MAN-ENVIR0NMENT RELATIONSHIPS IN SOKOTO TOWNS A BASIS FOR FURTHER PLANNING AND DESIGN IN OTHER HAUSA-FULANI CITIES

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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 MASTER OF SCIENCE DEGREE, URBAN AND REGIONAL PLANNING.

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It is most beautiful when it comes
straight from your life the thing
that tell your history.

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Muhammed Sani Ango.

DEDICATION

Dedicated to my family whose love will never cease.

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CHAPTER ONE

INTRODUCTION: THEORETICAL AND METHODOLOGICAL CONSIDERATION

1.10. Introduction:

Traditional urban forms of the first settlers provide the basis for any new development that takes place in an area. The traditional settlement of the Hausa-Fulani people might perhaps, come under this category. Hausa-Fulanis are known for their long established process of urbanization since before the British arrival to Nigeria. There were settlements like Kano, Katsina, Sokoto, Daura, Yola, Bauchi and Zaria to mention only a few which existed long before British arrival. (See Figure 1) for their locations. These settlements are not only there because of their physical structures but because of the relative closeness of the people to their settlements religion and socio-cultural customs of the Hausa-Fulani people.

These variables changed with time and today what is seen in the Hausa-Fulani traditional cities is the result of these changes over time. These happened in organic nature and therefore follow the natural course of development. (See Figure 2).

The changing technology and new automobile age witnessed made it no longer possible to maintained organic development. What is witnessed today is the application of professionalism in cities development process, and Hausa-Fulani settlements are not exceptions to this. Presently, physical planners are the controllers of urban and rural development, therefore, must find solutions to urban problems in Hausa-Fulani cities.

1.11. PROBLEM DEFINITION:

The main problem in this thesis is to identify and define

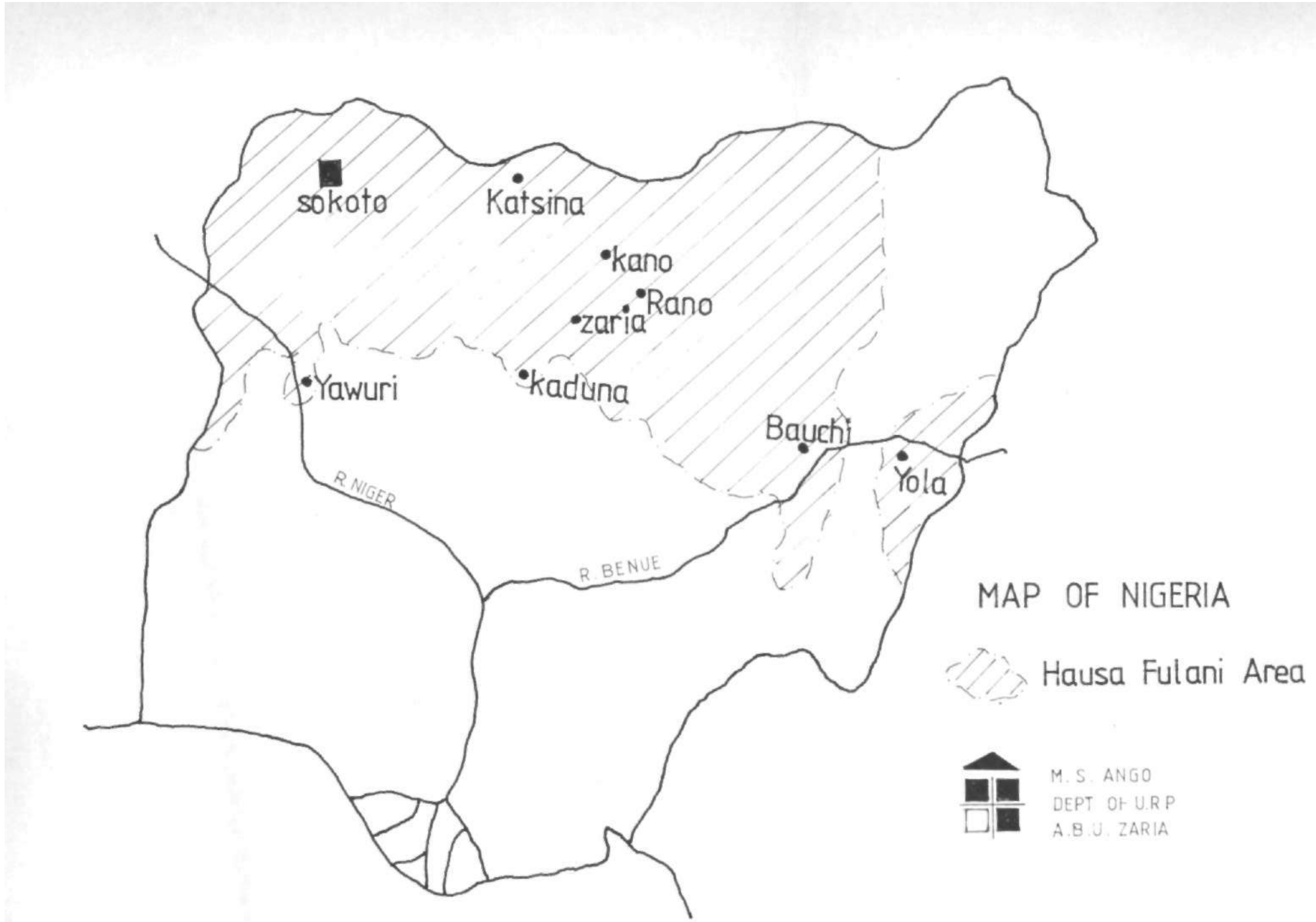


FIG. 1 SOURCE :- UQUHART, A.W. (1977) PLANNED URBAN LANDSCAPE OF N/NIGERIA. P. 4.

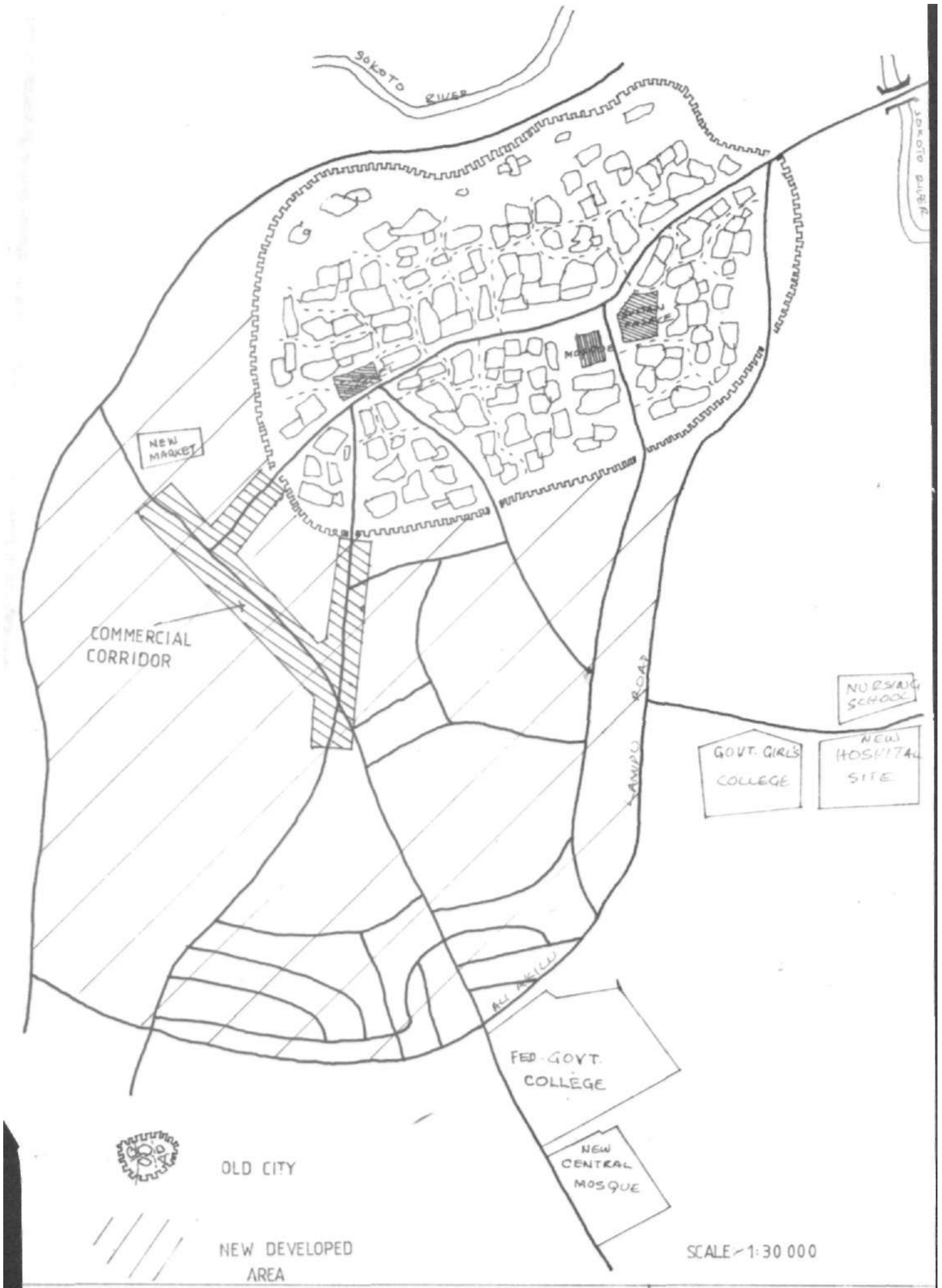


Fig. 2. Sokoto Town

SOURCE :- DAR RAL-HANDASAH CONSULTANTS :- SOKOTO TOWN

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the important socio-cultural variables and their interaction with physical environment in Sokoto town. Another major problem is how to design a new environment which will provide for these customs, religious and social aspects of Sokoto people.

It has been observed that present designs in Sokoto town are eliminating these closeness people have to their environment. It should be remembered that "built environment can be seen as behaviour setting - a setting for human activities";[1] so therefore, new designs in Sokoto town should be designed with relationships to the life style of the people to use it, and live in it.

This thesis is not only concern with the identification and definition of the important socio-cultural variables to environment but is also concerned with the design with these variables in practical patterns.

1.12. GOAL, OBJECTIVES AND LIMITATION

The main goal of this thesis is to establish the man-environment relationships in Sokoto town and use this as a basis for further design in Hausa-Fulani settlements.

This goal will be achieved through the following objectives.

1. To survey people's use of space in Sokoto town.
2. To identify what cultural pattern control or influence the above.
3. To establish the elements of change i.e:
   - (i) Decide on cultural core elements.
   - (ii) Decide on those elements that have changed and those that will change.

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1. Amos Rapoport (1976) - The Mutual Interaction of People and the Built Environment, p. 9.

(iii) Decide on elements changing vensus people's wish.

4. To develop space implications of the cultural elements and to recommend a structural layout of the above.

This study use cultural pattern as it has implications in the use of space in Sokoto town. This do not deal with mental behaviour, for example space perception images etc. However, an overlap of the two will be dealt with in the process of discussion.

The work is limited to people's use of space in Sokoto town.

1.13. DATA COLLECTION METHOD

The data used in this study to analyse the existing situation and which also formed the basis for the proposals and recommendation made are obtained from the following sources:

1. Discussion and participation observation of the people in Sokoto town with regard to the use of space.
2. Administer a questionnaire in Sokoto town about what people like and dislike in their city, neighbourhood and compounds. It also covered areas of household sizes, place of work and animal stockings.
3. General survey of other Hausa-Fulani cities.
4. Secondary data from Darel-Handasah Master Plan of Sokoto, Upgrading Programmes of Sokoto, Master Plan of Bichi, Gaya and Zaria.

Plus various students thesis on related subjects.

5. Photographs of existing situation in Sokoto on how man-relate to his environment.

1.14. THEORETICAL BACKGROUND AND LITERATURE REVIEW

In order to tackle the problems highlighted, a new approach to master plans, upgrading schemes, site and services projects, urban renewal exercises and so on, must take a new direction in Sokoto town. These are the tools used in design in Sokoto-town. They regulate and shape environment people lives in.

If the main function of planning activities is to create better environment for people, that is to improve the product; it must therefore understood environmental quality in it's cultural context, as defined and understood by the group itself.[2] This means that environments are good only to the extent that they relate to the way people live. This in turn is related to the socio-cultural and behavioural variables of the people. Socio-cultural factors are primary in man-environment interaction and influence most aspects of settlements.

The new approach to save the people of Sokoto from environmental confusion is the Man-Environment Studies (MES) approach. This is because the (MES) approach is a systematic study of the mutual interaction of people and the built environment.[3] This means that any findings about human preferences,

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2. Amos Rapoport (1979) - An Approach to Designing Third World Environment. Third World Planning Review, p. 23.

3. Amos Rapoport (1977) - Human Aspects of Urban Form, p. 383.

perception, cognition behaviour, socio-cultural variables and so on will, in principle have impact on our understanding of the urban form. It is through that we will influence the way cities are organised and the criteria used in planning and design to supplement those now used.

In urban design, the considerations relating to people and the way in which they interact with the city have tended to be neglected in Sokoto town and most Hausa-Fulani cities. When they have been considered it has rarely been based on the data and theory of man-environment studies. This means that we have much of over generalisation about "Human needs" and a neglect of the specifics which must be understood in order to design.

The (MES) approach is concern with what to design and why? It believes that the basis of any plan or design is to achieve congruence between behaviour and socio-cultural variables and the built environment.[4] Thus these must be understood in order to successfully carry out an (MES) approach.

(i) Nature of group and characteristics, life style, rules for behaviour, environmental preferences, images cognitive schemeta, space and time etc. should be established.

(ii) Communication and privacy etc.

(iii) Environment meaning should be understood. The symbol of status as expressed in dwellings and artefacts. Ways of establishing social identity etc.

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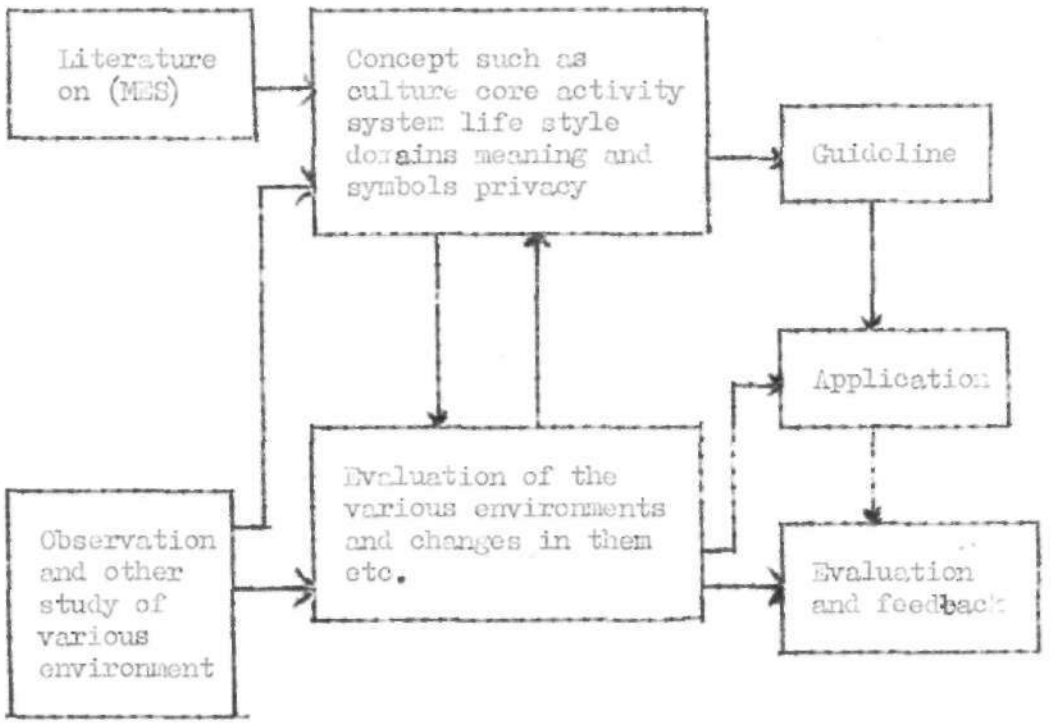
4. Amos Rapoport:(1979) - Third World Planning Review, Volumn 1, No. 1, p. 25.

(iv) The nature of activity systems and their latent aspects needs to be understood and how they are related to home range, to territorial behaviour and the nature of territorial markets.

(v) Social organisations, relations and networks and their relation to the organisation of the environment, to movement patterns and to interaction rates and settings should be traced.

The relationship of these variables to aggression, family life, friendship patterns, interaction, communication and social relations, sex roles, child socialisation should be studied, and also the role of built environment in these interactions. It should therefore be remembered that in this study or approach we are dealing with observations of all the built environment, its meaning and how it is used as well as with certain more abstract concepts and principles. However, in Sokoto town the literature can be presented in the diagram below.

This kind of approach is always useful and becomes even more so if it is used systematically. If the meaning of places are examined, the changes in location and in the nature of dwellings observed, if preferred work and resource - sharing patterns were analysed, if activity patterns and their distribution in space and time were recorded, life style profiles of specific groups established and if the relationships of all these elements and changes in them were traced to underlying ideals and images, particularly as expressed in notions of



Source: Amos Rapoport (1979): Designing Third World Environments: Third World Planning Review, Vol. 1, No. 1, p. 37.

environmental quality then likely hypothesis could be made.[5] However, no data exists on (MES) variables in the way they do for engineering and other allied professions, yet they could be developed in every community follow these steps.

(1) A first step is a literature survey on the place and group, its culture, other similar groups and parallel situations which can be used as analogues.

(2) Then the generalised concepts from (MES) must be used. This will help to profile the group and define its culture core; it will often allow prediction to be made prior to any field work.

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5. Amos Rapoport (1979) - Third World Planning Review, Vol. 1, No. 1, p. 39.

(3) A field observation is one of the most useful aspect one can rely upon. Such observations, in terms of concepts can be extremely productive.

(4) Spatial data about what happen where and plotting home ranges and activity systems in space is essential to show what happens where, when and who is included or excluded.

(5) Locational inventories or objects can reveal much.

This explains the steps in the literature of (MES) approach and is actually simple and can be useful in the study of human interactions in space when actual informations on groups is utilized. Thus the application of (MES) approach in solving the problem of physical planning in Sokoto town.

CHAPTER TWO

2.00. HISTORICAL AND GEOGRAPHICAL BACKGROUND OF SOKOTO TOWN

The city of Sokoto was founded in the 19th century resulting from the Jihad led by Shehu Usman Danfodio. Since it's inception, Sokoto has been an important Islamic capital as well as administrative centre. Today Sokoto is a state capital of Sokoto State and yet an important spiritual and administrative centre.

The major tribes are the Hausa-Fulanis whose religion is basically Islam. The importance of Sokoto as state capital has attracted people of various tribes in the country to form a complex society of what is known as Sokoto town today.

Sokoto is located to the North Western part of Nigeria. (See Figure 3). It lies on the south side of the Sokoto Rima Valley. The central area of the town sits on a plateau which is about 45 metres above the base of the valley. The escarpments slope away from this central plateau to the Sokoto River and its tributaries in the north and east, and into a shallower valley to the west. To the south of Sokoto, the ground raises slightly.

Sokoto is in the hot arid type of climate. This is characterised by relatively wide and rapid changes in temperature and humidity. The highest mean monthly temperature is 40°C in April while the lowest mean monthly temperature of 15°C occur in December and January. The relative humidity range between monthly mean minimum of 10% in February to 93% in August.

The total mean annual rainfall is about 732.5mm, most of which falls between July and September with highest amount (244.1mm) falling in the month of August. Hardly any rain falls in the months of November, December, January and February. During these months,

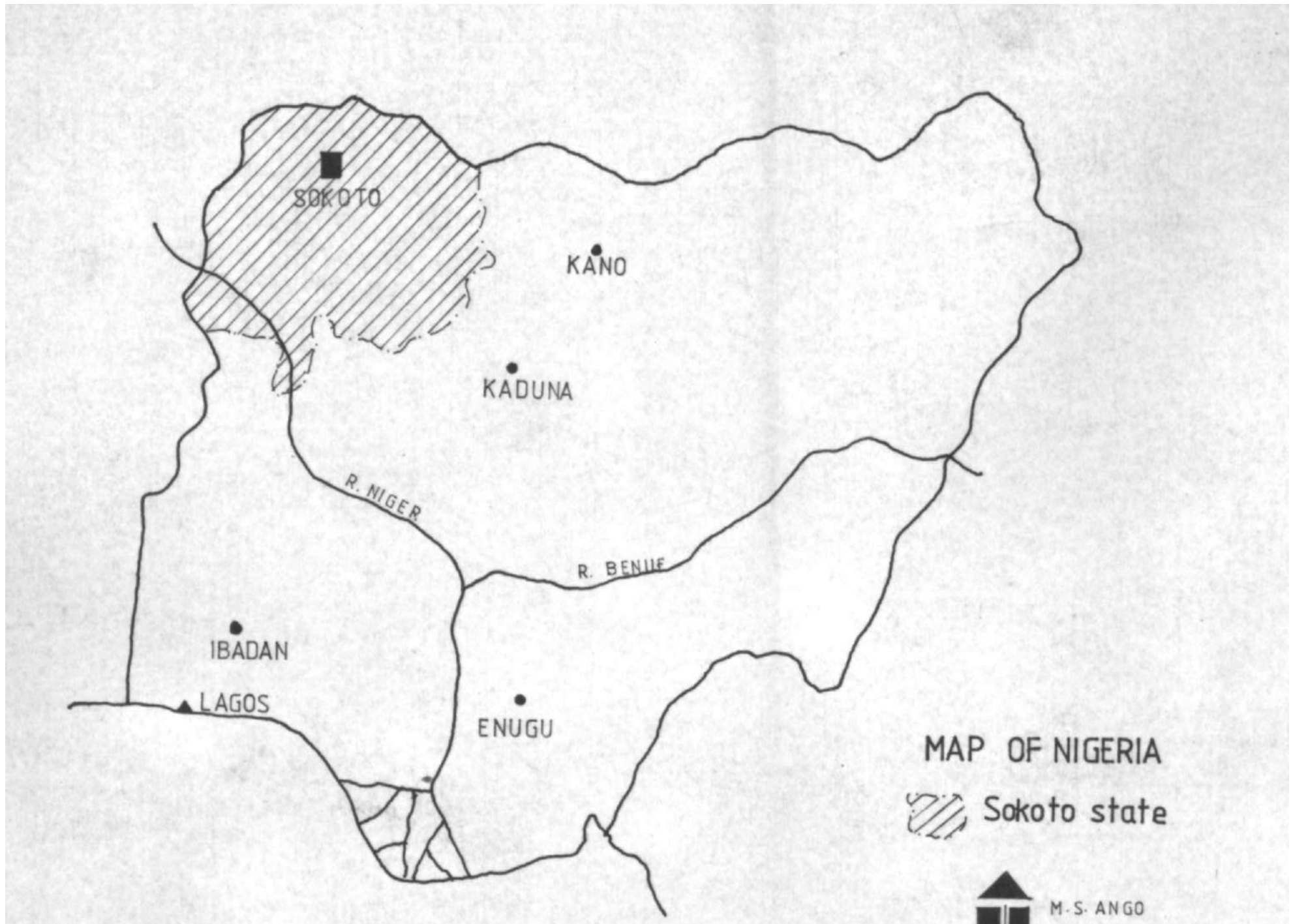

SOKOTO
KANO
KADUNA
R. NIGER
R. BENUE
IBADAN
LAGOS
ENUGU
MAP OF NIGERIA
Sokoto state
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Fig. 3

the worst effect of cold, dust-carrying Hamattan winds is experienced. The prevailing winds blow mainly from the east between the months of October and March with secondary winds blowing from North-East.

In Sokoto, the local people determined four seasons which are associated with certain activities among the Hausa-Fulani communities. From December to February is usually called "HUNTURU", a name derived from the cold harmattan winds blowing at this time of the year. The season from March to May is called "DAZAUA" which is the time the farmers set for planting. The farming season is between June to August which is called "DAMINA". The period from September to November is called "KAKA" a period devoted to harvesting and secondary type of occupations.

The climate characteristics have important implications to planning. Some of the most important considerations are:

(i) Building should be compact so that houses or part of the buildings are naturally shaded.

(ii) Combinations of dry and still if during the dry season results in noise problem because sound is transmitted over great distances unless impeded by buffer either natural or man-made.

(iii) Foot paths and arcades should be shaded with planting or buildings so as to protect pedestrians from the sun.

(iv) Areas of fairly dense vegetation are necessary to improve the micro-climate and it is generally preferrable that for residential areas to have many smaller green areas than a few large open spaces.

(v) Large, unused areas are to be avoided because they are unlikely to be used for recreation due to the intensive solar radiation.

2.10. STRUCTURE OF SOKOTO TOWN AND OTHER HAUSA-FULANI CITIES

Sokoto like all other Hausa-Fulani cities has a common characteristics of a dual urban structure which resulted mainly from the British colonial rule. (See Figure 4). The first part of the town is the traditional or the walled city. This existed long before the British arrival. It is characterised with the common religion of Islam, a socio-economic and cultural uniqueness. Physically these characteristics played a major role in the structure of Sokoto city as is evidence in all other Hausa-Fulani cities. Sokoto was essentially heavenly built with mud and possess a definite urban character.

Sokoto town has a well developed administrative set-up based on Islamic laws. The administrative units are the "Unguwa" which are controlled by the ward heads. The pattern of these Unguwa's as it exists reflect the religious, occupational and cultural differences. Outside the traditional city, Sokoto has the colonial and post independent development which grew up to be a city of it's own. This sector has three distinct areas, the Sabon Gari, Tudun Wada and the G.R.A.

The Traditional City: Within the apparently formless complex of mud dwellings that exist in the traditional city, there is a basic pattern of street blocks. Each street block is irregular in shape and is enclosed by a high mud wall and contains the main social and economic units of the extended family system commonly practiced in Sokoto city. The family compounds are linked by pedestrian routes

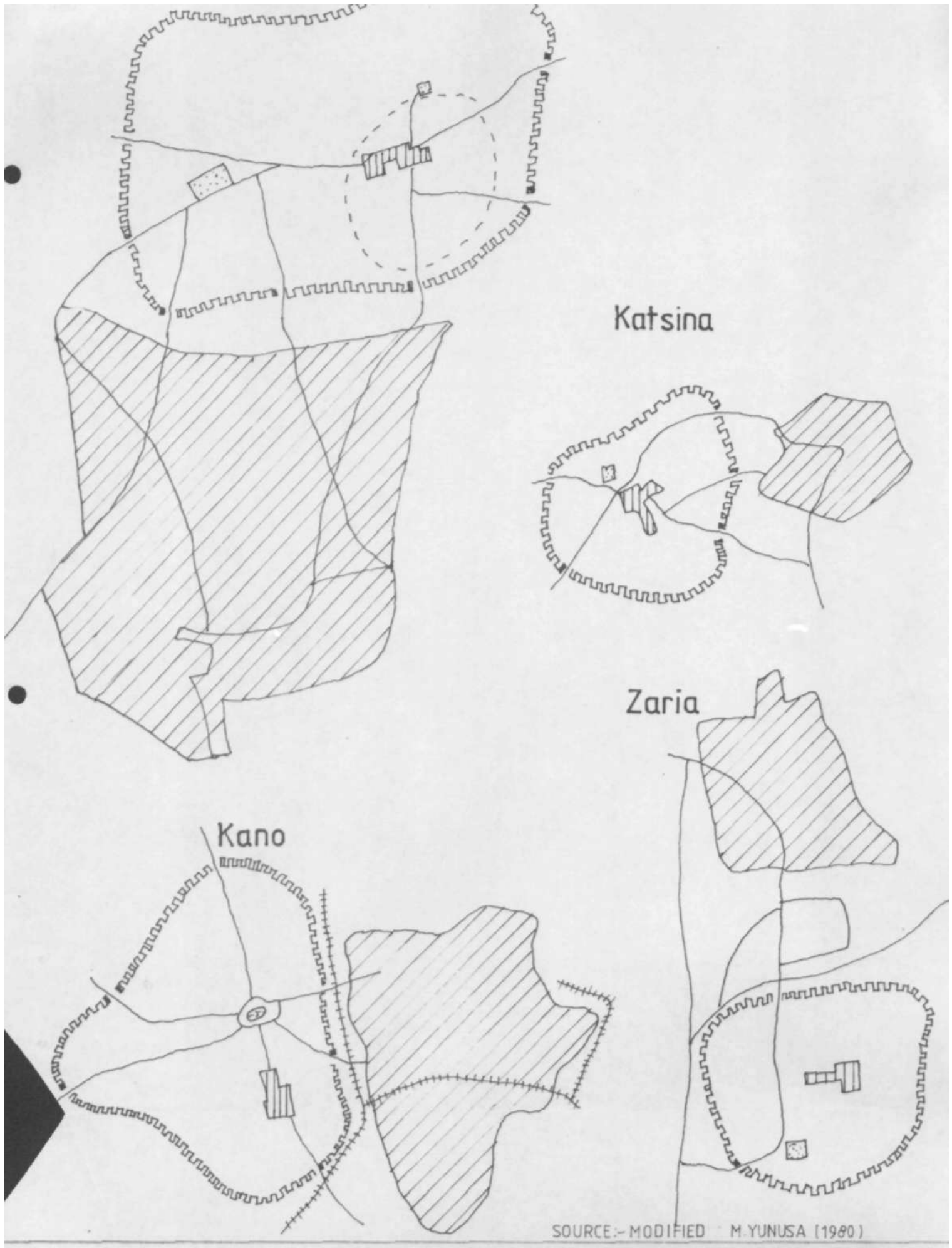


Fig. 4 The dual nature of some Hausa Fulani Cities

which connect the market place, the Friday Mosque and the Palace which are the focal points in the traditional city. The routes also connect to the outdoor praying grounds, the common open spaces and shades.

In Sokoto traditional city, the women are in purdah, and their house plan follows the traditional pattern with rooms arranged around, a court yard This has developed to provide for the segregation of the sexes (Auren Kulle). On a general basis, the urban forms of the Hausa-Fulanis of Sokoto was a result of cultural mix, and needs and values set out by Islam.

In view of the requirement of both segregation of domestic life and participation in the economic, cultural and religious life of the Hausa-Fulanis of Sokoto, the city comprises a tripartite system of public, semi public and private spaces. This vary in degree of accessibility and enclosure. The main public areas of the town are the market, the palace and the Friday Mosque. These have the maximum accessibility and unrestricted social, religious and commercial contact. It is because of this need and the considered value of the elements, the planning principle of centrality of location was evolved.

The application of this principle led to the radial pattern of urban design in Sokoto town whereby the location of the palace the Friday mosque, and Market are in the geographical center of the city and linked to the town gates by the main streets. (See Figure 5). to the wards by the secondary streets, and to the individual dwellings by the narrow, blank-walled alleys and cul-de-sacs which branch off the secondary streets.[6] The importance of the Hausa-Fulani ruler

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6. Musa Ebuga (1979) - "Selected Problems of the Development of Nigerian City Centers" in (Ed.) S.K. Kulushresha et. H.Y. Bedawi, Urban Field Seminars, U.R.P. Dept., A.B.U., p. 10.

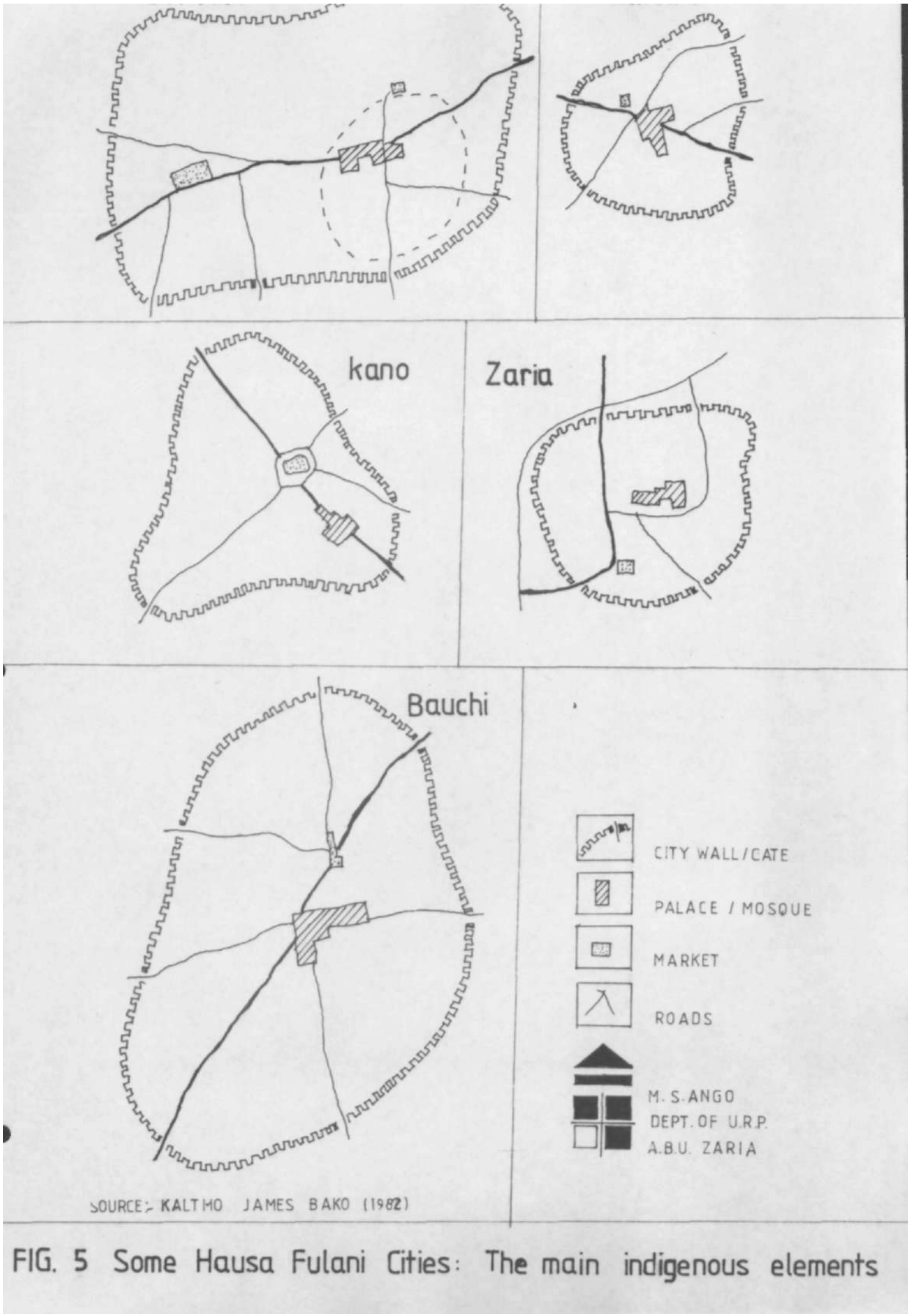
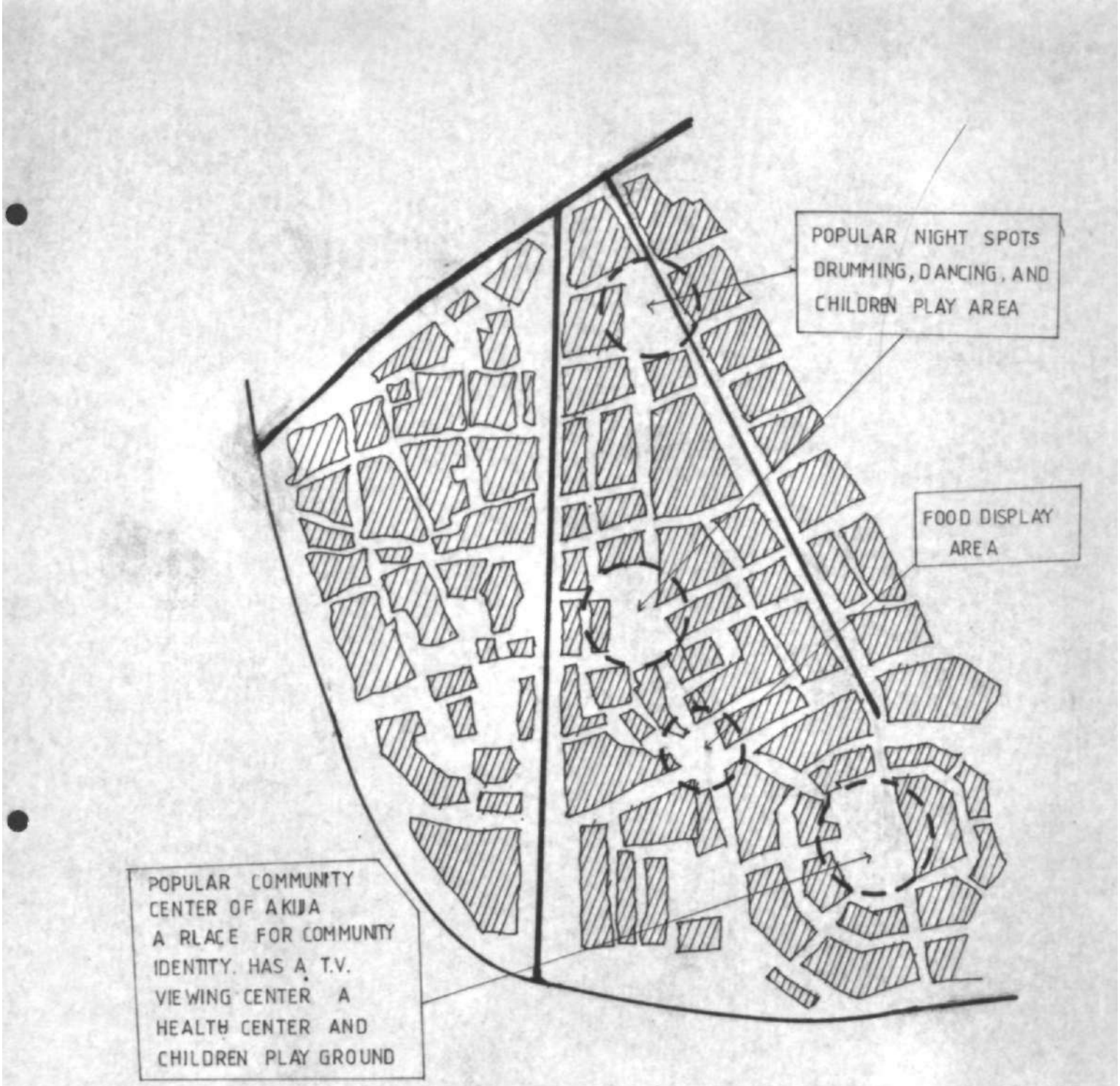


FIG. 5 Some Hausa Fulani Cities: The main indigenous elements

(Sultan) in Sokoto as both administrative and religious leader and for his convenience meant that the mosque be near his palace. The market, though centrally located within the framework of the principle, is a bit removed from the palace and mosque complexes. This was most probably because the Hausa-Fulani people of Sokoto needed the market only for regional trade and wholesale exchange while retail trade occurred within the compound premises where most production work was done. Another reason may be for consideration of Sultans security from disputes and quarrels often ensured from market. This locational relationships which satisfied the religious and cultural needs and values resulted from the planning principle of grouping of like functional elements. This principle required locational expression of the functional relationship between the administrative and religious symbols; the palace and the mosque while the market is remotely located.

Within the built-up area of Hausa-Fulani city of Sokoto, the principle of functional urban space hierarchy was evolved in keeping with the needs and values of graduated, public and private, religious and cultural life of the individual and the community. Application of the principle led to the development of a hierarchy of urban spaces from the main square palace in the center, to the residential sector (Unguwa) open space usually with small mosque or prayer ground and an informal market (See Figure 6) and then to the internal courtyard of the compound together giving a low building density which is a distinguishing character of this traditional city of Sokoto.

In Sokoto, at the residential sector or ward, housing cluster and compound levels, the Islamic religious requirements of segregation



SOME SPACES PROVIDE UNITY AND IDENTITY TO NEIGHBOURHOOD AREAS

Fig.6 Neighbourhood Spaces in Sokoto

RESIDENTIAL BLOCK

NEIGHBOURHOOD SPACES

PART OF SOKOTO SHEET 18. 0



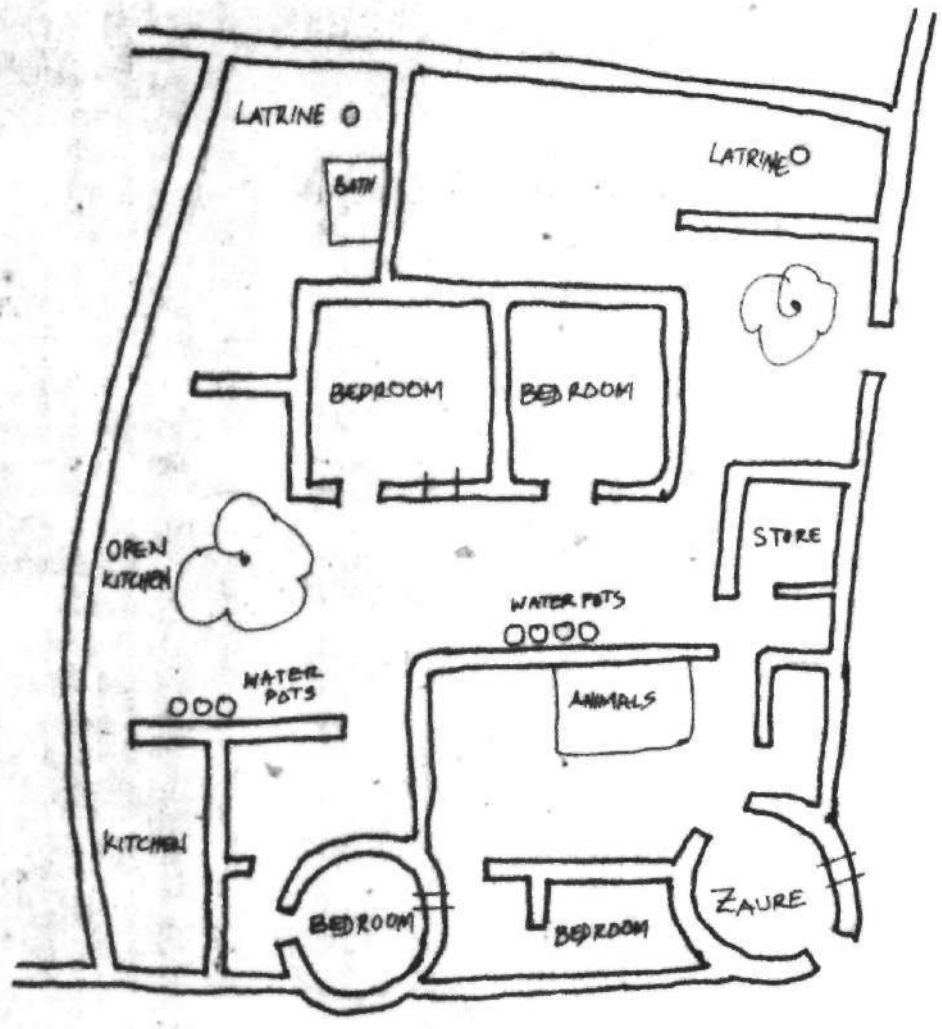
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of domestic life and participation in community activities, and economic-cultural requirements of occupational control and trade together spelt out needs of domestic privacy, communal sense of belonging, and occupational association. These needs can be associated to the planning principle of balanced social homogenuity versus hetrogenuity whereby in the urban organisation at those levels, equilibrium was to be maintained between strictly divided public and private life.

In accordance with the principle, the wards were formed of relatively homogenous communities each bound by common religious, ethnic or occupational ties.

Making up the ward were groups of compounds each joined together by common external wall to form a social cluster (Sashe). Like the ward, this is a social and physical unit and planned in keeping with the principle of balanced social homogenuity versus heterogeneity result into a physical layout similar to the ward.

The compounds composed of households Sassa (See Figure 7). Within the compound, the degrees of privacy are expressed. The females were separated from the males. A typical Hausa-Fulani compound in Sokoto consist of a tall building and compound wall with height above the line of vision of passers-by, and compartments of progressive privacy and remoteness inwards to ensure seclusion and privacy. Often the compound has a single entrance, but a second entrance may be added to be used exclusively by the women. Main entrance to the house does not give immediate access to the living areas. It leads into a passage with a sharp turn or covered so that it is not possible to see into the court from outside. Thus the tradition does not accept male guest into the female of the compound.



A Compound is a carefully design to conform to the life style of the Hausa Fulani

Fig. 7 Medium traditinal compound

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This is the characteristics of the traditional city and compound system of Hausa-Fulani people of Sokoto town.

Outside the traditional city, the Tundun Wada area of Sokoto was developed. It has a mixture of grid street layouts and the footpaths system. The residents in this area are largely Islamic Hausa-Fulani and few other tribes from the North. This forced the area to retained the compound forms and building system very much like those of the old city cores. This indicates that the needs and values set by the force of Islamic religion and the resultant principles of compound design were still strongest.

Unlike the traditional city and the Tudun Wada areas of Sokoto town, the colonial townships were characterised by heterogeneity because they had to accomodate many new changing and different ideas, individuals and cultures.[7] Consequently, this part of the city grew up from Sabon Gari to the G.R.A. areas to be the modern commercial and business centres of the new dual city of Sokoto, while the traditional city remained the cultural centers with which the indigenous people identify. Thus the two centers does not only develop to be functionally incompatible but they exhibit contrasting layout patterns, and have grown in physical isolation of each other.

This chapter is clearly demonstrating that the principle of centrality of locations which led to the radial pattern of urban development among the Hausa-Fulani cities, and the principle of functional urban space hierarchy that conserved the needs and values of graduated public and private, religious and cultural gave Hausa-Fulani cities their uniqueness in spatial pattern.

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7. UQUHART, A.W. (1977) - Planned Urban Landscape of Northern Nigeria, Ahmadu Bello University Press, Zaria, p. 2.

CHAPTER THREE

CHANGES IN THE USE OF SPACE IN SOKOTO TOWN

3.0. CURRENT CHANGES IN THE USE OF SPACE IN SOKOTO.

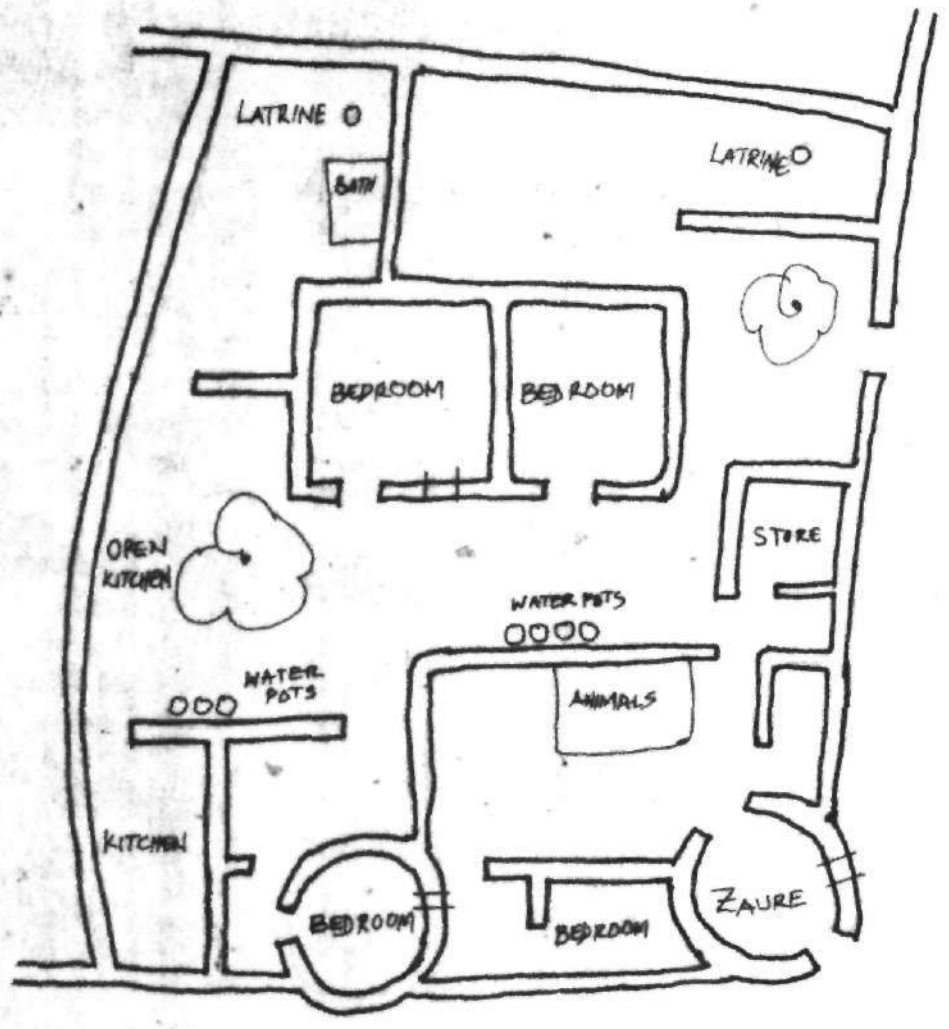
Changes are taking place in all major settlements of Hausa-Fulani cities; Sokoto the religious centre of the Hausa-Fulani people is the scene of the demolishing of the famous Shehu's Mosque and it's replacement by a mosque of completely foreign style. This ended-up to be a prestige manument having no roots or connection with its indigenous neighbours.[8] Sokoto is also investing tremendously on upgrading and master plan programmes which resulted to 30 and 15 meters wide tree-lined streets that disrupt the existing pattern of the traditional development in the town. This disruption is eliminating traditional communal spaces and the privacy considerations people are used to in their environment. (See Fig. 8). These inevitable changes will mean the end of an era of traditional design variables that have set lovely and pleasant urban landscapes in Sokoto town. This will live Sokoto people in a confused environment unless some conservations are introduced.

However, attaching so much importance to the culturally linked aspects of settlement form tends to a position of complete relativism. As soon as a given culture or way of life changed, its form would become meaningless.[9] Yet, we know that many artifacts retain their values even when the culture which created them has long disappeared.

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8. Savanna, (1979) - A Journal of Environmental and Social Sciences.

9. Schward Pagefrick, (1972) - Urban Settlement in Northern Nigeria.



A Compound is a carefully design to conform to the life style of the Hausa Fulani

Fig. 7 Medium traditinal compound

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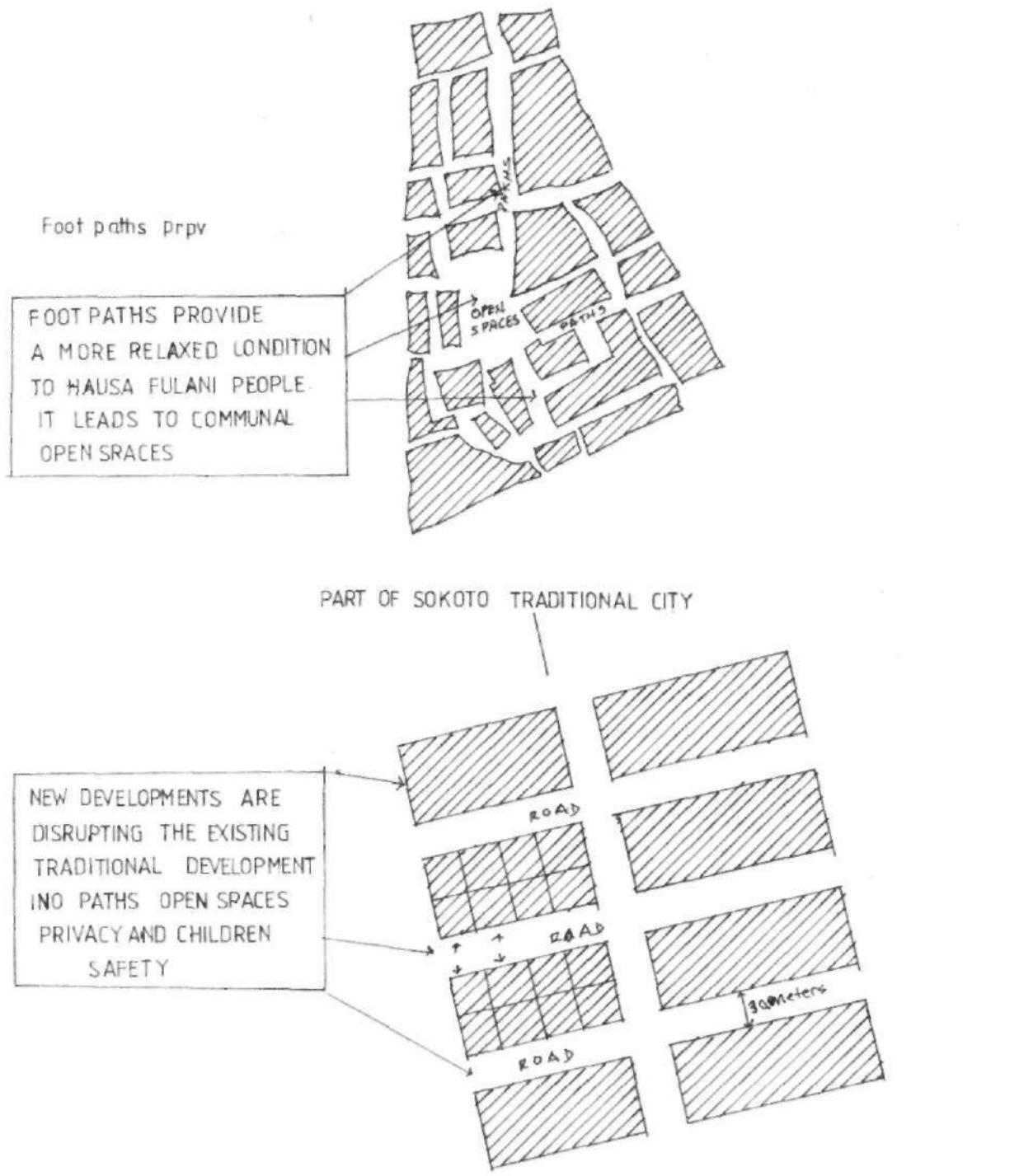


Fig. 8 Traditional and new development

RESIDENTIAL BLOCK

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This statement is supporting that the settlement form of the Hausa-Fulani people of Sokoto are still useable if careful survey of the people use of space is carried out. For example, the Hausa-Fulani traditional footpaths and the settlement pattern which it forms part of is superior in many ways to the adapted wide streets which disrupt the settlement pattern of Sokoto. (See Fig. 8). The Hausa-Fulanis are more related in the traditional created space which relate more to their ways of life and customs. This suggests that certain aspects of behaviour and the ways of life in Hausa-Fulani city of Sokoto are still constant or change slowly or perhaps that the replacement of traditional urban form currently going on is often due to the prestige value, rather than lack of utility of older urban forms or even an absolute relation to the way of life.

3.01. SURVEY OF PEOPLE USE OF SPACE:

The statement above can be supported by the survey of people use of space in Sokoto town. This is to get knowledge as to how people use space; how various elements are used, that is to say, a description of space organisation in terms of activities. This helps to relate regularities of behaviour to those of space organisation and, specifically enables behaviour settings to be discovered where various activities occur, the rules defining when places are used, for what, for whom, how and under what conditions. Table 1 shows some cultural variables with in fact to planning as they changed over time. The table also shows which variables are changed and which still are prevalent. It is divided into five sections. The first section is the variables, this is where specific environmental elements are listed. The remaining are the pre-muslim period; the muslim period is when Islam came into Hausa land and made certain

TABLE 1

SOCIO-CULTURAL AND PHYSICAL CHANGES IN HAUSA SETTLEMENTS AND CITIES

VARIABLES	PREMULISM PERIOD (9TH TO 14TH CENTURIES)	MULISM PERIOD (14TH TO 19TH CENTURIES	COLONIAL AND PRESENT PERIOD (19TH AND 20TH CENTURIES)	FORCES BEHIND CHANGE
LAND Sale of Land	No sale of land: It belongs to community	Considered as gift of God and vested in the hand of the Emirs.	Belongs to the Government. No sale, only transfer of right to use of land.	1. Social-political change. 2. Level of awareness. Bemucracy, rules and legislation
Land Allocation	By the family heads and chiefs.	Family Heads and Emirs	By Local Government and Planning Office.	Legislation, laws of the land.
Ownership of Land	Belongs to the community	Belongs to the community.	Owned by the government.	Legislation and constitutio
SPATIAL ORGANI-ZATIONS Land Use	Mixed land uses	Mixed land use	Separate land use pedestrian	Social and cultural change zoning and bye-laws
Access Mode	Pedestrian	Pedestrian	Automobiles and Pedestrian	Change in Technology
Common Spaces	Play grounds, streets and workplaces	Mosques, streets workplaces	Playgrounds, workplaces and entertainment centres	Due to socio-cultural change and education and demand
COMMUNITY STRUCTURE Focal Point	Palace, Market and Gates	Palace Market and Mosque	Commercial and Entertainment Centres and Palaces	Declining values of Emirs in the society; and due to increased urban structure in our cities
Facilities location	In more central location; in a community center	Attached to palaces and mosques	Based on population and accessibility	For attaining equal distribution of utilities and facilities

TABLE 1 CONT'D

VARIABLES	PRE-MUSLIM PERIOD (19TH - 14TH CENTURIES)	MUSLIM PERIOD (14TH-19TH CENTURIES)	COLONIAL AND PRESENT PERIOD (19TH - 20TH CENTURIES)	FORCES BEHIND CHANGE
Size of facilities	Small scale, community serving	Small scale serving	Larger scale, both region and community, near the market and mosque.	Increasing size of cities structure in Hausaland.
Palace Location	At the center of the Walled City, near the Market	At the center, near Market	At the City Center near the Market and Mosque	At the center of the Walled City, near the Market and Mosque.
Religious Facilities	Limited to homes, and tombs, historical palaces, trees, gates, etc.	Mosque, home and tombs.	Home, Mosque and Open Spaces and Tombs.	Due to increased educational level and awareness.
Basis of Boundaries of Territory.	Trade groups, ethnic groups and paths.	Based on religious, trade and ethnic groups.	Based on streets, shop influence area, administrative boundaries.	More hogeneous society, changing needs of the society.
Palace Influence	Location of other facilities like ceremonial places and special function plus security	Location of Mosques, Judicial Offices and Schools	Influences, location of good roads and access	Religious and socio-politic political forces plus changing technology
RESIDENTIAL GROUPINGS Basis of Residential Groupings	Family ties	Family and Religion	Based on Education and Job.	Changes in family structure; changes in socio-cultural and educational values.
HOUSE Family Composition	Polygamous (No. about 25 people)	Polygamous (No. about 15 people)	More monogamous households (8-5 people)	Socio-economic; and educational achievement
Type of Household	Compound system about (12 to 15 rooms)	Reduction in compound size (8 to 10 rooms)	More to individual dwelling/ household about (2-5 rooms)	Socio-economic change and family affordability

ANNEXE

VARIABLES	PRETULISM PERIOD (9TH - 14TH CENTURIES)	MULISM PERIOD (14TH - 19TH CENTURIES)	COLONIAL AND PRESENT PERIOD (19TH - 20TH CENTURIES)	FORCES BEHIND CHANGE
Privacy Desire	Only to married people	For the whole family	For the whole family	Increased awareness and Religious belief (Islan)
Doors/ Entrances	Oriented towards comm common open space	Oriented toward western direction	Oriented to the streets and open spaces	Technological change and its improvement
Court-yard	Strong need for open courtyard	Courtyard still exists	Rarely present; replaced by living rooms.	Due to western concepts of living. Lack of human considerations in design.
Indoor and Outdoor Living	Room, under trees	Rooms, Varandah and under trees	Rooms, Verandah and under trees.	Remain unchanged.
Workplace	Often at home.	The same	Located elsewhere mostly	Greater specialisation and scale
Open space around the house/ compound	Considered as part of the house.	Used by emen and sometime women but mostly children	Now only playground public useage	The result of change in the recreation activities
Material for Buildings	Mud, thatch and stones	Mud, thatch and stones	Changing to concrete, glass and wood.	Techological change.
Aesthetic Consider-ation	Organised to social life	Organised to fit social and religious life	As more physical structures	Lack of awareness of traditional values by the planners.

NOTE: The data on this table is got from various discussions held with local people in Sokoto and Zaria.
Also readings from various monographs about the Hausas.

changes in the community form; and in the colonial period when the British rule reached the Hausa-Fulani land. It was then that the British design replaced or go together with Islamic tradition in Hausa-Fulani cities. The fifth section is that of the forces behind the change. This is to find the causal relationships between that changed and what created it. It will help in the prediction of likely trend for the future. These five periods were traced and used in this table because history is a good tool which can explain the present settlement pattern in Sokoto. Adapting these stages will also provide a better understanding to any designer dealing with Hausa-Fulani people of Sokoto, with the categories of people he is likely to meet and design for. Some people are traditionists, some are Islamic oriented and others have western orientation. An examination of the table produce these patterns.

3.02. PATTERNS

The following patterns are derived from Table 1 as it follows in sequence. Each pattern takes into account the necessary information as explained in the table and then states at which context we are looking at the statement. From the statement, problems are generated from planning point of view to state the changes that occurred and how inconvenient the situation is to Hausa-Fulani people of Sokoto. Then that will be followed by a sketch showing how people live traditionally. Most of the statements used to create forms are from social, religious, economic, cultural and physical points of view.

The followings are the patterns as it came out.

CONTEXT:

All occupied and unoccupied land in Sokoto town.

PROBLEM:

Individual do not own land. Legally land belong to community (government). The community has only a right to the use of land. It leads to land fragmentation and urban sprawl. In the end it resulted to uneconomic use of land. (See Fig. 9).

CONTEXT:

All land use under Sokoto township.

PROBLEM:

The layouts satisfied cultural and religious needs and values. It resulted to grouping of like functional elements. This in return led to the mixed land use concept in Sokoto. (See Fig. 10).

CONTEXT:

Circulation in Sokoto town.

PROBLEM:

Grid pattern does not conform to Hausa-Fulani pattern of settlements. Traditional pattern gives better pedestrian circulation and people feel more relaxed with it. (See Fig. 11).

CONTEXT:

All common places with a community.

PROBLEM:

Most Hausa-Fulani people in Sokoto do not like to be isolated from the common spaces within the ward or block. Open spaces provide social opportunities for the community. It provides security for the residences and children play there. It has a multi-purpose function i.e. (economic, cultural, religious and recreation functions). (See Fig. 12).

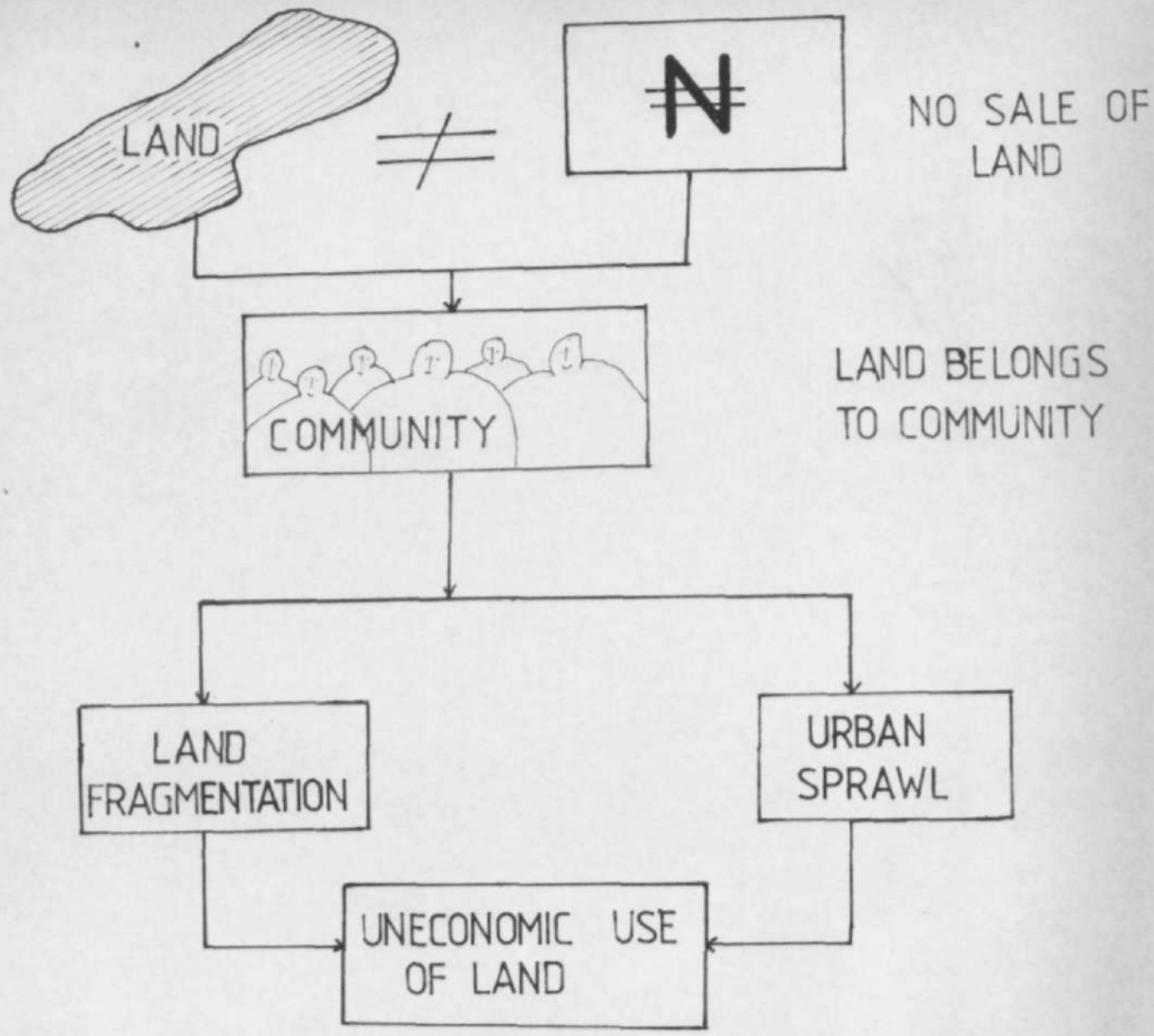
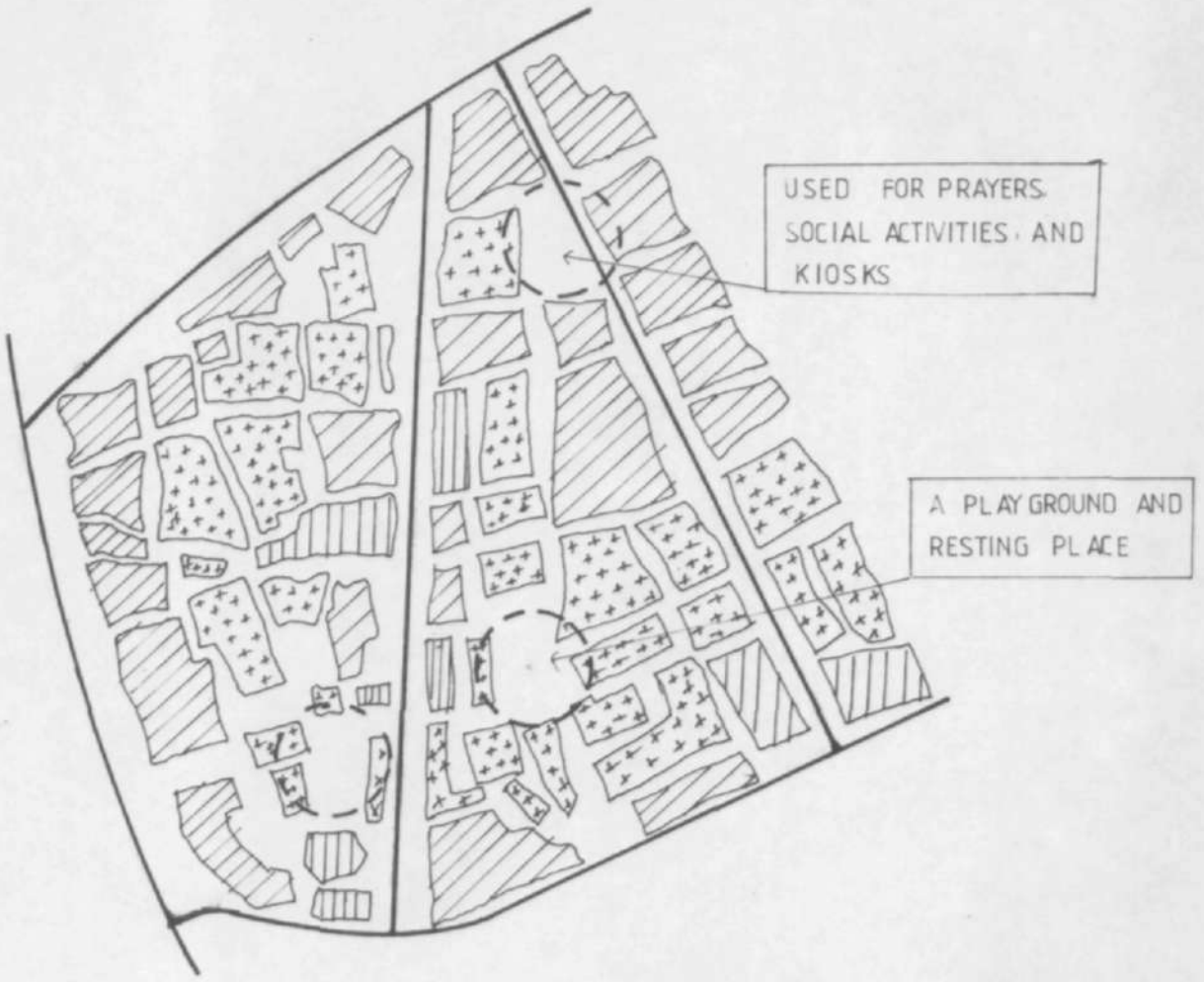


Fig. 9 Land Ownership in Hausa Fulani Cities

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Traditional layout satisfies socio-cultural religious and economic needs and values

PART OF SOKOTO SHEET 18

Fig. 10 Mixed landuse nature

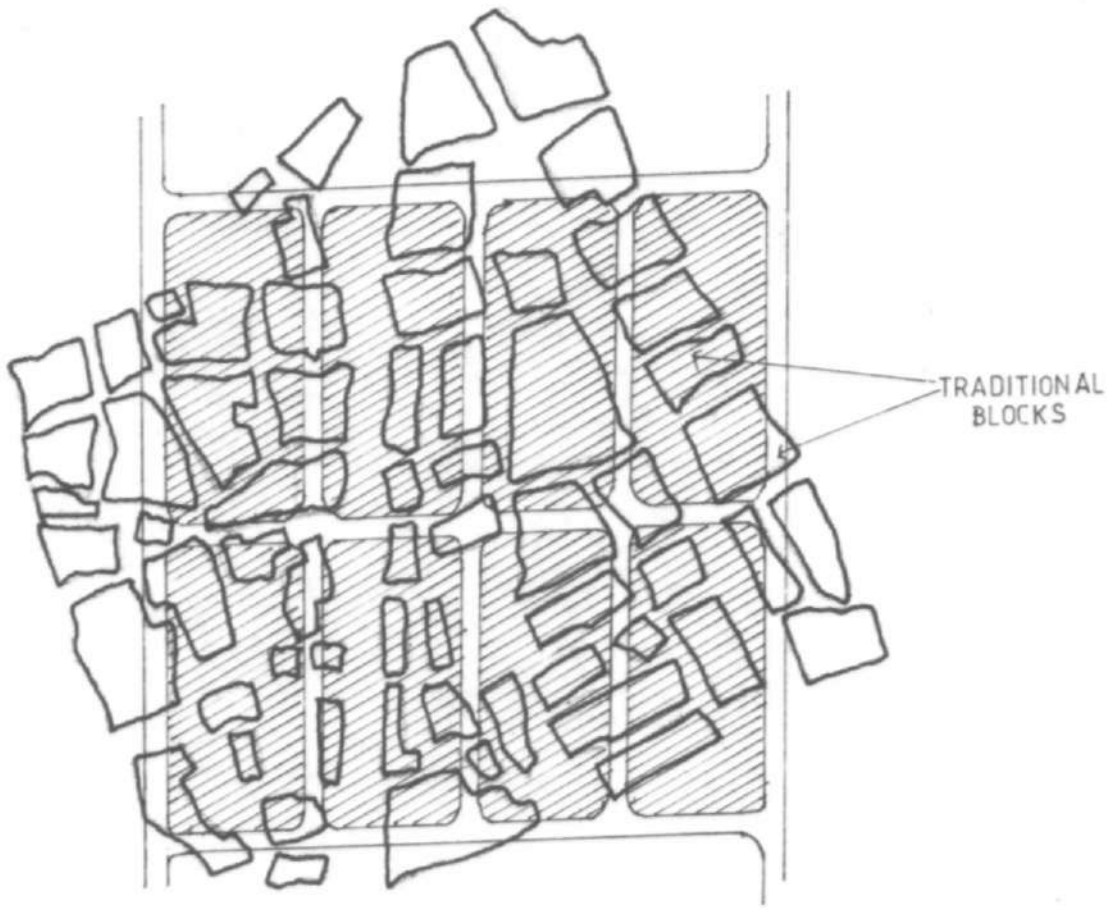
EXCLUSIVELY RESIDENTIAL USE

RESIDENTIAL AND COMMERCIAL USES

RESIDENTIAL AND SERVISES

MULTI PURPOSE OPEN SPACE

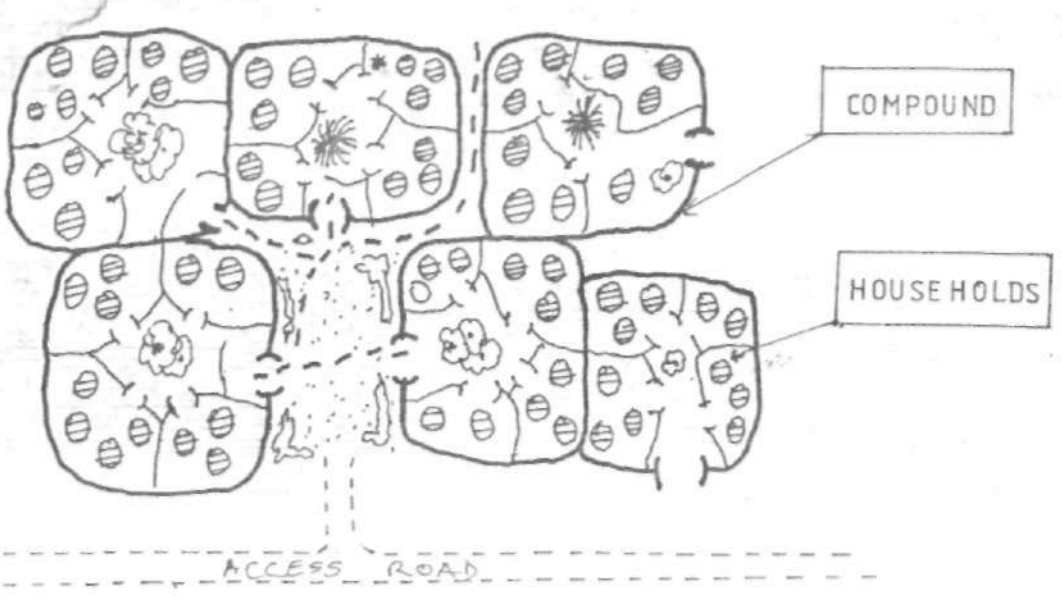
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GRID STREET PATTERN DOES NOT CONFORM
TO HAUSA FULANI PATTERN OF SETTLEMENT
IN SOKOTO TOWN.

Fig. 11. Grid pattern in Sokoto town

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PEOPLE LIVING WITHIN A BLOCK WITH OPENSPACE USE IT, OR RELATE THEIR NEIGHBOURHOOD TO IT.

Fig. 12 Spaces within the block residential area

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CONTEXT:

All community focal points.

PROBLEMS:

A community is a social, economic and cultural unit for Hausa-Fulani people of Sokoto. The organisation of traditional focal points of the city are being ignored. The focal points like markets, communal open spaces, etc. have close proximity to residences. Now this is no longer provided. The traditional community character is missing. (See Fig. 13).

CONTEXT:

Any ward in Sokoto town.

PROBLEM:

Location of facilities for the community is centrally located in each ward. Each ward has its school, market, clinic and all other public facilities, grouped. A ward is an acceptable unit for grouping these facilities traditionally. (See Fig. 14).

CONTEXT:

All community facilities in Sokoto.

PROBLEM:

Traditionally facilities are provided in smaller scale and within a smaller scale serving or catchment area. Now facilities are large scale resulting to poor management and lack of utilization.

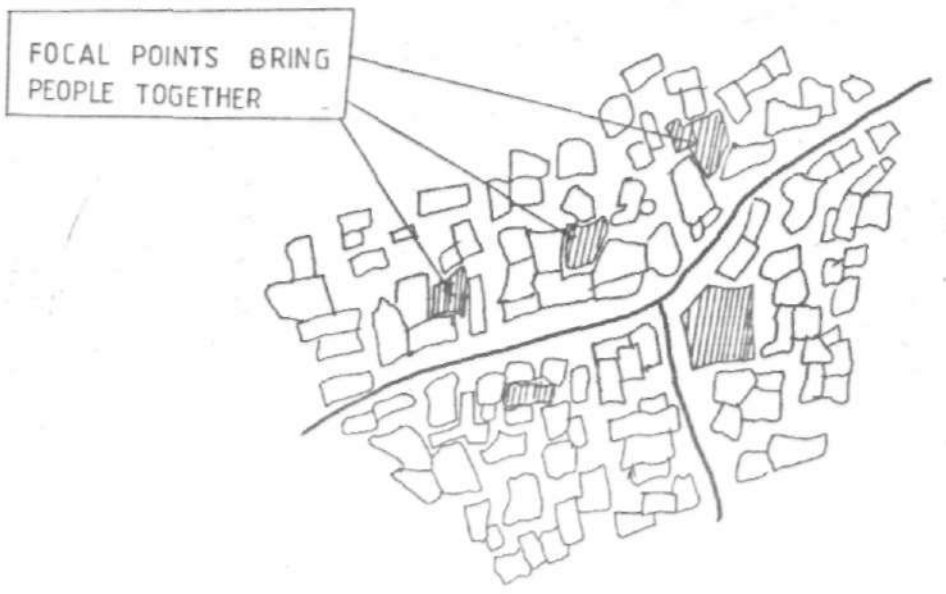
CONTEXT:

Palace at city level.

PROBLEM:

It led to the concentration of facilities like good roads, religious, administrative and cultural activities. Looked as the domain of men, to which they needed maximum accessibility and

A Ward in sokoto

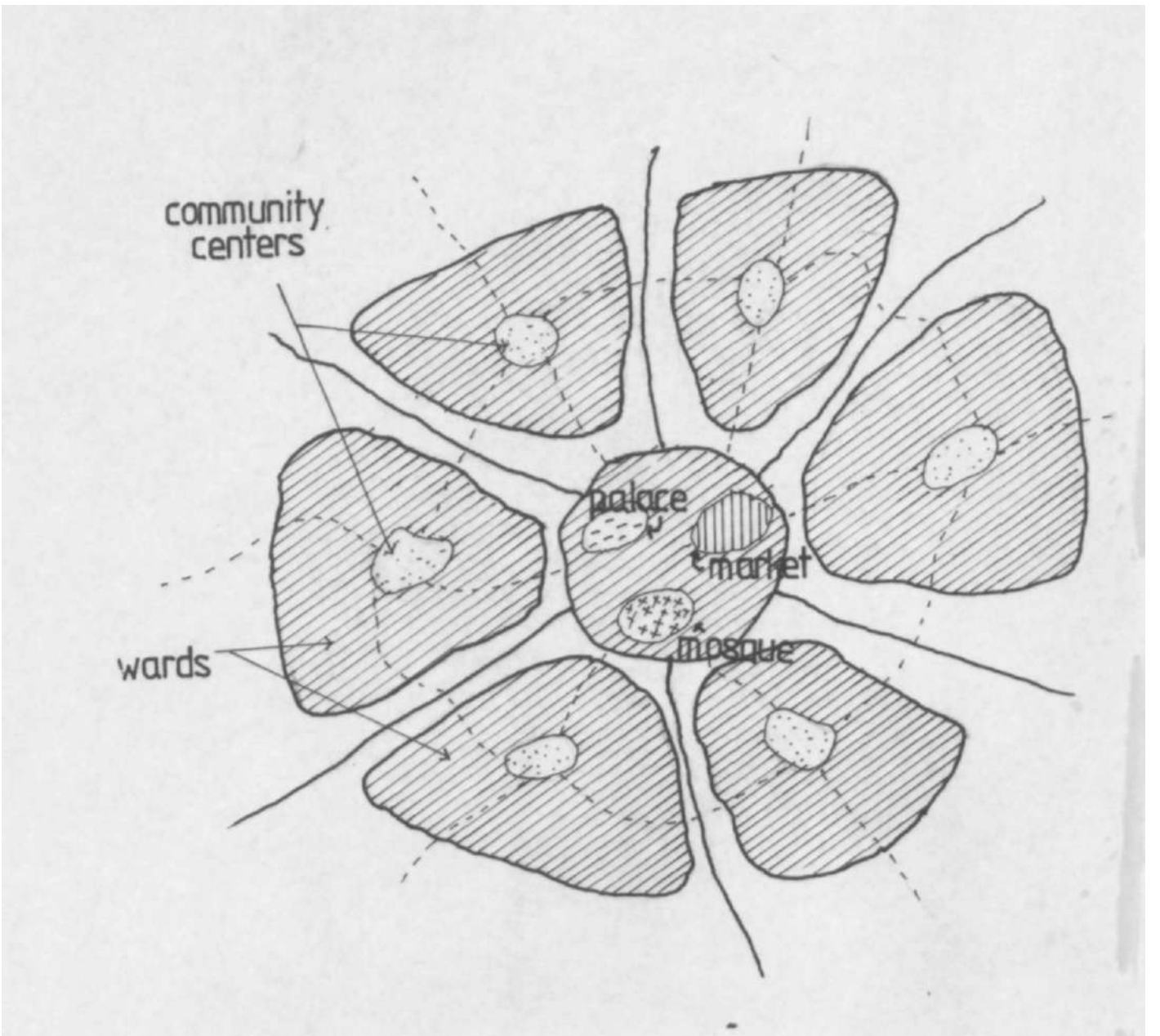




Focal point activities

Fig. 13 Community focal points

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FOCAL POINTS ARE CONCENTRATED IN THE CITY CENTER. HOWEVER, OTHER SUB CENTERS ARE FOUND IN THE WARDS

Fig. 14. Focal point hierarchy

WARDS

ROADS

FOOTPATHS

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unrestricted social, religious and commercial contact. This led to the centrality of location of major facilities. Political system presently practiced (democracy) does not support concentration of activities in one place. It believes in the sharing of facilities, utilities and services (decentralization). It led to the total isolation of some areas in the city.

CONTEXT:

Religious facilities at all levels.

PROBLEM:

Carried out at homes, mosques, tombs, historical places, and small open spaces. Resulted to multi-purpose function of open spaces. Not possible to delineate a function to open spaces.

CONTEXT:

Block groupings within wards in Sokoto town.

PROBLEM:

Traditionally, family ties and trademen groups influence the groupings. Now, family ties are deminishing and grouping which provides security and sense of community identity no longer exists. (See Fig. 15).

CONTEXT:

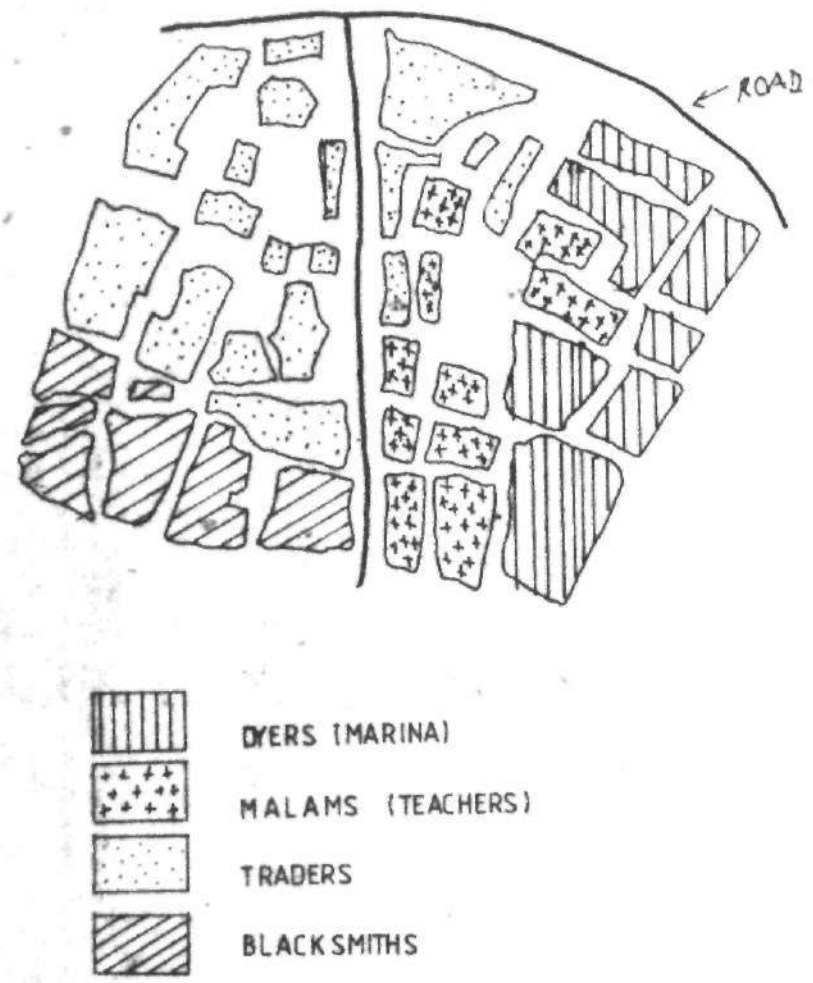
Compound composition in Sokoto town.

PROBLEM:

Compound composition used to be polygamous. Now a reduction in family size is the order of the day. This is resulting to under utilization of residences within the traditional city.

CONTEXT:

New neighbourhood/ward in Sokoto.



Traditionally family ties influence the groupings

Fig. 15 · Blocks groupings

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PROBLEM:

There is no sense of unity. Open space which unite Hausa-Fulani communities no longer exist in residential units. Grid layouts do not permit the formation of social units at different levels; i.e. family, neighbourhood and community hierarchies. (See Fig. 16).

CONTEXT:

Space for compound and household growth.

PROBLEM:

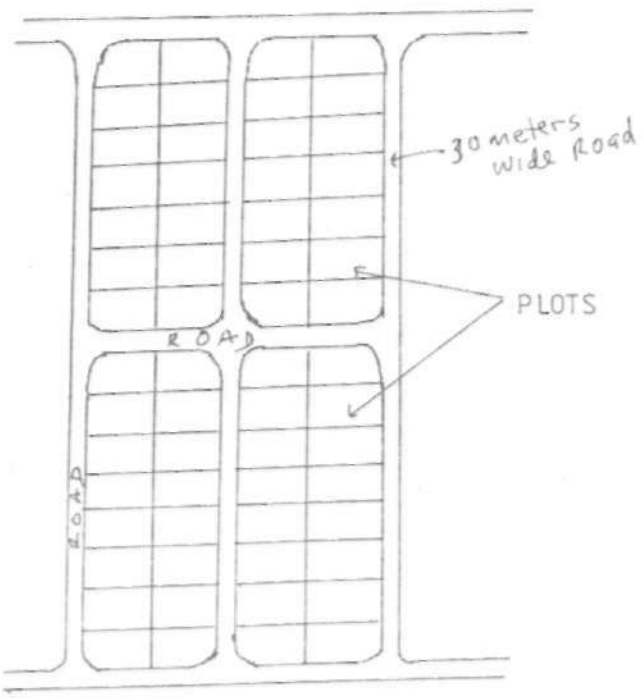
Compounds are not built at once but rather in stages according to the family size at a given time. The family expands and new units are added. This lead to communal living which calls for larger family size and space requirements as time goes on. Even though the communal living and extended family units are on the decrease, the family linkages are still in existence among the Hausa-Fulanis. Sisters, cousins and uncles still exists. fig. 17A

CONTEXT:

House organisation in Hausa-Fulni city of Sokoto.

PROBLEM:

Traditional residential unit organisations are disappearing. Originally the individual had his definite place within the house and each shared the responsibility for all the others. Modern housing design has no consideration for social organisations in residential units. Man in Hausa communities does not seek seclusions within isolated room, but on the contrary, he strives for permanent contact with nature and with the community. Hausa-Fulani view shelter as a means of uniting people and preserving their well-being as good citizens. (See Fig. 17B)



No sense of unity. Open space which unite Hausa-Fulani no longer exists.

Fig.16. New neighbourhood

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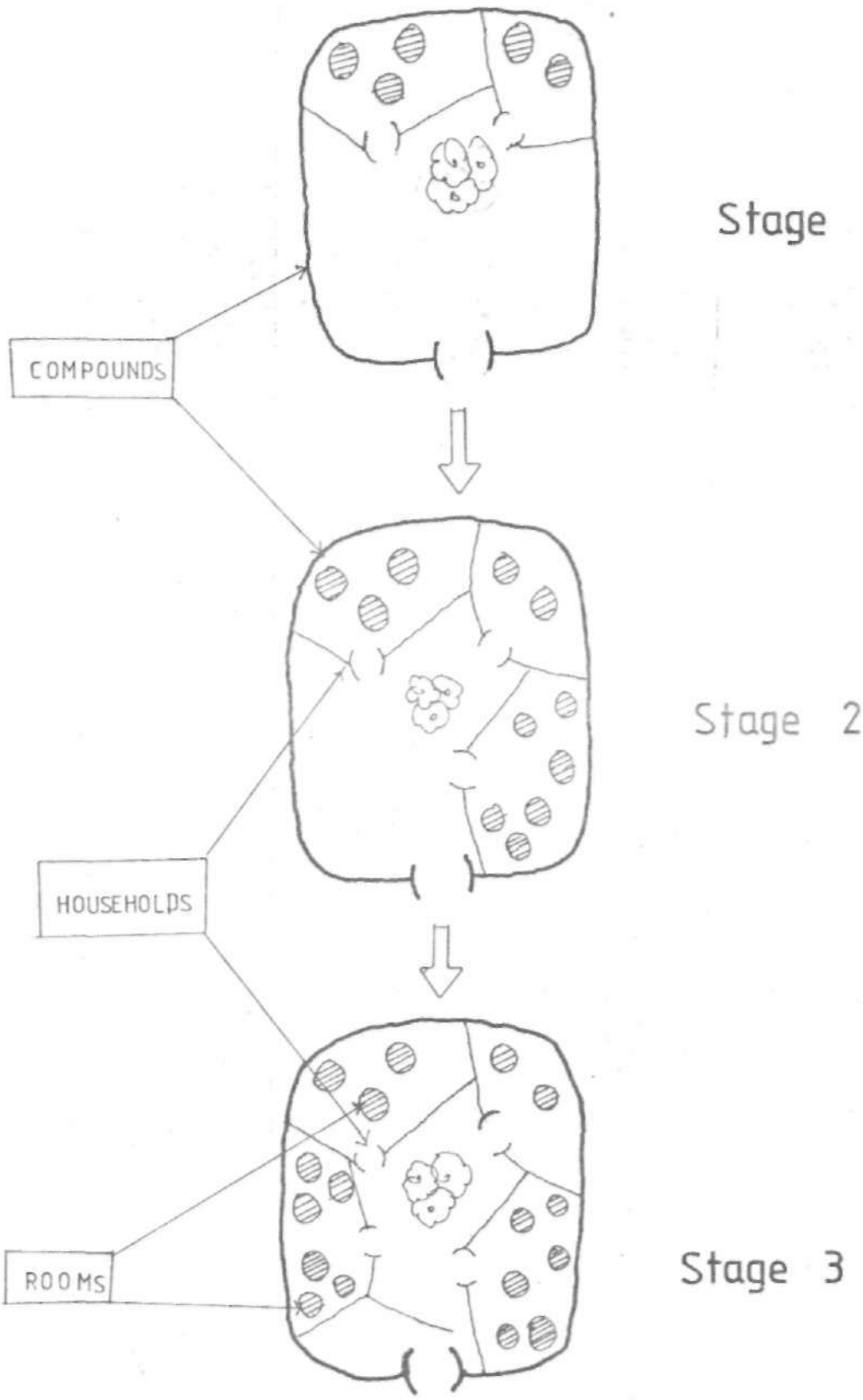
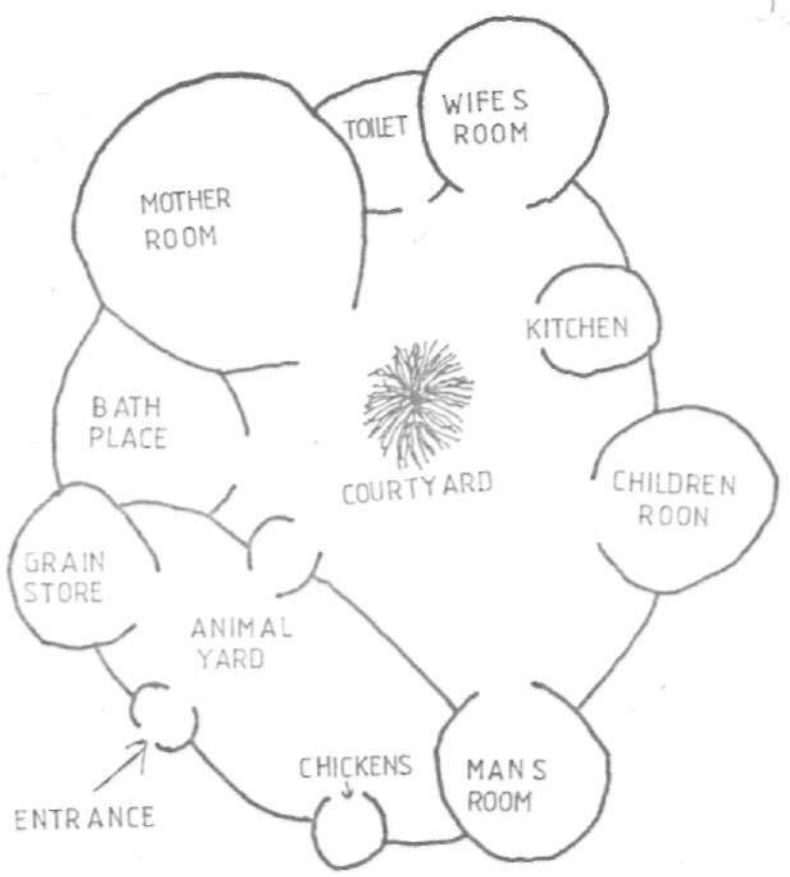


Fig.17 A, Compound and Household growth

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Traditional Hausa fulani compound has consideration to family size, socio cultural and privacy

Fig.17 B. House organization

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CONTEXT:

Privacy in residential unit in Sokoto town.

PROBLEM:

The degree of privacy is eroding in households. This is causing a lot of psychological and social problems in Hausa-Fulani communities which are well known for their concern for privacy. The Hausa-Fulanis are muslims, and are well known for their concern for family privacy. (See Fig. 18).

CONTEXT:

Compounds relationships in Sokoto town.

PROBLEM:

Present designs do not acknowledge the traditional family structure and its impact on spatial environment. Spaces within and around the houses are used as part of the house. These spaces help to tie the community together. They serve as children playgrounds and places for elders meeting in the evenings.

CONTEXT:

Doors or entrances in Sokoto city.

PROBLEM:

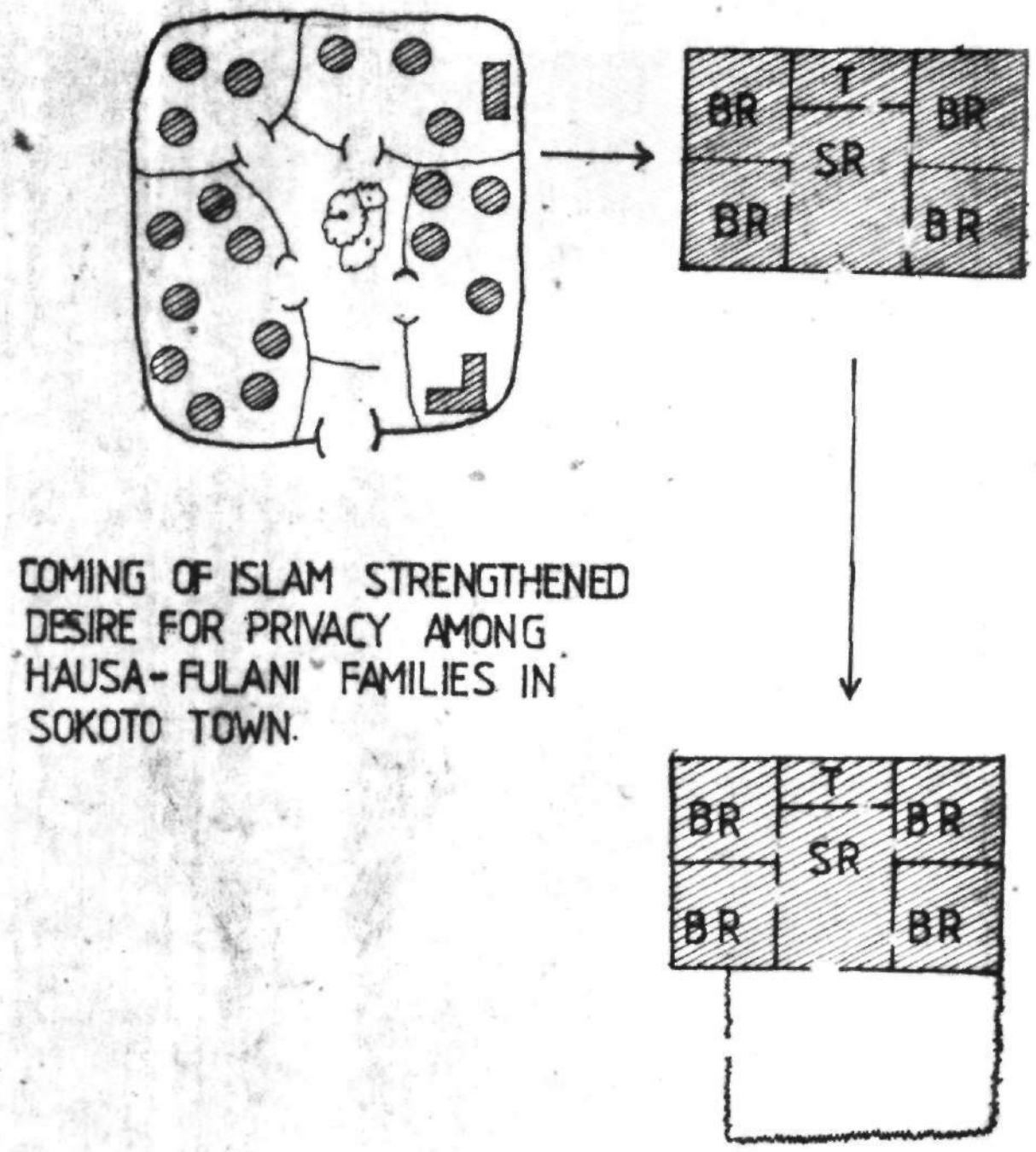
Doors and entrances are designed to conform with the climate and privacy needs of the community. Present designs have big windows which allow hot air into houses. (See Fig. 19).

CONTEXT:

Household court yards in Sokoto town.

PROBLEM:

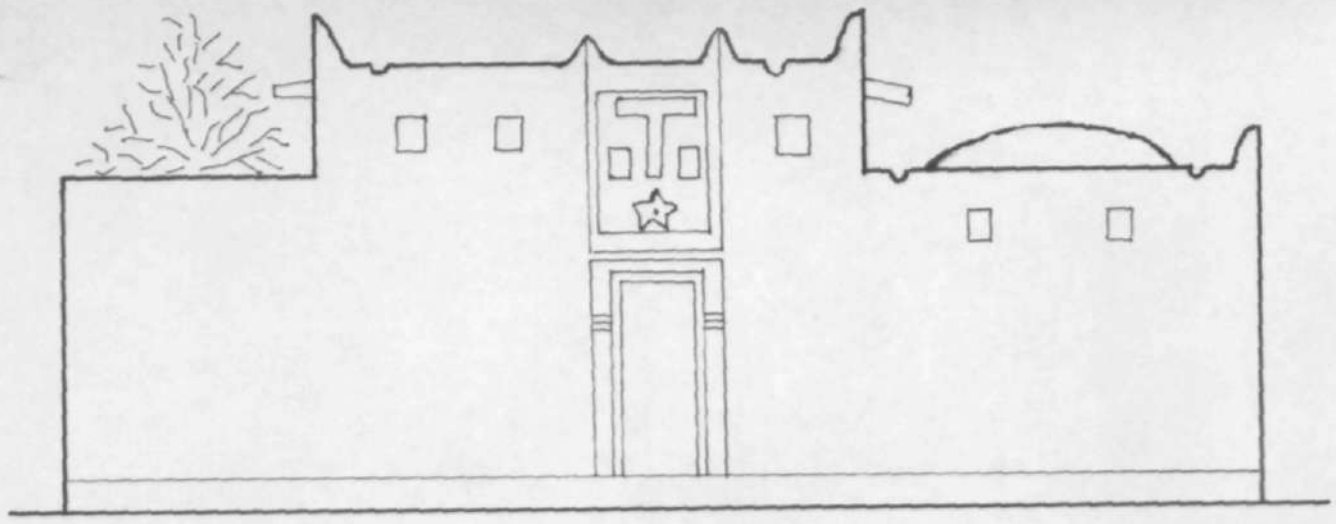
New designs are replacing court yards with the living rooms system. Hausa-Fulani climate permits outside living, thus new design lack human considerations and climatic concern. (See Fig. 20).



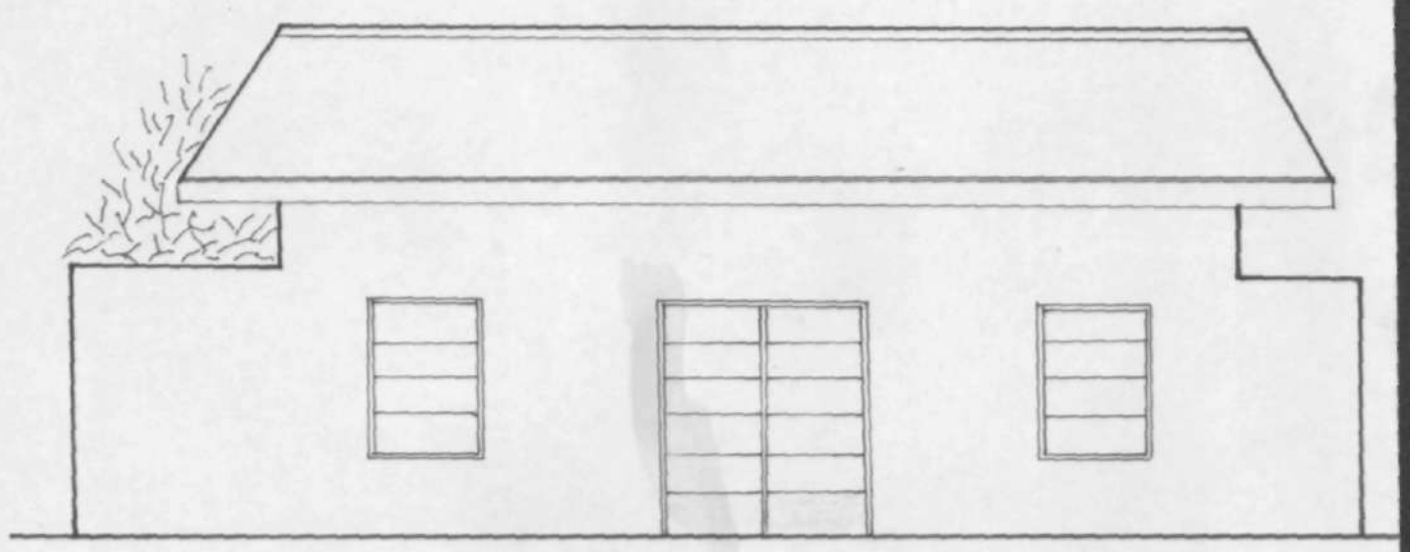
COMING OF ISLAM STRENGTHENED DESIRE FOR PRIVACY AMONG HAUSA-FULANI FAMILIES IN SOKOTO TOWN.

Fig. 18. Privacy desire in sokoto

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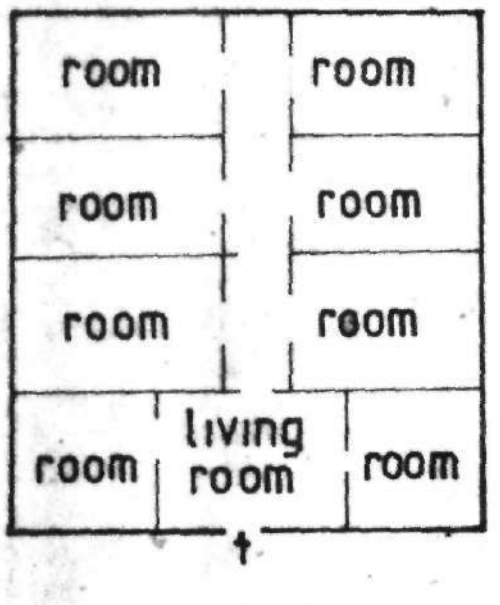
Traditional windows small and placed at higher position. It takes the hot air out and admits little in.



Modern doors and windows are wide.
No privacy and permits hot air in

Fig. 19 DOORS AND WINDOWS

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Modern house design has only good physical appearance. It has no consideration to the traditional values like open courtyard

Fig.20. Household courtyard

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CONTEXT:

In door and outdoor living in Sokoto town.

PROBLEM:

No proper provision of supporting facilities e.g. sitting and safety facilities like lights and water supply in the open spaces.

CONTEXT:

Building materials in Sokoto.

PROBLEM:

Rapid change of building material from mud to concrete and from one storey to multi-stories is causing distortion in the texture of Sokoto town. This rapid change is not welcomed because it does not go into the normal stages of development. People do not welcome the idea.

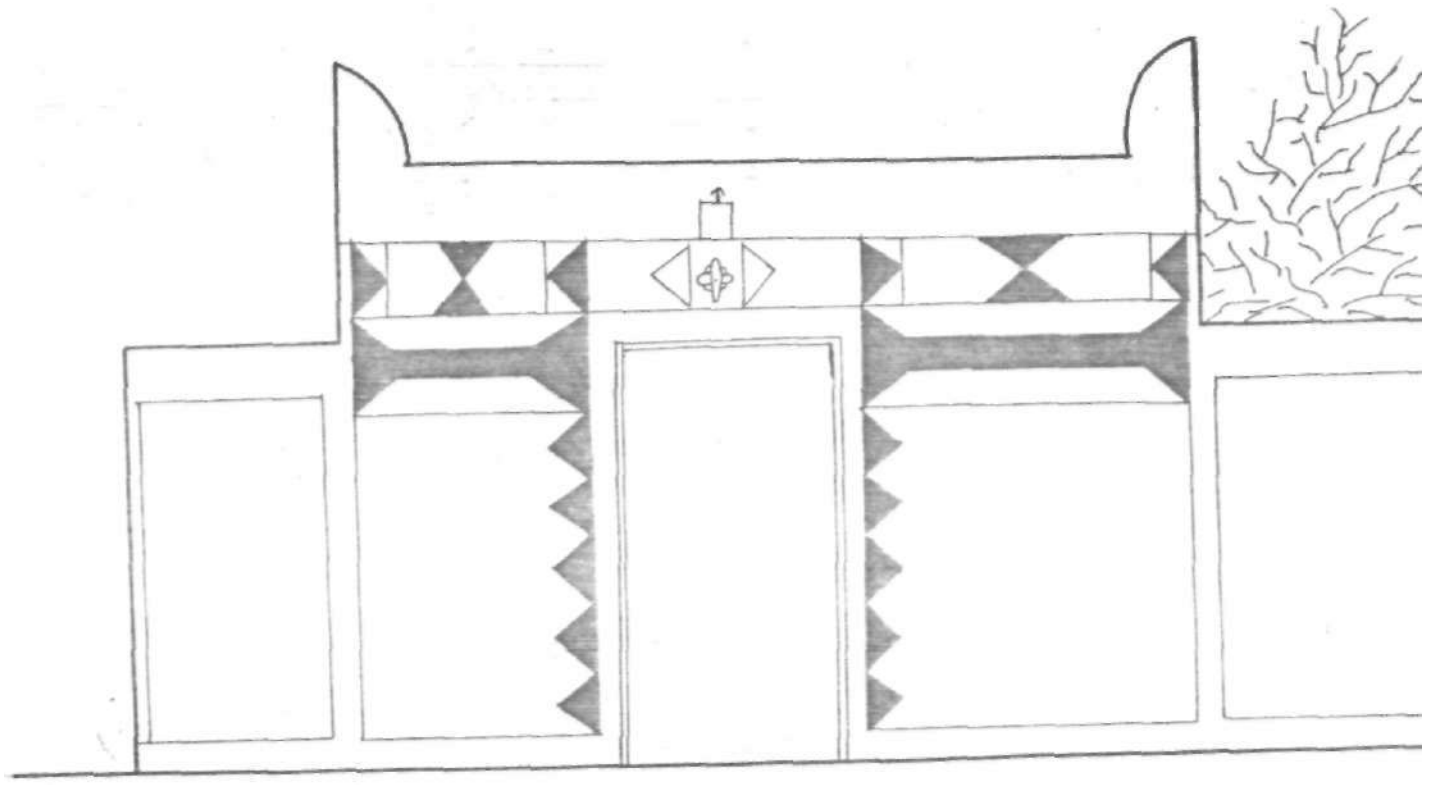
CONTEXT:

Aesthetic considerations in Sokoto city.

PROBLEMS:

Structures are presently built as mere physical structures. Traditionally, structures were organised and decorated to fit social and religious life of the people. (See Fig. 21).

In the next chapter, the inferences and design criteria will be drawn. At the end of the chapter the main policy proposals will be drawn. This chapter will discuss the salient features of design proposals and the design criteria used. Chapter five gives some policy guidelines regarding the implementation, and adaption of the proposals for further planning and design in Hausa-Fulani cities.



Compound frontage is of great significance to Hausa Fulani wealthy men. The art painting shows the wealth of the family.

Fig 21 House frontage/aesthetic

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CHAPTER FOUR

PLANNING CRITERIA AND PROPOSALS

4.00. CENTRAL CORE ELEMENTS:

The central theme of our design proposal is to establish man-environment relationships in Sokoto town and use it as a basis for further planning and design in other Hausa-Fulani cities. The central core elements as observed in Sokoto town are as follows:

(a) Twin city phenomenon:

(i) Traditional City.

(ii) Modern City.

(b) Building Materials and structures:

Mud.

One storey structure.

(c) Houses cluster.

Household mix.

Degree of publicness.

Open spaces.

(d) Relaxation areas for people of Sokoto:

Accessible open space.

Small public open space.

Dancing in the street.

Holy grounds.

Treeshades.

(e) Levels of self governing communities:

Birni (City).

Unguwa (Ward).

Shiya (Blocks cluster/neighbourhood).

Occupation/trade clusters.

(f) Local center formation:

Eccentric (ethnic orientation).

Religious (Koranic school and mosque location).

Activity nodes (Open spaces).

Night and day light life centers (dances, community, meetings, and social connotation).

(g) Local shops and gathering places:

Individual owned shops.

Street kiosks.

Hawkers/tables display.

Food stands and places.

Under trees.

(h) Circulation:

Looped and interwoven local roads.

Tree planting on the streets.

Pedestrian oriented.

Footpaths linkages.

Bus stops along major road.

(j) Felt Needs:

Market of many shops.

Mosque and local koranic schools.

Local community groups.

Children safety.

City cleanliness.

These are to be used to establish man-environment relationship in Sokoto.

It is only when man-environment relationships are established that a design which can serve the community needs can be developed. This is further buttressed by the pressing needs of planning programmes

in Sokoto town and other Hausa-Fulani cities. So there is specific responsibility to produce a high standard of planning and design, one that will contain the spirit of traditional and new developm pattern.

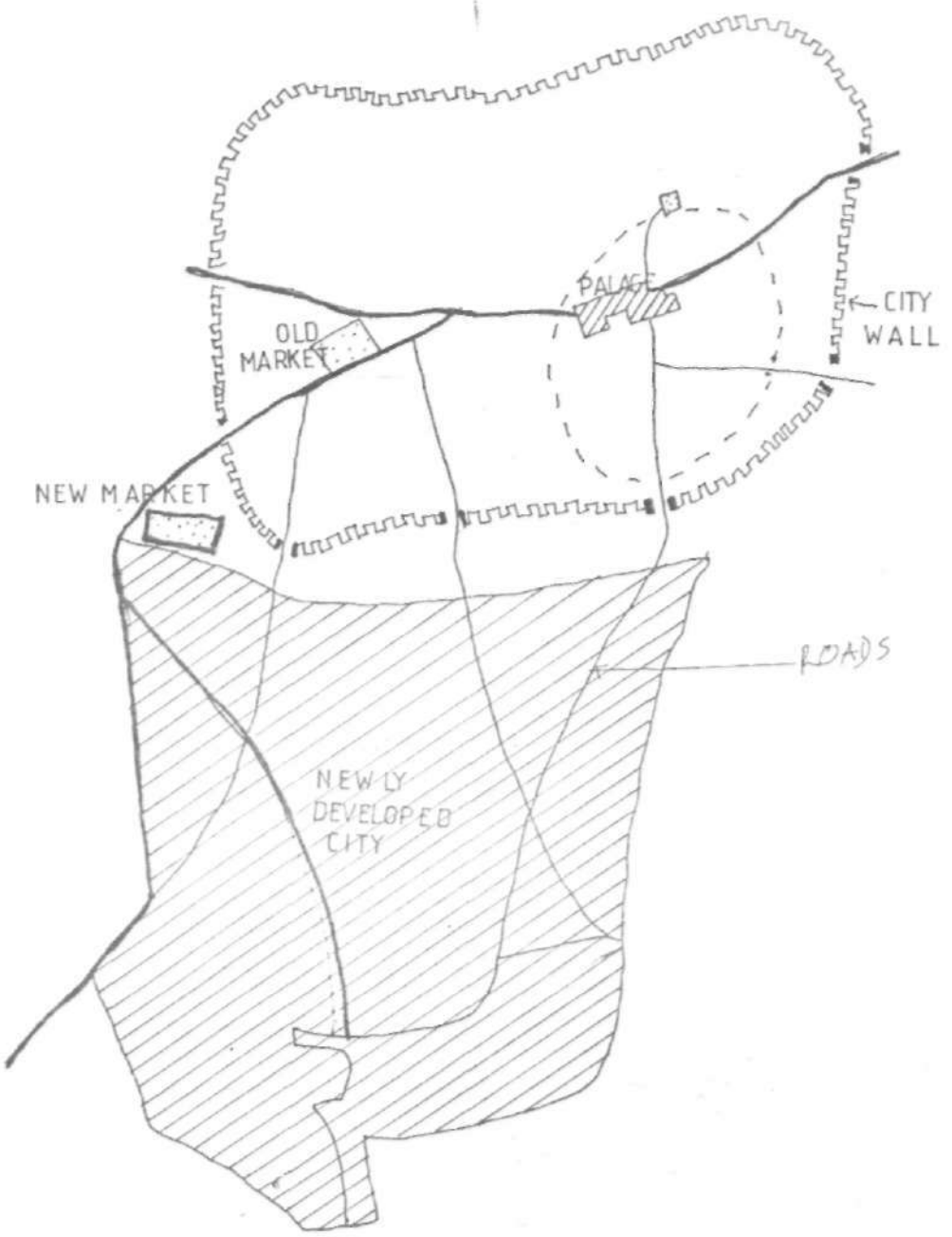
4.10. Inference From the Data:

(a) Sokoto City is characterised by the traditional city which is the indigenous part of the first Hausa-Fulani people and the colonial and the post colonial development which comprised Tudun Wada, Sabon Gari and the G.R.A's. Thus Sokoto has a twin city phenomenon which led to dual system of development. (See Fig. 23).

(b) Building materials used to be mud but now is characterised by zinc, cement block concrete etc. This means that Sokoto people are receptive to changes therefore are open to innovation.

(c) Cluster of houses give rise to household mix and degree of publicness desired. This give rise to privacy and consequently lead to hierarchy of open spaces. Housing cluster in Sokoto is a medium for security, social segregation and occupational identity.

(d) Levels of self governing communities in Sokoto city (i.e. Birni, Unguwa, Shiya and occupation and trade clusters) serves as an easy channel for the formation of planning units.



SOURCE:- MODIFIED M.YUNUSA (1980)

Fig.23. Twin city phenomenon of sokoto

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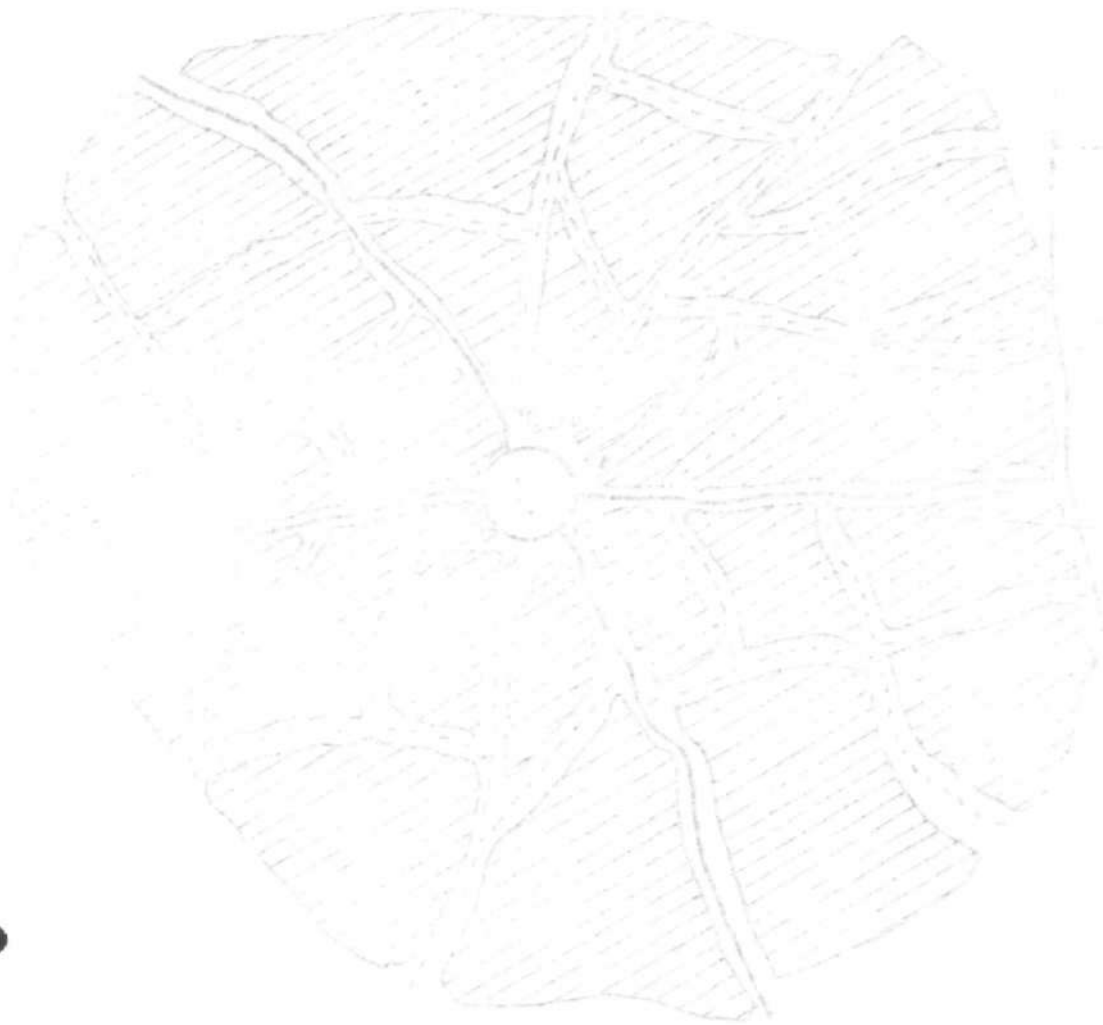
(e) Local centers in Sokoto (i.e. Activity nodes, religious, shopping and small markets, night and day life centers) are where social connotations are made. This give rise to community identity to the people of Sokoto. It is where dances, community meetings and projects are organised. These in return influence the spatial location of each activity within the city of Sokoto.

(f) Local shops and gathering places are small scale in nature. Shops are owned individually and are located in the markets or attached to houses. Kiosks locate within road reservations and open spaces. Hawkers, table display and food places locate in open spaces within the neighbourhood.

(g) Circulation within Sokoto city links focal points, houses, open spaces and work places. Footpaths link houses and provide open spaces for children play areas. Sokoto traditional city is pedestrian oriented and has separation between vehicular and pedestrian circulation. See Fig. 24.

(h) In Sokoto, community felt needs like mosques, local koranic schools, markets of many shops, local community groups influence the spatial pattern of the city.

As for the concept of this thesis, it has already been discuss in Chapter One. Please see Chart I for more clarification.



TRADITIONAL STREET PATTERN GIVES BETTER
PEDESTRIAN CIRCULATION. ALL PATHS LEAD
TO CENTRAL ACTIVITES.

walled city

URP
ARIA

4.12. DESIGN CRITERIA:

For one to establish man-environment relationships in Sokoto as a basis for further planning and design in other Hausa-Fulani cities, elements of both modern and traditional design must be integrated. This will help to attain high standard, based on the utilization of the felt needs and values of the general population of Hausa-Fulani people in Sokoto.

(i) Urban Space Hierarchy Criteria: Within the built up area of the Hausa-Fulani town of Sokoto the principle of functional urban space hierarchy was eminent. This is keeping with the needs and values of graduated public and private, religious and cultural life of the individual and the community. These together spelt out the needs of domestic privacy, communal sense of belonging, and occupational association. Thus there should be a strict division in public and private spaces in Sokoto town.

(ii) Functionality: The layout pattern which satisfied the religious and cultural needs and values resulted to the criteria of grouping of like functional elements in Sokoto. These support the idea of mixed land use concept witnessed in Sokoto and other Hausa-Fulani cities. It is not uncommon to find a residential house with a shop attached ot it and along with some other light industrial activities like cloth making (Saka). This process is in support of grouping like functional land uses together for maximum interaction within the community.

(iii) Community security and identity: This is a crucial requirement because upon it all Hausa-Fulani cities were built. Hausa-Fulani tradition and religious practices should be conserved for the survival of the community. In general, the urban forms of the Hausa-Fulani

city of Sokoto was as a result of cultural mix, and needs and values set out by Islam, therefore we should adopt a way of conserving the cultural and religious values people had to their environment e.g. the cultural core elements retention.

(iv) Hierarchy of Social and Physical Units Criteria: This has been the main criteria for organisational units that will be used as framework of planning and design in Hausa-Fulani cities. A typical Hausa-Fulani settlement is organised on various hierarchy of social and physical units, these being the city (Birni), neighbourhood (Shiya), house clusters (Unguwa) and compound or house (Gida). This hierarchy is to be adopted as planning units in organisation.

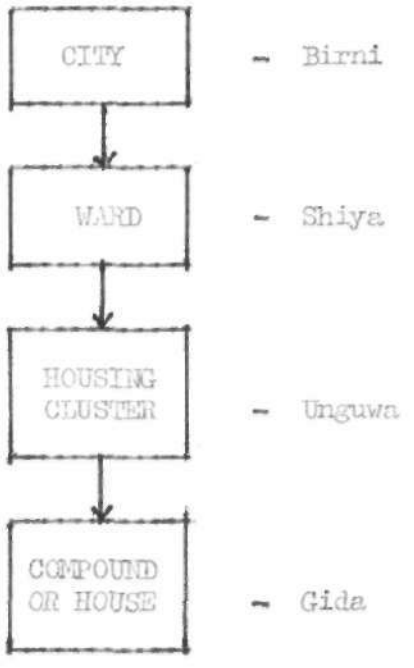


Fig. 26. Hierarchy of Social and Physical Units in Hausa-Fulani City of Sokoto.

(v) Economy of Land: This is surely a difficult task in the design of Hausa-Fulani cities because of the communal ownership of land that existed long before. People already had land to their advantage under the customary title. However, in new development, effect of development

control through zoning and land legislation will help to put land into the most economic use.

(vi) Felt needs: This criterion is very unstable because needs are bound to change with time. However, the cultural core elements will help to ascertain the felt needs of the people in their environment and then aimed at allowing for the flexibility with time.

These criteria will help in ensuring good design proposals as follows:

4.13. Design Proposals:

The proposals are based on the functionality, flexibility, conformity and the felt needs of the people in Sokoto. Based on the above, therefore, the major observations derived from this research are used to come up with series of criteria and standards for further planning and design in Sokoto and other Housa-Fulani cities. Some of the planning actions required are as follows:

Land:

(a) The uneconomic use of land in Sokoto that is prevalent due to communal ownership of land can be minimised. Traditional land should to be government owned. It facilitates planning of public projects. It allows the opportunity for development control and zoning. Government can do the allocation itself.

(b) Mixed Land Use:

The multi-purpose useage of land which resulted to mixed land use should be accepted and encouraged as an integral part of the settlement. Encourage growth toward a mix of land use types in every neighbourhood, and every cluster, so that one land use couples, with a conforming one.

(c) Pedestrian Paths:

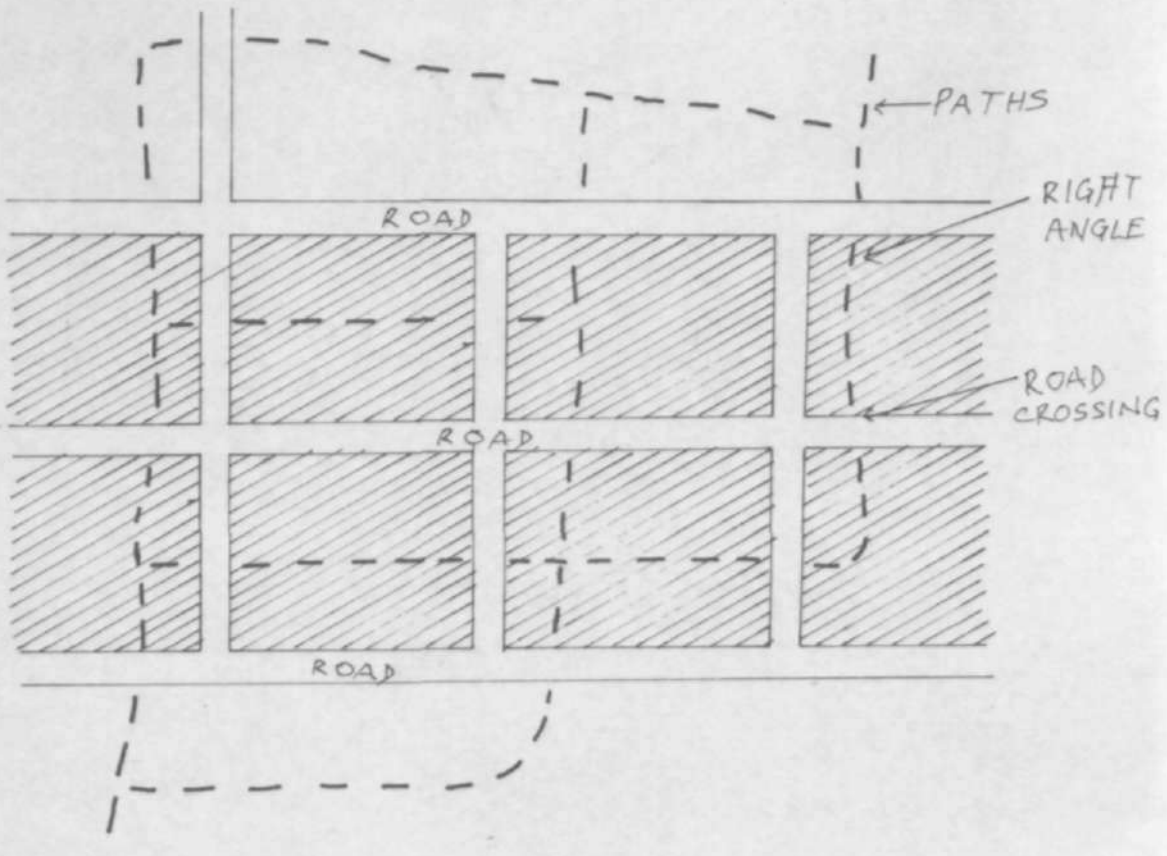
Except where traffic densities are very high or very slow, layout pedestrian paths at right angles to roads, not along them, so that paths gradually begin to form a second network, distinct from the road system, and orthogonal to it. This can be done quite gradually even if you put one path at a time, but always put them in the middle of the "block" so that they run across the roads. (See Fig. 27).

(d) Common Land:

In every neighbourhood and community, make a piece of common land into an out door room a partly enclosed place; place it beside an important path and within view of many homes and workshops. (See Fig. 28).

(e) Focal Points:

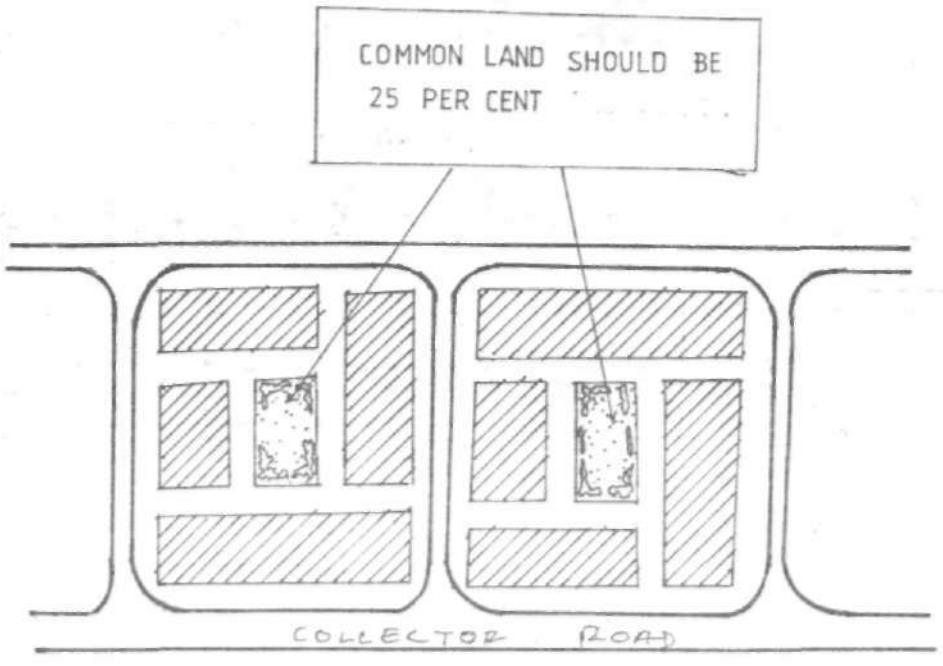
Make a public square much smaller than you would at first imagine; usually not more than 15 to 20 meters across, never more than 25 meters across. This applies only to its width in the short direction. In the long direction it can certainly be longer. Plant some trees and sitting facilities. Put some kiosks and shops plus lighting for night life. (See Fig. 29).



Layout pedestrian paths at right angles to roads, not along them, so that paths gradually begin to form a second network distinct from the road system.

Fig.27 Pedestrian / Automobile

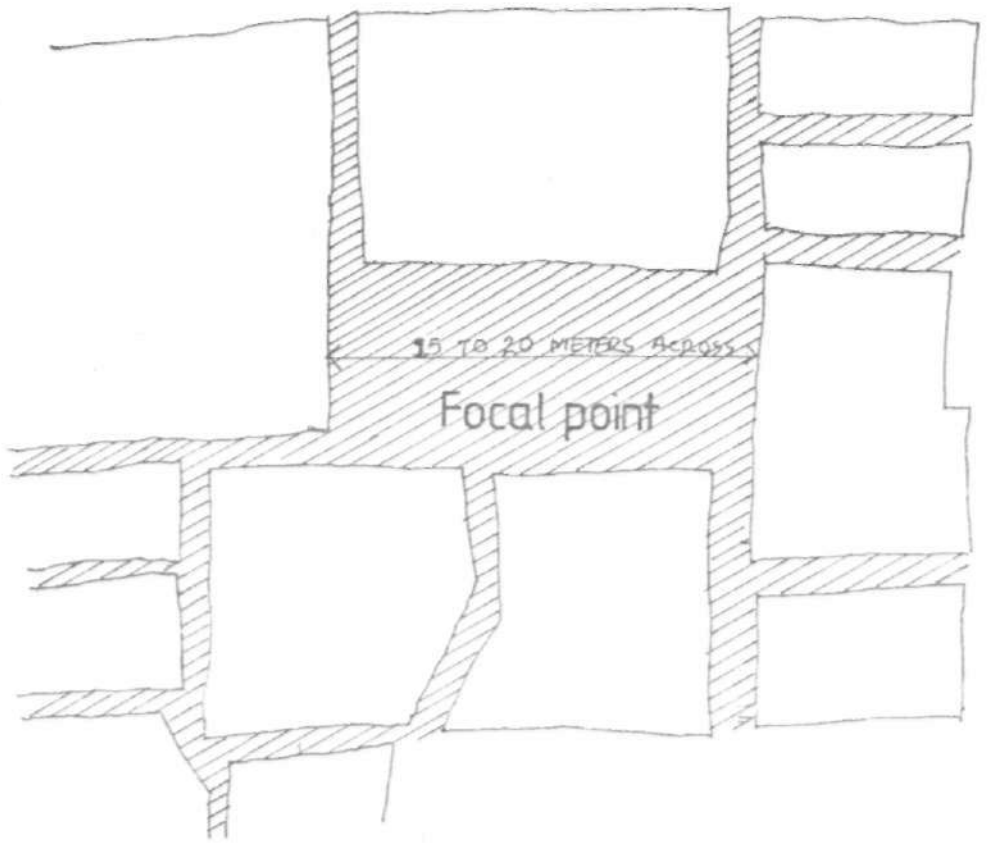
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A.B.U. ZARIA



PROVIDE SMALL OPEN SPACES WITHIN RESIDENTIAL AREAS. THEY PROVIDE RECREATION OPPORTUNITIES FOR CHILDREN. GIVE OVER 25 PER CENT OF THE LAND IN HOUSE CLUSTERS TO COMMON LAND WHICH TOUCHES, OR IS VERY VERY NEAR, THE HOMES SHARE IT.

Fig. 28. Common land

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Make focal point much smaller than you would at first imagine; usually not more than 15 to 20 meters accross, never more than 25 meters accross.

Fig.29 Focal point

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(f) Community Facilities:

In designing new community facilities for the Hausa-Fulani people be sure to relate the facilities to the community and then relate each facility to each other so that traditional focal point organisation can be maintained.

(g) Religious Facilities:

In each neighbourhood and community, identify some site for a praying ground. Provide some tree shades and propose a small mosque.

(h) Basis of Territorial Boundary:

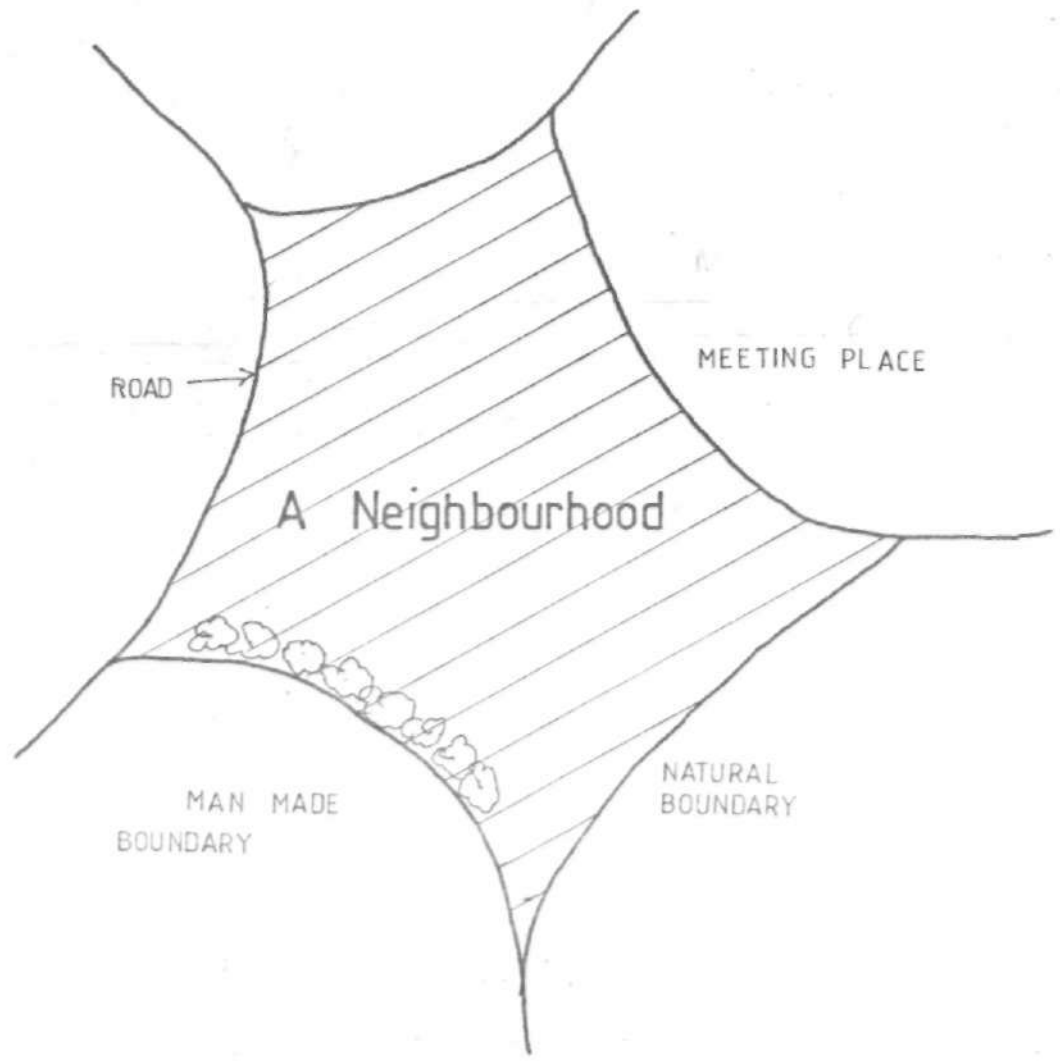
Let boundary be natural or manmade e.g. railroad, major road, open spaces, schools, and some housing. Along the seam between two sub-cultures, building meeting places with shared functions, touching each community. (See Fig. 30).

(i) Residential Groupings:

Arrange houses to form very rough, but identifiable clusters of 8 to 12 households around some common open space and paths. Arrange the cluster so that anyone can walk through them, without feeling like a trespasser. (See Fig. 31).

(k) Privacy:

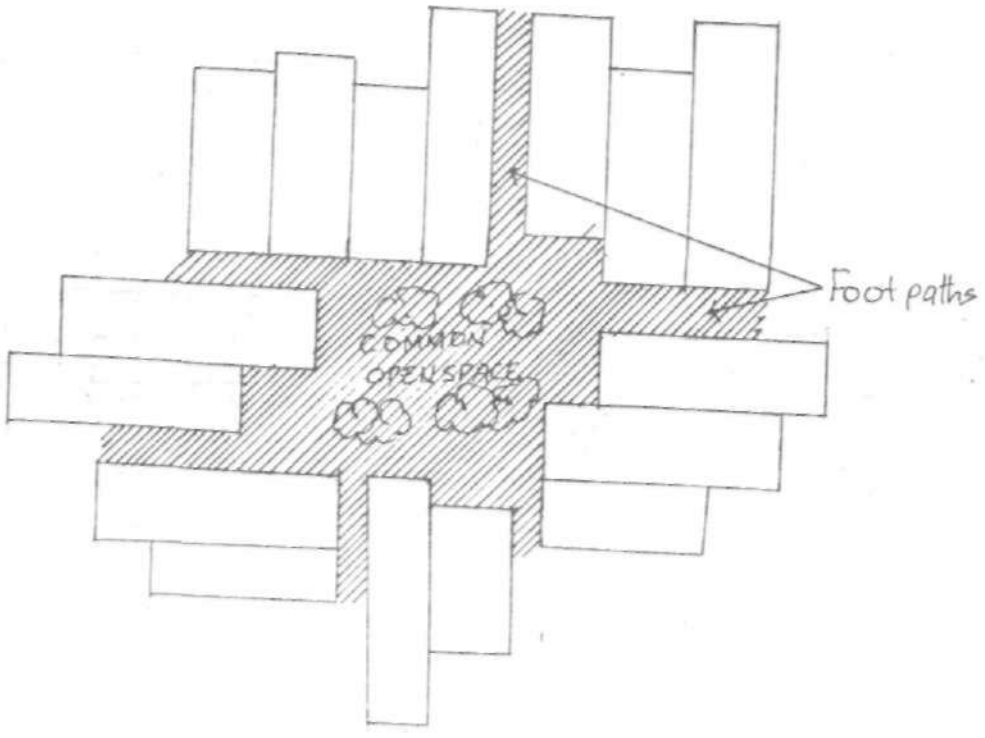
Make certain that each piece of the environment each building, open space, neighbourhood, and work community is made with a blend of both men's and women's instincts. Ensure segregation as far as possible in the homes. (See Fig. 32).



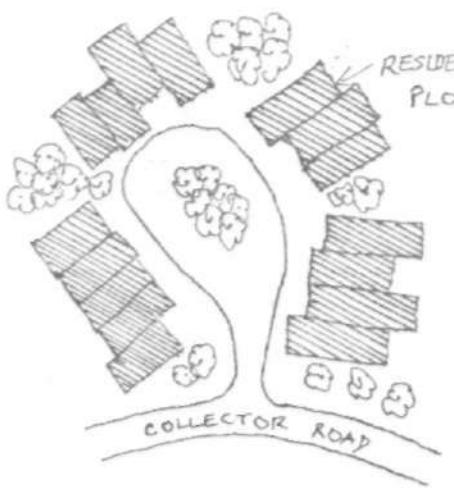
The strength of the boundary is essential to a neighbourhood/ward. If the boundary is too weak the neighbourhood will not be able to maintain its own identifiable character. Encourage places for identity.

Fig. 30 Territorial boundary

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GOOD FOR TRADITIONAL AREA



GOOD FOR G.R.A.



GOOD FOR HIGH DENSITY RESIDENTIAL AREA

Fig.31 . Housing Cluster

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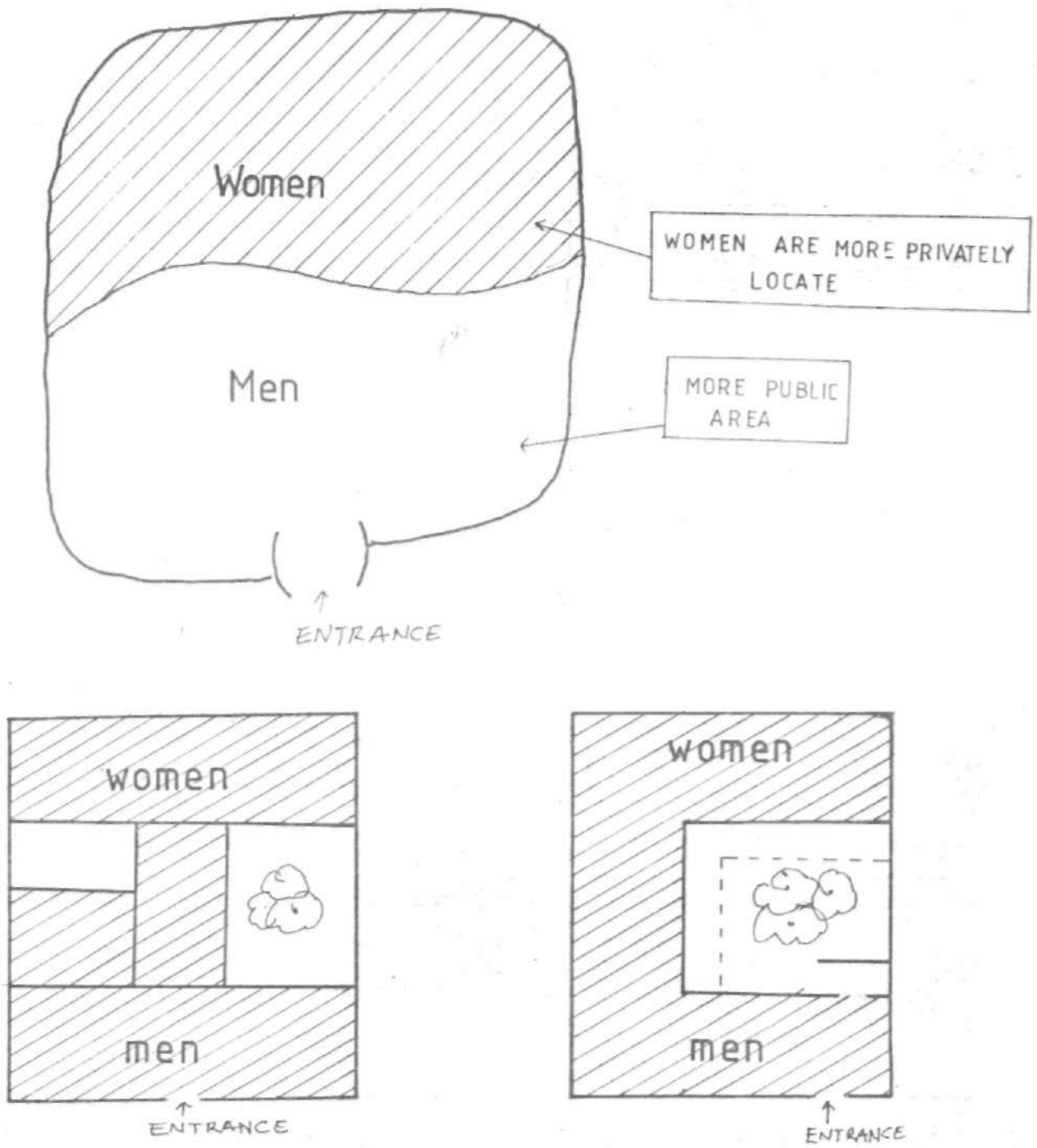


Fig. 32. Privacy concern

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(c) Compound:

Ensure flexibility in design so that enough space may be available for future extension. Layout should be of high, low and medium densities mixed together. Set up process which encourage groups of 8 to 12 people to come together and establish communal households. The important things are:

(i) Private rclams for the groups and individuals that make up the extended family: couple's realms, private rooms, sub-households for small families.

(ii) Common space for shared functions: cooking, working, child care etc.

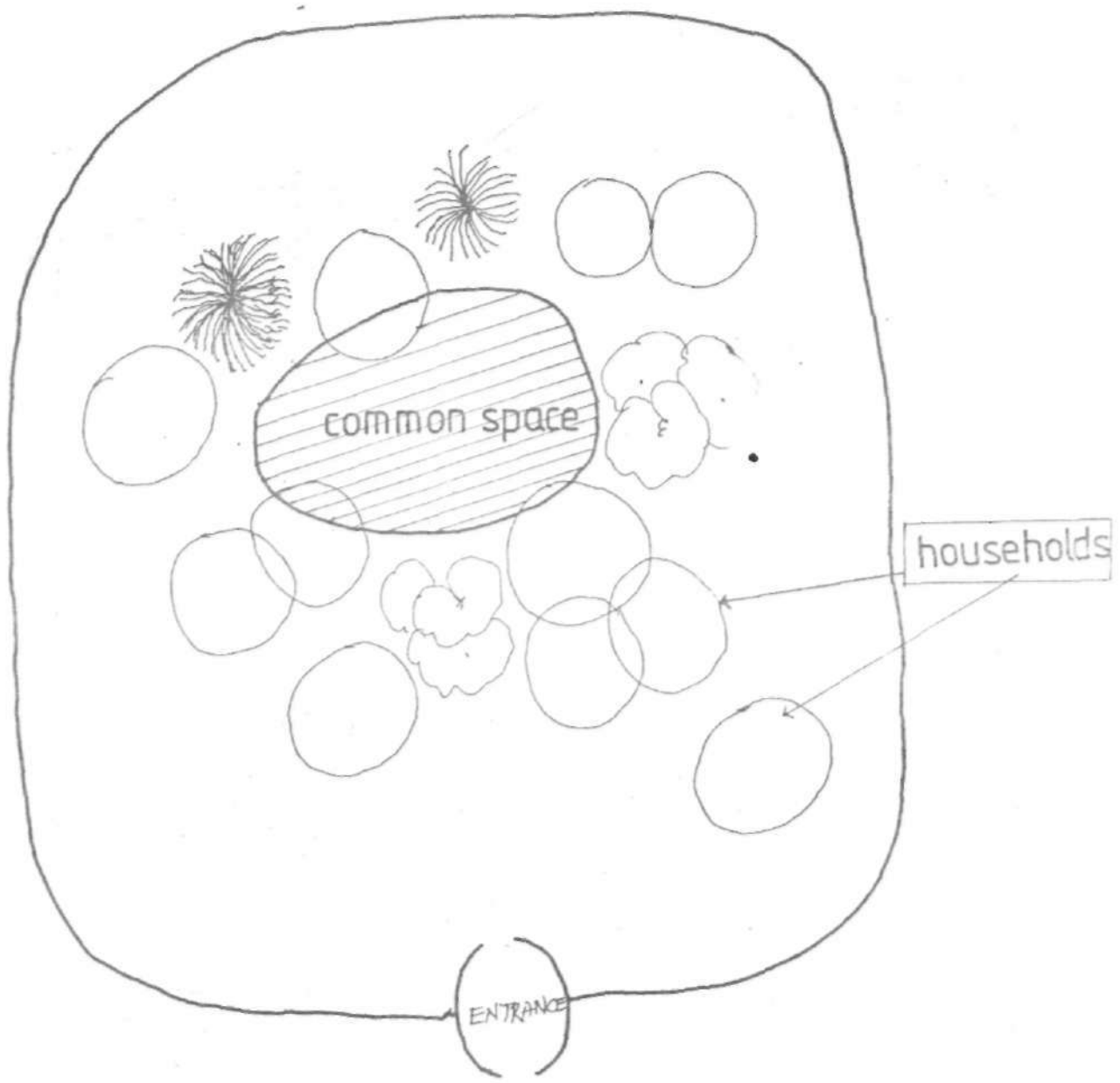
(iii) At the important cross roads of the site, a place where the entire group can meet and sit together should be provided. (See Fig. 33).

(m) Main entrance:

Place the main entrance of the house where it can be seen immediately from the main avenues of approach (open space). Bring the path which connects street and entrance through the transition space.

(n) Courtyard:

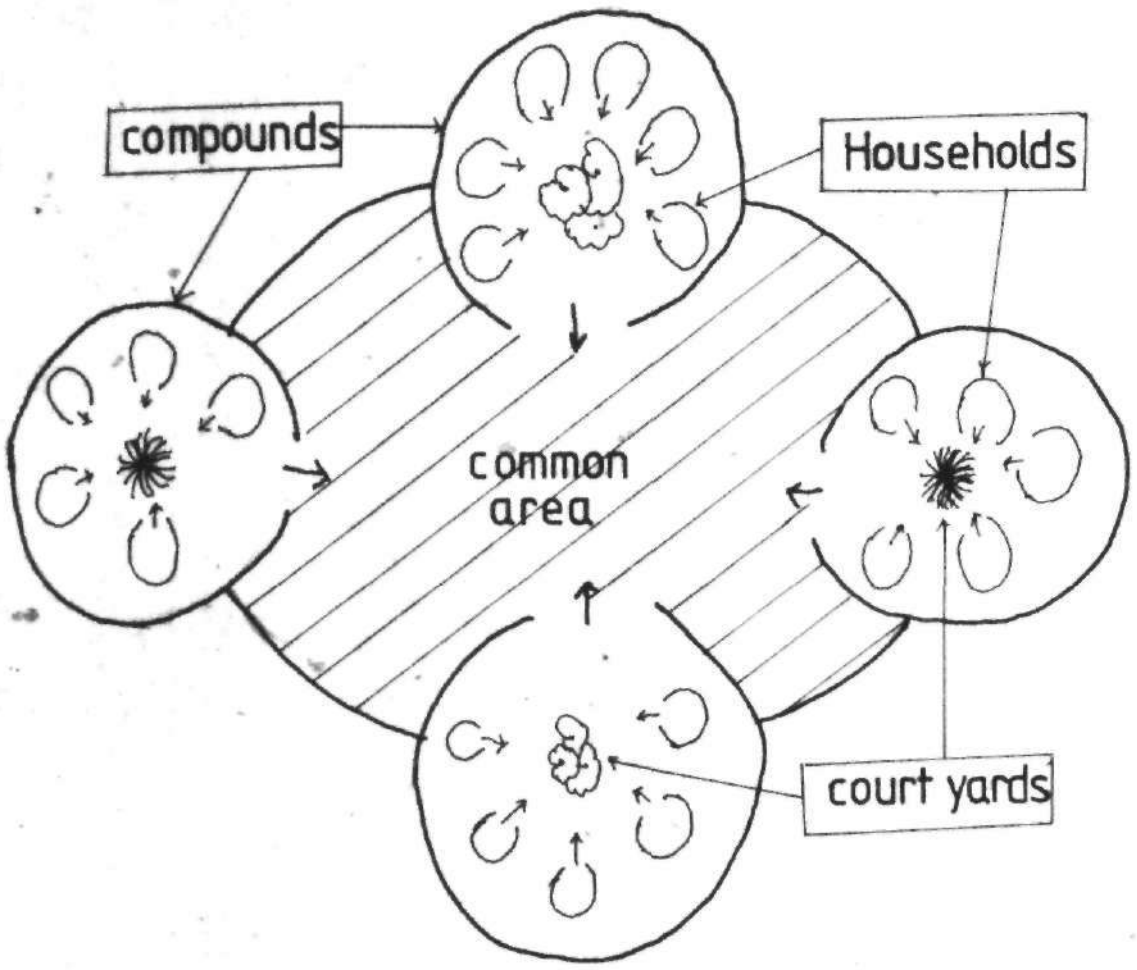
Place a court yard in such a way that there is a view out of it to some larger open space; place it so that at least two or three doors open from the building into it and so that the natural paths which connect these doors pass across the courtyard. And, at one edge, beside a door, make a roofed veranda or a porch, which is continuous with both the inside and the courtyard. (See Fig. 34).



Each individual household within the larger family must at all costs have a clearly defined territory of its own which it controls Common space should come between them

Fig.33. Compound

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Place courtyards in such a way that the is a view out of it to some larger open space. Let two or three doors open to it. Let the natural paths which connect these doors pass accross the courtyard.

Fig. 34. Courtyard

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A.B.U. ZARIA

(o) Shops:

When you locate any individual shop, follow a three step procedure:

(i) Identify all other shops which offer the service you are interested in.

(ii) Identify the location of potential consumers.

(iii) Locate your shop next to the largest cluster of other kinds of shops or households.

(p) Levels of self-governing communities:

Decentralise city government in a way that give local control to the communities. As nearly as possible use natural geographic and historical boundaries to mark these communities. Give each community (ward) the power to initiate, decide and execute the affairs that concern it closely. Example, schools and neighbourhood services.

From these proposals, it can be seen that criteria and standards for further planning are established. These patterns and statements are only to set guidelines, so any designer planning in Hausa-Fulani settlement is free to adjust, reduce or add someting to it to gain more meaning to the situation at stake.

CHAPTER FIVE

SUMMARY AND RECOMMENDATIONS

5.00. Summary and Recommendations

In previous chapters we have seen the historical background of Hausa-Fulani traditional settlement patterns, how people relate to environment, and some proposal patterns for the Hausa-Fulani settlements. From the beginning of this thesis, the main goal has been to establish man-environment relationships in Sokoto and to use it as a basis for further planning and design in other Hausa-Fulani cities. At this point a summary of the findings is provided so as to determine whether the goal has been achieved.

The followings are some of the observations made from the research.

(a) Importance of traditional settlement in planning and design:

Traditional and spontenous settlements offer useful lessons and apparently trivial changes in them may have negative consequences by making such familiar mechanisms in the environment unavailable. Traditional environment have several important functions by which means it supports traditional and familiar activities such as religion, social and family structures and the like (that is, culture generally) they provide a safe and familiar base from which to operate. In the end, this may speed adaptation and modernization of the environment. Traditional Hausa-Fulani settlements need the concentration on the key values which give social identity to the group, reinforce solidarity, and so on. The provision or retention of such important environmental and life style symbols may often avoid the development of the other possibly less desirable, mechanisms in Hausa-Fulani environment.

(b) Lack of choice and control:

One of the major problem faced by the Hausa-Fulani people in the environment is that of severe stress and lack of control and choice. Presently, Hausa-Fulani can neither select habitats nor shape them to suit or otherwise match environments to their images, notions of environmental quality or lifestyle due to planning regulations and standards. It is thus useful to increase real choice and control of the environment to Hausa-Fulani people. The control must be increased in culturally critical areas as well as making environment maximally supportive. Thus the cultural core elements of the Hausa-Fulani people already established will be used in control and choice. It should be noted that it is only when there is choice among alternatives based on a set of priorities that design can be easily conceptualised.

(c) Evidence of settlement patterns in Hausa-Fulani settlements.

The belief by some people that Hausa-Fulani do not have a definite urban settlement pattern has been dismissed in this thesis. The settlements had established political units of Sarki, Hakimi and Maiguwas, whose duty it was to regulate and command the city organisations. There were also basic organisational units which can still be used as planning units, that is the Birni (City), Ward (Unguwa), Shiya (Housing clusters). These units can be a good channel for easier administration when planning in those settlements. There are also concepts of space hierarchy which comes from the tradition, religious and social ways the land is put into use. In Hausa settlements, there was diversified economy and a distinct urban spatial environment. The results of which led to the present twin city phenomenon or the dual nature of Hausa-Fulani cities.

It is left for the professionals to adopt and improve upon the patterns developed in this thesis which are derived from the existing Hausa-Fulani settlements.

(d) The need for new planning regulations:

Based upon the foregoing, there is an obvious need to come up with new planning approaches which can allow the adoption of some elements of traditional settlement patterns in planning probably mandated by new regulations. As long as there are no regulations insisting on preserving traditional community character in Hausa-Fulani cities, planners will probably not strive very hard to do so. With regard to citizen, they have, for a variety of reasons, little say in the overall nature of the environment. Consequently, there is little or no public pressure for acknowledgement of traditional form in Hausa-Fulani cities. A channel of coming up with regulation is through the community organisations and public institutions concerned (government bodies).

(e) Organisational development:

There is no process that can be successful without the public participation. In Hausa-Fulani settlements where gradual environmental changes are taking place, citizen must be organised to know the consequences of neglecting traditional environmental form. The organisation should be such that will come out with committees and involve both individuals local business bodies (private) and government institutions. These will likely help in the preservation and working with traditional environment. The organisation chart developed will form a channel of meeting the people and planning with the people in the natural context.

Once the organisation is set-up, the people are then mobilized to be aware of community needs, which will set a foundation stone for community identity and to take whole process of man-environment studies. (See Fig. 35). In the chart, the task forces are to publicise the project and the sub-committees will be tackling problem that may involve investigative and organisation of any sub groups within the community. The sub-committees should be headed by ward heads who command the people in the respective wards.

(f) Use of pattern to create form:

The patterns developed in this paper are not intended as absolute statements rather are like hypothesis of science and can be refuted, criticised and refined. Thus the life of these patterns depend on a constant cycle of critism and refinement.

Having grasped the idea of a single pattern, the question of a collection of these patterns arise. The person who wants to use the collection of these Hausa-Fulani patterns needs to decide on which patterns are relevant to the condition at stake. It will be at this time that the relevant patterns can be graps and used as a whole structure in organising the spatial relationships. As more and more patterns come into play, it becomes a rather complicated task to maintain an easy grasp of the whole. Selectivity allows the patterns to work better and more adaptably. This Hausa-Fulani pattern started no dought provides a vehicle for the social considerations into design. It provides some introductory information to a person starting to design in Hausa-Fulani communities. If at this stage the patterns can pass that type of information; it will have fulfilled its purpose because the patterns included in this thesis are intended to merely set foundation. Other patterns can be added in the future

CITIZEN ORGANIZATION IN IMPLEMENTING THE (HHS) APPROACH

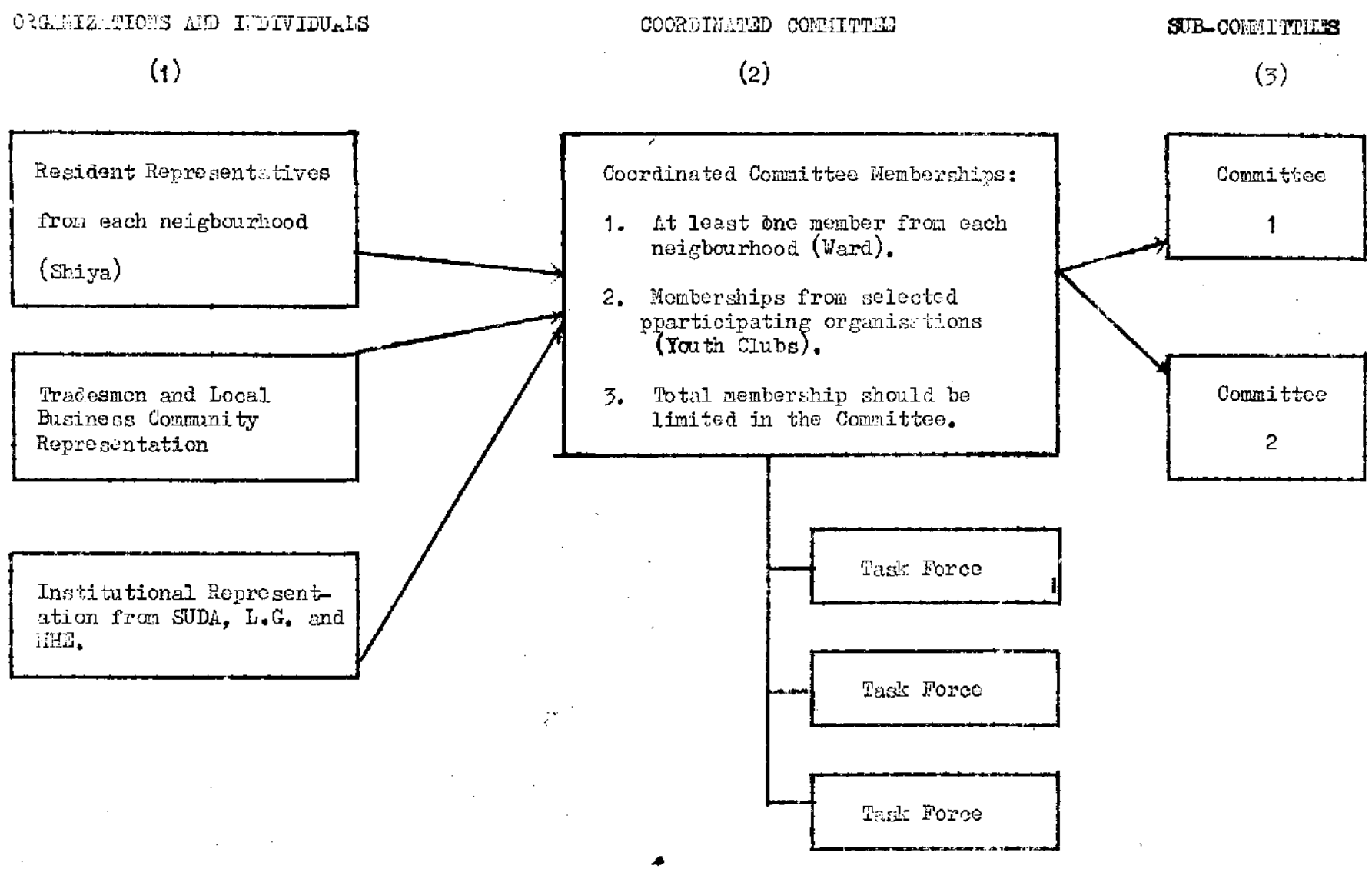


Figure 35

because these are not the only patterns possible within Hausa-Fulani settlements, but at this point, it can bring together thoughts helpful in developing more patterns.

5.10. Conclusions:

If the aim of planners is to try and gain an understanding of how form occurs in Hausa-Fulani community, this thesis may be of some use, since it discusses some of the vital issues on this topic. This would help to avoid contemporary stereotype plans which have already been shown as undesirable by Hausa-Fulani of Sokoto through the way they have reacted to the plans when imposed on the community. In this research, the reader will perhaps agree that behaviour, including desires, motivations and feelings are essential in understanding the built settlement of Hausa-Fulani people.

The findings about human preferences, perception, cognition, behaviour, socio-cultural variables and so on will, in principle, have an impact on planners understanding of urban form. In Sokoto-town, consideration relating to people and the way in which they interact with the town have tended to be neglected and even if considered, it has rarely been based on the data and study of man-environment studies. Thus people do not interact conveniently in newly developed part of the city.

Planners should therefore avoid the all too common triviality of living in the present as a continuous prelude to rushing thoughtlessly into the future. This calls for a simple planning approach which should be develop to preserve the sense of the relations among dwellings, settlements, culture and continuity of man's achievement in Hausa-Fulani cities, and the man-environment studies (MES) approach is the answer.

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Definition of Terms

Words which might present different meanings especially words that can be used interchangeably in discussing other topic are defined below.

(a) Environment: This refers to man-made and natural features in settled space. This also refers to the built surrounding within the settlement and the spaces formed in the built surrounding and those around it.

(b) Settlement: In this paper it refers to a symbolic and well defined group sharing social, economic, political and cultural activities within an environment.

(c) Community: A group of people with something in common e.g. residential, district, social or cultural.

(d) Old-Town: Is the traditional or indigenous portion in Hausa-Fulani city.

(e) Hausa-Fulani Cities: These are cities dominated by the Hausa-Fulani people where indigeneous Hausa-Fulani settlement is presently existing.

(f) Hunturu: A name derived from cold Hamattan winds blowing at this time of the year.

(g) Bazara: The time the farmers set for planting in Hausa-Fulani areas.

(h) Domina: The farming season in Hausa Fulani cities.

(i) Kaka: A period devoted to harvesting and secondary type of occupations.

(j) A change in this study is the physical transformation or organisation in space over a period of time.