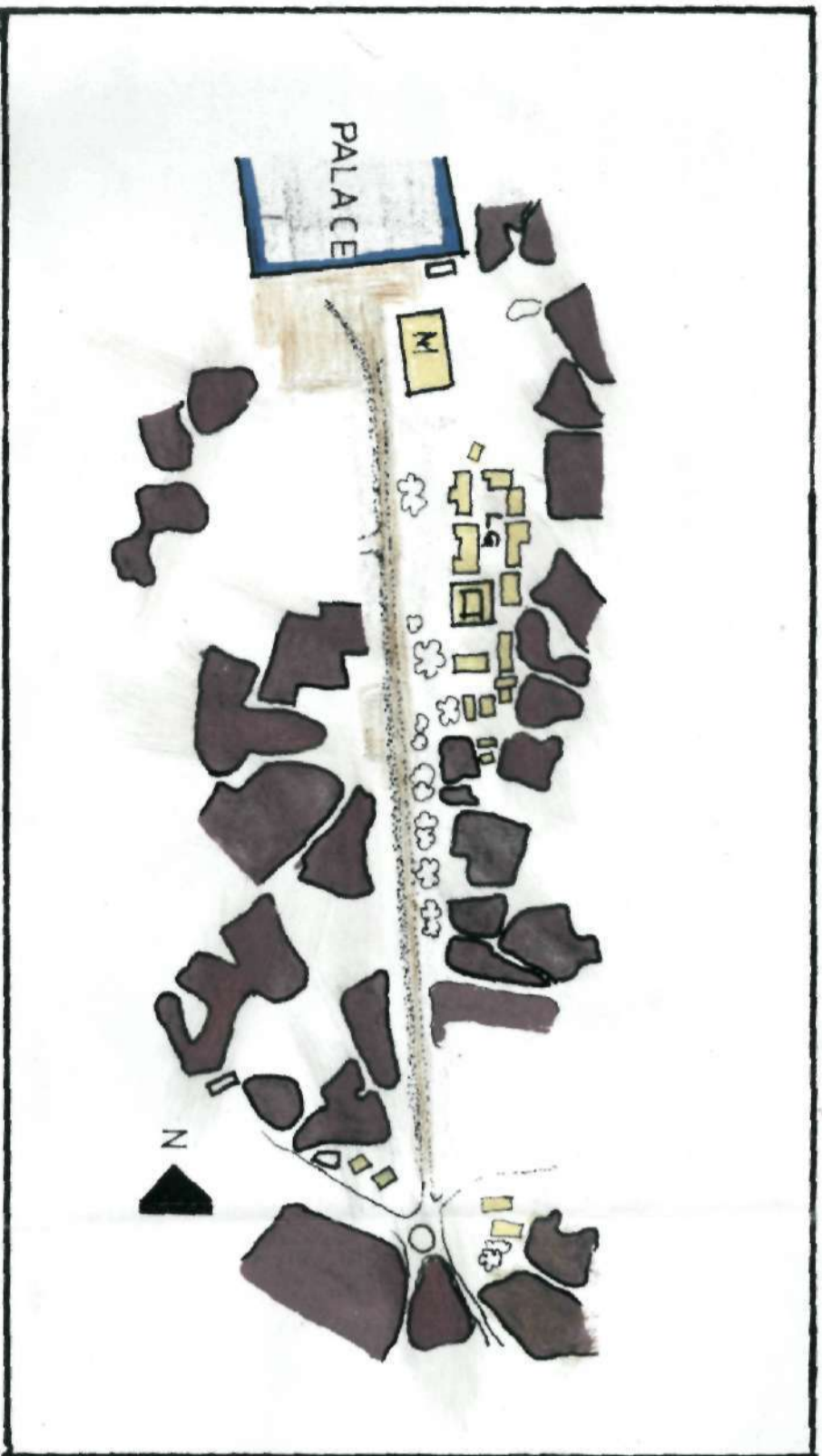






FIG 3 ZARIA CITY TRADITIONAL CENTRE

LEGEND

-  THE DANDALI
-  EMIRES PALACE
-  PUBLIC BUILDINGS
-  RESIDENTIAL

SCALE 1:3125

the Dandali functions as the ceremonial approach to the Emir's palace during the annual Sallah celebration. District heads and other royal personalities perform the traditional horse race starting from the beginning of the Dandali and converging in the small square in front of the Emir's palace to pay him the traditional Sallah homage. Various other cultural activities like dancing and local boxing also take place in the square in front of the palace.

The overall picture of this centre is such that when an observer stands at the "Babban Dodo" round about and looks Northwards towards the Dandali, his vision is that of a long beautiful vista directed towards an attractive focalpoint; and that is the Emir's palace.

There is no formal commercial activities in this centre except a few hawkers and all entertainment activities in the centre are purely cultural. There are absolutely no hotels bars, cinemas, pool houses or any other activity related to these, in this centre and until the recent past, the whole centre is a pedestrian centre, hence the lack of well designed vehicular roads. Figure (3) shows the various land use in the Zaria traditional centre.

2.4 Zaria in 2,000 A.D.:

Since this study is meant for the year 2,000 A.D. and above, a perspective look at this future period is necessary to comprehend and hence rationalised the various future proposals made in the design.

Research carried out by the Department of Urban and Regional Planning, A.B.U., Zaria, the result of which is contained in the proposed master plan for Zaria, reveals that an annual growth rate of 3.5% in the population of Zaria has been used to forecast an estimated population of about $\frac{1}{2}$ a million by 2,000 A.D. This means that, both spatial and economic development of the whole city needs to be well planned to support this population.

2.41 Proposed Pattern and Direction of Growth:

The linear concept of the city integrating all the existing major elements of Zaria was introduced. The new city centre is considered to be the main element of integration and is located between the G.R.A. and the existing civil aviation training centre.

The Zaria Master Plan proposes a linear development that should extend from the walled city up to the new teaching hospital. The idea is to develop Zaria as an educational centre, and since Ahmadu Bello University is one of the major attracting force in this direction, the growth pattern of urban Zaria should be along this direction. Figure (5) shows the growth pattern of urban Zaria by 2,000 A.D.

2.42 Hierarchy of Centres:

The idea of the neighbourhood unit as it exists presently in Zaria has been modified and the following hierarchy of units is proposed.

(a) Housing Compound:

This is the smallest unit which is based on the type of the family.

(b) Housing Cluster:

A group of houses providing accommodation for 250 - 1,000 people and the facilities serving this unit are convience shops and trading spaces for 3 - 4 kantas (small Kiosks).

(c) Residential Sub Sector:

This has a population of 4,000 - 5,000 and is the first unit based on public facility and that is the Primary School. Each residential sub sector has a small centre

(d) Residential Sector:

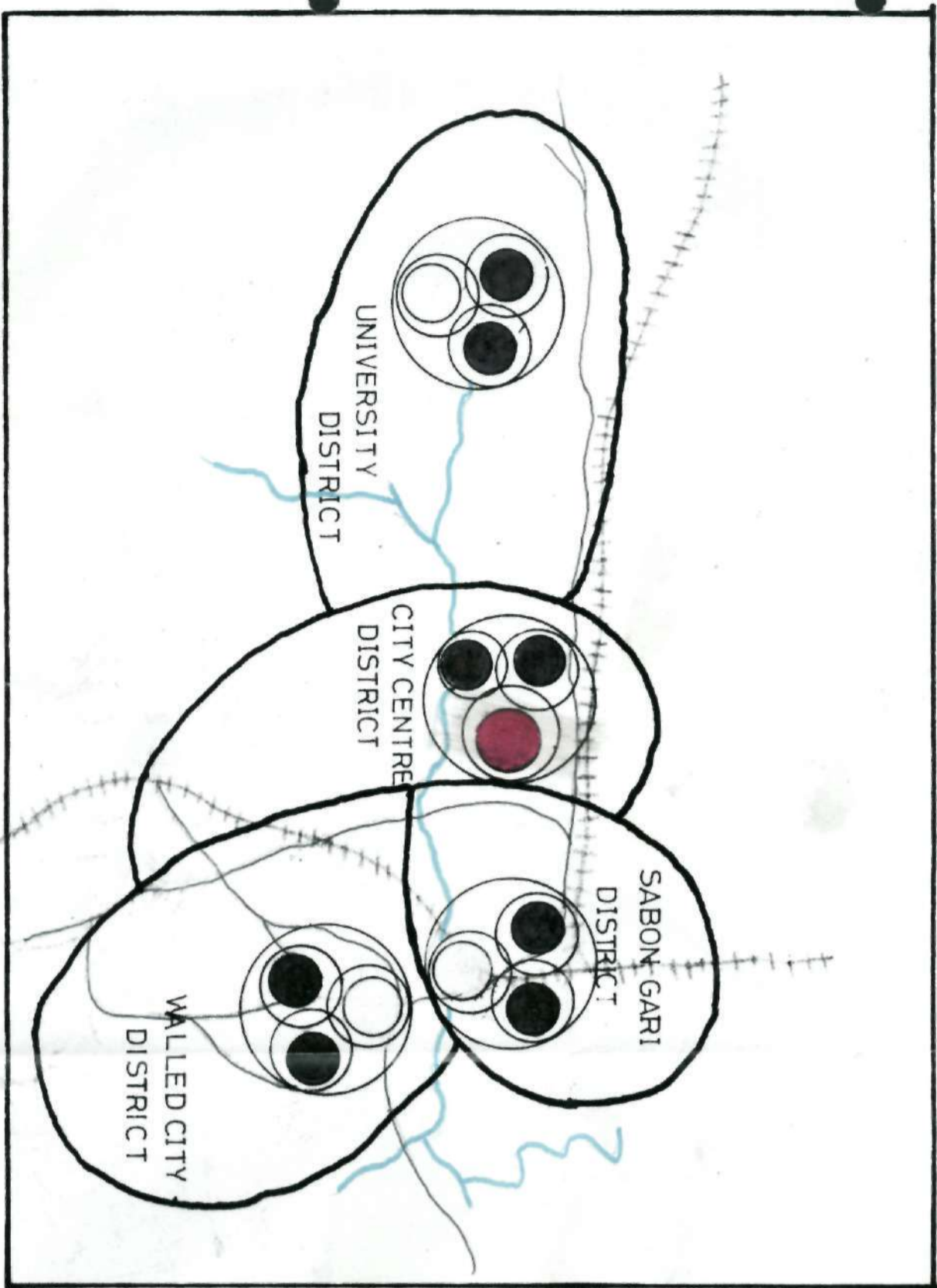
With a population of 13,000 - 15,000 and made up of 3 residential sub sectors. It has a Secondary School as a public facility. One of the residential sub sector centre will have more facilities and will act as the residential sector centre.

(e) Community:

Has a population of 40,000 - 50,000 and comprises of 3 residential sectors. One of the residential sector centre will be expanded to act as a community centre.

(f) District:

This will have a population of between 120,000 - 128,000 and will comprise of 3 communities. One of the community centres will act as the district centre.



LEGENDS

- CITY CENTRE
- DISTRICT CENTRE
- COMMUNITY CENTRE
- DISTRICT BOUNDARY
- RAILWAY LINE
- ROADS
- RIVER

FIG 4 PROPOSED HIERARCHY OF CENTRES

SOURCE:- ZAKIA MASTER PLAN

(g) City:

The city will grow to a population of 500,000 by the year 2,000 and will be composed of 4 districts viz:-

- The walled city district.
- The Saban Gari district.
- The City centre district and
- The University district.

The district centre of the city centre district will be the city centre of Zaria.

Looking at the above structure of units one can easily see that a hierarchy of centres has been evolved. These range from small convenience shops as the lowest order to the city centre as the highest order in the hierarchy. This will provide efficient functioning of central activities.

Table (iv) shows the proposed characteristic facilities in each level of units.

Proposed Characteristic Facilities in each Planning Unit
of Zaria Urban Area

Planning Unit	Population	Facilities
Residential Sub-Sector	4000 - 5000	Primary School, Health Clinic, 4 Shops Trading Space for + 10 kantas.
Residential Sector	13000 - 15000	Secondary School, Primary, Health Centre Church/Mosque, Social activity centre Police Station, Sports field, small Shopping centre (10 shops) small market (50 stalls).
Community	40,000 - 50,000	Branch Library Post Office Swimming Pool, central Mosque, catering next house market (320 stalls) shopping centre (64 shops).
District	120,000 - 128,000	2 Comprehensive Health centres ce etry, sport stadium, main library, main post office, distric police station, fire station.

Source:- Zaria Master Plan.

Figure (5) indicate the proposed hievardy of centres.

2.43 Proposed Land Use:

Based on the projected population of $\frac{1}{2}$ a million by 2,000 A.D. and the existing situations, the Zaria Master Plan a Land use proposals for the year 2,000 A.D. Table (v) shows the proposed land use composition.

Table (v) Proposed Land use Composition of Urban Zaria in 2000 AD

Land Use Category	Area Reg. in HA	% of Total Developed Area	Existing Area in HA	Additional Area Reg. HA
Residential	4166.5	50	1122.8	3043.7
Commercial	250	3	69.4	180.6
Industrial	250	3	18.5	231.5
Public & Semi Public	1416.6	17	379.1	1037.5
Parks & Open Spaces	583.3	7	23.9	559.4
Roads & Street	1333.3	16	588.0	745.3
Railway	133.3	1.6	36.1	97.2
Airport	200	2.4	55.3	200
Mix Land use	-	-	0.5	-
Vacant Devexp. Land	-	-	15.7	-
TOTAL:	8333.0	100	2309.3	6095.2

Figure (6) shows the proposed major land use

Source:- Zaria Master Plan.

2.44 Future Public Facilities and Services Requirement:

Major public facilities and services required in Zaria by the year 2,000 A.D. and their standards as proposed in the Zaria Master Plan is shown in table (iv).

Table (iv) Future Public Facilities and Services Required
in Zaria

Facility Req.	Standard		No. Required by 2000 AD
<u>Sociocultural</u>	<u>Pop. Served</u>	<u>Area Req.</u>	
Youth Centre	10000-25000	1.2	11-25 in addition to existing 152.
Blind Workshop	Whole City	0.5	1
Children Home	250,000	1	2
School for - Blind	Whole City	2.8	1
Home for Aged	250,000	1	2
Rehab. Centre	250,000	1	2
Public Library	20,000	1	2
Reading Rooms	50,000	-	11 - 19
Public T.V.	-	-	1
Post Office	30-45000	0.5	15 - 25
Museum	Whole City	1	1
Theatre	120-128000	1.2	4
Cinema	40-60000	-	12 - 13
Burial Ground/ Cemetery	50-100,000	3	7 - 10
Churches/Mosques	-	0.5	50
Central Mosque	40-50,000	1	12
Large Prayer Ground	Whole City	13	1
<u>Public Services</u>			
Police Station	50,000	1	One for each district
Fire Station	120,000	4	

Sports & Recreation

Sport Stadium	120-128000	5	5
Sport Fields	13-15,000	2	25
Golf Course	-	-	3
Polo Field	-	-	1
Race Course	-	-	1
Swing Pool	40-45,000	0,5	14

Parks and Open Spaces

Residential Sub-Sector	-	1	125
Residential Sector	-	3	41
District	-	15	5
City	-	50	1

Source:- Zaria Master Plan

Other requirements as proposed by the Zaria Master Plan include:-

- (a) One new railway station near the city centre and one in Samaru to provide rail transport facilities for the city and also to provide linkages with other cities.
- (b) A new airport site near the Zaria - Jos road is proposed. This means that the existing airport would be shifted from its present locations.
- (c) A new abattoir is proposed near river Galma behind Tudun Wada distric.

These various proposals and requirements given in the Zaria Master Plan will provide the basis for the design proposals of this study.

THE PROPOSED ZARIA CITY CENTRE3.100 The Design Proposals:

Most of the proposals in this study are evolved after a general assesment of the existing Zaria central area, the existing traditional centre and some of the future requirements as proposed by the Zaria Master Plan.

3.10 General Characteristics of the Proposed Site:(a) Location and Size:

The proposed site for the new city-centre covers an area of approximately 150 HA and is located half way between Sabon Gari and Samaru districts. It is bound on the east by the Kaduna - Zaria by pass, on the West by the Nigerian Civil Aviation Training Centre, on the North by the Zaria - Funtua road and on the South by the Kubanni river.

In relation to the general future structure of the city the site is located in the geographycal centre and it fulfills one of the aims of the Zaria Master Plan; which is integrating the present four loosely related areas of urban Zaria.

(b) To Pography:

The site is generally undulating and slopes gently Southwards towards river Kubanni; slope ranging between 1.2 - 4%.

(c) Vegetation:

Most of the vegetation within the site has been tempered with for agricultural purposes, but a lot of Isoberlinia and mangefera trees exist and where the land proves un-suitable for farming several varieties of savannah type of shrubs flourish.

(d) Soil:

Alluvial sandy soil is the main type of soil within the site especially on the banks of the Kubanni river. Towards the Northern boundary, the soil is more conducive for the types of crops generally grown in Zaria.

Water table fluctuates between about 4m. towards the Northern boundary to about 2m. near the Kubanni river.

(e) Climate:

The microclimate is affected by the vegetation and the water bodies around the site, but in general, it is relatively the same as that of Samaru.

(f) Land Use (See figure (6))

The bulk of the site is used for agricultural purposes but a few traditional settlements, of not more than 30 compounds exist. Other land uses mostly on the boundaries include:-

- (i) Commercial and services e.g. The Zaria Hotel the Lebanon Club a, small restaurant, a new automobile sales and repair services, a few commercial shops and two roadside vehicle mechanics.
- (ii) Residential - e.g. The Hanwa Low Cost Housing estate and a few other private houses. There is also the Hanwa village located across the road on the eastern boundary.
- (iii) Institutional - This is the Nigerian Civil Aviation Training Centre.

(g) Natural Elements:

Natural elements around the site include two small hills on the eastern side and the Kufena hill seen some distance away on the South-Western side. The visual effect the hills exhibit are exploited in the design. Another natural element whose aesthetic value is exploited in the design is the Kubanni river.

(h) Accessibility:

The site is located close to two important high way junctions; the Kaduna by pass versus the Funtura road junction and the Funtua - Kano roads junction. These roads apart from providing inter city accesses also make the site easily accessible from all quarters of Zaria urban area. At present the site is quite accessible to pedestrians, motorcycles, bicycles and to some extent trucks, which often visit the Kubanni river to collect sands for building purposes.

(i) Justification of the Site:

One of the major criteria governing the selection of this site is the need to integrate all the major sectors of Zaria urban area. The geographical centrality of the site coupled with its suitable physical linkages to almost all parts of the city makes ~~the~~ achievement of this need feasible.

Other criteria used in selecting the site are:-

- (i) Attractiveness - The various natural elements, viz. the two small hills mentioned in (g) above and the general land scape gives the site an overall beautiful scenery which can attract visitors at all times.

(ii) Accessibility - This has been discussed in (h) above, but in addition, the Zaria Master Plan has made a proposal for a new Zaria - Kaduna by pass which passes behind the walled city and joins with the new Jos roads and a proposed Kano road. This means that the existing by pass which passes close to the site will be relatively free of inter-city through traffic and hence add to the accessibility of the site.

Since the proposed site meets the above criteria satisfactorily, the search for alternative sites becomes unnecessary.

3.12 General Concept of the Design: (Fig. 7)

Four major factors provide the framework on which the design concept is formulated; and these are:-

(a) The need to reflect traditional concept:- An attempt has been made to incorporate the traditional concept of the "Dandali" with a 750 m. long approach which terminates at the civic square, the town hall forming the focal point. The monotony of this long stretch is broken occasionally by other small squares formed by groups of related buildings. Local Government Offices, Magistrate Court and other Socio-Cultural buildings are disposed around the civic square facing the town hall. Commercial buildings are located at the back of the town hall but are physically connected to the civic square.

(b) Existing Nucleus of Activities:- Places like the Zaria Hotel and the Hanwa Housing Estate will play an important role in generating activities especially in the

early phases of the design. These places are integrated in the design through visual and circulation linkages. Visitors to these existing nucleus of activity can easily identify the city centre through various dominating features like the civic square and the tower attached to the town hall which acts as a land mark.

(c) Proposed Activities: - From the central civic square views have been created towards some proposed activity centres. The fire station and the police station are located in such a way that they overlook relatively the whole centre.

(d) Natural Elements: - From the civic square and some other locations, views have been created towards some attractive natural elements. These are the small hills on the eastern side of the proposed centre and the monumental Kufena hill seen from some distance.

Another aspect of the general concept is in the way the proposed railway station is located. The railway terminal building is on the ground floor while the platform is proposed to be under ground.

In general the concept of the design is a hybrid of traditional concept and a touch of modern approach which exploits the effect, of natural and man - made features around the site. See fig.7

3.13 Schedule of Requirements and Space Standards:

3.13.1 Schedule of Requirement:

General requirement in the proposed city centre are grouped into nine categories as shown below:

- (a) Commercial and Business.
- (b) Socio-Cultural
- (c) Public Services.
- (d) Administrative.
- (e) Religious
- (f) Residential
- (g) Roads and Parking
- (h) Organised Open Spaces
- (i) Utilities and Services.

Table ^{vii} gives the break down of these requirements.

vii
Table General Requirements in the Proposed City Centre

Function	General Requirements
Commercial and Business	Central Market, Retail and Service Shops, whole sale area, Motels, Restaurants, Cinema, Banks, and Business Offices.
Socio-Cultural	Museum, Theatre, Arts and Craft - Centre, Library, Youth Centre, and Town Hall.
Public Services	Post Office, Fire Station, Police Station, Bus Terminal, Railway Station and Taxi park.
Administrative	Local Government Offices, Ministry branch Offices, Magistrate Court and Civic Square.
Religious	Prayer ground and churches
Residential	Residential - Commercial mix land use.
Roads and Parking	Parking lots, vehicular roads, Pedestrian roads and the coremonial approach.
Openspaces	
Utilities and Services	Resuse collection points, electricity line pipe line, storm water drainage and severs

3.13.2 Space Standards and Aerial Requirement:

(i) The Site:

In her work, "city centre for greater Yola" Yunusa showed two possible standards for calculating the total area requirement for a city center⁽¹⁾. One of the standard which is used in this work is that recommended by the Denver Planning Office. It

recommends that the projected population should be multiplied by 32.5 sq.ft.

$$32.5 \text{ sq. ft.} = 3.01 \text{ sq.m.} = .0003 \text{ hectares.}$$

∴ Total area required for the proposed city centre in this study is

$$500,000 \times .0003 = 150 \text{ HA.}$$

This area agrees to some extent with the one proposed in the Zaria Mater Plan which is 145 HA, hence it is accepted.

(ii) Commercial and Business Facilities:

(a) Market:

In her study of Zaria Markets (page 171), Arinze suggests that for every 40 persons in Zaria there should be one market stall and further suggest their distribution among the various centres as follow.

City Centre	20%	of total stalls.
Distric Centres	20%	" " "
Community Centres	30%	" " "
Residential Planning Areas	15%	" " "
Housing Clusters	15%	" " "

Using this standard on the basis of a population of 500,000 people there will be a total of:-

$$\frac{500,000}{40} = 12500 \text{ Stall in Zaria by 2,000 A.D.}$$

20% of these amount to 2500 stalls.

But the proposed city centre is also the district centre of the city centre distric which requires its on share of 2500 = 625 stalls.

4

(1) Yunusa M. (1980) "City Centre for Greater Yola" Page. 31 un-published M.Sc. Thesis Dept. of U.R.P., A.B.U., Zaria.

For this reason 500 more stalls have been added to the 2500 required by the city centre to make a total of 3000 stalls to be located in the proposed city centre.

Arinze also recommends a hierarchy of stalls as shown below table.

TABLE (VIII) HIERARCHY OF MARKET STALLS

Stall Type	Area Required	% of Total Stalls
Small Stall	3m x 2m	40%
Medium	3m x 4m	25%
Medium Large	4m x 5m	25%
Large	5m x 6m	10%

Using this standard the following numbers of stalls and their aerial requirements have been computed for the city centre.

TABLE (IX)

Type of Stalls	Number	Area in HA
Small	1200	0.75
Medium	750	0.9
Medium Large	750	1.75
Large	300	0.9
TOTAL:	3000	4.3

But 4.3 HA is the built up area which constitute 40% of the total area occupied the market.

the total area for the market is : - $\frac{4.3}{40} \times 100 = 10.7$ HA

(b) Retail and Service Shops:

The Zaria Master Plan recommends that for every 100 persons in Zaria there should be one shop. So, for 500,000 persons Zaria will require 5,000 shops.

Arinze's suggestion to locate 20% of the total shops in the city centre has been modified here in view of the fact that the city centre should contain much more retail shops which normally deal with more specialized facilities of central function. Further more the proposed city centre happens to be the district centre of the "city centre district".⁽¹⁾

It is therefore suggested in view of this - that the proposed city centre should have 60% of the total retail shops in Zaria i.e.

$$60\% \text{ of } 5000 = 3000 \text{ shops.}$$

Arinze page (125) suggests the following size and composition of shops in a shopping centre.

TABLE (X)

Type of Shops	% Composition	Area in m ²
Large	5	150 - 200
Medium	35	50 - 30
Small	60	30

This standard is accepted in this study but with a little modification. It is proposed that 50% of the total shops required in the city centre should exist in mix commercial - residential land use.

(1) See 2.42

The composition and areal requirement of shops in the city centre is hence computed as follows:

TABLE (XI)

Type of Shop	% Composition	Area of each Shop	No. of Shops	Total Area in HA.
Small	60	30m ²	900	2.7
Medium	35	80m ²	525	4.2
Large	5	200	75	1.5
Total:	100		1500	8.4

The shops should have 50% coverage. Therefore total area required in the shopping centre is:

$$\frac{8.4}{50} \times 100 = 16.8 \text{ HA.}$$

(c) Banks:

According to Professor Wigale, there should be one bank for 15 - 40,000 people on an area of 0.4 HA using the standard of 1 bank for 40,000 people Zaria should have 17 banks. However 7 banks are existing now so 10 more are required by 2,000 A.D.

Out of these number 3 banks are proposed to be located in the city centre with a combined built up area of 1.2 HA and a coverage of 30%.

Total area for the banks is $\frac{1.2}{30} \times 100 = 4 \text{ HA}$

(d) Cinema:

The Delhi master plan recommends one cinema for 50,000 people on an area of 0.3 HA.

By this standards Zaria should have 10 Cinemas by the year 2,000 A.D. At present seven cinemas exist so 3 additional ones are required. One large cinema theatre is proposed on an area of 4 HA including parking and other utilities. Coverage of

40% Total area for the cinema is $\frac{.4}{40} \times 100 = 1$ HA.

(c) Hotels:

Vigale recommends one hotel for 250 guests. It is proposed that there should be 2 hotels with total covered area of 1.4 HA coverage in 40% therefore total area for the two hotels is

$$\frac{1.4}{40} \times 100 = 3.5 \text{ HA.}$$

(f) Business Offices:

Vigale suggests between 0.8 - 1.6 HA for small business offices. Due to increasing volume business 5.0 HA is proposed for business in the city centre.

(g) Whole Sale Area:

At present the total area for whole sale activities in the whole city is 9.3 HA which was found to be adequate. It is assumed that each district centre will have its whole sale area and an area of 7 HA is proposed for whole selling in the city centre.

(h) Restaurants:

On the basis of 100 seating capacity² restaurants are proposed in the city centre and these cover an area of 1.5 HA including parking.

(iii) Socio Cultural Facilities:

(a) Museum:

Baria master plan recommends one museum for the whole city with total area of 1 HA. It is proposed that this should be located in the proposed city centre.

(b) Library:

"Delhi" Master Plan recommends one library for 20,000 people. Zaria Master Plan suggests that each district should have its own public library so on this basis one library is proposed in the city centre on area of 1 HA.

(c) Youth Centre:

Zaria Master Plan recommends 1 youth centre for 10,000 - 25,000 population and proposed that 11 - 25 more centres are required in addition to the existing ones. It is recommended that these additional youth centres should be distributed among the districts of Zaria while the general headquarters is proposed in the city centre with an area of 1.7 HA.

(d) Town Hall:

In their master plan for Wukari Dar-al-Handassan consultants recommend that the area for a town hall should be between 0.5 - 1 HA. Based on this it is proposed that the town in the proposed city centre should have an area of 1 HA.

(e) Theatre:

Zaria Master Plan recommends one theatre for 128,000 people with an overall area of 1.2 HA. It is proposed therefore that there should be one large open air theatre with an overall area at 1.5 HA in the city centre since the Zaria Master Plan also recommends that each district should have a theatre.

(f) Arts and Craft Centre:

Zaria Master Plan recommends one arts and craft centre for the whole city. It is proposed that part of the

traditional settlement in the area earmarked for general green system should be converted to local arts and craft centre with a area of 1.5 HA.

(iv) Public Services:

(a) Post Office:

According to Zaria Master Plan there should be one post office for 45,000 people with a area of 0.5 HA. On this basis Zaria will require 11 Post Offices by 2,000 A.D. It is proposed however that the general post office for Zaria urban area should be located in the city centre covering an overall area of 1 HA.

(b) Five Station:

Zaria Master Plan recommends 1 for 120,000 population. The Zaria five station head-quarters is proposed in the city centre with an overall area of 1 HA.

(c) Police Station:

According to Zaria Master Plan there should be one police station for every 50,000 people. The Zaria Police head-quarter is proposed in the city centre covering a overall area of 1 HA.

(d) Bus Terminal:

An inter city bus terminal is proposed covering an area of 5 HA.

(e) Taxi Park:

An area of about 1 HA is proposed for the cities taxis.

(f) Railway Station:

An area of 5 HA is proposed for the railway station terminal while the railway platform is located under ground.

(v) Administrative:(a) Local Government Office:

The standard used for the town hall is modified and used for the Local Government Offices. Based on this the area proposed for the local government head-quarter, is 3.2 HA.

(b) Ministry-Branch Offices:

Standard is the same as above and the area proposed is 2 HA.

(c) Magistrate Court:

The Zaria Master Plan recommends that there should be one magistrate court in the city centre. It is proposed that the court should occupy an area of 1.0 Hectares.

(d) Civic Square:

It is proposed that there should be a civic square in the city centre with an area of 5 HA.

(vi) Religions Facilities:(a) Prayer Ground:

Zaria Master Plan recommends that there should be one large prayer ground for the whole city on an area of 13 HA. It is proposed that there should be one prayer ground with an area of 5 HA excluding parking on the assumption that this will serve the purpose.

(b) Churches:

Zaria Master Plan suggests that there should be 1 church for every 40 - 50,000 people on an area of 1 HA. 25 more churches are required by 2,000 AD in addition to the existing ones. It therefore proposed that there should be 3 churches in the city centre covering an overall area of 3 HA.

(vii) Residential - Commercial

Zaria Master Plan suggests that the highest population density in Zaria should be 150 pph and it should be around the city centre. It is proposed that based on this standards and to accommodate 1500 shops which is part of the total retail shops required in the city centre as calculated in 3.132 (b) above a total area of 10 HA is required.

(viii) Open Spaces:

Vigale suggests that in a shopping area:-

15 - 20%	of the total area should be devoted of open space
15 - 20%	" " " " " " Roads and parking.
10 - 15%	" " " " " " utilities and services.

Thus standard is used in this study to calculate the areas devoted to organised open spaces, roads and parking and utilities and services. Thus is shown bellow.

Facility	% of Total Area	Area in Hl.
Open Space	15	20
Roads and Parking	15	20
Utilities & Services	7	9.6

Table gives the land use composition and table gives the schedule of requirements and space stands in the city centre.

3.14 Functional Relationships of Major Design Elements, Fig. 8

(a) The Market:

This is located close to the whole sale area and the railway station and connected to them by ample pedestrian circulation spaces. The market is also located close to the shopping centre, so that shoppers could conduct their businesses in both places on one visit.

(b) Business Offices and Banks:

The proposed banks and business offices are located in a conspicuous place, such that they form a common court yard. They are also linked to existing and proposed hotels. The idea is that visitors to Zaria on business could lodge in the hotel for the duration of their business transactions. They should easily find their ways to the business offices from their hotel rooms and they should be able to combine both financial and business interaction **at** the same time.

(c) Hotels:

The proposed hotels are located near the existing Zaria Hotel to provide competition which will ensure better services.

(d) Museum and Caraft Centre:

The proposed museum and the local arts and craft centre are set against a beautiful back-ground formed by one of the two hills around the site.

(e) Theatre:

An open air theatre is proposed on a beautiful landscape over looking a proposed artificial lake. Artist, could exploit the beautiful scenery created by the lake and also by the Kufena hills.

(f) The Civic Square:

This is related to all the administrative functions and some other ones. The town hall is the dominating element in the civic square.

(g) Administrative Functions:

The proposed local government office head-quarter, the proposed state or Federal Ministry branches and the proposed magistrate court are sited together over looking the civic square.

(h) The Railway Station:

The railway station terminal is located on the ground floor close to the Bus Terminal and the whole sale area. This terminal serves as ticket offices, snack bar, and waiting place for travellers. The actual railway platform is proposed to be under ground. David Lloyd and Donald Insall give the maximum slope for a railway line as 1 : 40 which just tallies with the location of the proposed railway station.⁽¹⁾ The Montreal metro station has a platform depth of between 6 - 24

(1) Lloyd D. and Insall D (1978) Railway Station Architecture. Page. 54 Newton A Tender.

TABLE XII

LAND-USE PROPORTION IN THE PROPOSED CITY-CENTRE

FUNCTION	AREA IN HECTARES	% OF TOTAL AREA
SOCIO-CULTURAL	7.7	5.2
COMMERCIAL AND BUSINESS	49.5	33
PUBLIC SERVICES	14.0	9.3
ADMINISTRATIVE	11.2	7.5
RELIGIOUS	8.0	5.3
RESIDENTIAL	10	6.7
ROADS & PARKING	20	13.3
ORGANIZED OPEN SPACE	20	13.3
UTILITIES AND SERVICES	9.6	6.4
GRAND TOTAL	150	100

TABLE (XIII)

SCHEDULE OF REQUIREMENTS AND SPACE STANDARDS

FUNCTION	FACILITY	STANDARD ARDS USED	NUM- BER PRO- POSED	AREA- REQUIRED IN HA	% COVER- AGE	NUMBER OF FLOORS	PARKING SPACE P/HA	REMARKS
COMMERCIAL	MARKET STALLS	1/40PP	3000	10.7	30-40	1	35-50	1500 SHOPS IN MIX LAND-USE
	RETAIL SHOPS	1/100PP	3000	16.8	40-50	2	50-75	
	WHOLESALE	-	-	7.0	35-45	1	25-40	
	BANKS	1/40000PP	3	4.0	40-50	2	25-40	
AND	CINEMA	1/50000PP	1	1	30-40	1	20/1000	
BUSINESS	HOTELS	1/250GUESTS	2	3.5	30-40	3	1/2GUESTS	
	BUSINESS OFFICE	-	-	5.0	40-50	3	40-60	
	RESTAURANT	100 PP	2	1.5	45-50	2	1/2GUESTS	
	SUB TOTAL			49.5				

FUNCTION	FACILITY	STAND-ARDS USED	NUMBER PROPOSED	AREA REQ'D IN H./	% COVER-AGE	NUMBER OF FLOORS	PARKING SPACE PER HECTARE	REMARKS
SOCIO- CULTURAL	MUSEUM	1/WHOLE CITY	1	1.0	25-30	1	30-40	
	LIBRARY	1/20000 PP	1	1.0	25-30	2	30-40	
	YOUTH CENTRE	1/10000 PP	1	1.7	40-50	2	30-40	THIS IS THE HEAD QUARTERS
	TOWN HALL	1/WHOLE CITY	1	1.0	40-50	3	30-40	
	THEATRE	1/128000 PP	1	1.5	40-50	1	30-40	
	ARTS AND CRAFT	-	1	1.5	30-40	1	20/1000	ONE OF THE TRADITIONAL SETTLEMENTS IS USED
SUB-TOTAL				7.7				

FUNCTION	FACILITY	STANDARD USED	NUMBER PROPOSED	AREA REQUIRED IN HA	% COVER-AGE	NUMBER OF FLOORS	PARKING SPACE PRR HEC.	REMARKS
PUBLIC SERVICE	POST OFFICE	1/45000PP	1	1.0	30-40	2	30-40	THE GENERAL POST OFFICE
	FIRE STATION	1/120000	1	1.0	25-30	1	10-15	
	POLICE STATION	1/50000	1	1.0	35-40	2	30-40	
	BUS TERMINAL	1/WHOLE CITY	1	5.0	-	1	-	
	TAXI PARK	-	1	1.0	-	-	-	
	RAILWAY TERMINAL	-	1	5.0	40-50	3	30-40	TERMINAL BUILDING ON GROUND FLOOR PLATFORM UNDERGROUND
SUB-TOTAL				14				
ADMINISTRATIVE	LOCAL GOVT. OFF.	-	-	3.2	40-50	3	50-60	
	MINISTRY BRANCH OFF.	-	-	2.0	40-50	3	50-60	
	MAGISTRATE COURT	-	1	1.0	40-50	2	50-60	
	CIVIL SQUARE	-	1	5.0		-	-	
SUB-TOTAL				11.2				

FUNCTION	FACILITY	STANDARD USED	NUMBER PROPOSED	AREA- REQUIRED IN HEC- TARES	% COVER- AGE	NUMBER OF FLOORS	PARKING SPACE PER HECTARE	REMARKS
RESIDENTIAL		150PPH	-	10.0	40-50	3	40-50	1ST FLOOR AS SHOPS, 2ND & 3RD AS FLATS
SUB TOTAL				10.0				
RELIGIOUS	PRAYER GROUND	1/WHOLE CITY	1	5.0	30-40	1	50-60	
	CHURCHES	1/50000	3	3.0	30-40	1	50-60	
SUB TOTAL				8.0				
ORGANISED OPEN SPACE			-	20.0				
UTILITIES AND SERVICES			-	9.6				
ROADS AND PARKING				20.0				
GRAND TOTAL				15.0				

NET INTENSITY INDEX = 1.2

GROSS " " = 1.0

metres. (2) The location of the proposed railway station is on an already depressed part of the site which makes all structural work easier and cheaper.

(i) The Fire Station:

The proposed fire station is located on a higher ground over looking the bulk of the proposed city centre, so that an out break of fire could easily be noticed by the firemen.

(j) The Police Station:

This is the Zaria Police headquarters and it is located close to the fire station as there is a bit of interdependence between them. The police should always be present while the fire men are fighting fire to prevent the inevitable looting associated with fire hazards.

(k) Mosque:

Unlike in the traditional city the proposed mosque here is located away from the core of the proposed city centre. The amount of worshippers is always large hence it is hoped that the proposed location of the mosque will help in decongesting the core of the centre.

(l) Churches:

Two churches are located close to the library and one close to the youth centre. It is hoped that by this locational relationship the spiritual significance of the church could exert a psychological influence on the youth and other visitors to the library.

(2) Lewis D. (1968) (Urban Structure) Architects Year book no. 12 Page. 78.

(m) Truck Terminal:

The location of the truck terminal has already been proposed by the Zaria Master Plan. This is close to the city centre along the Zaria - Funtua road.

(n) Motor Park:

This is not proposed in the city centre since it is assumed that the bus terminal can take care of major inter-city journey. It is suggested however that a motor park of not more than 3.- 5 HA should be carved out of the proposed truck terminal.

(o) Post Office:

The proposed post office is located in a conspicuous position between the market and the shopping centre.

(p) The Taxi Station:

The proposed taxi station is located in between the proposed market and the proposed railway station so that travellers arriving in the trains as well shoppers, from the market and shopping centre could easily find transportation to their various places.

(q) Restaurant:

This is located close to some socio-cultural and administrative functions and it confronts the civic square. The idea is that government workers and other visitors could have quick meals during break hours.

(r) Residential:

This exist as a commercial-residential had use and is broken into two sections, one section is directly associated with the shopping centre while the other is located near business offices, banks and hotels to provide quick services since these functions are a bit detached from the main shopping centre. The buildings in this residential-commercial area are made up of three floors. The ground floor serves as commercial shops while the 2nd and 3rd floors serve as apartments. It is hoped that the inclusion of this residential function will help in reducing the ghost-town effect, inherent in most existing city centres.

(s) Parks and Open Spaces: Fig. 9

The Zaria Master Plan has proposed that the existing forest reserve along the Kaduna by pass should become the city park. Thus proposed park is located close to the proposed city centre, therefore no proposal is made in this design for any other large recreational park. The open spaces in the proposed city centre however, have been designed in an organised manner and integrated with the general green system of the city as proposed in the Zaria master plan.

(t) Utilities and Infrastructural Services: Fig. 11

At present treated water is supplied from the Zaria dam and distributed to all the districts via booster station. The existing source of water can supply 12 million gallons/day by 1994. By the year 2,000 total water requirements for Zaria will reach 15 million gallon, 1day. very close to the site there is the Samaru booster station. This stores large amount of water in two large reservoir located on one of the hills close to the proposed site.

Electricity is supplied to Zaria from the National grid, fed by the Kainji lake dam. By 2000 A.D. electricity consumption for Zaria will be 50M.W.

Fig. 4 shows the major power and pipelines and also the general sewerage disposal system for the proposed city centre.

3.20 The Design Criteria:

The design criteria for the proposed city centre also form part of the goal of the study. These are

(a) ~~(a)~~ Functionality:

It has been realised that any spatial plan has to be functional to prevent present and future problem of conflicting use and also to make it easier for people to conduct their various business without undue hardships; hence functionality is considered by grouping related activities together and also relating proposed activities to other existing ones of related same functions.

(b) Accessibility:

Accessibility is the deciding factor in measuring the level of performance of any activity. In this design, accessibility is considered by choosing a site located at the junction of three principal roads; the Zaria - Funtua road the Kaduna - Zaria by pass and the new Zaria Kano road. These roads apart from giving inter-city accesses also make the proposed city centre accessible from the four districts comprising Zaria urban area. A number of pedestrian accesses are also provided from all corners of the city.

(c) Attractiveness:

This has a psychological effect on visitors to the centre. The ability to conduct business while appreciating the beauty of the environment brings happiness and helps to reduce tension in an otherwise hectic situation.

In this design attractiveness is considered through obtaining a suitable level of spatial composition of the whole area. The Kufena hills and two other smaller ones close to the proposed site also provide a source of natural beauty which is exploited and integrated in the design.

4.00 POLICY FOR IMPLEMENTATION4.10 Administrative Bodies:

It is suggested that the body responsible for the financing as well as managing the proposed city centre should be according to the suggestions made in the proposed Zaria master plan so that development goes in conformity with the general development of the whole city.

4.11 Land Availability:

As mentioned earlier more than $\frac{3}{4}$ of the proposed site is used for agricultural purposes so availability of land for implementing this programme will not present any problem.

However a few traditional settlement and part of the Hanwa Housing Estate would have to be demolished to make way for the proposed greensystem and the proposed railway line respectively. The inhabitants of these dwellings could easily be relocated in the area earmarked for residential purposes within the perimeter of the same site.

4.2 Phasing: Fig. 12

Any programme of such magnitude like the city centre cannot be implemented at one shot so a suitable phasing programme is necessary for an effective implementation⁽¹⁾.

The phasing programme is divided into three and is spread over period of 10 years (1990 - 2,000 A.D.) . It is further suggested that the existing airport which was proposed to be relocated can co-exist with some proposed facilities especially during the early stages of implementation.

(1) Yunusa M. (1980) City Centre for Great r Yola (Page 50)
Un-published M.Sc. Thesis Dept. R.U.P., A.B.U., Zaria.

4.21 Phase one (1990 - 1993)

- (i) Provision of basic infrastructures, construction of proposed roads.
- (ii) Construction of the local government offices which are now scattered between Sabon Gari and the walled city construction of the ministry branch offices.
- (iii) Construction of part of the residential commercial building to provide supporting services to the office workers and other existing activities around the site.
- (iv) Construction of the town hall at this stage is desirable to start giving the centre an identity.

Phase two (1994 - 1997)

- (i) Provision of some basic service is due in this phase the fire station, post offices and police station should be constructed.
- (ii) Construction of the shopping area should then be made since some level of security has been provided in terms of fire and police station. At this stage also the taxi station should be provided.
- (iii) Provision of some sociocultural facilities like the library the youth centre and also the remaining administrative facility that is the magistrate court.
- (iv) Construction of the market and the restaurant and also the whole sale area.
- (v) Construction of the business facilities and banks since by this time they must have the supporting activities. It is at this stage that the existing airport should be moved to its new proposed site, because tall buildings have now been constructed.

- (vi) Work on the railway station should start at this stage.
- (vii) The Bus terminal should be constructed .
- (viii) The religious facilities should come at this stage.

Phase three (1998 - 2000 A.D.)

- (i) At this stage the railway station should be completed. The remaining socialcultural facilities should at this state be constructed. These are the local arts and craft centre the museum, the cinema and theatres.
- (ii) To achieve the desired density the other part of the residential commercial buildings should be constructed at the stage.
- (iii) The artificial lake should come last since it serves no tangible use except for aesthetic ~~pur~~pose.

Construction work should be carried out carefully at each stage while taking into consideration related work of the next stage so that the whole city centre is constructed according to schedule.

C O N C L U S I O N

In undertaking any urban design programme in any traditional city, effort should be made to reflect to a large extent the traditional values of that city. This fortunately forms one of the aims of this study. The study however considers the fact that, emerging modern ideas should not be altogether discarded from all design programmes. In deed, it is imperative to incorporate other ideas into the design for a number of reasons.

Firstly, this study considers the fact that the entire urban process is a dynamic one which often brings about changes in human activity pattern. Any change in idea which does not to a great extent interfere with the norms and values of the society, and which is necessary or even just desirable, for the welfare and general development of that society, should be considered as a useful innovation which could be introduced carefully so that it eventually becomes acceptable to all the people.

Secondly, it is also considered that a substantial number of non-indigenes are now living and working in different places other than their's as can easily be seen in the case of Zaria and other traditional cities. Since these people contribute to some extent to the general development of the places they are living, it is important to take care of their needs when making any design proposal.

Even though this study has placed a great emphasis on traditional values as can be seen in the overall concept of the design, a lot of effort has also been made to incorporate other non traditional ideas. Functions such as the mix residential commercial land uses, the incorporation of churches in the city

centre, the provision for hotels, are all alien to the typical Zaria person.

Lastly this study considers the fact that design and implementation of a city centre is one of the most difficult project to embark on. Caution should therefore be taken from the design stage to the actual implementation. A mistake at any stage of the project is bound to create a disastrous result which might render the whole programme meaningless.

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