DESIGN OF A MODEL VILLAGE FOR AKOKO - EDO LOCAL GOVERNMENT AREA, BENDEL STATE

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

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CERTIFICATE

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.

Approved

PROFESSOR S. JUCHNOWICZ
HEAD OF DEPARTMENT.

ZARIA,
JUNE, 1981.

D E D I C A T I O N

This work is dedicated to the memories of late Mrs. R.A. Obidi(nee, Rachael Abiye Aigboje), Mr. Mathew Abiodun Atomi and Mrs. M. Momoh (nee, Magaret Ojenomoh), each of whom was a model in character and a source of pride and joy to his or her family.

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"The problem of improving the rural areas is still with us.

..... rural life should be more healthful, more restful, more natural, and less wearing than that of the town, if properly planned. it represents the ideal life of which the poets sing".

C.S. Ola (1977,p.92)

CHAPTER I

1,00 GENERAL:

1.10 INTRODUCTION:

Inspite of the rapid rate of Urbanization in Nigeria, the vast majority of the people have continued to live in the rural areas. It is estimated that over 80% of the total population of the country (Olatunbosun, 1975) live in these rural areas.

Ironically, it is in the rural areas where the largest number of people are found that are worst affected by the inadequate provision of socio-economic infrastructures. Various governments within the country have shown increasing awareness of the need to pay greater attention to the over-whelming plethora of problems that have continued to plague the rural areas. In the 3rd National development plan specific mention is made under the rural development policy of government's commitment to improve the quality of life of the long neglected rural majority in the country. This is a laudable objective for if nothing is done to adequately improve the socio-economic and physical outlook of the rural areas the consequence of their neglect as it is already being felt in our urban centres will assume greater dimensions and this obviously will have serious or far reaching effects on the overall development of the country and the economy.

1.20 STATEMENT OF PROBLEM AND JUSTIFICATION FOR STUDY

Akoko-Edo, the study area occupies the extreme North of Bendel State. Many of the villages in the area are not only scattered but are of low population and occupy sites that are generally accessible only with great difficulty.

The spatial pattern of settlements in the area militates against an efficient provision of utilities, basic services and infrastructures in all the existing villages and hamlets (Camps). To facilitate the provision of amenities and thereby bring about an improvement in the living environment of the people calls for a rationalisation of the settlement pattern and village design.

A strategy of re-grouping scattered village was suggested in the Second National development plan (P. 221) to rationalise the settlement pattern, particularly in the sparsely populated areas of the country. It is the contention of the author that a model village scheme will serve the need for village design and it is proposed that it would in addition serve as a source of inspiration for other villages around to imitate and gradually progress would radiate outward from the model villages.

1.30 GOAL: This thesis attempts to develop model village concepts for Akoko-Edo local government Area with a view to improving the physical environment and standard of living in the rural areas.

1.40 OBJECTIVES: The objectives with which to achieve the set goal are:

(i) To investigate the socio-economic characteristics of the people in the study area.

(ii) To analyse the structure and form of some selected villages in the study area and examine the forces underlying their structure.

(iii) To point out the short comings and useful elements or assets in the structure of these villages with a view to identifying village planning principles and standards.

(iv) To develop concepts for model villages.

(v) To prepare a schedule of requirements and design a typical model village based on one of the concepts derived in (iv) above.

(vi) To suggest guidelines for the implementation of the model village plan.

1.50 SCOPE AND LIMITATIONS OF STUDY:

The study covers the whole of Akoko-Edo, which is only a local government Area in Bendel State.

The absence of relevant base maps and air photographs was a serious limitation to this study. Another limitation is that the state government has not uptill the time of this study spelt out the necessary guidelines for the location, design and implementation of its proposed model village schemes for all the local government Area of Bendel State.

1.60 METHODOLOGY:

Several methods or survey techniques were utilised for the study.

1.61 FIELD SURVEYS: In order to obtain a good picture of the structure of the villages studied, trips were made to the selected villages and were physically inspected. Sketches were drawn and photographs taken to show interesting features or elements of the structure of these villages.

1.62 INTERVIEWS: Interviews were held with village heads, clan heads and other important community leaders to elicit vital information for this study. The main issues in respect of which interviews were held with village heads include the culture, history and political organisations of the people in the villages studied.

1.63 QUESTIONNAIRES: Questionnaires were used in addition to gather information on the socio-economic characteristics of the people in the villages.

1.64 OTHER SOURCES OF DATA:

The other sources of data were mainly government publications and base maps. Some of those publications were got from the ministry of lands and surveys, Benin-City and the local government secretariat, Igarra, the headquarters of the study Area.

1.70 DEFINITIONS OF OPERATIVE TERMS

1.71 PRINCIPLES:

Principles are essentially primary elements or those forces of law which give rise to particular results.

1.72 CONCEPTS:

A concept can be defined as an original idea or a set of such ideas derived from a set of principles and may be translated into a plan or design.

1.73 DESIGN

Design can be regarded as an art-producing procedure. To design in a physical context means to make or produce a sketch or picture of, or to draw a plan of something to be executed either by the designer himself or some other persons.

1.74 STRUCTURE :

The word structure refers to the mutual relationship of the consistent elements or parts of a whole as determining its perculiar nature or character (*shorter Oxford English Dictionary*) Applied to villages, village structure would mean the mode of grouping or arrangement of its constituent parts or elements such as buildings, streets, footpaths, open spaces, etc. This arrangement gives it a definite pattern or character that is easily discernible. Structure

can thus be regarded as refering to the two dimensional image of a village or settlement i.e. the plan.

1.75 VILLAGE :

A standard or precise definition of what constitutes a village is by no means easy to give. This is because size limits will not precisely distinguish villages from other types of communities or settlements. And even if one adopts a functional definition, all communities referred to as villages in popular language cannot easily be brought within a common definition. The Oxford English Dictionary definition of a village as "a cluster a houses smaller than a town and larger than a hamlet" is not very helpful. This is because the definition excludes places where houses are scattered rather than clustered. A village, as a matter of fact, is a type of community generally acknowledged to be small but without exact or commonly accepted size limits. The village in the context of developing countries such as African countries is a residential and trading centre for a predominantly agricultural economy. In other words the vast majority of the people in such settlements are engaged in primary activities like hunting, fishing, mining and forestry. For the purpose of this study, villages in the study area will be regarded as those settlements less than 8,000 population and hamlets as those less

than 500 people.

1.76 MODEL :

The word model has at least three different usages in every day language.
As a noun, it implies representation. As an adjective, it implied ideal or greater degree of perfection and used as a verb, it means to demonstrate. A model can be regarded as a simplified representation of reality.

1.77 MODEL VILLAGE :

The model village idea is used in different contexts.

In one context, it is viewed as a village resulting from the re-grouping of smaller scattered villages on a new site, or the re-grouping of scattered villages which are planned as a unit and integrated with an existing larger village in the area. The resulting model village is properly planned to reflect the socio-cultural values and institutional practices of the inhabitants of the the village. In addition, the village provides the people with all the basic facilities and services needed by the community (largely a function

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the village. In addition, the village provides the people with all the basic facilities and services needed by the community (largely a function

of the community's population size and position in the regional herarchy of settlements in the area).

The other idea of the model village as suggested by Kulp, E.M. (1970)[1] is to re-develop or re-model an existing village and provide basic facilities and utilities in this village. The view is held by him and in many other quarters that progress would radiate from this village to other areas in the sense that the surrounding village communities will want to imitate what has been achieved here by re-modelling their own villages with ideas and standards derived from this model village now set up or established. Concepts developed in the later part of this work for planning model villages in the study area take into account the foregoing ideas that have been explained.

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1. Kulp, E.M.(1970): Rural Development Planning (Systems Analysis and Working methods). pp. 60.

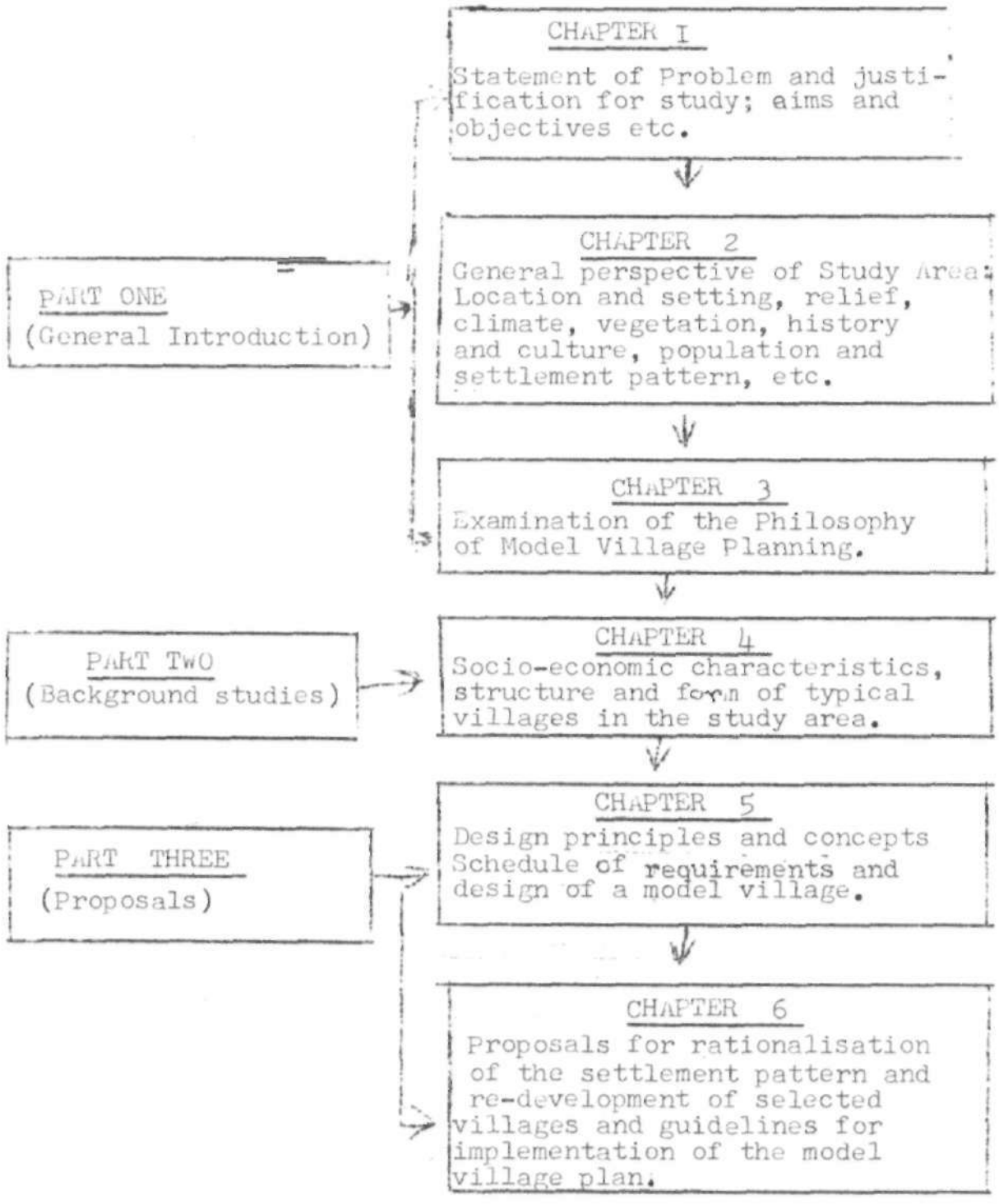
1.80 STRUCTURE OF THE THESIS :

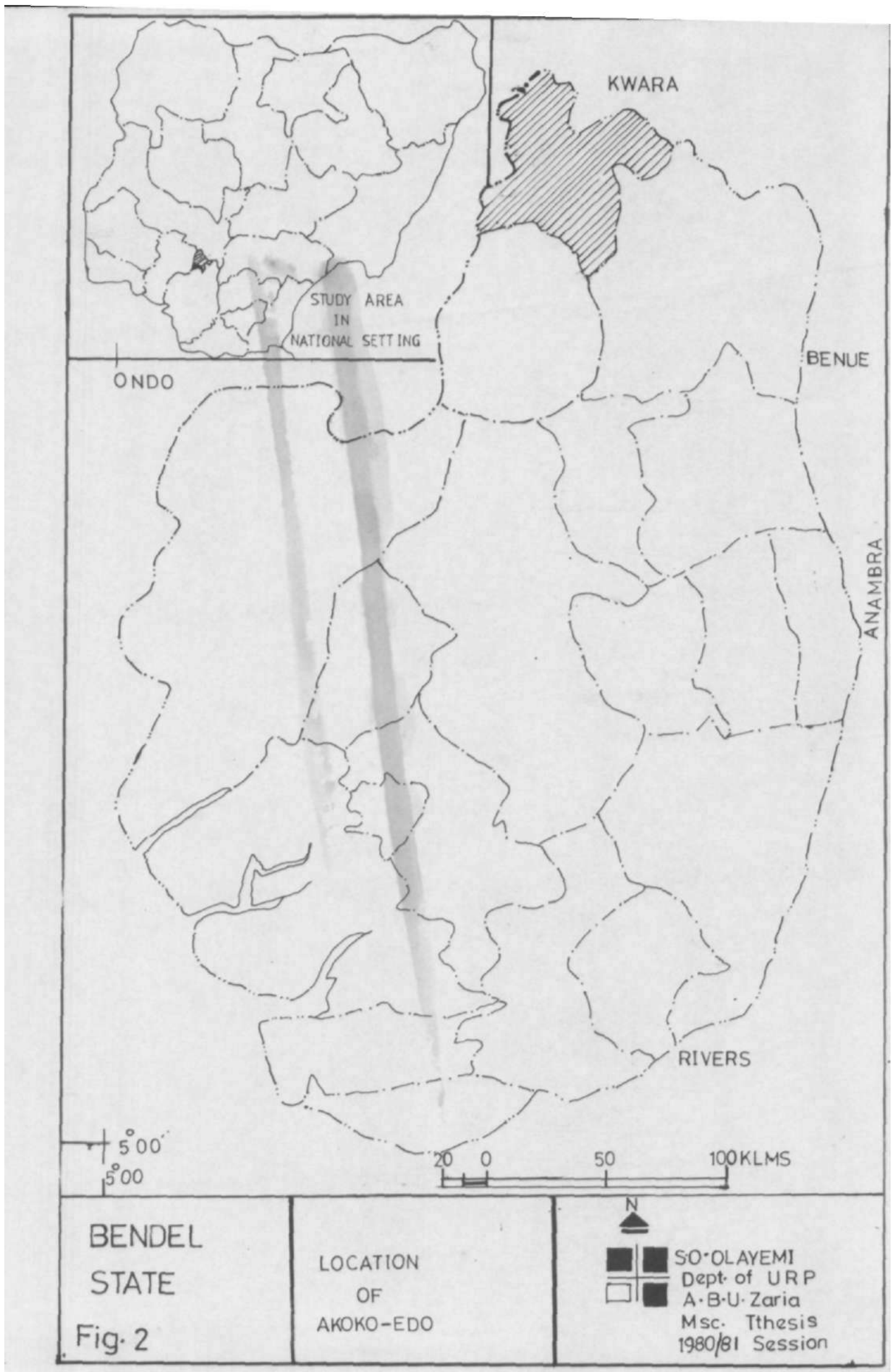
The study is divided into three main parts. The first part consists of three chapters 1,2 and 3. Chapter one deals with the general introduction, statements of problem and justification of choice of topic, goals and objectives, scope and limitations of study, definitions of operative terms and the organisation of the study. While chapter two deals with the general characteristics of the study area, chapter three briefly examines the philosophy of model village planning.

The second part consists of only one chapter (Chapter four). It deals with the analysis of the socio-economic characteristics of the people of the study area, and an analysis of the structure of typical villages in the study area and examines forces underlying this structure.

The third part consists of two chapters five and six. Chapter five evolves design concepts for villages at three different levels:(a) villages located close to or by the highway or regional roads;
(b) villages linked together only by inter village roads and (c) villages that are isolated.
This chapter also prepares a schedule of requirements based on one of the selected concepts and a model village is designed on the basis of this concept i.e. for villages located on inter-village road.

The final chapter which is chapter six puts forward some proposals for the rationalisation of the existing settlement pattern, and for the re-development of some existing villages and finally, provides guidelines for the implementation of the model village designed in this study. Bellow is a schematic representation of the structural framework of the thesis. (Fig 1).

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STUDY AREA
IN
NATIONAL SETTING
ONDO
BENUE
ANAMBRA
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BENDEL
STATE
Fig. 2
LOCATION
OF
AKOKO-EDO
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1980/81 Session

CHAPTER 2

2.00 AKOKO- EDO : GENERAL PERSPECTIVE :

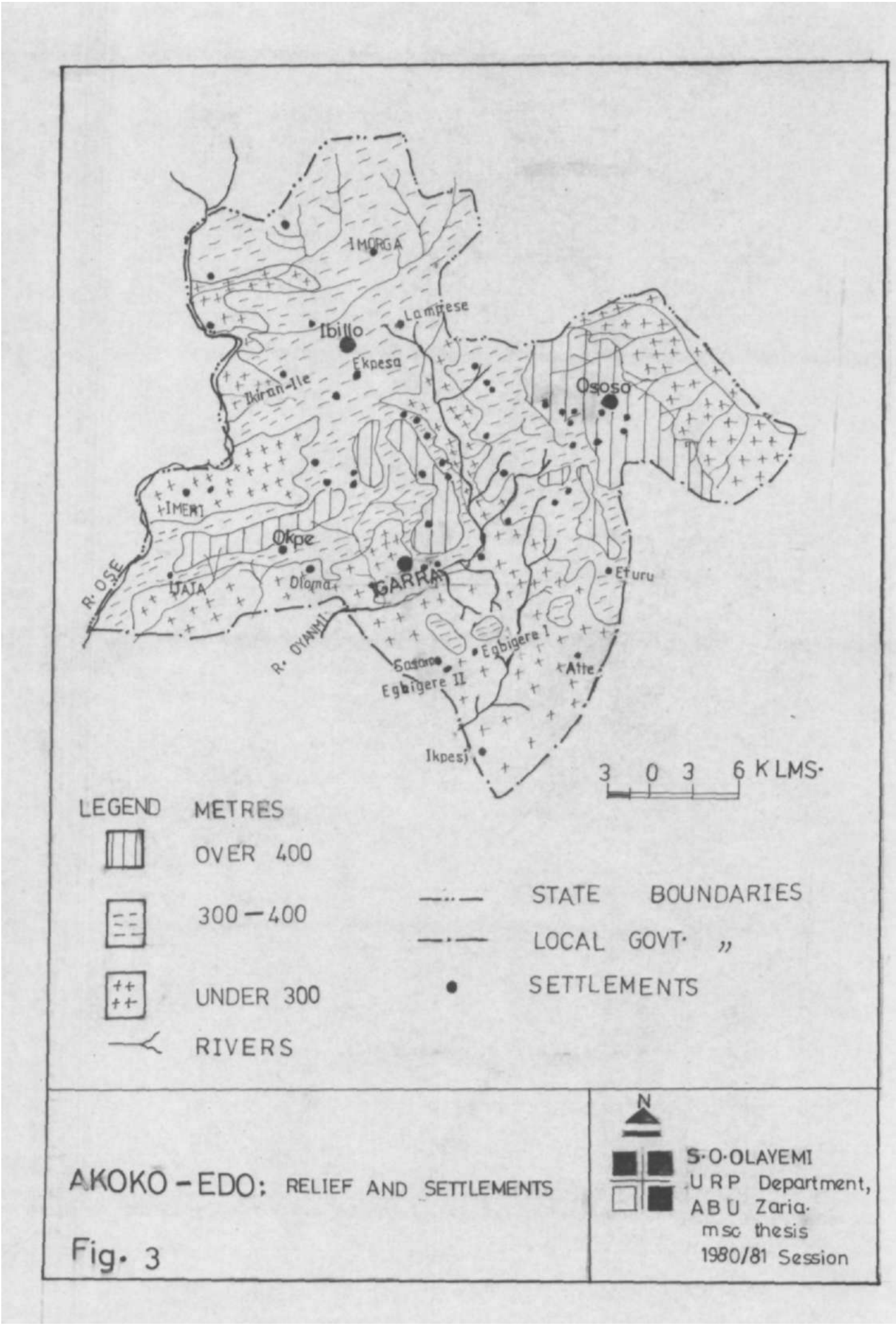
2.10 LOCATION AND SIZE :

Akoko-Edo local government Area is one of the nineteen local Government Areas presently existing in Bendel State. Locationally, it occupies the northern tip of the state(See figure 2). It lies approximately between latitudes 4° 45'N and 7° 30'N and longitudes 5° 55'E and 6° 25'E It is bounded on the west by Ondo State, on the North by Kwara State and on the East and south West by Etsako and Owan local government areas of Bendel State respectively. With an area of about 1,316 km^2 it covers about 3.4% of the total land area of Bendel State.

2.20 CLIMATE :

The area experiences basically two distinct climatic seasons: the rainy (wet) and the dry seasons.

2.21 The Rainy Season: The rainy season extends over seven months, from late March to late October. Although the rains start as early as March maximum precipitation occurs in this area only towards the end of the rainy season. The mean annual rainfall in this region is about 48 inches (1,220 mm). September is usually the wettest month with an average of 80 inches (2,048 mm) of rainfall. Local swirls or Tornadoes usually herald the coming and exit of the rainy season. Their powerful effect


IMORGA
Ibillo
Lamitese
Ekpesa
Ikiran-Ile
Ososo
IMERI
Okpe
R. OSE
UJAJA
Oloma
GARHA
Eturu
R. OYANNI
Egbigere I
Egbigere II
Atte
Ikpesi
3 0 3 6 KLMS.
LEGEND
METRES
OVER 400
300 — 400
UNDER 300
RIVERS
STATE BOUNDARIES
LOCAL GOVT. „
SETTLEMENTS
N
AKOKO - EDO: RELIEF AND SETTLEMENTS
Fig. 3
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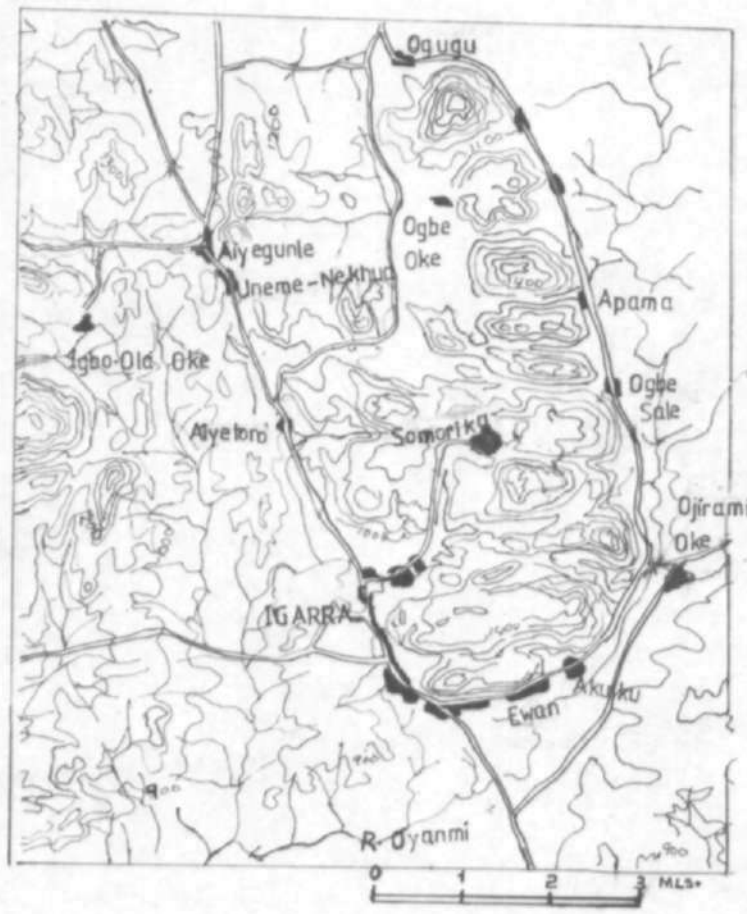

SETTLEMENTS

Source : Udo, R.K. p.112

Part of the
Topography
of
Akoko-Edo Area

Fig. 4

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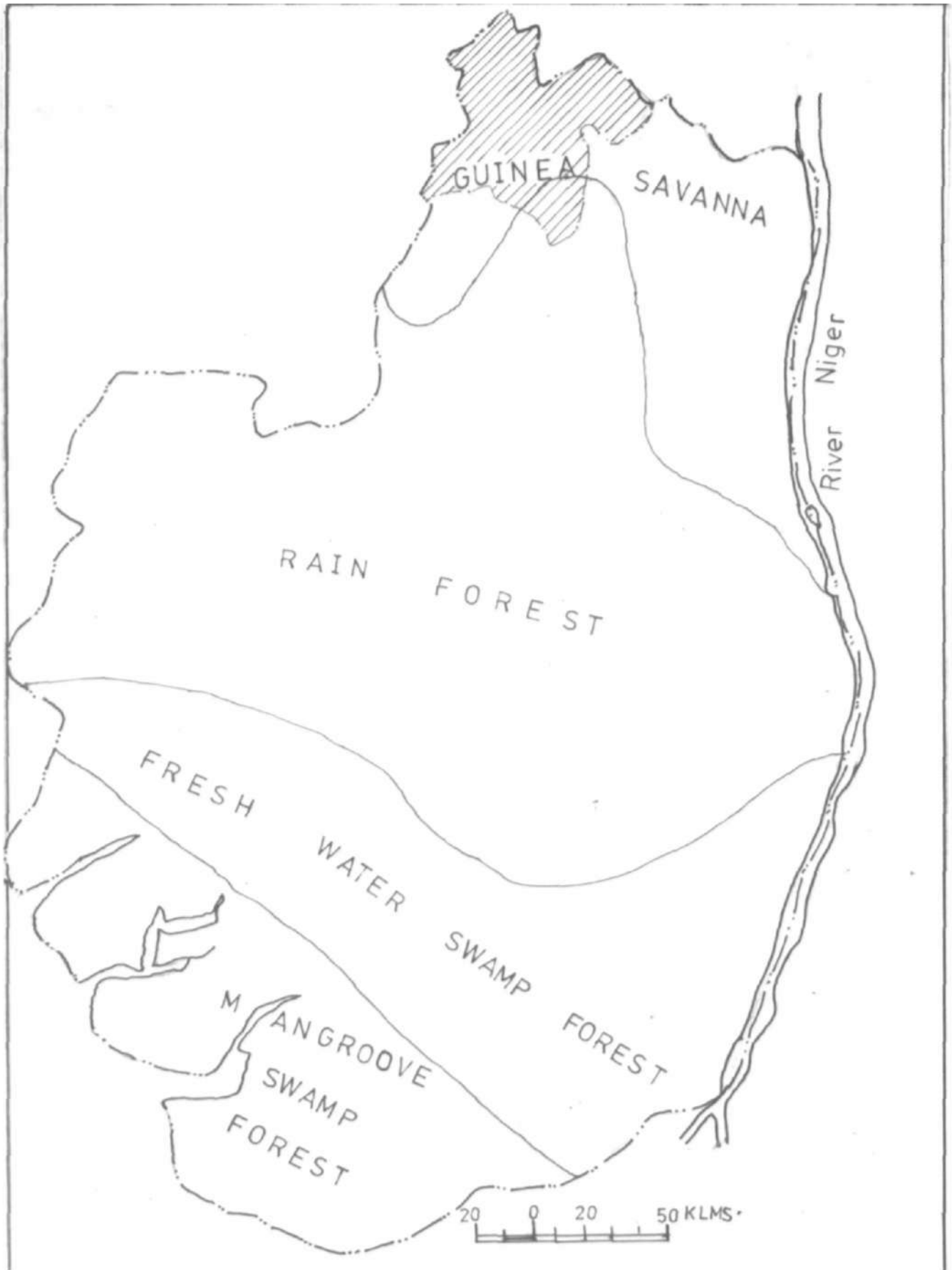
1980/81 Session

is manifested in the destruction of trees and dwellings. Last year (1980) and early this year, it will be recalled that a number of houses were destroyed at Ibillo, Okpe, Ijaja which are settlements in the area.

2.22 The Dry Season: The dry season starts from November and ends in the month of March of the following year. Characteristically, it is a period of high temperatures (about 98^{of} in the daytime) and intense heat. It is during the dry season that the cold and dry harmattan winds below across the area up to the southern area of the state. The relative humidity of the air is lower during this period than in the rainy season. This is in part due to the effect of the harmattan.

2.30 RELIEF AND DRAINAGE :

The relief of this area of the state contrast sharply with the rest of Bendel state. The general elevation here is 300 metres (1,000ft) above the sea level. (See figs 3 and 4). Characteristically, the relief is mostly rugged with numerous peaks exceeding 400 metres (1,300 ft) above the sea level. Infact a number of these peaks exceed 600 metres (2,000ft) above the sea level and each occurs in an almost continuous region of high relief. The hills here are often referred to as the granitic uplands of Bendel State. They are composed of



BENDEL STATE Fig. 5	VEGETATION ZONES	N OLAYEMI, S.O. URP Department, ABU Zaria msc. thesis 1980/81 Session

masses of igneous and metamorphic rocks, most of which are highly disserted by fast flowing rivers. The major rivers in the area are the Osse and river Oyanmi on which the Ojirami dam which collapsed last year was constructed in 1974, by the State Government.

It is noteworthy that in the higher areas of these hills, soils are generally shallow and stony while on the plains existing at the foot of the hills, the soils are the loamy type and are very fertile. These fertile soils provide the main areas of farmland for both the indigenous and migrant farmers (principally the Igbiras and Kwales who live in camps scattered all over the area).

2.40 VEGETATION :

About 80% of the study Area (Akoko- Edo) is covered by open svanna vegetation. This is evident from the vegetation map of Bendel State, fig. 5. The rest area is taken up by the rain forest. Initially, the climatic and soil conditions favoured the growth of dense and wooded savanna in the area. Through many years of human interference with the natural vegetation, it has been reduced to that of open savanna which can now be described as 'derived svanna.' Tall grasses and fairly tall trees exist in the vegetation.

2.50 HISTORY AND CULTURE :

The study Area was initially a frontier zone into which various groups of migrants and imperialists expansionists moved into to settle during the early part of the 19th century. This area as at that time lay strategically between a number of powerful kingdoms, notably the Yoruba to the West, the Bini kingdom to the south, the Igalas and Nupe to the east and North respectively. Viewed critically, the cultural landscape of this area owes much to the 19th century Yoruba, Bini and Nupe raids carried out in this area and in part to the British rule during the first half of the 20th century. During these raids, the earliest settlers of this areawho survived the raids were constrained to beat a retreat to the relatively in accessible hill top. Sites to establish their settlements. Such defensive and naturally well fortified sites offered them protection and freedom from their warring enemies.

Following the inception of British rule which guaranteed peace and protection from slave raids and inter-tribal wars, the people of most villages had to abandon their erstwhile hill top locations to re-group either on their old sites on the plains or on completely new sites at the foot of the hills. However, a number of villages like Somorika, Ogbe and Oja-oke, to mention a few,

have remained up till date on their hilly and relatively inaccessible locations.

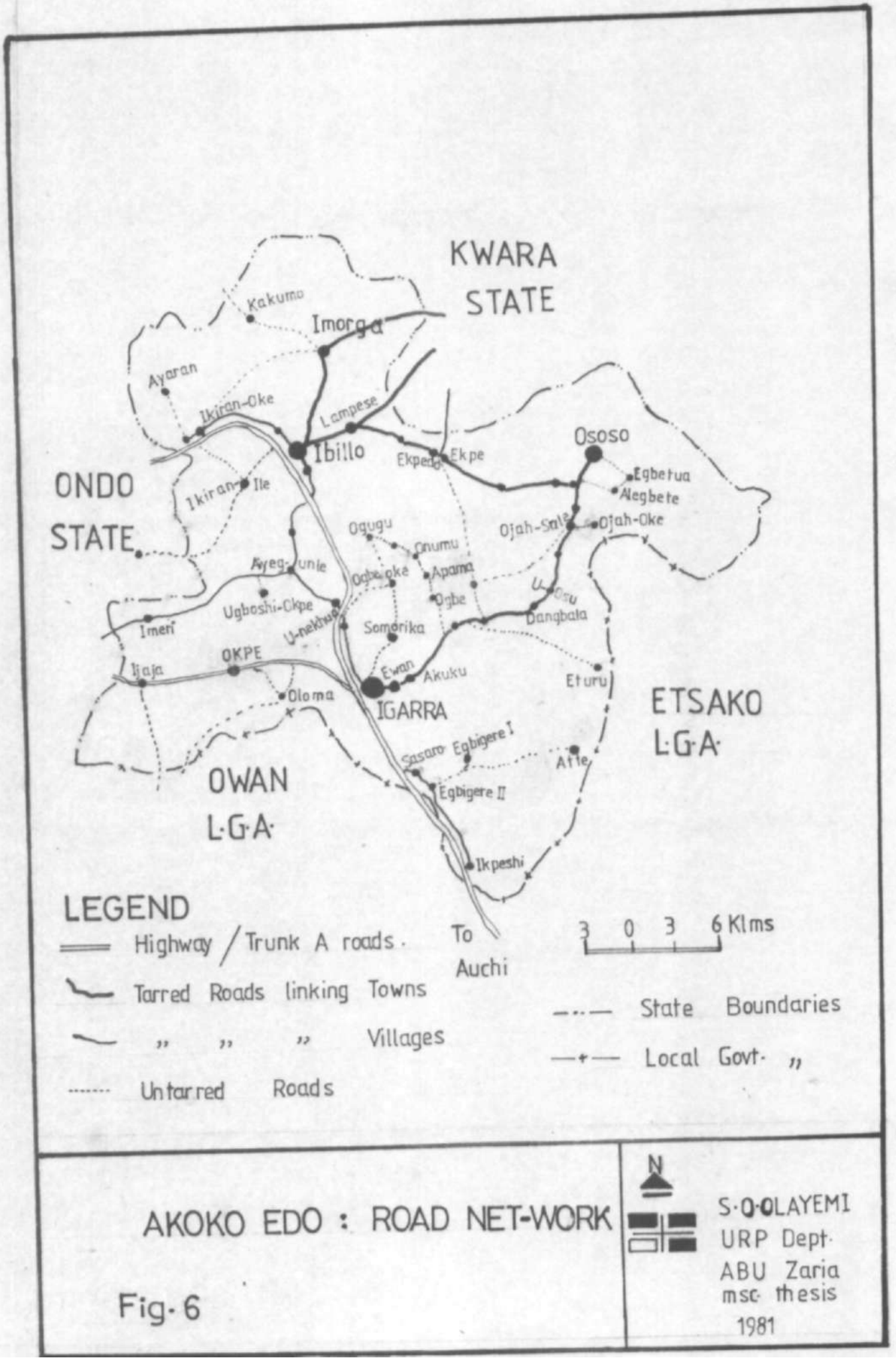
Most of the people of Akoko-Edo area claim Edo descent. The fact that the people of this area display conspicuously some of the features of the cultures and languages of the bordering ethnic groups such as the Edos, the Igbiras and Yorubas is a living evidence that this area is a melting pot of cultures into which different groups of migrants moved in the past and later settled down.

Today the are is divided into fifteen clans, the largest of which is Okpameri clan. Linguistically, the area is heterogenerous, with about fifteen different dialects spoken in the area. In general, most villages that fall within a clan speak the same dialect. Although the area is characterised by linguistic heterogeniety, the culture and traditions of the people are today fairly homogenous. While the vast majority of the people of the area are christians, the rest people are muslims (only a handful) and animists.

.60 POPULATION:

As at 1963, the total population of the area as put down by the 1963 census exercise was 112,186. The calculated population density of the area as at that time was 85 persons per square kilometre.

The 1980 population projection puts the total population of the area at 171,599 people. This



AKOKO EDO : ROAD NET-WORK

Fig. 6

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ABU Zaria
msc. thesis
1981

gives an average population density of 130 persons km.^{2}

Igarra, the local government headquarters has a projected population (1981) of 31,420. This is the largest town in the area and it is followed by Ososo and Billo with present population projection of 16,320 and 10,540 respectively. The remaining settlements are villages most of which have populations ranging between 2,000 and 4,000 . Each of the few scattered hamlets is less than 500 in population.

2.70 SETTLEMENT PATTERN AND TRANSPORTATION NETWORK:

Fig. 6, shows the road network and the distribution of settlements in the area. The visual impression one gains from the map is that the settlement patterns shows some degree of nucleation towards the centre. In analysing the settlement pattern for the area using the nearest neighbour technique and a host of others, Olorunfemi (1976) suggests this tendency towards" nucleation at the centre "[1] and explained in his analysis that the process of colonization, historical process of settlement diffusion, physiographic, social and economic factors underlie the present settlement pattern observed in the area. It is evident from the map that most of the villages are dispersed

1. Olorunfemi, J.A. (1976) : The Dynamics of recent changes in the Rural settlement pattern of Akoko-Edo division, Bendel State. Unpublished B.Sc. Thesis, Department of Geography, University of Ibadan P. 17

towards the periphery, a situation which strongly militates against the provision of facilities, utilities and services at reasonable economic cost.

2.72. TRANSPORTATION :

The road network in the study Area is divisible into the trunk A road/highway; tarred (minor roads) linking villages, and the untarred roads linking remote villages to the tarred roads or linking central villages with the isolated villages.

Trunk A roads: The new highway links this study area with the Benin-City via Auchi at one end and at the other with Ikare in Ondo State. The other arm of the road, essentially a regional road links Igarra (the headquarters of this area) after passing through Okpe and Ijaja villages Ondo state. This section of the road net-work poses a lot of accident hazards to villagers in the two villages through which it passes.

Tarred Roads: The tarred roads link a few villages and important towns within the study area. Most of these roads are presently in deplorable condition and need immediately re-surfacing

Untarred Roads: The untarred roads dominate the road net-work of the region. They link remote villages with each other and with the tarred roads. The fact that many of the villages occupy hilly sites and difficult terrains makes it difficult for the government to embark upon the extension of tarred roads to these settlements. This problem under-scores the need to re-organise or rationalise the settlement pattern inorder to facilitate the provision of infrastructures like good and well surfaced roads, electricity, and water, etc. to these places.

CHAPTER 3

3.00 PHYLOSOPHY OF MODEL VILLAGE PLANNING.

This chapter is addressed to a critical examination of the philosophical underpinnings of model village planning. It also cites examples of existing projects or on-going ones based on model village concepts. Two different conceptions of model villages exist as at now. viz, the model village concept based on an existing village (to be re-modelled) and the model village concept based on village re-grouping of scattered villages and hamlets.

3.10 MODEL VILLAGE CONCEPTION BASED ON RE-MODELLING OF SELECTED EXISTING VILLAGES.

Firstly, this concept recognises the need to improve living conditions and amenities in the rural areas. Secondly, it recognises the inadequate financial resources of the government to re-develop or re-model all existing villages and provide all basic facilities and amenities in them inorder to improve the physical outlook of the living or residential environment of the villagers and also their standard of living. Because the government is financially incapable of re-developing all existing villages, this concept proposes the selection of certain villages to be developed or

re-modelled into 'model villages' and provided with all needed facilities. The view is held here that the model village would serve as a source of innovation diffusion to the surrounding village communities who would want to imitate it by re-developing their own villages using ideas, guidelines and standard derived from the 'model village'. This view is strongly supported in many quarters. One of such supporters, Kulp,E.M. (1970) stated in his book the proposition "that if a model village were set up, neighbouring villages would imitate it and progress would radiate steadily outwards from the model village."[1] He suggested that the proposition has an inspiring ring of air tight logic and considers this model village idea as very attractive because according to him, "it does not require mass campaigns, effective coverage, and adequate inputs. Sufficient resources are concentrated on one village to show results, come what may".[2]

This approach has been used for the preparation of development plans for a number of villages in places like India. The celebrated development plan prepared for Chhatera village in India derives its ideas from this model village concept.

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1. Kulp, E.M. (1970) Rural Development Planning: A Systems Analysis and Working Methods. p 60

2. Op. cit. page 60.

This concept demonstrates an awareness of the vital problem of how to improve living conditions in villages as well as their physical out-look in the face of scarce or limited government financial resources.

This proposition is obviously sound as it is practically impossible on the part of the government to re-develop all existing villages and improve infrastructural provision in them.

The selective adoption of this concept to selected villages that show potentials for growth and development should, beside improving living conditions in the rural areas help towards reducing the rapid migration of people from the unattractive rural areas where opportunities or pros pects for creative self-expression are hardly bright.

3.20 MODEL VILLAGE CONCEPT BASED ON THE PRE-GROUPING OF SCATTERED VILLAGES.

The second idea of model village is based on the strategy of village re-grouping and this appears to be a more familiar concept in our environment.

Under this strategy, scattered villages and hamlets are re-grouped into larger units and planned entirely as new villageson new sites or integrated with existing larger centrally located villages. An important feature of this strategy is that a new layout or residential area is

involved, which is properly planned to reflect the socio-cultural values and institutional practices of the inhabitants ⌊relocated in the model village.

Model village which results from the adoption of the above strategy is currently attracting attention in Rural planning in Nigeria.

A good example of model village planning based on village re-grouping strategy is demonstrated by the on-going model village scheme for Yanchibi (the new village) in Bichi local government area of Kano state. An average of 4,000 to 5,000 people are to be housed in this village. Inhabitants of about four villages and a few hamlets are being re-grouped on the new site.

Locationally, the model village scheme helps to create more beneficial settlement patterns and thus facilitating a more functional and economic provision of infrastructural facilities for the people so re-grouped. The concepts of model village derives principally from the settlement structure existing in our rural areas.

Although the model village idea based on village re-grouping is conceptually appealing, its application is fraught with difficulties and problems, more so when people of varied socio-economic backgrounds are brought into the scheme. It is viewed with great suspicion by many local communities. However, whererever it is practicable to adopt it as a tool for achieving governments

goals of rural development and settlement policies, greater caution than hitherto imagined must be exercised as it is a sensitive and politically hot proposal.

CHAPTER 4

4.00 GENERAL ANALYSIS:

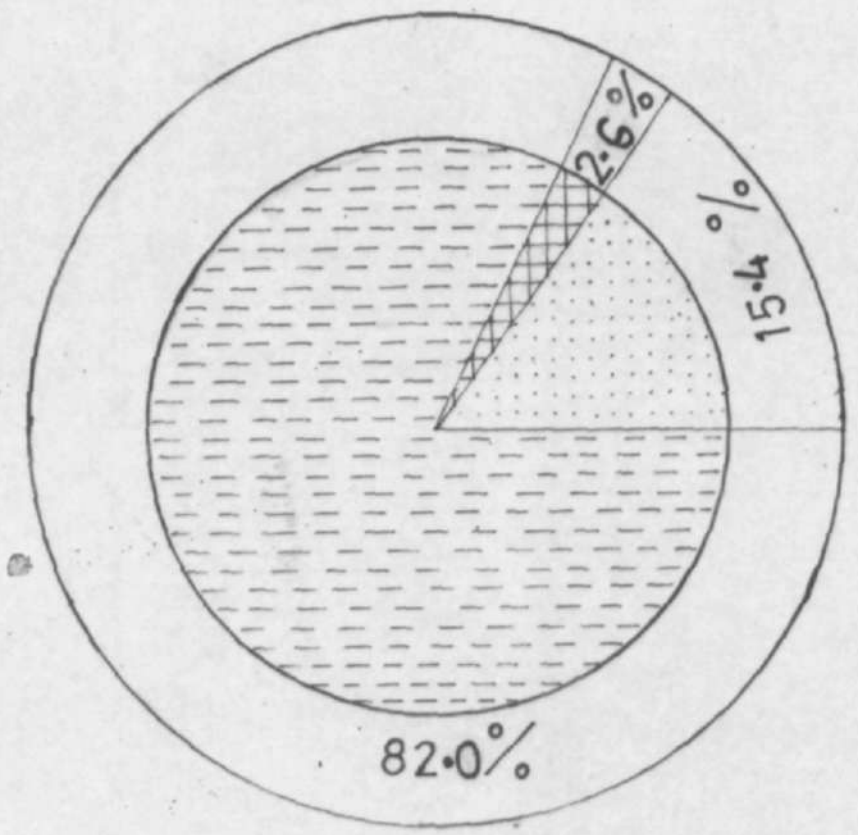
Chapter four addresses itself to an analysis of the socio-economic characteristics of people in the villages and a critical analysis of the structure and form of existing villages in the study area together with the forces underlying their structure. The results from these analyses will provide some of the ingredients for the proper development of concepts and standards for village planning and design in the area.

4.10 SOCIO-ECONOMIC CHARACTERISTICS:

4.11 OCCUPATIONAL STRUCTURE:

As observed from this study, majority of the people in the villages are farmers. This fact is attested to by the analysis of the occupational structure in Table 1 and figure 7. This overwhelming position or dominance of farming in the economic activities of the rural dwellers of Akoko-Edo is by no means surprising. Infact, this observation has helped to buttress the assertion made by Olatunbosun (1970) that over 80% of the rural dwellers of Nigeria are engaged in agriculture

Trading ranks next to farming in order of importance with 15.4% while the last category which consists of teachers, blacksmiths, drivers, etc.



FARMING

TRADING

OTHERS

Fig. 7

OCCUPATIONAL STRUCTURE IN AKOKO-EDO VILLAGES

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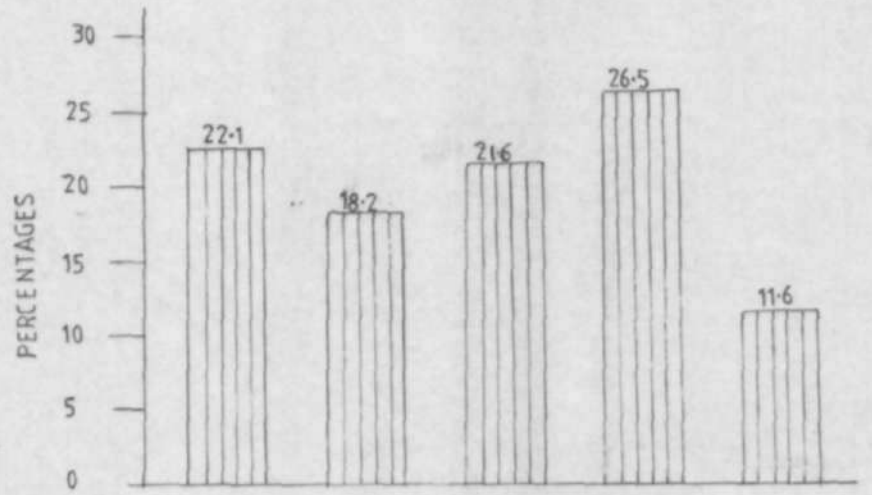
1980/81 Session

Constitute a very meagre proportion (only 2.6%) of the total working population in the villages. One of the interesting observations made in this study is that villages very close to the few urban centres or towns tend to have a higher proportion of traders than those located farther away from these towns. While the percentage of traders is as high as 20-26% for some of the villages close to the local government headquarter, Igarra (incidentally the largest town in the area), it is as low as 2.0% for villages in the interior or further away from it. This observation is due to urban influences on the villages closer to the towns.

TABLE 1: ANALYSIS OF OCCUPATIONS IN THE VILLAGES STUDIED

VILLAGES	OCCUPATIONS IN PERCENTAGES (%)		
	FARMING	TRADING	OTHERS
1	93.00	2.00	5.00
2.	84.60	12.40	3.00
3	84.20	10,50	5.30
4	91.90	6.10	2.00
5	81.90	12.00	6.10
6	96.40	3.40	0.20
7	83.00	15.00	2.00
8	86.00	10.40	3.60
9	71.00	26.60	2:40
10	84.60	15.40	0:10
11	82.50	14.00	3.50
12	76.20	21.50	2.30
13	72.50	26.40	1.10
14	77.80	20.00	2.20
15	81.80	17.10	1.10
16	81.30	14.00	4.70
17	77.90	19.27	2.83
18	73.40	26.20	0.40
19	70.40	19.20	0.40
20	81.20	16.40	2.40
AVERAGE	82.0%	15.4%	2.6%

Source: Authors field work, August, 1980



POPULATION BY AGE GROUP IN AKOKO-EDO VILLAGES

Fig·8

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M.Sc. thesis
1981

4.12 AGE DISTRIBUTION OF POPULATION:

Table 2 below and Fig 8 are analyses by age distribution of the total population of people sampled in the villages studied:

TABLE 2: AGE DISTRIBUTION OF POPULATION :

AGE GROUP	PERCENTAGE OF TOTAL
Pre-School Age (0-5 years)	22.10%
Primary-School Age (6-12 years)	18.20%
Secondary School and Post Secondary School Age (13-20 Years)	21.60%
Active labour force (21-60 years)	26.50%
Above 60 years	11.60%
	100.00%

Source: Author's field work, August, 1980.

From the table analysis, it is crystal clear that a higher proportion of economically dependent youths exist in the villages. For instance, 61.90% of the total population are under 20 years while the Old men and women who are above 60 years constitute only 11.6% of the population. These figures have their implications in terms of the type of facilities needed by the people in these rural areas. From these figures it is obvious that the provision of educational and health facilities should be accorded top priority in infrastructural provisions for the rural dwellers of the study area.

4.20 STRUCTURE AND FORM OF VILLAGES:

In general , "the physical structure of villages and the type of housing in them usually depends on cultural traits, the kind of agricutlture practised, the climate and other factors"[1]. This statement holds true for the study area like every other part of the developing world .

From the physical inspection and careful study of the villages in the study area, it is observed that these villages display a marked similarity in both form and structure. The existing physical structure of a typical village in the area is a product of many interacting forces. These forces are essentially politico-administrative, socio-cultural, economic and climatic like it is represented below by the diagram.

(Fig 9)

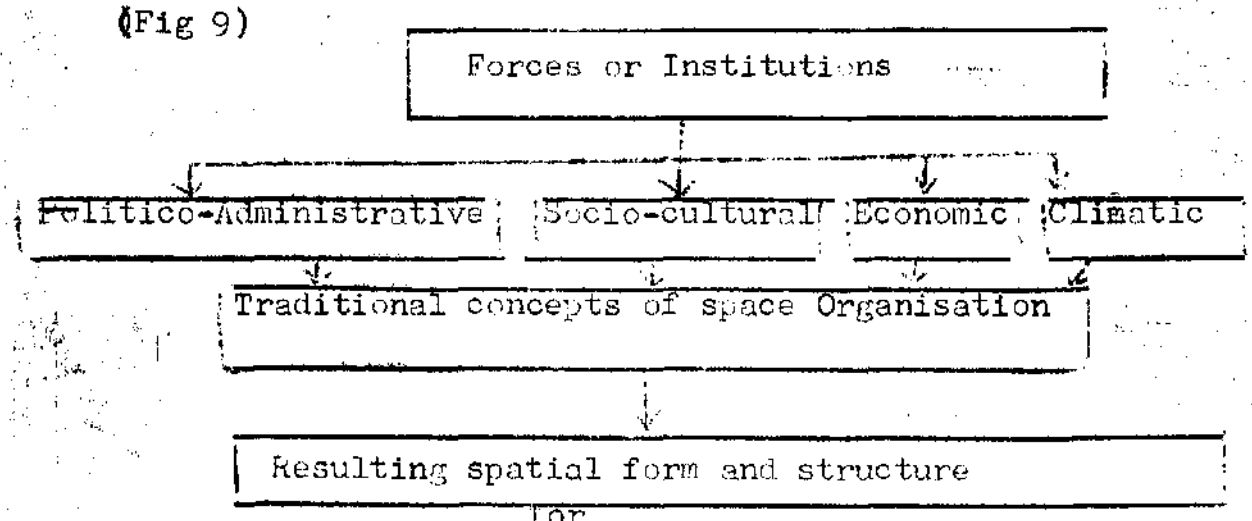


Fig 9: Forces responsible for the structure of villages in the study area.

1. United Nations. (1974): Human settlements: the Environmental challenge, New York p.24.

These forces and their physical manifestations need a more detailed examination.

4.21 FORCES AND RESULTING CONCEPTS OF SPACE ORGANISATION:

4.22 POLITICO-ADMINISTRATIVE FORCES:

One important attribute or characteristic of the people of the area is the fact that they practice the worship of traditional authorities. Each village has a traditional ruler Oba(in the larger villages) or a village head (chief in the smaller villages). He is the supreme political and traditional authority as well as the chief custodian of the rituals and customs of the people of the village. This worship of the traditional ruler is physically manifested in the carving out of a fairly larage area of land, which is built-up into a palace or a large residential compound for him in the village. In the larger villages existing in the study area, the palace is a centralising focus which occupies a prominent location in the village. Plate I Is the palace of the Oba of Okpe (the Olokpe of Okpe). It is achitecturally distinct and in addition, it is a tall and imposing structure which tends to dwarf all other surrounding or adjacent buildings. Relics of the fallen walls built-round the palace are visible in the photograph. The palace such as the one shown in the photograph constitutes the largest single residential unit or compound in the entire village.



PLATE 1:

THE PALACE OF THE OB.. OF OKPE.

Figure 10 is the sketch of the layout of this village (Okpe), showing the palace as a focal point and a dominant spatial set in the village. Locationally, this particular palace like in most of the larger villages occupies an elevated land from where many quarters (residential areas in the village) can be sited.

Another important element of the structure of each village which derives from the political organisation of the settlement is the division of residential areas into quarters. Each quarter is a large residential area made up of numerous compounds housing mostly members of extended families. A chief whose compound is smaller than that of the Oba or village head is usually at the head of each quarter and is administratively in charge of most of the affairs of that quarter and is responsible to the Oba, who is regarded as the overall father of the village community.

4.23 SOCIO-CULTURAL FORCES

Socio-cultural forces have a pervading influence in the life of the village community and have also given rise to the concept of the village square in each village. Traditionally, the village square is the large open space located in front of the palace or village head's compound (house). It represents

a symbolic structural identity of the villages in the study area. Feasts, festivals and all sorts of gatherings involving the generality of the village people are held here. The Village square, to all intents and purposes provides the villgers a unique opportunity of meeting occasionally and helps to reinforce their sense of belonging to the wider village community. The size of this open space is a function of the size of the settlement (village) in which it is located. Field observation reveals that in the larger villages, this central community open space is larger than what obtains in the smaller villages.

4.24 HIERARCHY OF OPEN SPACES :

Open spaces as they exist in the villages suggests that they have been heirarchically conceived and organised in that manner. Each open space has a functional significance and there appears to be a close relationship between the size of each open space and the size of the population using the space.

In a typical village in the area, the village square represents the largest open space (used by the totality of people in the village during ceremonies, etc). This is followed in the heirarchy by the community open space used by each quarter of the village for its own ceremonies

and festivals. After this second order comes the private open space enclosed as a courtyard in each individual compound type of housing i.e. the courtyard is enclosed between the main house (residential area of the house) and the kitchen appartment attached to the main house from behind .

Plates 2 and 3 Show the village square (first order in the heirarchy of open spaces) and typical example of a second order open space located in one of the quarters in a village in the study area respectively.

4.25 RESIDENTIAL COMPOUNDS:

A basic and important element in the structure of each village is the residential area of the village. The residential unit is the smallest unit from which the total village is built-up. Essentially , a residential unit is a compound type of housing in which an average of four to six families are living. Architecturally it differs slightly from the compound type of housing typical of Hausa' village and that typical of an Igbo village. To some extent it resembles the type typical of Yoruba villages and towns. Each residential compound type of housing in the area consists of two units: a residential apartment and a kitchen area used for cooking by the women-folk and also for storage of a variety of items such as food stuffs, and



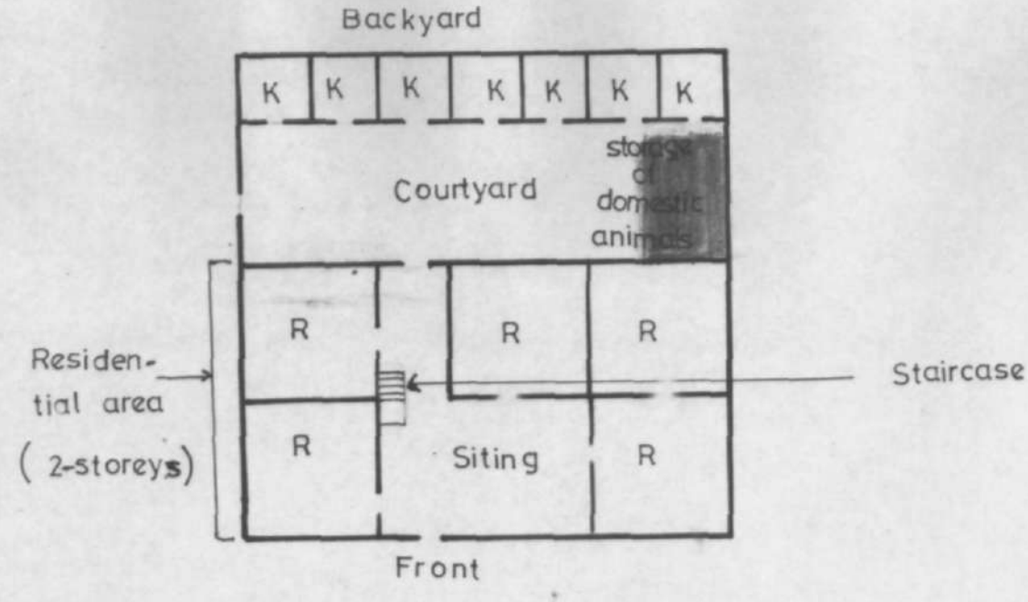
PLATE 2:

THIS PICTURE SHOWS THE VILLAGE SQUARE AT OKPE, ONE OF THE VILLAGES IN THE STUDY AREA. BEHIND IT ON THE RIGHT IS THE VILLAGE HALL WHILE AT THE BACKGROUND IS THE PALACE.

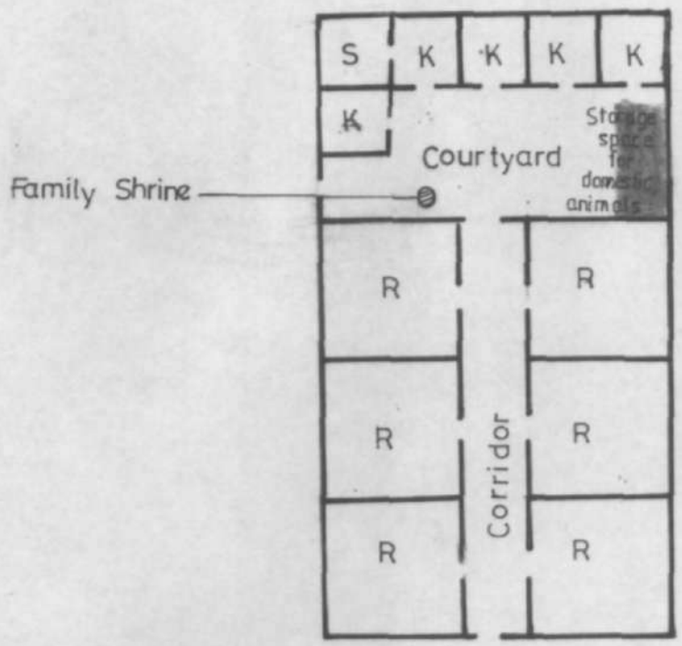


PLATE 3:

THIS IS A TYPICAL SECOND ORDER OPEN SPACE IN ONE OF THE VILLAGES. NOTE THE GATHERING TOGETHER OF PEOPLE FOR AN IMPORTANT ACTIVITY.



Type A



Type B

R ROOM
K KITCHEN
S STORE

TYPICAL PLANS OF TRADITIONAL COMPOUND HOUSING IN AKOKO-EDO VILLAGES

Fig-11

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domestic animals (ducks, doves, fowls, goats and rams). Figures 11A and 11B are examples of the plan of compound type of housing typical of the area.

The residential apartment is characteristically a two-storey structure built of mud and in some case it is plastered and painted, a matter which is largely a function of the economic power or financial capability of the head of the household or his elder children. Plate 4 is a typical example of a compound type of housing in the study area. Series of such houses are organised to form a quarter in each village. Although the courtyard is an important component of the compound type of housing in the villages, a great deal of the social life of the people takes place in the open. Whereas in a typical Hausa village the people by the design of their houses 'turn life to the inside' (a cultural feature of the muslim world), the people of the area tend to 'open their houses to outside.' The linear pattern of most villages and the orientation of most buildings to face the major roads and footpaths is striking in the structure of the villages.

.30 ECONOMIC FORCES

Each village in the area has a market, which is a place of exchange and therefore constitutes part of the economic base of the settlement. Economic forces are responsible for the development



PLATE 4:

THIS IS A TYPICAL TRADITIONAL COMPOUND TYPE OF HOUSING IN ONE OF THE VILLAGES IN THE STUDY AREA.

of markets in the villages. While the smaller villages have only one periodic market, the larger villages pride themselves of having two periodic markets each.

Another important observation made in the study is that in a few of the villages like Ikiran-Ile, Ekpedo, Ikiran-Oke, Ewan and Aiyegunle, the village head's compound is not necessarily the focal point but the market which is centrally located fig. 12 is a sketch of Ikiran-Ile which helps to throw more light on this issue. In such villages, economic forces or circumstances take priority over politico-administrative forces in determining the nucleas or focal point of the village. Nevertheless it must be specifically stated that in no way does this arrangement or spatially observed situation reduce the political status of the village head as the supreme traditional head and father of the village community.

4.40 Footpaths and Roads: Amaze or network of footpaths are easily discernible in each of the existing villages The predominance of footpaths in the circulatory system of each village (see figure 9) reflects the simple way of life and the activity pattern at the village setting. The narrow, often windy footpaths link residential areas with each other and with farms (both compound land farms and the distant farms).

4.50 VILLAGE SHRINES

Ancestral shrines which abound in each village in the area collectively form another important element in the structure of the village This is essentially a product of socio-cultural forces.

Some of these shrines are dedicated to the founders of some of the villages while the others are dedicated to the mythical ancestors of a particular section of the village. They are as a cultural norm erected on raised platforms made of rocks and stones with one or two trees in some cases standing near and above them to provide necessary shade over them. Sacrifices of goats, fowls, dogs, etc. Usually take place on the shrines. Many of the villagers religiously believe that they are protected from evil by some of the shrines.

4.60 CLIMATIC FORCES :

The role of climatic forces or influences in the form and structure of the villages may appear to be of marginal importance from the people's (villagers) point of view. The people's awareness of the hot humid conditions that characterise the climate of the area partly provides an explanation for the low density development and wide spacing of most houses and the use of big windows in the houses to facilitate the circulation of free air in and

and around the houses. The tendency among some people to build close to their next-of-kins or closest relations has led to the improper spacing of or the jumbling together of houses in certain parts of the villages. Perhaps this is why our settlements are regarded as largely organic in growth and development.

4.70 MAIN FINDINGS FROM THE STRUCTURE OF THE VILLAGES:

From the foregoing analysis of the structure of villages in the study area, it is clear that the people demonstrate a thorough understanding of the importance of the "centre" Two basic concepts reflect the people's understanding of the notion of the centre and these concepts, to all intents and purposes, underlie the structure of the existing villages. The concepts are: the concept of the palace as a focal point in most of the villages and the concept of the market as a focal point and a nodal centre in the rest villages. Fig. 13A are sketches drawn by the author to explain these two concepts. Among the important assets in the structure of these villages (as shown by the sketches) which, the author personally regard as constituting vital design resources for future planning in the area include:

(i) the use of a protective green belt of forests to surround all the villages. This green system helps to protect the integrity of these villages

in addition to enhancing their beauty and making the village environment to look more natural;

(ii) the simple pedestrian circulatory system consisting largely of footpaths, which links important activity areas with the residential quarters (areas). This is particular ideal for the village setting where most of the people are farmers and the issue of car ownership is relatively unimportant.

(iii) the strongly developed notion or concept of a centre around which most other activities are spatially organised for the efficient functioning of the village.

However, the issue of allowing regional roads to pass through the centre of some villages constitutes a grave danger or hazard to peaceful and orderly character of the village community life. This negative attribute or element in the structure of many villages in the area is most unwelcome and constitutes one of the features which a good design concept aiming at positive village planning in the area must strive to avoid or eliminate in the design process.

Although physical growth and development in these villages is largely organic, it cannot be accepted that the structure of the villages in the study area, like in most other rural areas of Nigeria negate or do not show some elements of rational planning. Space utilization in these villages is not half as haphazard

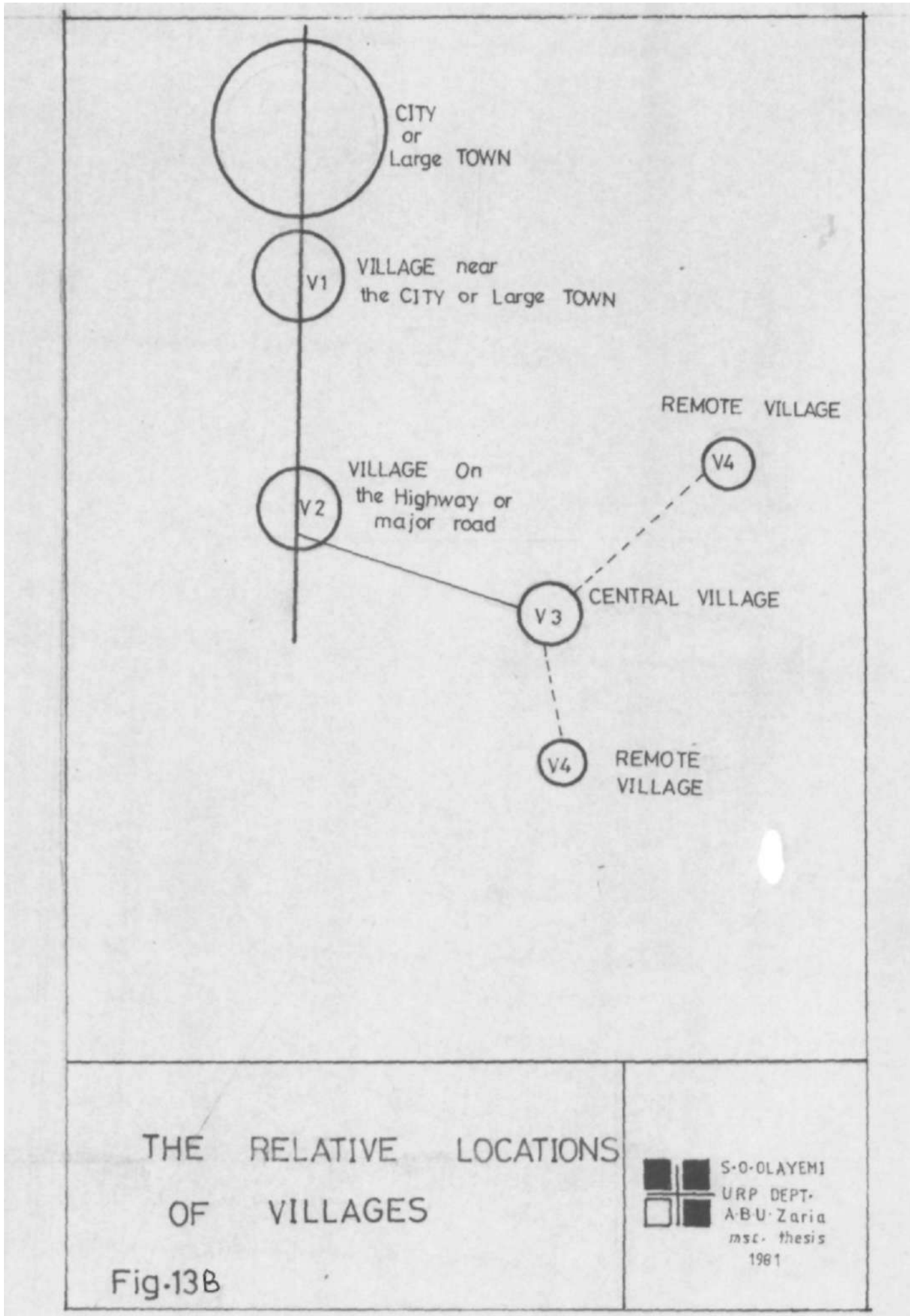
as many people may tend to believe from a general visual impression (of the existing villages) obtained by physical inspection of same.

The physical structure of the villages as a matter of fact suggests that space is perceived by the people of the area as a principal medium in which to express relationships of a social, political, cultural and economic nature.

In addition it is perhaps worthwhile or pertinent to mention that the activity patterns of the people of these villages are neither arbitrary nor attributable to the workings of mere chance. They are the product of their history and the inter-dependencies of many forces which collectively give rise to the socio-cultural and economic space that is visible to everyone in these villages. Essentially, they attempt to convey in a strong manner a sense of the principles governing the spatial organisation of the society at the micro level i.e. at the village level.

It is also useful to bear in mind that a good knowledge of the settlement pattern as well as of the physical structure of the existing villages coupled with an insight into the forces underlying this structure constitute part of the vital background information weeded for effective village planning and design in the area.

The next chapter shall attempt to utilise the assets or design resources already identified in this chapter in the formulation of appropriate design concepts for village planning at different levels in the study area.


CITY
or
Large TOWN
V1
VILLAGE near
the CITY or Large TOWN
REMOTE VILLAGE
V4
V2
VILLAGE On
the Highway or
major road
V3
CENTRAL VILLAGE
V4
REMOTE
VILLAGE
THE RELATIVE LOCATIONS
OF VILLAGES
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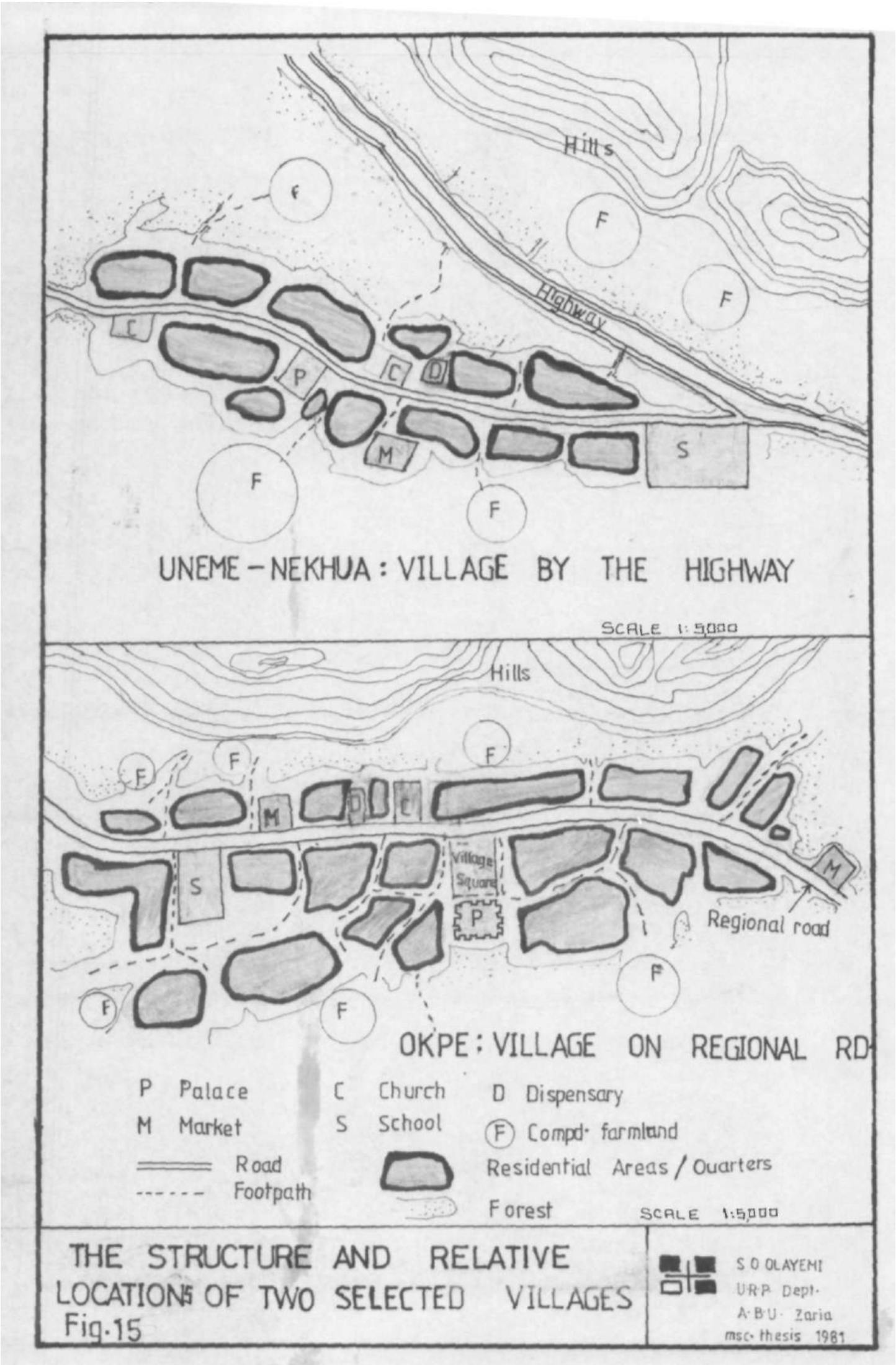
CHAPTER 5

5.00 DESIGN PROPOSALS :

The main concern of this chapter is with the utilisation of the assets of the traditional design characteristics of existing villages in the study area to formulate new design concepts for planning for villages at three different levels: Villages on regional roads or by the highway; villages on inter-village roads and those in the interrior that are relatively inaccessible or isolated (See Fig 13). The new design concepts to be evolved aim at improving the existing traditional design concepts (already identified in chapter four) to meet with the present needs of these villages at their various locations and also to guide the planning of new ones and the re-development of existing ones.

This chapter too, hopes to develop a schedule of requirements for the model village whose design will be based on one of the concepts to be proposed in this chapter-

Inorder to be able to realise satisfactorily the objectives of this chapter as outlined above, it is necessary to identify some villages at different levels in relation to the regional road network and to examine in some detail their characteristics in terms of location, internal structure, etc. This is necessary inorder to bring


Hills
F
F
F
Highway
C
P
C
D
M
S
F
F
UNEME – NEKHUA : VILLAGE BY THE HIGHWAY
SCALE 1:5000
Hills
F
F
F
M
P
C
S
Village Square
P
M
Regional road
F
F
F
OKPE : VILLAGE ON REGIONAL RD
P Palace
M Market
Road
Footpath
C Church
S School
D Dispensary
(F) Compd· farmland
Residential Areas / Quarters
Forest
SCALE 1:5000
THE STRUCTURE AND RELATIVE LOCATIONS OF TWO SELECTED VILLAGES
Fig.15
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some of their problems into clearer focus. Infact, the emerging design concepts in this chapter are aimed at elininating the short comings presented by the structure and location of these villages while at the same time utilising to an advantage the assets present in them.

5.10 REGIONAL LOCATION OF EXISTING VILLAGES:

The spatial pattern of the distribution of villages vis-a-vis the road-network (Fig. 14) reveals that the villages in the area exist at three levels; those directly on regional roads or by the highway(such as Okpe, Uneme- Nekhua, Ekpesa, etc), those on inter-village roads (such as Aiyegunle, Ewan, Akuku, Ekpedo, etc) and the ones to be regarded as isolated villages, such as Atteg Oloma, Ayaran, Ojah-Oke, etc.

5.11 VILLAGES ON REGIONAL ROADS AND BY THE HIGHWAY.

Uneme-Nekhua and Okpe, (Fig 15 are typical villages under this category. Incidentally both of them though far apart, are located close to the foot of a long continuous range of hills. They both demonstrate a linear pattern of settlement and the use of the palace as a focal point in their physical or internal structure.

The busy regional road passing through Okpe (Plate 1 which links a major town in the area with Ondo state is already a gate-way to Lagos for heavy vehicular traffic from different parts of the state



and occasionally from the eastern states. This hazardous thorough fare passing through the village centre is undesirable, more so as a number of accidents have been recorded on this road. A good design concept must seek to eliminate this major short coming .

The situation in the other village(Uneme-Nekhua is a bit better. It's main short coming is that the ill-located market is and needs a good and direct access link with the highway. In addition there is a tendency among the villagers to develop towards the highway and one's fear might be justified to suggest that housing development might overspill across the highway in the future if appropriate and effective guidelines in terms of planning principles, standards and village design do not exist for the area. This important aspect of the problem of this area will be tackled in the design proposal for villages on regional roads and highways.

5.12 VILLAGES ON INTER-VILLAGE ROADS:

Most of the villages in the study area fall into this category. Most of the roads though tarred are in a state of disrepair and need proper rehabilitation. A good number of these villages by virtue of their location in the regional communication net-work provide useful services for the remote villages located in the far interior.

Considering their role in the regional development of the area as important service centres (providing marketing functions, health, educational services, etc) for most of the villages in the interior, appropriate design concepts area necessary for either the redevelopment of these villages or the planning of new ones (in the process of rationalising the settlement pattern or deliberately creating model villages to serve as service centres).

Figure 14 shows the location of some of these villages in the study area. The problems of these villages include how to improve accessibility to such centres and make them more functional and attractive without necessarily destroying the people's traditional values.

5.13 VILLAGES IN THE INTERIOR (REMOTE VILLAGES)

The case of the remote villages and scattered hamlets present numerous planning problems Infact they constitute the 'headache' in the settlement pattern and regional provision of facilities, utilities and services by virtue of their scattered nature and the location of most them on hilly or relatively in accessible sites. The re-grouping of many of them(particularly the 'daughter settlement with their 'parent settlements'

existing on tarred inter-village roads is considered an appropriate strategy for improving the settlement pattern.

For these villages their greatest problem is that of accessibility. If they must remain in their present locations any design concept evolved for them must reflect this need along with the cultural values and institutional practises of these people.

Having focused on the problems of villages at the different levels it is now pertinent to evolve basic design concepts for these villages.

5.20 DESIGN PRINCIPLES AND CONCEPTS: VILLAGES ON REGIONAL ROADS/HIGHWAY

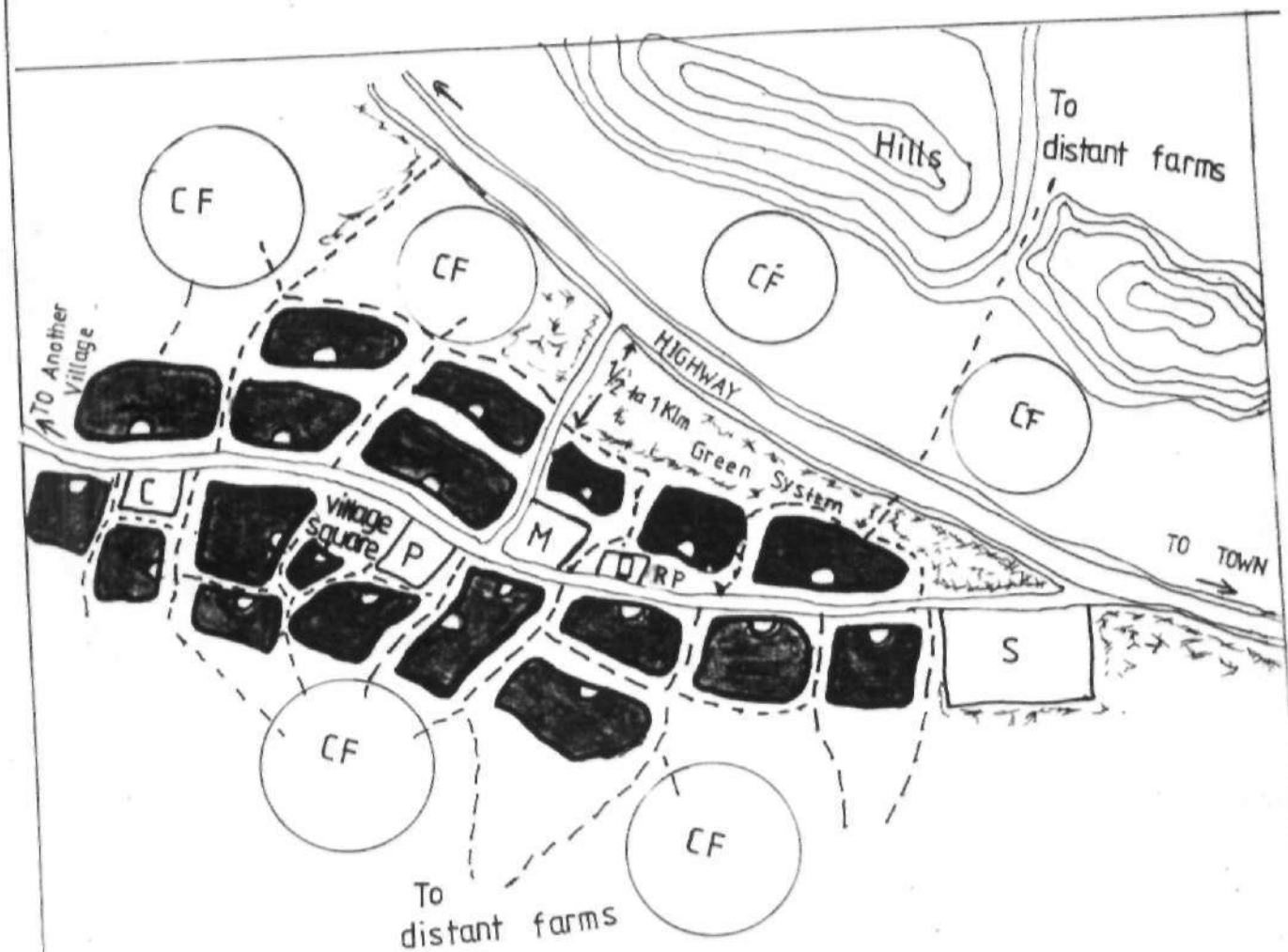
5.21 PRINCIPLES:

5.22 Relative distance from the Highway:

The major guiding principle here is the relative distance of the village from the highway. It is suggested that the villages should be located ½ to 1 km away from the highway for safety reasons and could be linked to it effectively by a good access road to facilitate interaction interms of trade, etc. between the people of the village so located and the surrounding villages and towns.

2. Creation of satisfactory spatial relationships between activity areas in accordance with the peoples socio-cultural values and institutional practises.

CONCEPT PROPOSAL [Alternative A]



P Palace / Village Head's Compd.
M Market
D Dispensary
C Church
S School
RP Relaxation Park

Residential Areas
Road
Footpath
CF Compound farms

DESIGN CONCEPT FOR VILLAGES ON REGIONAL ROADS, OR BY THE HIGHWAY

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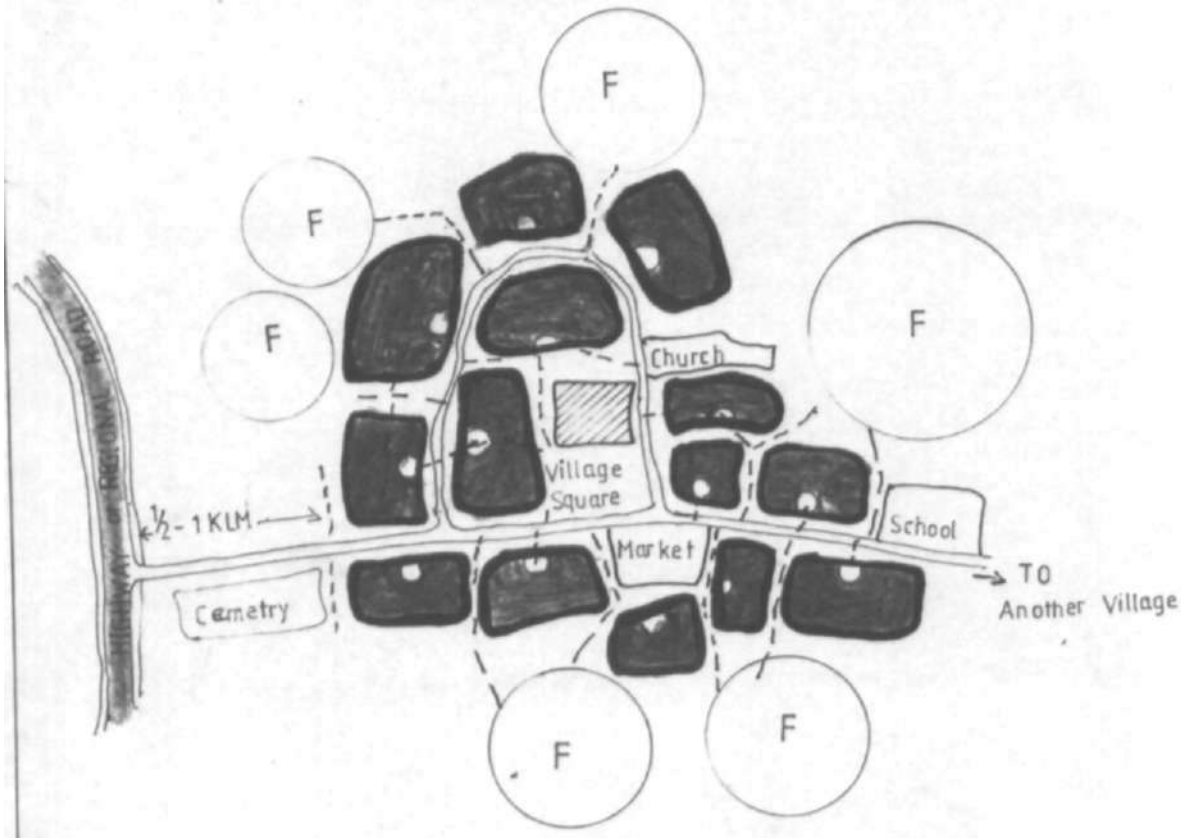
1981

Fig·16

CONCEPT PROPOSAL [Alternative B]



Palace or Village Head's Compd.

Road

Footpath

Residential Area or Quarter with Community Open space

F Farmland

DESIGN CONCEPT FOR VILLAGES ON REGIONAL ROADS, OR BY THE HIGHWAY

Fig·17

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5.23 DESIGN CONCEPTS :

Two alternative design concepts are evolved here as Alternatives A and B. (See figures 16 and 17) Both concepts emphasise the importance of the palace or village head's compound which is planned as a focal point.

Other main elements shared by both concepts include:

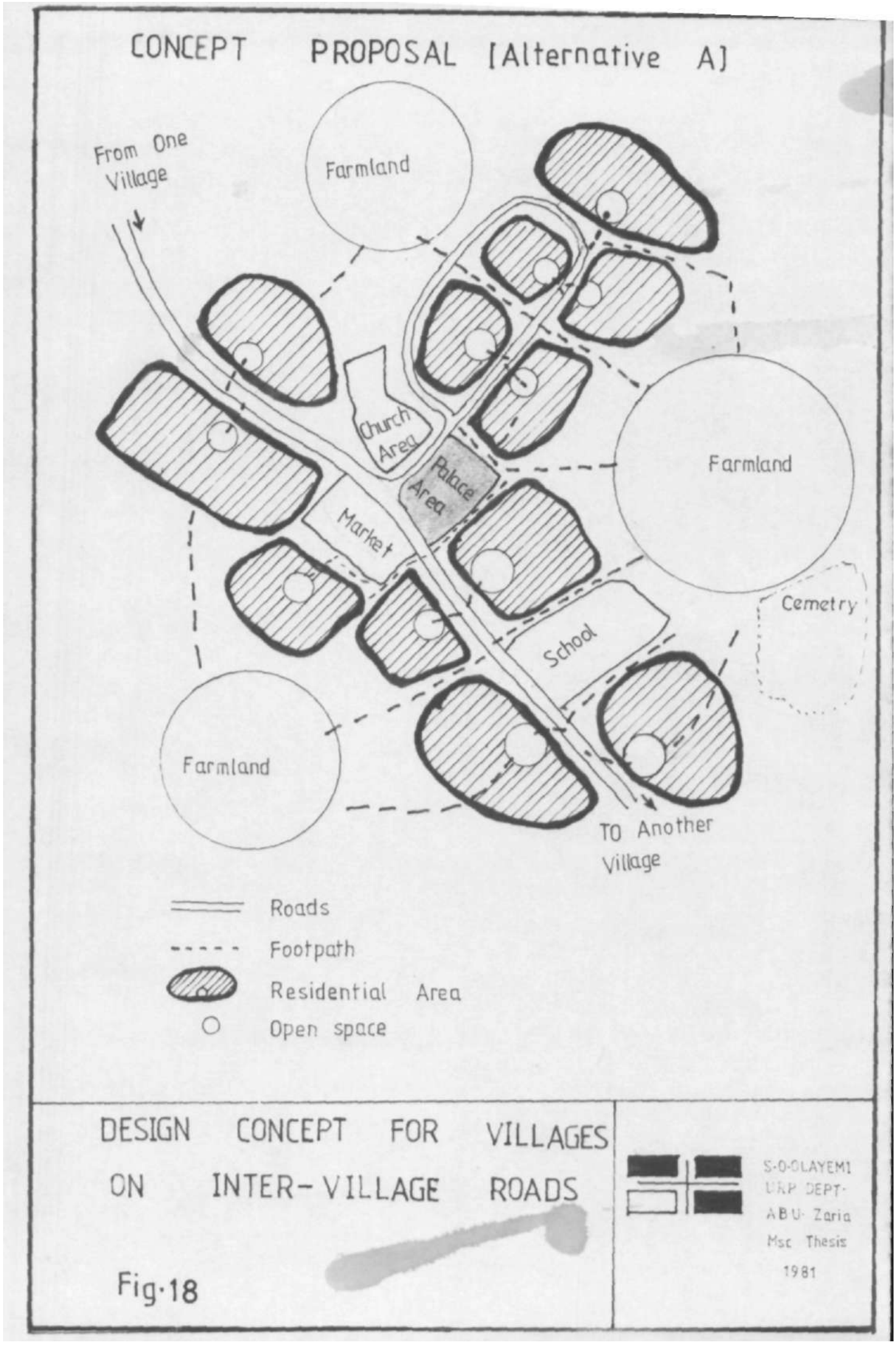
(i) the location of the market at a nodal point and opposite the palace. This is an important element of traditional design in the study area. Traditionally such markets as they exist in the area are periodic and attract traders from within and without the village. This is why a nodal location is necessary.

(ii) the use of a green belt of forests and farms as a buffer between the highway and the village. This belt must effectively check the spread of the settlement to the edge of the highway. This could be achieved by the use of a cemetery and cultivated compound farmlands.

(iii) Footpaths dominate the circulatory system and link all important acitivity areas with each other.

(iv) Residential areas are divided into quarters on extended family basis.

(v) Open spaces of a second order (in aaccordance with the existing traditional hierarchy of open spaces in the area) are provided. The village square constitutes the largest open space.


CONCEPT PROPOSAL [Alternative A]
From One Village
Farmland
Church Area
Palace Area
Market
Farmland
School
Cemetry
Farmland
TO Another Village
Roads
Footpath
Residential Area
Open space
DESIGN CONCEPT FOR VILLAGES ON INTER-VILLAGE ROADS
Fig·18
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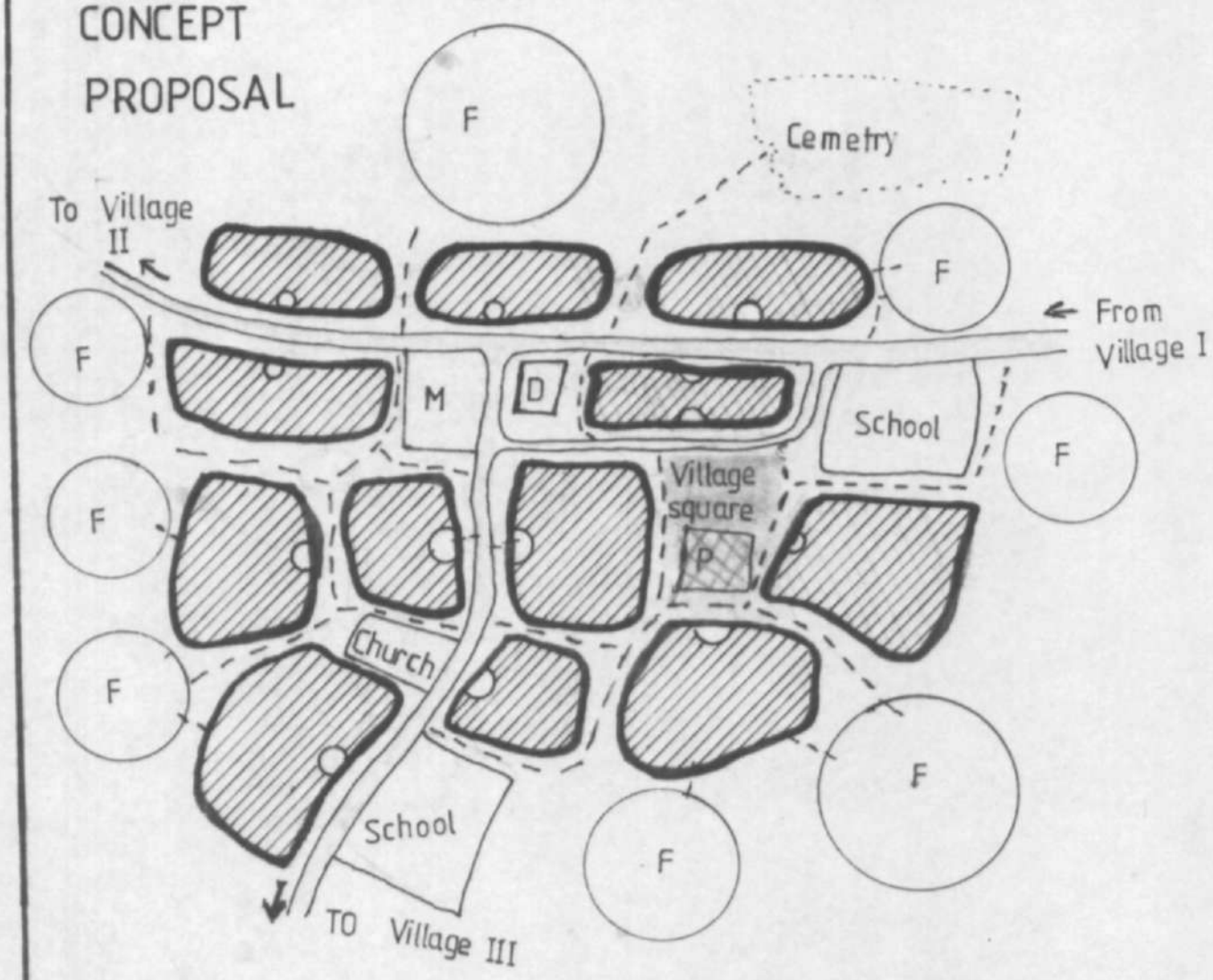
1981

CONCEPT PROPOSAL



P Palace or Village Head's Compd.

M Market

D Dispensary

F Farms

Residential Area With Open space

Road

Footpath

DESIGN CONCEPT FOR VILLAGES ON INTER-VILLAGE ROADS.
[Alt. B]

Fig.19

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1981

5.24 MAIN DIFFENCES BETWEEN THEM

It is recognised that all villages cannot have the same physical setting. Thus Alternative A is developed for a village by a hilly area (district) while the other relates to a village in a lowland area removed from the vicinity of hills. Alternative A in addition assumes a linear shaped pattern while B is circular shaped, with residential areas clustered around the focal point, the village head's compound/palace as the case may be. Future growth in both concepts should take place in all directions save towards the highway. This will ensure that central activity area (the village core) remains within easy walking and convenient distance from all residential areas.

The idea of having compound farms close to the residential areas as suggest by the design proposals (concepts) is highly consistent with existing practises in the study area.

5.30 DESIGN CONCEPTS FOR VILLAGES ON INTER-VILLAGE ROADS.

In the study area villages under this category are divisible into two sub-groups, viz those located between two villages and those located strategically between three villages. Two slightly different design concepts are developed to cater for their locational circumstances and requirements. Figs 18 and 19 refer to these two concepts. Both concepts recognise that the

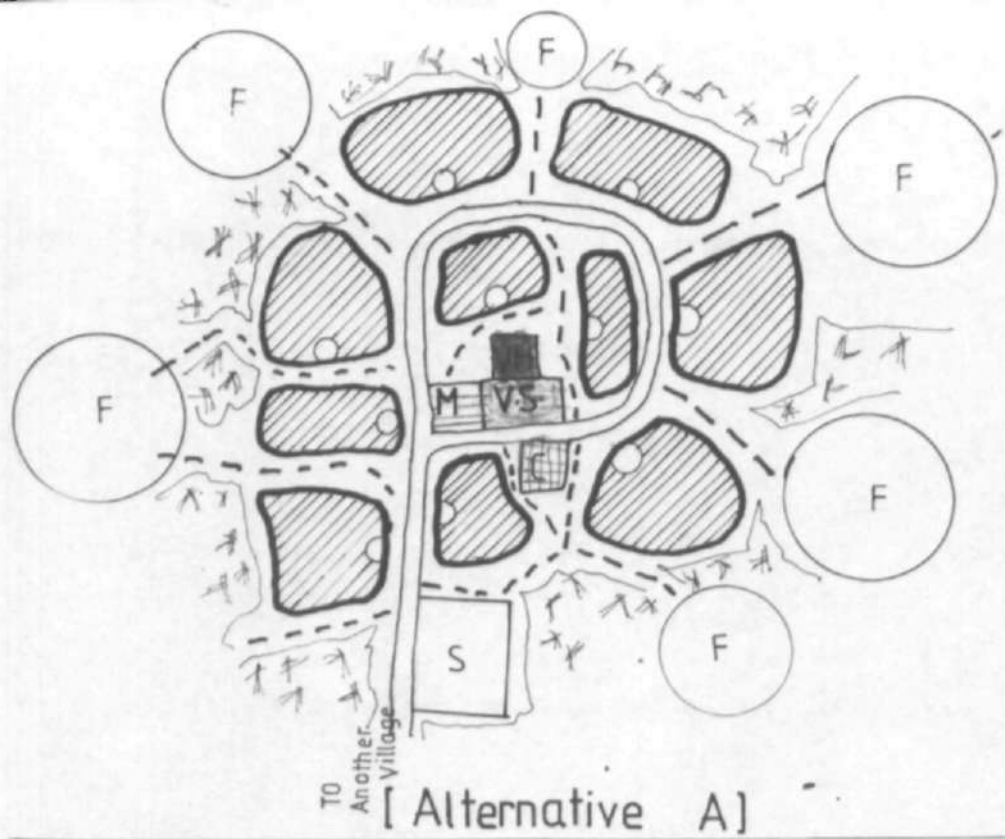
volume of traffic on inter-village roads is generally much lower than that experienced on regional roads or highways. The main differences between them are:

Alternative A is tree-like in shape and suggests the location of major activity areas and community facilities centrally in the village. The palace, market and the church are jointly planned as the village core. The palace is essentially the focal point in this conceptual arrangement of activity areas. The school is removed away from the market to avoid noise nuisance to the school whenever the market and school are both in session at the same time. The market is strategically located to facilitate inter-village trade.

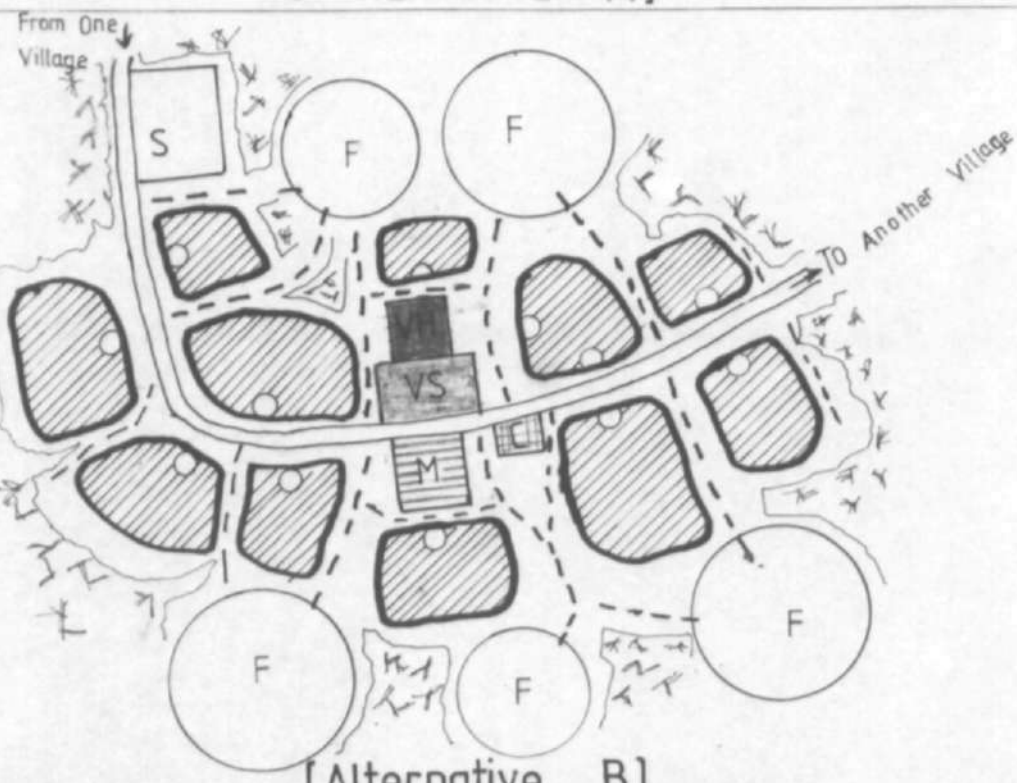
Alternative A is most ideal for villages located between two other villages. Infact most of the villages in the study area are under this situation.

Alternative B on the other hand disperses community facilities but utilises the market as a focal point and nodal centre to facilitate inter-village trade relations between three or more surrounding villages and itself. This pattern appears most suitable for centrally located villages, lying between a minimum of three other villages.

The village square and the palace in the latter alternative are removed from the way of direct inter-village traffic. They occupy a more quiet location



[Alternative A]



[Alternative B]

Residential Area
Farmland
Road
Footpath
Green system /forest

V·S· Village Square
V·H· Village Head's Compd·
S School
C Church
M Market

DESIGN CONCEPTS FOR REMOTE VILLAGES

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URP Dept·
A·B·U· Zaria
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1981

Fig·20

which is effectively linked to all parts of the village by footpaths and a road link it with the two main inter-village arteries. Residential areas are organised into quarters and surround the re rest activities areas (excluding the farms). Both concepts favour the peripheral location of schools which are generally within walking distance from the residential areas and may be used by pupils from the other villages. The schools, however, need to be fenced to check the movement of pupils into the roads. The high degree of residential concentration achieved by both agurs well for the provision of facilities like water, etc. Future growth of the village can proceed satisfactorily in all directions. The open spaces centrally located in each residential quarter serves as a socialization points, where gatherings, festivals, etc can take place. They constitute a second order in the hierarchy of open spaces, at the top of which is the village square (planned as part of the palace area in the first concept).

5.40 DESIGN CONCEPTS FOR VILLAGES IN THE INTERIOR (REMOTE VILLAGES)

The greatest problem of these villages is accessiblity to improve the quality of their location and thereby facilitate greater interaction between them and larger existing villages. With this basic idea in mind two concepts are proposed here, alternatives A and B (See figure 20).

The first alternative is a situation where the village is very remote with only one access road entering it. Instead of the road to be a 'dead end, road, it is planned such that it prvoides access to the 'village core' consisting of the market, the village head's compound with the village square and church.

The village head's compound acts as a focal point with the market adjacent it and conveniently located for the benefit of all users within and without the village.

Alternative B is where the remote village has links with two other villages far away from it. The village head's compound retains its focal point while the market and church are located opposite it for the convenience of everyone in the village. Footpaths provide direct link with village farms. The school which is peripherally located in both concepts can form the nucleus of possible village re-grouping with smaller hamlets or smaller scattered villages in the area.

5.50 THE MODEL VILLAGE

5.51 SCHEDULE OF REQUIREMENTS AND SPACE STANDARDS FOR THE MODEL VILLAGE.

The average population size of the model village is 3,000 - 4,000

This is based on the average population size of the larger villages in the study area.

TABLE 3:

Functions or Facilities	Standards Used	No proposed	Area in hectares
Education:			
1. Nursery School	1 per 1,500-2,000	-	-
2 Primary School	1 per 3,000-4,000	1	2.00
3 Secondary School	1 per 5,000-10,000	-	-
Commerce:			
1 Market	1 for a whole village	1	0.50
2 Parking space(loading and off-loading).	1 for the market	1.	0.25
Socio-cultural:			
1 Village Square	1 for whole village	1	1.00
2 Village hall and native court	1 per 3,500-5,000 1 per 3,500-5,000	1	0.25
3 Village head's compound/Palace	1 for the whole village	1	0.25
4 Church	1 for 2,500-4,000	1	1.00
5 (a) Cemetry	1 for the church	1	1.00
(b) "	1 for the rest village	1	4.00

The above table of schedule of requirements was prepared using the proposals contained in the regional development plan of Bendel State for various classes of communities in respect of the level of functions needed by each class of community (See p. 49)

Below is ~~a~~ extracted a table from the regional development plan (Bendel State).

Table 4: Hierarchy of Communities and their functions:

The functions given for each community are indicative of their scale .

Order of Community	Average Population Size	Functions: Education	Commerce	Business	Health Facilities	Transport & Communication	Recreational	Indu
Class I	80	-	-	-	-	-	small square	-
CLASS II	300-500	-	Corner stop	-	-	-	Play area for pre-school age	
Class III	1,500 to 2,500	Kindergaten elementary school	small local market with 5-10 shops	-	-	Bus stop Post Office box	small public garden	-
Class IV	6,000 to 10,000	1 Preparatory school 2 Secondary School	Small shoppin centre	Real estate office Bank branches	Dispensary	Taxi station small post Office	small park	Har cra inc

Source: Regional development Plan Bendel State (precisely table 76 in the report).

The model village designed Fig 21 is based on Alternative A concept proposed in this study for villages on inter-village roads. Most of the villages in the area fall within this category.

The main elements of the design are discussed under the following sub-headings:

5.52 CENTRAL GREEN SYSTEM AND OPEN SPACE HEIRARCHY:

A heirarchy of open spaces is firmly established, with the village square as the largest. The small central green system integrates the open spaces created in each quarter with the village square.

5.53 CIRCULATION PATTERN:

Characteristically the circulation pattern in existing villages is mostly pedestrian. This is why in this model much of the circulation is pedestrian, consisting of foot-paths (3 metres wide) linking residential areas with the few roads in the village and with the numerous open spaces. It is proposed that the inter-village road should be 8 metres wide while the other internal road should be about 6 metres.

5.54 RESIDENTIAL AREAS:

The residential areas are organised into twelve quarters in the layout-design with each housing members of extended families. With a population of about 3,000 to 4,000 for a typical model village based on this concept each quarter should be able to accommodate an average of 250 people and above. The flexibility of the design will eanble more quarters to be created should the need to reduce the population of each quarters arise such as

at implementation Stage.

The Traditional styles of the compound type of housing are intended for the model village. Plot sizes of 15 metres by 20 metres (type I), 15 metres by 30 metres (Type II) and 30 metres by 30 metres, type III for quarter heads or chiefs are provided in the layout-design. Plot sizes are carved out in such a way that large families (extended families) requiring more space can have two, three or even four plots. This helps to potray another aspect of the flexibility of the design.

.55 The Market and Parking Area:

In the design, the strategically located market is built up into stalls for use by the numerous traders who are expected to come from within and outside the village.

A parking area is attached to the market for use when the market is in session. The absence of such an important facility leads to the parking of vehicles on both sides of the road and thus creating problems of obstruction to other road users. This is one of the problems identified by the author in many of the villages in the study area.

.56 Other Facilities

Other important facilities like a school, a dispensary and a native court have been provided to cater for the needs of the village and surrounding smaller villages. A model village of this type is expected to provide these important functions for surrounding villages.

The use of a central green system, besides creating an additional recreational space for children will help to set back the front row buildings from the main roads.

5.57 Palace and Village Square:

Both are centrally located. The palace forms the model village's focal point. The village square in the design represents the largest open space in the village and trees are planted in it to provide the much needed shade in the area for spectators during ceremonies and traditional festivals. Besides, it offers a quiet and pleasant centrally located restful area for the entire village community.

5.58 Future Requirements:

The design takes into consideration the fact that future developments may take place in the village. Part of the vacant land surrounding the village could be harnessed for future housing development. This essentially emphasizes the flexibility of the design.

CHAPTER 6

6.10 PROPOSALS:

6.20 RATIONALISATION OF THE SETTLEMENT PATTERN OF THE STUDY AREA:

One of the key issues raised in the introductory part of this study centres on the problems associated with the existing settlement pattern of the study Area. Of great concern is the relative inaccessibility of many of the scattered Villages. Coupled with this is their low population which does not satisfy the treshold requirements for the provision of many essential services and facilities. In order to achieve a more progressive rural structure there is need for a rationalisation of the existing settlement pattern. It is therefore recommended in this study that Bendel State Government should make realistic efforts to rationalise the existing settlement pattern both in the area and in other parts of the state. Numerous strategies are available for achieving this. One of these is village-re-grouping which is proposed in the second National development plan(P. 221). Scattered or remote villages in the study area particularly those of the same clan and the 'daughter' and parent' settlements (resulting from historical process of settlement diffusion in the area) could be re-grouped and planned for using some of the design concepts proposed in this study. Such settlements include Egbigere I and Egbigere II, Ojah-Oke and Oja-Sale, Ojirami-Igbo and Ojirami-Petesi, Ayaran Oke and Ayaran-Sale etc. These proposals if successfully

the provision of socio-economic infrastructures to the affected villages. In planning for such schemes efforts must be made to avoid increased concentration of the settlements on major roads. Infact in the regional development plan of Bendel State it is recommended that the location of new settlements (as it is going on now in some parts of the state) along the highways should be avoided. This must be seen as an important guiding principle.

6.30 RE-DEVELOPMENT OF SELECTED VILLAGES

The state government should see it as a matter of policy to select some of the existing villages for re-development into model villages and provision of the much needed facilities. Most of the centrally located villages by virtue of their roles in the regional development of the area will be more favoured. Such centres provide market facilities and other central area functions for the remote villages.

The proposal by Bendel State Government to establish and develop model villages which will function as agro-service centres for the rural areas in each local government area is a welcome proposal. By their proposal the government hopes to establish new villages as well as up-grade some of the existing ones as agro-service centres.

It is suggested here that some of the existing centrally located villages in the study area should be re-developed with agro-service centre functions attached to them to help in promoting the agricultural and other rural

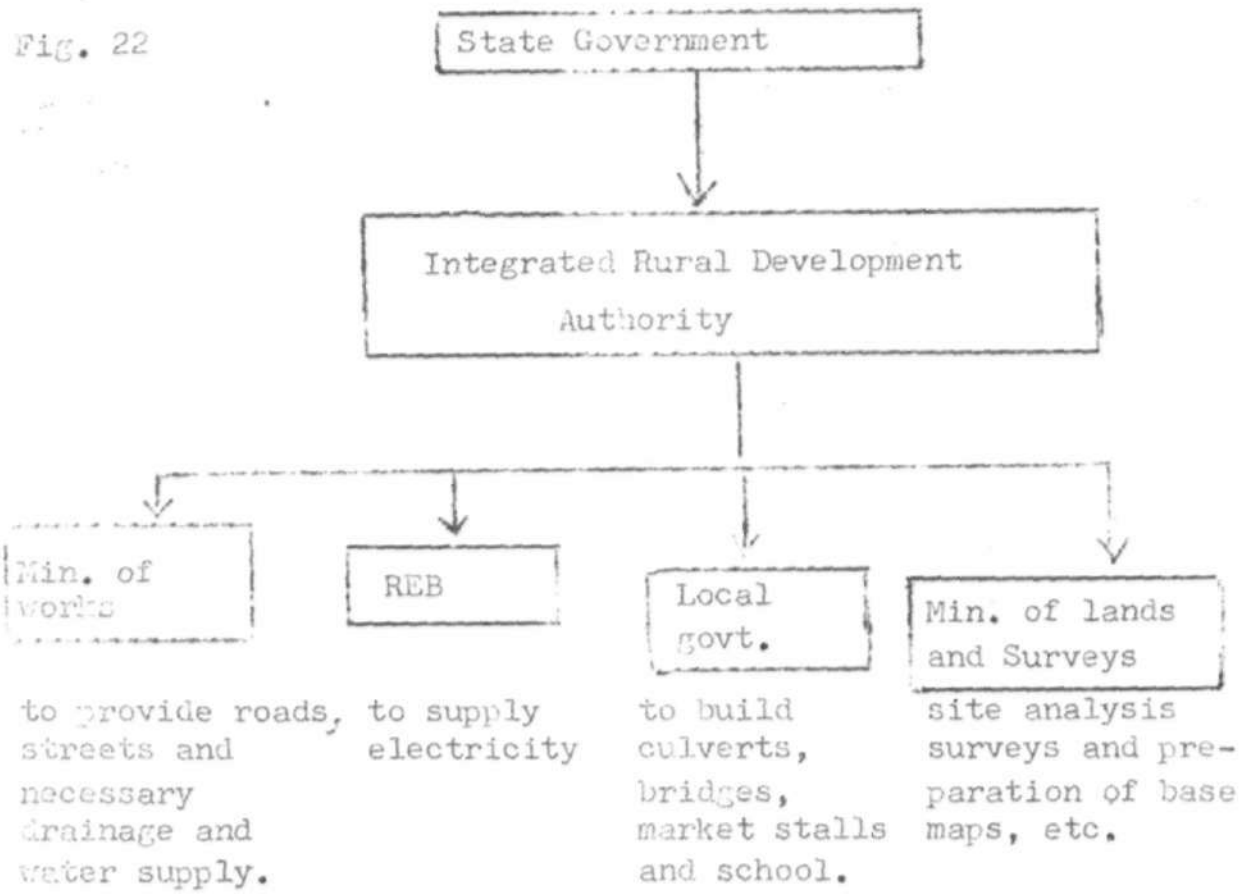
development policies of the state government. By mobilising local resources available in such villages considered for re-development and assisting them technically and financially, the villages can be transformed into model villages as suggested by Kulp, E.M. (1970) for neighbouring village communities to learn from, derive inspiration and impetus for the re-development or - 're-modelling' of their own villages, through community efforts with or without government assistance.

6.40 IMPLEMENTATION OF THE DESIGN (MODEL VILLAGE):

The opportunity for implementing this model proposed (with slight modifications if necessary) should be welcomed, The earliest opportunity for doing this, as it would appear, is presented by the state government's proposal to resttle the victims of the Ojirami-flood disaster that occured last year. Akuku which is one of the two affected villages (that has also agreed to the resttlement proposals) is in the study area and it is incidentally located on a hazardous inter-town traffic artery. The major proposed site for relocation of the victims is at about ½ km away from the present site of the village. Infact, the relocation of the entire village on a disaster free zone with the village planned on an in inter-village road should be most welcome

For the implementation of the scheme the chart below is proposed:

Fig. 22



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APPENDIX 1

SAMPLE QUESTIONNAIRE USED FOR PART OF THE FIELD WORK

SOCIO-ECONOMIC AND HOUSING SURVEY OF VILLAGES IN AKOKO-EDO LOCAL GOVERNMENT AREA. (BENDEL STATE, NIGERIA).

1. Name of Village .....2. Survey Area .....

3. Street/Quarter:..... 4. House No if any .....

PARTICULARS		MEMBERS OF THE HOUSE HOLD under 5 years	6-12	13-20	21-60	over 60
5. Age/Sex	Male					
	Female					
6. Marital Status	Single					
	Married					
7. Highest Educational Level	Prim. Sch.					
	Sec/Tech.					
	University					
	None					
8. Religion of Respondents	Christian					
	Muslim					
	None					
9. Main Occupation	Agric Farm					
	Trade and Commerce					
	Teaching					
	Govt. Employed(Civil-Servant)					
	Schooling					
	Household					
	Carpentry					
	Any others (Specify)					
	Uemployed					
10. Monthly Income and no of earning members of Household	Less than ₦10					
	B/W ₦10-₦50					
	B/W ₦51-₦100					
	B/W ₦101-₦200					
	Above ₦200					