


NIGERIA'S URBAN OPEN SPACES:
An Inquiry into their Evolution,
Planning and Landscape Qualities.

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I declare that this thesis is my own original and unaided work, except where mentioned and noted that I also declare that the work is not currently being submitted and has not been submitted for any other degree.



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ABSTRACT OF THESIS (Regulation 7.9)

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The current lack of concern for attractive and functional urban open spaces in Nigeria is incompatible with its rapid rate of urbanisation, its urban population with rising affluence and leisure pursuits and the need to stimulate pride in the built-landscape. Open space in Nigerian cities is today for the most part little more than no man's land, passed over as an apparently irrelevant detail in the country's physical planning and in its attempts to cope with ever faster economic and population growth. This thesis seeks to study the factors responsible for the present neglect of open spaces and lack of concern.

Three case studies of typical Nigerian towns namely, Ile-Ife, Kano and Jos, are presented to illustrate the magnitude of the present open space problems. Selected examples of private and public open spaces, which are either traditional or contemporary in origin, and including public squares, sacred gardens, town commons, courtyard gardens, the royal gardens, and the private gardens of the garden suburbia and urban parks⁶⁾ are also presented to illustrate their landscape character.

The three towns studied are shown to be grossly deficient in the necessary amount and range of different kinds of urban open spaces partly through inadequacies of planning and partly through inadequacies of local government. A new administrative structure for open space planning and maintenance, based on a modified version of the existing Open Space Development Commissions in Anambra and Imo State and the Parks and Gardens Unit of the University of Ife, is proposed; and the arguments in favour of open space provision are restated in the light of the evidence presented in the thesis.

To my mum, Victoria Ibiroike, and in her loving memory, who
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INTRODUCTION

Nigeria's urban open space problems are very much interrelated and are engendered by its high rate of urbanisation and the fast economic growth affecting rapid growth of cities. The current rate of urbanisation in Nigeria has many implications for every aspect of the people's life. Nigerian towns and cities are very different from what they were even twenty years ago; and the freedoms conferred by oil and the private motor vehicle have now so far outstripped the framework of local government that urban growth is regarded by many as completely out of control [1].

In the developed countries of the world concern for open spaces and a healthy attractive environment eventually caught up with fast growth and densely-built centres of the nineteenth century [2] and more recently, with rising affluence and leisure pursuits [3]. In Britain, the first urbanised industrial nation of the world, the urban public park movement slowly gathered momentum from the impetus of men like John Claudius Loudon. Eventually, the idea of the urban park movement spread to other European countries and to America where it found a new meaning as the 'park system', that is planning for open space as a balanced comprehensive and growing entity to match outward urban expansion. The 'park system' became the very spearhead of comprehensive land use planning [4] and since the end of the World

War II, it has progressively and logically extended into countryside planning.

Urbanisation has become a universal phenomenon and so are the social and land use problems associated with it as these are now to be found in most rapidly developing countries. Africa now has an annual population growth rate of almost 6 per cent which is double that of the world's total (2.9%) and is generally higher than the figures for Latin America (3.9%), East Asia (3.0%) and South Asia (4.3%) [5]. Comparing African nations, Nigeria is among those with the highest rate of urbanisation; nearly two-thirds of its population are today living in cities.

Serious open space deficiencies have already been noted for Lagos, Zaria, Ibadan, Ilorin, Bida, Ilesa, and Benin [6]. The effect of the current rate of urbanisation on recreational demand and other land use problems in Nigerian cities has been highlighted by Olagbegi in 1974. According to him, the high density residential developments and poor environmental quality, coupled with the confusion, frustration and resentments caused urban dwellers, have endorsed the importance of providing for recreational facilities. He concluded that a fuller understanding of present open space problems required a thorough study in the context of the physical socio-economic and cultural settings of the country [7]. So far, studies of Nigerian towns have given very little or no importance to these problems. In particular, none has focused on their landscape quality or provided any explanation of the factors underlying the general apathy towards open

space provision and management which prevail in most Nigerian towns.

THE AIMS OF THE STUDY

Therefore, this study has been undertaken with the following objectives:

i) to study selected Nigerian towns, their development and planning to appraise their landscape character and open space problems;

ii) to study the landscape design of a range of urban open spaces;

iii) to examine the relevance of urban open spaces in the Nigerian context and to make a case for their planning, design and management.

METHOD AND ORGANISATION OF STUDY

In studying the planning of towns the purpose is to explore the past for the insight it may provide into means of future improvement. The thesis divides into three parts; the first is a study of the landscape of towns (Part One) and the second a study of landscape design and the qualities of open spaces (Part Two); and each of them demands separate but related approaches as discussed below. Part Three of the thesis is devoted to arguing the case for open space provision with suggested planning, design and management approaches.

THE TOPOGRAPHICAL APPROACH TO STUDYING THE LANDSCAPE OF TOWNS

Hoskins in his book, The making of the English Landscape, identified three methods of studying the landscape of towns:

- i) the guide-book approach (that is to walk around towns with a guide-book in hand);
- ii) the purely historical approach, (that is to study towns from the historical records); and
- iii) the topographical approach (the art of reading the landscape of towns employing both an historical and a field approach but combined with close first hand critical observation. The strength of this approach being that it is better able to describe and analyse in detail why the city came to assume its present form).

From Hoskins's own comparison, the first two methods are not wholly adequate for studying the landscape of towns because at best they only provides a partial understanding of the landscape. According to him,

"we may study with our guide-books all the historic, individual features of a town and get to know them. But then if we are taking our time and stay to look at the town as a whole, walk around it in the cool and quite of the evening when the shops are shut, and the traffic has gone home, and we can really see its contours and its bone-structure - other questions began to arise in the mind, which even the best of the guide-books does not answer, why is the town just like this, this landscape, this plan, this size? Why do its streets run in this particular way that seems more logical to us? Why are there sometimes two market-places,

why are the ancient churches just where they are? - and so on. In short, what gives the town this particular shape? Here even the best of guide-books fails us. Indeed, there are no books at all to answer our questions" [8].

In addition, he added that the historians also fail us - for they have not studied the topography of towns because 'one looks in vain for any discussion of the physical growth, where their original core lay, of the direction and why, of what accounts for their street plan and their shape today [9].

The topographical approach is essentially a combination of an historical approach with field work observation. An interpretation of the perceived landscape requires an understanding of the history that lies behind the whole by studying the historical documents. Although the latter is no substitute for a field survey because the landscape to those who know how to read it aright is the richest historical record. There are discoveries to be made in it for which no written documents exist, which only detailed field work on foot can help provide. Hoskins also suggested that a chronological arrangement of facts is more appealing than if arranged by subject matters because it shows the logic behind landscape changes. The advantage of the topographical approach is simply that one gets a greater depth of pleasure out of knowing the anatomy of a town and why it has taken this particular form and not just as an inventory of its superficial features, however attractive they may be individually [10].

More recently the study of towns has attracted many including geographers, town planners, architects, archaeologists and landscape

architects and historians. Aston and Bond who studied the landscape of English towns, using the topographical approach, came to the conclusion that: all town historians are interested in charters; geographers in the theoretical models; architects and planners in facades; and archaeologists in holes [11]. They saw the topographical approach as the only one which combined all the elements of the different approaches. Existing studies of towns in Nigeria are very limited and with regard to the few undertaken by geographers [12], historians [13] and architects [14] the criticism of Aston and Bond equally applies to them, except Urquhart's study of Zaria. Although the latter concentrated wholly on the evolution of Zaria's landscape during the colonial period [14].

Meinig [15] has recently re-evaluated the topographical approach to the study of towns. He commented on two of its advantages. The first is that it allows landscape to be studied to be able to deal with the sequence of changes. This approach is particular about such questions as origin, sources of influence, characteristics of the society in the past, variations in space and time, succession, continuities and discontinuities. The second aspect is that the methodology allows landscape to be studied as localities or typologies of landscapes in the form of case studies. According to him, the concern for factual detail, the search for evidence visible in the fields and hedges, lanes and streets, buildings and clusters of buildings, set all the field work within a given scale. In this regard the study of the landscape of towns need not be the whole of

the local history but a local form of history, which should be written only from field experience.

Invariably the topographical approach has been the one employed for the study of Ile-Ife, Jos and Kano (Part One of the study). The three towns are of diverse origins, cultural backgrounds and belong to different historical periods and are able to provide information on the evolution of the landscape character of typical Nigerian towns.

THE METHOD FOR STUDYING PARKS

There are many aspects of open spaces that can be studied. Two which concern this study are the aesthetic qualities of open spaces, and particularly parks and their social significance (Parts Two and Three of the study). The former lies within the scope of the landscape architects and the other is very much the domain of planners and geographers [16]. To study the landscape qualities of parks Chadwick suggested that one needs to consider the standpoint of the designers by going back into history [17]. Studying Nigerian parks in this way is very much limited because of the lack of records. Only since the 19th century have written accounts of some of the traditional architecture of Nigeria been provided by curious western travellers and these are usually little more than passing comments. So the account of historic landscapes has been undertaken in this thesis without being able to shed light on their individual designers. Although it is generally accepted that the

royal courts employed the best of the builders, craftsmen, and masons to build their palaces and important buildings such as religious temples and the the gardens attached to them.

Because of the inadequacy of the existing recreational studies in Nigeria, a small questionnaire survey was carried out in Ile-Ife and Jos to demonstrate the values placed on open spaces as recreation resources. Details of this are provided in Appendix 1. Whatever is the aim of any recreational study it must be seen against a background of the aesthetic character of the open spaces used.

DEFINITION OF TERMS

As some of the terms used in this study are capable of different interpretation, they have been defined in the context for which it has been written. Such terms include urban, open spaces, landscape, gardens, aesthetics, recreation and planning.

Urban

The term urban is often used to describe settlements with a large population. It is therefore synonymous with towns and cities. But generally towns or cities defy a universally accepted definition which embraces all their attributes. Most of the existing definitions of the city tend to concentrate on one or two roles of the city such as administration, centre of economic activities or as centres of people. Since towns generally fulfill more than one

function, any definition concentrating on one of these is generally less than ideal. The smallest population figure for settlements referred to as towns varies among the nations of the world so much as to make a nonsense of any international comparison. For example the stipulated minimum may range from as low as 1,000 in Communist Russia to as high as 40,000 in South Korea; and to 2,000 in France, 3,500 in Britain and 5,000 in India. In Nigeria, settlements are regarded as towns if they have a population of 5,000 [18].

With towns lacking an agreed definition, Aston and Bond have suggested that towns are best defined in the cultural context and they should be accepted as towns so reckoned by the people [119]. Mabogunje [20] has commented on the problem and futility of applying the definitions of towns in the west to the Nigerian situation. He suggested that although Nigerian towns may fail to approximate to towns in the western sense, they are so regarded in their cultural contexts. Indeed, the highly urbanised tribal groups of Nigeria have words to describe their settlements. The Hausa of northern Nigeria differentiate between their settlements: gari (singl.) or garuruwa (pl.) refers to towns; birni or birane (pl.) refers to walled cities; and unguwar is used to describe villages [21]. Similarly, the Yoruba also use ilu to describe towns and both abule and ileto to refer to villages and aba to refer to farmsteads or hamlets. The Igbo use enugu to describe their villages. Most Igbo villages are suffixed by enugu. In addition to this usage as previously mentioned the Nigerian government has adopted a minimum population of

5,000 people to refer to towns.

Instead of defining towns, Korn [22] thought it best to regard them as having an individual character due to distinctive topographical settings and social and economic forces. Each city in short has a personality. Therefore, in this study, the term urban is used in a very general sense to describe a pattern of settlement at all levels without bias towards the criteria of population and it therefore includes all settlements whether small towns or large cities. In particular, it has been used to refer to all human settlements where people make demands needing open space.

Open space

Open has a generalised as well as a particularised meaning. The Oxford dictionary defines open space in both senses: as the linear distance or interval between two or more points or objects; and, as a certain stretch, extent or area of ground, surface, sky, a small portion of space, respectively.

Open space has been defined for land use planning purposes. The earliest of such definitions can be traced to the British 1887 Open Space Act. In the latter open space has been defined as:

"any land whether inclosed or unclosed, which is not built on, and which is laid out as a garden or is used for purposes of recreation, or lies waste and unoccupied but shall not include any unclosed land which has not a public road or footpath....(s.1 of the 1887 Act)"

The Act also recognises communal open spaces such as church yards and cemeteries, although the rights of local authorities are limited to easement and management of the grounds as amenity areas. There are two aspects of this definition: the first is that it recognised only public or communal open spaces; the second is that it discriminated against buildings within open spaces. Both defects were remedied in subsequent legislation. The 1881 Open Space Act modified the earlier definition by repealing the phrase 'but shall not include any inclosed land which has not a public open road or footpath completely round it'. Similarly, in 1890 the definition of open space was amended to cover land containing buildings occupying up to one-twentieth part of its area.

More recently the planning definition of open spaces has included any land laid out as a public garden or used for purposes of public recreation of land such as contained in the New Towns Act 1965, ss 53, 54). The open spaces recognised by the Act include public sports grounds and children's playgrounds, but exclude private playing fields, allotments, school playing fields and roadside verges and incidental open spaces. The exclusion of school playing fields from the list of public open spaces has been one of the major criticisms of British open space policy and a defect of land use planning in Britain. Some British cities like Glasgow have adopted an open space policy of allowing the general public to use school playing fields to remedy the deficiency [23].

The American definition, in contrast to the British, describes

open space in relation to its potential contribution to outdoor recreation, nature conservation and amenity, as follows:

"undeveloped or predominantly undeveloped land in urban area which has value for (a) park and recreational purposes, (b) conservation of land and other natural resources or (c) historic or scenic beauty or great natural scenic beauty or (2) whose existing openness, natural condition, or present state of use, if retained would enhance the present or potential value of abutting or surrounding urban development, or would maintain or enhance the conservation of natural or scenic resources." [24]

Nigeria's maiden Town and Country Planning Act of 1946, excluded open spaces among the terms defined by it. However, the Act recognises the need to provide for open spaces including private yards, burial grounds, preservation of natural woodlands, trees, shrubs and flowering plants (Ch. 1). The Anambra Open Space Edict 1974 provides the first statutory definition of open space for land use planning purposes in Nigeria. But the Act recognises only public open spaces such as parks, pleasure grounds, botanical gardens, village or public squares and places of natural beauty and land so designated in the planning schemes (Ch. 9).

For planning purposes all open spaces in urban area should be regarded as having important roles to play either for outdoor recreation, aesthetics, landscape conservation or providing for amenity. Therefore, only a broad definition and management approach to open space will suffice. It includes natural open spaces such as wilderness, water areas, valleys hills, mountains, lakes, oceans and bays. It also includes man-made open spaces such as parks, gardens,

recreation grounds, golf courses, race courses, polo grounds school playing fields, roads, footpaths; in short land areas not built upon regardless of their size, but of importance to attaining attractive and enjoyable landscape.

However, for management purposes it is better to classify open spaces as either public or private. If an open space is not owned by any one it is difficult to manage. The former refers to open spaces accessible to the public and managed by a public authority. The latter also refers to open spaces in which public access has been restricted, or not allowed.

Garden

While a garden is necessarily an open space, the reverse is by no means true. This is because the term garden has adopted a special meaning in landscape design. In the more generalised and ordinary sense, a garden is a piece of ground devoted to the cultivation of flowers, fruits and vegetables. In the plural sense, that is gardens, it tends to mean a place of public resort (Oxford Dictionary 1938) [25]. Today among landscape architects, gardens are much more than spaces for the cultivation of plants; they are vehicles for ideas, and often relate to forms of paradise. The distinction between the ordinary usage of garden and garden in the second sense has been well brought out by Crowe. According to her,

"A garden can give two separate pleasures - the pleasure of the growing plant with its individual beauty, and the

pleasure of the garden as a whole, as a world to live in and to look at. To create and enjoy the first, a knowledge of horticulture and sensitivity to the colour and form of plants suffices. But to make a garden which can give pleasure entails the same understanding of the laws of harmony and composition that go to the making of any work of art. For garden design is an art and just as knowledge of painting and music is necessary not only for performance, but even for full enjoyment, so some understanding of landscape design not only opens up the possibilities in one's own garden, but adds to the pleasure of seeing others" [26].

In this study garden has been used in its two senses because examples of the landscape described belong to these two categories. However the differences in meaning in the use of the word are made explicit in context.

Park

Parks and gardens are synonymous terms, but park usually connotes a garden of a much larger size. Since the 19th century park movement in Britain, the meaning of park has changed from that of an enclosure attached to the house of a gentleman to mean any land laid out as space essential for public use. In both senses the park is an area that is well planted, modelled and embellished by a landscape designer.

Landscape

Landscape has both firm and elusive meanings. It is considered by some [27] to have its origin in the Anglo-Saxon word landscipe meaning a unit land area or domain that can be regarded as a natural

entity, such as the land of a tribe or of a feudal lord. By the 16th century, and, apparently through Dutch influence the term landscip or landscape was being used to refer to prospects of scenery. The German landschaft which means territorial division usually, of rural environment and of visual quality, combines both meanings [28].

Manning [29] sought to bring out the different shades of meanings which landscape can adopt today. He asked,

"Does the word landscape mean the countryside rather than the town or can it include every part of our surroundings? Is it something natural or man-made?..... is scenery thought of mainly in terms of its visual qualities?"

He emphasized that scenic implies the possession of visual appeal, and the colloquial use of landscape as a verb is roughly synonymous with to beautify, which may exist only in the eye of the beholder. Is it therefore a subjective association of ideas or does it exist as an objective fact, independent of observer and intellectual judgement? Faced with such a complex problem, Manning suggested that 'only a two-part or even a three-part definition can convey adequately what is meant by landscape. He distinguished between the natural and man-made landscape. The natural landscape is the total surface of the earth that can be grouped broadly under the development of topography, which is studied through the science of geomorphology and the development of vegetation (soil science and plant ecology). The humanised landscape results from the natural processes interrupted, modified or replaced by human activities, such as housing, industry, transportation, mining, and recreation. In all embracing meaning the

landscape can be regarded as the man-land complex in place and time suggesting spatial interactions, and indicative of visual features that we can select for the study of human settlements set within the mosaics of the natural environments such as the hill, valleys and vegetation. Moreover, the landscape can be regarded as the index of man's relationship with the natural environment and the evidence of his power to mould the resources either rightly or wrongly for his use.

All of these seem unnecessarily complicated. Landscape is essentially a cultural concept, a sensory response, perceived, learned and recalled by an individual as he places himself in his surroundings; it is a response overlain by time, not only within the lifetime of the individual but the lifetime of his culture.

Landscape district

Landscape district is used in this thesis to refer to a more or less self contained area bounded by distinctive visual boundaries, or an ecological natural area. Landscape element denotes a component part of a wider landscape for example a lake, playground or building.

Landscape quality

The term landscape quality or landscape character is a subjective value judgement of quality or value. Generally the degree of quality can only be understood in relative terms. For example, what

is necessarily described in this study as attractive in the Nigerian context may not evoke the same feelings in the West where landscape design has very different standards. But such landscapes as are described in this thesis are of relatively higher quality when compared with the surrounding squalor. The term aesthetics has been occasionally used to describe spaces or buildings of beauty, that is having aesthetic value.

Amenity

Amenity in terms of landscape means pleasant places most often open spaces in the built-landscape. It expresses social and aesthetic values which attach to the environment.

Recreation

Recreation is a period of gainful and purposeful activity undertaken during one's leisure time. Leisure time has been defined as the time available for the individual after the requirements of sleeping, eating, earning one's living and meeting household duties. Recreation is very much related to open space planning in that it makes demands on the use of land most of which are often provided for in the different types of open spaces.

Planning

Planning has been used in this study to refer to the planning, design and management of land uses in urban areas.

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**PART ONE: EVOLUTION AND
LANDSCAPE CHARACTER OF
NIGERIA'S URBAN CENTRES**

CHAPTER 1

BACKGROUND TO STUDY

It has been said that the perceived landscape of either a country, town or village is the result of a long period of evolution, being a balance of the underlying relationship between the natural environment and its inhabitants [1]; and which in Nigeria has formed wide and various expression. Therefore, in order to interpret the perceived landscapes of Nigerian urban areas it is necessary examine very briefly the interacting factors.

HISTORICAL AND ECONOMIC BACKGROUNDS

The history of Nigeria as a nation effectively dates from 1914 when it became a composite British colony with the amalgamation of the then Northern and Southern Protectorates. Nigeria became an independent State in 1960 and has since adopted a federal system of government similar to the American.

Since independence, Nigeria has witnessed many economic and political changes which have had important consequences for urban growth and planning. The most noticeable political change has been the creation of many States. Following the outbreak of the 1967 civil war, the four main regions of Nigeria were subdivided into 12 states;

and since 1976 these have been reformed into 19 states namely Anambra, Bauchi, Bendel, Benue, Borno, Cross River, Gongola, Kaduna, Kano, Kwara, Imo, Lagos, Niger, Ogun, Ondo, Oyo, Plateau and Sokoto. These states now serve as geographical and administrative regions for economic and land use planning purposes (Fig 1.1).

Before the era of colonisation, the economy of the people was dependent on agriculture, trade and craft industries. Both agriculture and trade became more prosperous under the colonial rule with the provision of services such as roads and rail lines. The economy also became diversified with the establishment of new mines and new manufacturing industries. The oil boom since the 1970's has given a necessary impetus to faster economic and industrial growth. This policy of economic expansion coupled with other decisions such as the establishment of new State capital cities and universities has resulted in a faster growth in population and increase in size and number of major cities. The most pressing land use problems of these rapidly expanding cities are overcrowding, housing shortages, open space deficiency and lack of amenities.

CULTURAL AND PHYSICAL ENVIRONMENTS

The Land and People

Nigeria is situated in the northern tropics (between latitudes 4°N and 14°N and longitudes 2°E and 15°E). The boundaries of Nigeria are defined inland by the Republic of Benin to the west,

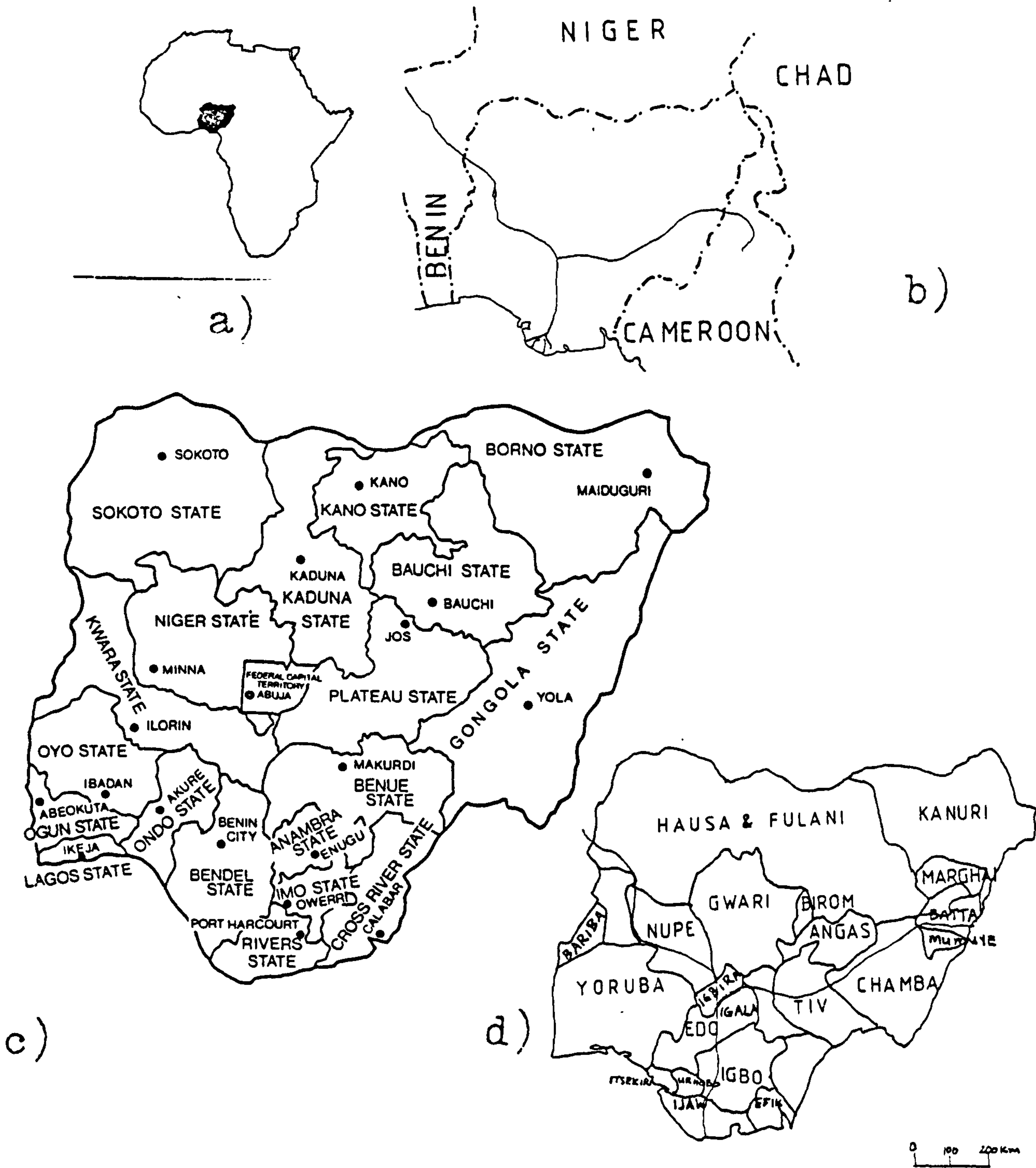


FIGURE 1.1: NIGERIA: POLITICAL BOUNDARIES AND PEOPLE

abc) Administrative and Political boundaries. d) Tribal Groups

Niger Republic to the north and the Republic of Cameroon to the east. The Atlantic Ocean forms the southern boundary, stretching from Badagry in the west to Calabar in the far east for some 810 kilometres (Fig. 1.1).

With a vast area of 924,000 km², Nigeria is almost four times the size of Great Britain and a tenth of the size of United States of America [2]. On the one hand, Nigeria can be regarded as fortunate in having such land resources and in which land uses are not restricted by mountain ranges. On the other hand, the current rate of population growth and urban development are rapidly swallowing up every available area of land and is a cause for concern. To control the situation requires proper landscape planning and conservation of natural land resources. Nigeria, with its current estimated population of 100 million, is the most populous country in Africa [3]; at least one in every four Africans now lives in Nigeria. Nearly two-thirds of Nigerian people live in cities with a population exceeding 5,000 people. It is in these areas that the land use problems are most acute.

Nigerian people belong to about 200 ethnic groups both large and small, each group having its own distinctive culture. The major tribal groups are the Hausa, Kanuri, Igbo, Edo, Nupe, Ijaw, Ibibio, Efik and Yoruba (Fig. 1.1b). The indigenous culture of the people has been exposed to many outside influences, since the era of colonisation. Today the culture of the people is very much mixed.

Topography, Geology and Soil

Nigeria is perhaps remarkable for the absence of extensive highland and lowland topographical regions [4]. A large part of the country is made-up of wide and expansive plains mainly of the softer African basement complex reaching up to 762 metres in places. Each plain is separated from the next by a scarp. Rivers flow through these plains for long stretches. Punctuating the plains are the isolated granite outcrops (inselbergs), which rise like huge domes in parts of Kaduna and Abuja in northern Nigeria; and in parts of Akure and Ado-Ekiti in the south. The limited lowland areas are mainly of sedimentary rocks; these are to be found along the lower valleys of the Niger and Benue and they are generally below 198 metres above sea level. Highlands, mainly of volcanic rocks, are restricted to Jos Plateau rising on average to 1219 metres with a peak on Shere hill (1828m). Other highland areas, but less mountainous, are the Yoruba hills and the Emugu escarpment, both reaching between 305 metres and 609 metres. These highlands are belts of hard rocks resistant to erosion. The shorelines of Nigeria and the Niger delta are dissected by many rivers and distributaries (Fig 1.2a).

Geologically, most parts of Nigeria are covered with the basement complex, mainly crystalline rocks of the igneous and metamorphic group. It either forms the bedrock of the younger rocks like the sedimentary rock, or it is exposed. Volcanic rocks are found only in northern Nigeria mainly on the Jos and Biu Plateaux (Fig. 1.2b).

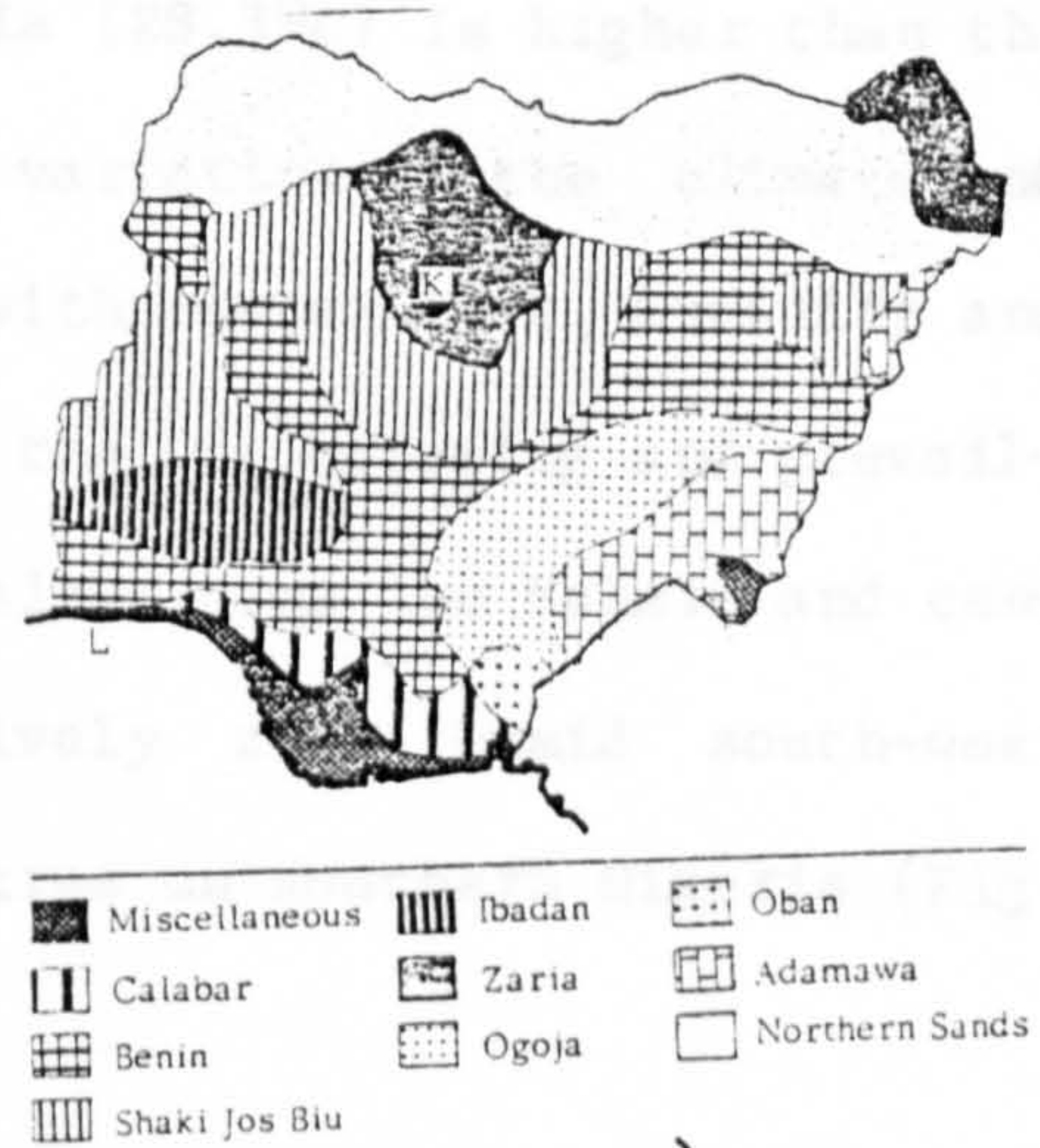
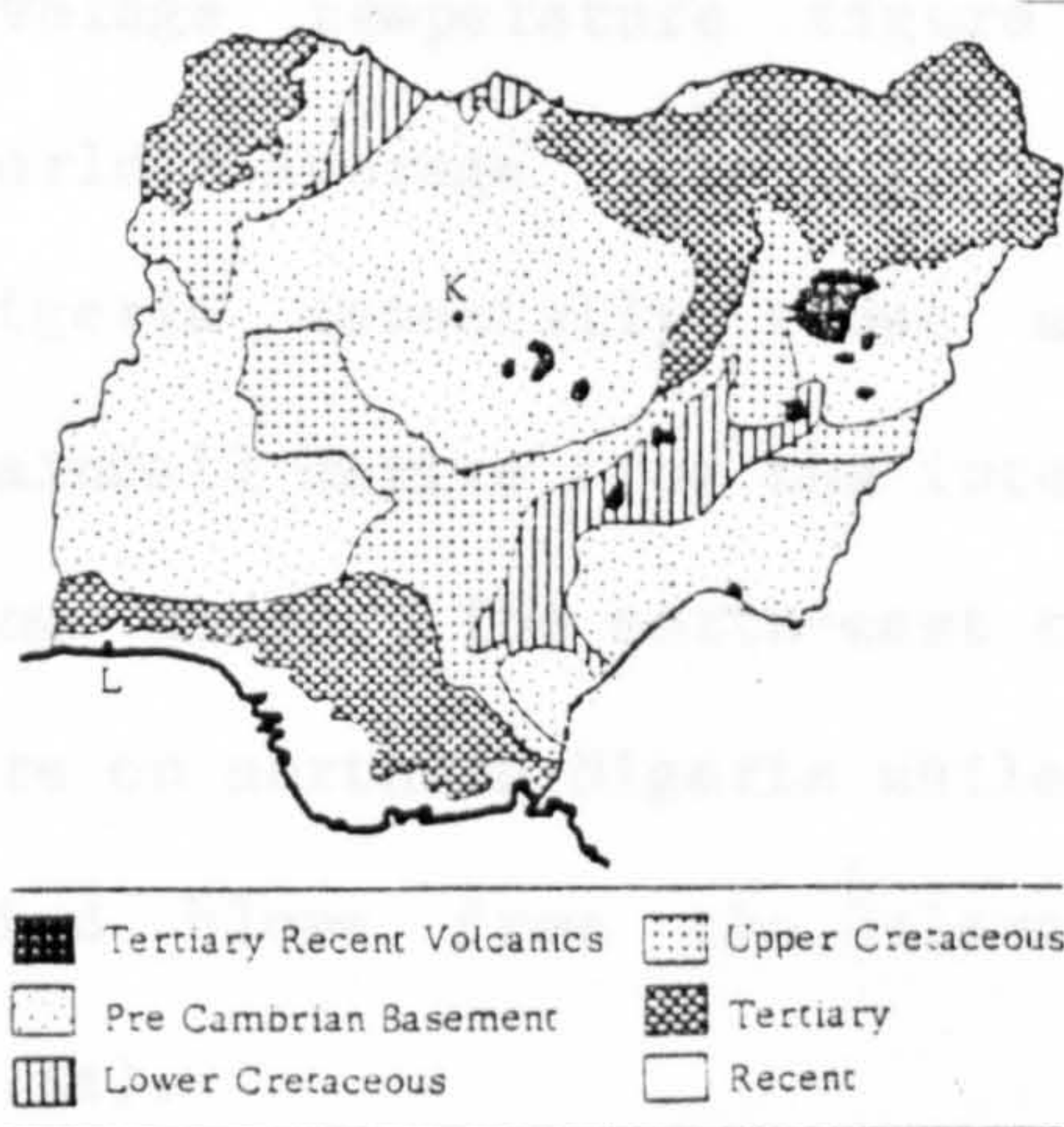
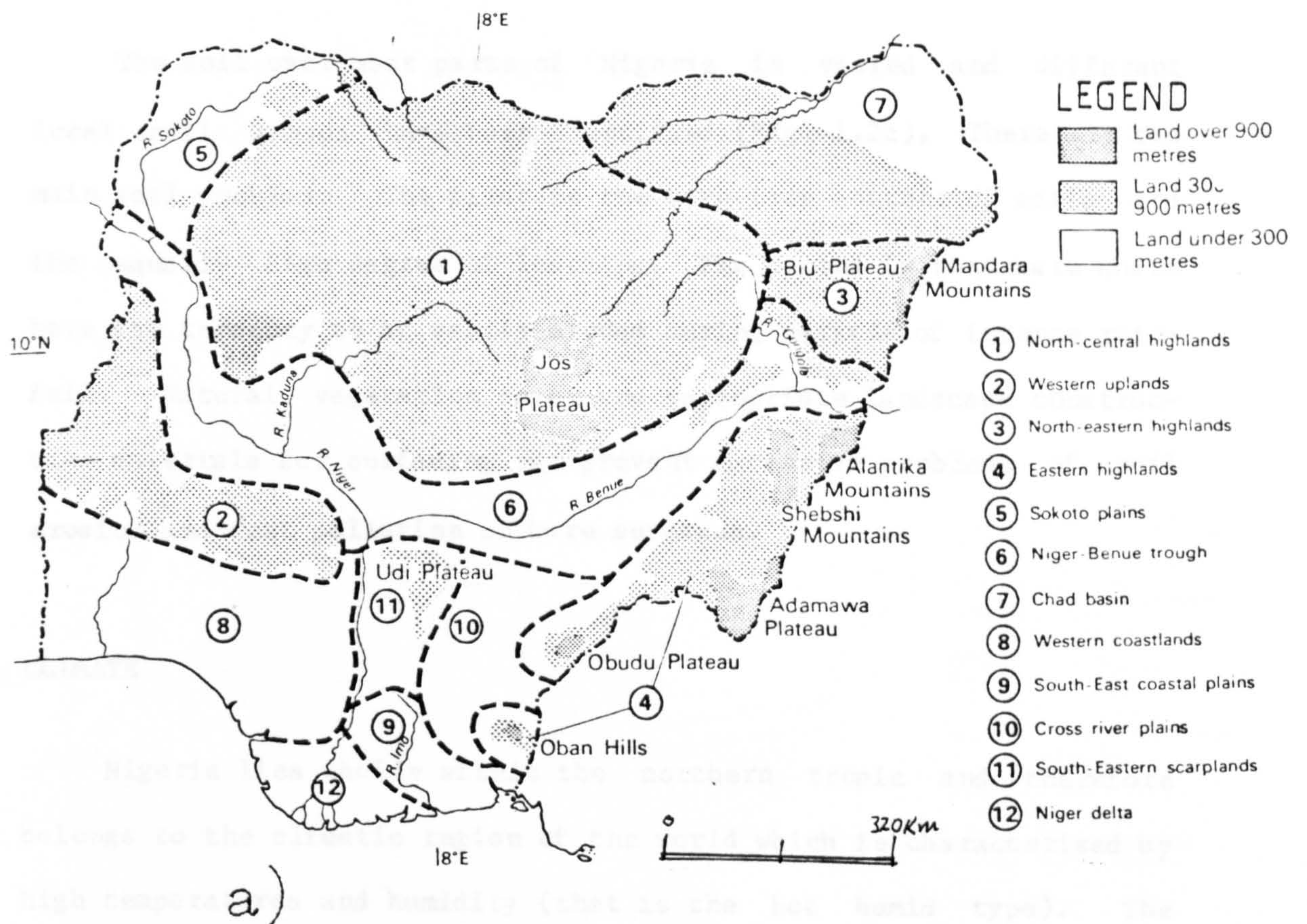


FIGURE 1.2: NIGERIA: TOPOGRAPHY, GEOLOGY AND SOILS

a) Topography b) Geology c) Soil groups

The soil over most parts of Nigeria is varied and different local soil groups have been identified (Fig. 1.2c). There are two main soil problems. The first is the high iron content of soils and the equally high degree of leaching. The second is that bare soils have the tendency to be easily eroded during periods of intense rainfall. Natural vegetation cover and appropriate landscape construction materials for surfacing can prevent excessive problems of soil erosion and dust pollution on bare surfaces.

CLIMATE

Nigeria lies wholly within the northern tropic and therefore belongs to the climatic region of the world which is characterised by high temperatures and humidity (that is the hot humid type). The average temperature figure for Nigeria (28.3°C) is higher than the world's average (16.6°C). However, the variation in the climate of Nigeria especially those associated with temperature, humidity and rainfall derive from the interaction of the two opposing and prevailing winds. The north-east trade wind blows from the Sahara and centre on northern Nigeria while the relatively cool humid south-west wind blows from the Atlantic and centres on southern Nigeria (Fig. 1.3a).

Temperature generally increases from the coast inland and decreases with the amount of cloudiness and altitude. For this reason, the temperature recorded in April for Sokoto (45°C) in the far north-west corner is much higher than that for Lagos perched on the

Atlantic Ocean (32°C) and in Jos it is as low as 22.2°C because of high mountain ranges. The highest temperatures are recorded in most parts of Nigeria between February and April and between October and November, which are the months before and after the wet seasons.

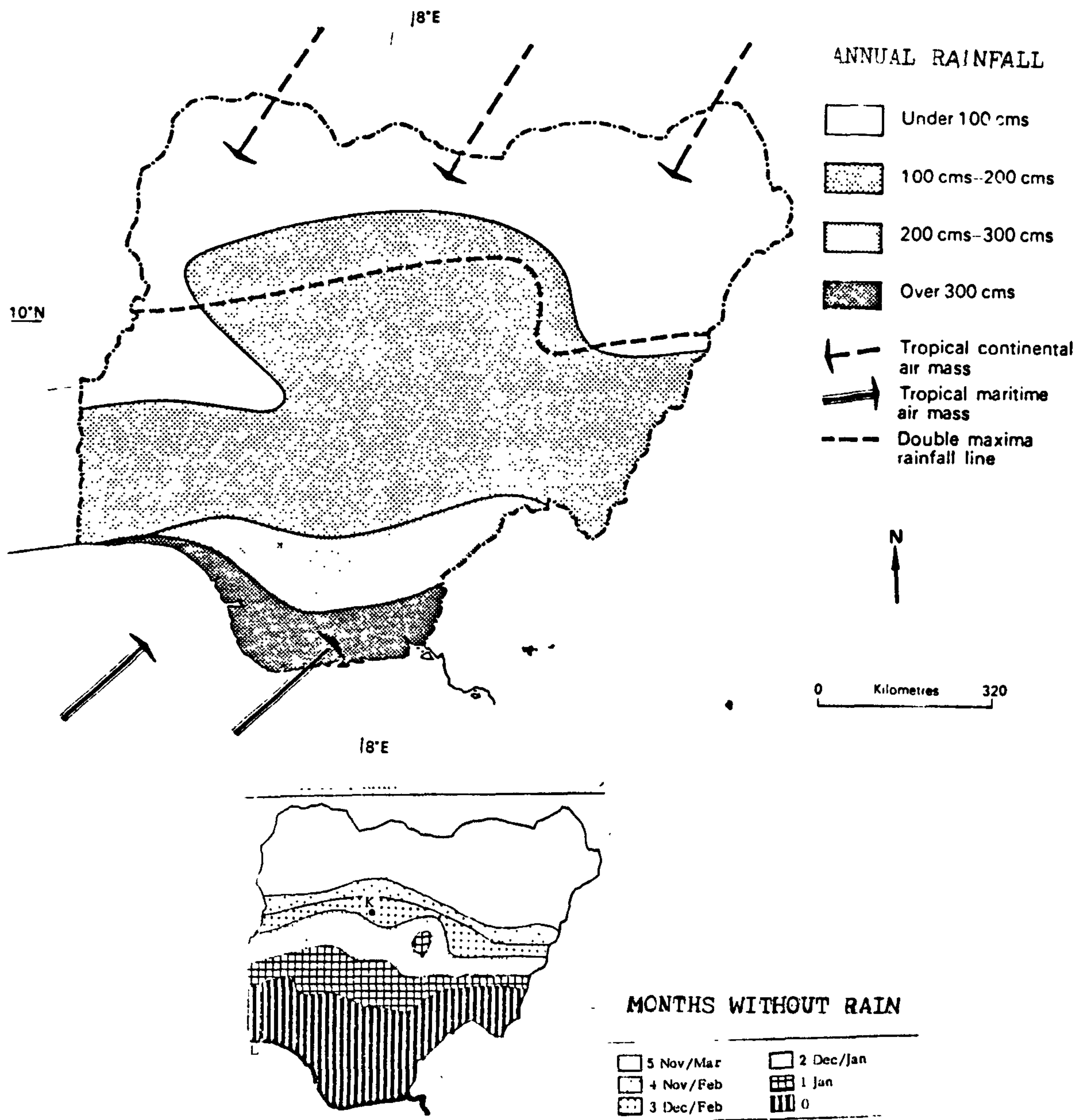


FIGURE 1.3: NIGERIA: CLIMATE: showing annual rainfall, seasonal distribution and the wind system.

Relative humidity varies with the two seasons. It is highest in the south during the wet season, thus making environmental conditions very uncomfortable. Whereas the north is relatively more comfortable during the wet season than the dry season which its low temperatures and extreme dryness makes environmental conditions for humans almost unbearable.

The annual total and monthly distribution of rainfall also vary with the seasons and between the northern and southern Nigeria. Rainfall is heaviest in the south and decreases northwards (Fig 1.3b). For example, the annual rainfall figures for the Niger delta (3000 mm) and Port Harcourt (2500 mm) are among the highest with only a few days of the month without rain. In other parts of southern Nigeria, the wet season spreads over 9 months of the year. In contrast, the total annual rainfall is much smaller in northern Nigeria and distributed over a short period. For example, in the drier north on the shoreline of Lake Chad the annual rainfall is less than 300 mm and this is limited to two or three months of the year.

The geographical variations in the climate of Nigeria are shown in the climatic data for the three towns selected for detailed study, namely Ile-Ife, Kano and Jos (Table 1.1).

Ile-Ife is situated in the wetter south with a very high relative humidity and fairly constant high temperature, although it is relatively cooler in July. It also has a high annual rainfall, which is fairly well distributed with a short dry spell in August (Fig. 1.4a).

Jos has a relatively equable climate by Nigerian standards with constantly lower temperatures. It also has a total annual rainfall figure higher than that recorded at Ile-Ife and Ibadan. The variations in the temperature and rainfall are attributed to the generally high altitudes of the region (Fig. 1.4b).

Kano, in the drier north, has seven dry months with a short and heavy rain season of squally weather. It experiences high temperatures; lower relative humidity when compared with Ile-Ife. It is prone to strong north-easterly winds which bring much dust from the Sahara desert (Fig. 1.4c).

TABLE 1.1: CLIMATIC DATA FOR ILE-IFE, KANO AND JOS

Town	Average Temperature			Mean annual	Total annual
	Jan.	July	Annual	R.H. (%)	Rainfall (mm)
Ibadan (Ile-Ife)	26.8	24.5	26.1	80.5	1241
Jos	20.9	20.9	22.3	64.0	1446.2
Kano	21.6	26.2	26.2	46.0	854

Source: Udo, R. K. Geographical Regions of Nigeria, London: Heinemann, 1970 p 3. N.B. Ile-Ife has no recorded climatic data it is assumed that it experiences a macro-climate similar to that of Ibadan.

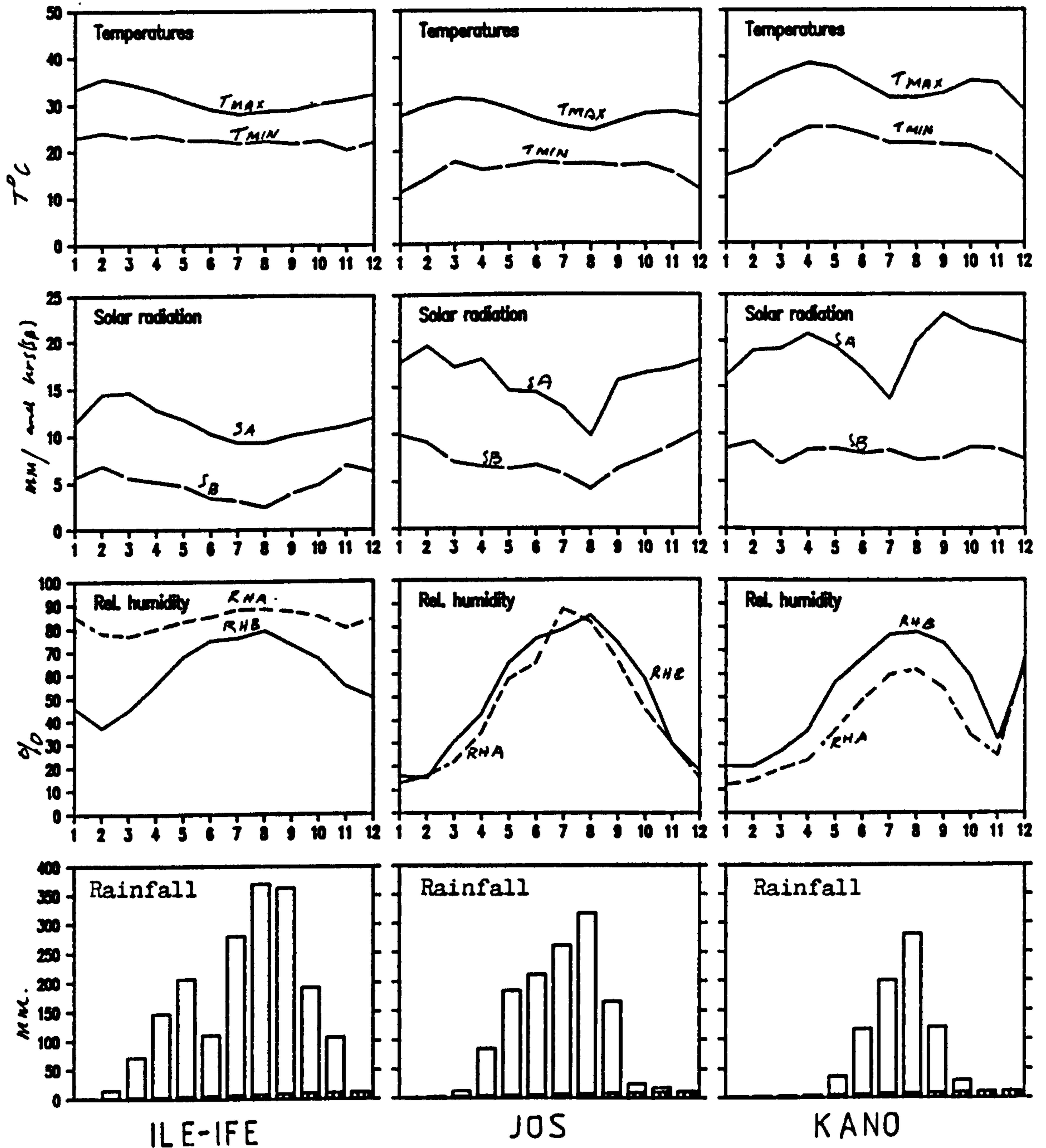


FIGURE 1.4: CLIMATIC CONDITIONS OF ILE-IFE, JOS AND KANO: showing the geographical variation in the temperatures, humidity, sunshine, solar radiation and rainfall.

- T_{MIN} = Average monthly min. Temperatures
- T_{MAX} = Average monthly max. Temperatures
- S_A = Solar radiation in mm.
- S_B = Sunshine hours
- R_{HA} = Relative humidity at 9.0 hours
- R_{HB} = Relative humidity at 1500 hours

VEGETATION

Nigeria has two distinct natural vegetational belts, the forests of the wetter south and the savanna of the drier north. These vegetational types have been modified in places through human interference mainly by bush burning and shifting cultivation. Usually, a zone of permanent cultivation surrounds each settlement and here natural vegetation is completely suppressed.

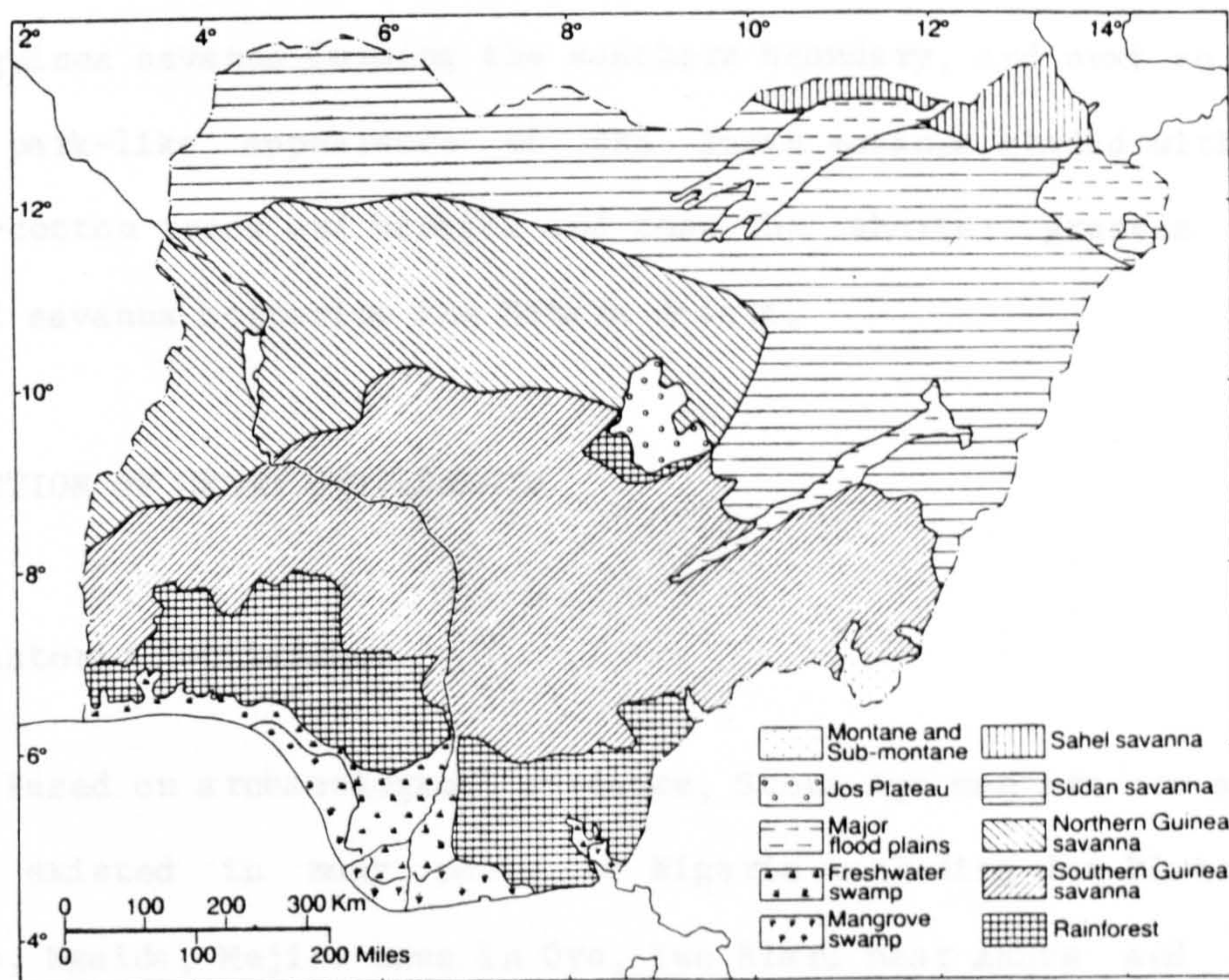


FIGURE 1.5: NIGERIA: VEGETATION; the belts are running from west to east reflecting that of the rainfall pattern and are broken by the mountain-vegetational type of the Jos Plateau.

Within the two broad categories, eight vegetational types [5] have been identified (Fig. 1.5). The southern forest region, covering a third of Nigeria, comprises a narrow belt of evergreen swampy, mangrove forest, stretching along the coastal lagoon, which is succeeded inland by tropical rain forest covering between 80.5 km and 161 km. Scenery here varies from the dense luxuriant swamps to the more open panorama of the less dense evergreen forest with giant trees covered by colourful lianas. The northern two-thirds is covered with grasslands of varying heights and densities. From south to north the savanna is characterised by the tall, wiry grasses of the guinea savanna forming the southern boundary, and next to it the park-like appearance of the Sudan savanna shaded with mature silk-cotton trees and baobabs and then the shorter grasses of the sahel savanna bordering the Sahara desert.

EVOLUTION OF URBAN SETTLEMENTS

Prehistoric Settlements

Based on archaeological evidence, Stone Age men are now said to have existed in many parts of Nigeria including Jos Plateau, New Bussa, Ngalda, Mejiro Cave in Oyo, Iwo Eleru near Akure and Asejire [6]. Stone implements such as the pebble stones, hand picks and hand axes found in some of these places have been interpreted by archaeologists as the tools used by Stone Age men (Fig. 1.6a). As these men led a life of wanderers, hunters and fruit gatherers, they contributed scarcely anything to urban settlements.

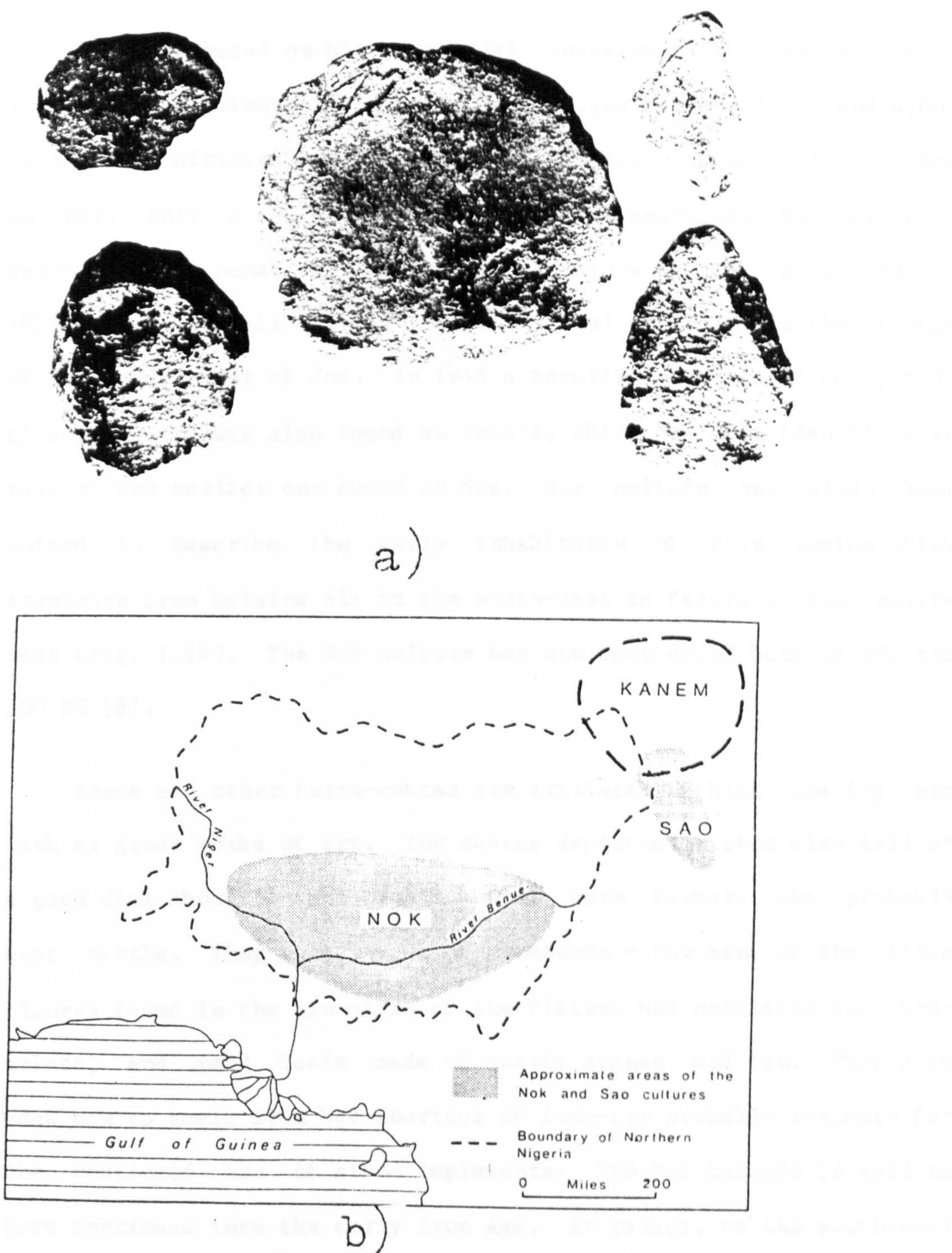


FIGURE 1.6: NIGERIA: PREHISTORIC HUMAN SETTLEMENTS

a) Examples of Stone Age tools excavated in the different parts of Nigeria. b) Nigeria: showing the Nok Culture area and Daima.

Murdock, based on his botanical investigation, has suggested that settled agriculture began in Upper Niger between 5,000 and 4,000 BC and that Africans were the first to cultivate cotton [7]. But so far, only a few botanists support his assertion. However, evidence of early human settlements of Late Stone Age was unearthed in 1936, when a small terra-cotta monkey head was found in the village of Nok, south-west of Jos. In 1944 a beautiful human head mask, made of baked clay, was also found at Jema'a, which has been identified as part of the earlier one found at Nok. Nok culture has since been coined to describe the early inhabitants of this region which stretches from Katsina Ala in the south-east to Kagara in the north-west (Fig. 1.6b). The Nok culture has now been dated between 500 and 200 BC [8].

These and other terra-cottas are artifacts of high quality and rank as great works of art. The scenes depicted in them also tell us a good deal about the Nok people. They were farmers who probably kept cattle. They were lovers of ornaments - for many of the little figures found in the tin mines of the Plateau had necklaces and bracelets, and many beads made of quartz stones and tin. They also knew how to smelt iron but shortage of iron-ore probably accounts for the continued use of stone implements. The Nok culture is said to have continued into the early Iron Age. At Taruga, to the south-east of Abuja, a Nok-type culture which appeared to have used iron implements in addition to stone has been excavated. Here, iron-smelting was active between 3,000 and 200 BC [9]. Moreover, the Nok culture

is now believed to have influenced the early art of the Yoruba, which has certain characteristics of the terra-cottas. Willet has even argued that Ife might have been part of the same culture [10].

At Daima, in the Borno State, archaeological evidence has also been obtained for iron-working which has been dated to the first millennium AD. The excavation of the Daima mounds showed that it had been inhabited by men from the 6th century BC to the second millennium AD, that is, for well over fifteen hundred years. The people of this culture are said to have been the ancestor of the founders of the Kanem-Borno empire.

The Emergence of City-States

There is a considerable information gap on urban history between the pre-historic settlements and the emergence of city-states in different parts of Nigeria. However, what we do know is that the trans-Saharan trade extends back at least as far as Carthaginian and Roman times. We also know that the same trade was made easier by the Berbers who introduced camels to north Africa at the beginning of the Christian era. By the 7th century AD, the Arabs had conquered North Africa and had introduced Islam. These external developments, however, had little or no impact on the indigenous people of Nigeria, at least before the 9th century AD. Thereafter, the tribal groups who inhabited the northern and southern Nigeria began to organise themselves into powerful empires with complex systems of administration. Generally, these empires grew around a major city as the

capital with either a large rural or urban hinterland.

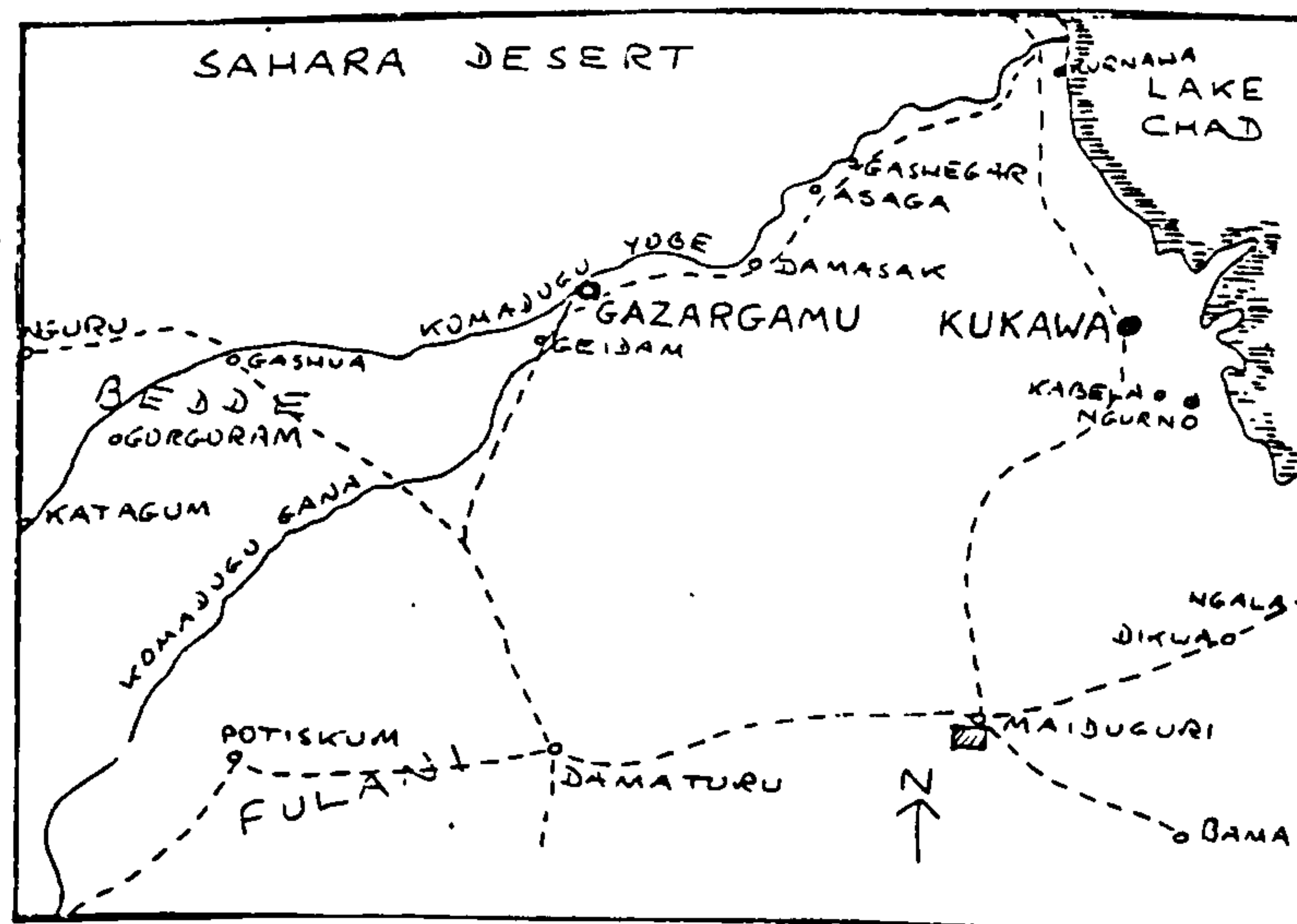
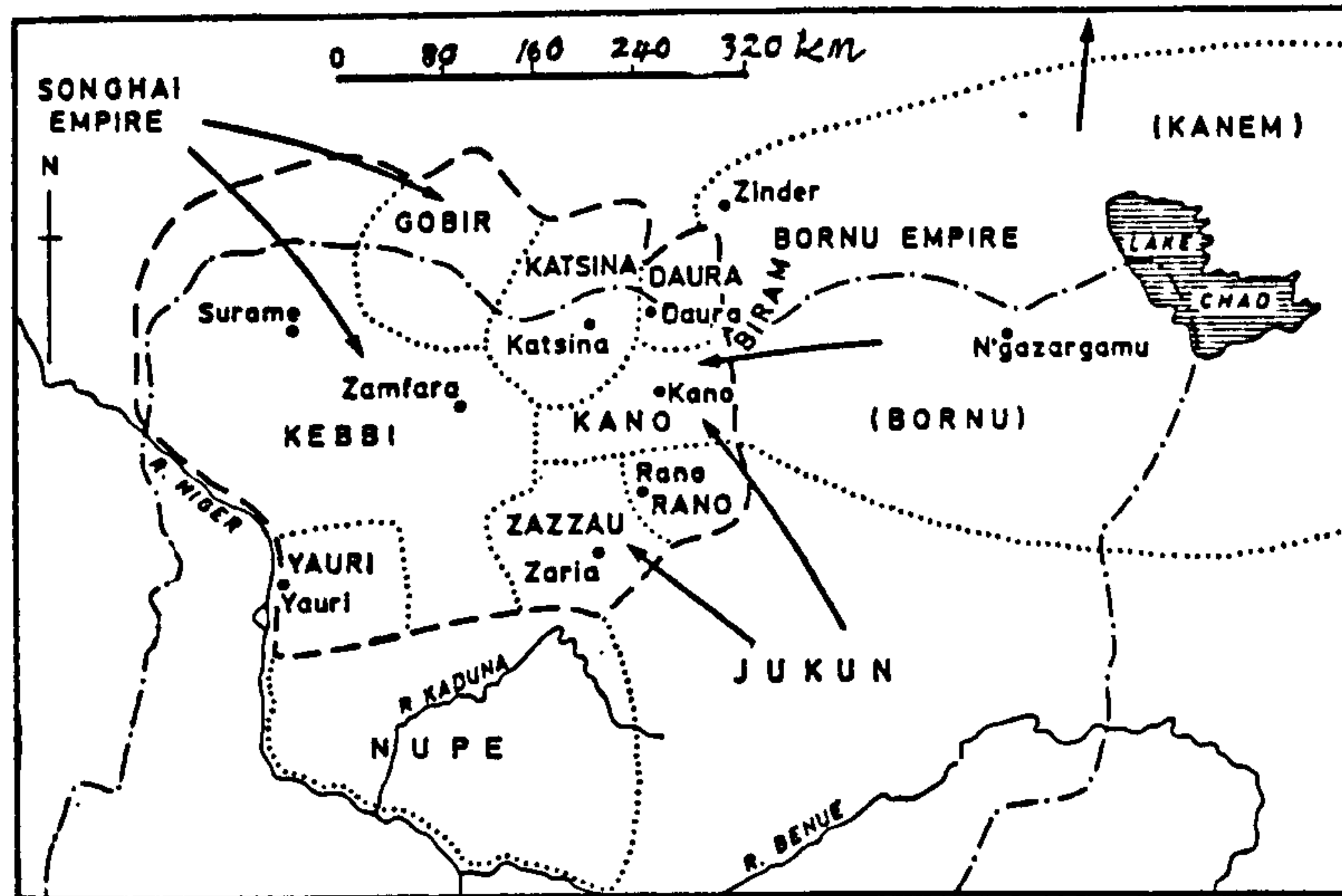


FIGURE 1.7: KANURI CAPITALS: showing the westward shift of the locations of the capital cities as the rulers retreated from the attack of the Borno.

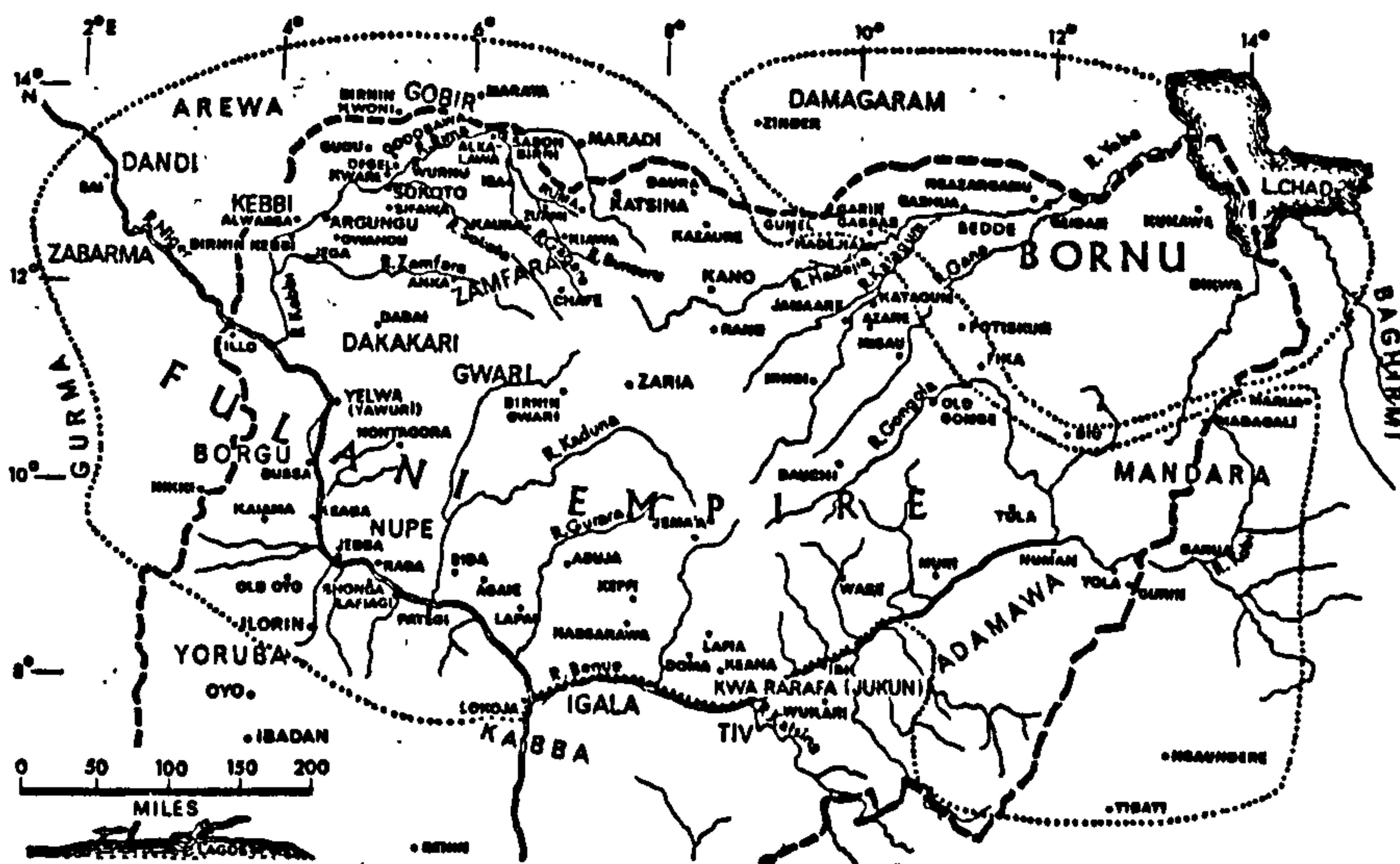
The empires of the northern savanna grew around important trading centres strategically located on the trans-Saharan trade routes. Foremost among the more important empires of the northern savanna was the Kanem-Borno, which flourished for nearly a thousand years before the era of colonisation. Kanem-Borno was situated in the area around Lake Chad including the present Borno and was reputed for the building of many capital cities including Ngazargamo, Gamba ru, Kuka and Kukawa, all of which were laid out on similar planning principles.

Kukawa, which had been rebuilt on the site of the former Kuka, is now the only survival of these historic towns (Fig. 1.7 above).

Occupying the larger part of northern Nigeria were the seven Hausa States, which had been named after the towns, which also bore the names of their founders believed to have been the seven sons of Bayajidda. These empires included Rano, Kano, Katsina, Gobir, Biram, Daura and Zazzau (Zaria). Other city-states of northern Nigeria were Zamfara, Nupe, Gwari, Yauri and Kororofa, often referred to as the 'Hausa banza states' (Fig. 1.8). The desire to control the trans-Saharan trade prompted wars between them and other neighbouring states of Mali and Songhai, thus the rise of one was the down fall of another. Another important aspect of the trade was the exchange of goods, diplomats and even garden plants such as pomegranates and citrus fruits between the Hausa and North Africa.



a)



b)

FIGURE 1.8: HAUSA STATES AND FULANI STATES AND THEIR MAJOR CITIES: located on important trade routes across the Sahara. a) The Hausa Empire by the 15th C. b) The Fulani Empire of the 19th century which conquered the Hausa and amalgamated all the various city-states into a large empire with the new capital at Sokoto.

The 19th century jihad led by Uthman dan Fodio, a devout Fulani muslim teacher, swept over the entire Hausa States and northern parts the of Old Oyo empire, severing from the latter, Ilorin and Kabba provinces. The wars rendered many places desolate; manuscripts, towns, beautiful palaces and houses were thoughtlessly destroyed [11]. After the wars the former Hausa states became the Fulani empire. Many indigenous customs were abandoned at that time. Sokoto became the headquarters of the Fulani empire and it immediately rose from a tiny hamlet to a major urban centre. The former city-states were re-organised into emirates with the retention of the older and historic towns like Kano, Katsina and Zaria as administrative headquarters. Other towns owing their origin to the Fulani jihad include Wurno, Gombe and Katagum in the western frontier of Bornu empire.

Dating from about the same period as the Hausa empires were the Ife, Benin and the more powerful Oyo empires of southern Nigeria. Undoubtedly, Ife was the oldest of these empires with strong historical and cultural link with Oyo and Benin. Through Oramiyan, Ife's early civilisation spread northwards to Old Oyo and eastwards to Benin. Many city-states, who held their allegiance to either Ife or Oyo empire, made-up the large Yoruba empire Some of these including Ijebu-Ode, Ilesa, Ado-Ekiti, Ondo, Osogbo, Akure and Owo had been established well before the 17th century (Fig 1.9). Unlike the Hausa-Fulani, the towns of the Yoruba empires were established primarily as administrative centres and existed as a form of colonial settlements founded by the sons and descendants of Oduduwa: generally

strife and the external aggressive attack by the Fulani, the present Oyo was located some 150 kilometres south of the abandoned Old Oyo. Ibadan, Abeokuta and Sagamu were newly established towns prompted by the 19th century wars. At the same time many refugees swelled the population of Iwo, Osogbo, Ife and Ogbomoso. By the turn of the century, there were at least ten Yoruba towns whose population exceeded 50,000 [12].

The Period of European Contact Before colonisation

The European merchants had a trading interest in West Africa which dated from the late 15th century. They traded mainly in gold, pepper and slaves. The gold trade and the need to control its monopoly, led to the building of many Trading Forts on the Gold Coast, now known as Ghana. Though, both the Lagos lagoon and the Niger Delta were notorious for the nefarious slave trade, they failed to attract European settlements because of the inclement weather and environmental conditions which caused West Africa to be regarded during this time as a 'white man's grave'. However, new towns grew along the Niger delta, the Bight of Biafra and their hinterlands, all of which had been areas of predominantly rural population. By the 19th century some of the major towns included Onitsha, Abo, Bonny, Brass, Calabar, Arochuku, Bende and Akunakuna (Fig. 1.10).

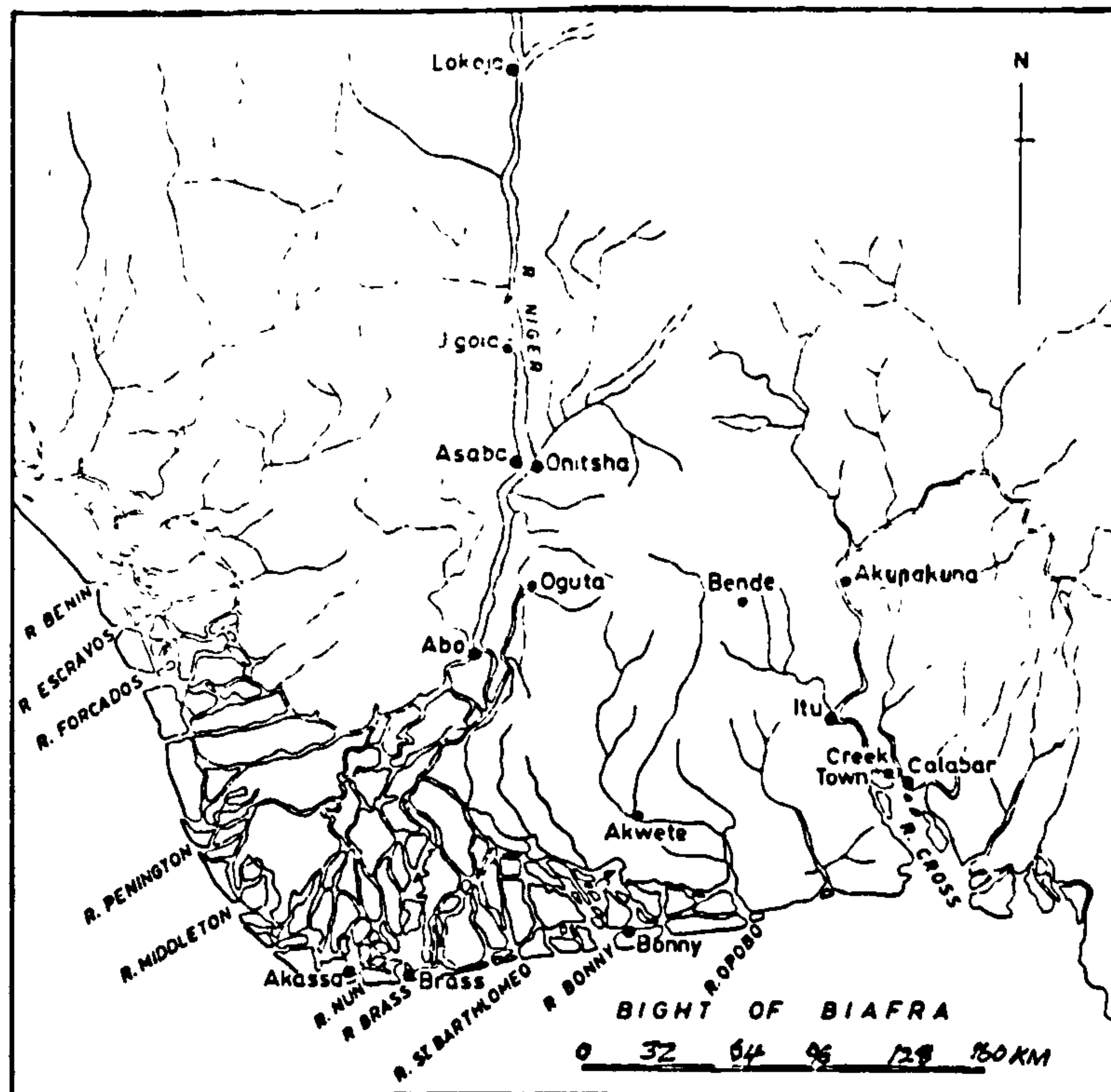


FIGURE 1.10: THE NIGER DELTA AND EASTERN NIGERIA: 19TH C. TOWNS

Showing the growth of cities along the Niger Delta and Eastern Niger partly as a result of the Oil Palm trade along the Niger and the earlier slave trade.

The era of Colonisation to the Present

Attempts to suppress the slave trade led at first to the ceding of Lagos. On the ending of the nefarious trade, some of the freed slaves returned to Nigeria. Christian missionaries, who pledged to look after their welfare were also attracted to Nigeria. These two

groups of people each made a unique contribution to urban development. The freed slaves, mainly artisans and builders, founded a new residential quarter in Lagos and also introduced into the country the Brazilian architectural style, characterised by ornamentation of doors, windows, columns, balconies and verandahs. This form of architecture became very common in Yoruba towns. The different Missions also built many mission houses, churches, schools and hospitals.

With the suppression of the slave trade, the establishment of legitimate trade by the European merchants commenced in many parts of Nigeria. This trade was primarily in raw materials most needed in the industries of Europe especially palm oil. A regular trade was established by the Royal Niger Company on the Niger. Eventually, by 1900 the present geographical area of Nigeria had become colonised. The sixty years of British rule, which followed later had the most far reaching effects on the nation's economy, urban growth, urban planning and urban administration. This period brought drastic changes in the general economic condition of the country. In particular, it led to the diversification of the economy. A purely agrarian form gave way to mixed economy which includes manufacturing industries. In the realm of urban administration, the initial pre-occupation was to create a peaceful atmosphere for an orderly government without which the economic activities could not take place. It was Britain's Lord Lugard who introduced 'indirect rule', a system of government operated at a minimum cost to the colonial government.

Shortage of funds meant little was available to be spent in the provision and maintenance of essential urban facilities and services. Financial constraints also engendered the setting up of local government with very few administrative staff whose activities were hardly well organised or coordinated (Ch. 10).

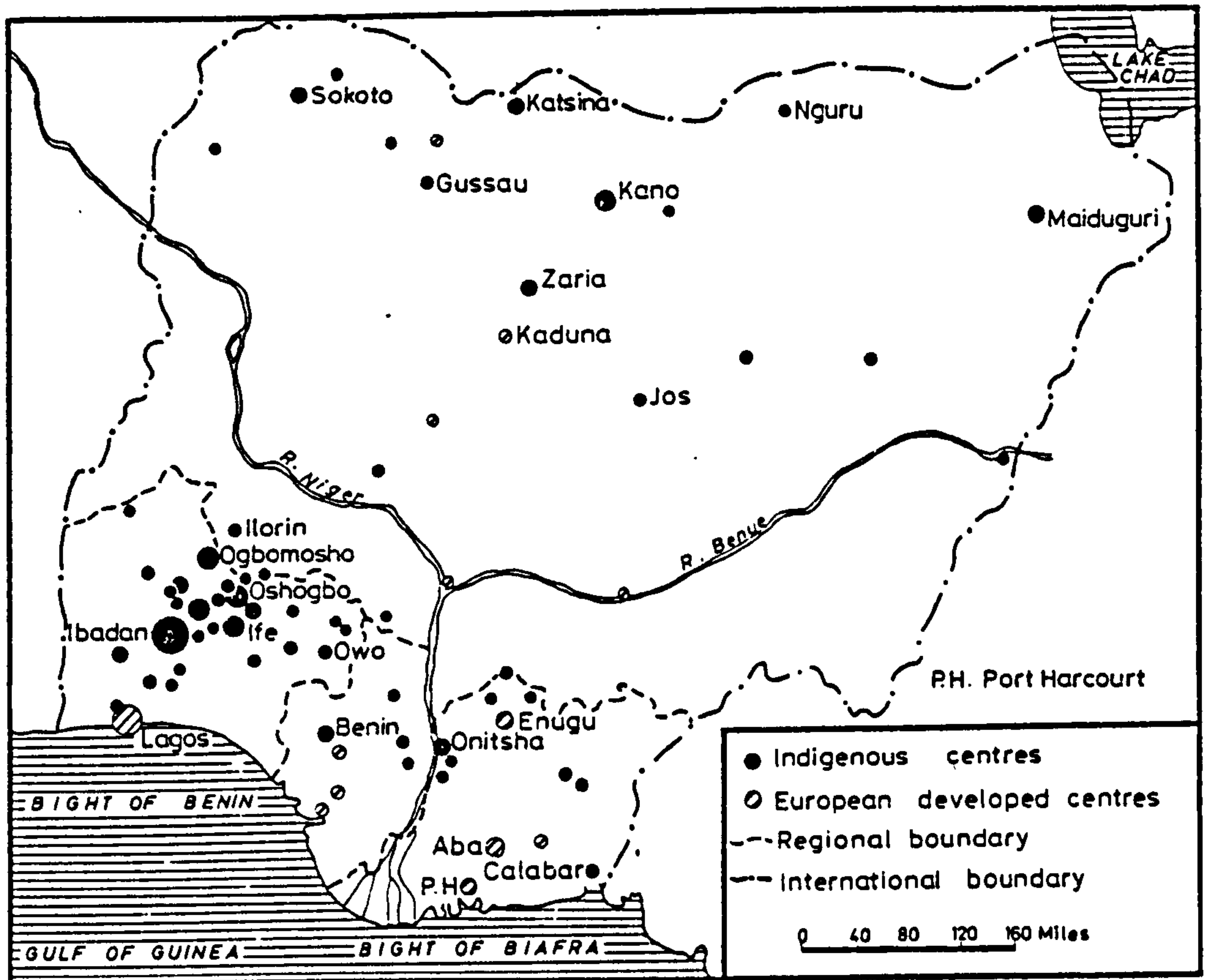


FIGURE 1.11: NIGERIA: DISTRIBUTION OF COLONIAL NEW TOWNS: These towns were generally located in the less densely populated areas of the country leaving intact the highly urbanised Yorubaland.

The contribution of colonial administration to urban history included the establishment of new towns for purely economic and administrative reasons. These towns included Jos, Kaduna, Enugu, Port Harcourt, Minna, Zungeru, Kafanchan and Keffi (Fig. 1.11 above). Besides the new towns, they also promoted the suburban expansion of existing towns. The colonial policy was geared towards conferring status on many Nigerian towns. This was essentially the aim of the Township Ordinance 1917, which allowed Nigerian towns to be designated as either first, second or third class. It is not clear, however, what criteria were used for the inclusion of towns in the three categories as this list excluded many indigenous towns such as Ile-Ife, Ijebu-Ode, Benin and Sokoto. According to Mabogunje [13], throughout the operation of the Ordinance, Lagos was the only first-class township in the country and was administered by a ten member Town Council, three of whom were elected and the rest nominated by the governor. Moreover, the towns included in the other categories, were not particularly distinguished by the size of their population or their traditional importance, except that they were either situated along railways, on the coast, or were towns where European traders had set up their trading stores. The township status determined the provision of public amenities and facilities such as the siting of government hospitals and infrastructural developments. Generally, the towns higher up in the class were the ones that housed a reasonable number of administrators and merchants. They were also the towns that benefited most from colonial town planning ideology, being developed as middle-class garden suburbs with provision for

formal recreational open spaces such as golf courses, polo grounds and race courses. The categorisation of towns in this form underlies the differences which now exist in the distribution of urban amenities and eventually that of the landscape character of Nigerian towns.

Post-colonial policies have merely endorsed the status of the earlier towns, which have continued to grow at a faster rate in size and population. This period also saw the emergence of: newer and fast growing State capitals such as Ilorin, Akure, Jos and Abeokuta; and relatively fast growing university towns such as Ile-Ife. It saw the emergence of industrial towns such as Bacita in Niger State and Ajaokuta. The most recent contributions have been the establishment of new towns: one at Ajoda, which has been established to ease the growth of Ibadan; and the other at Abuja, the new Federal capital to replace Lagos. Since the 1970's the limited economic and physical planning which has been undertaken in the country has failed to attack properly the land use problems associated with rapid urbanisation. Such gross failure across the nation has endorsed the need to appraise the aims of physical planning, especially with respect to provision for open space and amenity in urban areas.

STATUTORY BACKGROUND TO URBAN PLANNING

Foremost among the main legal provisions for urban planning is the Nigerian Town and Country Planning Act, 1946 which has since been re-enacted by the various State governments. Others are the

Building Adoptive Bye-Law, 1960; and the most recent, the Land Use Decree, 1978. These statutes provide the statutory background for land use planning, development control, land acquisition and conservation of land resources.

Prior to the passing of the 1946 Planning Act, urban planning had been guided by earlier legal Proclamations and Ordinances. These reflected mainly the ideological standpoints of the colonial administrators. Lord Lugard in 1900 set the tone of the underlying principle of colonial planning ideology for Nigeria when he expressed that:

"the policy shall be gradually to move the native town six or seven miles (or 11.2 km.) down stream (that is from the European area) and so do away with the pollution of the water, and with other evils such as the proximity of thieves and prostitutes, the infection of mosquitoes with malaria germs and the unsanitary conditions inevitable around a large native town." [14]

In 1904 the building free zone between an indigenous town and the European Area was reduced from six or seven miles to a mile or a mile and half [15]. In the Township Ordinance of 1917, the latter was again reduced to between 350 yards (278.89m.) and 440 yards (402.34m.). Thereafter, there was no further modification [16].

The underlying aims of the 'building free zone' were: to prevent the spread of malaria fever and germs, and the spread of fire. The colonial new town planned on these policies was divided into; "native town" and the "Township Area". The former was the area settled by the native population while the latter was occupied by the European administrators and their supporters such as merchants, miners and

other Nigerian African migrants connected with the administrative (See Ch. 4).

A main feature of the colonial urban planning policy was that of segregation of land uses by function, race and social class. This policy dominated the Proclamation Orders made by Lord Lugard, The Township Ordinance, 1917 and even the 1953 Official Pamphlet - Procedures for Siting of Towns, Government Residential Areas, Government Buildings. The policy was fashioned to differentiate between the areas settled by the native and the colonial administrators. Even though different terminologies were used to describe the areas settled by the latter, it showed no difference in the character of its landscape. To support this assertion, Lord Lugard himself had expressed in 1918 that:

"although an amending law of 1911 discriminated between a 'Cantorment', a 'Township' and a 'Government Station' but did not leave it at all clear in what way they differ from each other or a Cantorment." [17]

The only difference between the Cantorment and European Reservation is more or less of a semantic problem attributable to their legal definitions. The term 'European Reservations' was of restricted use to describe the areas settled by the colonial administrators in the Southern Protectorates, and which was administered by constituted Local Health Board charged with town development. The term 'Cantorment' was also restricted to describing the areas settled by the Europeans in the northern Protectorate before the passing of the Township Ordinance, 1917. Moreover, the Cantorment was administered

differently from the European reservations of the the Southern Protectorate. Instead of the Public Health Board, the responsibility for urban planning was the Cantorment magistrate charged with implementing rudimentary health and town planning functions such as sanitary inspection, building regulations, provision for open spaces, fencing of lands, protection from fire and control of markets. With the passing of the Township Ordinance, the term 'Township' replaced earlier terminologies like the Cantorment, but the term European Reservation (ERA) was retained to describe the area settled by Europeans and governed according to English Law. However, in 1930 the term Government Residential Area was substituted for the European Reservation Area and has since remained in force.

In line with the segregative policy, different standards were adopted for laying out plot sizes, distribution of health facilities, parks and open spaces were in the areas settled by Nigerians and colonial administrators.

The principle for laying out the area settled by the administrators, that is, the government Residential Area, was first set out in the Cantorment Proclamation of 1900. This stated that as a first design principle all British should live close to each other. Secondly, each residential bungalow should be built on an area of land 100 yards square (ie over 2 acres or just less than 1 ha.); and this should be a sufficient space to keep clean and sanitary, while privacy could be secured by the planting of trees between houses [18]. This policy as strictly adhered to dictated the plot sizes of the

European residential quarters and tree planting policies. In Kaduna, this residential plot standard can be regarded as the minimum, because houses were built on four acre plots (1.62 ha.) [19]. The third principle according to Lugard was that the European Reservation area should be

"a cool fruit and flower fit garden where one could sit on a shady verandah in the privacy of one's own home. Extensive public open spaces with recreation grounds and sports fields would be near both office and home and reached by shady pathways [20]".

The above standard for residential plots is much higher than what obtained in most British middle-class suburbs. Nevertheless, it was very much part of the upper-middle class backgrounds of the colonial administrators that such a generous low density of residential plots or as one might say country estates had been provided. According to Allen some of the colonial administrators were sons of the landed gentry and yeomanry who had an unquestionable interest in gardens [21]. The hot and humid tropical climate coupled with their middle-class attitudes were among the underlying reasons for the quest for large residential plots and spacious dwellings set in attractive and well tempered rural landscapes for outdoor leisure pursuits.

A less generous housing standard was adopted for laying out the residences of the indigenous residential quarters. This was as set out by Lugard in his proclamation of 1906. According to him, native dwellings in the Cantorment should be of good and permanent

structure both 'with a view to appearance, sanitation and prevention of fire'. The following building regulations were designed to realise this objective:

- (i) No houses with grass walls will be permitted;
- (ii) Square built houses of burnt brick should be encouraged, the extent of the remission of the rent being made proportionate to the value and permanency of the house;
- (iii) Non-inflamable roofing of sheet iron, tiles etc, should be similarly encouraged;
- (iv) Each house will be built on a plot of its own, separated by some little distance from its neighbours;
- (v) Enclosures of grass (zana matting) around houses being both inflamable and unsanitary, will not be permitted; and the use of vertical iron sheeting, brick or mud walls and live hedges will be encouraged; and
- (vi) The use of angle iron as ridges, poles, rafters and upright should be strongly encouraged [22].

The above building regulations, in effect, virtually spelt the death of traditional architecture, either when conceived as that of the buildings, or the entire urban landscape. This change was not peculiar to the colonial new towns, for it gradually spread to the very hearts of indigenous towns and to the remotest villages. It was a phenomenon, which started like a hamattan fire in the dry grasslands offering no resistance; and whose flaring flames consumed one by one the buildings of indigenous architectural style. It is therefore, no surprise that very few examples of them can still be found

today.

The residential plots in the native towns, as regulated, were rigidly laid out on equal dimensions even though there would have been some disparity in their sizes in a truly traditional urban settlement. The rule of thumb that was used in the global design of the areas settled by the native population militate against variation in residential plots and architectural quality. This can be seen in the design of the Native Town and Sabon Gari as conceived by Sir Hesketh Bell, who succeeded Lugard as the Governor of Northern Nigeria. The main feature of Bell's plan, which was duplicated for most of the native town was;

"the broad central avenue, wide roads, spacious market places, building plots of moderate size, and a satisfactory distance between dwellings. The plan lends itself to extension in all directions on the same lines, and provides for the ultimate inclusion of large areas available for purposes of recreation or for the cultivation of low-growing crops. These large open closures would also be useful in the days to come with the development of air traffic." [23]

As a matter of fact, his plan was not executed to provide large open spaces and planting avenues of trees, especially, within the native area. But the remaining standards of his plan were used in the design, layout and orientation of the native areas and strictly adhered to. Indeed, Bell completed the blue print for all the native towns:

"the officer taking my plan in hand would proceed to lay out on the land the lines of the central market square, the broad avenues and the main street. This would be done by

running shallow furrows through the ground. He would then procure from the adjoining "bush" a large quantity of poles about 8 feet in length and as thick as one's wrist. These poles would be set into the ground, 7 or 8 feet (2.13 m or 2.44 m) apart, all along the lines and furrows to indicate the boundaries of the avenues and roads. Then between these poles would be stretched rough grass mats locally known as "zana mats", which measure about six feet by eight feet and cost only a few pence each. These poles and mats at once formed long lines of straight walls and, as if by enchantment, a town laid out in straight and regular lines would suddenly rise out of the ground. The spaces enclosed within the mat walls would be subdivided into plots measuring 50 feet (approx. 15m) by 100 feet (31 m), and the town was practically ready for the tenants" [24].

His suggested standard shows a great disparity in the residential plots designed for the native and the Europeans. The most remarkable disparity was in small residential plots deemed fit to house the indigenous people with larger family sizes. For example, while one residential plot size for the natives measured 5,000 square feet (465 m²), that for the Europeans equalled 90,000 square feet (11960 m²), which is 18 times larger. Further, there was no clearly set out landscape policy for the development of the native areas. Moreover, the double standard inherent in landscape policy accounts for the striking differences between the character of Government Residential Areas and those of native settlements.

Other regulations dealt with the laying out of roads, streets, alleys and market squares. The design policy adopted for roads was that of fairly broad and parallel streets intersecting at right angles (the grid iron plan). The main streets were designed to run in the direction of the prevailing winds so as to promote a free flow of air currents. In addition,

"All dwellings were made to face on an avenue or road and only one half the area of the plot could be built upon. This rule guaranteed the maintenance of an adequate open space between two rows of dwellings. A lane 15 feet (4.6 m) wide, intended for the convenience of sanitary services, ran between the backs of every row plots." [25]

Subsequent chapters will show that this policy marked the very beginning of the introduction of regular rows of housing in Nigerian towns that were planned on a rigid rectangular principle. In fact, the lanes separating the adjoining building blocks were generally not more than 2.5 metres wide. Usually, these lanes in their unsurfaced and unmaintained form, constituted one of the most ugly sights in new towns like Jos and Kaduna.

The above planning standards stipulated by the colonial administrators have now become the yardstick for laying out suburban developments with the increasing acceptance of bye-law housing and high density residential plots.

The Town and Country Planning Act, 1946

The 1946 Act, with all its good intentions had to overcome some administrative problems before it became operative. It was not implemented until a decade after it had been passed because of constitutional issues and a lack of an adequate administrative framework for planning at the federal, regional and urban levels. The low priority which the colonial administration gave to setting-up a well constituted body charged with the different aspects of urban planning was part of the general planning problem. Generally, planning

authorities were not set-up for most towns during the colonial era except in Lagos, where the Lagos Executive Development Board (LEDB) was established for land use planning activities. In other towns, the Municipal Health Boards were responsible for planning activities.

Ideally, to implement the 1946 Act, it was necessary that the Ministry of Town and Country Planning be first established at Federal level to coordinate the planning activities of the then Regional governments. But the Nigerian constitution prevented this from happening because it classified planning as a matter reserved for the regional governments which tended to exonerate the federal government from any blame for lack of action. As from 1956 some State governments notably the then Western Region re-enacted the 1946 Act into its Statute book and began to use it for urban planning. Now the Act is operative in all the States of Nigeria, with slight local and regional variations in some aspects of development controls.

Generally, the 1946 Act, though it has some limitations, provides for the establishment of town planning authorities and the replanning, improvement and development of the areas under their jurisdiction. A common practice among Nigerian planners in their critique of the 1946 Act has been to dwell mainly on its disadvantages. With such a biased view it is easy either to ignore or gloss over any of its advantages. For example, too often the 1946 Act, has been criticised by many as too limited in scope, being too outdated and unrealistic because of its fashioning after the 1932 Planning Act in Britain [26]. What most critics often forget to mention is that the

Act, if implemented in the spirit of its contents, would have resulted in an urban environment with considerable amenity and substantial areas of open spaces.

The main advantages of the Act are the different emphases it placed on a well developed and managed urban environment, in particular, the provision for public open spaces and the attainment of general amenity. The broad aims of the Act include effective land use control, conservation, environmental sanitation and the provision of general amenity. In short:

"controlling the development and use of land, for securing proper sanitary conditions, amenity and convenience, of preserving the buildings or other objects of architectural historic or artistic interest and places of natural interest or beauty and generally of protecting existing amenities whether in urban or rural portion of the area.....the coordination of roads and public services, of protection and extending the amenities and of conserving the resources of such an area " (see Section 13 (1).

Under the Act the scope of land use planning activities is as broad as one can virtually make it. According to section 13 of the Act:

"Every scheme shall contain such provisions as are necessary or expedient for either prohibiting or regulating the development and use of land in the area to which the scheme applies and generally for carrying out any of the objects to which the scheme is made, and in particular for dealing with any matters mentioned in the First Schedule" (See s 13 (3) (iii)):

The First, schedule in closing, further extended the scope of physical planning to other activities incidental to the realisation of

planning aims. For example, the Act simply states that physical planning includes:

"Any other matter not herein before mentioned, necessary or incidental to a scheme or its administration. The mention of particular matters in this Schedule shall not be held to prejudice or affect the generality of any other matter (see section 13 Part IV para. 10 and 11).

The subjects mentioned in the First Schedule of the Act which have bearing for the provision of open spaces and amenity include roads, the erection of buildings, general amenity, public utilities and services, transport and communication. Generally, the Act endorsed the principle of promoting open spaces and amenities in all developments. This list is so comprehensive that one can only outline the most important points regarding the provision of open space and amenity.

First and foremost, the 1946 Act empowers the local Planning Authorities to control the development of building either generally or in specific areas with the following objectives:

- i) to control the height, spacing and building lines;
- ii) to control the objects which may be attached to buildings;
- iii) to regulate the site such as the location of buildings, the extent of yards, gardens and curtilage of buildings;
- iv) to provide for reservation of places of religious worship, schools and public buildings;

v) to provide for sanitary conditions;

vi) to provide for slum clearance; and

vii) to provide for the reservation of land for housing (see s 13; First Schedule Part II).

In addition, the site coverage and size of buildings are regulated in the Building Lines Regulation 1948 and Building Adoptive By-law 1960. While the former dealt with the setbacks from major roads, the latter dealt with those in urban areas and housing plot density in order to provide enough room for courtyards and gardens. The 1960 Bye-law stipulates that all buildings together with their outhouses 'shall not exceed half the total area' of the site (s. 5 (i)). Alternatively, in terms of bedrooms permissible on any site, the Bye-law recommended: 8 bedrooms per bungalow built on a site whose area is 5,000 square feet (465 m²), and 12 bedrooms for a 2 storey building on the same plot and 15 bedrooms for a 3 storey building on the same plot; with a proviso that where any plot of land is either greater or less than 5,000 square feet (465 m²), the number of living rooms permissible shall be proportional to the increased or decreased area (s. 5 (ii)). The main problem with the latter is with the definition of living rooms which does not necessarily include other outbuildings, the kitchen, pantry, store room, bathroom or toilet and an attic. These are loopholes often exploited by developers to build at a much higher density.

Table 1.2 is a summary of the minimum set-backs from adjoining buildings and roads in urban areas. Considering these standards, any

houses built to their requirements will only result in minimum provision of open spaces around houses. In practice these minimum standards are not strictly enforced by most Local planning Authorities.

TABLE 1.2: MINIMUM SET-BACKS OF BUILDINGS ON LOTS

Set-back from	Building heights	
	Up to 7.62m	Above 7.62m
Roads	3.05m	3.05m
Adjacent buildings	1.67m	3.05m
Outhouses	3.05m	4.57m

Source: Compiled from the Building Adoptive Bye-law 1960 See P 8 of the Pocket Lawyer.

With regard to environmental sanitation, the Building Adoptive Bye-law discriminates against the erection of buildings on borrow pits, except with the prior approval of the Health Officer. The recommended maximum height of any fence shall not be more than 4.57m and houses around road junctions shall have hedges that are sufficiently low to permit clear visibility at road intersections. The Act discriminates against fences constructed with dry plant material such as the Hausa zana mat because of its likelihood to harbour rodents. So zana matting continued to be prohibited from the turn of of the century.

The First Schedule of the 1946 Act provided that planning

authorities should undertake works that are incidental to the improvement of roads including the erection of shelters, provision of roadside seats, protection of grass, trees and shrubs on or adjoining such roads.

With respect to the provision of public open spaces, the act empowers local planning authorities:

- i) to provide for the reservation of lands as open spaces whether public or private, and for burial grounds;
- ii) to provide for the preservation of views and prospects and of the amenities of places and features of natural beauty or interest;
- iii) to provide for the preservation of buildings and objects of artistic, architectural, archaeological or historical interest;
- iv) to provide for the preservation and protection of forests, woods, trees, shrubs, plants and flowers;
- v) to prohibit, restrict, or control indiscriminate advertisement hoarding either generally or in particular places;
- vi) to prevent, remedy, or remove injury to amenities arising from ruinous or neglected condition of any building or fence, or by the objectionable condition of any land attached to a building or fence or abutting on a road or situated in residential area;
- vii) to prohibit, regulate and control the deposit of, or disposal of, waste materials and refuse (see s. 13 First Schedule Part III).

With regard to the provision of public utilities and services, the Act also empowers local planning authorities to provide street lighting, water supply, drainages, sewage and refuse disposal and other public utilities and services (see s. 13 First Schedule Part IV and V).

The Land Use Decree 1978

The Land Use Decree, 1978 is one of the most recent statutory instruments which affects land use planning. Its main contribution has been the new measures introduced for land acquisition and land tenure. The Act provides that "all land in the state is vested in the Governor and such land shall be held in trust for use and the common benefit of the people". Under the Act, land for development purposes is classified into two categories. The first is lands in urban areas which is under the control of the governor and administered by a Land Use Allocation Committee. The second category is lands in rural areas, which are under the control of local government and are to be administered by the Land Allocation Advisory Committee (see s. 1). The main advantages of the Decree are: it seeks to curb land speculation; the introduction of compulsory purchase order (CPO) if necessary to obtain land for public purposes together with the payment of compensation; and by making revocation orders. Section 28 of the Decree provides for three instances for making a revocation order including

- i) cases of land transactions contrary to the provisions of the Act;
- ii) land requirements by the Federal, State and Local governments for public purposes; and
- iii) land requirements for mining activities and laying of oil pipe lines.

The government therefore no longer lacks power to readily acquire land for public purposes and can do this in some cases without paying compensation [27]. However, the government has yet to use the powers of the Act to redress the the problems of open spaces. Generally, the powers of the above statutory provisions are wide ranging, and if applied adequately would go along way to ameliorate the growing problems of urban open spaces, especially to redress the present shortage and unsightly conditions of the existing ones.

CATEGORIES OF URBAN SETTLEMENTS IN NIGERIA

Based on their origin, the different urban centres in Nigeria, can be classified into three broad categories; the indigenous towns, the colonial new towns and the contemporary new towns like Ajoda and Abuja.

The indigenous towns are those founded before the arrival of the colonial administrators at the beginning of the century. They vary in their origins and landscape character. Their landscape character continue to change depending on the degree of their exposure to external influences especially since the advent of the colonial

administrators. Hausa Fulani cities already show a great Islamic influence such that they can now be called Islamic cities. In contrast, Yoruba cities remained closed to such external influence until the beginning of this century. However, some Yoruba towns like Lagos where western influence has been enormous can be classified as a mixture of traditional and colonial elements. O'Connor now argues that most towns in Africa are increasingly falling into the hybrid category [28]. The reason he advanced is that while the traditional towns are taking in more elements of colonial influence, the growing squatter settlements are now the traditional nucleus of the new towns.

The three Nigerian towns, which are described in the next three chapters namely Ile-Ife (Case study 1), Kano (Case study 2) and Jos (Case study 3) have been studied to interpret both the indigenous and contemporary urban landscapes in greater detail and to emphasize especially the current concern for the planning, design and management of open spaces.

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CHAPTER 2

CASE STUDY 1: ILE-IFE

Historically, and culturally, the city of Ile-Ife is central to the Yoruba, one of the earliest and most highly urbanised tribal groups of south-western Nigeria. Geographically, Ile-Ife occupies the central heartland of Yorubaland, being located in the middle of the evergreen tropical rain forest. It is surrounded by other important towns including Ibadan to the west (110 km), Lagos further south on the Atlantic Ocean (230 km), Oyo and Ogbomoso to the north, Ilesa to the east, and, Ado-Ekiti and Owo to the far east in Ondo State (Fig. 2.1). From historical and cultural perspectives, Ile-Ife is regarded as the oldest [1] and the richest Yoruba town; it is the fountainhead of the Yoruba civilisation, in arts, religion and their own particular style of town planning and architecture.

Ile-Ife is the headquarters of Oramiyan Local government and has emerged recently as an important educational centre with many secondary schools and colleges, and a university with rapidly expanding teaching faculties, the latest of which is the Faculty of Environmental Design and Management. Despite its recent physical growth, Ile-Ife is still the most typical of Yoruba towns with a well preserved palace, sacred gardens, squares and temples. For all these reasons, Ile-Ife provides an ideal environment for studying the

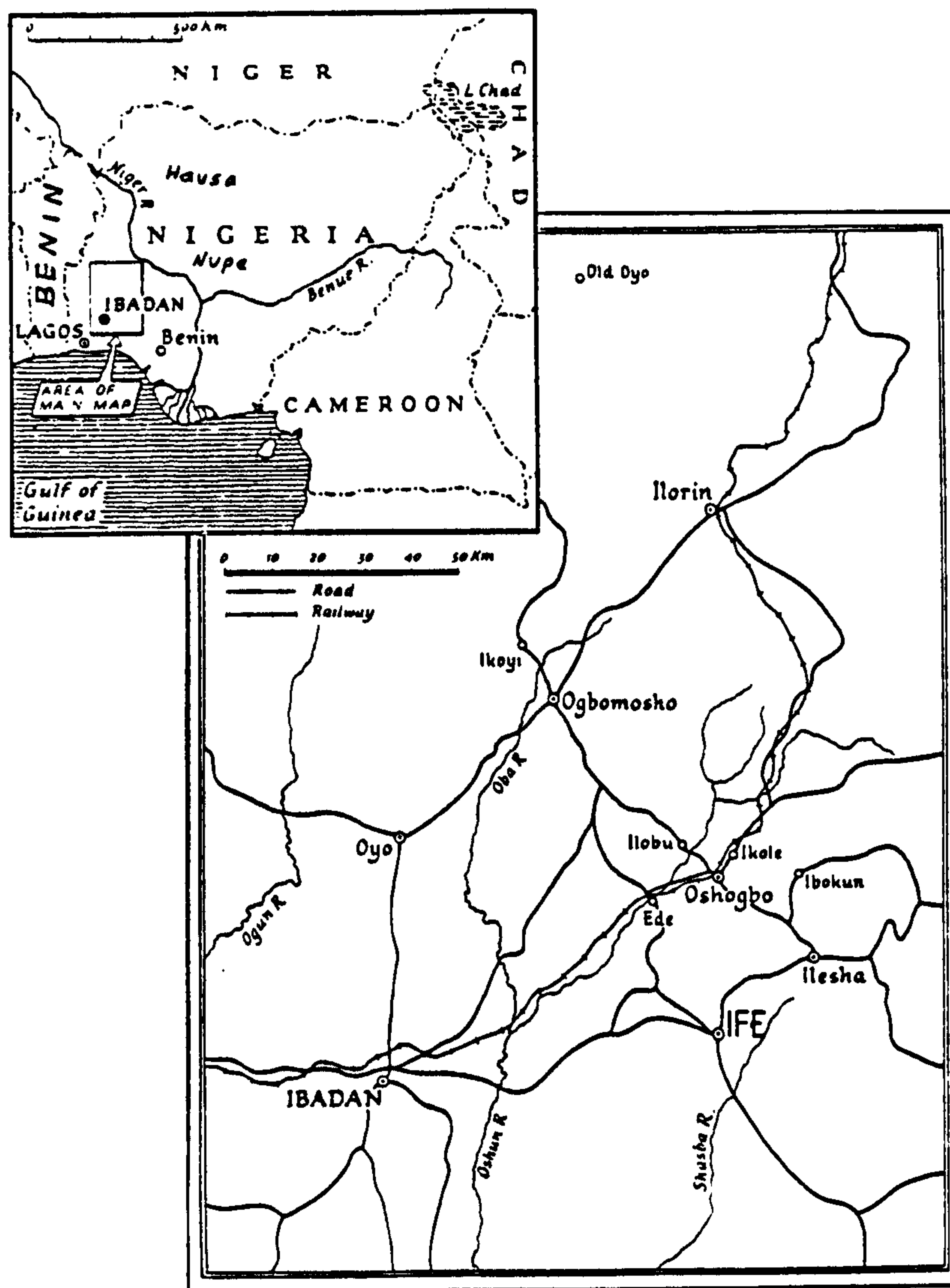


FIGURE 2.1: ILE-IFE: THE REGIONAL CONTEXT

different aspects of the Yoruba culture including traditional architecture and landscape design. Three historical periods; from origin till 1900 (the pre-colonial phase), from 1900 to 1960 (the colonial phase), and 1960 to 1983 (post-colonial phase) have been used for analysing the changes in the city's urban landscape and architectural styles.

THE PRE-COLONIAL ILE-IFE

There are two possible explanations of the origin of Ile-Ife. The first of these is the popular Yoruba legend of creation in which Oduduwa is described as the great ancestor of the Yoruba, who is said to have descended from heaven and established the cosmic power centred in Ile-Ife. The second explanation is the migration theory, which states that Ile-Ife was founded by an immigrant group supposedly led by Oduduwa from the far East. The two versions of the city's origin despite their differences agree on the centrality of Ile-Ife in the history of the Yoruba people and the part it played in the foundation of other Yoruba towns. A view shared by many historians is that the descendants of Oduduwa left Ile-Ife in later years at different times to found other Yoruba towns, that also developed as city-states [2]. Culturally, Ile-Ife is still linked with other Yoruba towns as the title to the thrones in these other towns is often traced to the genealogical descent from Oduduwa.

Based on the limited archaeological evidence available, the founding of Ile-Ife has been dated circa the 7th century AD [3]. By

the 15th century, Ile-Ife had reached the peak of its power and controlled the neighbouring Benin empire to the east. When D'Aviero visited Benin in 1485, he recorded that the approval of an Ogane, a powerful chief in the interior, who has been identified as the Ooni of Ife by Talbot, was needed before the Benin king could be crowned [4].

By the 16th century Ile-Ife had lost its political power to the more powerful Oyo Empire, another Yoruba city-state on the southern border of the guinea savanna. As the great Oyo empire fell to the Fulani in 1837, the people of Old Oyo and those in the district towns and villages fled southwards to seek refuge in other Yoruba towns - notably Osogbo, Ogbomoso, Gbongan, Ile-Ife and Iki re. Those who came to Ile-Ife were first absorbed into the city and later resettled at Modakeke in 1850 by the Ooni Abewenla [5]. Then, Modakeke became Ile-Ife's sixth residential ward; the other five older ones being: Okerewe, Remo, Ilare, Ilode and More.

During the last half of the 19th century frequent wars broke out between the Modakeke and Ife people. Ile-Ife was largely abandoned as a result of the protracted wars, which regrettably [6] destroyed much of its artistic and architectural merit [7]. Abandonment of the city meant that the Yoruba indigenous religion with its centre at Ile-Ife was also abandoned, and so were the city's buildings and the sacred groves that housed the city's most treasured bronzes and terra-cottas. In 1894 an adjudication secured the return of the Ife people so that they could resume the worship of Yoruba deities.

Thereafter, relative peace seems to have prevailed till the end of the 19th century when the colonial administrators and the Christian Missionaries arrived.

The distribution of archaeological finds and the lines of the city walls suggest that pre-colonial Ile-Ife was relatively extensive, covering the areas enclosed by the inner town wall and even beyond to some of the new suburban housing developments like Akarabata, and Koiwo to the west. However, it is difficult to define the boundary of the pre-colonial phase of Ile-Ife exactly because, unlike the Hausa towns like Kano, the city walls have disappeared in places. To some extent, the city's walls can be traced through street names like Eyindi, which means "the street behind the town wall" and by having due regard for the older churches and schools, which at their origin were located at the fringe of the older city. Remains of the first town walls can still be seen in parts of the grounds of Oduduwa College and Ita Yemoo Grove. That of the second town wall is some 400 metres west of the Seventh Day Adventist Hospital (Fig. 2.2).

According to two oral accounts, the first part of the city to be inhabited was the area around Oduduwa Temple, which is now conserved in the surrounding sacred grove [8]. This area is said to have been the first abode of Oduduwa Olofin, the city's founder and first king. His first title, 'Ooni of Ife', which means the owner of Ife, has been retained by all Oonis. Following his coronation, Oduduwa probably resided here till his death. The present palace was built by his grandson Orammiyan in the pattern that later became the model

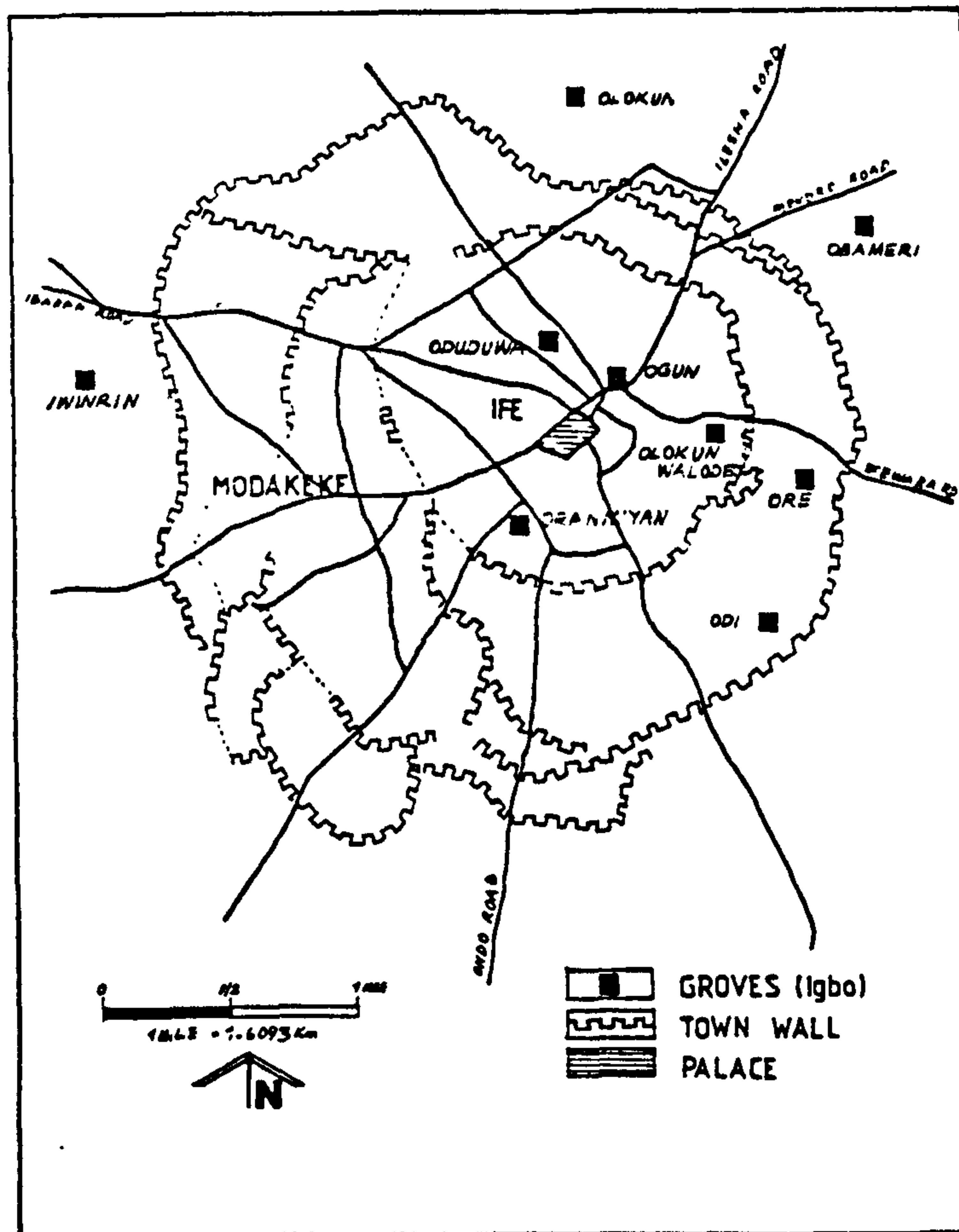


FIGURE 2.2: THE PLAN OF ILE-IFE: SHOWING LINES OF TOWN WALLS AND THE SACRED GROVES. Sections of the Town walls are still preserved at Ita Yemoo, Seven Day Adventist Hospital Ground and the Oduduwa College Ground.

for other Yoruba towns (Fig. 2.3). However, recent archaeological investigations have assigned probable dates of human occupation to certain parts of the city; the area around Orun Oba Ado and Ita Yemoo, as 600 AD and 890 AD respectively [9].

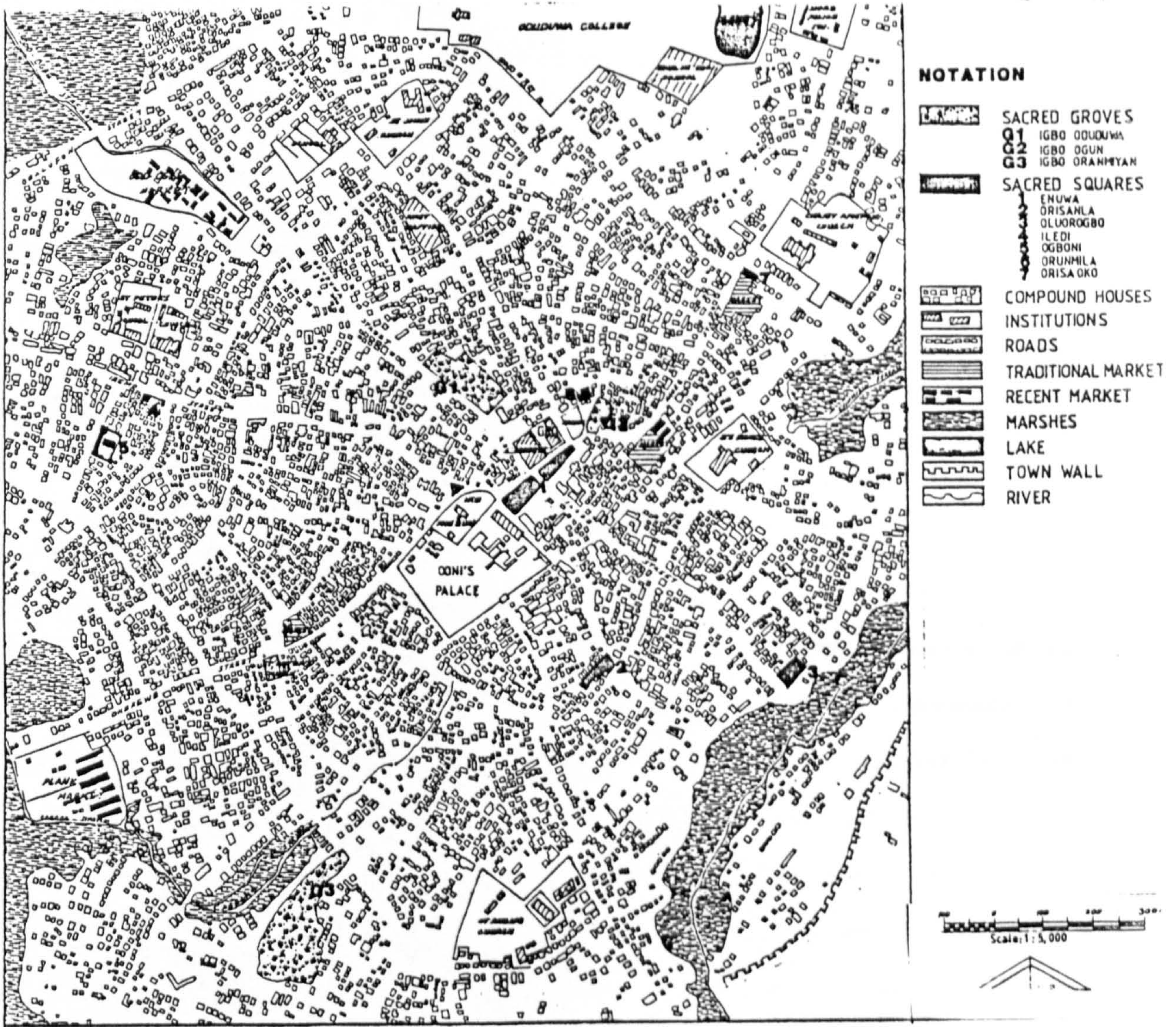


FIGURE 2.3: THE PRE-COLONIAL PHASE OF ILE-IFE: showing the fragmented nature of the older residential compounds. It compares favourably with the typical Yoruba town plan with the Palace and the town square forming the focal centre and point of social and political intercourse.

TABLE 2.1: ILE: SIZES OF RESIDENTIAL COMPOUNDS

Compounds	Size (ha.)
Seeru	0.58
Ijetawo	0.33
Ile-Oko Isokun	0.19
Balea	0.14
Ogboni	0.74
Gbenlenkan	0.41

Source: Field Survey February 1982 by the authority.

Occupying the centre of the old town is the Ooni's palace, which is surrounded by some of his chiefs' large residential compounds. A typical example is the Seeru Compound to the east overlooking the Emuwa square. This compound was so extensive that it used to cover the land area bounded by Ilode Street to the north, Emuwa square to the west, Itapa street to the south and Olopo street to the east. The Seeru compound is very fragmented having been broken up and rebuilt into smaller compounds; with a few larger ones occupying as much as 0.58 ha. (Fig. 2.4). Other examples of relatively large traditional compounds include; the Ogboni quarters, which occupies some 0.74 ha., and is only second to that of the Ooni of Ife; the Balea compound along Ilare street, Chief Akogun's compound along Ogbon Oya (Oya street) and the Gbenlenkan compound on Gbenlenkan street (Table 2.1).

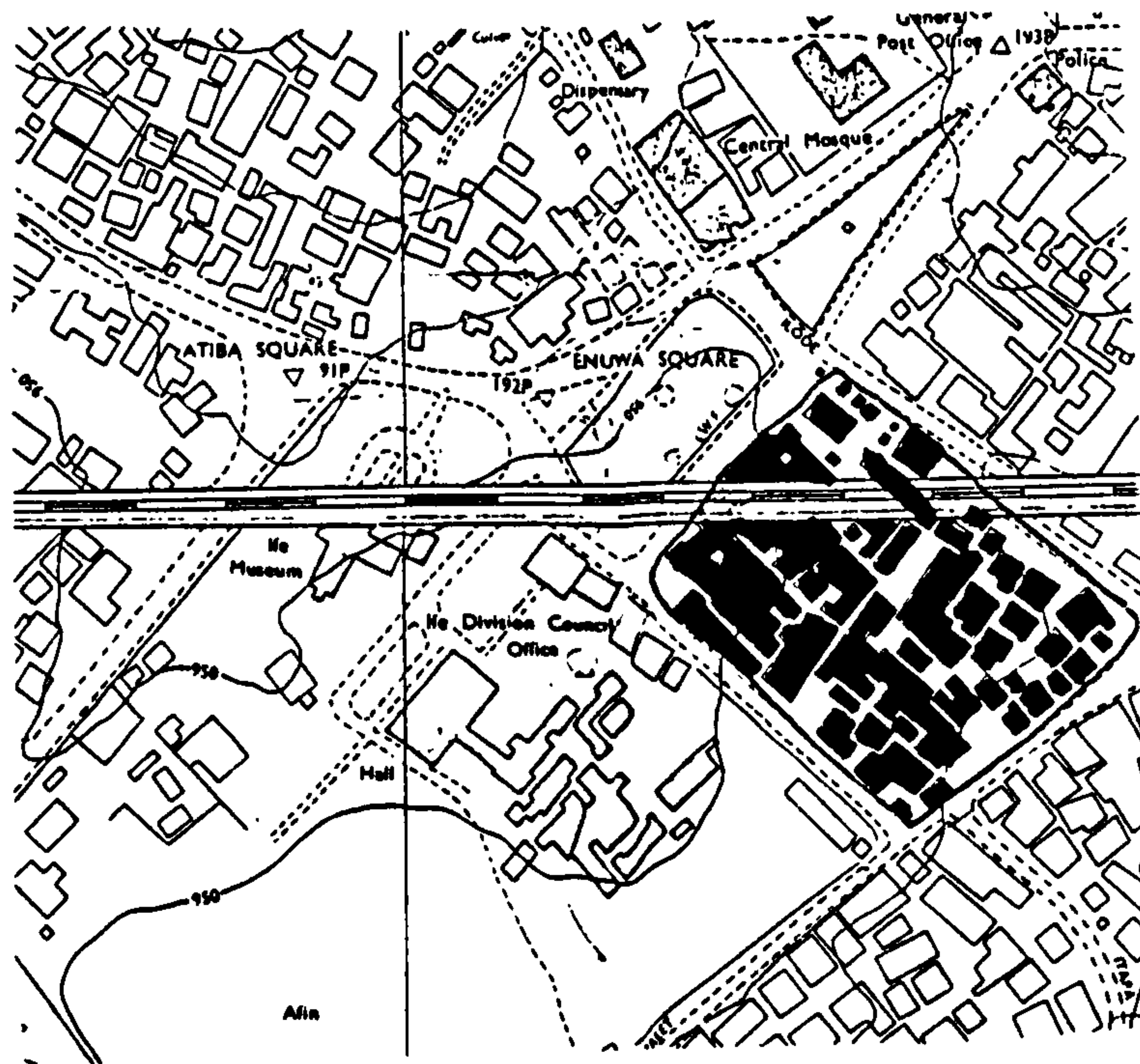


FIGURE 2.4: THE PLAN OF SEERU COMPOUND, ILE-IFE: An example of an historic and larger residential compound of Ile-Ife. Most of the compounds now do not have courtyards characteristic of their traditional forms. The spaces around them have lost their definition.

The town squares, sacred groves, the streets, paths, lanes and the town common were the public open spaces forming essential components of the pre-colonial urban landscape. Small squares, hierarchical in nature, were usually attached to the compounds of the quarter chiefs. These squares conferred a sense of place on these buildings and were used for public gatherings, social, economic, religious and recreation purposes. Notable examples of these squares

include Itakogun Square, along Okerewe street, and Atiba Square located at the meeting point of Remo Street and Okerewe Street (Table 2.2). When markets are not held these spaces are used by the general public for other purposes including outdoor leisure pursuits. The sacred groves and sacred squares constitute another category of public open spaces that were provided in pre-colonial Ile-Ife and other Yoruba towns. Among the many sacred groves designated in the past, those which have survived urban growth include Oduduwa, Oramiyan and Ogun groves (Fig. 2.2 above). A detailed account of these traditional public open spaces is provided in Part Two of this study (see Ch. 6).

TABLE 2.2: ILE-IFE: SIZE OF TOWNS SQUARES

Name	Location	Area ha.
Enuwa	Ooni's Palace	1.57
Oduduwa	Ooni's Palace	0.74
Atiba	Remo Street	0.10
More	More Street	0.10
Ita Akogun	Okerewe	0.97
Total		4.37

Source: Field Survey, March 1983 by the author.



FIGURE 2.5; ODUDUWA GROVE: AN EXAMPLE OF EXISTING GROVE; and is one of the most cultural and historic landscapes. The picture shows the grove as seen from the top of Orunmila Temple.

At the beginning of this century, Frobenius described Ile-Ife as a compact town surrounded by green fields, sacred groves and wooded landscapes [10]. He added that the city was punctuated in parts by lakes, bogs and streams, and the most important of the urban landscape elements were the Palace and compounds of the chiefs with their imposing architectural splendour.

The physical development of Ile-Ife, including open spaces, during this period was mainly influenced by indigenous socio-cultural, political, economic and religious factors [11]. The gregarious nature of the people, and the spatial needs of marketing and bartering in a

hot humid climate were the chief impulse behind the provision of both public and private open spaces.

THE COLONIAL ILE-IFE

The colonial phase of Ile-Ife, like that of the rest of the nation, effectively covered the period between 1900 and 1960. There were three distinctive features of this period: the first was the modest growth in size and population of Ile-Ife; the second was the increasing diversity of land uses and the third was the new suburban developments chiefly begun by the Christian missionaries and the colonial administrators.

TABLE 2.3: POPULATION GROWTH OF ILE-IFE BETWEEN 1911-1983

Year	Population	Percent Rate of growth
1911	36,000 ⁺	-
1921	22,200 ⁺	-11.0
1931	24,000 ⁺	+ 9.0
1952	110,000 ⁺	+357.9
1963	130,000 ⁺	+18.1
1967	147,000 [*]	+12.5
1977	191,900 [*]	+30.5
1983	300,000 [*]	+19.4

Sources: + Population Census Data.

* Population Projections, Oramiyan Local Government Office, Ile-Ife.

The first part of Table 2.3 above shows the growth of the city's population under colonial rule. In 1921 it was 22,000. By 1931, a decade later, it had risen to 24,200. Another two decades later, it had increased by more than four times to 110,000. This sudden rise may be explained as due partly to serious under-counting prevalent in the earlier censuses and partly due to the increasing influx of immigrants into Modakeke. By 1963 the city's population had risen further to 130,000. The additional population was accommodated on the city's periphery and had little impact on the old city.

There were two other factors responsible for the city's population growth and physical expansion. The first can be attributed to the more peaceful period which prevailed in most parts of the country following the colonisation of the country. Under such a condition, an increase in population was inevitable. Secondly, the city grew in response to the diversification of the indigenous subsistence economy by the colonial administrators through the introduction of the cash crop economy and the improvement of roads and other services including health facilities. Towards the end of the 19th century, cocoa had been successfully introduced as a cash crop in most British colonies in West Africa, including Nigeria. Ile-Ife's rich agricultural land was particularly suitable for the cultivation of cocoa and it gave high yields. Immigrant cocoa farmers founded villages like Ajebamidele, Yekemi and Olode some of which now border on the city. Roads were constructed for quick transport of agricultural products to export centres. Moreover, Ile-Ife as a divisional headquarters

needed to be linked with Ibadan by road to maintain effective communication. Therefore, in 1903 the old Ile-Ife - Ibadan road was constructed as a laterite road. Thirty years later, it was resurfaced with tarmac together with other roads within the city.

In 1931 the Lagere shopping precinct was built by the colonial administration (Fig. 2.6a). It still houses important British commercial concerns such as GB Olivant, John Holt and the United African Company (UAC). The office buildings of the colonial administration with their relatively attractive landscape setting, constitute another category of urban development. They have been located in different parts of the city: some located within the Ooni's palace, and others, along Aderemi Street, Lagere and Obalufon Streets. The Government Residential Area (GRA), which housed the Divisional Officer and the adjoining Rest House are located on Modakeke hill and both overlook Ogunsua market. Its location was strictly an interpretation of Lugard's principle of developing the 'Hill Station' (as stated in the 'Dual Mandate' of 1917) and on ground higher than that settled by the natives. The GRA, though small, is enclosed by a green belt; and the few buildings within it are surrounded by green lawns planted in parts with flowering trees and shrubs (Fig. 2.6b).

The Christian Missionaries, who first came to Ile-Ife, had a formidable task in evangelising the majority who then believed in the traditional religion. Their successes can be measured by the number of churches and schools built in Ile-Ife within the first three decades of their arrival (Table 2.4). The Seventh Day

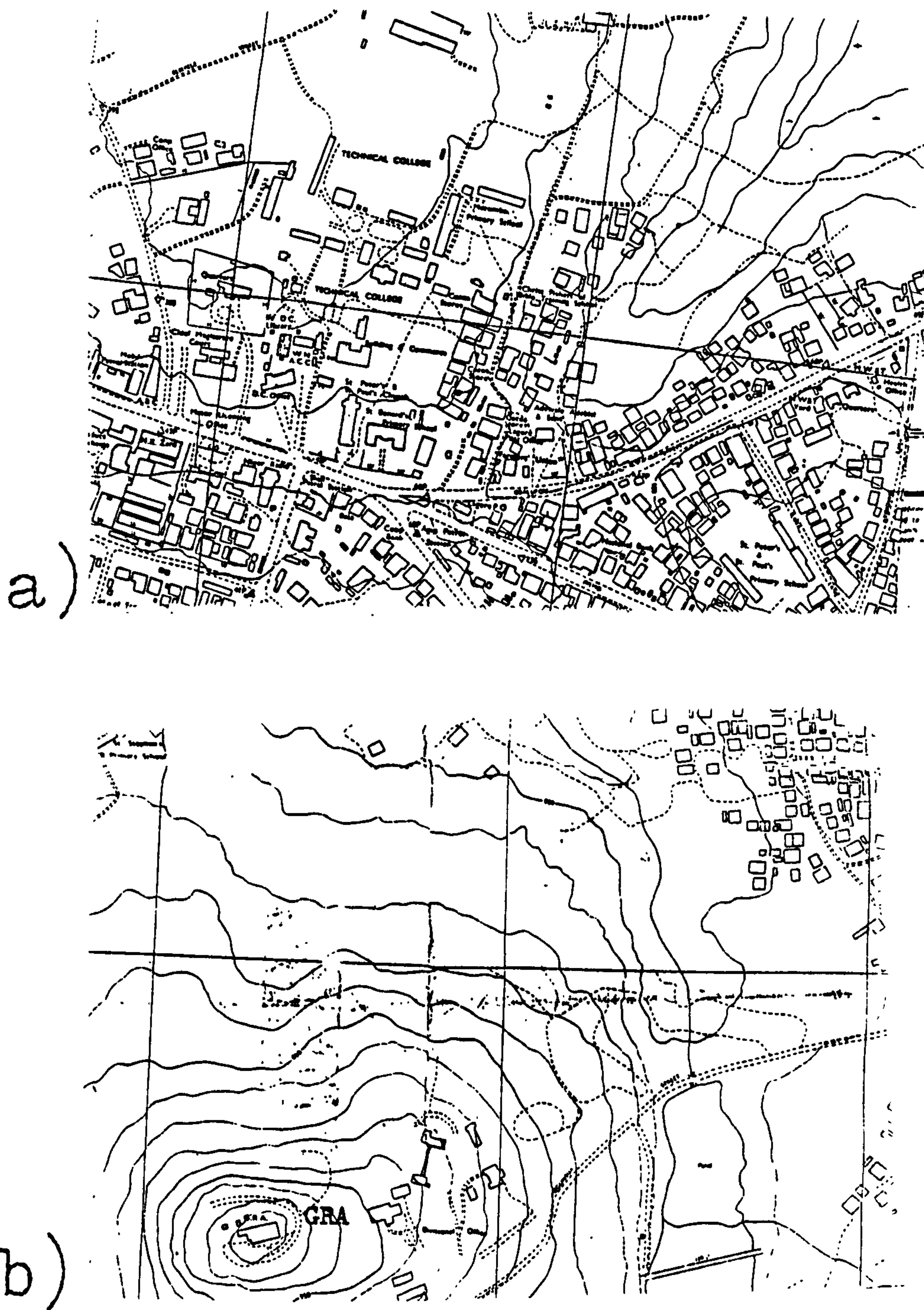


FIGURE 2.6: ILE-IFE: TWO EXAMPLES OF PLANNED SUBURBAN EXPANSION OF COLONIAL ORIGIN

a. The Plan of Commercial Development, Lagere, Ile-Ife. b. The Plan of the District Officer's resident, Modakeke: an example of the the relatively small Government Residential Area perched on Modakeke Hill and surrounded by green belt.

Adventists made the most outstanding contribution by building the city's first hospital in 1943, whereas most missionary bodies tended to content themselves with the building of churches and schools.

TABLE 2.4: ILE-IFE: EARLY DEVELOPMENT BY CHRISTIAN MISSIONS

Missions	Year
St. Philips Anglican Church, Aiyetoro Street	1912
St. Peter's African Church, Okerewe	1914
The Catholic Mission, Lagere Junction	1918
Ethiopian Church, Okejan Street	1918
Christ Apostolic Church, More Street	1920
St. John Anglican Church, Ilare Street	1923
The Salvation Army	1924
The Cherubin and Seraphin Church	1928
St. Paul's Anglican Church, Aiyegbaju Street	1930

Source: Field Survey February 1982 - July 1983 by the author.

In general new churches, schools and the hospital made demands for larger sites. For reasons of land shortage within the city's built-up area, these were often located on the green fields and the town common. On occasions, these buildings were deliberately sited on the sites of sacred groves to discourage traditional religion. A characteristic feature of these churches and schools today are the surrounding attractive open spaces for outdoor recreation and

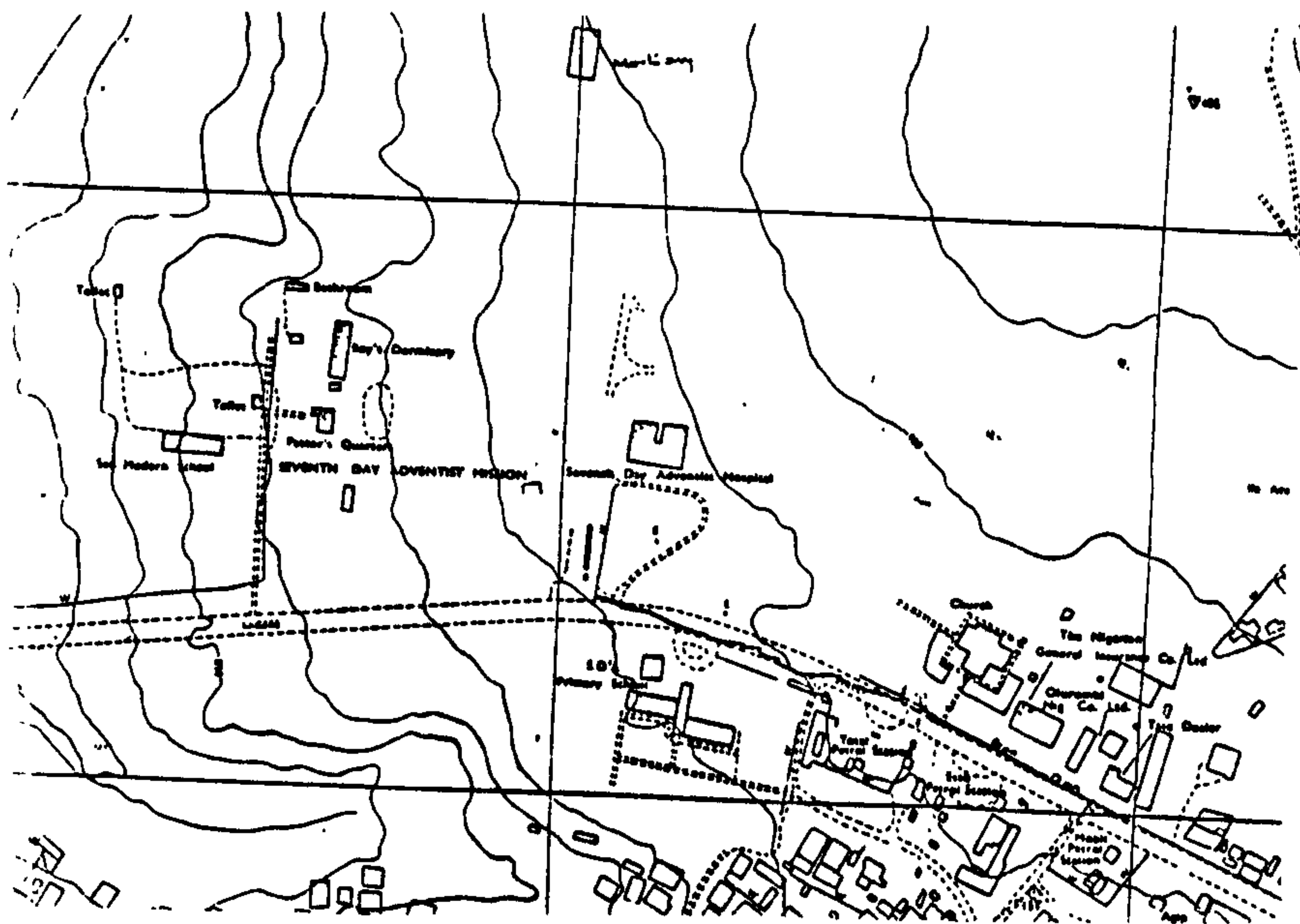
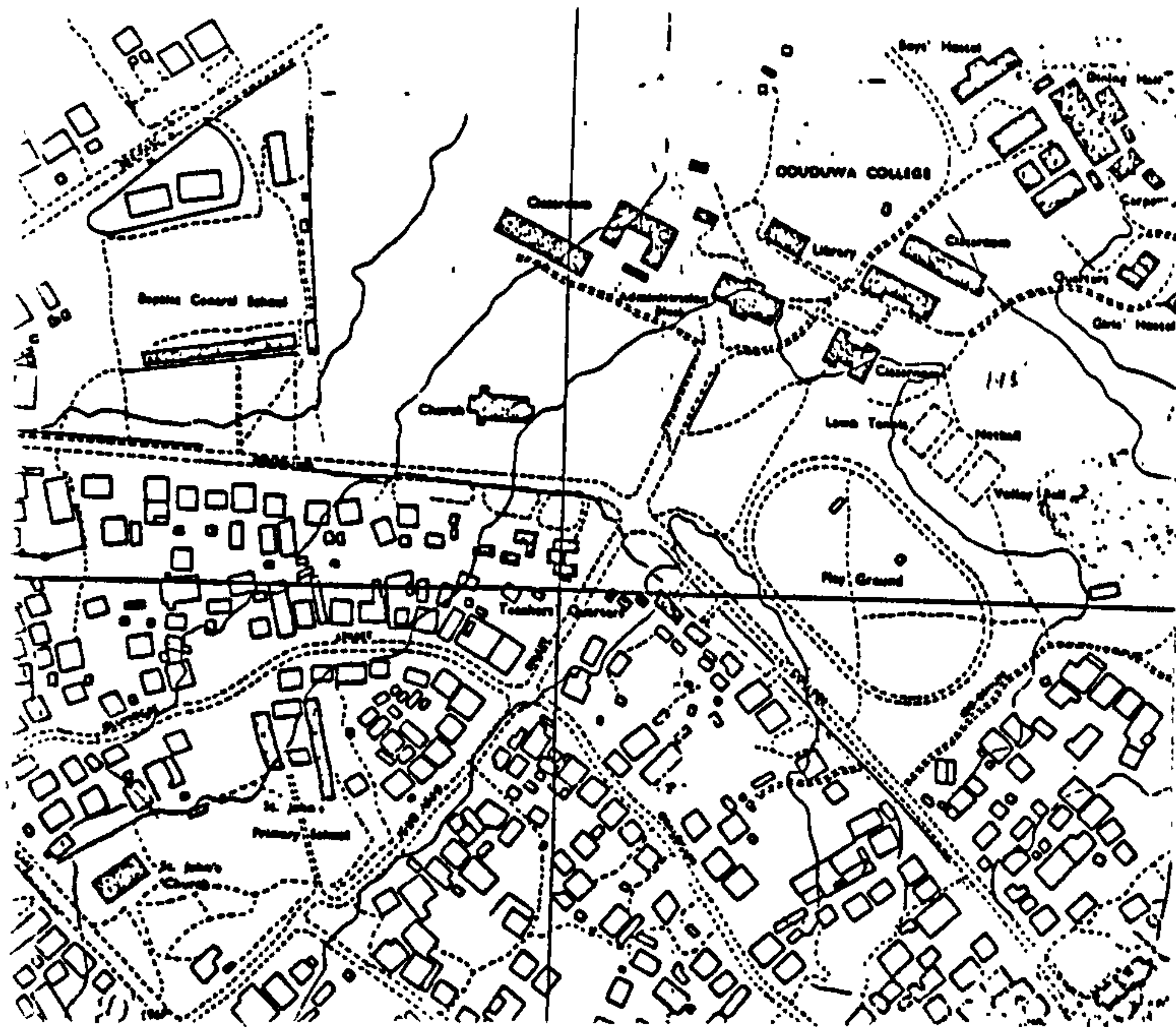


FIGURE 2.7: ILE-IFE: EXAMPLES OF DEVELOPMENTS BY THE CHURCH MISSIONS

a) The Plan of Oduduwa College along College Street: a typical example of an institution with generous open space. b) The Plan of Seventh Day Adventist Mission Ground: an example of institutional development with attractive open spaces.

amenity. Notable examples of the larger developments are the grounds of the Seventh Day Adventists, the Catholic Mission, Oduduwa college and St Philips Church at Aiyetoro Street. (Fig. 2.7).

In 1947 a plan to guide suburban housing development along Ojoyin Street and Aderemi Street was adopted. It was probably prompted by the passing of the 1946 Town and Country Planning Act. This area was laid out with long and narrow rectangular plots with each house enclosed by mud walls. The latter regular subdivisions of lands and their sale were a major departure from the indigenous land tenure system based on communal land ownership and which had been the basis for allocating land for housing and agricultural development. Similarly, the blue-print for the development of Akarabata, to the south of Lagere shopping precinct, was undertaken in 1954. Akarabata was laid out in straight grids with large residential plots. The plan, however, failed to provide for essential urban services and infrastructures and in particular, public open spaces, even at the neighbourhood level (Fig. 2.8).

service industries. In 1960, the size of Ile-Ife was very small, with Modakeke still detached and separate, and each was surrounded by a green belt. Most people if they so wished had easy access to the surrounding countryside (Fig. 2.9).

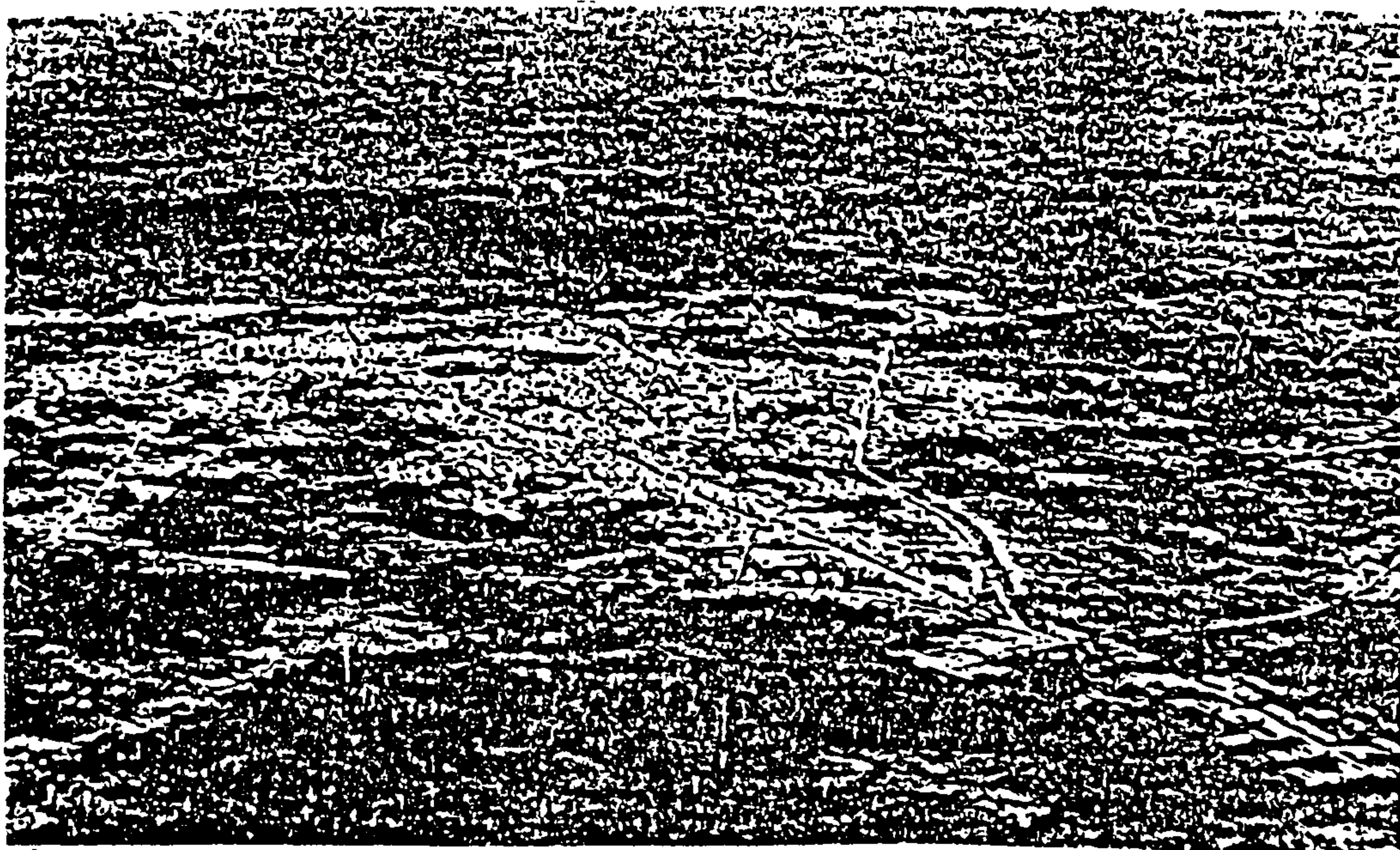


FIGURE 2.9; ILE-IFE, 1960: Aerial View.

The colonial phase of Ile-Ife was characterised by many changes. Foremost among these changes was the Portuguese architectural style imported into the country by the freed slaves from Brazil. The Brazilian architectural style was first introduced in Lagos by some masons and the joiners namely Senhor Lazaro, Borges da Silva and Senhor Francisco Nobre and the buildings to their credit in Lagos included the Pro-Cathedral Church, the Holy Cross (1879-83), the then State House and some mosques [12]. The houses built in the imported Brazilian style are strictly rectangular in plan with the bed rooms

arranged on both sides of hallways and are known locally as 'face-to-face' (Fig 2.10). This architectural style is generally noted for the meticulous decoration of walls, windows and doors and thus are good examples of architectural ornamentations. Its major disadvantage, however, is the stereo-typed arrangement of the living rooms at the expense of open courtyards and thus free circulation of air within buildings. Smaller compounds, as built in this style, were also necessitated by the break-up of the extended family following the death of the household head. This architectural style had reached Ile-Ife by the beginning of the century. The Ooni of Ife quickly spotted it and built himself a two storey building in the style, which is among the most impressive buildings in the palace (Fig. 2.10).

Traditional building materials mainly mud and thatch began to be replaced with new and more expensive materials. Now houses in the old city are generally either constructed of mud walls plastered with cement or wholly with cement block and in both cases either roofed with galvanised or asbestos sheet. The galvanised iron sheet is unsuited for the hot climate and often rusts through the wet weather conditions, and most Yoruba towns are characterised by endless vistas of rusty brown roofs. In addition, asbestos is now regarded as a health hazard and its use for roofing should be discontinued. The old city, regardless of current land use planning controls still shows the organic arrangement typical of earlier compounds. But the new houses which have replaced them are poorly defined and lack



FIGURE 2.10: THE OONI'S PALACE, ILE-IFE: A view of the Palace building built in the Brazilian style .

traditional courtyards serving as effective outdoor rooms.

Another important change was the introduction of physical exercises, mainly of English outdoor sports, as part of the school curricula. The pursuits of active sports are of growing importance among the educated elite, who continue to use the limited school playing fields after their school days are finished. The realisation of the value of physical exercise also requires a change of attitude to the provision, use, design and construction of open spaces.

Whereas the new developments belonging to this period had encroached upon traditional open spaces such as town commons, sacred gardens, sacred squares and town squares, little or nothing was done to replace them. Indeed, colonial Ile-Ife, unlike other more important administrative and commercial centres like Ibadan, had no public parks and recreation grounds. This was because Ile-Ife, as a divisional headquarters, housed very few colonial administrative staff whose recreational open space needs were better met in other nearby towns like Ibadan and Osogbo where provision was ample. Moreover, the streets which used to be important components of the open space system for pedestrians in the pre-colonial city continued to give way to vehicular traffic. This period not only showed little or no concern for adding to the city's open spaces but set the precedent of its continuing impoverishment in urban amenity.

THE POST-COLONIAL ILE-IFE

During the last two decades, the city has witnessed a relatively faster population growth and physical expansion when compared with the previous periods (Fig. 2.11). By 1963 the city's population was 130,000, an increase of 18 per cent over the 1952 figure. Since then, no reliable census had been undertaken and the city's population figures may now at best be estimated. In 1967 it was estimated as 147,100 and by 1977 as 191,000, which represented a growth of more than 50 per cent over the period; it was estimated as 300,000 in 1983 (See Table 2.3 above).

The university is among the many factors responsible for the city's faster growth and these changes were scarcely anticipated when it was decided to found it in 1962. At first the university's impact was hardly noticeable as it was first housed in Ibadan on the site of the former College of Arts, Science and Technology, now the North Campus of Ibadan Polytechnic. It is since 1967, when the different faculties of the University moved to Ile-Ife, that these varying impacts and land use demands associated with it have become so glaring. The most significant impact of the University in terms of land use has been the population gain which results mainly from its employees and their dependants.

Other factors making an impact on the environment include wider employment opportunities, the city's accelerated growth, the rising housing rents and high land values. While the city's area has

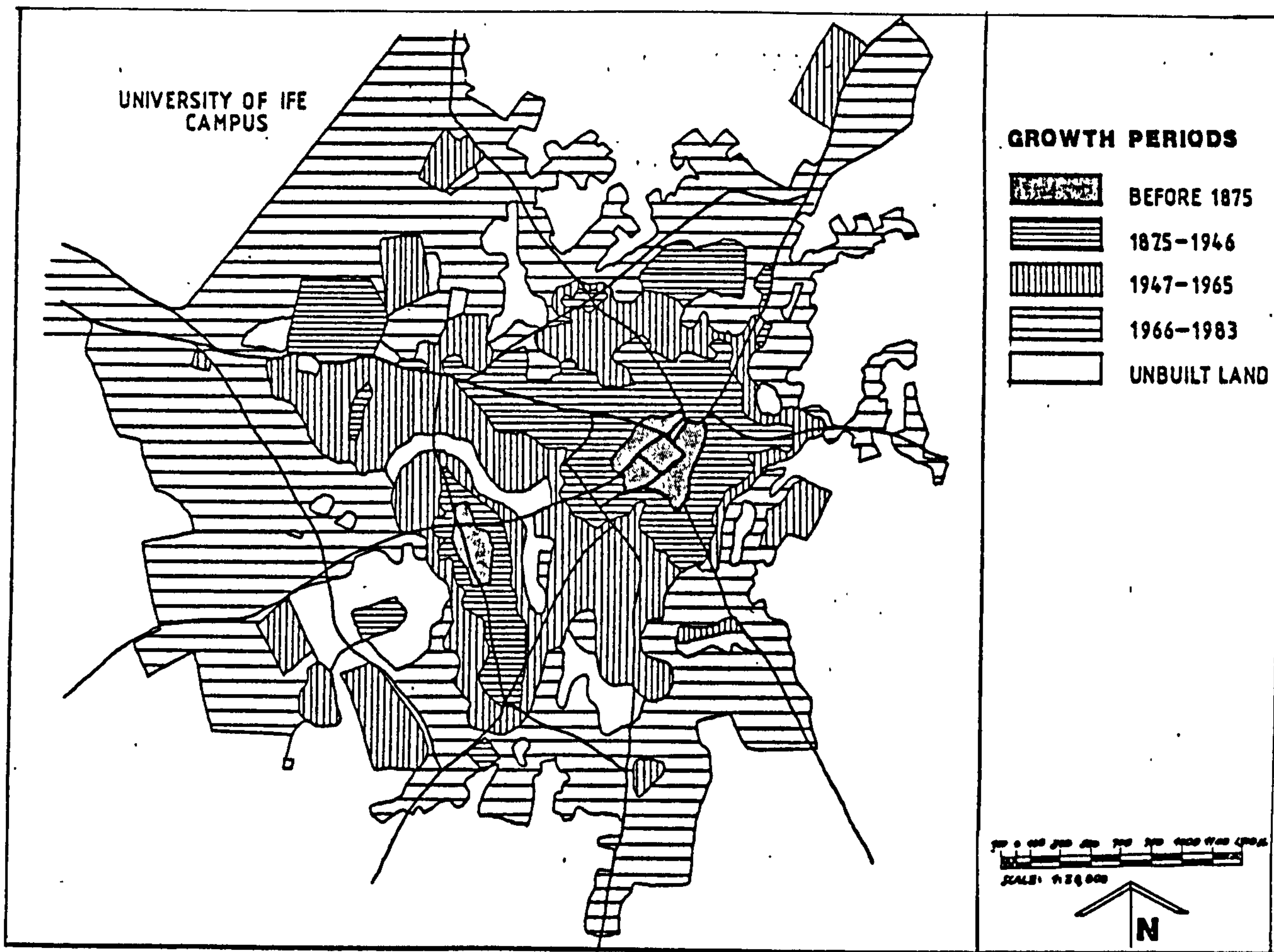


FIGURE 2.11: ILE-IFE: GROWTH FROM ORIGIN TILL 1983.

increased by over 1,000 hectares, land values have also risen by more than four times [13]. Because of the city's poor health-care services and inadequate water supply the university has had to make some tangible contributions. At first, it up-graded the city's two main hospitals - the State hospital and Seventh Day Adventists Hospital as Teaching Hospitals equipping them with better medical facilities and services. More recently as a result of water shortage in the city, the university has had to provide its own water supply, constructing the Opa Dam, now an important resource which attracts the town's people in search of clean water for drinking. In many other respects, the university is both an educational and a landscape resource. The campus, with its attractive and open landscapes and the provision for active and passive recreational facilities such as the sports centre complex, the zoo park and the nursery garden which is more like a botanical garden, offer a wide scope for outdoor recreational pursuits for its residents and and the town's people.

The city's rising population growth engendered many fragmented and uncoordinated high density suburban housing areas. A distinctive and predictable feature of these newer residential suburbs is their growth along the city's major roads and streets notably Ondo Road, Ilesa road, Ibadan road, Fania road, Ede road and Owa Road providing a direct link with the campus (Fig. 2.12) Good agricultural land and thriving cocoa plantations were lost in the course of these suburban expansions. The housing developments along Owa Road and Eleiyele layout behind the Seventh Day Adventist Hospital have been built on

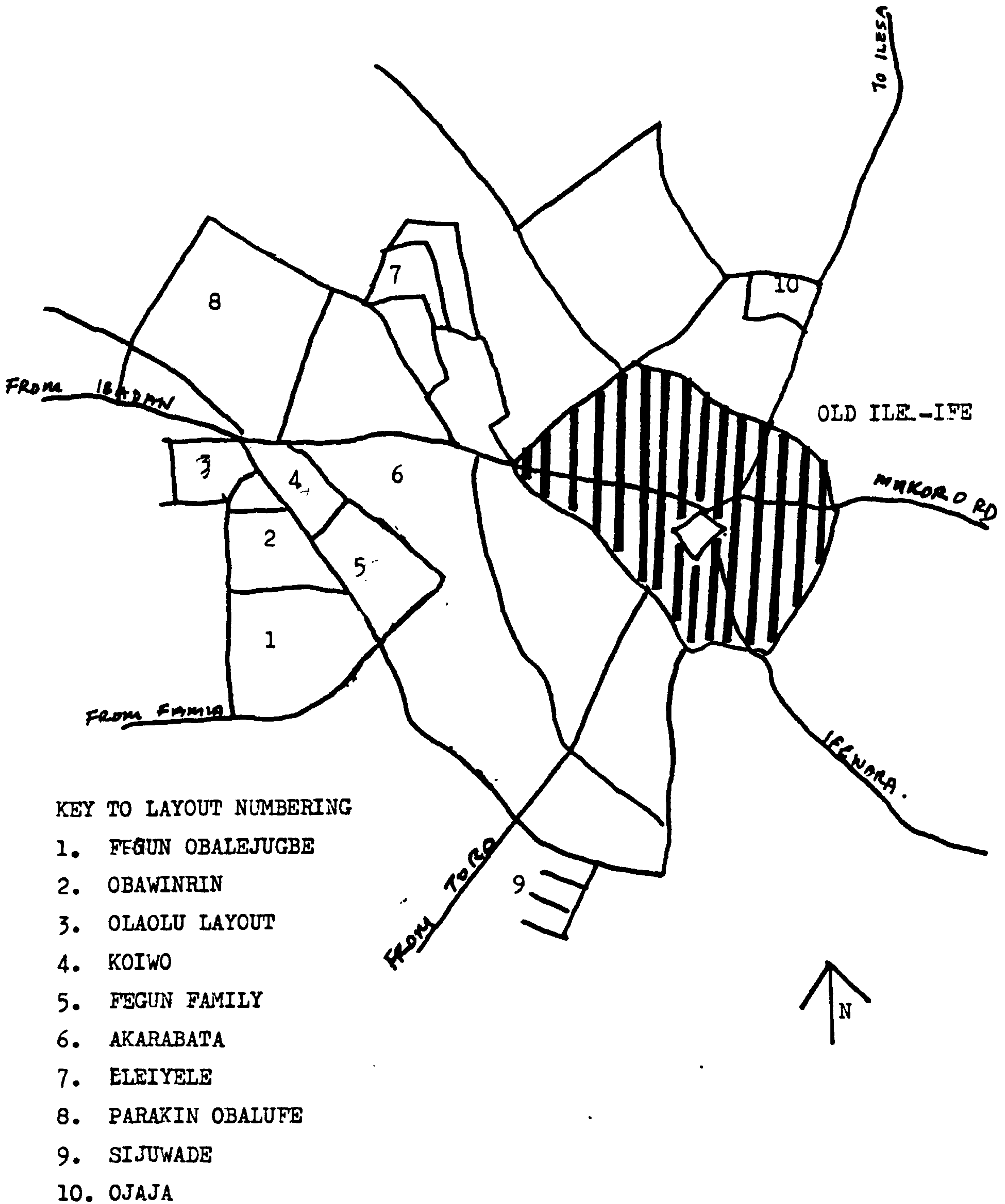


FIGURE 2.12: ILE-IFE: SUBURBAN HOUSING DEVELOPMENTS; mainly of small private layouts and a few housing estates with growth along the major roads

former plantations and farmlands, and the only reminder of these are a few isolated cocoa and banana trees which have been retained in some private yards.

TABLE 2.5: ILE-IFE: PROVISION FOR OPEN SPACE IN SUBURBAN LAYOUTS, 1960-1983

Grouped layouts	Total	Open space Reservation	
	Area ha.	area (ha.)	P.C. of total
Inner city development	10.72	0.65	6.1
Old and New Ibadan Roads	226.94	14.99	6.6
Ondo Road	158.13	7.21	4.6
Mukoro/Famia/Toro	146.24	5.73	3.9
Ilesa Road	156.53	7.49	4.9
Owa Road	170.53	6.90	4.0
Ede Road	73.30	3.72	5.1
Total	942.39	46.69	4.9

Source: Ife Area Planning Authority. Data compiled from approved planning applications mainly for housing from January 1960 to March 1983 and which numbered 224.

Suburban housing developments, dating from the last three decades, cover as much as 940 hectares (about one-half of the city's area); with some already built and some vacant (Table 2.5). These were generally small housing layouts, ranging in size from 0.01 ha to 22.7 hectares with 4.21 hectares as the average. The fragmentation

of land in this fashion reflects partly the pattern of land ownership and a high degree of land speculation in the city. It demonstrates the weakness of the local planning authority to evolve a radical policy to deal with the situation. Because of their small size and fragmentation, these layouts prevent the attainment of comprehensive housing developments in which residential plots could have been grouped around either public or communal open spaces. On the whole the provision for open spaces amounted to less than 5 per cent of the total land area committed to urban development and is scarcely enough to redress the city's current open space deficiency. A further examination of the housing layout showed that the open spaces provided were hardly the result of any conscious planning effort as those provided were mainly set-backs from major roads and river valleys. In particular, the lands along river valleys have been reserved as open spaces because they are unsuitable for housing developments. Despite the limited open spaces provided, these are yet to be adopted and developed by the local planning authority and while these are largely awaiting development, some of them have been increasingly encroached upon by other land uses.

The suburban housing layouts are of three categories: the Local Authority Layouts, the Private Layouts and the Private Estates. The Parakin Obalufe Scheme, which is still being developed, is the only example of a Local Authority layout. It is located between the Seventh Day Adventists Hospital and the Mayfair Hotel along Ibadan road. It is mainly a housing scheme with provision for a small

shopping development and a public open space which is badly related to housing, though it is yet to be developed (Fig. 2.13). The Private Layouts constitute the second category of housing developments. They are by far the most prevalent, the most badly designed and the most densely built housing areas. Private layouts, unlike the local authority developments, are also less amenable to effective development control and usually unauthorised uses and encroachment on roads and open spaces are common. At present Ife Area Planning Authority cannot cope with these problems and it is only hoped that a further increase in staffing will lead to a more efficient planning administration and development control.

Forming the third category are the Housing Estates, which are more habitable and acceptable. These have been developed mainly by rich land owners and developers. Generally, the houses are built by developers and sublet. Notable examples of these are the Sijuwade Estate, Ajanaku Estate, Akosile Estate, Omole Estate and Mdabi Molayo Estate. Sijuwade Estate, situated along Ondo Road, is the largest and the most attractive of these housing estates, being developed as

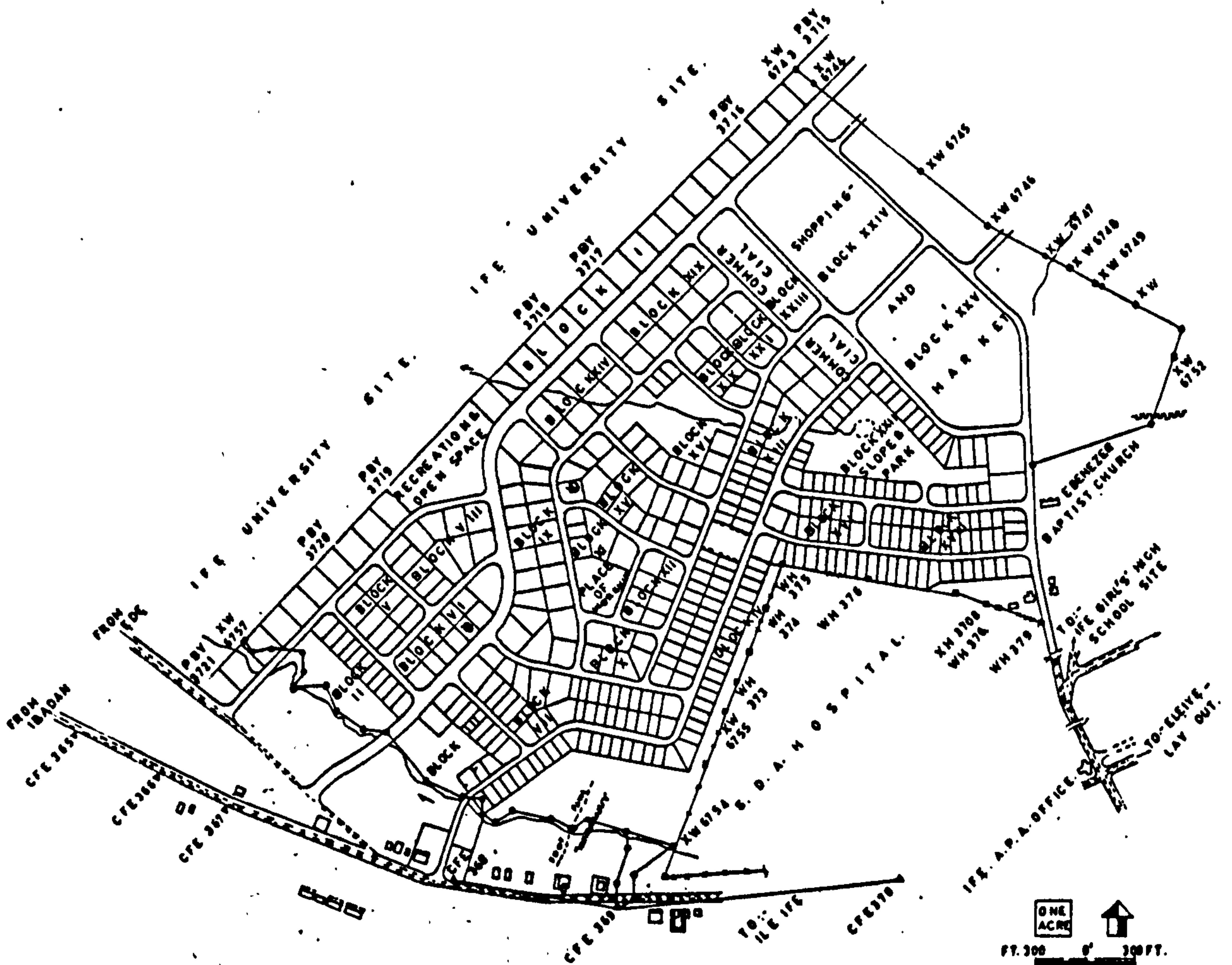


FIGURE 2.13: THE PARAKIN OBALUFE SCHEME, ILE-IFE: An Example of housing layout pioneered by the Local planning authority, In the design of the scheme, open space is very poorly related to house lot subdivision.

a low density garden suburb. Its detached houses of modern design are equally set within an attractive landscapes of ornamental lawns enclosed with hedges and punctuated in parts with flowering and shade trees. The landscape character of Sijuwade Estate is of similar character to that of the residential quarters of the University of Ife Campus, and is undoubtedly influenced by it.

In 1977 Group Five Engineering Nigeria Limited was commissioned to prepare the city's first land use master plan. Based on the findings of a generalised land use survey, the planners came up with a long range plan devised to guide the city's development for 25 years (1977-2002). The plan is generally very descriptive of the existing situation, and it ends up by more or less endorsing the existing, and failing to put forward any radical land use proposal to alleviate the city's many land use problems. These include housing transportation, industry, open space and urban renewal. Its main recommendation for open space was to sanction the development of the city's stadium for which land has been allocated along the Owa road. Obviously, the time scale of the plan, which lasts till 2002, is too long and cannot cope with changing land use decisions, and is therefore unrealistic. At the time of this study, the city continues to grow in advance of the approval of the Group's Plan by the Oyo State Ministry of Environment - five years after its preparation.

With Ile-Ife still lacking an approved plan, land use decisions still rest with the land owners and speculators. The Land Use Decree 1978, seems to have succeeded in halting land speculation and

development in the city only in as much as planning applications for suburban housing have decreased over the years since it came into force. But unofficial transfer of land is still very common because developers and speculators can still exploit the loopholes in the Land Use Decree 1978 for their own ends. The planning authority now needs a new and adequate master plan backed by planning policies to guide and manage the city's growth more effectively and efficiently.

ILE-IFE: its landscape character, problems and suggestions

Apart from the recent addition of the University, the landscape of Ile-Ife mimics that of older and historic Yoruba towns. The three major landscape components of the city include the old town, the more recent suburban housing areas and the University of Ife Campus; and each exhibits varying qualities depending on the effectiveness of its design, management and amenity. Preserved in the old town are the historic and cultural landscapes such as the palace, the sacred groves and, sacred squares with their adjoining religious temples, all attesting to the city's antiquity. The quality of the latter is overshadowed by the surrounding poor, barren and dilapidated housing stock (Fig. 2.14).



FIGURE 2.14 AERIAL VIEW OF OLD ILE-IFE: The few sacred groves serve to break the monotony of the congested and dilapidated housing stock.

Major institutions with generous and attractive open spaces namely the churches, schools, hospitals and government office buildings form distinctive landscape features in the city. In particular, the schools and the older churches form a ring round the old town; while the more recent ones also punctuate the newer housing areas. The older churches with their high gothic towers are suitable landmarks which should be preserved. With exception of a few, the more recent housing suburbs, have benefited very little from good landscape design and management. They are mostly high density by-law housing developments very deficient in both private and public open spaces and general amenity.

The attainment of a well designed and maintained campus, with a generous provision for open spaces offering a high degree of amenity, serve to make the University distinct from other parts of the town. The Campus is more than a suburban development as it is hardly comparable to any of the recent suburban expansions. In fairness to its size and character it is best regarded as a city within a city. Nevertheless, as an adjunct to the city which lends it its name, the campus is both an asset and a source of civic and national pride. It is a major contributor to the city's attraction and being one of the largest (13, 500 ha) and one of the best developed university campuses in Africa (Fig. 2.15). For the more deprived people in the town the campus is a rendezvous because of its attractive landscape and outdoor recreational resources. But because the campus is too remote from the town, alternative and local opportunities for redressing the city's open space problems need to be sought.

Ile-Ife is currently deficient in public open spaces especially children playgrounds at the neighbourhood level: no playgrounds having been provided either by local planning authority or by local government. The current deficiency is compounded by the non-adoption and non-development of those areas of which land has been allocated for the development of public open spaces. These problems are attributable to two interrelated factors. The first and foremost factor being the inadequate administrative machinery for park development. The second one, the lack of a land use plan and policy for the city's development; especially those relating to proper design of suburban



THE MAIN CORE OF THE UNIVERSITY OF IFE

By Courtesy of Egboramy Nigeria Company

FIGURE 2.15: UNIVERSITY OF IFE CAMPUS: A view of the campus showing it as developed largely as a park-like landscape. It is among the largest and the most beautiful campuses in Africa.

expansions, open space provision and its management, landscape improvement and conservation.

It is scarcely an exaggeration to say that the organisational framework for park development and maintenance of open spaces is non-existent at Ile-Ife. Moreover, it is also true to say that the city only experiences what has become a nation-wide problem. At present the administrative framework for park development is shared by many statutory bodies with no clearly defined roles assigned to any of them and it dates from the time of the colonial administration. The local planning authority has a statutory duty to allocate land for the development of public open spaces but lands so allocated have not been developed because of the constraints in the existing administrative network and for lack of financial resources. The local planning authority is not in a position to liaise with other statutory bodies like the Department of Public Works and Forestry Department whose interests in town gardens date back to the era of colonial administration (Chs. 8 and 9). The administrative system for land use planning at Ile-Ife is interesting but wholly unhelpful. Ife Area Planning authority, for example, has no link with the local government centred in the city on any land use decisions for which the Department of Public Works is partly responsible. It also has no link with the Department of Forestry whose representation is also lacking at the local government level. The planning authority is only responsible to the Town Planning Department of the Ministry of Lands and Housing at State level. Under the present system, it is

virtually impossible to coordinate the development and maintenance of public open spaces.

A deviation from such practice has been the setting-up of the Open Space Development Commissions in Enugu and Owerri (see Ch. 9). As the problem of inadequate organisation is yet to be resolved in Ile-Ife and most other Nigerian towns, this is discussed at a much more detailed level together with possible solutions in Chapter 10. In context, two of the major proposals can be highlighted. First it has been proposed that a realistic solution to the current problem would require a radical re-organisation of the local planning authority and its integration with local government thus enabling the coordination of land use decisions and implementation at the local level. This is imperative because both local government and local planning are created purposely to serve the interests of the local people rather than those of other external statutory bodies. Another suggested solution is the establishment of the equivalent of a Parks and Garden Unit of the University of Ife, and the Open Space Development Commissions as pioneered by Anambra and Imo States, whose activities have shown some relative success in the development and maintenance of public open spaces.

Reorganising the administrative framework as suggested above will stop the current practice by the the local planning authority of just sign-posting lands reserved as public open spaces, a measure which has proved inadequate to prevent the problems of encroachment and litter. The local planning authority, however, needs to adopt a

more cautious approach to solving the problem of encroachment upon open spaces and unauthorised developments. It needs to realise that encroachment has been prompted partly because most suburban layouts fail to reserve lands for local markets and service industries. While these land uses must be encouraged because of their importance to urban economy, they should be amenable to development control by evolving a suitable policy to control their location and design.

The planning authority needs to re-appraise its open space resources by carrying out a land use survey to identify the existing open spaces and vacant and derelict land suitable for park development. The authority should also formulate realistic land use planning and design policies for open space and management; the city's overall landscape improvement and conservation within the context of a master plan. In the short term, the authority should concentrate its immediate effort on improving existing open spaces by providing them with outdoor sitting and playing facilities. At present the school playgrounds, which are fairly well distributed, are the main outlets for outdoor recreation by the general public (Fig. 2.16). In the short run the authority can rely on these playgrounds to meet the recreational needs for active sport. However, as school playing fields are essentially not public open spaces by right of public ownership, it is necessary to secure public confidence and access to using them through adequate arrangements in order to minimise any undesirable conflict in their use. Most of these school playing fields will need to be redesigned to cope with the increased pressure

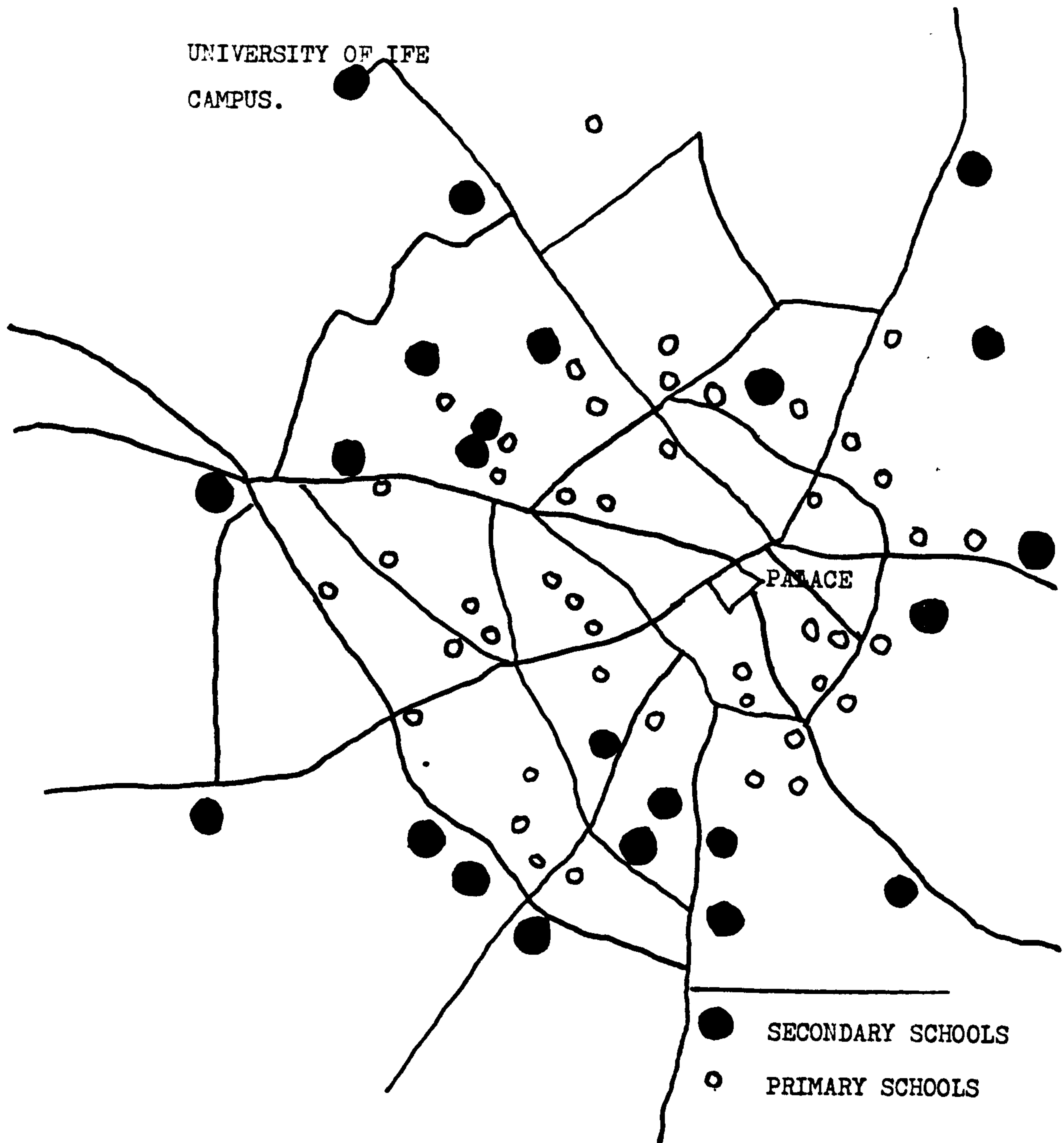


FIGURE 2.16: ILE-IFE: DISTRIBUTION OF SCHOOLS WITH PLAYGROUNDS

that is likely to arise from their use by the general public. The introduction of this policy should be founded on an empirical study to chart possible courses of action. In the long run the authority should strive to develop a balanced open space system.

The three surviving sacred groves, which are currently under-utilised resources should be developed as public parks. This is because the religious functions associated with them have been on the decline in recent years in line with a decreasing number of traditional believers. The cultural problems associated with them should be resolved by passing new legislation. In making them available for public recreation great care should be taken to maintain the grove character of these culturally important spaces and at least one should be kept up in its original form. The tracts of natural open spaces along river valleys, marshes and hills in the city offer further scope for developing attractive river walk-ways and parklands. Some of them which now exist along river valleys have been identified for development as shown in (Fig. 2.17). To prevent further encroachment, the planning authority should take active steps both to develop and preserve them.

Ile-Ife, like many other Nigerian cities, is also deficient in attractive and functional roads and road-related open spaces such as roadside walks, motor parks and bus stops. On most roads, it is almost impossible to amble leisurely because of traffic congestion and the absence of walking shoulders. Other intolerable conditions especially the open and fetid drains also make walking unpleasant.

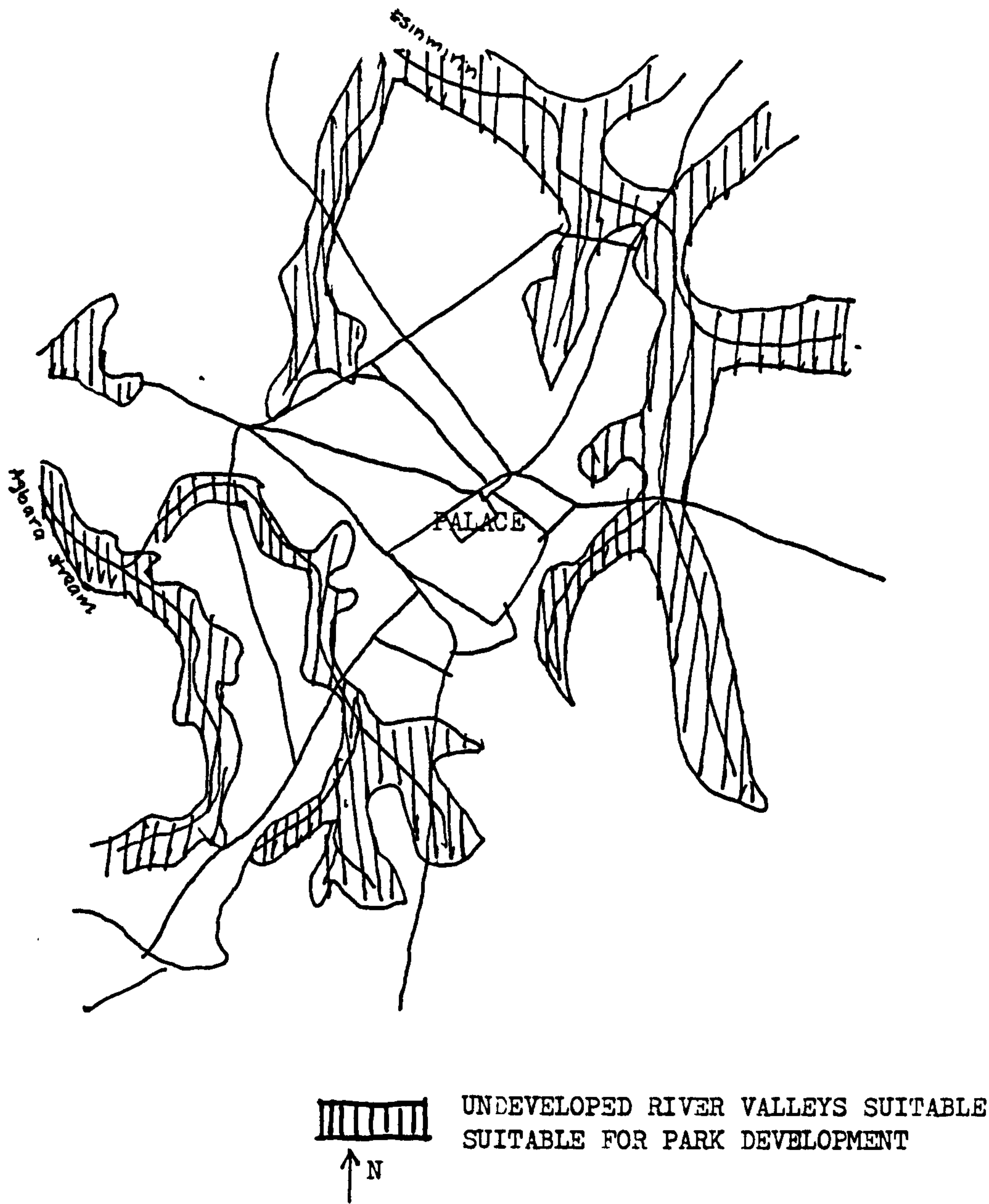


FIGURE 2.17: POSSIBLE OPEN SPACES ALONG RIVER VALLEYS IN ILE-IFE

Lagere is today rapidly emerging as the city's main central business district. Here inadequate provision for car parking and the major thorough road (Ibadan-Ife) which passes through the shopping centre are the causes of frequent and serious traffic congestion. Roads in urban areas need to be redesigned to provide for safe, well shaded and attractive pedestrian walks. Moreover, the appearance of the city will be highly enhanced by embarking on roadside planting to provide the badly needed shade and amenity. Congested roads in the inner city need to be closed to vehicular traffic to ensure the safety of pedestrians.

The planning authority can no longer sit-back from the need to promote attractive landscapes in the city. Undoubtedly, the university's attractive landscapes have influenced the people's tastes and values of what is, after all, a decent living environment, especially among the employees of the institution and educated elite. Since the establishment of the University and other institutions of higher learning in the city, housing problems have become heightened. Workers now demand better housing in attractive urban landscapes. For instance, the list of people seeking campus accommodation among the University workers is getting longer each day. Such demands reflect a shortage of suitable housing in the city. But above all, it also reflects the value people place on living in an environment with an attractive landscape setting. As these aspirations are likely to be on the increase in future, they tend to place greater burdens on the local authority. While the city need not develop like

the university, it certainly can emulate its concern for a well planned and maintained environment especially the concern shown for attractive open spaces. Some of the design attributes of the existing open spaces are discussed in Part Two of the study.

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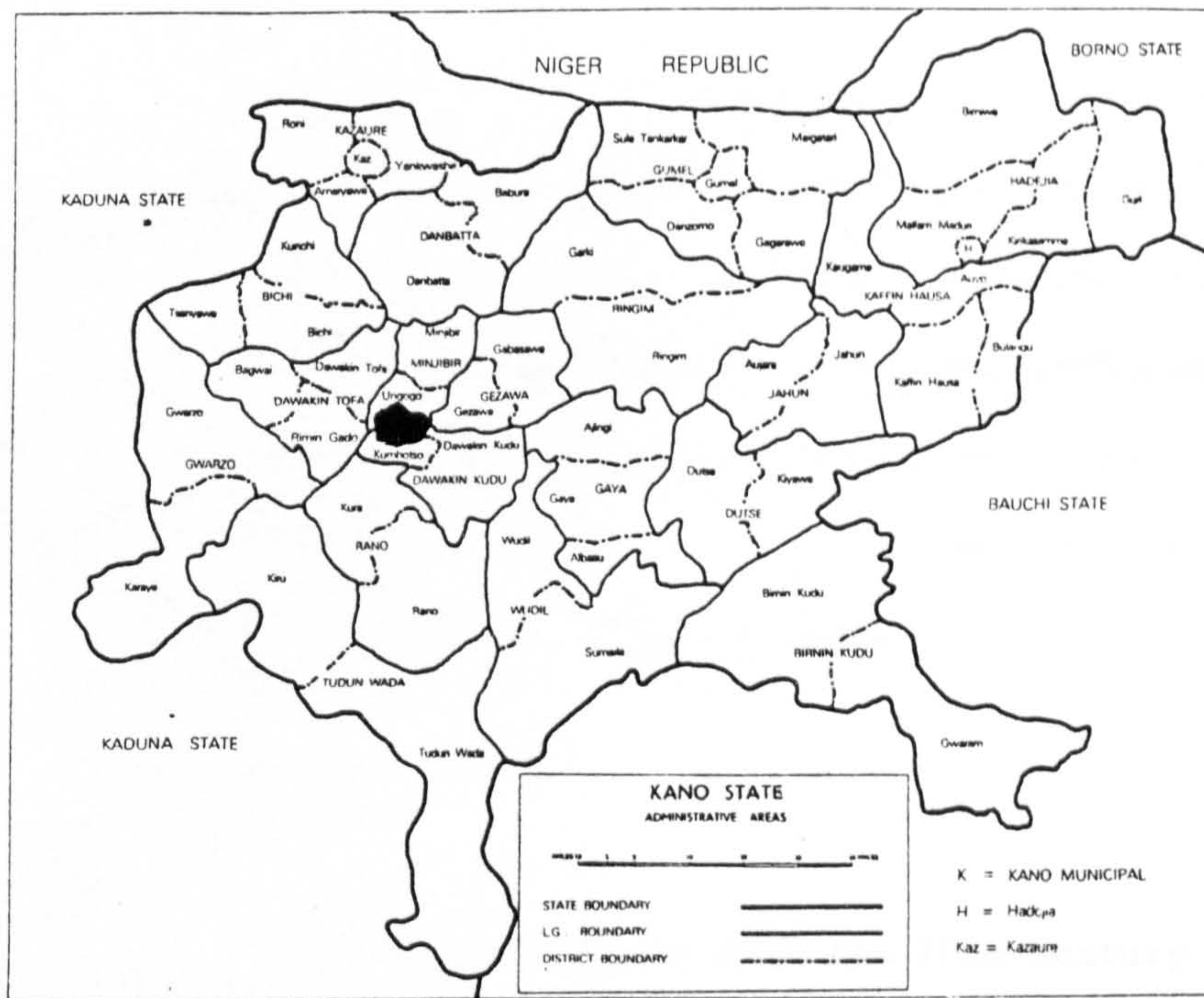
CHAPTER 3

CASE STUDY 2: KANO

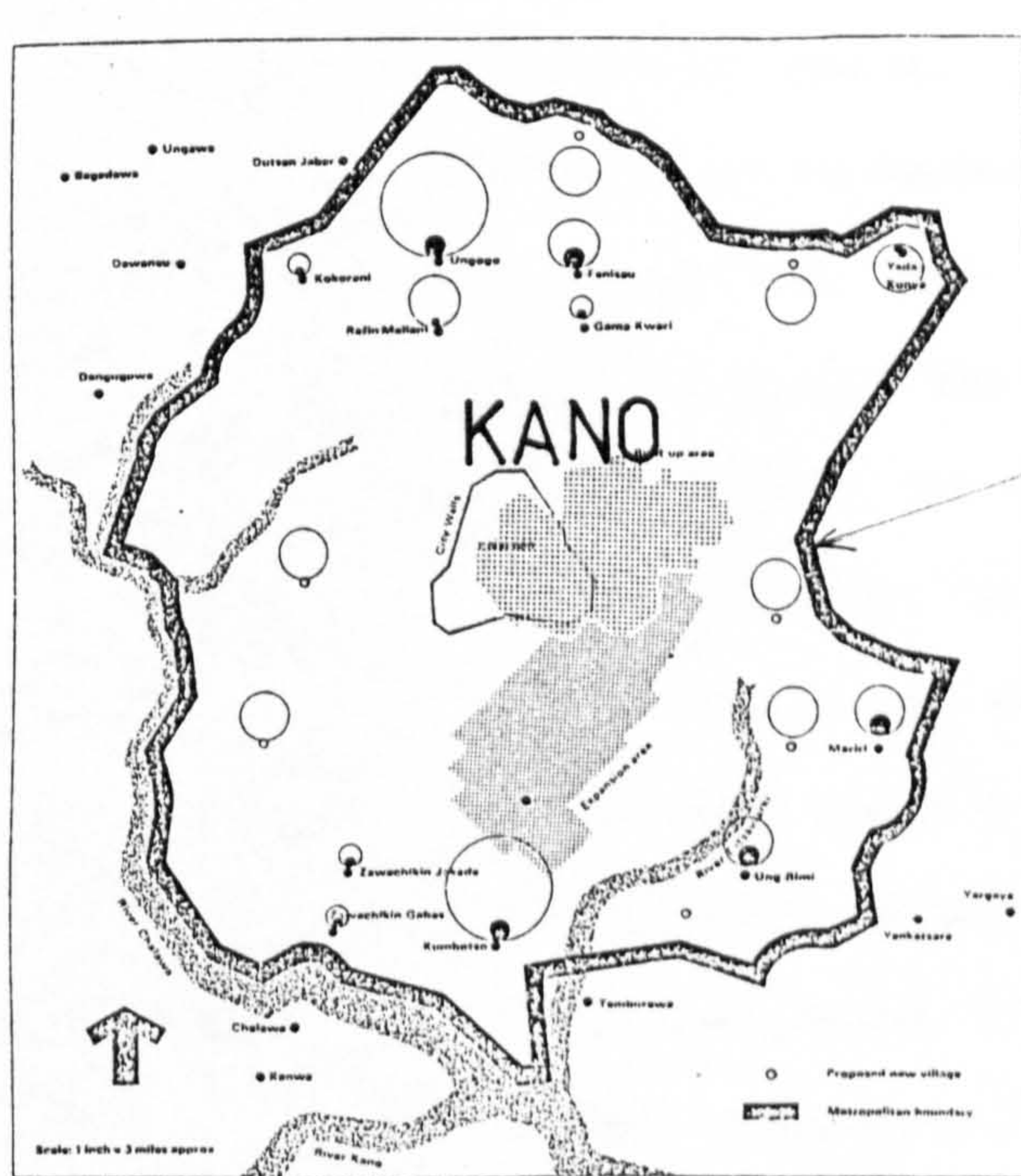
The Hausa tribal group of northern Nigeria, like the Yoruba, also has a long history of urban development going back to circa 1000 AD. Kano, which is situated in extensive, well cultivated and closely settled plains of the northern sahel savanna, is among the oldest and the most typical of Hausa towns. Her metropolitan region covers an extensive fertile plain drained and irrigated by the Rivers Chalawa and Hadeja (Fig. 3.1).

Kano's primary role was a commercial centre but its influence widened this century to become an important communication, administrative and educational centre with a rapidly expanding industrial base. It was a provincial headquarters under the colonial administration; and with the creation of states in Nigeria in 1967 and 1976, has now been upgraded as the capital of Kano State. The former Bayero College has now been upgraded as an independent University, thus making Kano of increasing importance as an educational centre. Kano is the most populous and largest city in northern Nigeria whose inhabitants and tourists too are making demands for an attractive urban environment and open spaces.

The study of Kano has attracted many scholars but these are



METROPOLITAN KANO



METROPOLITAN BOUNDARY

FIGURE 3.1: KANO: REGIONAL CONTEXT: Metropolitan Kano is surrounded by a large rural hinterland.

mostly historians [1] urban geographers [2], and a few architects [3]. The town's rich architectural heritage is still very much under-researched. The following sections are devoted to the descriptive accounts of the city's landscape character especially its urban open spaces and their architectural qualities. For convenience and comparison, the three main historical periods adopted for Ile-Ife have been adhered to in the study of Kano.

THE PRE-COLONIAL KANO

Urban Kano effectively dates from the 10th century AD with the institution of a new dynastic rule. Three hundred years before this date the site had been inhabited by several generations of earlier settlers: the pagan tribes headed by Barbushe, the chief priest of the worship of Shamus, the sacred tree; and the Abagayawa, mostly blacksmiths, who migrated from the east. The name of their leader is said to be Kano: and now the blacksmiths who live around Dala Hill claim they are descendants of Abagayawa, though their compounds are more identifiable with 20th century metal scraps used for their crafts [4]. These early settlers lived mainly in villages, known locally as kayunka, which dotted Kano's province. Some of these villages that have been identified include Gazarawa, Zadawa, Fangon-Zaura, Dunduzawa, Shariya, Sheme, Gande-giji and Tokarawa [5]. With further specialisation of labour, some of these villages developed as towns (garuruwa). Certainly, Kano and other towns like Gazarawa, Gaya, Ringin and Sheme initially belonged to these villages and

farmstead (gidaje) [6]. Moreover, Kano probably rose to prominence as a prosperous commercial town because of its strategic location along the trans-Saharan trade routes [7]. Sarki Gajemasu, the grandson of Bagauda, pioneered the construction of the first city wall, which was completed by Yusa, the fifth Emir of Kano, in 1194 [8].

Islam became the state religion between 1349 and 1385, and successive Emirs were muslim converts. Although the degree of acceptance of Islam by the natives might be questionable, the mallams, were determined to force the new religion on the people by stamping out pagan worship. During the later half of the 13th century, Ganguwa was the first Emir to oppose idol worship by ordering that the sacred tree worshipped by the people be cut down. Emir Yaji, following his example, also built a new mosque on the place of pagan worship. Kano's town wall was again extended during the 15th century. Emir Rumfa seized this opportunity to build himself a more spacious palace on the site of the present one in replacement of the older one near Dala Hill which was built by the first pagan settlers. Emir Rumfa also built a new central mosque and the Jankara market and the foundation of Old Kano could be attributed to him.

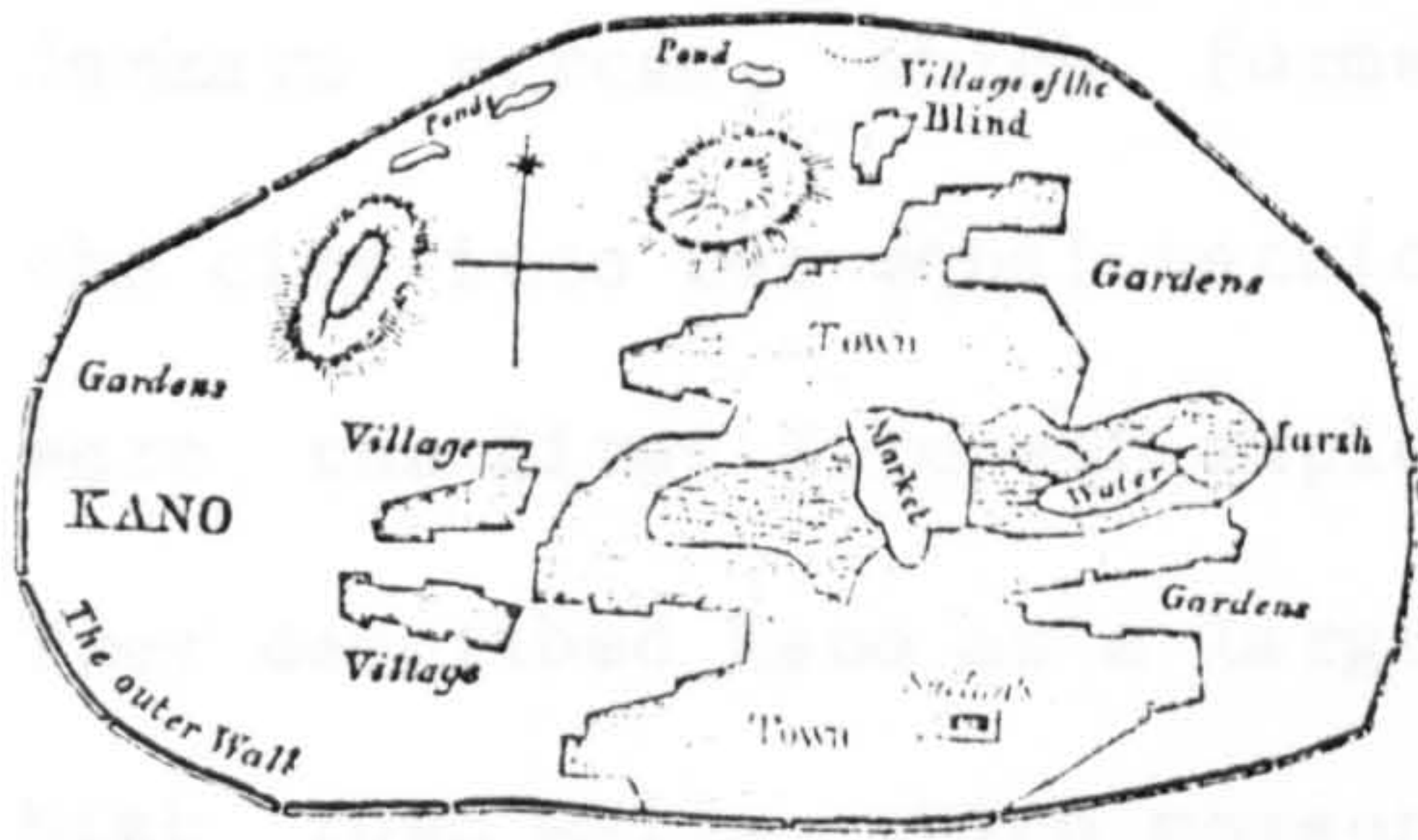
As from 1500 and for nearly three centuries, Kano suffered much internal strife and external aggression from the Songhai empire to the west, Borno to the far east, Kwararafa to the south, and Katsina to the north. Katsina fought against Kano for over a century and a half because of the rivalry to control the monopoly of the trans-Saharan trade [9]. Muslim scholars, including architects from the

defunct Mali empire to the west, migrated to Kano and other parts of Hausaland. After the fall of Mali Kano rose to greater prominence. Rumfa employed some of the architects who had migrated into the town to design his palace which included a large garden. Other Emirs enlarged this garden until it was destroyed during the Kano civil war of 1895. Islam brought with it a new code of behaviour which permeated both the planning and design of Hausa compounds and the city

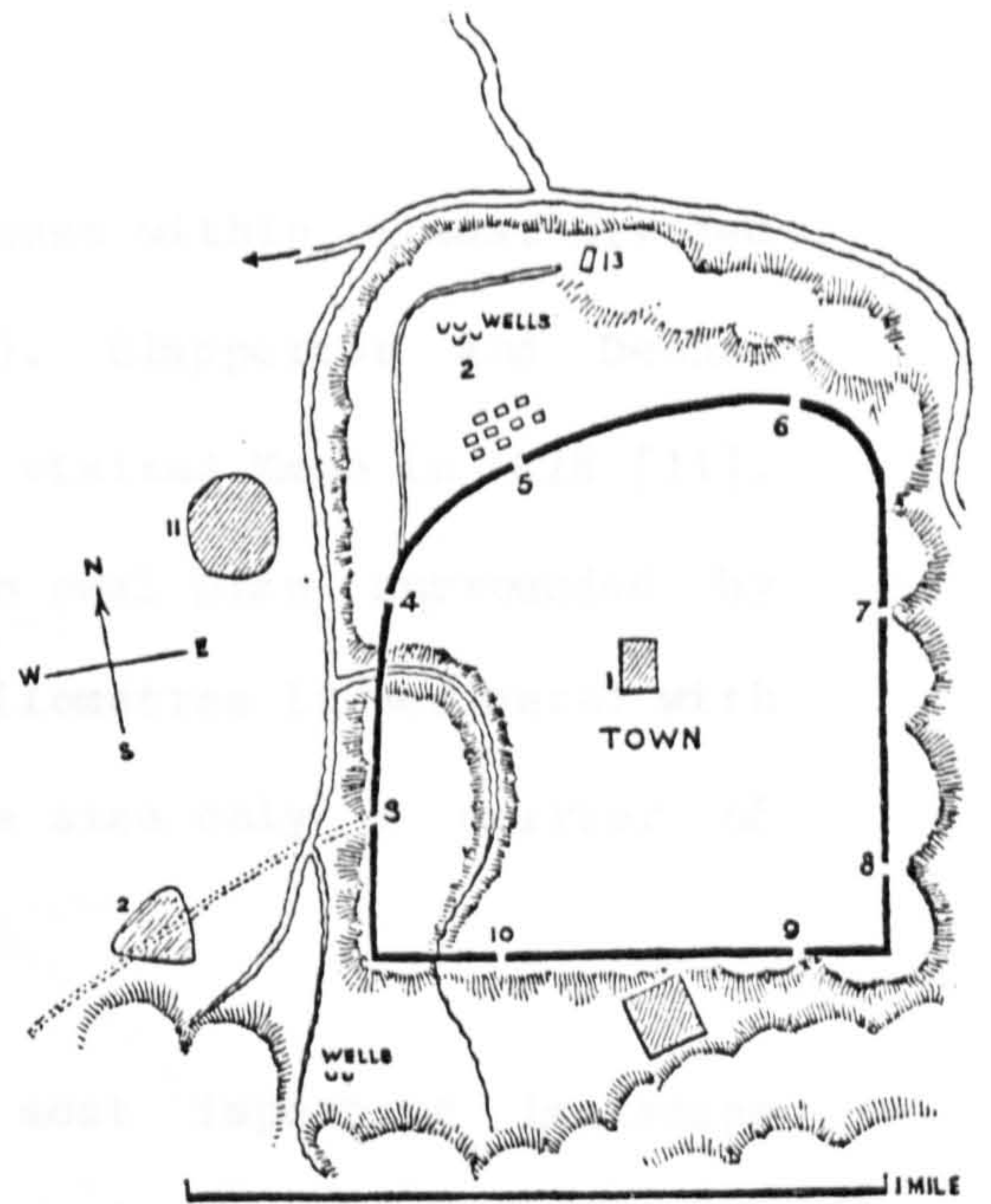
Social injustices and widespread corruption, especially the extortionate taxation imposed on the Fulani herders, had become so burdensome towards the end of the 18th century that a revolutionary change was inevitable. Thus, the Jihad, the Muslim holy war, was organised under the leadership of Uthman dan Fodio, a devout Fulani muslim teacher. He was outspoken against the social injustice of his time, and was equally the most persecuted [10]. In 1804, the Jihad broke out and spread across the Hausa states and reached Kano a year later; the defeated Hausa Emir, was replaced by a Fulani. The whole of northern Nigeria was organised into Emirates under the Hausa-Fulani Empire with Sokoto as the capital.

By the early decades of the 18th century, Fagge, an immigrant settlement to the west of Kofar Wombai, was first established as a camping ground for the north African Arabs. In later years, it became a permanent settlement inhabited by the Lebanese, the Tuaregs and the Fulani cattle herders.

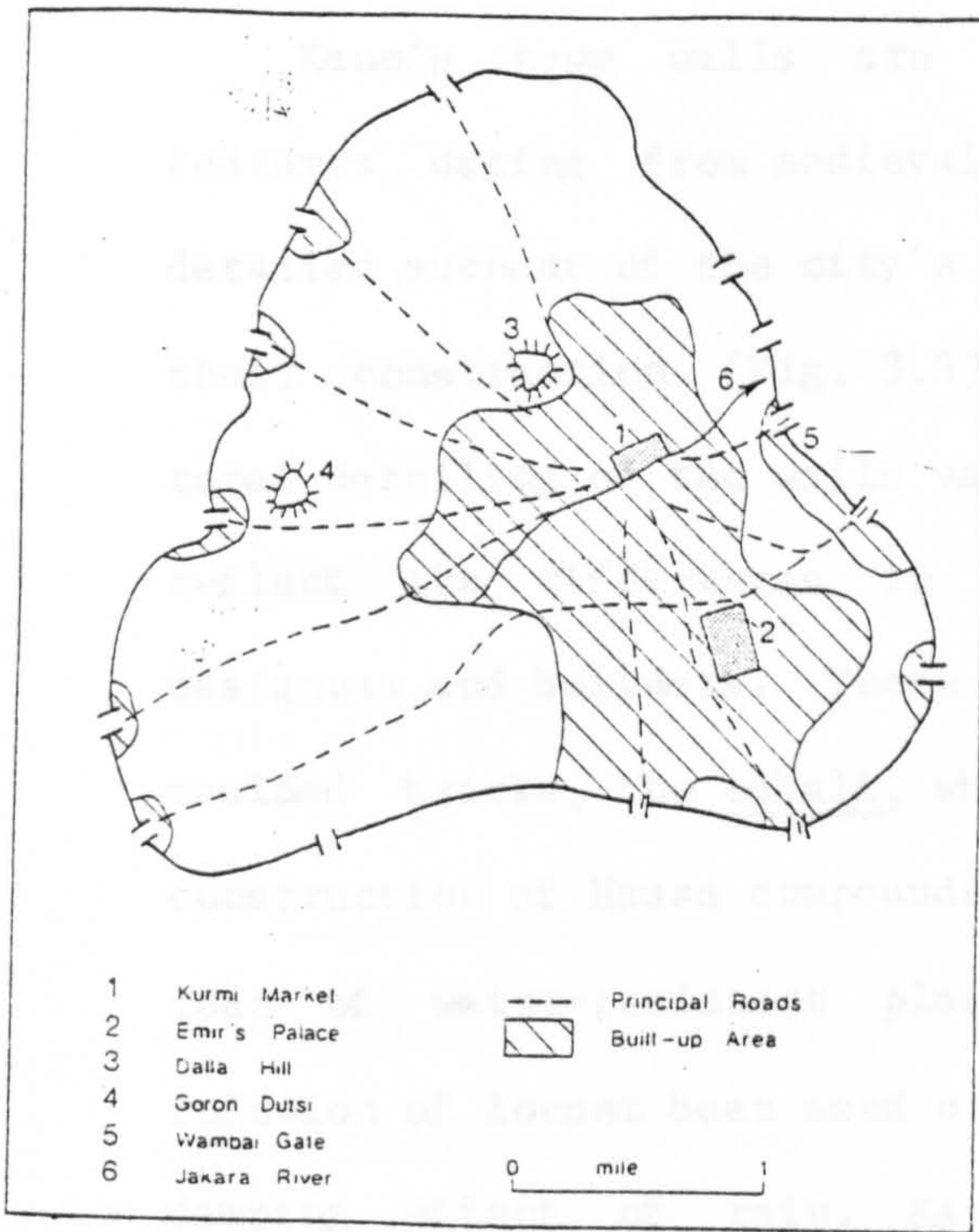
Pre-colonial Kano grew around Dala hill and Goron Dutse. The



KANO 1826

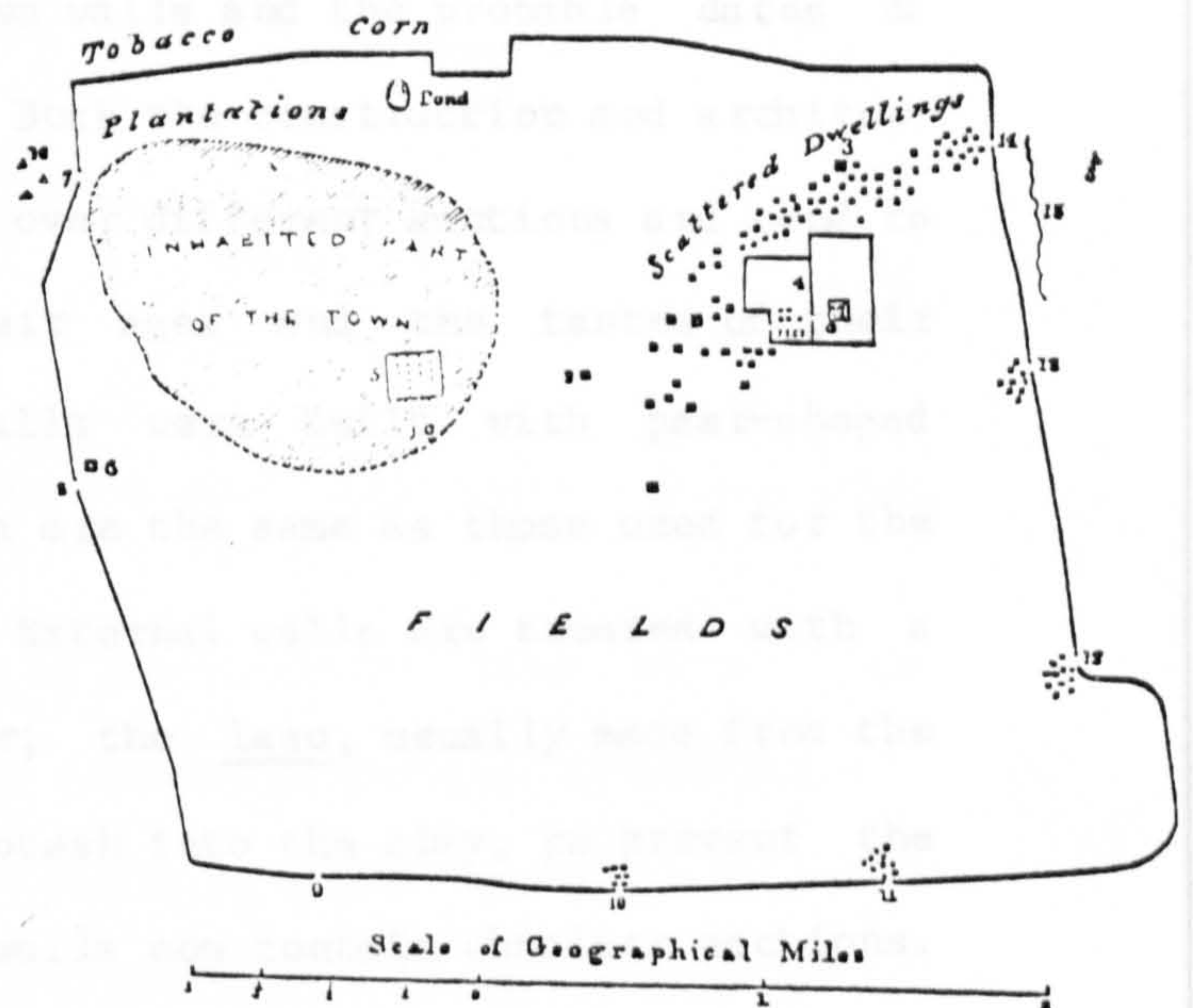


WURNO 1857



- 1 Kurmi Market
 - 2 Emir's Palace
 - 3 Dalla Hill
 - 4 Goron Dutsi
 - 5 Wamba Gate
 - 6 Jakara River
- Principal Roads
 ▨ Built-up Area
- 0 mile 1

KANO 1857



KATSINA 1857

FIGURE 3.2: KANO AND OTHER HAUSA TOWNS DURING THE 19TH CENTURY. The plans of Kano in 1826 and in 1857 compared well with that of Katsina, another historic Hausa town and even Wurno which rose to greater prominence after the jihad. A major characteristic of these towns was the extensive greenbelt and the town commons enclosed within the town wall.

Jankara stream, which formed a large morass within, almost divided the city into two equal sections (Fig. 3.2). Clapperton and Denham were the first European explorers to have visited Kano in 1826 [11]. They described Kano as a large city with an oval plan surrounded by high town walls, which measured some 24 kilometres in perimeter with fifteen main gates. Despite Kano's immense size only a quarter of its area was covered with buildings.

Kano's town walls are among the most important landscape features dating from medieval times. Moody [12] in 1967 provided a detailed account of the city's town walls and the probable dates of their construction (Fig. 3.3). Both the construction and architectural detailing of the walls vary over different sections and tend to reflect the differences in their ages and the tastes of their designers and builders. These walls were built with pear-shaped moulded bricks, the tubali, which are the same as those used for the construction of Hausa compounds. External walls are treated with a coat of water-resistant plaster, the laso, usually made from the infusion of locust bean seed or potash into the clay, to prevent the damping effect of rain. Kano walls now contain obsolete sections. These walls are outstanding architectural monuments of historic importance in the open landscape and ought to be preserved.

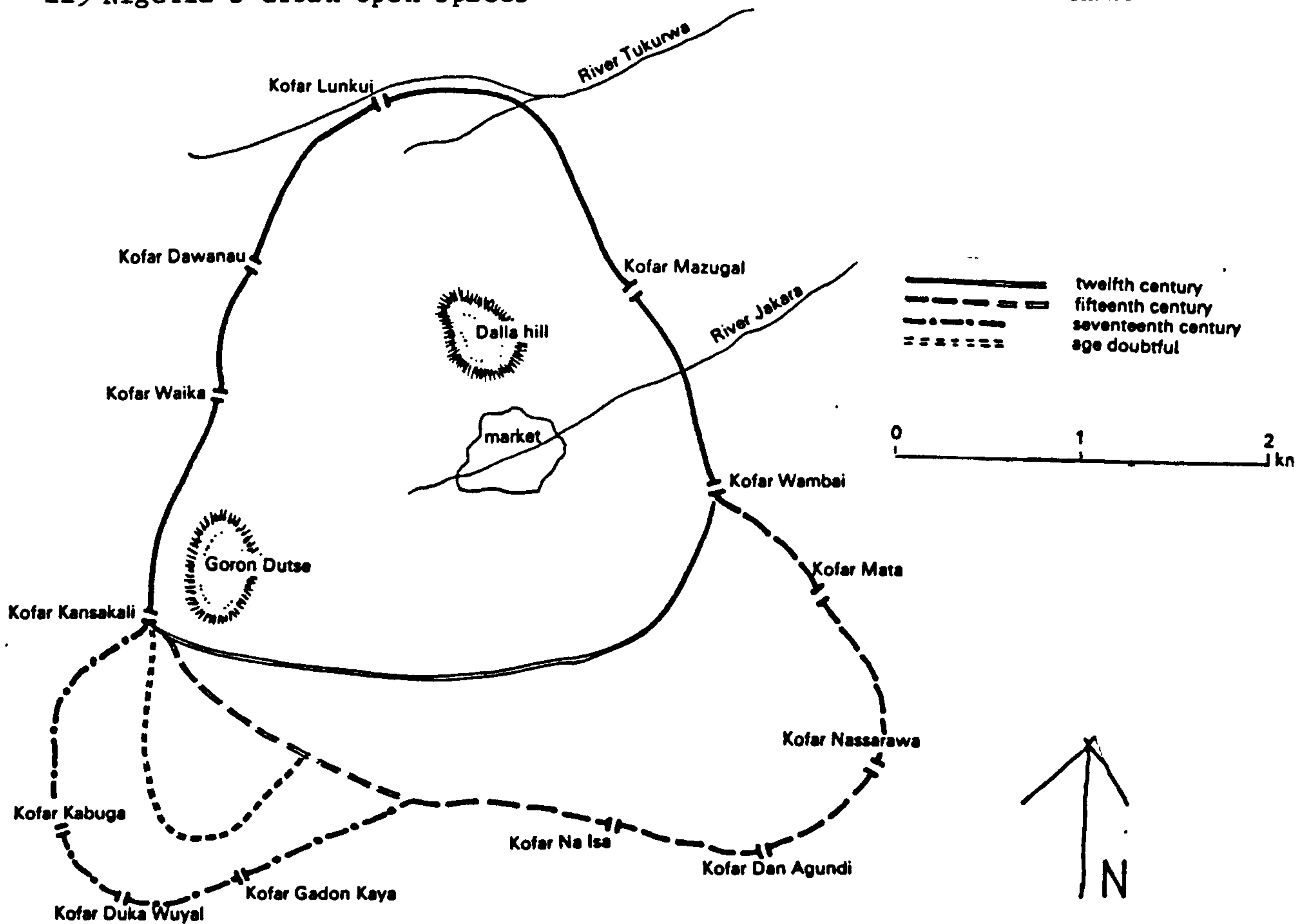


FIGURE 3.3: KANO: TOWN WALLS showing the southward growth of the town.

Other main landscape features of pre-colonial Kano which are still preserved, although with some remarkable changes in their character, include the palace and the Jankara market. Located slightly off centre in Old Kano is the Emir's Palace, which covers some 12.14 ha. and is surrounded by a high wall of about 7.5 metres in height. According to Clapperton, the city was divided into 137 wards with each administered by a head's man and occupied by different cultural and socio-economic groups. While the ruling classes lived in spacious compounds in the southern part of the city, the northern and western parts were inhabited by the common people. The Nupe and the Yoruba

were the two major immigrant groups that occupied the north-western sector. Other immigrants, mainly the Arabs and the Chadians, resided in the eastern part of the town around the Dala Hill. Jankara the most important commercial spot was already well built with regular rows of mud stalls.

Barth, during his visit to Kano in 1851 [13] provided a detailed account of Kano and even mapped the town (Fig. 3.2 above). He estimated the city's population to be 30,000 people. The city's residential compounds, built of mud and clay, the different mud huts, granaries and open spaces around the city and the animals that grazed on them, all made a great impression on him. The compounds were surrounded by many ponds overgrown with aquatic plants, like the Pistia stratiotes. These ponds were formed from pits dug out for the construction of the buildings and filled with storm water. The city was planted with many trees out of which Barth identified 'the fine symmetrical Carica papaya (pawpaw; Hausa: gonda), the spreading Cordia abyssinica (Hausa: alleluba), the majestic Eriodendron orientale (silk-cotton; Hausa: rimi) and the slender Phoenix dactylifera (date palm) [14]. Some of these like the Carica papaya were planted in the courtyards of the compounds.

The Emir's Palace, the fada lamorde, contained many buildings separated mainly by interconnected courtyards. The great courtyard within the palace had an audience chamber in which was located a most spacious round hut used by the Emir as a shelter house [15]. Some of the indigenous compounds with large courtyards had shelter houses or

open sheds, the equivalent of the summer houses in Europe. These were used for cooling off during the heat of the day. A more detailed account of traditional Hausa compounds and their enduring landscape character are provided in Part 2 of the study (Ch. 7).

From the above description, it is obvious that pre-colonial Kano was a small town surrounded by an extensive town common used for farmlands, plantations and vegetable gardens. This open character of Kano was a characteristic feature of other Hausa towns like Katsina, which developed around the same time (Fig. 3.2 above). On account of the prevalence of green urban landscape, Barth described Kano as 'the most beautiful province and the garden city of Central Africa'. He also saw Kano as the city of 'date palms' [14]. The city's open spaces during this period effectively included the private courtyards, the main town squares in front of the Emir's Palace, the roads, streets, lanes, paths, the Muslim prayer ground at the outskirts of the city, the open market squares and the town common - the green fields within the town walls. Judging from this account, it may be claimed that the indigenous people devoted some effort to landscape gardening especially considering the trees planted within the courtyards of the different compounds. However, fruit trees and herbs, were planted mainly for their economic and medicinal benefits rather than for ornamental reasons.

During this period, the influence of the Islamic religion had permeated both the domestic architecture and urban planning. As the women had to be kept in purdah, their privacy became an important

factor in house design. At the town and district levels were mosques of imposing architecture surrounded by communal open spaces, with the Idi, the muslim prayer ground, and the muslim cemetery located on the outskirts of the town. Other outside influences were the introduction of plants like the date palms, which probably came from north Africa and the pomegranates from the Mediterranean. But these influences were small compared to the ones associated with the colonial era which are discussed in the following section.

THE COLONIAL PHASE OF KANO

In 1903, Kano came under the the control of the colonial administrators, who immediately built a new residency and an office on the present site of the Emir's summer house, almost 2 kilometers from the Nassarawa gate (Fig. 3.4). This is now surrounded by the office buildings of the Kano State government. Kano's declining commercial activities were halted by the arrival of the British administrators. Her commercial position was greatly enhanced by the construction of the Baro-Kano rail line in 1913.

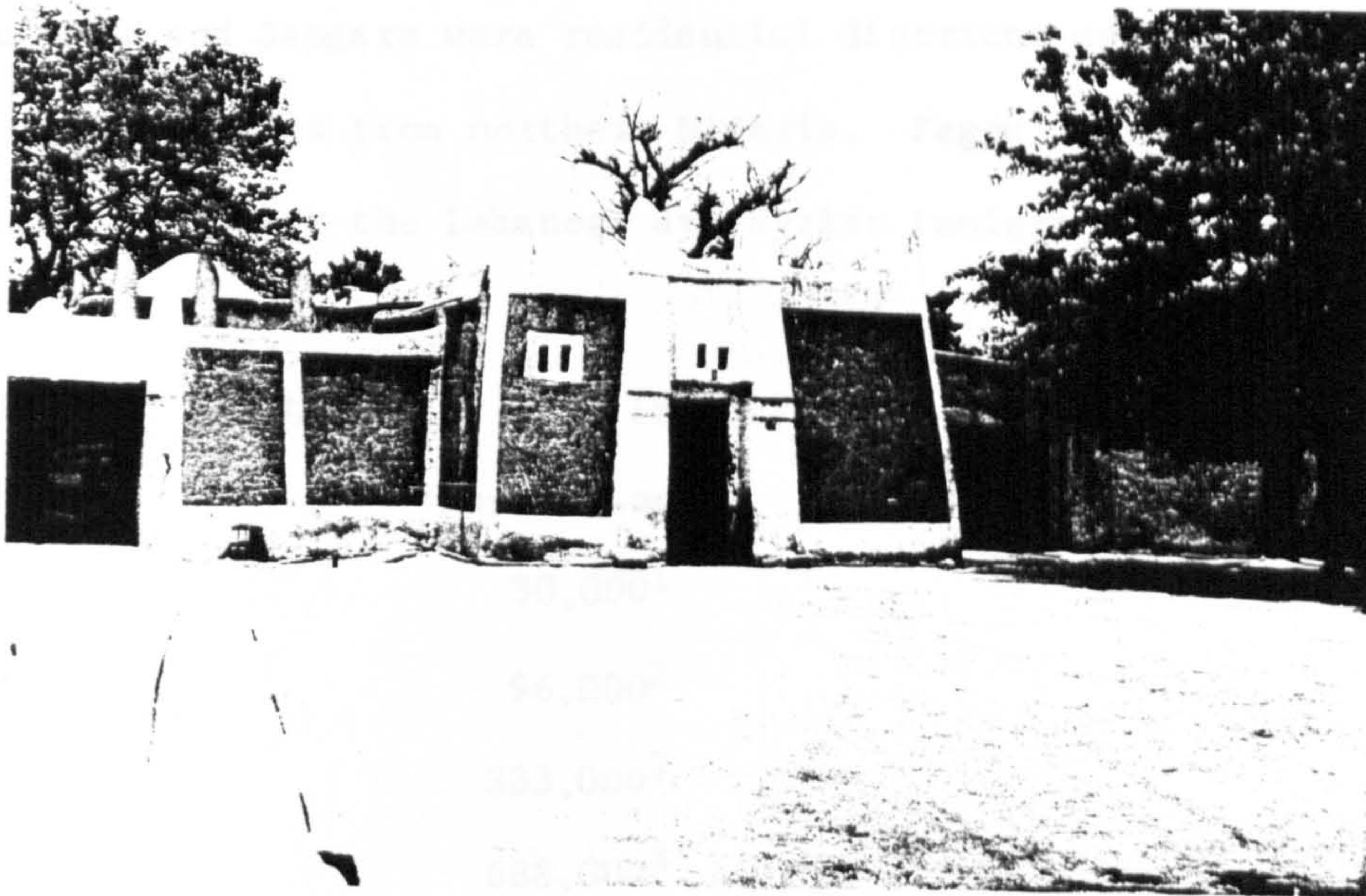


FIGURE 3.4: EMIR'S SUMMER HOUSE, NASSARAWA, KANO: built in the traditional courtyard architecture but planted with many trees in the colonial tradition.

The 'Cantormment', situated outside the old city, was first laid out to conform to Lugard's model as stipulated in the Cantormment Ordinance of 1904. Following the proclamation of the 1917 Township Ordinance, Kano became a second class town; and the former Cantormment was replanned and renamed the 'Township' and laid out as provided in the new Act. In principle, the 'Township' is not very different from the Cantormment; as both were laid out mainly as residential districts segregated by function, race and social class. However, Kano's Township, unlike the Cantormment developed for the military personnel, consisted of the Government Residential Area (GRA) at Nassarawa, Sabon Gari (a residential zone developed for the indigenous people, junior employees of the colonial administration), a commercial district at the centre and other immigrant residential districts. Both

Tudun Wada and Gangare were residential districts developed initially for the immigrants from northern Nigeria. Fagge was a residential district built for the Lebanese and Syrian immigrants (Fig. 3.5).

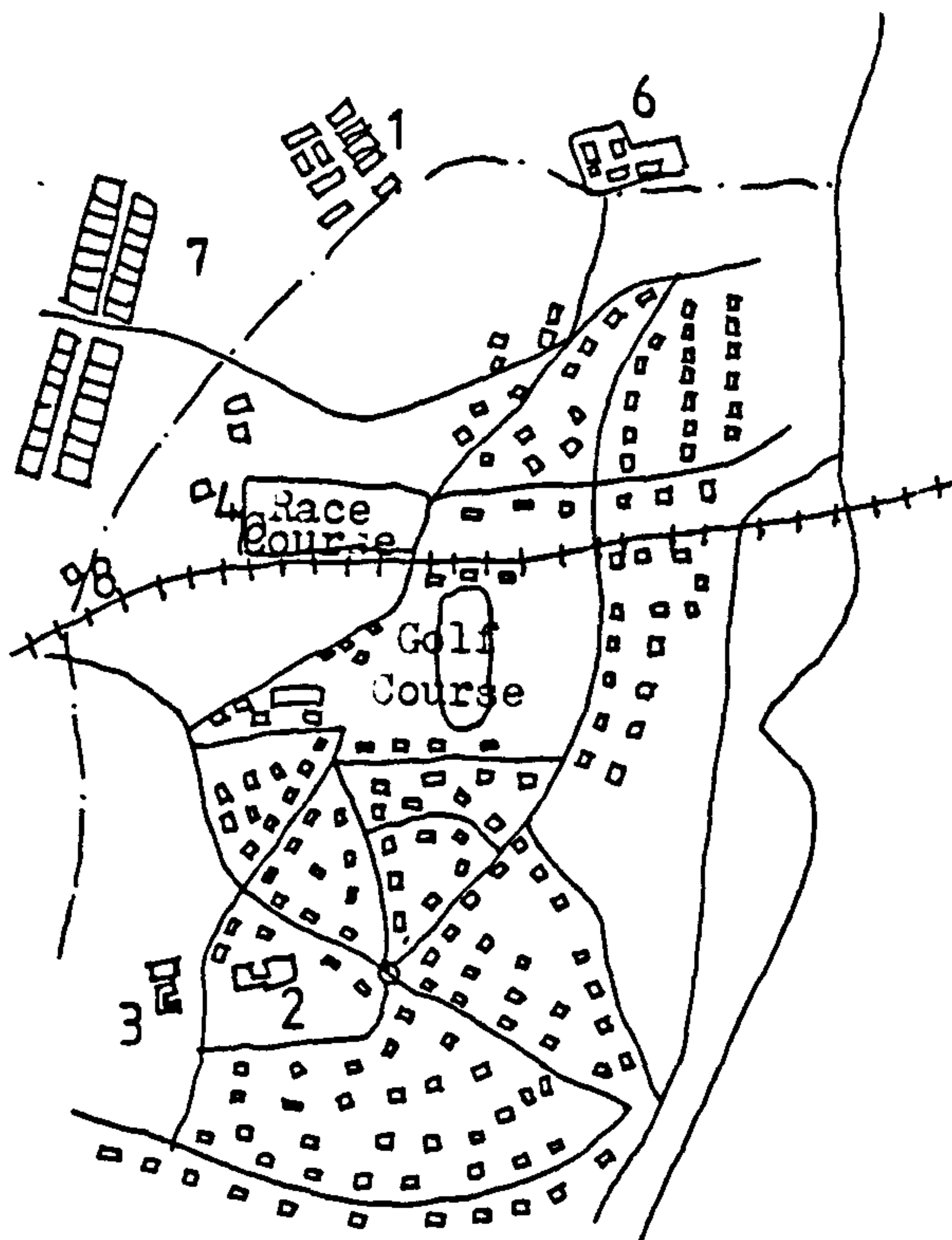
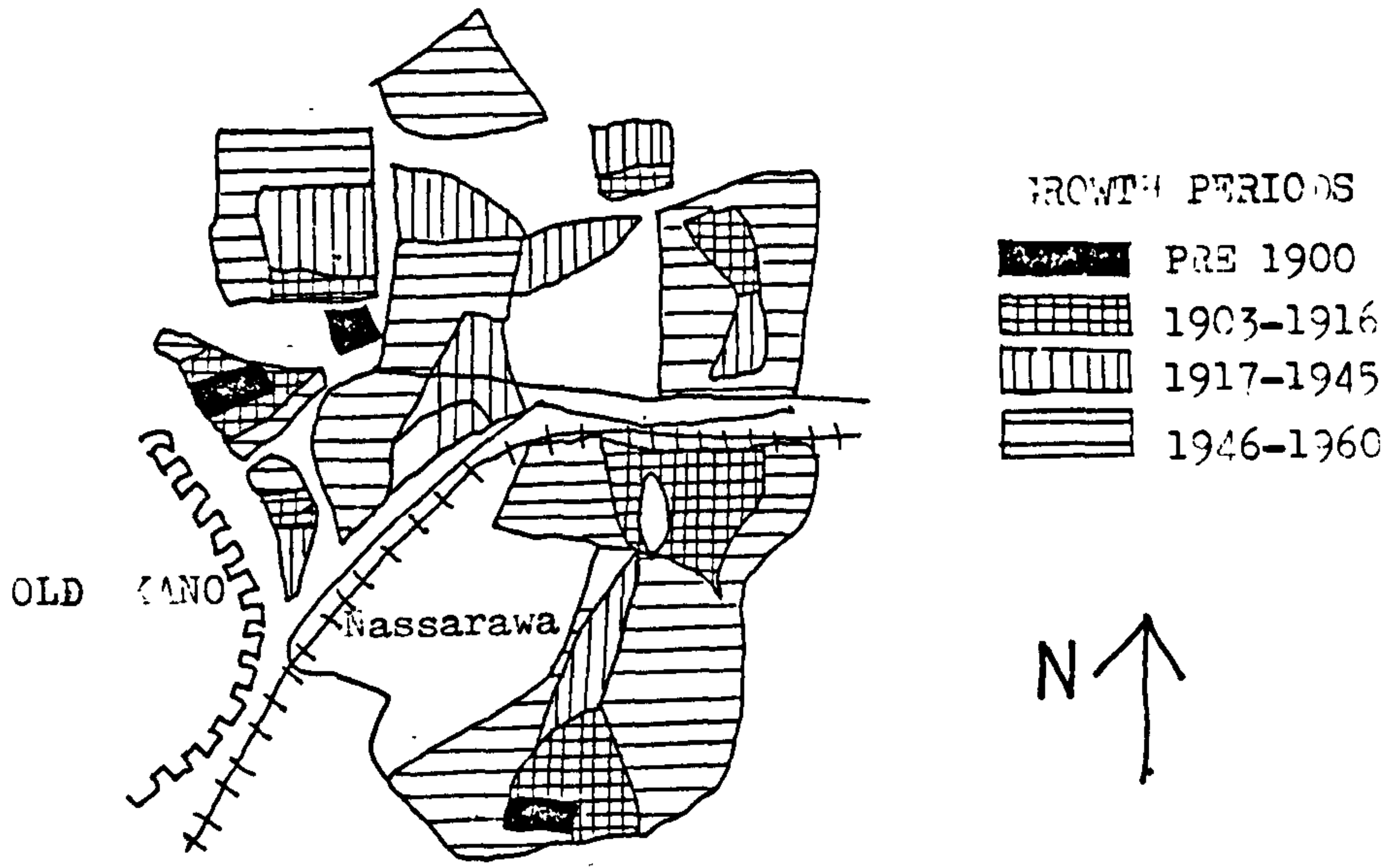
TABLE 3.1: POPULATION OF KANO 1853-1986

Year	Population
1853	30,000 ¹
1952	96,000 ²
1963	333,000 ²
1978	688,000 ³
1980	758,000 ³
1986	1,016,000 ³

1. Estimate By Barth (1853).
2. Census Figures.
3. Projection by State Statistical Department.

The first part of Table 3.1 shows the population figures for Kano between 1853 and 1963. During the century between 1853 (30,000) and 1952 (96,000) the city's population had trebled. Since 1952, if the census figures and projections are to be believed the city's population has experienced a phenomenal accelerated growth. It rose from 96,000 in 1952 to 333,000 in 1963, which means it more than trebled over the period. This can be attributed to the growing prosperity of the city as a thriving commercial centre.

The Township was a success as it attracted most of the city's



GOVERNMENT RESIDENTIAL AREA.

- 1. POLICE BARRACK
- 2. EMIR'S RESIDENCE
- 3. PROVINCIAL OFFICE
- 4. CLUB HOUSE
- 5. HOSPITAL
- 6. ST LOUIS CONVENT
- 7. COMMERCIAL AREA
- 8. REST HOUSE

FIGURE 3.5: THE PLAN OF THE TOWNSHIP, KANO, 1918: showing the typical colonial town planning ideology of zoning land use by race and function and subsequent expansion to cope with rising population growth

physical expansion. By 1930 the commercial district of the Township had been expanded towards Fagge. The commercial centre expanded yet again in 1945 and in 1950 [16] (See Fig. 3.5). By 1955 the Bompai Industrial Estate had been established. Commercial and industrial activities grew rapidly as a result of Kano's emergence as an important airport and as a terminus for trains from Lagos. At present Kano is the most prosperous centre among northern Nigerian towns.

The old city only grew gradually by accretion - thereby preserving its traditional character, though the colonial administrators had built the city's hospital complex and the three schools pioneered by Hanns Vischer, the first Director of Education for northern Nigeria, who was also known to the towns' people as 'Dan Hausa'. One of these schools was built for the sons of the chiefs, another for training teachers, and the third provided education on technical and vernacular matters. Hanns Vischer lived in a large traditional compound which he adorned with flower gardens. It shows a happy harmony between traditional architecture and modern landscape design with its surroundings embellished with elaborate planting. This compound has since been called 'Gida Dan Hausa'; and is now used as the city's Museum (Fig. 3.6).

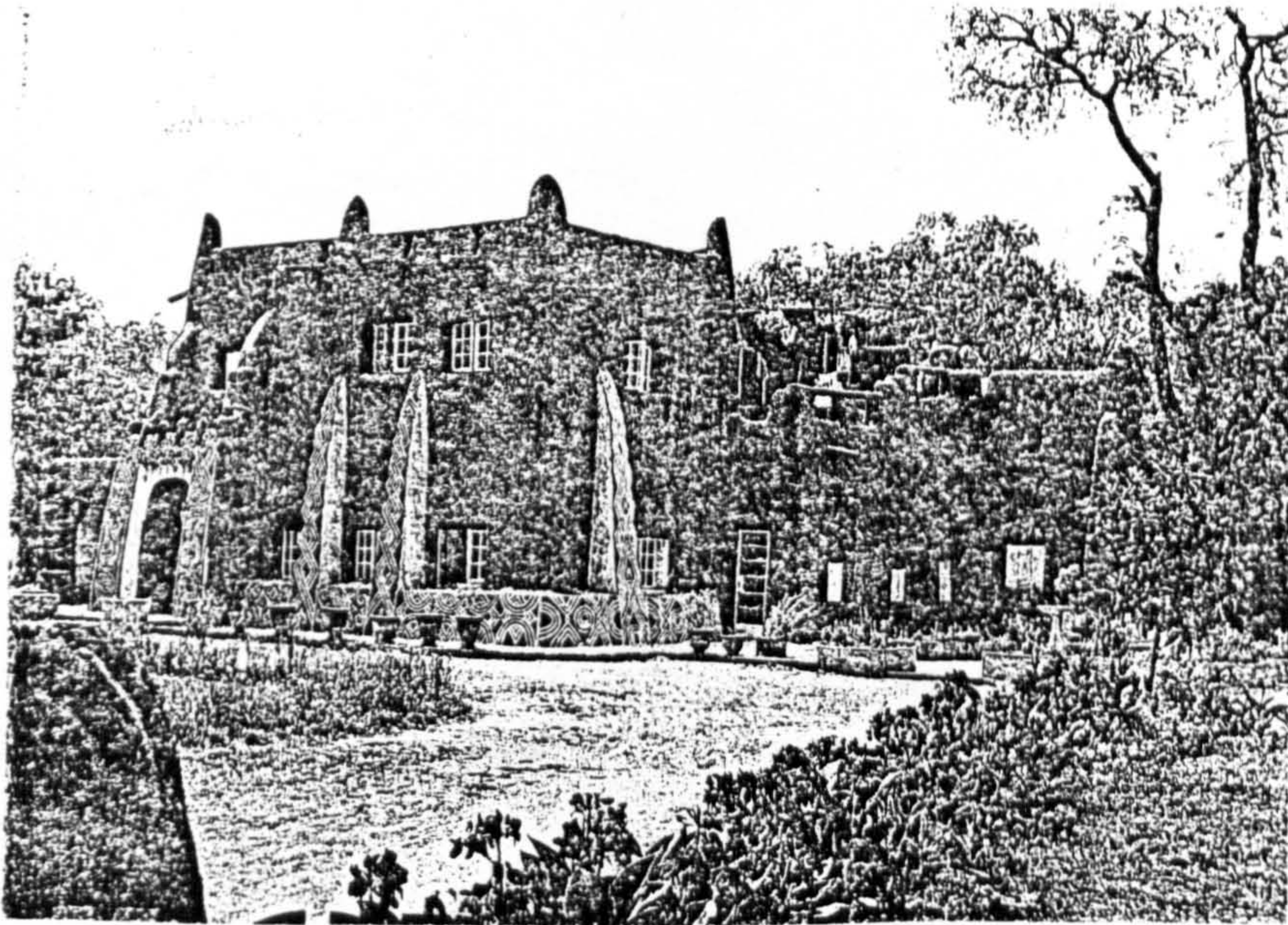
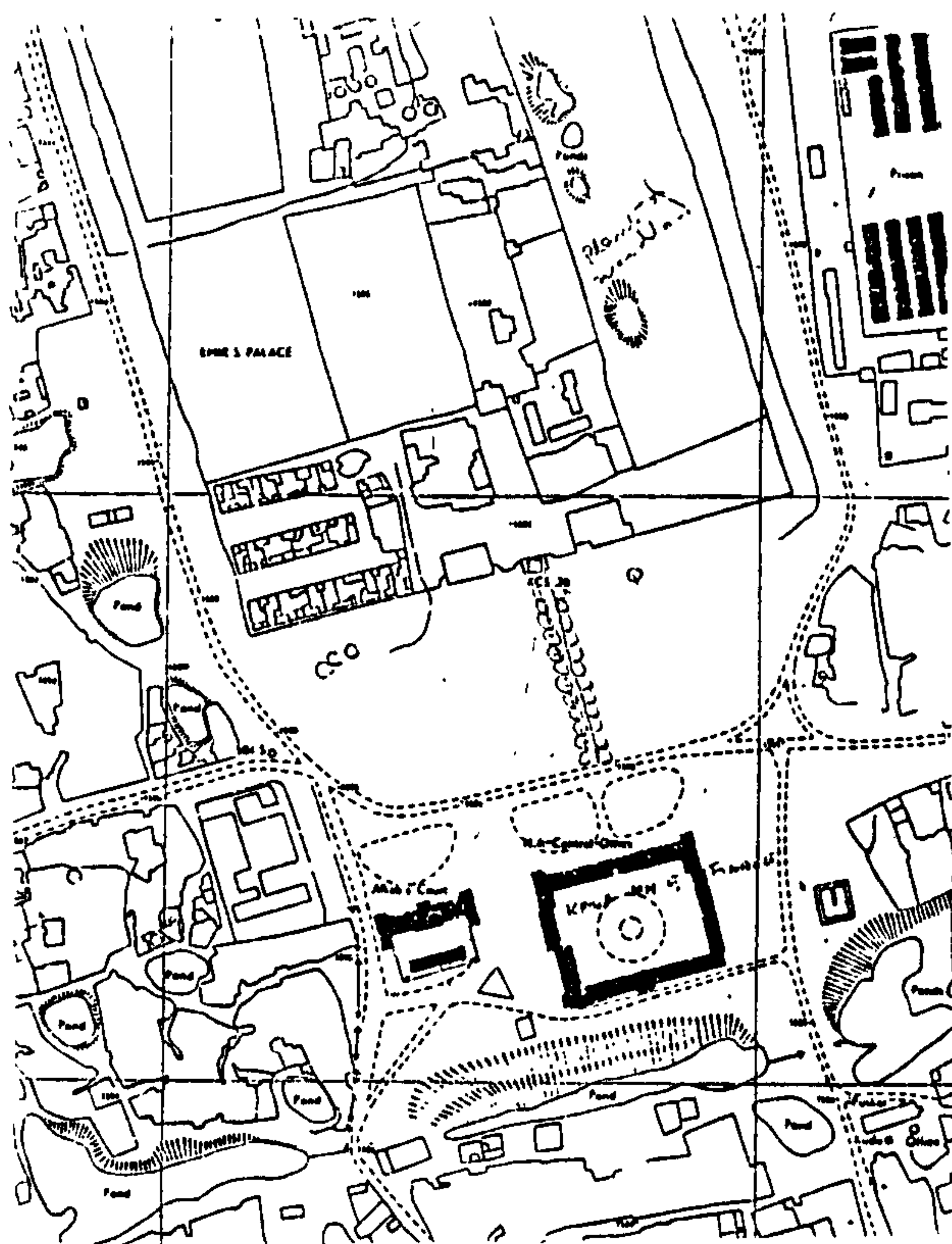


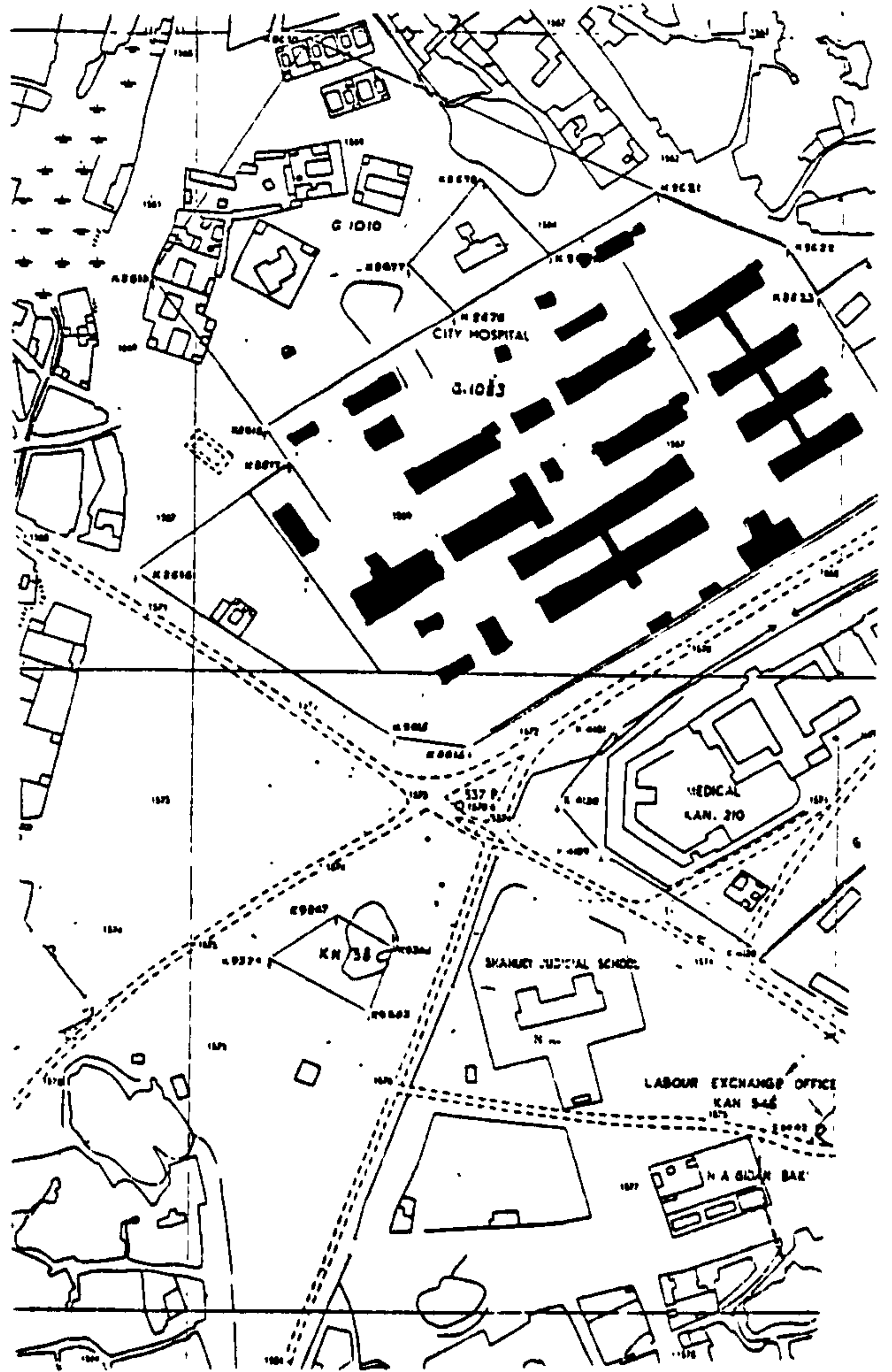
FIGURE 3.6: GIDA DAN HAUSA, KANO: the flower gardens that surround and the glass windows are the main additions to the traditional mud architecture.

The city's piped water supply had been constructed with the main water tank sunk in the Dala Hill. Sanitary inspectors were appointed to inspect the residential compounds and a new abattoir with proper drainage was built at Jankara market. Some of the ponds were filled to prevent mosquitos using them as breeding grounds and thus becoming health hazards. By the early 1950s the office buildings of the native administration had been built in harmony with the architectural character of the Emir's Palace opposite (Fig. 3.7).

The central mosque, with its magnificent dome and the symmetrical minarets, also built during this period, was formally opened in 1951 by Emir Abdullahi Bayero on his return from a pilgrimage to Mecca. The mosque occupies a symbolic and central position and is



a)



b)

FIGURE 3.7: EXAMPLES OF EARLY COLONIAL DEVELOPMENTS, OLD KANO a) The Native Administration Office buildings b) Plan showing the City Hospital laid out in regular blocks surrounded by ornamental lawns.

surrounded by both formal and incidental open spaces, which are much used during muslim festivals. On occasions, when crowds have overflowed these spaces, some have had to pray in nearby streets, lanes and any other available space within the vicinity of the mosque (Fig. 3.8).

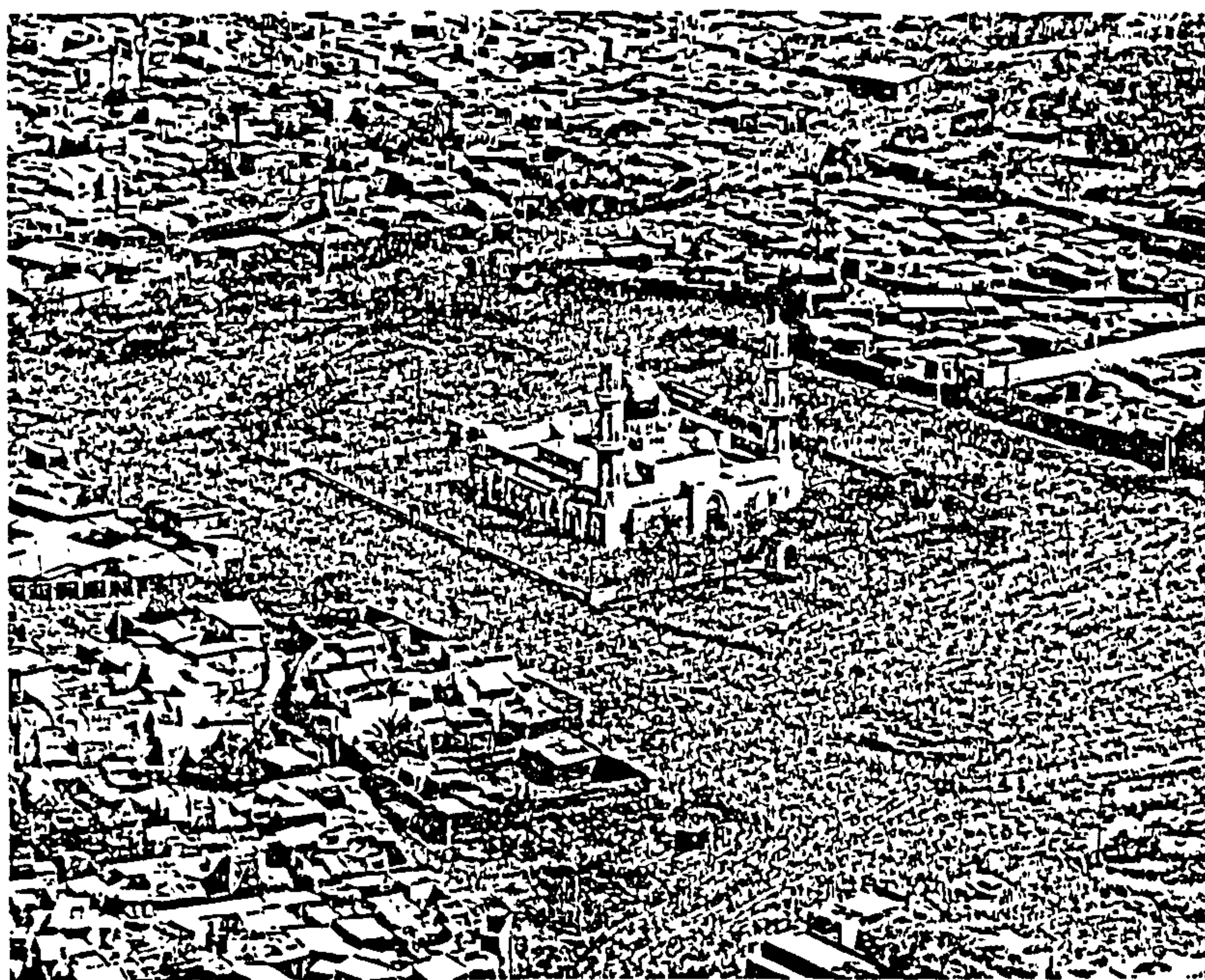


FIGURE 3.8: THE CENTRAL MOSQUE, KANO: Aerial view. An imposing and very symmetrical structure conferring a public function on adjacent open spaces. The space is always crowded with people during muslim festivals but it is largely without shade trees.

By 1960, the colonial phase of the city's history had ended but it had acquired its dual landscape character. The city like other

Nigerian towns, consisted of the indigenous nucleus enclosed by the rapidly decaying town walls and the planned suburban expansions of colonial origin, both co-existing in sharp contrast.

The most distinguishing character of the old and the new Kano relates to the appearance of the buildings and the landscape treatment of their adjoining open spaces. The older city has its distinctive mud architectural character. The masses of residential compounds which are crowded with people are constructed wholly with mud. A view of these on Dala Hill gives an impression of endless rows of compounds with their mud roofs having vertical projections like horns that are supported by slanted external mud walls. Mud drain pipes project out of the mud roofs like guns. Undoubtedly, the scale, form and arrangement of these compounds are interesting and desirable but not the grim, barren and unsightly environment around them that is totally devoid of the beauty that for instance tree planting can contribute.

The Township, planned partly on the idea of the 'garden city' concept with the GRA developed as a low density similar to the western middle-class suburbs, is a true demonstration of desirable improvement. The detached houses in the GRA are surrounded by attractive gardens undertaken in the manner of the English front and back gardens. Often these gardens are larger in scale than those commonly seen in suburban housing areas in European urban centres. The roads are broad and planted with avenues of shade trees. The shade offered by the trees is a welcome relief from the dry heat of

Kano.

The formal recreation grounds, such as the golf course, the polo ground and the tree lined avenues add to the attraction, openness and amenity of the GRA. However, the provision of the public park in Sabon Gari as part of the initial plan, which has now been developed as Audu Bako Park, is perhaps noteworthy. In the past, this was an exception rather than the rule. But the main attractions of the old city are its traditional compounds, especially their small courtyards, their organic arrangement, coupled with their interesting roofscapes (Fig. 3.9).

THE POST-COLONIAL KANO

While this period was one of considerable land use planning activity in the city's history, sadly, it contributed little or nothing to actually improving the city's poor environment and the unsightly open spaces. The Kano Metropolitan Planning Authority was set up in 1962; and immediately, it embarked on the preparation of a land use plan, to guide the city's physical expansion and to promote the economic and social welfare of the people. The Metropolitan Authority commissioned Trealion to prepare the city's first Land Use Plan within twelve months [17]. This plan was the first of its kind for any Nigerian urban centre outside Lagos. Lack of time factor and the non-availability of relevant data on many aspects of Kano, were constraints on the planners, who claimed that they found it difficult to assess the city's future role [18]. Thus, the plan was prepared

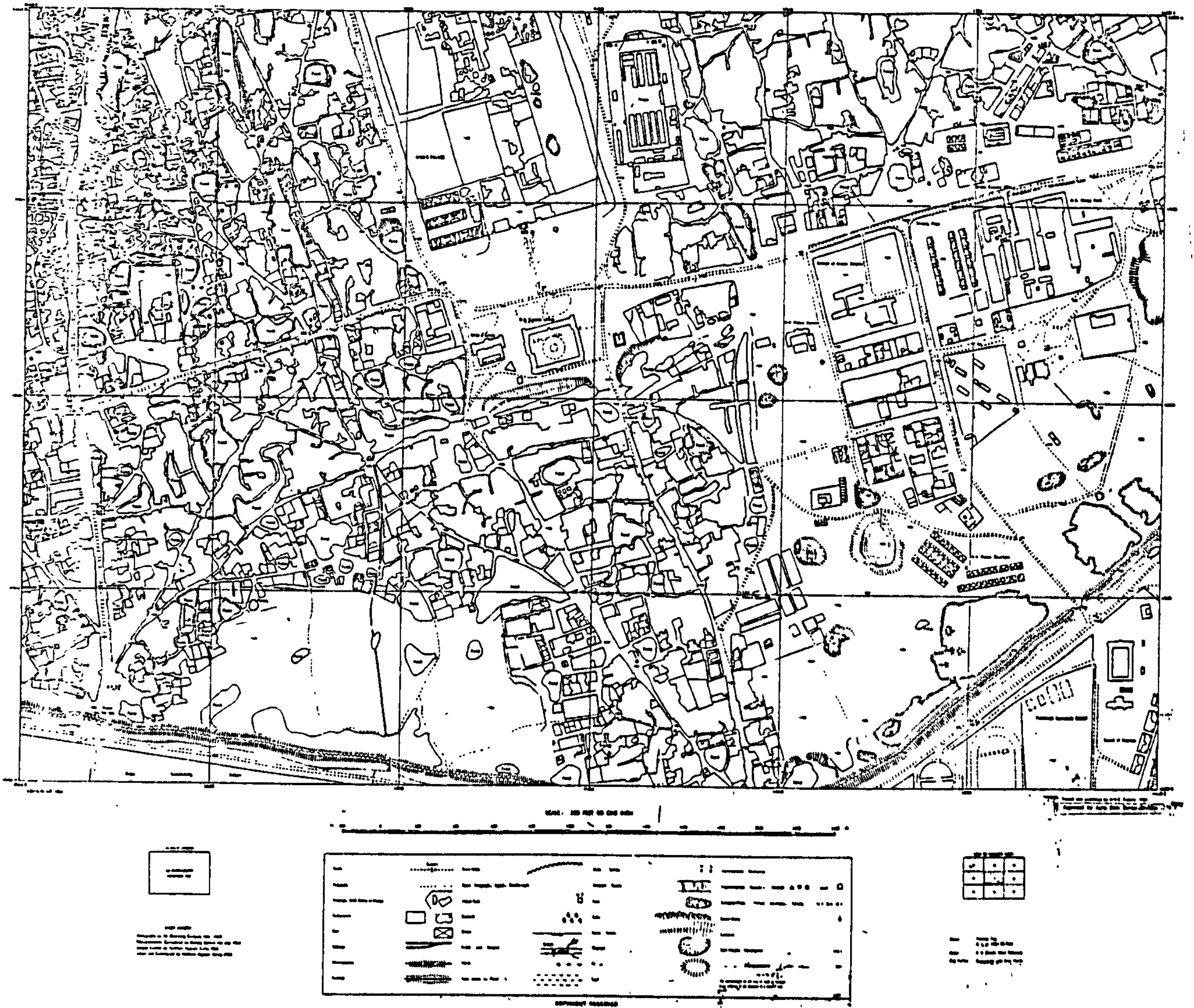
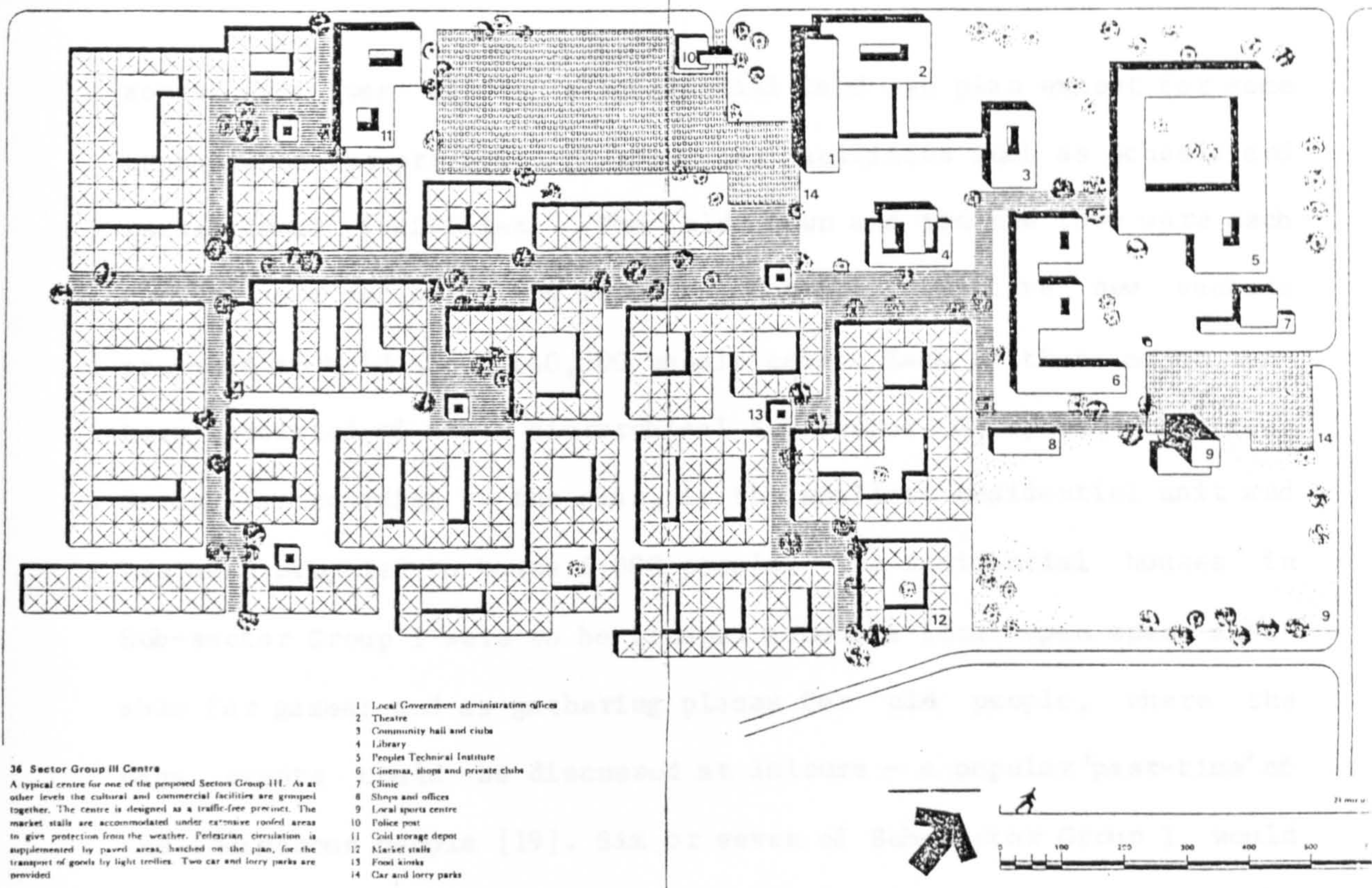


FIGURE 3.9: THE PLAN OF A TYPICAL RESIDENTIAL DISTRICT, OLD KANO: showing the organic arrangement of the residential compounds separated by narrow paths. The most deplorable features are the unsightly ponds, which are health hazards and public nuisances. Source: Federal Surveys Office, Kano.

on many unfounded assumptions.

First and foremost, the planners assumed that Kano would grow by a modest amount and that the planned population growth would be accommodated partly in the city and the rest diverted to surrounding villages within the Greater Kano Metropolitan region. Kano's population was projected to exceed a million people in 1986 (Table 3.1). The physical plan to accommodate the projected population growth faced some intractable problems because of barriers to suburban expansions. While the Airport is a barrier for suburban expansion to the north, the marsh land around Jankara market and the railway line are other obstacles to the south and east respectively. The latter would have been ideal for the development of allotment gardens. An alternative which is to accommodate the planned growth within the green field of the old city was also considered. This idea was dropped in the final plan as it would have involved large scale social disruption and, perhaps, have done more damage to the indigenous social and landscape character of old Kano; a worthwhile and kindly thought on the part of the planners. Thus, the city's physical growth could only be directed to the land areas between the rail line and River Tatsawarki.

The planners, however, introduced a new concept, a set of quantitative standards based on a given population, for land use allocation and the distribution of essential urban services and facilities. Figure 3.10 shows the planners' broad land use proposals for Kano. The areas earmarked for future development were subdivided into broad



a)



b)

FIGURE 3.10: PROPOSED CONCEPTUAL SECTOR PLANNING MODEL FOR KANO: showing a very inappropriate model imposed on the people of Kano and one which conflicts with existing organic layout and indigenous architecture (b).

zones. It was mainly a residential land use plan except for some emphasis on the provision of essential facilities such as schools and recreational facilities. The old town and the new town were each treated as a sector in the new plan, together with five new sectors proposed to hold about 140,000 people each. Each of these major sectors consisted of three hierarchical Sub-sector Groups. Sub-sector Group I, according to the plan, is the smallest residential unit and has been proposed to house 6,000 people. The residential houses in Sub-sector Group I were to be grouped around a local open space suitable for games; and as gathering places for old people, where the days events could be discussed at leisure - a popular 'past-time' of the indigenous people [19]. Six or seven of Sub-sector Group I would make-up Sub-sector Group II, and four of sector Group II would make up a sector Group III - a kind of quantitative mania!

Figure 3. 11 shows the land use design proposal for a sector based on a list of facilities recommended for the planned population. Strictly speaking, such a quantitative planning model of western derivation is not directly relevant to the people of Kano with a different culture and life style. It needs emphasizing that such planning standards based on idealised requirements of urban population in western societies are generally inapplicable and therefore inappropriate to the people of Kano. Moreover, such a planning model, uniformly applied to the city, fails to take into account the cultural differences, and local variations in socio-economic and demographic factors of the people. Similarly, the proposed design for

improving the indigenous residential area is in conflict with the organic arrangement shown in the character of Old Kano (Fig. 3.10).

A good point about the plan, however, has been the due considerations given to the provision of land for primary and secondary schools, and including the Bayero College of Ahmadu Bello University which was still in the formative stage. The planners, responding to the hot climate, suggested the maximum use of shade trees in open spaces. They added that such trees would be an invaluable contribution to the city's beauty and amenity [20].

Other proposals of the plan's relevant to open spaces and amenity include:

- i) Motorways and urban transit routes;
- ii) Central park;
- iii) the city park proposed between the city and Fagge;
- iv) perimeter (peripheral) open spaces;
- v) Secondary and middle school grounds;
- vi) University precincts;
- vii) Government precincts; and
- viii) Sector centres [21].

The proposal for the motorways has been implemented but those which bear on the city landscape and open spaces such as city's central park and the peripheral open spaces are still awaiting

development. In the city plan, the planners failed to resolve two related issues which are the questions of how and who is to execute the landscape proposals. In the land use plan both landscape design and management were never considered as having any importance in its own right. The planners discussed the city's landscape issues together with agriculture and forestry as one global subject [22]. Such an approach carries with it the underlying assumption that the Forestry Division of the Ministry of Agriculture, would be responsible for the development of landscape, in particular town gardens. Undoubtedly, forestry, agriculture and landscape are related subjects but the professionals in these fields have very different contributions to make to urban landscape planning, especially considering the present planning system and administrative machinery for urban development in Nigeria. Obviously, the planners were misguided in assuming that the Forestry Department would be as active and as understanding in the development of town gardens as was initially intended by Governor Moloney (Chapters 9 and 10). Such confidence in the Forestry Division has been wholly misplaced. For example, the Forestry Division has failed woefully in their statutory role to develop public gardens not only in Kano but in most other Nigerian towns, as already documented for Ile-Ife in Chapter 2. The Audu Bako Zoo park, Kano, which has been developed in the more recent past, was externally motivated. Its development was partly an offshoot of the national campaign by the Ministry of Agriculture to develop in each of the regions either a zoo park or an arboretum [23]. This same campaign had been responsible for the development of the older zoo

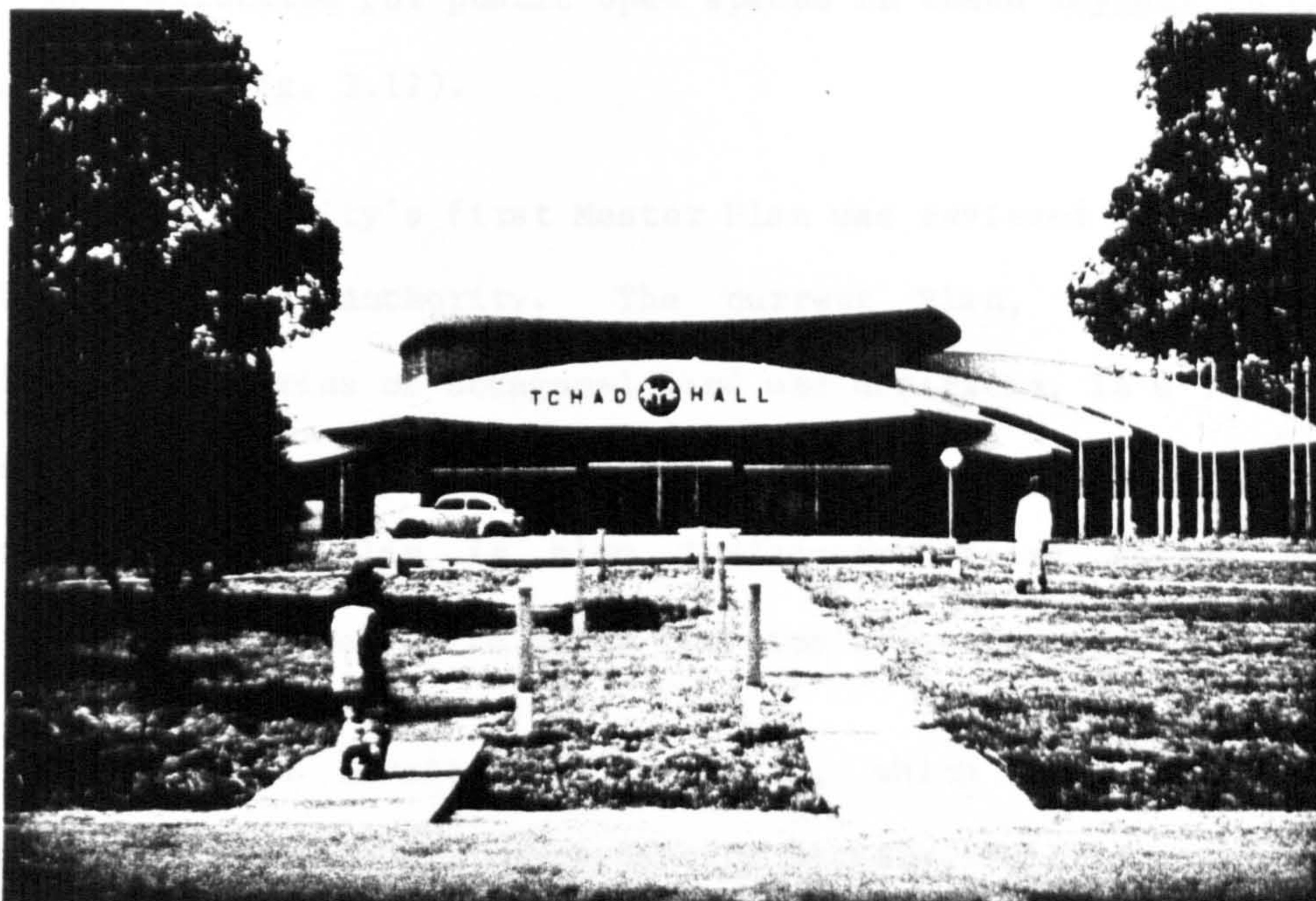
parks and gardens such as Ogba Zoo Park, Benin, and the Agodi Gardens, Ibadan. Most of these parks are either developed on the suburban fringe or within forest reserves thus making accessibility to them difficult for the masses in inner areas of the city. Moreover, the Zoo Park, Kano, is said to have been the brain-child of the Late Audu Bako, the then Governor of Kano State, and a lover of gardens. He was also said to have pioneered the idea of building the Bagauda Lake Resort around which can be found some attractive landscapes (Fig. 3.11).

In more recent times, Kano's fast population growth and the resulting housing needs militated against the strict adherence to the provisions of the first land use plan. Within the last two decades, the city's population has grown - but not as predicted in the plan. Although an accurate account of this growth has been impossible to determine because of the absence of reliable census data, the city's population which was estimated as 333,000 in 1963 and 688,000 in 1978 has more than doubled over the last decade. In 1980 the city's population was estimated at 750,000 and it is still projected to reach the 1 million mark in 1986 as contained in the first plan [24].

Since the mid-sixties, the city's physical growth has been accommodated through many suburban housing layouts mostly of high density development and bye-law housing. In addition, there are three newly developed housing estates promoted by Housing authorities set-up by the State and Federal governments. The first of these estates is at Geji-Geji and was developed by the then Northern



a)



b)

FIGURE 3.11: KANO: MAJOR RECREATIONAL AND TOURIST DEVELOPMENTS. a) The Audu Bako Zoo Park: A view of the elephant enclosure surrounded by a deep and wide moat. b) The Bagauda Lake Resort: An Important tourist resort with an attractive landscape. The photograph below shows the Conference centre.

Nigeria Housing Corporation. The second one is the Kundila Housing Estate, which was developed by the Kano State Housing Corporation and was planned as an extension of the former. The third housing Estate, located along Zoo Road, is the most recent and has been developed by the Federal Housing Authority (FHA) in 1976. These three housing estates are a mixture of medium and low densities. The landscape character of the low density housing areas is similar to those of the GRA but is less attractive because little attention has been devoted to the development of both private and public gardens. Generally, the land allocated for public open spaces in these layouts is yet to be developed (Fig. 3.12).

In 1975 the city's first Master Plan was reviewed by the Metropolitan Planning Authority. The current Plan, which has been designed as a series of octagonal land use districts, is a departure from the earlier one based strictly on a quantitative planning model. The latest plan is also inadequate, being backed by no coherent land use policy to guide the city's development.

The suburban developments in Kano, which are either Local Authority Layout or Government Housing Estates, tend to cover larger land areas than those encountered at Ile-Ife. On an arbitrary basis, each provide a certain amount of land for public open spaces although it has proved very difficult to quantify them as has been done for Ile-Ife for reasons of lack of time and the enormous number of approved layout plans. The planning authority's office was burnt to the ground by fire during the time of field survey and most of the



FIGURE 3.12: THE ZOO PARK ROAD HOUSING ESTATE, KANO: A typical example of undeveloped and unmaintained open space subject to further abuse and squalor. The photograph below is a view of incidental open space in the Old Zaria, another Hausa town with similar urban landscape character and open space problems. Generally in these towns incidental open spaces and dug-out clay holes are usually choked up with litter.

records which survived the blaze were yet to be sorted out. But even from a limited field survey it was found that the various land areas allocated for open spaces in Kano have remained undeveloped and unmaintained because of the inadequacies of local government.

The development process in Kano which typifies that of other towns in northern Nigeria is interesting and it is different from that which shaped Ile-Ife. Usually, the layout plans are prepared by the Survey Department of the Ministry of Land and Survey, while the Metropolitan Planning Authority implements them by approving the building plans. This form of urban planning and development has been possible in northern Nigeria because the government already owned all land in trust for the community, well before the passing of the Land Use Decree, 1978, thus making the process of urban development in northern Nigeria very different from its counterpart in the south. Under the present land tenure system, the individual can only own land by outright purchase and by obtaining a certificate of occupancy. Thereafter, such land can only be re-acquired by the government through compulsory acquisition and the payment of compensation. One of the advantages of the Land Use Decree is that the government is not in want of land for its own developments. Unfortunately, this power has yet to be used to redress the city's deficiency of open spaces.

KANO: its landscape character, problems and suggestions

Modern Kano is divided into two major landscape districts; the old and the new town, each with its own distinctive character. On the one hand is the old town surrounded by very high and formidable walls; punctuating the old town are important landmarks, which also act as nodes, including the Emir's Palace fronted by the town's main square, the central and district mosques and the market squares; around them are the older residential compounds separated by narrow streets, lanes and paths that are grossly eroded in places; and sometimes next to them are unsightly pools of water which are covered with aquatic plants making them look like green ponds. New Kano, on the other hand, is a 20th century development outside the walled city which has been developed as a planned garden suburb surrounded by a large area of bye-law housing districts.

Since the colonial era, there are more noticeable changes in the landscape character of the Old Kano. At least, these changes are more noticeable today than when Foyle in 1959 first made his remark about the little or no change in the character of Old Kano [25]. Hausa compounds are increasingly being broken up like that of the Yoruba and rebuilt with newer building materials. White washed traditional compounds roofed with galvanised iron sheets have been on the increase in Old Kano and stand in sharp contrast to the surrounding brown mud houses.

At present, Kano's landscape fails to achieve a balance between

the old and the new; and especially - to evolve an appropriate and harmonious architectural style. The city's image as revealed in the quality and maintenance of its open spaces is appalling and very unsanitary. A way ahead is to improve and reclaim the numerous stagnant and unsightly ponds in the old city and to repair the badly drained and eroded roads, lanes and streets which are often filled with rubbish and smelling filth. The enormous shortage of public open spaces is exacerbated by the abuse of existing ones, which have been wholly undeveloped and unadopted, and having been filled with rubbish, they remain too unsightly and unusable. They need to be rid of their rubbish, developed and maintained as attractive landscapes for outdoor recreation. The green fields around the old city, which are the remnants of the former extensive town common, need to be preserved, and perhaps, used as allotment gardens.

Despite the city's long history of physical planning, its urban landscape remains poorly maintained. Again the bulk of this problem can be blamed on inadequate local government. This appalling situation needs to be redressed and, until a body is set up and committed to proper landscape development of the city, it seems little or nothing will be achieved. Such a body should function within local government and Urban Development Board and both have the potential for managing and developing existing and proposed public open spaces. Indifference, lack of initiative and the low priority given to gardens and open spaces may account for the current failure rather than lack of agency. While the city's first Development plan suggested

some worthwhile landscape proposals, so far, these are yet to be implemented. In reality, such landscape improvement policies require passionate commitment, financial and human resources to give effect to them.

In Kano and many other northern Nigerian towns, land acquisition for major developments poses less problems. This power should be used to secure more land as public open spaces in suitable locations. By far, the bulk of open space resources in the city are the small private courtyards and other incidental open spaces, but these also need to be improved. The qualities of these, some of which are discussed in the later part of this study, should find suitable expressions in the design of newer housing areas and local open spaces.

The influence of the Islamic religion on attitudes to open space provision has hitherto been very potent and will probably continue to be so as long as people hold their allegiance to it. At present, muslim religious laws restrict women in purdah from participation in open air activities as much as possible. This leaves only the male population making demand on public open spaces. It is increasingly important that the design of residential compounds continues to provide for private open space needs of the female members of the family in residential buildings. But attitudes to outdoor life and perhaps the use of open spaces are changing among the muslim women. Already, Hausa muslim women in urban areas participate freely in commercial activities in the open markets, which is an indication of the change which has taken place over the years. As further change in people's

life style is inevitable, ways must be found for accommodating the demand for public open spaces in the Old city. Until the requirements of such changes are manifest, it is only sensible to stress the importance of utilising the advantages of the dual character of the city and to resolve, through the application of appropriate planning and design concepts, its particular open space problems. While the Township serves as the place best suited for the development of newer open spaces, old Kano should be largely conserved but priority should be given to the landscape improvement of private, communal and public open spaces. The grossly eroded roads should be redesigned and reconstructed with proper drainages and planted with shade trees and equipped with outdoor sitting areas. The town common should be preserved and used for allotments and other public gardens and the town wall which surrounded it should be restored and maintained as an important part of an historic landscape. Within the GRA further opportunities must be sought for improving the amenity of the densely built-up areas such as the Sabon Gari, Tudun Wada and by providing for public open spaces for both the children and adults.

Notes and References: Chapter 3

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CHAPTER 4

CASE STUDY 3: JOS

Jos is a very typical example of early 20th century Nigerian towns of colonial origin. Here, the concern for open spaces, gardens and a high quality urban environment is more evident than elsewhere. Indeed, Jos, unlike other indigenous towns, was planned from the beginning to meet different requirements [1], being a partial implant of the British 'garden city idea'. Therefore, it lacks the organic structure of older and historic towns like Ile-Ife and Kano.

From a small mining village, Jos has now emerged as a prosperous town with expanding commercial, administrative and educational functions. Jos, the capital of Plateau State, is the headquarters of the Metropolitan Local Government and is a university town.

Geographically, Jos is located in the centre of Nigeria being situated to the northern edge of the heavily dissected Plateau, a vast naturally picturesque, topographically and geologically interesting landscape region covering some 8,600 km². Some of the distinctive topographical features of the Plateau complex include the Shere Hill (1,776 m.) on which lies the highest point of the region and Dogon Dutse hill (1,406 m.) both to the north-east. It also includes the Rukuba Hill (1,275 m.) to the west, and Kuru Hills

(1,434 m.) to the south (Fig. 4.1). Along the Jos Bukuru Bypass, one sees a panoramic view of the city. This view shows a sprawling urban centre with towering background hills and dwarf buildings whose coloured roofs add scale to the scene (Fig. 4.2). The views beyond the hills soon diffuse into the wider and flatter savanna landscape characteristic of most parts of northern Nigeria. The lower temperatures recorded on the Plateau when compared to other parts of Nigeria are due to the influence of the high altitudes. The latter and the highly scenic countrysides of the Jos Plateau and the cooler climate are additional assets and ideal for promoting tourism in the city.



FIGURE 4.2: JOS: View From Bukuru Bypass: showing the city expanding along all possible lines and around the surrounding highlands

Prior to the foundation of Jos, the Plateau region was inhabited mainly by many small tribes who had lived mainly in villages and farmsteads. Evidence of earlier settlement found in the mine dredging has shown that the Jos Plateau has been continually inhabited from the time of the early African Stone Age through the Acheulean Period. Some stone Age tools found here have been dated to 39,000 years (Ch. 1). Agricultural villages with rich arts and crafts of the Nok culture are said to have existed on the Jos Plateau between 2,200 BC and 200 AD [3].

THE ORIGIN OF JOS

Jos has an interesting origin, an origin it shared with two settlements. In 1903 Jos was established as a mining camp at the outskirts of Naraguta by Laws and his party [4]. Following the discovery of tin deposits the Plateau attracted many European miners as did California during the American 'gold rush'. By 1913 the mining industry had attracted 50 European mining firms and the annual output of tin was put at 5,000 tons [5]. Certain events, however, led to the emergence of a new mining settlement at Guash, further south around the present site of Jos Museum, which soon overshadowed the earlier one founded at Naraguta. Guash became more important because of its strategic location which offered good prospects for constructing rail lines and for the extraction of the richer tin ore deposits in the nearby Bukuru, Gangare and Rayfield. In 1914 the construction of the new rail line from Zaria to Bukuru had been

completed and brought into use. This overcame the need for human carriage of the tin output which for almost a decade and half, the Royal Niger Company had to maintain a regular labour force of 4,000 people who used to carry the tin produced from Plateau across Keffi to Lokko on the Benue [6]. The poor transport networks on the Plateau had prompted the siting of camps around mine-heads which dotted the entire landscapes, scarcely any of them contributing anything which could be recognised as a town (Fig. 4.3). As it was not possible to link Naraguta, the nucleus of the new town, with the same rail line because of topographical constraints, Guash became increasingly more important as the nucleus of the new town. The nation's first exodus was experienced in 1915 as Laws's mining camp was completely abandoned for Guash, which became the foundation of modern Jos. Jos is said to be an Hausa corruption of the word 'Guash'.

It has been suggested by some [7] that the readiness of Barde, the Hausa Chief, to move to the new town also accounted for the relocation of Jos. It was unrelated to the founding of the new mining settlement. The Hausa Chief was probably induced to move because of his financial gains from the royalties of the mines. If the Hausa chief had been very influential he should have been given the best treatment in the new town. As it was, he was left with little but a very ordinary house, certainly not the palace which was his due.

Regardless of the Chief's decision, Guash had shown promise in other ways of becoming the nucleus of a much larger town. Before 1910 the Jos Tin Areas Limited Mine at Gwangare had established

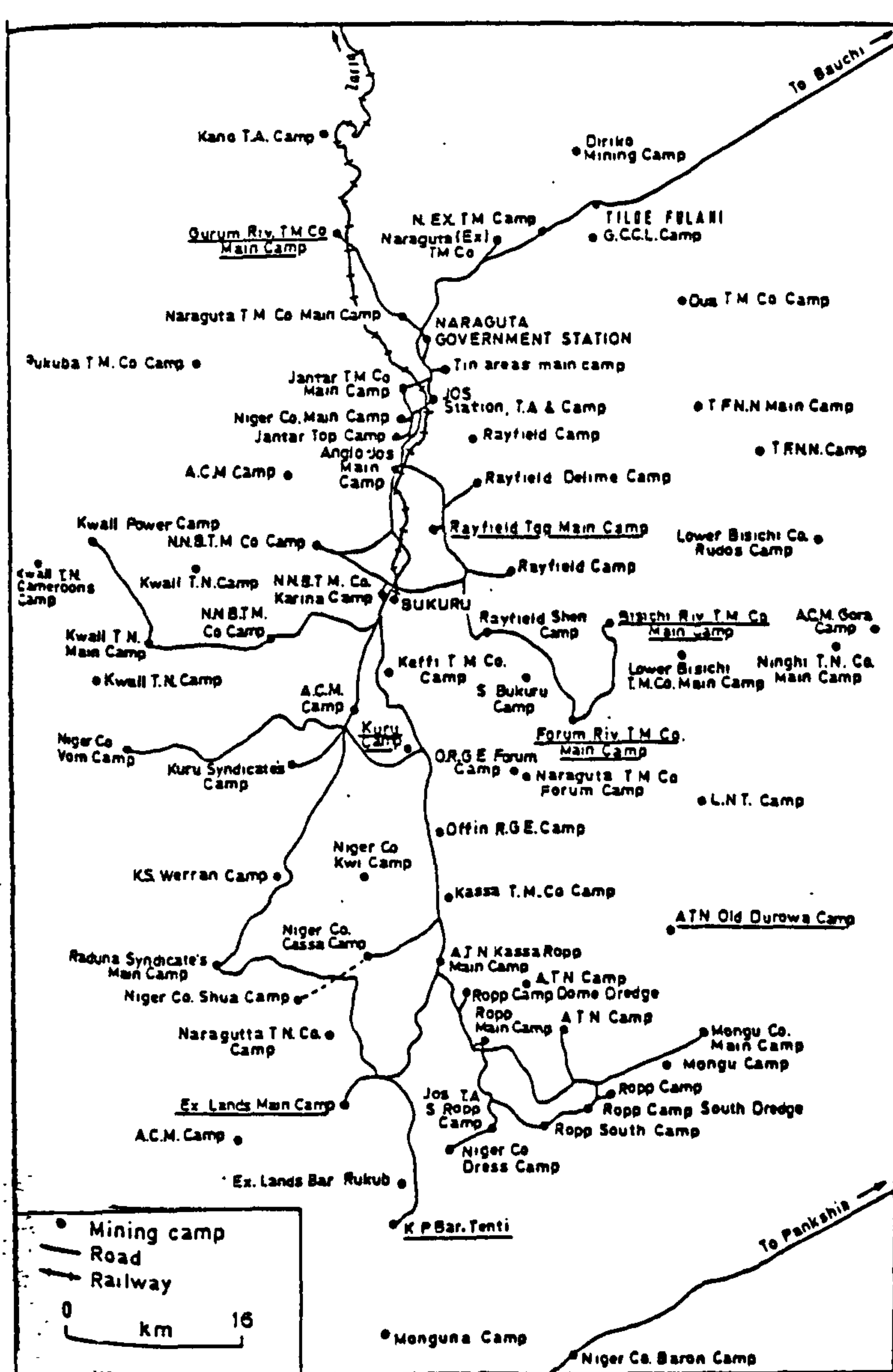


FIGURE 4.3: SETTLEMENT PATTERN ON THE JOS PLATEAU, 1920: showing the region covered mainly with dispersed mining villages and camps. The entire landscape today is still dotted with mining camps and dredging operations.

itself in Tudun Wada, an Hausa settlement some 3.2 kilometers to the south-east and had linked it by road with Naraguta, the Divisional headquarters. In addition, the Royal Niger Company Limited had built store houses near the existing Bank Road that were linked with Tudun Wada by roads. According to Urquhart, the arrival into Jos of the light Railway from Zaria only accelerated the building of more trading stores and residential developments in Guash and the laying out of Jos as a Township in 1918 [8].

THE COLONIAL JOS

The Development of Jos up till 1934

The development of Jos between 1903 and 1934 marks a distinctive period of growth and is discussed as such. The first nucleus of Jos at the suburban fringe of Naraguta which was developed before 1905 is shown in Figure 4.4. This was rather a small and sporadic mining camp although it contained the residence of Colonel Laws and a well laid out golf course.

The first plan for Jos was based on the provisions of the Township Ordinance 1917 (Fig. 4.5). This plan was a British implant based on a partial and idiosyncratic interpretation of the 'garden city' concept, being an interpretation also used to plan other colonial new towns such as Enugu, Kaduna, Minna and Maiduguri. The first phase of Jos was planned as a rigid grid with the residential districts zoned according to race and class distinctions. It had three

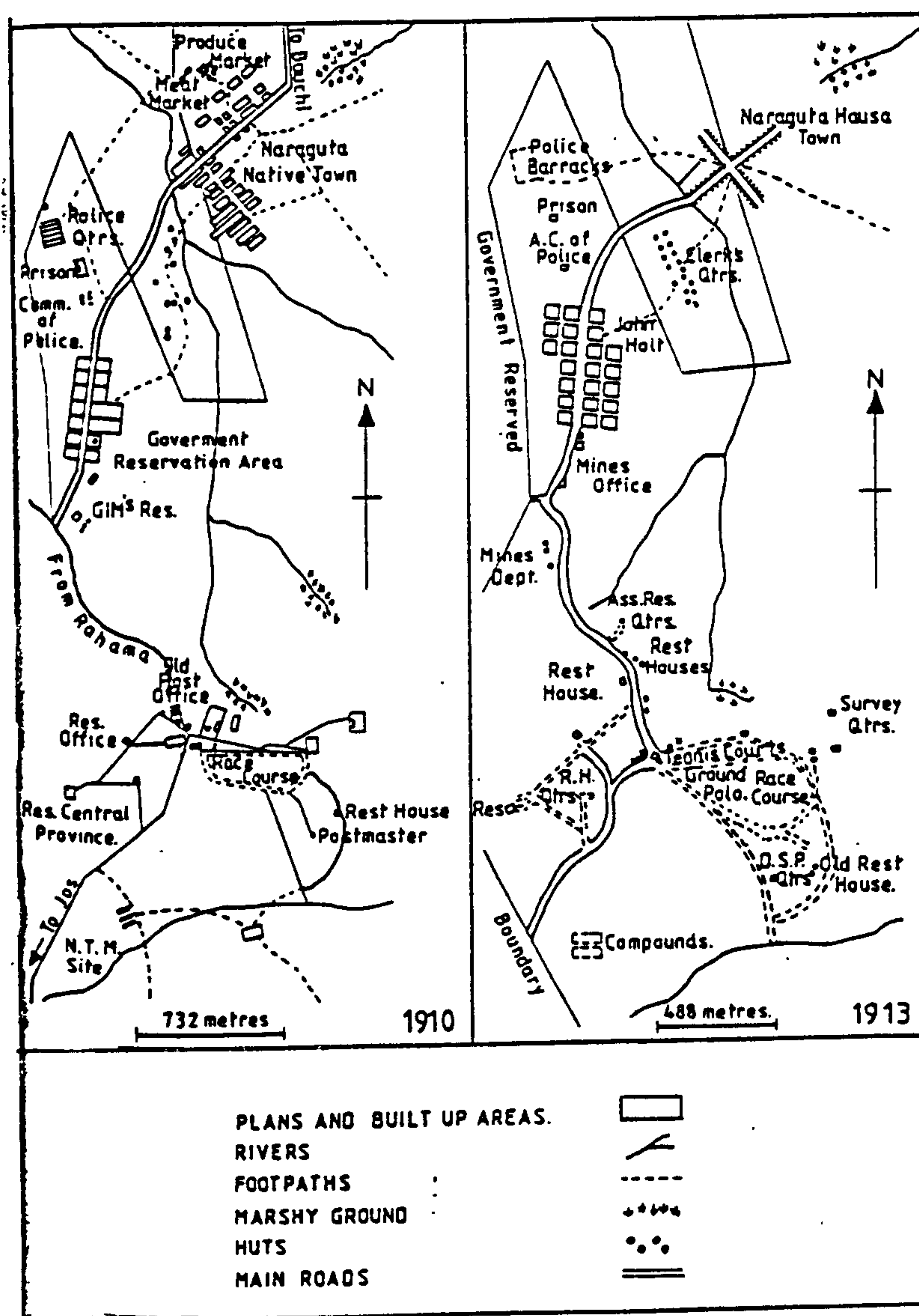


FIGURE 4.4: NARAGUTA: showing the location of the first mining settlement founded by Colonel Laws and his party. The English love for sports like race and golf was not forgotten by the miners as they found space and time for these leisure activities.

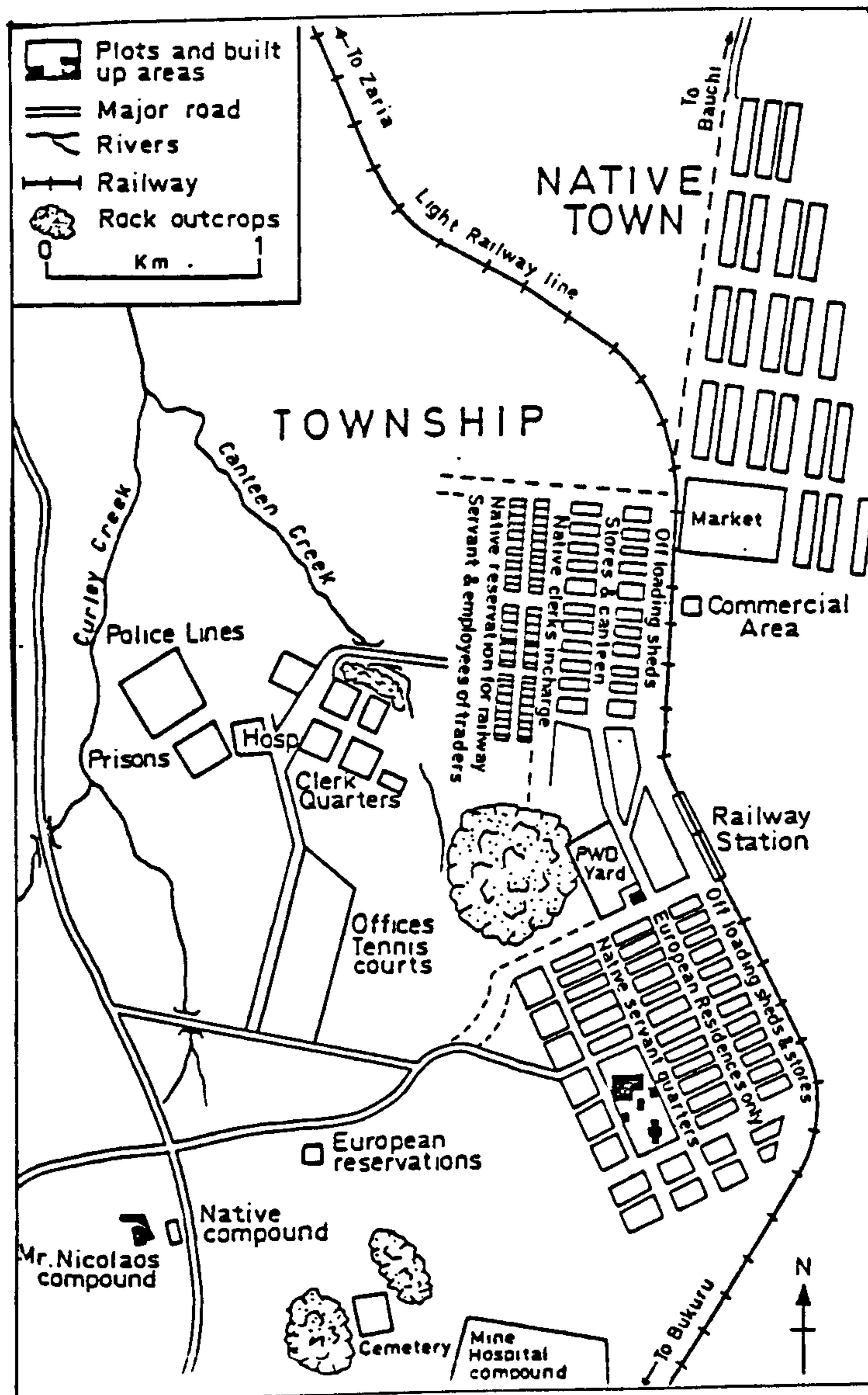


FIGURE 4.5: THE PLAN OF JOS, 1918 compares well with other new towns like Emugu and Kaduna; they all show the rigid grid iron pattern and are today living testimonies of the underlying imperialism and rigid urban planning ideology

residential districts including the native town, Sabon Gari and the European Residential Area (ERA) which is now appropriately referred to as the Government Residential Area (GRA) together with a shopping district located at the centre.

The native town to the northern-end and Sabon Gari south of it were developed as high density housing districts. The former housed the native population and the latter, the immigrants from other parts of Nigeria and West Africa who were employed by the colonial administration and the mining industry.

The native town corresponds to the Tudun Wada of Zaria and Kano [9]. The difference, however, is that the natives were all immigrants. Plotnicov appropriately described the residents of Jos as 'strangers in the city' because as it turned out, all the city's inhabitants were and are immigrants [10]. For this peculiar situation it was a real problem to evolve a workable native administration based on Lugard's model of 'indirect rule'. The native town was administered by a locally constituted body with a titular head, an undistinguished Hausa chief with the title - "Sarkin Jos" meaning the Chief of Jos [11]. Unlike the heads of comparable indigenous towns like Ile-Ife and Kano, he was accorded no palace, his house being indistinguishable from any other wealthy individual.

The market and the native hospital, though located in the native town, were provided for its residents and those of Sabon Gari. The Club House and the cemetery also located in the Sabon Gari were

solely for its residents.

The ERA, or the GRA, to the south of the commercial district was situated on the Tudun Wada Hill including the undulating land between Curly Creek and Canteen Creek. Initially, GRA was a very small ribbon development along the Tudun Wada road, surrounded by a building-free zone along the Curly Creek of over 400 metres in width. The golf course next to it forming a complementing green-belt was also an early development. The GRA has been planned as a low density middle-class residential suburb. The residential plots which sometimes cover more than 10,000 m² are very generous being more than 20 times the standard plot size in the native town and Sabon Gari.

The houses in the GRA have been generously planted with trees which shade the plots and the whole area is today a good example of an imported garden suburb more or less successfully transplanted for its expatriate occupants. It serves as a sanctuary from the the surrounding desolation caused by the mining activity (Fig. 4.6).

Naraguta Nursery was established in 1920 as a a central nursery for the propagation of Eucalyptus spp.. This was to be grown in some of the forestry plantations on the Jos Plateau. However, it also supplied the plants used in the city parks and the colonial gardens.

Towards the late 1920s more people migrated into Jos because of the increased tin production and prosperity. By 1927 the high price of tin in the world market encouraged increased local production. The growing prosperity also necessitated the provision of more roads and

the construction of the Eastern Railway line from Jos to Kafanchan. Through the latter the mining fields on the Jos Plateau were able to attract migrant labour from as far afield as southern Nigeria.

Jos soon became an important district and provincial administrative centre. This together with the growing mining activities attracted both miners and white-collar workers. The city's population was estimated as 8,000 people in 1920. By 1930 it had risen to 11,000. Three years later it had fallen by 1,000 as a result of the world economic recession that effected a fall in the price of tin (Table 4.1) and consequently, in the reduction of tin output. Therefore, many employed in mine labour were laid off [12].

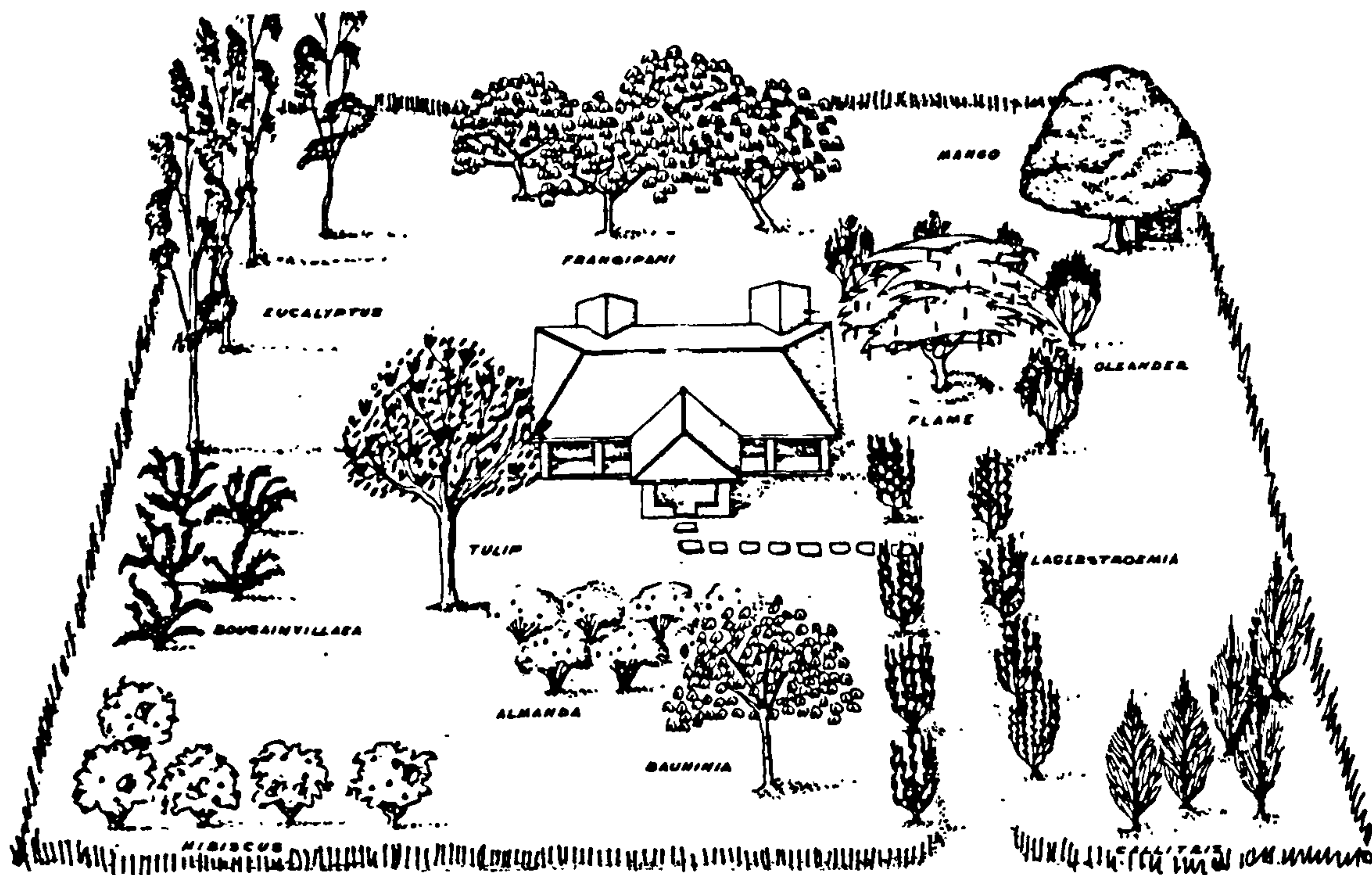


FIGURE 4.6: JOS: A TYPICAL HOUSE PLAN IN THE GRA; as compared with those of the Sabon Gari is very generous and more livable. The second picture shows examples of the houses in the Sabon Gari and their usual defects are the absence of yards and gardens.

TABLE 4.1: POPULATION GROWTH OF JOS BETWEEN 1920-1959

Year	Population
1920	8,000
1930	11,000
1933	10,000
1934	13,000
1936	17,000
1941	18,000
1950	26,000
1955	40,000
1959	55,000

Source: Plotnicov, L. Strangers to the city: urban man In Jos, Nigeria. Pittsburgh: University of Pittsburgh, 1969 p 37.

Foremost among formal recreational grounds that were developed during this period is the race course along the Bauchi road. Initially, it was developed by Colonel Laws in 1905 for the miners, although within two years the Plateau Turf Club took full possession of it. Another one is the golf course forming a continuous green-belt around the GRA. Other more functional open spaces include the native cemetery and the nursery garden (Table 4.2).

Hastings's account in 1923 portrayed the character of old Jos. According to him, Jos had many good houses with attractive gardens.

Even a miner's house was lit by electricity. Moreover, outdoor leisure pursuit was very popular among the people. According to him, 'life in the town was cheerful with dances, race meetings and sports of all kinds. The town's relatively cooler climate, which he described as the least enervating in Nigeria, was most suited for outdoor pursuits by Europeans [13].

TABLE 4.2: JOS: OPEN SPACES DEVELOPED BETWEEN 1915-1934

Space	Area ha.
Race course	27.00
Golf course	18.85
Naraguta Nursery	3.75
Native cemetery	1.50
Total	51.10

Source: Field survey 1982.

The Growth of Jos between 1934-1960

This period was distinctive for its relatively well planned suburban expansion that was accomplished with the construction of a network of roadside parks (see page 383).

By the thirties Jos had become a well established mining and administrative town with a steadily growing population. The city's population rose from 10,000 in 1933 to 22,000 in 1948 [14]. Continuing population increase and a housing shortage encouraged the

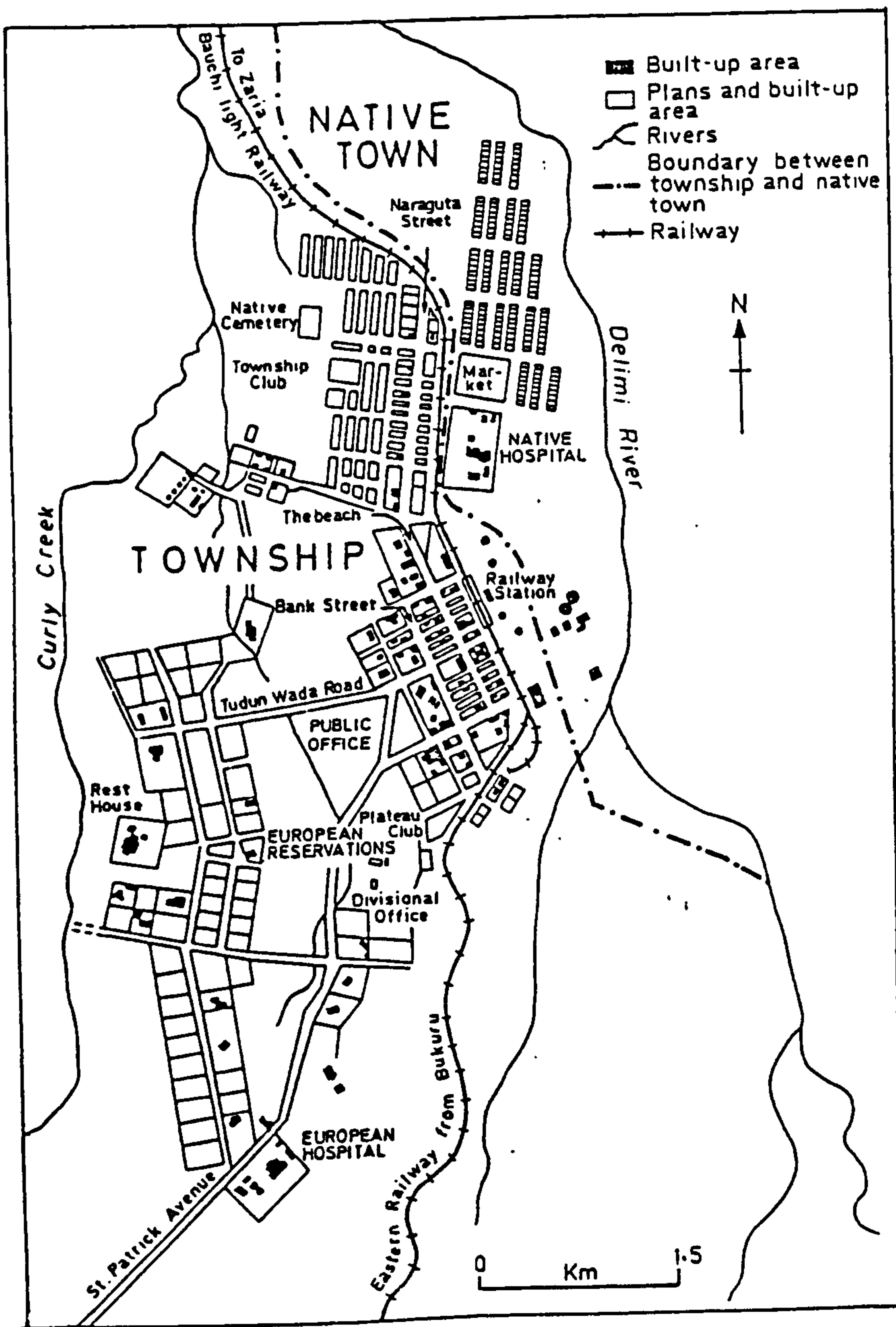


FIGURE 4.7: JOS 1934: experienced suburban expansion in response to the rising population growth.

growth of squatter settlements around Sabon Gari. Street names like Hausa Street, Yoruba Street and Ibo street in the Sabon Gari recall their origin and the tribal groups who developed them. To curb further developments of squatter settlements the main residential districts were expanded. The native town expanded westwards to include the existing residential developments along the Bauchi road. Sabon Gari's expansion plan went as far as Jentar. The developments along Rest House Road, and Aliyu Makama Road were also the extensions to the GRA; while the Commercial district expanded north and along Lugard Road. The railway line along the north-end of the commercial district also attracted the Makera Smelting Industry. By 1955 the outward growth of Jos was greatly restricted by the mining leases and derelict mineral land (Fig. 4.8).

The new plan for the expansion of Sabon Gari deviated from the earlier rigid grid pattern. The new design provided for some Terraces and Crescents with residential plots grouped around public open spaces. Notable examples are Gray Garden (along Tafawa Balewa Road), Zaria Crescent and Zaria Terrace parks (both along Zaria Road) and Suzi Garden which overlooks the Vanderpuye Street. Similar parklands which were developed in the GRA include Noad Avenue Park, Club Road Park, and Rest House Park along St. Patrick's Road. These roadside parks are generally small, being less than 1 hectare in area except Noad Avenue Park (2.40 ha.) and Club Road (1.01 ha.) (Table 4.3).

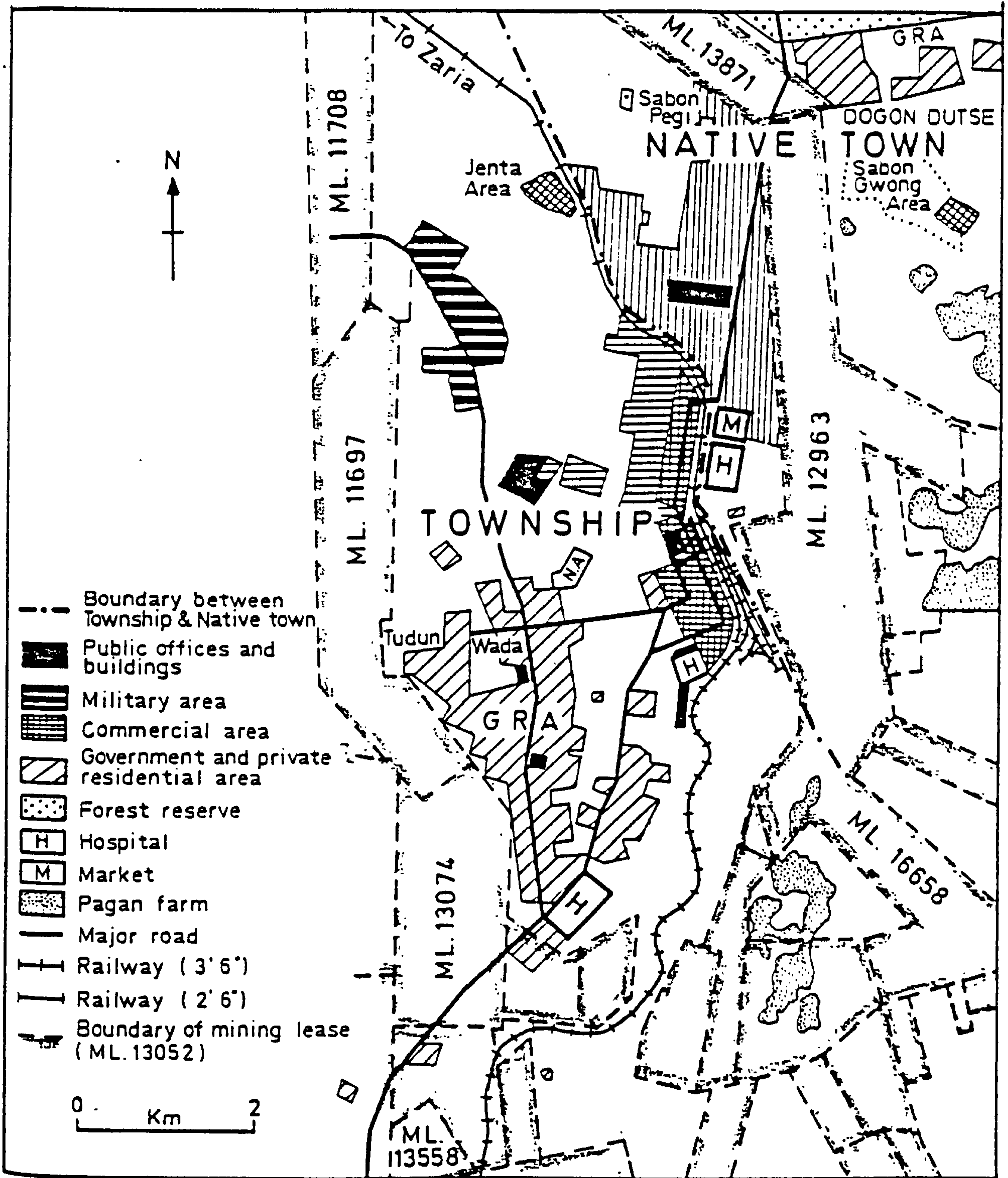


FIGURE 4.8: THE PLAN OF JOS, 1955: showing the encroachment of mining leases upon urban land and agriculture.

TABLE 4.3: JOS: THE DEVELOPMENT OF PARKS BETWEEN 1934-1950

Residential District	Parks and open spaces	Area ha.
SABON GARI	Zaria Terrace Pk.	0.76
	Zaria Crescent Pk.	0.94
	Suzi Garden	0.12
	Gray Garden	0.55
	Tafawa Balewa Pk. 1	0.15
	Tafawa Balewa Pk. 2	0.15
	Polo Ground	6.20
	Township stadium	5.25
GRA	Noad Avenue Pk.	2.40
	Club Road Pk.	1.01
	Rest House Road Pk.	0.10
	St. Patrick's Road Pk.	0.20
NATIVE TOWN	Market Square	6.06
	Native Cemetery	4.48
Total		50.76

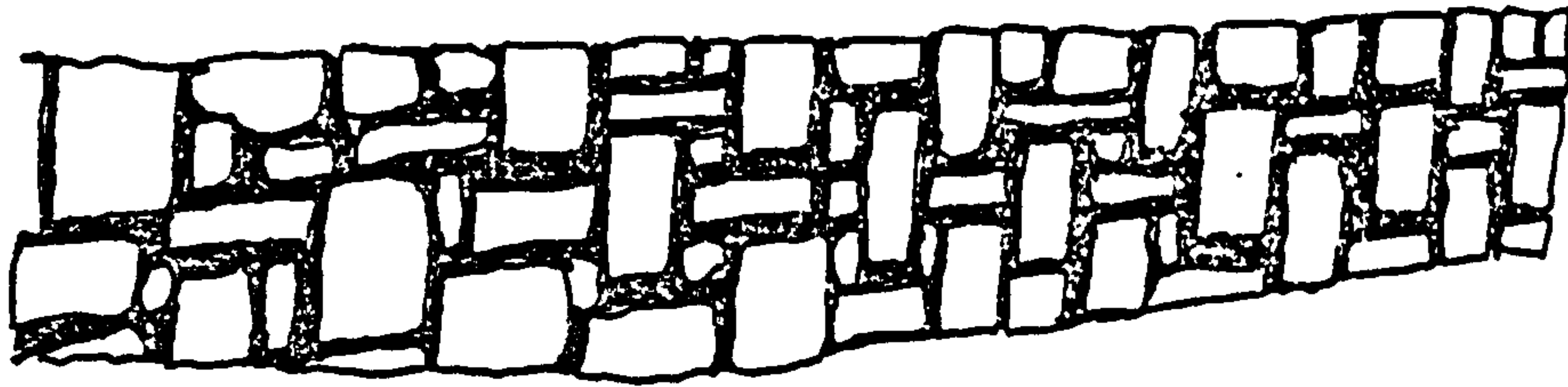
Source: Field Survey 1982 by the author.

These parks resulted from the efforts of the individual working against official indifference. It is said that Mrs Duke, the Horticulturist attached to the Naraguta Nursery did most of the planting in the parks [15]. The design of the enclosing short walls was most likely undertaken by the architect who designed those around the Jos

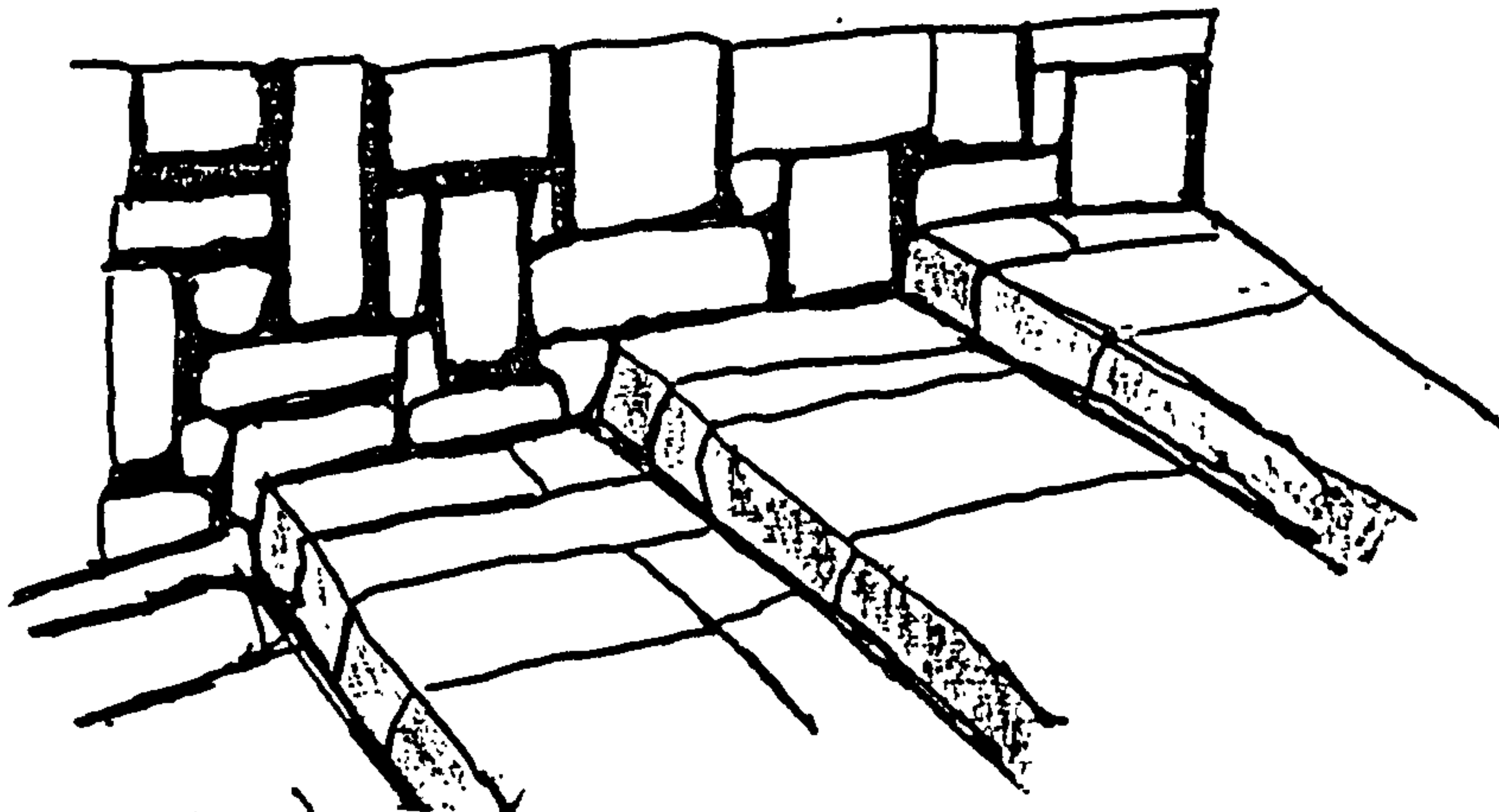
Museum because of their great similarity (Fig. 4.9). These parks were generally planted with shade trees including Eucalyptus spp., Mimosa spp., Lagerstromea spp., and also with shrub planting. They are generally edged with dwarf stone walls or plastered mud walls to keep out the livestock. Shade trees form an outer enclosure around the park. The trees within the park, which now stand in regular rows, no doubt reflect the influence of British forestry officers. More details of the landscape character of these parks are provided in Part Two of this study.

Two other recreation grounds developed during this period include Jos Township Stadium and the Polo ground. The former is among the oldest in Nigeria and by today's standard it may be very small but the mature Eucalyptus spp. trees planted around the enclosing walls now add some attraction and a welcome shade not commonly found in contemporary ones. The Polo ground also has a large open field with the club house and the trees surrounding it are again an outstanding asset (Fig. 4.10).

By 1956 the Zoo park attached to the Jos Museum had been developed. It was pioneered by the Jos Zoological society although it became a joint venture with the Museum authority, who has been administering it. The Zoo park occupies just over 6 hectares in a relatively wooded savanna landscape which borders onto the nearby Curly Creek. The Zoo park has been laid out to provide for many animal enclosures, aviaries and a shelter house for outdoor relaxation. The most interesting aspect of the zoo park is the simplicity



a) ENCLOSING WALL



b) MAIN ENTRANCE, MUSEUM BUILDING

FIGURE 4.9: JOS: EXAMPLES OF WALL DETAILING IN SELECTED PARKS

a. Detail of Enclosing Wall Zaria Terrace Park. b. Detail of an External Wall, Jos Museum.



a)



b)

FIGURE 4.10: JOS: EXAMPLES OF FORMAL RECREATIONAL GROUNDS

a. View of the Race course b. View of the Township Stadium

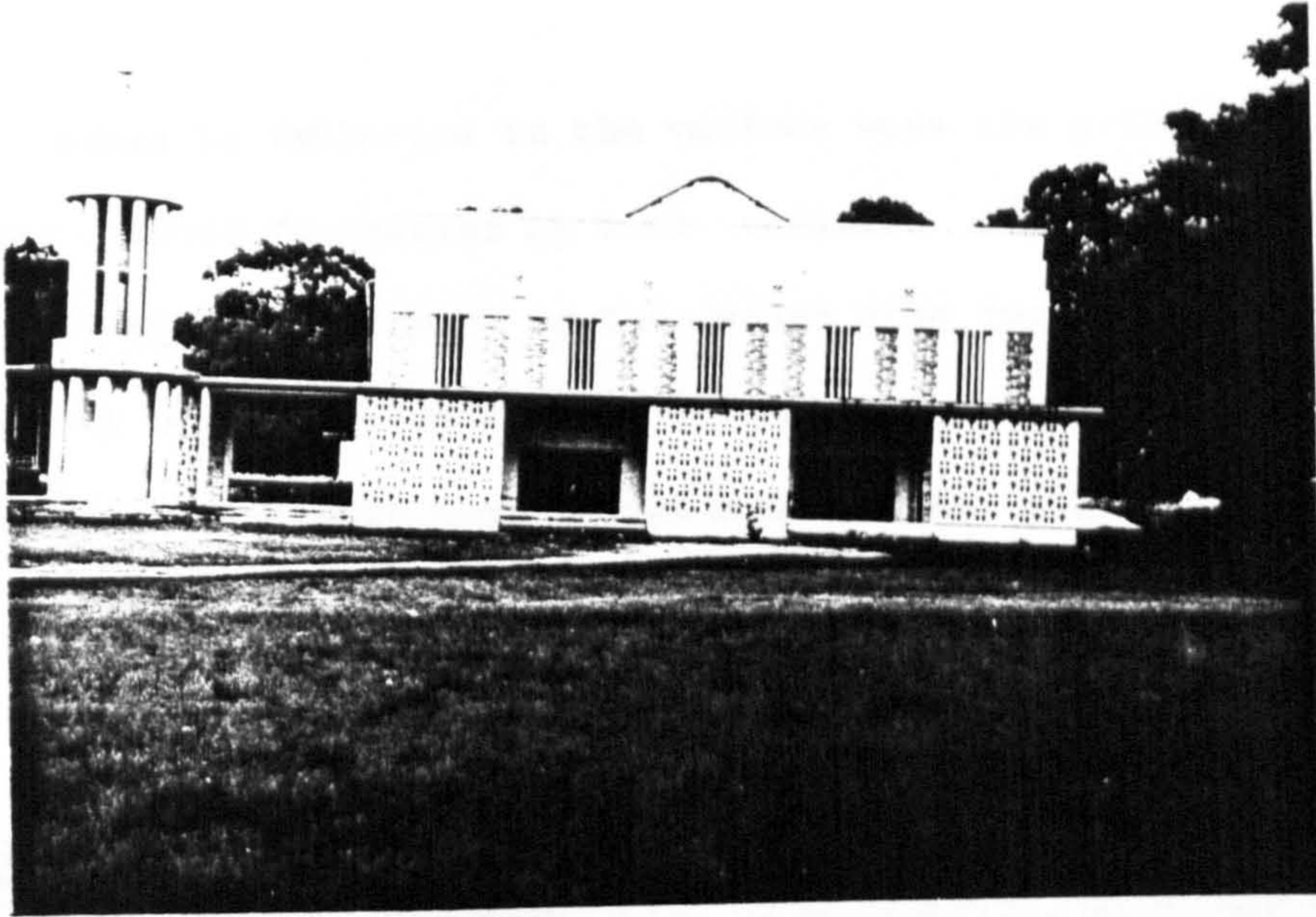
of its design mostly seen in its simple circulation pattern, the use of the local granaries as a distinctive feature of the animal enclosures and its harmony with the surrounding natural landscape. However, the concern for an attractive landscape setting for the Museum especially its development as a park-like environment, is highly commendable and other Museums, and public institutions in Nigeria should learn from its example.

The Jos Museum recently pioneered the development of a large open-air Museum of Traditional Nigeria Architecture (MOTNA). When this is fully developed it will house examples of outstanding traditional Nigerian architecture of palaces, mosques, compound houses, town walls and sacred buildings. Already, some of the traditional buildings completed on the site include the Rukuba Compound, the Katsina Place, Kano town Walls and the Zaria Mosque. Others that are proposed but still unbuilt include the Yoruba Palace at Akure, the temple of the Yoruba god - 'Orisa Ikire' [16]. While these houses have been built in the style of the building architecture, the planting and ground treatment have been neglected. It would now be sensible and rewarding to employ the service of a landscape architect to help establish the correct landscape setting for each building. Nevertheless, even as buildings without a satisfactory setting they are increasingly making the Museum the most attractive and favourite outdoor recreational spot in the city (Ch. 10).

Some institutions and private commercial concerns have generous, open and attractive grounds, thus contributing to the city's

landscape. These include the major churches and hotels. Foremost among these is the Anglican Church at Sabon Gari, which is surrounded by an open and ornamental lawn. The two most beautiful hotels in the city are the Hill Station Hotel and The Plateau Hotel. Both are accessible to the public and set within attractive landscape of ornamental lawns, walks, interesting changes in level, shaded outdoor seating areas and attractive flower beds and hedges. Moreover, each provide the only swimming pools available for use in the city, although they are run strictly as a private commercial enterprise (Fig. 4.11).

The colonial phase of Jos introduced a new form of urban planning and landscape gardening that reflected European traditions. This can be seen at Jos in the private gardens and the small neighbourhood parks reminiscent of the village greens of some English towns and also in the use of exotic trees like Eucalyptus spp.. It would appear, however, that anything less than ideal was considered good enough for the native town; and accordingly, an image of impoverishment has been consistently found there either when considered in terms of buildings or open spaces. This is especially true when compared with the other two residential districts. One expects to find at least a public park in the native area to bear the mark of all that is graceful and exalted; but the city-fathers did not deem it necessary. Today, the only open space available to the people living in these areas are the streets which in turn have been taken over by vehicular traffic. The great demand for open spaces in these high



a)



b)

FIGURE 4.11: EXAMPLES OF INSTITUTIONS AND PRIVATE DEVELOPMENTS WITH ATTRACTIVE OPEN SPACES. a) The Anglican Church, Sabon Gari. b) A view of a Primary School, Sabon Gari

density areas is reflected in the various ways the streets are colonised for outdoor recreation by both children and adults. A walk along Isiaku Gomma street in the native area during a hot afternoon on a survey was most rewarding as it revealed some of its recreational uses, which were sitting out and informal games (Fig. 4.12).



FIGURE 4.12: ALHAJI ISIAKU GOMMA STREET, NATIVE TOWN, JOS, 1983:

A typical street scene at the native town showing The picture shows Hausa children playing Okoto game; some further along the street were engaged in football and the adults sat under the shade tree during the hot hours of the day. Such recreational pursuits no doubt are an indication of the demand for open spaces.

THE POST-COLONIAL PERIOD

The last three decades in the city's history have been marked by a rapid population growth and much suburban expansion matching the steady growth in the city's manufacturing industries and the expanding administrative and educational roles (Fig. 4.13). Following the

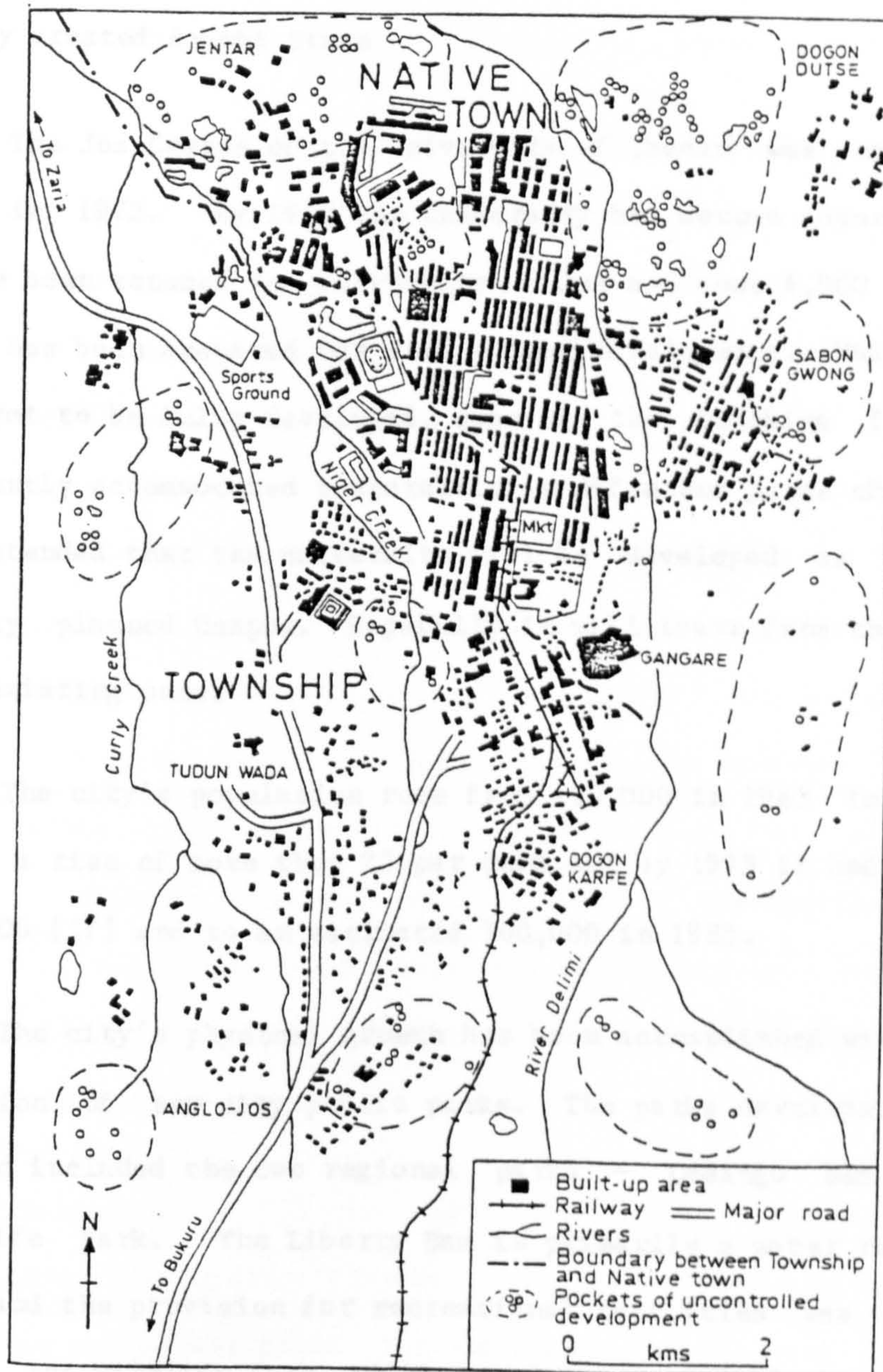


FIGURE 4.13: THE PLAN OF JOS, 1965: showing undesirable growth of squatter settlements and continuing encroachment of urban development and mining activity on the countryside and open spaces.

creation of States in 1967, Jos was up-graded from a provincial headquarters to the capital of the then Bauchi-Plateau State. In 1976 when further States were created in Nigeria the Bauchi-Plateau State was split into two States; Plateau and Bauchi. While Jos was retained as the capital of Plateau State, Bauchi became that of the newly created Bauchi State

The Jos Campus of the University of Ibadan was established in Jos in 1972. By 1978 the University had become autonomous and has since been renamed the University of Jos and some 4,000 hectares of land has been acquired for its campus development. While the campus has yet to be fully developed, some of the teaching faculties are currently accommodated temporarily in different parts of the city. It is intended that the university will be developed as a comprehensively planned Campus. Hopefully it will learn from the mistakes of the existing ones.

The city's population rose from 110,000 in 1963 to 133,000 in 1973, a rise of more than 20 per cent and by 1975 it had increased to 175,000 [17] and to an estimated 300,000 in 1983.

The city's physical growth has been accomplished without further creation of new city public parks. The parks developed during this period included the two regional parks - Lamingo Dam and Miango Wildlife Park. The Liberty Dam is primarily a water reservoir project and the provision for recreational facilities was only secondary. The Wildlife Park, which is situated in Rafin Bauna North-east

Forest Reserve, also managed to provide for outdoor recreational pursuits. The Reserve has a restaurant, a wildlife reserve area, a picnic area, an equipped children's playground and a viewing area [18]. It does not make sense. If Jos already has a zoo park why is it a good idea to have another one? The duplication of the zoo park is clearly evidence of uncoordinated efforts in recreational planning.

The last decade has been one of considerable land use planning activities in the city but has resulted in little or no improvement to the landscape and open spaces. Since 1974 two planning consultants have been appointed to prepare the city's land use Master Plan. The first land use plan for the city was prepared by Doxiadis International in 1974. This plan, which was undertaken in the typical approach to comprehensive land use planning was too ambitious in scope and few of its recommendations were implemented by the Plateau Urban Development Board before another commission was made. The main weakness of the first plan was the failure of the planners to consider properly the issue of land shortage for urban expansion [19]. Already the outward expansion of Jos has been effectively halted in many parts by derelict and mining leases. The huge cost of re-acquiring the land from the mineral prospectors was too much for the planning authority.

Therefore, in 1977 the preparation of the Jos-Bukuru Metropolitan Area Development Plan was assigned to Omokhodion Associates, a Nigerian consultant firm. For the first time it was realised that the growth of Jos needed to be controlled to avoid its merging with

Bukuru. Moreover such a joint plan also has the advantage of accommodating the overspill of Jos in Bukuru where there were less pressures for building land. The task of the planners as specified in the brief was to devise a land use plan to deal with the following issues:

- i) overcrowding and unsanitary conditions in some residential areas;
- ii) conflicting land use (residential and commercial) in some areas;
- iii) traffic congestion, parking and their relationship to the public transportation;
- iv) unsatisfied demand for housing among income groups; and
- v) a suspected inadequacy of educational and recreational facilities [18].

The brief in short was vague, wooly and incomplete. These weaknesses reflect the incompetence of the planning authority as a commissioning body. Although the brief made no reference to open spaces, "a suspected inadequacy of recreational facilities", "overcrowding and unsanitary conditions of residential areas", and "traffic congestion" mentioned by it no doubt are related issues. Therefore the planners' proposals for these issues are appraised to assess their concern.

The planners estimated that 196 hectares of land was in

recreational use which amount to 5 per cent of the city's built-up area (3917 ha.), (Table 4.4). What they omitted to mention was that the bulk of this is allocated largely to private recreational clubs who own the golf course, race course and the polo ground, and these are not available to the general public. A few parks provided in the city and which are located in Sabon Gari and the GRA are well used by the public. The open spaces accessible to most residents in Jos are the few school playgrounds (Table 4.5).

TABLE 4.4: PROPOSED LAND USES FOR JOS

Land use category	Existing ha.	Projection ha.
Residential	2193.4	1360
Commercial	255	250
Industrial	195.8	500
Community services/Facilities	195.8	100
Government	255	-
Recreational open space	195.8	300
Transport	665	-
Total	3916.7	2610

Source: Omokhodion Associates, Jos Bukuru Area Development Plan, 1977 Vol 2 p 237 and 238.

Table 4.6 is a summary of the current proposal for outdoor recreational facilities in Jos. It was projected that Jos would require an additional 300 hectares of land to meet the shortage of

open space, although the planners fail to explain how they had arrived at their chosen figure. New proposals for park development include a Central park although the location has yet to be determined and the Curly Creek Park. Other proposals include the improvement of the existing parks by the provision for soft drink kiosks, public conveniences, child play facilities, other amusements and boating facilities. Five community centres, cinemas and conference centres were also proposed. Generally, these proposals lack important details about locations, finance, and the agency to develop them. These are essential to be considered for their implementation, and are still to be worked-out. In addition, the bland ranking of projects as either of 'high', 'medium' or 'low' priority ought to have been qualified with time scales (Table 4.6). While the planners identified some of the agencies that could be involved in the provision of recreational facilities they failed to assign the initiative for doing so to the local planning authority though one assumes this is implicit. If this assumption is true, it will require a change in the present attitude of the planning authority which hitherto has no department charged with the development and maintenance of recreational facilities. Without a radical change in the administration there will be no appreciable result (Ch. 10).

TABLE 4.5: JOS: AVAILABLE OUTDOOR RECREATIONAL FACILITIES BY WARDS

Wards	Population	Recreational School grounds	open spaces public parks
Naraguta, University of Jos	34,904	2P, 1S	none
Angwar Rogo, Jentar Massalachi	44,009	5P, 4S, 3T	none
GRA, Zaria Road West	45,000	6P, 4S, 1T	a few roadside parks, the Township Stadium
Dogon Dutse Nassarawa Gwong	62,000	5P, 1S	none but nearer Shere Hill, Liberty Dam
Anglo Jos Dadinkowa Rayfield and Low Cost Housing Area	97,000	3P, 4S	none but nearer Wildlife Park
Bukuru North and South	101,000	2P, 2S	informal play fields only

P = Primary School,
S = Secondary School,
T = Trade School

Source: Omokhodion Associates, Jos Bukuru Metropolitan Area Development Programme (1977) Vol. 1 compiled from pp 250-269

TABLE 4.6: JOS: PROPOSED RECREATIONAL FACILITIES IN JOS IN THE PLAN PERIOD

Open spaces	Project description	Agencies	Location	P/rating
Parks, gardens	Development of 46ha as Central park, and Curly Creek park 26ha.	ZSJ, ME MOT & T EPDB	undefined	Medium
Community centres	5 district centres 1 - 5 ha.	LGC	undefined	High
Sport Facilities	Develop existing parks to include kiosks, children play equipment, public conveniences amusement facilities and boating	EPDB & PR	existing public parks	High
Entertainment Facilities	Theatre, Cinema Conference Hall swimming pools	MOT TMB PR	New city Centre	High
Motor parks	3 parks	EPDB LUC	Jos north, Bukuru south and Shere Hill	High
Open space	Detailed layout and site preparation (300 ha.)	EPDB LUC	undefined	High

JZS = Jos Zoological Society,

EPDB = Environmental Planning and Development Board,

LUC = Land Use Allocation Committee,

PR = Private Enterprise,

MOT = Ministry of Trade and Industry,

T = Ministry of Transport,

LGC = Local Government Council.

Source Omokhodion associates, Jos Bukuru Metropolitan Area development Plan (1977) Vol. 2 pp 8-22.

A major problem associated with open space in Jos, like many other Nigerian towns, is litter and refuse dumping which detracts greatly from their use and beauty. It is interesting to note that the planners made some recommendations in this respect. Again these have been appraised to demonstrate their concern. The planners considered three ways of tackling the city's enormous refuse disposal problems. The first was to change nothing, (ie the continuation of the existing system of open tip refuse disposal). The second was the development of solid waste disposal based on daily removal by refuse truck and disposed off as sanitary landfill. The third option was a waste disposal system based partly on open air burning and partly on refuse collection and disposal at sanitary landfill. The responsibility for this service was to be shared by the general public, private concerns and the local authority. The planners rejected the first option because it had proved to be inadequate and therefore unlikely to bring much improvement to the already abysmal situation. To substantiate this point the group noted that the Environmental Planning and Development Board (EPDB) responsible for the removal of

the city's refuse had only 100 dustbins, which, because of uneven distribution were hardly ever emptied. The planners said that they knew of no centralised refuse dumping ground that was being used by the authority [21]. The second option, which is similar to the one operative in most developed countries, was also rejected by the group because it was likely to be too expensive. The third option, which is a community-based approach, was therefore recommended by the planners. This was in realisation that unless the prevailing social attitudes to public open spaces are changed from regarding them as no man's land and as little better than tips any proposal to improve urban amenity and sanitation will be doomed to failure. The group stressed that an optimal refuse disposal system should be designed to take into account the prevailing public attitude [22]. The radical proposals put forward by the third option has a strategy built-in that might help change the public attitude to environment, sanitation and refuse disposal. These proposals include the following:

- i) That the EPDB should allocate land of about 25 hectares as a central land fill refuse disposal point;
- ii) That all commercial and industrial establishment including the army and the police should be responsible for the collection and disposal of household refuse generated by them;
- iii) That the EPDB should be responsible for the collection of refuse from public area to be dumped in the central disposal point;

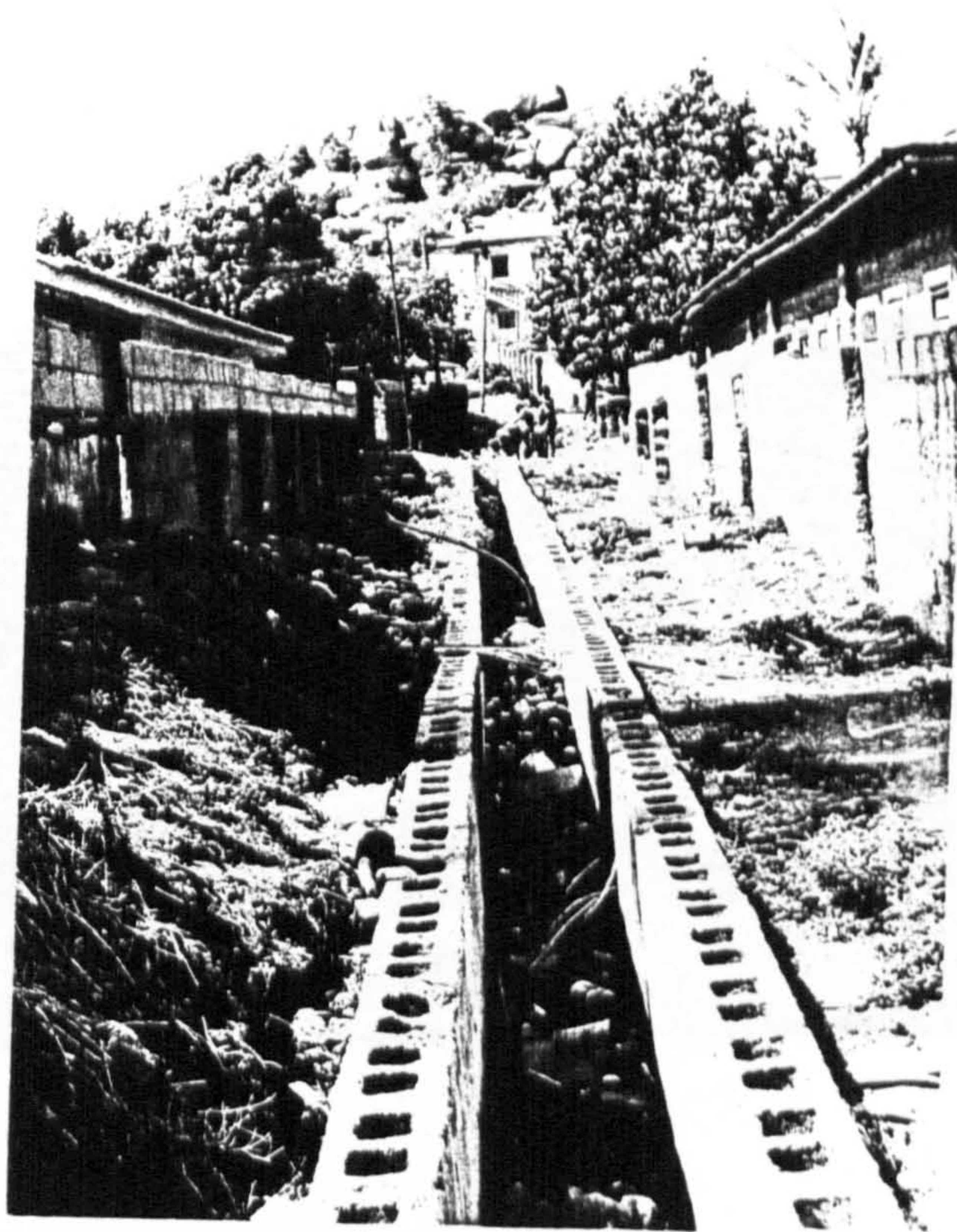
iv) The authority to encourage the burning of refuse in neighbourhoods where this will not impair the health of people seriously; and

v) That the remainder of the refuse be collected and disposed through a community-based approach known as Community Development Association (CDA).

The most difficult aspect of the CDA scheme is to generate the support of the public. To encourage the people to participate the planners proposed that the CDA scheme should be tied to the implementation of community projects proposed in each area. In particular, it was proposed that for every tonne of refuse collected, each CDA should be credited with a certain amount of money (₦25) towards the cost of implementing the community projects proposed in its own area. Theoretically, the CDA scheme looks interesting as currently proposed but in practice it will require a lot of organisation and work at grass-root level to make it work. Important details of the scheme that are yet to be resolved include defining the size of a workable community for refuse disposal, how to generate a community spirit in a peculiarly artificial city, inhabited mainly by strangers. The size of the residential wards, as arbitrarily defined by the planners, seems too large for an effective and efficient CDA scheme. Wards should be subdivided into small community units of about a dozen houses along a street which could be co-ordinated at ward level. This sort of arrangement could be backed by new legislation such as that used for cleaning the common stairs of Scottish tenements which involves all residents. To generate a sense of

community it is imperative to identify and recognise the roles of the various tribal unions, religious organisations and clubs and involve them. By tying the CDA scheme to the implementation of proposed projects in each area, there is a real disadvantage in that it gives the local planning authority the opportunity for withholding the implementation of a proposed project in a community if it feels that the CDA scheme is not working properly in an area. Moreover, the CDA scheme as currently proposed has the underlying assumption that the proposed community projects are evenly distributed among the people and of uniform cost. In practice this is hardly the case. The CDA scheme needs to be improved before it is implemented. The problem of refuse dumping in open spaces in Jos has not been solved. During my field survey in the city in 1983 mounds of litter abounded in public open spaces, road verges and alleys making them filthy and unamenable (Figs. 4.14 and 4.15).

a.)



b.)

FIGURE 4.14: JOS: EXAMPLES OF UNMAINTAINED OPEN SPACES AND STREETS

a. Back lane, Vanderpuye street, Sabon Gari: it could be turned into an attractive walkway by redesigning the open space as a covered drain with appropriate shrub and hedge planting. b. Haliru Street, Sabon Gari: an example of a street choked up with refuse almost to closure.



FIGURE 4.15: JOS: A VIEW OF GADA BIU ALONG ZARIA ROAD; an example of a large open space currently degraded by refuse tipping but which could be turned into an attractive parkland surrounded either by good housing or hotel development to recover developmental cost.

Generally, the existing land use plan has left many questions unanswered about the planning and management of public open spaces. Therefore, it is suggested that a new feasibility study for the development of the city's public open spaces, landscape management and conservation should be undertaken. This study should identify possible sites for the development of public open spaces within a well coordinated land use plan which identifies and designates sites

for other essential services. Open space designation cannot be dealt with in isolation.

JOS: Its landscape character, problems and suggestions

Jos is a city with a strong dual landscape character; the more attractive middle class low density residential suburbs and the congested by-law housing areas (Fig. 4.16). From being an attractive garden city the character of Jos has become increasingly eroded by the more recent suburban sprawl which continues to encroach upon amenity and to consume once attractive open spaces. Much of the city's remaining amenity is due to the dramatic surrounding rock landscape of the high ground above the city.

Jos is increasingly manifesting land use problems, including lack of public open spaces, which are common to other Nigerian towns. These include the growth of squatter settlements, refuse dumps in public open spaces, lack of concern for the development and maintenance of open spaces due to inadequate by local government. The problems peculiar to Jos are the impact of the town on the surrounding villages and the effects of mining activity on the town and the character of the wider landscape.

The development of Jos, apart from its increased size, coupled with the mining industry have brought many impacts to the Plateau. These are most noticeable in the landscapes of the surrounding villages. The first and most obvious change is surely the large scale

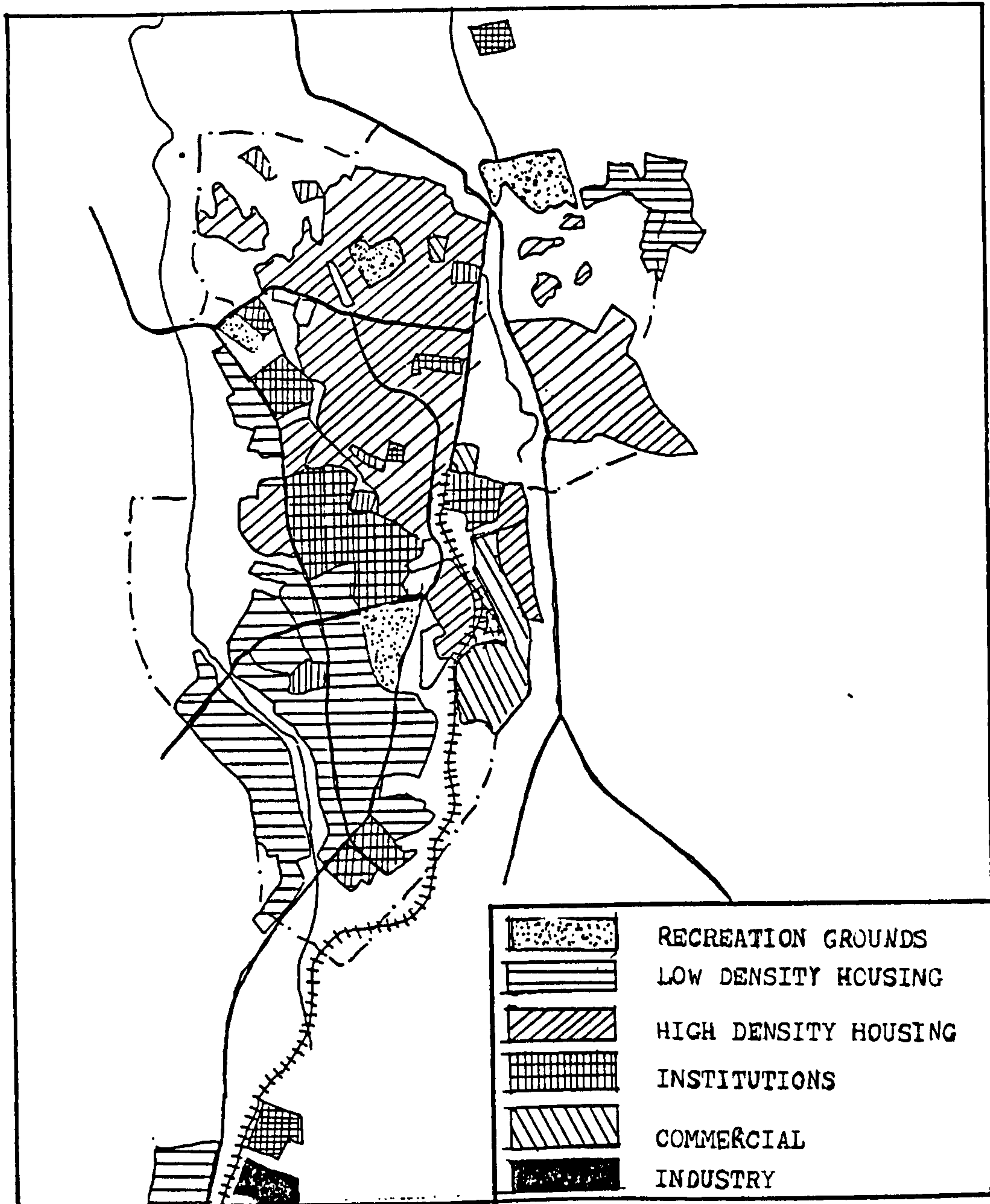


FIGURE 4.16: JOS: EXISTING LAND USE STRUCTURE

The prospect for redressing the city's open spaces lies in the development of the spaces allocated in the suburban housing layouts and the reclamation of the derelict mineral land. Mining activities in Jos are still very much uncontrolled contrary to the provisions of the existing Mineral legislation [23] thus adding to the legacy of degraded landscape.

damage to the Plateau landscape by dredging. Another impact has been the encroachment of Jos on the surrounding villages. There are other changes evident in the landscape and architecture of the villages. For example, there is an increasing acceptance of new building materials like galvanised iron sheets for roofing instead of thatch.

However, most of the villages still preserve their neat farm hedges Euphorbia and trees of economic importance such as Kayan grandiflora and Canarium scheifurthii, other exotic tree species like Mangifera indica and Eucalyptus spp. are commonly seen in them (Fig. 4.17).

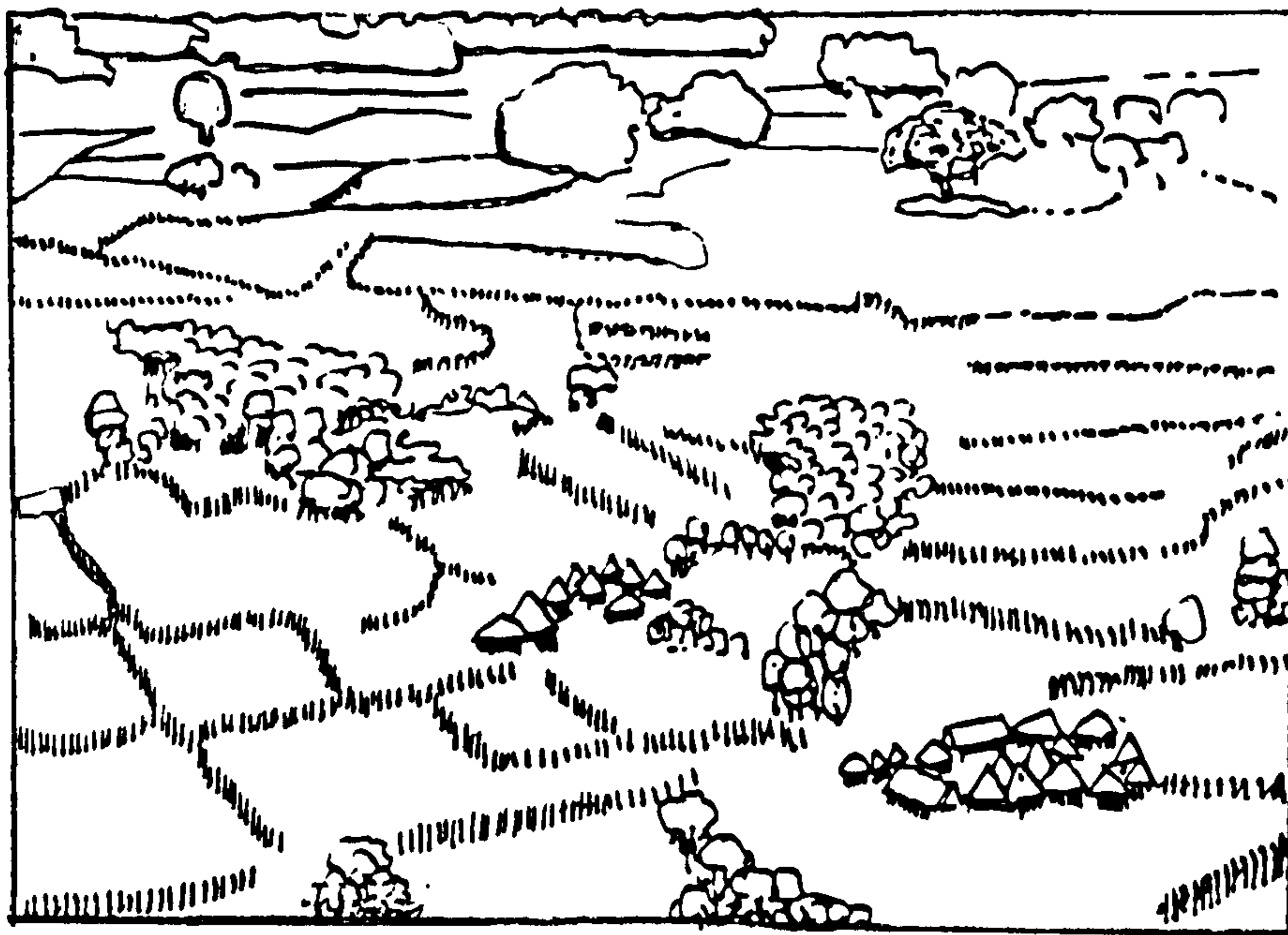


FIGURE 4.17: A TYPICAL VILLAGE SCENE, JOS PLATEAU:

A sketch of an aerial view. The most noticeable character of these villages are their nucleated patterns and the use of Cacti as hedges around residential compounds and farmlands.

Generally, mining problems here include the general one of disruption to the ecosystem and also more specific ones engendered by the

mining methods. The three methods of mining on the Plateau each produces different effects on the landscapes. The panning method, for example, involves the excavation of deposits by sluicing. This often causes severe scars on the landscape and with the clearance of vegetation serious soil erosion problems occurs. The gravel pumping (or Hydraulic method), another mining method, also produces derelict landscapes full of abandoned pools. Dredging, which is the most popular mining method on the Plateau because of the alluvial nature of the ore, is most damaging to soil conditions. After dredging operations the land is rendered useless for agriculture, because the organic matter is washed away. Unfortunately, the best of the agricultural land locally known as (fadama) also occurs along the river valleys where most dredging operations take place. Other land use problems are caused by the discharge of tailings from new mines into rivers causing pollution, the silting-up of river valleys and subsequently flooding and erosion.

Plant regeneration in derelict land is one sure way of preventing further erosion and restoration of soil organic matter. While natural plant regeneration of derelict mineral land can occur this usually takes a very long time. According to Birkinshaw, it might take a century [24]. Therefore, to accelerate the natural process of regenerating degraded landscape requires man's intervention. In this respect Jos can borrow from the experience of Malaysia, another tropical country with similar problem of dereliction from tin mining activities, and where regeneration of waste lands ^{has} have been achieved

by planting fast growing indigenous grasses, aquatic plants and through afforestation [25]. Moreover, experience here and across the western world has shown that derelict mineral land can be reclaimed for city parks and fishing lakes. Alternatively, a mine hole may be filled with waste and subsequently the site may be developed.

The enormous problem of mineral dereliction on the Jos Plateau and the cost of reclamation was the subject of a special report by the Ministry of Overseas Development in 1976. Unfortunately, the report of this study has been held confidential [26] probably because of the huge cost of reclamation. Even from a cursory site survey and taking into account the long period mining has gone on in the Plateau, the most optimistic estimate will probably put the current costing of remedying the problems at tens of millions of naira. Yet the problem of dereliction on the Plateau has to be quantified and made known otherwise it will not be appreciated and never tackled.

While the EPDB has yet to decide what action it will take to begin the reclamation of derelict land, the demand for more land in the face of an acute shortage for urban development and agriculture is likely to be a compelling factor. Already, the cost of re-acquiring mining leases for urban development is so prohibitive that the EPDB will only consider this as a last resort. The present cost of reclaiming the waste lands, undoubtedly, will be far too much to bear for the Plateau State government without financial assistance from the Federal government and the mineral operators. Karshi [27] has blamed the present predicament on the lack of enforcing

reclamation of mineral land as stipulated in the Mineral legislation. He also attributed the current abysmal situation to the non-involvement of the planners in the decision making process for approving mining leases and operations. However, a future reclamation programme in the city should consider the very great opportunities for providing wider outdoor recreational facilities and accommodating the city's expansion and its total needs.

It is really a matter of deep regret that the tradition of developing parks that was started by the colonial city-fathers has been discontinued in recent years. Whereas the notion of urban parks in the western sense is obviously foreign to the indigenous people of Jos, their readiness to use the existing ones is a measure of their adaptation to urban life and to the values attached to leisure pursuit in attractive open spaces. Park visitors in Jos are always at their maximum during the hottest hours of the day and numbers rise steadily up to the last rays of the evening sun. Thus, attractive parks tend to serve a useful purpose as places for outdoor relaxation during the hot hours of the day when indoor temperatures are unbearable.

The abandonment of the idea of developing parks in Jos, as in Ile-Ife and Kano, can be blamed on the inadequate local government. While Jos now needs a radical approach to the development of open space this issue is hardly well resolved in the two Land use plans undertaken in the city in the last decade. Perhaps Jos can learn from the example of the activities of the Open Space Development

Commission (OSDC) in Anambra State and Imo State, whose activities have resulted in the development of public parks in Emugu, Abakaliki and Owerri (see Chs. 9 and 10).

With the expanding role of Jos as a thriving administrative, commercial, educational, and tourist centre, has come the challenge to provide attractive urban landscapes and in particular outdoor recreational open spaces. This will require a massive landscape improvement programme both to put a new life into the already downgraded areas of the older town and the squalid landscape of the newer residential suburbs. If the planners of the city can redress such a great disparity, Jos could well be the most beautiful city in Nigeria. But much effort must be put to seeking a balance between the simple traditional landscape style which abounds in the surrounding villages and that of the grandiose style of colonial origin.

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4. See also the account of the origin of Jos in Federal Department of Antiquities and National Museum, Jos. The History of Tin Mining Industry in Jos Federal Department of Museum, 1979.

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8. Urquhart, A. W. (1977) op cit., pp 81-83.

9. Ibid.,

10. Plotnicov, L. Strangers in the city: Urban Man in Jos, Nigeria, Pittsburgh: University of Pittsburgh, 1969. p. 44.

11. Ibid., p 43.

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13. Hastings, A. C. C. Nigerian Days with an introduction by R.B. Cunninghame Graham London (1926) p. 229.

14. Plotnicov, L (1969) op cit., See p 37; and Ch. 3. Urban Characteristics: City and Population pp 40-80.

15. Personal interview with Alhaji Isiaku, the Director, Naraguta Nursery, Jos.

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18. See Shittien, A. O. 'A user oriented system of Parks and open spaces in Jos and its integration with the proposed Doxiadis Master plan'. An Unpublished M.Sc. Thesis Department of Urban and Regional Planning Ahmadu Bello University, 1975. It provides a brief account of the existing parks in Jos but has failed to develop the proposed planning approach.

19. Omokhodion Associates, (1978) Vol. 1, p. 12.

20 op cit., Vol. 2 p. 6.

21. p 141.

22. Ibid., p 140.

23. Federal Republic of Nigeria. Mines Manual containing Minerals Act (Cap 121 of 1946) and ancillary legislation. Lagos: Federal Government Press, 1965.

24. Birkinshaw, F. "Reclaiming Land for Agriculture," Malayan Agricultural Journal, Vol. 19, (Kuala Lumpur, 1931) p 470; quoted in Jim-Bee, Ooi "Mining Landscapes of Kinta," The Malayan Journal Of Tropical Geography, Vol. 4 (Jan. 1955), pp 1-58; particular page reference p 44.

25. Ibid., p 44. Some of the plants used to regenerate waste lands in Malaysia include Saccharum, Coelhachis, buffalo grass, carpet grass, Eragrostis, and Digitaria.

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CHAPTER 5
DISCUSSION OF CASE STUDIES

The accounts of the last three chapters have shown that Nigeria has an urban history dating back to the distant past. Ile-Ife (Ch. 2) and Kano (Ch. 3) are indigenous Nigerian towns of pre-colonial origin dating back to the last thousand years. Both have been developed this century partly along the colonial urban planning policies on which Jos (Ch. 4) and other colonial new towns were wholly founded. By comparison, each of these three towns, evolved with a distinctive landscape character which can be attributed to their diverse origins and the differences in their topographical settings, the underlying socio-cultural and political factors and the degree of exposure to outside influences.

Three major outside influences have been dominant on the architectural character of indigenous Nigerian towns, though with varying intensities. The first and the oldest has been the influence of the Islamic religion on the planning of indigenous towns of northern Nigeria before the arrival of the colonial administrators during this century. The second influence has been the imported version of the Brazilian architecture brought into the country by Nigerian masons and builders, mostly freed slaves returning from Brazil. Initially, this architectural style was localised in Lagos and the Yorubaland

but it later spread to other parts of Nigeria. The third, and the most profound influence, has been that introduced by the colonial administrators and European traders. The latter paved the way for modern architecture, urban planning and landscape design. New building materials such as iron sheets, cement blocks and asbestos sheets were introduced by them. Today these form the bulk of building materials used. One would now suggest the banning of asbestos which has now been proven to be health hazards. The urban planning ideology partly founded on the 'garden city' concept and other colonial policies biased towards racial segregation have been the most influential factors that affected changes in the landscape of Nigerian towns during the colonial era. These policies produced the stereo-typed bye-law housing areas and the low density middle-class garden suburbs which today characterise most Nigerian towns.

Generally, the influence of colonial administrators in most towns varied according to their status in the urban hierarchy. Indigenous towns such as Lagos, Ibadan, Katsina, Ilorin, Akure and Abeokuta, which were up-graded as provincial and regional headquarters, had greater exposure to colonial influence than Ile-Ife, which was relatively low in the administrative hierarchy.

The three historical periods of urban development produced distinctive changes in the landscape of Nigerian towns. They also showed different emphases and concern for the provision of public open spaces. During the pre-colonial era, traditional Nigerian towns like Ile-Ife, Kano and others of similar age were small settlements

intimately related to their surrounding open landscapes. Both cities had a balanced provision for a wide range of open spaces including town squares, the royal palaces with their extensive open grounds, the courtyards of the individual compounds, the sacred groves and sacred squares, the paths and roads and the town commons forming the surrounding green-belts and merging with either the adjacent park-like farmlands or the naturally wooded landscapes.

During the colonial era emphasis had shifted from providing for traditional open spaces to the more contemporary ones mainly recreation grounds such as golf courses, race courses, the polo grounds and township stadia, public parks and the private gardens of the GRA. The main contribution of this period was the development of formal recreation grounds in the towns where the administrators and European merchants were mostly concentrated. In most towns the developments undertaken during this period encroached on traditional open spaces such as sacred gardens and town commons without corresponding concern to replace them. Only a few Nigerian towns like Jos benefited from a limited provision for public parks. Even those provided were mainly for the expatriate overlords and their employees living in Sabon Garis and the areas settled by the natives have yet to have one. The colonial urban policy of piecemeal suburban development has been adhered to in the post colonial period. But this has been pursued without commitment to promoting attractive landscapes and public open spaces. There has been little or no concern for either the development of public open spaces or the promotion of attractive landscapes

in the new suburban residential developments. Exceptions are the university campuses and a few private residential estates.

Considering the historical evolution of Nigerian towns and their character, the following range of open spaces can be identified:

i) traditional public open spaces including town squares, sacred groves and village squares. These are characteristic of indigenous settlements;

ii) traditional courtyard gardens and the Royal palaces have the best of these;

iii) private yards and gardens of contemporary residential developments of which the best examples are to be found in the GRA;

iv) roads and road related open spaces such as streets, paths, bus-stops, car parks and lorry parks;

v) institutions with attractive open spaces such as hospitals, colleges, government offices, church grounds and mosques;

vi) recreation grounds mainly for active sports, such as the golf course, polo field, race courses, stadium and school playgrounds;

- vii) incidental open spaces deriving from left-over spaces in urban development;
- viii) public parks which are rare facilities in most towns at the present;
- ix) vacant housing or industrial land awaiting development;
- x) pockets of natural open spaces such as river valleys, hills, lakes and marshes not suitable for housing development and
- xi) woodlands and plantations in urban areas and farmlands at the city edge.

Part Two of the study is devoted to the study of the design qualities of a range of both private and public open spaces in selected Nigerian towns.

The post-colonial period has been remarkable for uncontrolled growth in most towns and the few attempts at planning have added nothing to redress the present deficiency and the little concern for developing and managing public open spaces. A common draw back of the existing land use plans is their failure to resolve the existing administrative problem for park development and management; and which prevails in most Nigerian towns. The land use plans for Ile-Ife, Kano and Jos like those for other Nigerian towns have failed to address this problem. In addition, these plans have not come up with any radical open space and landscape policies. A major aspect of the present administrative structure needing to be resolved is whose

responsibility it is to develop and manage public open spaces. Because of the present administrative problem, the limited public open spaces provided in suburban layouts by the local planning authorities has remained undeveloped and unadopted. Such open spaces are fast disappearing because of encroachment by other land use and if not encroached upon they are open to further abuse being choked with litter. The appalling and unsanitary conditions of open spaces demand that drastic measures be taken to overcome these problems. Both Anambra and Imo States which now have Open Space Development Commissions have set a precedent for the remaining 17 States of Nigeria (Chs. 9 and 10).

The most important factor effecting change in the landscape of Nigerian towns has been the rapid increase in the urban population during the last three decades. There has been no adequate land use planning to cope with urban growth. The current rate of urban population growth has encouraged a high degree of land speculation and the construction of cheap and high density tenement housing areas lacking public and private open spaces and general amenities. Another major feature of urban growth has been the lack of adequate census data. At present it is very difficult to get a true picture of the magnitude of the rate of urbanisation and associated land use problems. An up-to-date census, which will provide relevant information on different aspects of the people for purposeful planning, is long overdue. The rate of the present urbanisation which is increasingly producing fast growing and squalid cities, means that many

difficult decisions have to be made as a matter of urgency. To cope with the growing problem it is necessary to prepare adequate land use plans to guide city development and which provide for the development and management of public open spaces.

**PART TWO: LANDSCAPE
DESIGN OF OPEN
SPACES AND GARDENS**

CHAPTER 6

THE TRADITIONAL PUBLIC OPEN SPACES AND GARDENS

As the historical accounts of both Ile-Ife (Chapter 2) and Kano (Chapter 3) have shown, indigenous Nigerian towns and villages provided for a range of public open spaces where the social, economic, political, religious and recreational pursuits of the people took place. This chapter is devoted to the study of three types of public spaces namely town squares, town commons, and sacred gardens and squares, illustrated with many examples from traditional settlements.

The emphasis given to the provision of public open spaces ^{varies} ~~varies~~ among the different tribal groups and this is clearly reflected in the landscape character and structure of their towns. For example, indigenous Yoruba towns are renowned for a wide range of public squares, sacred groves and sacred squares; the Igbo for their village greens which house either the Mbari houses or the religious temples; the Hausa for their large town squares; and the Kanuri, for their dendal, which is a promenade and high street.

TOWN SQUARES

The Squares in Yoruba Towns

Public squares are important landscape components of Yoruba towns. Some of these are still preserved, if barely adequately, in historic Yoruba towns, such as Ile-Ife, Ilesa, Owo and Ijebu-Ode (Fig. 6.1). The range and distribution of public squares in Yoruba towns have resulted from the socio-political organisation and religious values, and the gregarious life of a people predisposed to outdoor life.

Usually, the squares in Yoruba towns are hierarchical in scale and distribution. The main town square, known locally as ita, is the largest and the most central and is always facing onto the Aafin (the king's palace). Other smaller squares are attached to the compounds of the quarter chiefs, who sometimes number up to six or even more depending upon the town's constituent lineages and community groupings. The scale of each of these squares and their distribution reflect also the town's administrative structure, especially the hierarchical order of the political rulers. For instance, a typical Yoruba town during the pre-colonial era was administered by the king in the urban level; and the quarter chiefs, who acted on the king's behalf at the different residential quarters.

Traditionally, the town squares were used as places for open-air marketing, religious worship, political meetings, cultural and other

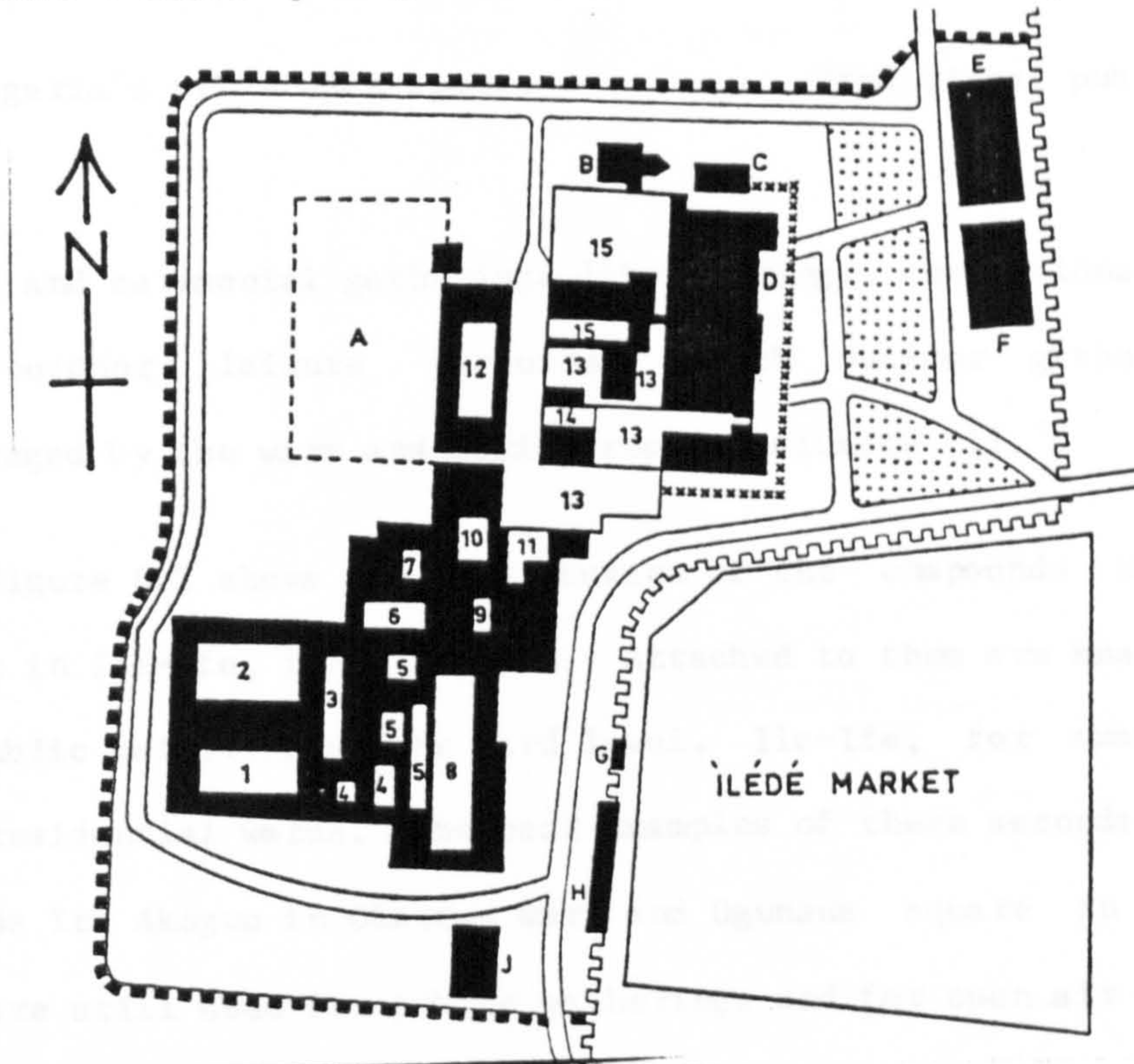


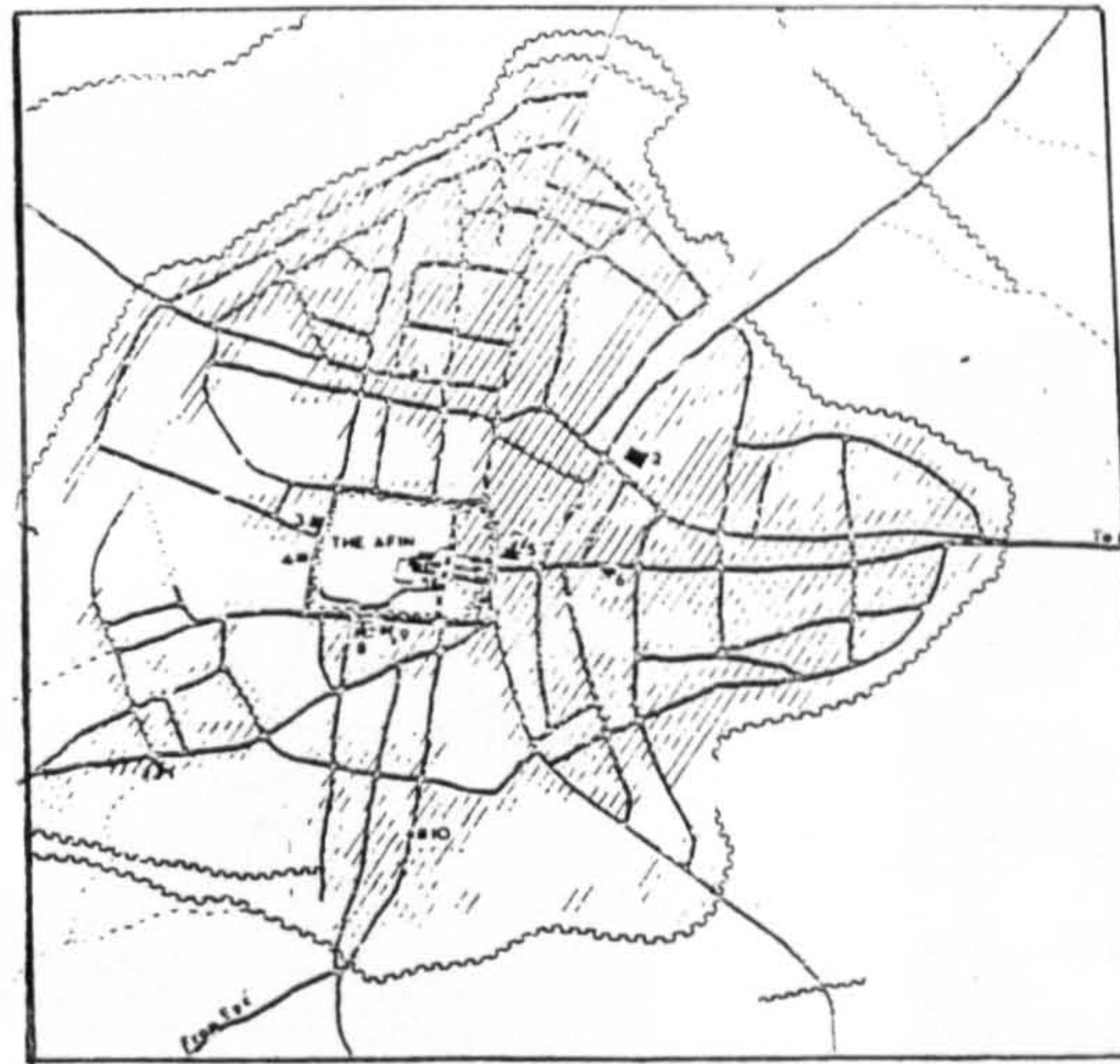
FIGURE 6.1: SELECTED PUBLIC SQUARES IN YORUBA TOWNS
 Ilede Market square, Owo, an example of traditional squares which has retained its commercial role. So is Adimula square Ilesa. Their commercial role make^s them different from Enuwa square Ile-Ife.

The picture below shows a market in session at Adimula square, Ilesa. Note the fan palm at the background is among the trees of the royal garden.

social and ceremonial gatherings like weddings, coronations, burials, and outdoor leisure pursuits. Such outdoor gatherings are encouraged by the warm and humid tropical climate [1].

Figure 6.2 shows the distribution of the compounds of quarter chiefs in Ile-Ife, Ilesa and Owo. Attached to them are small squares for public gathering at the ward level. Ile-Ife, for example, has six residential wards. The best examples of these secondary squares include Ita Akogun in Okerewe ward and Ogunsua square in Modakeke. Both are still used for public gatherings and for open air marketing. As late as the third decade of this century, Balogun and Tinubu squares, both in Lagos, were examples of secondary squares. They are of secondary importance to Isalegangan square, which is the main town square attached to Oba's palace in Lagos. Tinubu square has now been redesigned and renamed Independence square. It had a circular fountain as its focal feature with paved surroundings but has given way to vehicular traffic (Fig. 6.3).

Most squares in Yoruba towns are generally of open nature with their shapes and boundaries defined by adjacent buildings and roads. Trees, the temples and statues are the main landscape features. Clapperton recorded his impression of the main square in front of the Alafin's palace at Old Oyo, then the capital of the powerful Oyo empire. According to him, it was an extensive square of about 800 square yards (669 m²). The square was generally open with two shady trees and at the centre stood tall and slender fan shaped palms, Hyphaene thebaica, which towered above and waved over the



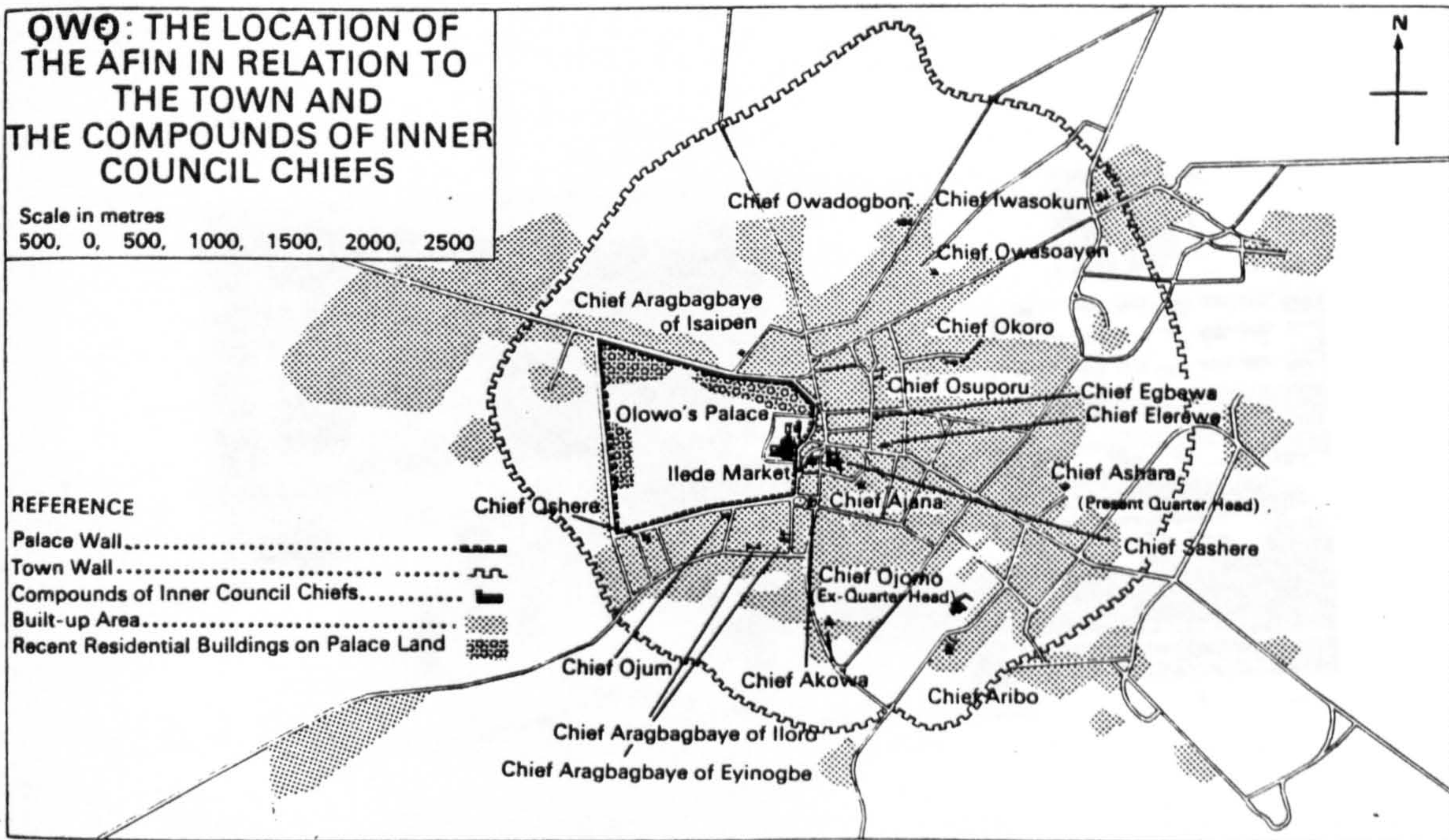
ILESHA: BUILT-UP AREAS AND COMPOUNDS OF IMPORTANT CHIEFS IN RELATION TO THE AFIRIN

SCALE IN FEET
1000 0 1000 2000 3000 4000

REFERENCE

- WALL
- PALACE WALL BUILT AFTER 1941
- BUILT UP AREA
- CHIEFS' QUARTERS
 - 1 CHIEF SALORO
 - 2 CHIEF LEJOKA
 - 3 CHIEF ODDOLE
 - 4 CHIEF OBAODO
 - 5 CHIEF OGANLA
 - 6 CHIEF OGBONI
 - 7 CHIEF LORO
 - 8 CHIEF AAFETE

a)



Owo: THE LOCATION OF THE AFIRIN IN RELATION TO THE TOWN AND THE COMPOUNDS OF INNER COUNCIL CHIEFS

Scale in metres
500, 0, 500, 1000, 1500, 2000, 2500

REFERENCE

- Palace Wall
- Town Wall
- Compounds of Inner Council Chiefs
- Built-up Area
- Recent Residential Buildings on Palace Land

b)

FIGURE 6.2: DISTRIBUTION OF TOWN SQUARES IN SELECTED YORUBA TOWNS: Their hierarchy and distribution in relation to the compounds of kings and chiefs. a) Ilesa b) Owo.



a)



b)



c)

FIGURE 6.3: THE PLANS OF SECONDARY SQUARES IN SELECTED YORUBA TOWNS

a) Balogun Square b) Tinubu Square, Lagos, 1926. c) The same square today having been redesigned with a water fountain. The problems to cope with are the vehicular traffic and heat, smell and odour from the open drains.

whole scene [2]. From every indication the square of Old Oyo cannot be compared with any of the existing ones.

Emuwa Square, Ile-Ife, is perhaps the oldest of the existing squares in Yoruba towns - being as old as the city itself. The first impression of the landscape character of Emuwa square was given by Frobenius [3]. His plan of the square included the trees; some of those planted to the east, belonged to the Ficus family and formed a single avenue to direct both views and people towards the Ooni's palace (Fig. 6.4a).

While Emuwa Square has retained its triangular shape it has witnessed some changes during this century. The former continuous flow of space punctuated only by clumps of shady trees is now broken up; having been subdivided into two main areas by Ilode street. The rectangular portion adjacent to the Ooni's palace is enclosed with dwarf stone walls about 1 metre in height (Fig. 6.4), with a central pathway paved with red bricks, which passes through a paved circular area also enclosed by a short stone wall. The other triangular half, which is neglected, contains the monument erected to mark the nation's independence and the appointment of Ooni Adesoji Aderemi as the first Nigerian governor of the then Western region. This Monument is a six storey rectangular structure measuring about 20 metres in height. It is built as a high outlook tower similar in plan and character to the minaret of the nearby Central Mosque, which bears more resemblance to a Gothic Church tower. The Monument now competes as an important landmark with the nearby central mosque by

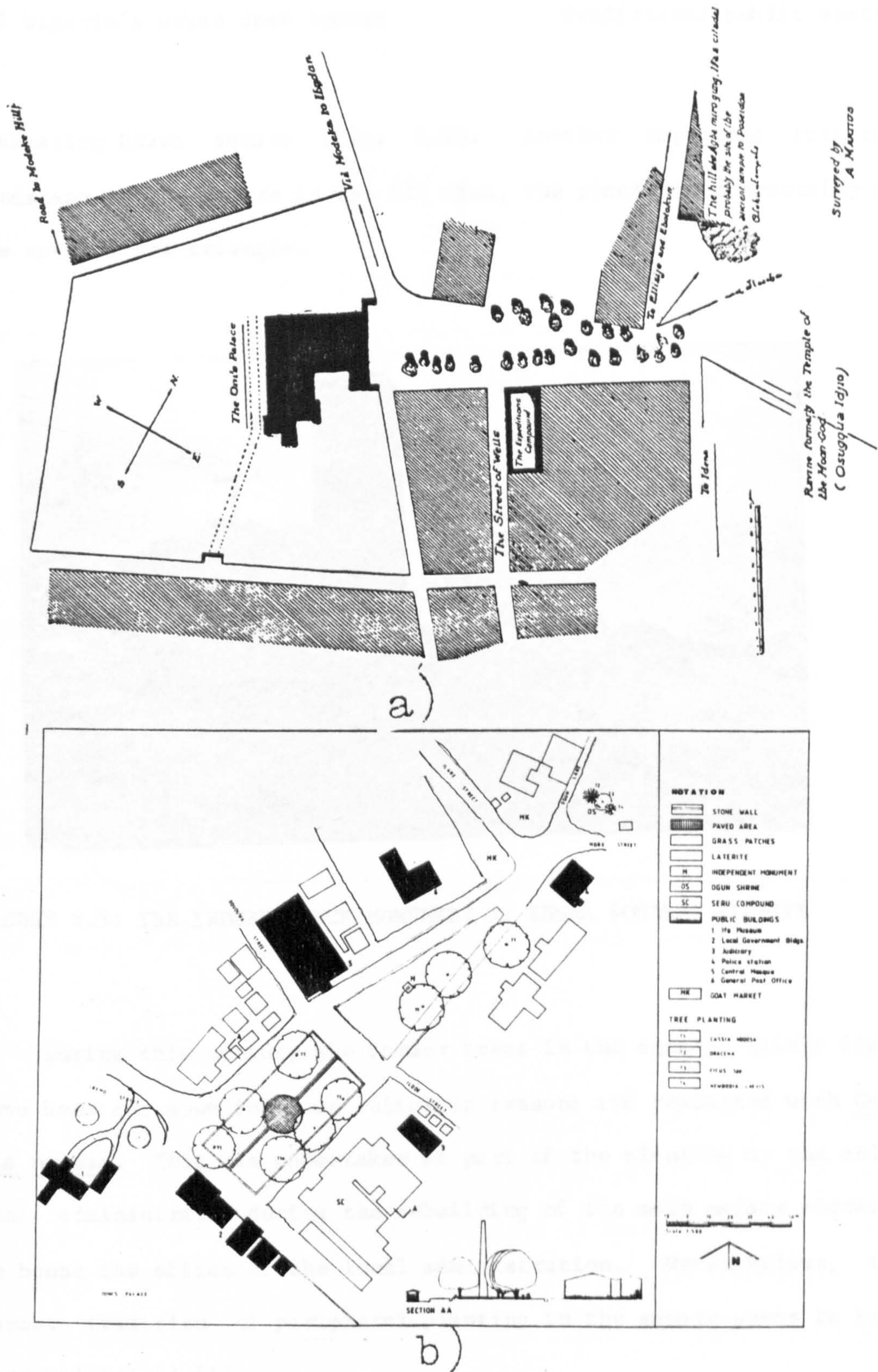


FIGURE 6.4: ENUWA SQUARE, ILE-IFE: PAST AND PRESENT

a. Enuwa Square 1913. b. Enuwa square 1983 Sources: Falade, J. B. "Yoruba Sacred groves and squares" *Edinburgh Architectural Research* Vol. 11, 1984, pp 39 and 40.

dominating Enuwa square (Fig. 6.5). Another important cultural landscape in the square is the Idi Ogun, the place of Ogun worship at the apex of the triangle.

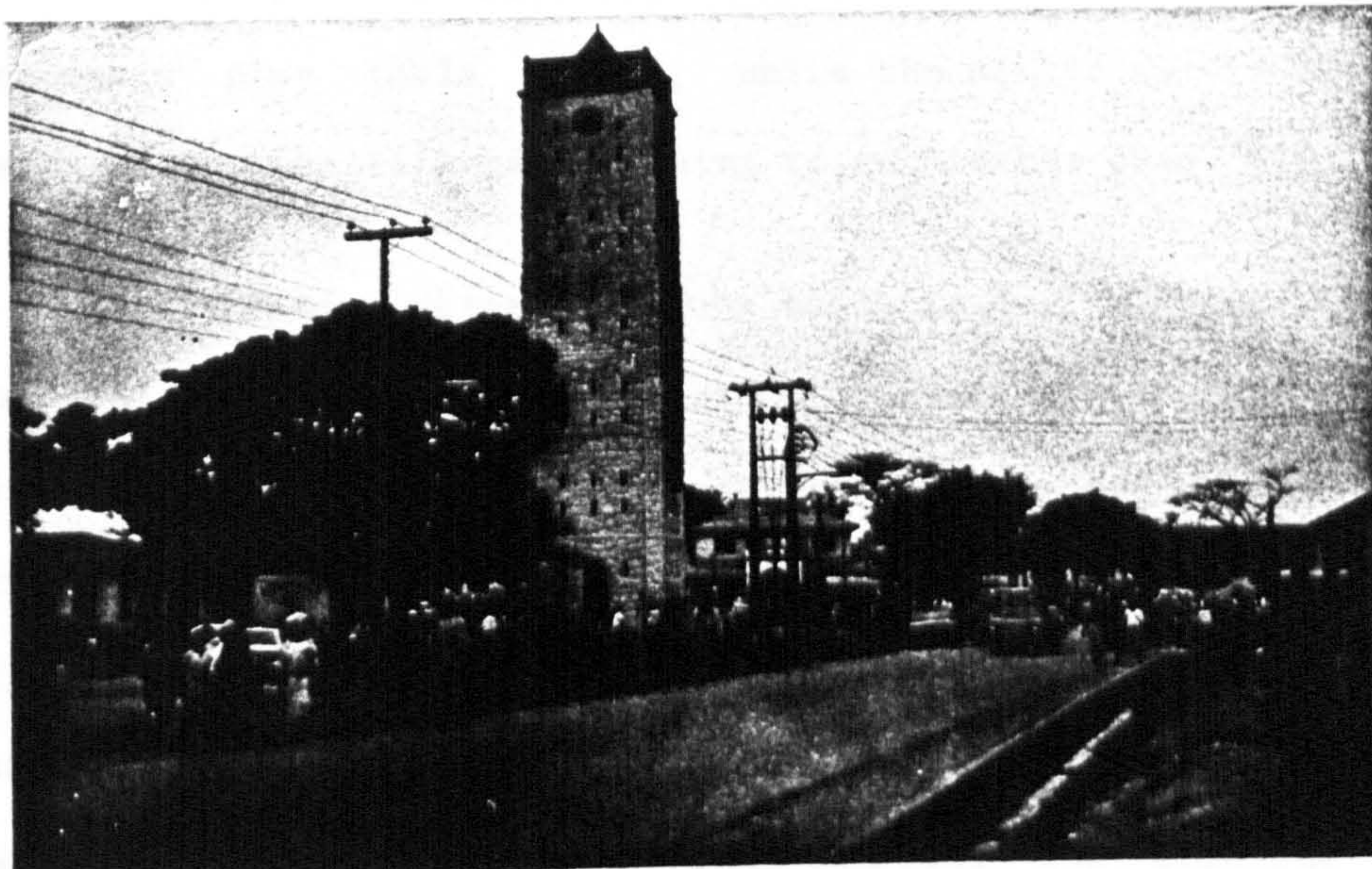


FIGURE 6.5: THE INDEPENDENCE MONUMENT AT ENUWA SQUARE, ILE-IFE

During this century the former trees in the square, mainly figs, have been cut down for some religious reasons and replanted with Cassia nodosa. This was undertaken as part of the planting by the colonial administrator during the rebuilding of the main palace entrance to house the office of the local administration. Nevertheless, the former tradition of peripheral planting in the square seems to have been maintained [4].

Enuwa square is still well used for many purposes which could be

described as traditional such as a public gathering for many cultural and religious activities. But the recreational demand on the square by the people is now greater than ever. At present the square is more of a peoples' playground, where children run around, and the teenagers play table tennis, while the adults sit in the shade in happy groups chatting and laughing to each other (Fig. 6.6).

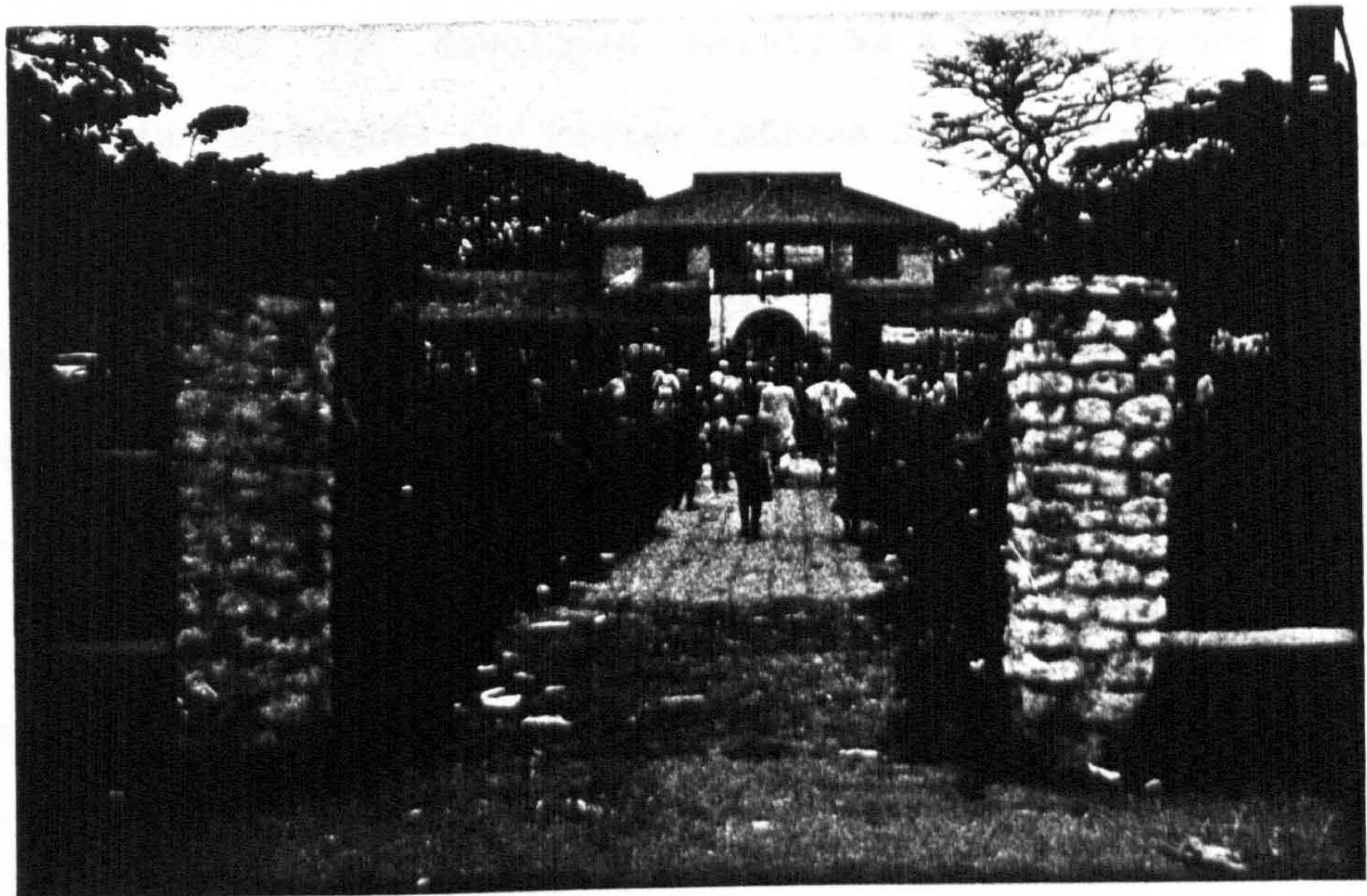
Most of the squares in Yoruba towns including Emuwa square are changing in character as a result of recent developments like banks, shops and office buildings. These new developments though desirable should not be allowed to encroach on the squares. These squares are historic landscapes of cultural significance, and should be preserved intact. Thus, it is necessary that any future attempt to improve the landscape of these squares should consider the enduring cultural values attached to them, their prospects and multi-purpose functions, as well as the scale and harmony of the proposed development.

The Squares in Hausa towns

The main squares in the older Hausa towns, like the Yoruba's, face onto the palaces of the Emirs, the political and religious rulers. The provision for public squares in Hausa towns is usually limited to one or two large ones at the centre. The traditional Kamuri towns have as much; although they tend to have rectangular squares. The limited number of public open spaces in Hausa towns is due to two factors. First and foremost it is a reflection of the more centralised form of urban administration adopted by the Hausa



a)



b)

FIGURE 6.6: RECREATIONAL AND CULTURAL USES OF ENUWA SQUARE, ILE-IFE

a. Informal table tennis game operated on user charge at the rate of 10k per game. b. A view of the celebration of Edi festival on the square.

which traditionally concentrated all power in the hands of the Emir, who was assisted by a council of Ministers [5]. Members of council were in charge of specific urban services such as 'Sarkin Ruwa' meaning the minister in charge of water. This form of urban administration with no quarter chiefs must have been responsible for the absence of secondary squares as found in Yoruba towns. Secondly, for religious reasons, only about half the town's population make demands on public open spaces as muslim women in purdah are excluded as much as possible from leisure pursuits outside their compounds [6].

The main squares in Hausa towns are unusually of open character with few trees and developed mainly as a bare laterite surfaced ground. Their boundaries are better defined by the adjoining palaces and public buildings (Fig. 6.7).

The main public square in old Zaria, for example, covers an extensive area and is easily the largest in any Hausa town. Its boundary is well defined by the Friday mosque to the east. Part of the square encompasses some large insitu rock boulders, which render it unsuitable for building, and this might be the reason for its extensive area. However, the main focus of the square is the area directly opposite the Emir's palace, and this has received greater prominence with the erection of the town's Friday mosque to the east.

Tree planting in these public squares is generally at a minimum. The open character of these squares has been greatly influenced by

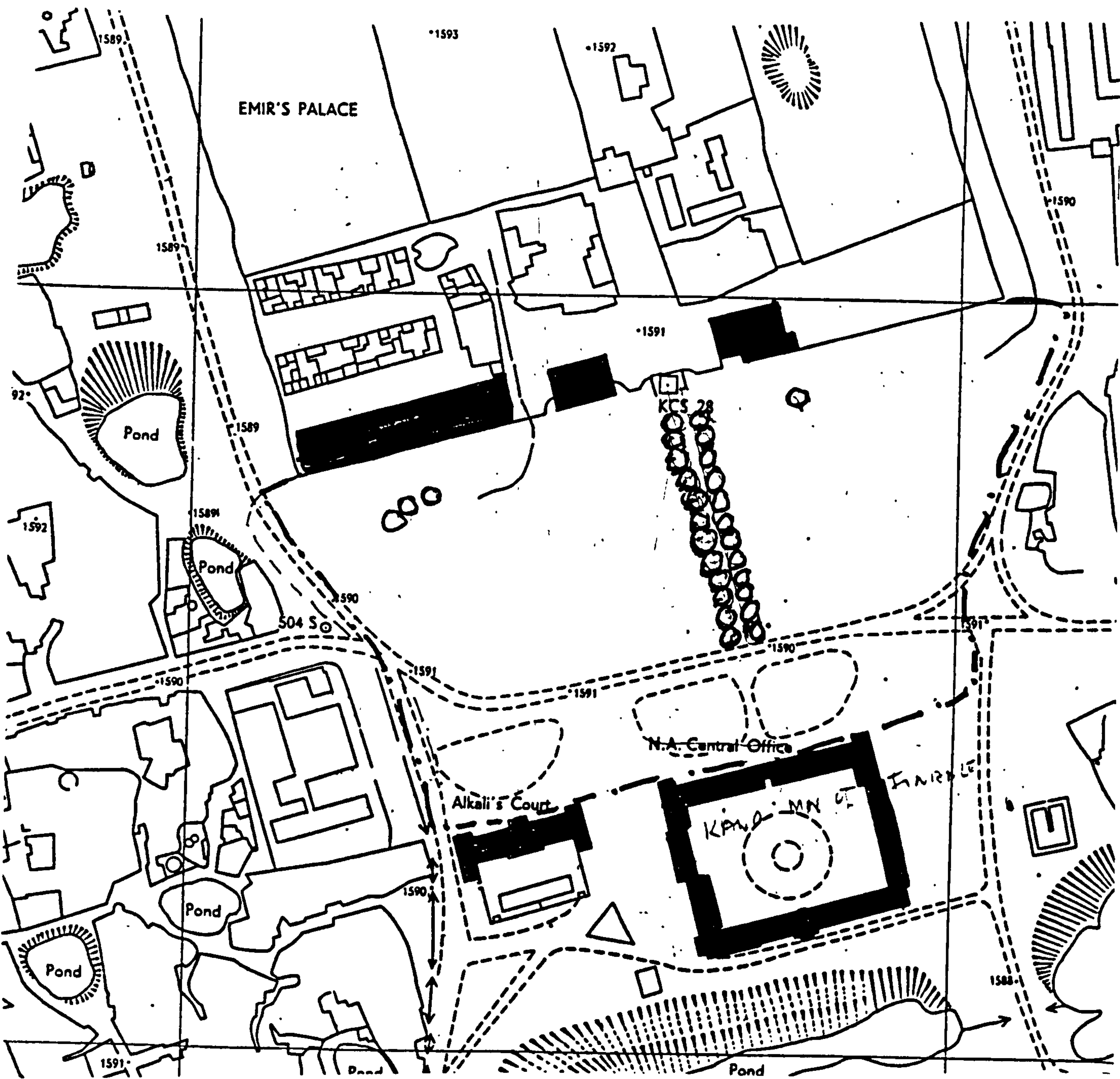


FIGURE 6.7: PUBLIC SQUARES IN HAUSA TOWN: SELECTED EXAMPLES

The boundary of the square is not well defined and the flow of space is broken by the main road. This section of the road should be pedestrianised to liberate more space for people.

the need to create a space for horse display during muslim festivals.

While Yoruba squares are given to peripheral planting, those in Hausa towns are largely open with tree planting limited to the avenues

leading to the palace's audience chamber. For example, the main public squares in Kano and Katsina both have a double avenue of Azadiracta spp. (neem trees), leading to the inner chamber of the palaces. These avenues seem to have been added only this century and appear to depict British influence as the neem tree was introduced from India into northern Nigeria during the second decade of this century. However, the town square at old Zaria, which contains some majestic Eriodendron orientale (silk-cotton tree), and Hyphaene thebaica (and the fan shaped palm) shows the very scanty but indigenous approach to tree planting in the square. To the northern end of the square there is a group of silk-cotton trees standing in regular rows, looking as though they were once planted as avenues (Fig. 6.8).



FIGURE 6.8: THE MAIN SQUARE, OLD ZARIA: View to the North of the Square; an empty wilderness crying out for shade. The square is used on special occasions for staging the durbar and marketing.

Large squares used for religious worship are common features of Hausa towns although these are often sited at the suburban fringe. They constitute a special category of public or communal open spaces whose origin is rooted in the Islamic religion. They seem to perform functions similar to the Yoruba sacred groves and sacred gardens (Fig. 6.9).

The Central mosque in Kano, located outside the main square, has conferred on the adjoining space a public function that is yet to be fully recognised because it is not designated. But this space needs to be re-designed and planted with shade trees to enhance its usage and attraction. The Idi ground, that is the muslim praying ground during the festivals, is another type of religious square and is of two categories depending upon its character. Belonging to the first category are some that have been developed as large and rectangular open fields with no tree planting such as the one in Kano (Fig. 6.9). The second category consist of those that have been well planted with shade trees as illustrated by the one at the outskirts of Old Zaria along the Kaduna road. This is an extensive praying ground covering some 804 km². It is planted wholly with regular rows of mahogany trees typical of a British Forestry plantation although the ground surface is left bare (Fig. 6.10). Unfortunately, besides its religious use the idi has not been exploited for communal recreational pursuit although those learning to drive unfortunately sometimes use it as a training ground.

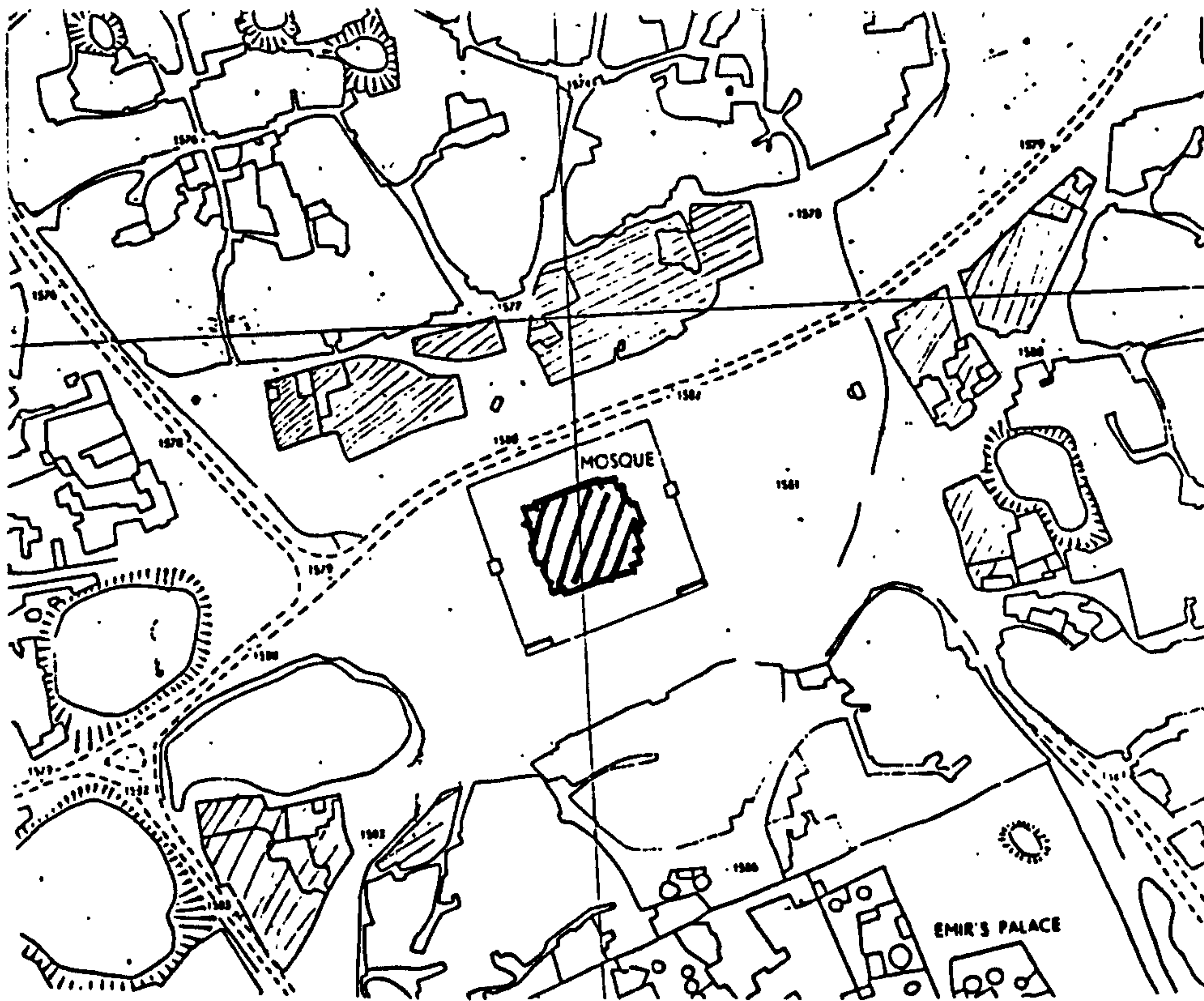


FIGURE 6.9: THE CENTRAL MOSQUE, OLD KANO : an example of religious building conferring a public and sacred function on adjoining open spaces.



FIGURE 6.10 : THE IDI GROUND ALONG KADUNA ROAD, ZARIA: showing regular rows of mahogany in the typical pattern of forestry plantation.

The muslim sallah praying ground has been densely planted with regular rows of mahogany.

The major problems facing these squares are dust and erosion. These derive from their present open landscape character that is wholly surfaced with laterite and the limited tree planting which engenders both soil erosion and dust pollution. Judicious tree planting and the use of ground cover plants coupled with improved

surface drainage should help to alleviate these problems. Another worthwhile solution is to provide an attractive fountain to cool the stifflingly hot and dusty atmosphere during the peak of the dry season.

The Kamuri Dendals

The Kamuri occupy the west border of Lake Chad. They were renowned as empire builders, with a centralised system of administration based in a capital city [7]. These cities were generally laid out on the same design principles, with the Dendal, the market place and the Shehu's palace as the dominant landscape components.

The Kamuri's equivalent of the public square is the Dendal. As a rule, the dendal in Kamuri towns starts at a point in the western part of the city centre and continues in a straight easterly direction, finally terminating in the Shehu's palace [8]. This is a unique open space, being more of a promenade and a high street than the conventional square characteristic of other indigenous towns (Fig. 6.11).

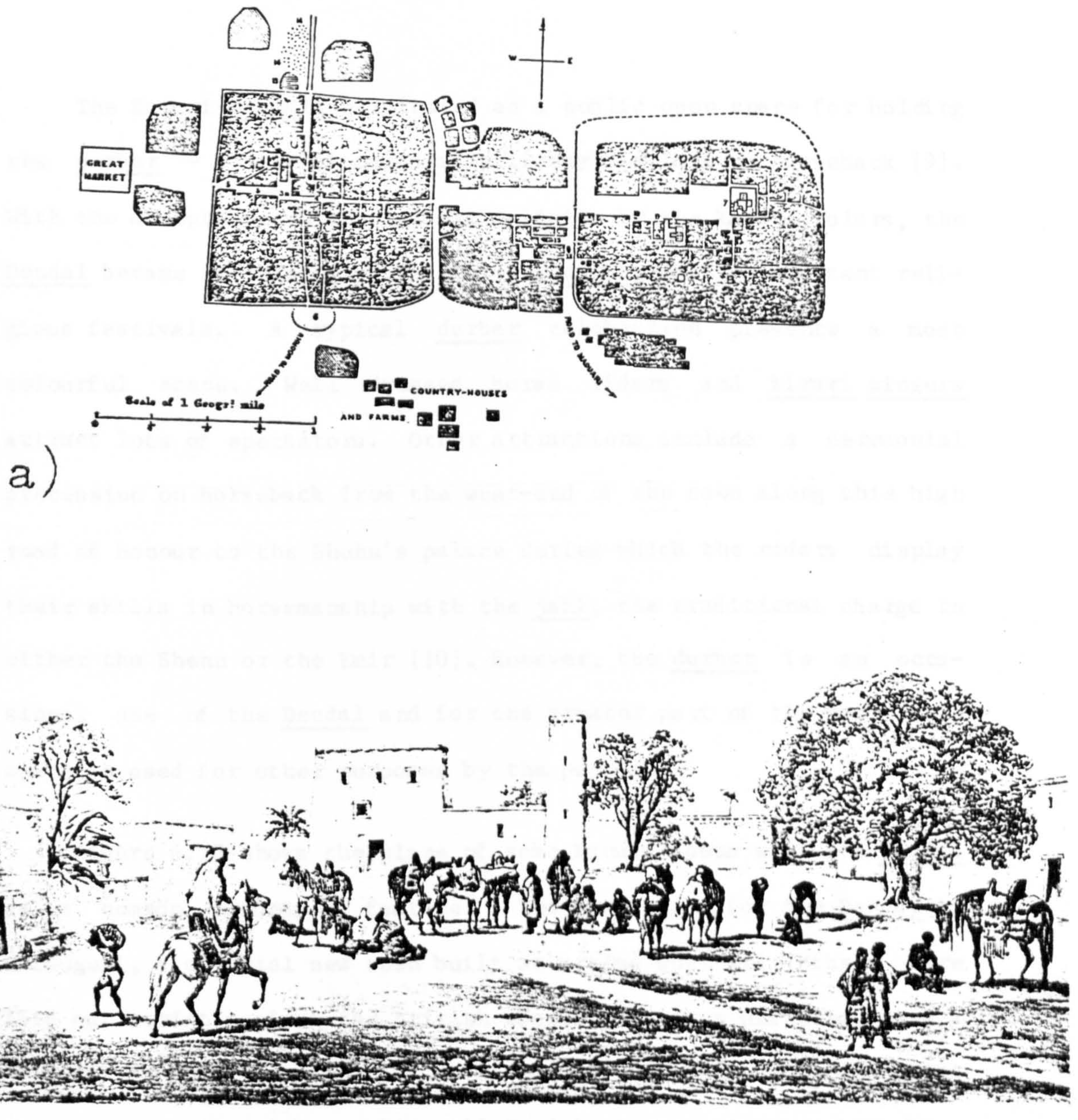


FIGURE 6.11: THE DENDAL IN KUKAWA: Kukawa was the last of the Kamuri capitals before the arrival of the colonial administrators.

a. Plan. b) 19th century sketch of a view by Barth 1857.

Dendal

The Kamuri Dendals originated as a public open space for holding the durbar - a form of cultural military displays on horseback [9]. With the acceptance of the Islamic religion by the Kamuri rulers, the Dendal became increasingly used for the durbar during important religious festivals. A typical durbar celebration presents a most colourful scene. Well dressed horse riders and kirari singers attract lots of spectators. Other attractions include a ceremonial procession on horseback from the west-end of the town along this high road of honour to the Shehu's palace during which the riders display their skills in horsemanship with the jahi, the traditional charge to either the Shehu or the Emir [10]. However, the durbar is an occasional use of the Dendal and for the greater part of the year, this space is used for other purposes by the people.

Figure 6.12 shows the plans of some Kamuri towns with the dendal as a common landscape feature. The provision for the Dendal in Maiduguri, a colonial new town built at a time when all others were laid out strictly along the British ideology of town planning, goes a long way to show the importance the Kanuri attached to this great space as a ceremonial ground. All Dendals in Kamuri towns have been oriented in an east to west direction, but the differences in their character lie in varying widths and lengths. For example, the Dendals in the older Kamuri towns like Kukawa is of lesser scale, being shorter in length and narrower in width than that found in the newer

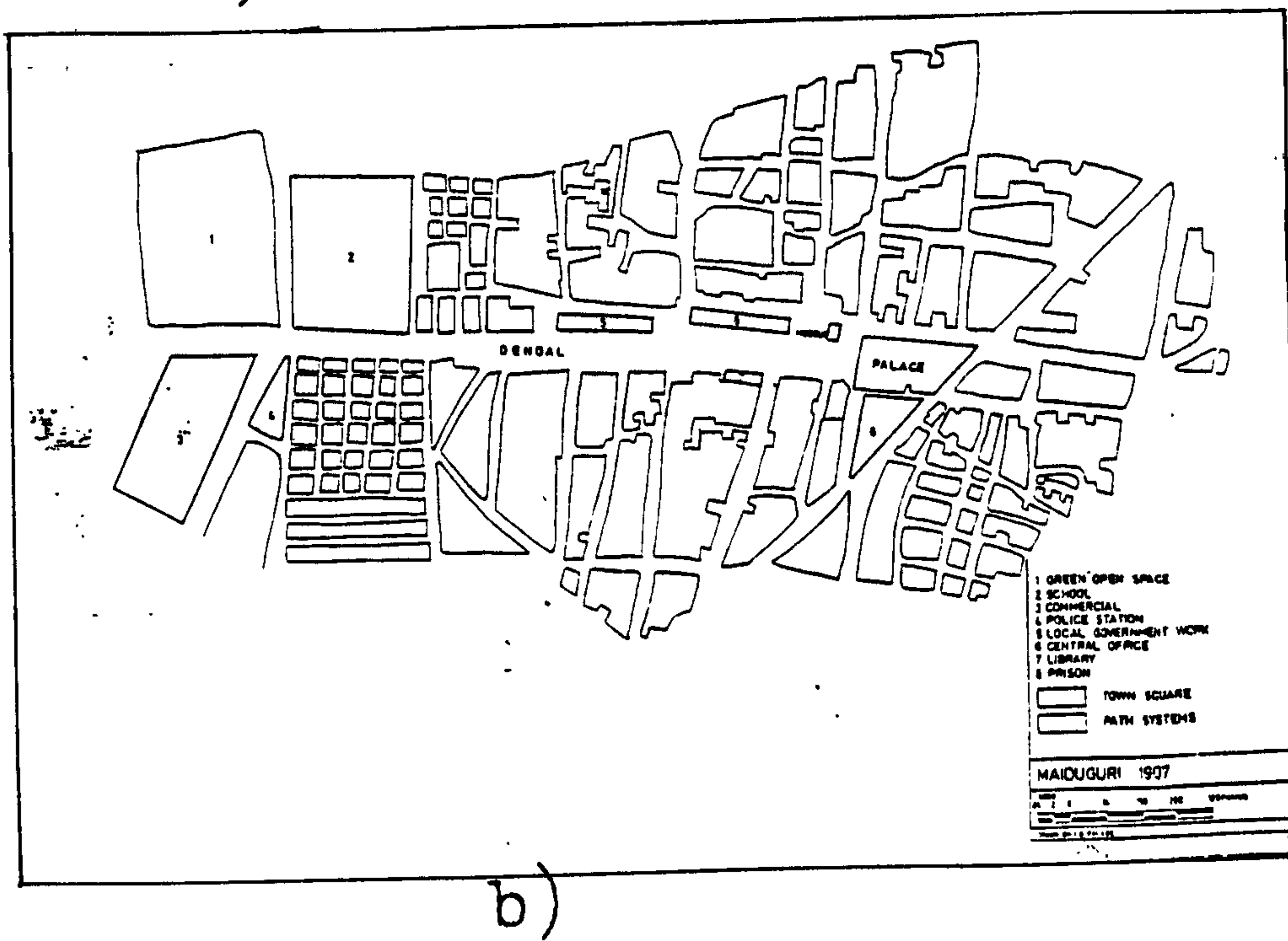
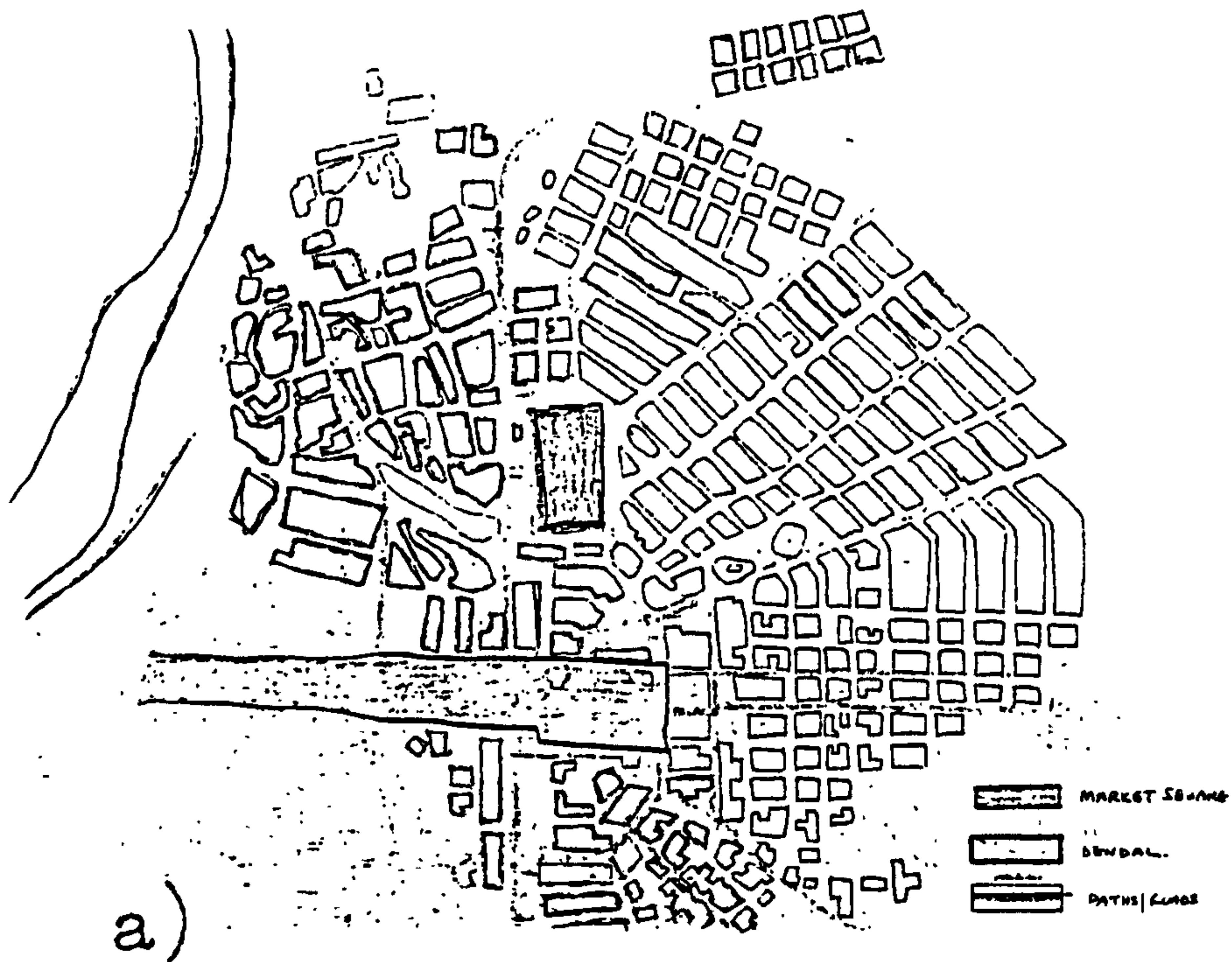


FIGURE 6.12: THE KANURI DENDALS: SELECTED EXAMPLES

a) Bama

b) Maiduguri

ones like Maiduguri and Bama which are 20th century Kanuri towns. The one in Maiduguri is of a grand scale; measuring 126 metres in width and 1,680 metres in length. This makes it more than double the size of older ones like those at Kukawa and Ngazargamo (Appendix 2). The extra-ordinary scale, width and length of Maiduguri's dendal reflects the 20th century needs in particular to provide for both pedestrians and vehicular traffic in the same space.

Two principles are inherent in the design of the Kanuri Dendal; the first relates to its west to east orientation and secondly, the use of the Shehu's palace building to form its eastern boundary. The first, motivated by the climatic factors, is to create a well aerated and sheltered space that is open to the cool breeze of the south-west winds and protected against the dry and dust laden north-east trade winds. The second is that the Shehu's palace faces west to allow him to comply with the muslim code of conduct, that he should face the east as he enters his abode.

The few trees planted in the Dendal, like the Hausa town squares, reflect its functional requirements as a space for horse display. However the attractions of the Dendal are the building facades and the people who use it; their colourful appearances and activities undoubtedly enliven the space. One can well imagine what Princes Street in Edinburgh would look like, without people, the vehicular traffic and the shop facades, especially during the peak of the summer months and during the Edinburgh festival.

The Igbo Village Greens and Squares

The Igbo are noted for their village squares which are often centrally located [12], and usually have a dominant landscape feature as the centre of attraction. This may either be the open air amphitheatre, a raised earth platform, the Mbala wall, the Club house or the village religious temple, such as the Mbari House. The earth platforms are usually constructed of well compacted mud or sandstones. The amphitheatres are terraced and used as outdoor sitting areas for cultural activities.

In some Igbo villages the Mbala Wall, which is a well decorated wall, is the main feature of the village green. This is often designed as a curvilinear wall with a gable roof which provides a sheltered space. Wall painting is an important aspect of the design and decoration of the Mbala wall. The wall is generally painted with many scenes ranging from traditional to more contemporary ones (Figs. 6.13 and 6.14).

TOWN COMMONS

The town common is a public open space characteristic of most indigenous settlements. It was created in these settlements in the past because of the need for a well defended space for cultivation in times of prolonged siege. Besides its functional use, it formed an attractive agricultural zone and a green-belt which defined town boundaries in instances where they merge with the agricultural land

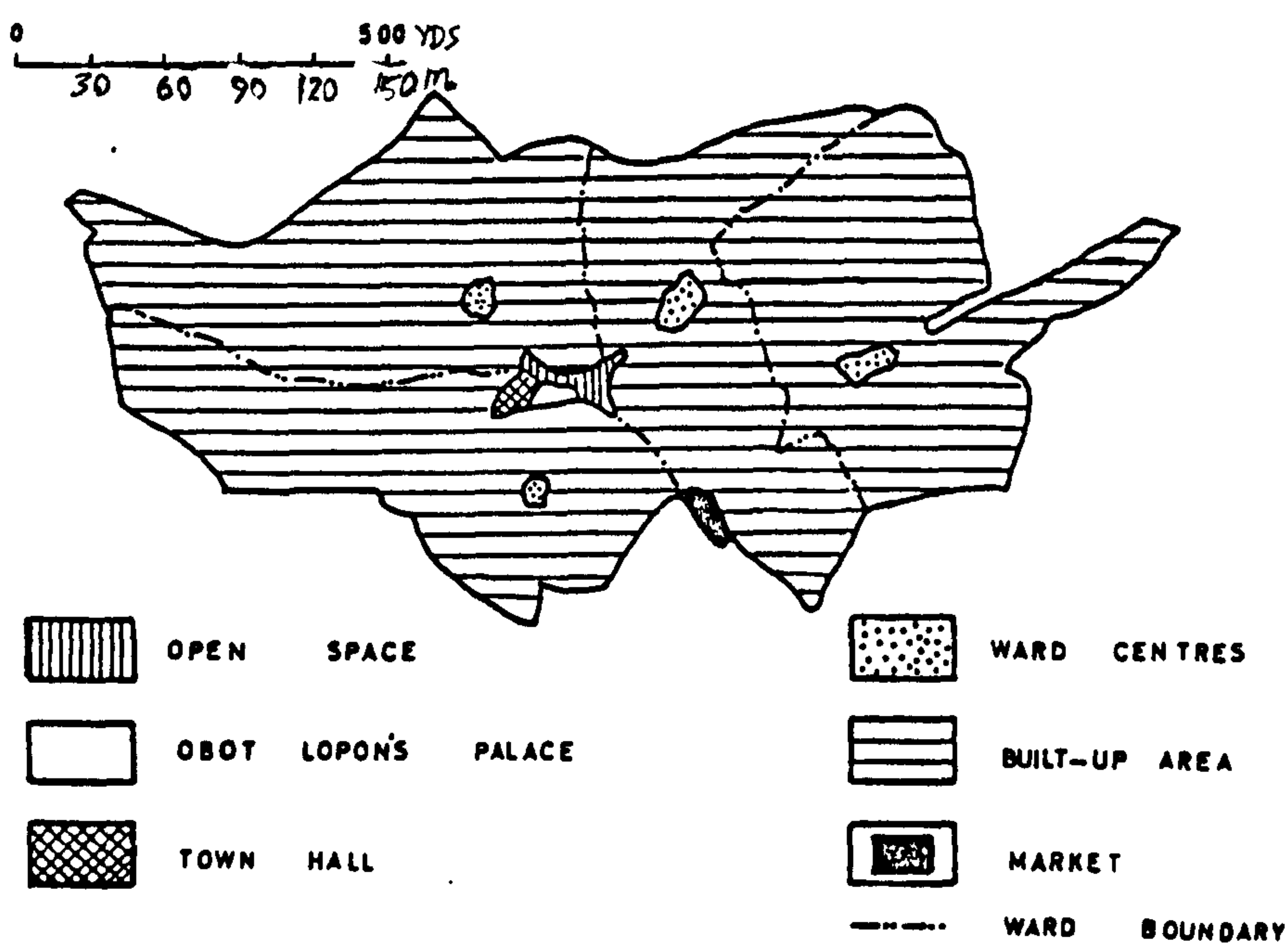


FIGURE 6.13: THE PLAN OF A TYPICAL IGBO VILLAGE: showing the distribution of village squares



FIGURE 6.14: THE IGBO MBALA WALL: One of the main architectural components of the village square, and it is usually well decorated with painting.

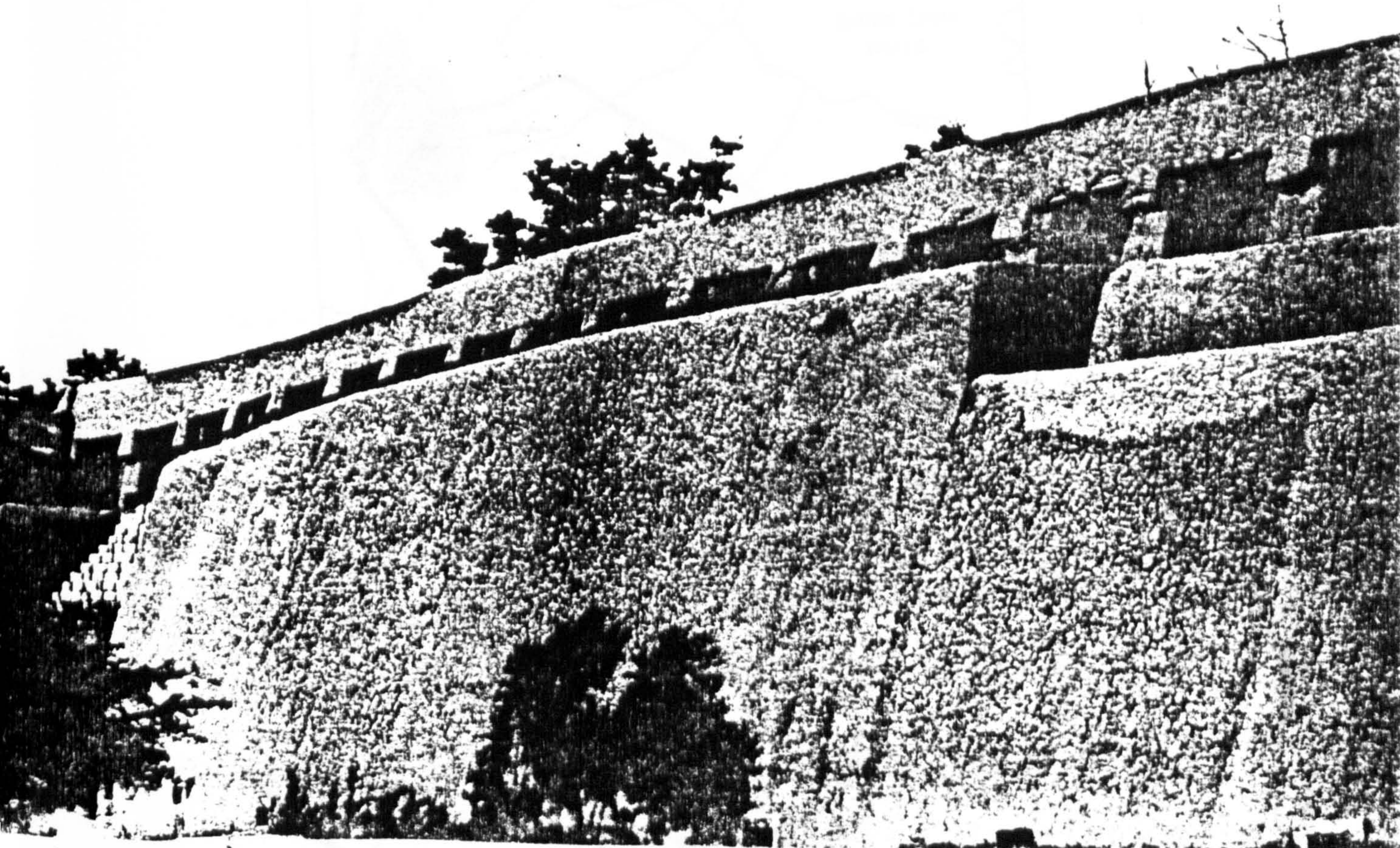
beyond.

Traditionally, the town commons were used as vegetable gardens, wood lots and washing areas. The main landscape features are the town walls, the moats, the gates, the avenues and mazes [13] (Fig. 6.15). Today, the town commons in most indigenous towns have been grossly encroached upon except in some Hausa and Yoruba towns, where traces of commons can still be found (Fig. 6.16). While the idea of a walled city seems to have outlived its medieval function, the need for land in urban areas to cater for some of the traditional uses of the town common is still of relevance to 20th century urban planning. Most especially, it is necessary to allocate land in urban areas for allotment gardens where vegetables may be grown; and other areas reserved as woodland and used as wood lots.

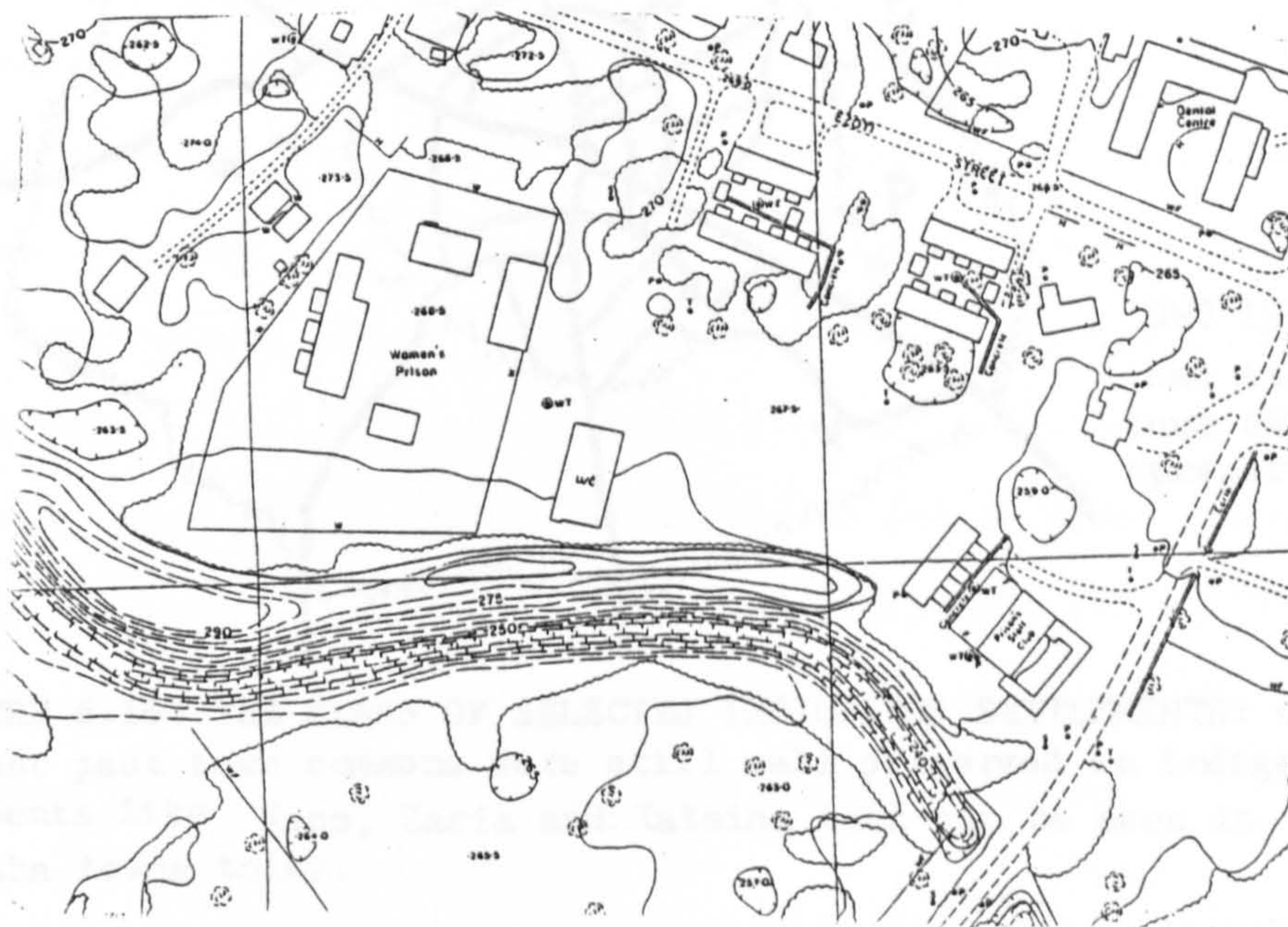
SACRED GARDENS AND SQUARES

A common element of the diverse indigenous religion of Nigeria's tribal groups was the designation of sacred groves as public spaces and gardens for religious worship. In fact, the different indigenous religions are deeply identified with the natural topographical and relief features, like hills, rivers, lakes, and the primeval landscapes in which the people settled.

Most traditional religious beliefs are derived from myths and legends. Existing literature on indigenous religion focuses mainly on the different beliefs and the rituals connected with the act of

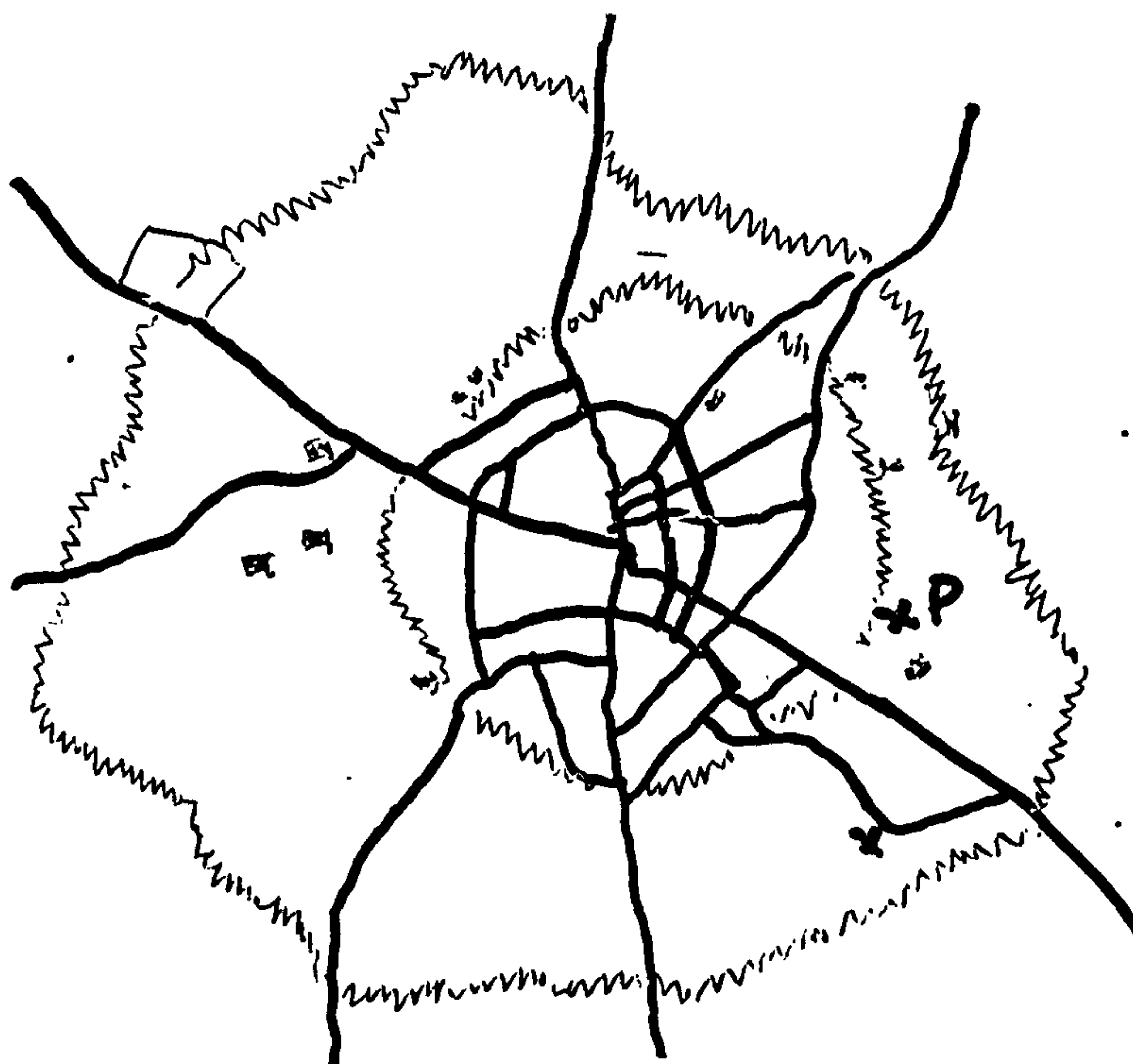
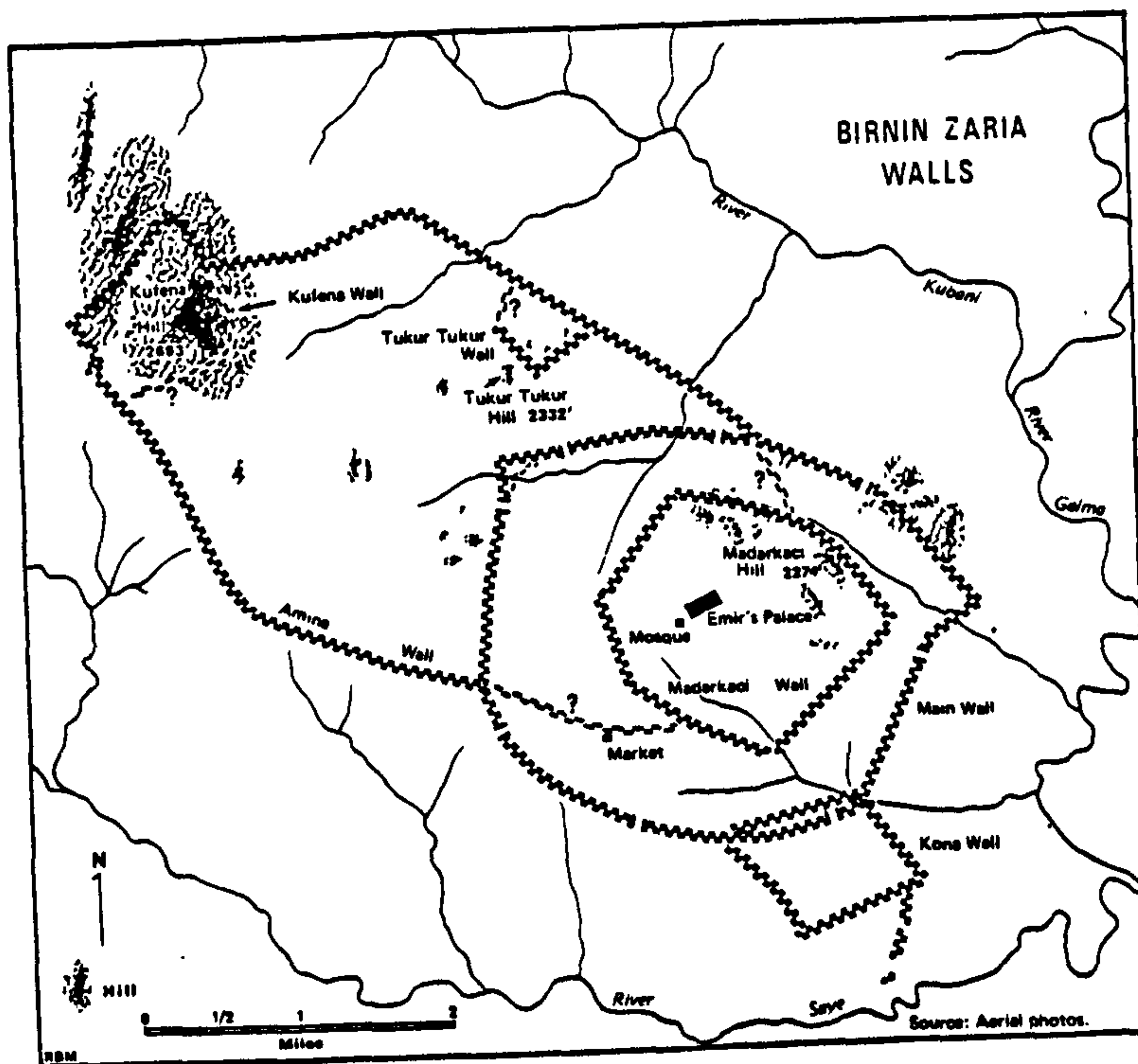


a)



b)

FIGURE 6.15: THE WALLS OF KANO: An example of medieval wall still better preserved in the town but has also been reconstructed in the open-air Museum of Traditional Nigerian Architecture (a). In contrast only fragments of town walls can be seen in historic towns like Ile-Ife and Benin (b).



OWO 1960 still had its walls and town common well preserved.

FIGURE 6.16: THE PLANS OF SELECTED INDIGENOUS SETTLEMENTS: until the recent past town commons were still well preserved in indigenous settlements like Kano, Zaria and Katsina than can be seen in Yoruba towns today.

worship [14]. Only a few have concentrated on the artistic expressions [15] and architecture [16] connected with traditional religion.

This section provides an account of the sacred gardens and landscapes that have been developed by some of the tribal groups as a follow up of my earlier study of Yoruba sacred groves and squares. Generally the attitudes and artistic expressions of the different tribal groups vary in their conception. The most distinctive of these are discussed in the following sections.

The Yoruba Sacred Gardens and Sacred squares

The Yoruba are a deeply religious people who believe in a Supreme Being and in life after death. They believe in the Almighty, Olodumare, who is regarded as too high and lofty to be interested in the affairs of men. But they also believe that He has delegated His power to some supernatural and humbler beings, whom they regarded and worshipped as lesser gods known to them as Orisa. In other words, these Orisas are regarded as mediators between God and man. Basically in all human activities the Yoruba offered frequent sacrifices to appease these lesser gods. These are upwards of 400 gods and they form something of a pantheon [17]. In comparison to recent monotheistic religions like Christianity the indigenous Yoruba religion amounts to polytheism and idolatry.

The Yoruba generally worship at two levels; the family gods that are worshipped by individual families, and the societal gods at the

town level. This mode of worship is undertaken purposely to support and uphold the individual and the community [18]. The clan gods have their temples located within the family courtyards, while sacred groves and sacred squares are designated and dedicated to the worship of societal gods. Examples of religious altars in private compounds are still preserved in the courtyards of some Benin and Yoruba chiefs.

The hierarchy and multitude of Yoruba gods have given rise to a network of sacred groves and sacred squares. Thus, Beier [19] described Yoruba towns as places 'where the king lives, where shrines are maintained and other cultural complexes are to be found'. It is Ile-Ife, the headquarters of traditional religion, that has the largest number of sacred gardens, sacred squares, court houses and religious temples. Until the turn of this century Ile-Ife was surrounded by many sacred groves, most of which have now disappeared due to the recent suburban growth and the influence of Christianity.

Frobenius's account of Ile-Ife [20] included something of the outstanding character of the sacred gardens and, in particular, the emphasis given to the groves' entrances and the planting of sacred trees. According to him, the main entrance to the groves was generally planted with palms on either side and their leaves overhung the nearby bush like an 'upper potiere'. Foot-paths were either straight or circular; but as always, they linked the functional areas of the grove. He noted that the Dracenia fragrans, known to the Yoruba as Peregun, was a common tree of the groves. In fact, the

Dracenia spp. symbolises Ogun, the god of iron, after whom the tree has been named. Other trees held sacred by the Yoruba include Chlorophora excelsa, Eriodendron bombax, Ficus spp., Adansonia digitata, Newboldia laevis and Tetracarpidium canophorum [21]. Other attractive features of these groves are the statues and obelisks constructed of stone and which were held to be the staff of the different deities they represent. Fig. 6.17 shows the different types of obelisks erected in some of the groves of Ile-Ife.

Both the Oduduwa and Oramiyan groves are two examples of the older groves situated in the inner areas of Ile-Ife, which have been grossly encroached upon by modern development. Even in their much reduced and degraded form, they remain as enclaves of green space in the town. They now have more of an open landscape character than formerly, having but a few isolated trees and showing much neglect. Their surrounding stone and mud wall have been constructed to prevent further encroachment. But the temples, the sacred trees and other religious symbols have been well preserved. An historic landscape feature of the Oramiyan grove is the well preserved Opa Oramiyan, an obelisk of about 7 meters in height studded with nails which have hieroglyphics inscriptions around them (Fig. 6.17).

The character of a typical Yoruba sacred grove and their design principles can be illustrated by that of Osun grove, Osogbo. It represents one of the best preserved; although there has been some relaxation in its redesign and restoration work. The grove which now includes a visitors' stand has been designed as a tourist spot

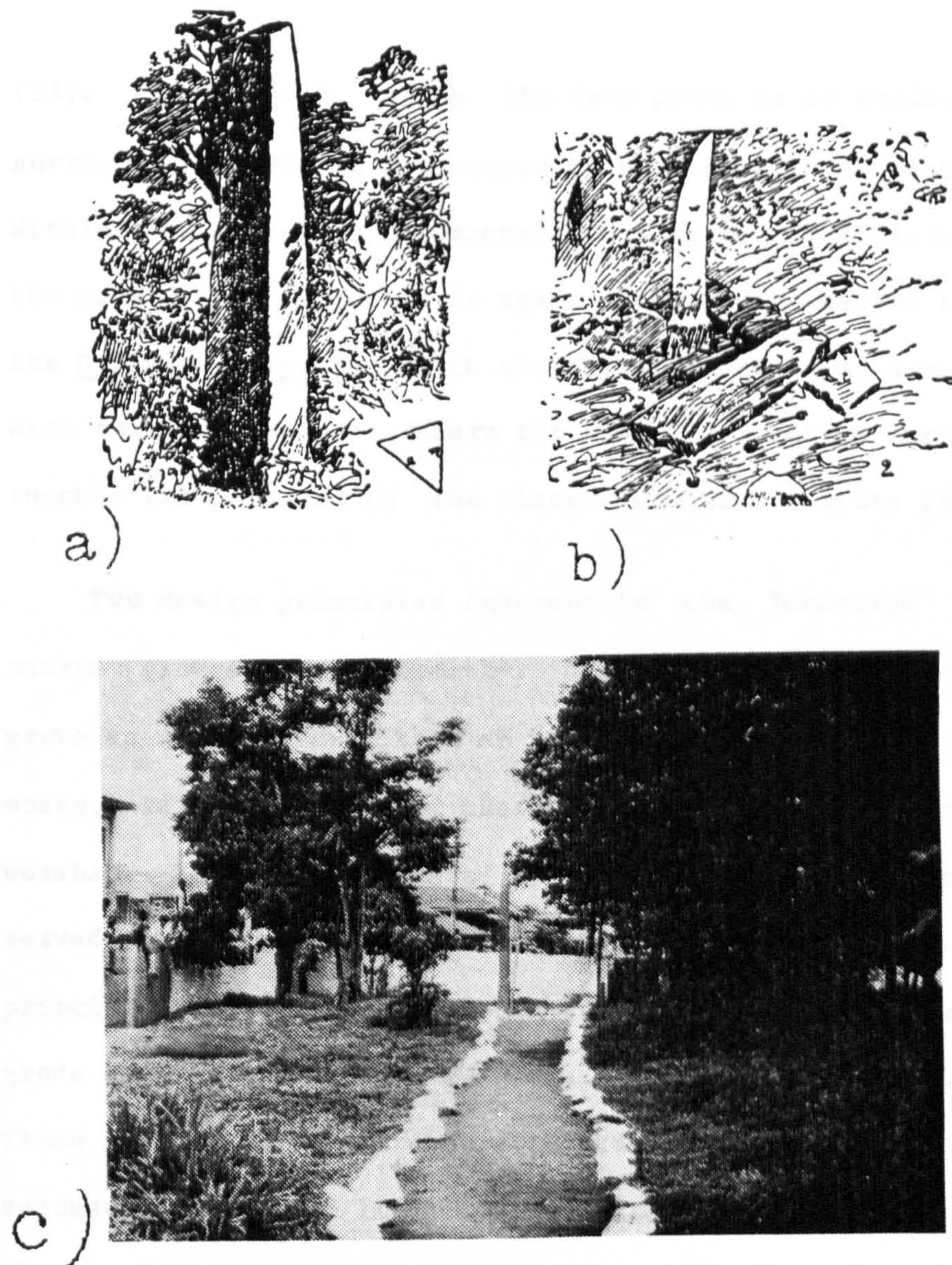


FIGURE 6.17: THE SACRED GROVES OF ILE-IFE, 1912: Examples of stone monoliths, monuments, sacred trees, temples. The paths are the main architectural features of the groves. a. Enuwa Square with a pyramidal monument said to used as sundial b. Ore Grove, the most popular of the groves that was well stocked with sculptures as compared with Orammian grove with the staff still well preserved (c).

[23]. Figure 6.18, shows the Osun grove as an enclave of parkland surrounded by natural landscapes of both open and dense woodlands. Within the park-like landscapes are located the different temples of the gods. This open area is again planted with sacred trees, mostly the Dracenia fragrans, which serve as specimens and are deeply imbued with religious values. Where the Osun river curves like a snake and touches the parkland is the place where Osun worship is undertaken.

Two design principles inherent in the landscape character of sacred groves are noteworthy. One of these is the treatment of the grove as a clearance within an enveloping woodland. This cleared space, serves as parkland used as a gathering place during religious worship. Besides the cleared space other parts of the grove are conserved as much as possible in their primeval landscape. The second principle relates to the arrangement of the component parts of the grove such as the entrances, paths, temples, obelisks and sculptures. These are usually undertaken with the greatest artistic skill. the successful use of landscape construction materials, such as stone slabs, potsherds and quartz pavements, and the use of colour and sacred trees tend to show other aspects of the artistic skills of the people.

Apart from the sacred gardens, there are additional sacred squares in Yoruba towns. These are usually small open spaces attached to religious temples situated in the inner areas of the town. The main features of the squares are the temples which terminate the oblong square facing them. These squares are developed as

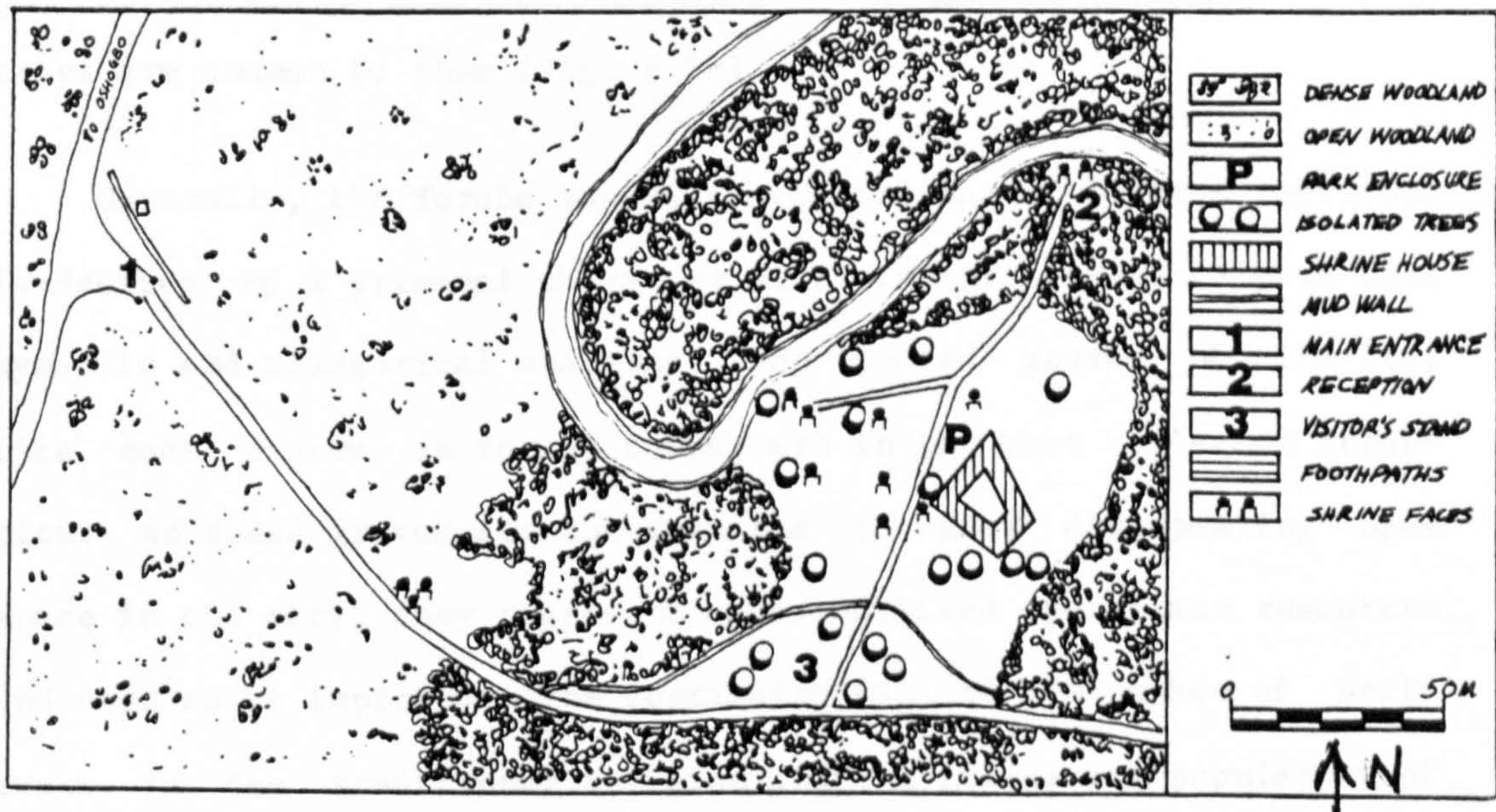


FIGURE 6.18: THE PLAN OF OSUN GROVE, OSOGBO.

The main character of the grove is the surrounding dense woodland of primeval landscape enclosing the Osun Temple which is in turn surrounded by a cleared area dotted with specimen trees and statues erected for the various gods.

long processional spaces, quite barren and surfaced with laterite. Each square has a central pathway edged with quarried stone slabs leading to the temple. On occasions, the whole space forming the square may be laid out as a double pathway as seen in the design of the square fronting the Obatala temple, Ile-Ife. The planting of Dracenia fragrans, Adansonia digitata and Newboldia laevis as sacred trees are common to them (Fig. 6.19)

Generally, the Yoruba sacred groves and sacred squares represent landscapes of a primeval character sufficiently altered to give them symbolic and allegorical meanings. The sacred groves of Ile-Ife, like most others in Yoruba towns, are in the most neglected condition. As these groves are the remnants of ever disappearing open space in the city, they represent under-utilised open space resources and need to be improved. The continuing fall in the number of believers in the traditional religion and the increasing popularity of outdoor leisure pursuits are important factors to consider in opening them up for development as attractive public parks. The recent restoration works undertaken at Osun grove, Osogbo, shows the tremendous opportunity which exists for turning existing groves and sacred squares into delightful public spaces, not simply for traditional religious worship but for outdoor recreation and as historic landscapes for tourist attraction.

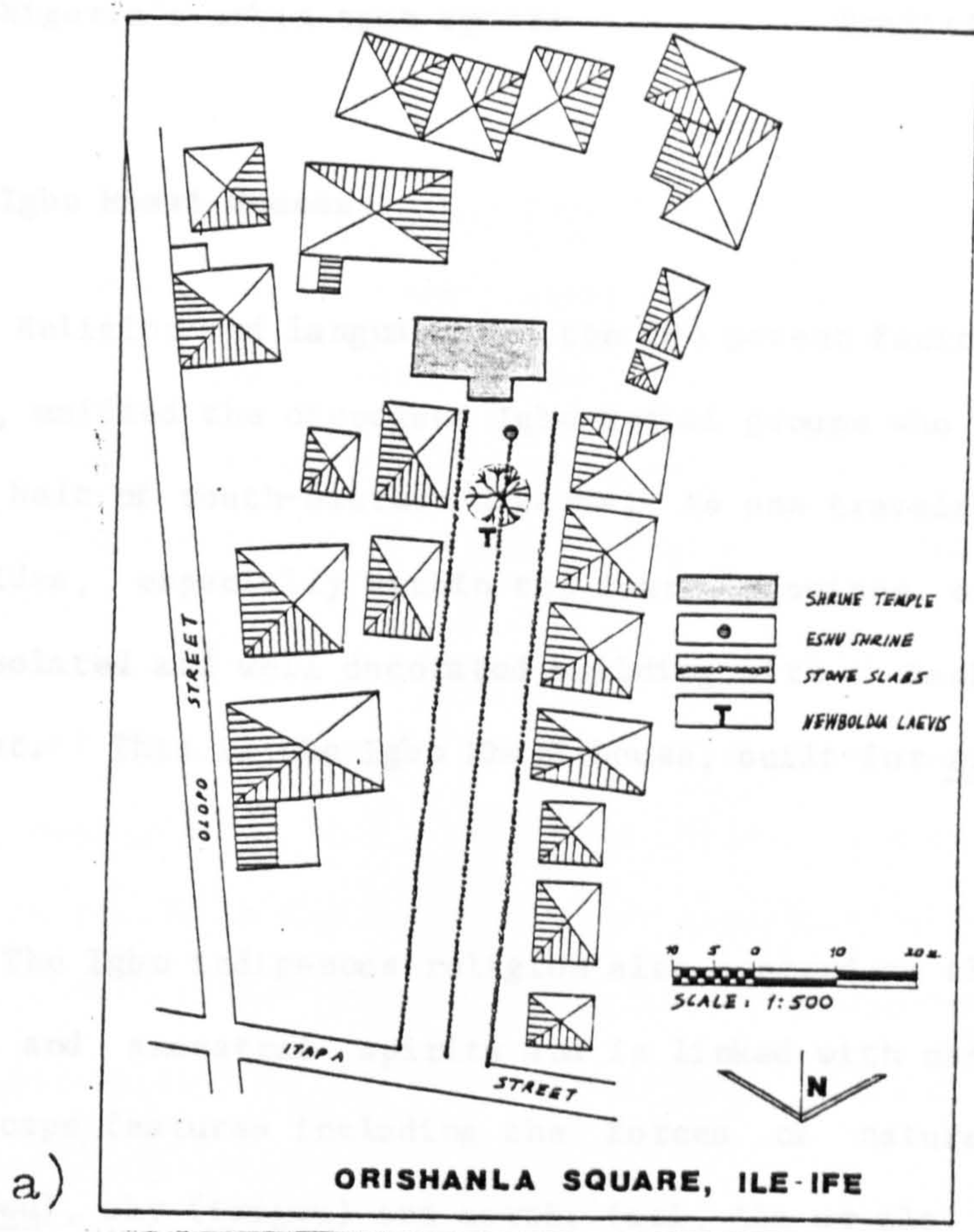


FIGURE 6.19: ILE-IFE: EXAMPLES OF SACRED SQUARES. i) The Plan of Obatala sacred square: The space forming the square has been laid out as a double pathway edged with stone slabs painted in white. ii) View of Oluorogbo Sacred Square: In one corner of the square is the Baobab and another specimen of this tree to be found in Ile-Ife is located in front of Balea compound along Ilare street a few yards from Enuwa square.

The Igbo Mbari Houses

Religion and language are the two potent factors which, in the past, unified the dispersed Igbo tribal groups who inhabited the palm bush belt of south-eastern Nigeria. As one travels around Igbo countrysides, especially within the Owerri province, one frequently sees an isolated and well decorated building with a background of dense forest. This is the Igbo Mbari house, built for Ala, the Earth goddess.

The Igbo indigenous religion also centred on the worship of many gods and ancestral spirits and is linked with natural elements and landscape features including the forces of nature like the sun, (anyawu), sky (irigwe) and earth, (ani, Ala or ale) [25]. Among Igbo gods, Ala, held to be connected with soil fertility, was (and probably is still) the most commonly worshipped. The great importance attached to Ala's worship reflected the values of an agricultural society. She was worshipped perhaps to appease her for prosperous harvest. In reality Ala's worship made little difference to the infertile lands of Igbo territory especially in the Owerri and Okigwi areas where men have had to struggle hard in order to wrest a living from farming [26].

The construction of an Mbari house is an important aspect of Ala worship, although this is less of a common practice than the actual religious worship. In the limited areas where Mbari houses have been built, this is said to have been undertaken at the request of Ala.

The Igbo community who hold this tradition maintained that the goddess normally makes her wishes known by the sudden appearance of either a boa constrictor or a swarm of bees in the priest's compound. These signs having been correctly interpreted by the town's diviner, dibea, the local community would embark on the building of an Mbari house [27].

Both the building and the decoration of a Mbari house are usually accompanied with religious rites. The builders for example need to reside in the building under construction until its completion. This is followed by a long and uninterrupted period of artistic decoration in which many artists, including sculptors and painters work together.

As the Mbari house is the only and most important man-made contribution to the landscape of an Igbo sacred grove, its varying attributes therefore deserve a special focus in this account. The typical Mbari house has a rectangular plan being built as an open structure, with a gable roof supported by massive columns at its four corners. Sometimes the Mbari House has a cloister which is an open enclosure formed by external walls running along one or more of its sides. Its walls are constructed with either dried mud bricks or occasionally with round and hollow blocks faced with glazed pottery. Instead of traditional thatch the Mbari house is now frequently roofed with corrugated iron sheets (Figs. 6.20).

Mud sculpture and wall paintings are the two artistic media



FIGURE 6.20: THE IGBO MBARI HOUSE, ORATO: An example of a Mbari House constructed in the Traditional style well decorated wall and many mud sculptures

employed in the decoration of the Mbari house. Ala's sculpture, among others, is usually the most dominant. She is often depicted as a larger than life well dressed and decorated female figure, and strategically located to face the approaching roads and paths. Other mud sculptures commonly depicted with Ala are those of Amadi (Ala's thunder), Enochie, (water goddess) and Olugba (the spirit of the pond).

Ala's sculpture often show some of the values and confidence the people place on her. As a goddess connected with both human and soil fertility, she is sometimes depicted as a gorgeously dressed woman, wearing a triangular head-tie, and covered with heavy brass rings from toes to ankle. At other times, she may be depicted as a woman carrying a child on her knees (Fig. 6.21).

According to Beier, the most impressive thing about the Mbari house is the freedom of artistic expression (which is a hybrid of the traditional and contemporary styles). He stressed that the thrust of the artistic expression is the extra-ordinary freedom of the mixture of style and objects. For example, adjacent to Ala and Amadi-oha, one sometimes finds other sculptures and painted objects like motor cars and a district officer with a moustache. Similarly, Enochie, the water goddess, sometimes has the sign of the cross on her breast. At other times, the crucifix is depicted on the wall of the Mbari house [28]. This form of art, according to Beier, is very innovative and responds very well to changes in social values [29]. Such an extraordinary mixture of styles, he said, is no mistake;

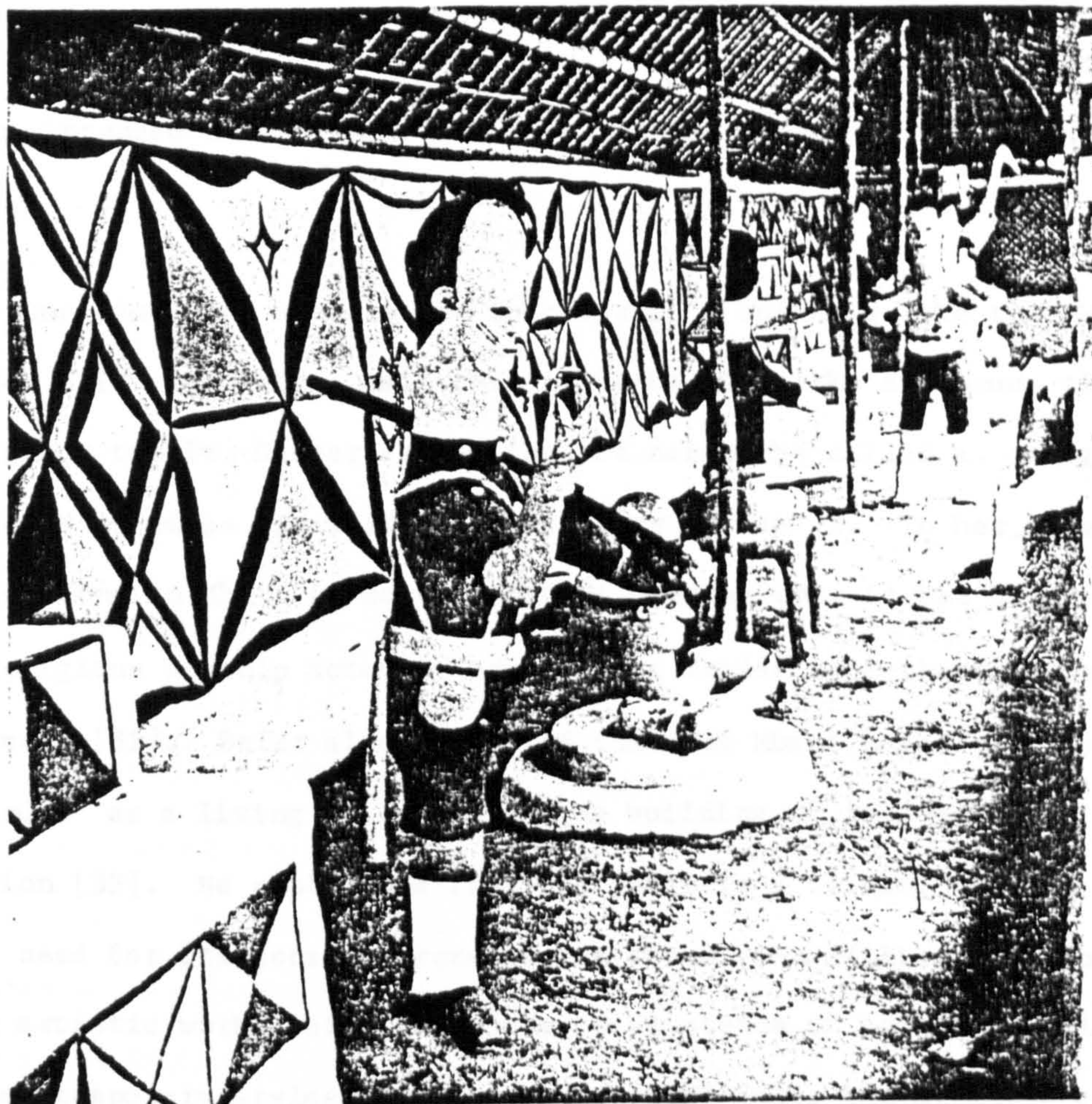


FIGURE 6.21: A TYPICAL MUD SCULPTURE OF ALA, THE GODDESS OF MBARI WORSHIP

being intended not to shock but to create a 'surrealist atmosphere' [30].

One sometimes wonders how to classify a building like the Mbari house. It has been said that it looks more like a museum than a religious temple. Denyer argued that it cannot be called a religious building because no worship takes place inside it. To her, the art of building an Mbari is more important because once it has been built no religious worship actually takes place inside it - thus leaving it to decay [31]. Beier also suggested that the Mbari house is better regarded as a living gallery; being a building of rich artistic collection [32]. He emphasized that the Mbari is a living museum and the need for its constant renewal has often been utilised to promote rich artistic works which allow the co-existence of both traditional and contemporary styles. In the more recent past, the artistic quality of the Igbo Mbari House has been interpreted by Duerden [33] as a regenerative art and is not therefore subjected to any aesthetic judgement.

It seems, however, that the typical Igbo sacred grove, with the Mbari as the only superstructure, is relatively less altered when compared with the Yoruba. The large number of Yoruba gods and the need to emphasize their individuality in time and space have been responsible for their generous distribution in the urban landscape.

The Sacred Hill Landscapes of Northern Nigeria

The most distinctive features of the savanna landscapes of northern Nigeria are the massive isolated granite outcrops, which rise like huge domes above the flat and undulating grasslands and shrub country. Beauty and worship are here combined and many of these have come to be regarded as sacred landscapes.

The long period of Islamic influence in northern Nigeria has been responsible for the decline of traditional religious worship, although traces of adherence to indigenous faiths still exist in urban and rural areas. Effectively, the history of the Hausa people up to 1500 AD can be regarded as pre-Islamic; but thereafter, the influence of Islamic religion on traditional religion and other aspects of the indigenous society of northern Nigeria has become increasingly dominant. However, it is not easy to eradicate old traditions; particularly when they involve belief and faith in existing natural features.

From historical and cultural perspectives, there is enough evidence to say that the Hausa and other northern Nigerian tribal groups such as the Kamuri, Nupe and Marghi worshipped certain gods and spirits linked with natural landscape features like hills, water and trees. Tremearne's account in 1913 [34] has shown that Hausa folklore and myths referred to a king of the thicket and a king of the Heavens and the Dodo, the snake spirit. It also referred to other spirits believed to dwell in water and trees like baobab (Adansonia

digitata) and the silk-cotton (Eriodendron bombax) [35]. The Hausa also worship other ancestral spirits including the kuri, a male pan; uwardowa, forest mother; uwargona fam mother, or corn mother; and sa(r)rinkin rafi or kogi, or Ayu, the water spirit. The water spirit is held as one capable of dragging people down the river and it needed to be appeased by periodic sacrifices. The Dogna is an evil spirit commonly held to dwell in the baobab. Both are held sacred and the eating of their fruits are therefore forbidden [36]. The Bori is another form of worship connected with witch craft, which though devilish enough to be condemned by the Islamic religion, it has been preserved in some form and is still celebrated regularly and regarded as an important aspect of Hausa culture. A close parallel can be drawn with the yearly Argungu fishing festival near Sokoto. Initially, it started as a religious festival linked with the worship of a water spirit, but now, it has become well organised in a socially recognised way and even has the acceptance of the Islamic Emir.

A classic example of sacred landscape is the Dala hill at Kano. The early inhabitants of Kano worshipped a deity called Tsumburbura or Shamus on the Dala Hill, around which the medieval town grew [38]. Another sacred site in Kano was the site of a sacred tree in the Madubo woodland to the east of Dala otherwise known as either Kurmin Bakin or Ruwa grove [39]. When the early rulers of Kano embraced Islam, their first task was to suppress the indigenous religion. In later years, the religious worship at Dala hill was

abandoned with the building of mosques on other sacred sites in the city [39]. Other examples of sacred landscapes include Kufena Hill, located at the suburban fringe of modern Zaria (Fig. 6.22a) and the Juju rock in Jebba, which is still well preserved in its primeval landscape (Fig. 6.22b).

The Hausa's preference for hill landscapes is perhaps noteworthy and tends to reflect their appreciation of naturally beautiful landscapes. This tendency underlies the siting of Hausa towns and villages around hills; although sometimes motivated by defence. Moreover, the religious values attached to both the baobab (Adansonia digitata) and the silk-cotton (Eriodendron bombax) trees by the northern tribes is also noteworthy. Now these trees are generally preserved and their occurrence depicts sites of former settlements or farmlands (Fig. 6.23).

The Kamuri, Marghi and Pagan tribes of the Plateau, also worshipped, in the past, the spirits associated with woods, hills and water. Barth's accounts of the Marghi has shown that the people of Dala Disowa village in the Malghoy district had a sacred grove surrounded by a ditch. He said they worshipped their gods in the midst of the most luxuriant woodland. At Issege, another village near Wandala (or Mandara) Mountain, was another attractive sacred grove of considerable size and enclosed by walls. This grove is said to have had a lake surrounded by many magnificent trees, mostly of the Ficus family [40]. He also noted a fetish pole in a courtyard at Lahaula village that was erected for the worship of the sun god [41].



a)



b)

FIGURE 6.22: KUFENA SACRED HILL, ZARIA: An example of historic and sacred landscape a. A view of Kufena Hill in relation to Old Zaria b. A view of the Hill Jebba Juju rock and attractive wooded hill overlooking the River Niger.



b)

FIGURE 6.23: A VIEW OF BAOBAB GROVE IN THE NORTHERN SAVANNA

Often the occurrence of large groves of baobab is an indication of the site of former settlements or farm land. The Chlorophora excelsa (Yoruba: Iroko; Ibo: Akpu) and the Dracenia fragrans are other trees held sacred by major tribal groups.

Denyer also said that the smaller tribes of northern Nigeria, especially the pagan tribes of the Plateau, believe that the uninhabited bush is the abode of malevolent forces. According to her [42], the villagers believed that their settlement can only be protected against evil forces by a magical power; the safest place being the secure centre (the known world), and the periphery that is regarded as unknown, vulnerable and fearful.

The study of sacred landscapes in both southern and northern Nigeria has clearly demonstrated that such spaces perform major religious functions and are accorded traditional values. The attitudes of Nigeria's tribal groups to natural landscapes as influenced by their religion overlap with that of landscape appreciation and conservation. The different indigenous religious beliefs, in short, amount to the worship of nature gods, or deities, whose presence are symbolised by landscape features like hills, lakes, sacred trees and attractive woodlands, which quite naturally are beautiful. For instance, some of the trees held sacred by the different tribal groups include Chlorophora excelsa, Adansonia digitata, Newboldia laevis, Dracenia, Eriodendron bombax and Tetracarpidium canophorum; each of these has its own distinctive aesthetic qualities (Fig. 6.23). According to Eliade, trees express "everything that the religious man regards as prominently real and sacred" [43]. He stressed that trees are chosen by the traditional people both to symbolise the cosmos and to express life, youth, immortality and wisdom [44].

Although the origin of most of the sacred groves discussed above

have been lost in myths and legends, one can however recall Thacker's accounts of the emotional feelings of traditional people that can result in the designation of groves. According to him, when

'man first felt that there was a difference between the "atmosphere" surrounding one place and another; that some spot possessed a mysterious quality; that some mysterious or tragic event had left an emotional effect on the nearby rocks and trees and streams; that a remote locality might possess a 'spirit" of its own, a genius loci: at this moment man was close to creating a sacred grove' [45].

Another dimension of the above account relates to the qualitative aspect of traditional open spaces. Eliade stressed that for religious traditional people, space is not homogeneous; rather it is held to be either 'sacred' or 'profane'. According to him, sacred spaces are qualitatively different from the profane. Profane spaces are ordinary spaces which are usually without structure and often separated from the sacred [46]. The sacredness of a space is emphasized by the enclosing walls or any divisions that separate them from the adjoining profane spaces. Thus, the main entrance to the sacred grove, or the threshold can be regarded as the passage from the profane to the sacred or holy ground [47]. Similarly, the indigenous sacred groves, the hill gardens are qualitatively different from most of the public squares and private courtyard gardens, and are indeed the ancestors of parks.

Accounts of sacred groves as discussed above have shown that they are landscapes created with much symbolism. For example, among the Yoruba, the sacred groves are little altered; and often, they

contain either a symbol or symbols of art works or natural objects such as trees, temples, obelisks, hills, lakes and the application of colour. This combination endows them with their special character. Among the Igbo, religious temples received the greatest emphasis in design; among the northern tribes the preservation of the hills, the baobab and silk-cotton trees are the most important features.

The religious values and taboos attached to trees can be said to be responsible, in part, for the negative attitudes of the people to tree planting in private yards and in towns. Clapperton had observed in 1828 that the baobab, which could have made a splendid garden tree, was not frequently used [48]. However, considering the baobab's size it could hardly have been contemplated as a tree suitable for a small private garden. But the spiritual value of the tree, no doubt, was responsible for its non-use as a garden plant.

A fundamental question, and one of deep cultural and religious significance, is what should be the attitudes of landscape designers in the 20th century to the use of trees and colours in design? Furthermore, what values should be attached to their usage in landscape design? These are questions of conscience and strong religious convictions. Those bound by tradition would perhaps find it difficult to dissociate from the deep cultural meanings attached to trees, colour and sculpture. But trees could be used in the right circumstances to beautify the built environment without recourse to spiritual bondage. Thus the enduring design qualities of these symbolic landscapes should be utilised to the fullest. Trees could be

planted in parks and urban areas no more to signify places of religious worship but, by so doing, confer some protection on them from vandalism, Trees of religious value are deliberately planted in India today to avoid their being chopped for fire wood by local villagers.

It needs re-emphasizing that the strong influence of traditional religion of the people of Nigeria which accorded with landscape conservation has been lost in 20th century materialism and rapid urban development. This is most evident in the present aggressive and destructive attitude to natural landscape in most urban areas. A new landscape conservation measure needs to be imposed to control the excesses of present attitudes. This new measure requires a new social attitude and awareness of environmental and ecological problems connected with land use and development. One way of achieving this is through careful landscape planning and design. It needs to be emphasized that the existing sacred gardens and squares should be developed as attractive public open spaces for outdoor recreation.

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CHAPTER 7

THE TRADITIONAL PRIVATE COURTYARDS AND GARDENS

This chapter is devoted to the study of the design attributes of private courtyard gardens and spaces of the Hausa, the Kamari, the Nupe and the Yoruba, which are the tribal groups with the longest tradition of urban settlements in Nigeria. It also discusses the landscape character of the compounds of the villages and hamlets of the Igbo and the small tribal groups of the Jos Plateau. The selected case studies focus on the traditional landscape design and construction methods as evolved by the different tribal groups.

CONCEPT OF SPACE IN TRADITIONAL NIGERIAN ARCHITECTURE

A common element of the diverse forms of indigenous Nigerian and African architecture is the open courtyard [1], which is an open enclosure within the residential compound. The open courtyard is similar to the Spanish patio. A typical compound has many dwelling units with their habitable rooms arranged around one or more open and interconnected courtyards.

Originally, the courtyard architecture probably grew out of man's instinct to create for himself and his family a safe and well sheltered open space within his abode. The courtyard architecture

seems to be an architectural response to a number of environmental and social factors. First and foremost is the need to create outdoor spaces as essential complements of rooms in a naturally hot climate. Other environmental factors are; the need for shelter against the dry and dusty harmattan winds and cyclones, the need for protection against wild animals and thieves, and the need for a secure space for domesticated animals. For other cultural and economic reasons, these spaces also served as burial ground, food storage, craft and for tethering animals. Furthermore, these courtyards are now effective outdoor rooms for open air recreation and relaxation while providing privacy for the residents [2].

Indigenous residential compounds are diverse since each tribal group builds in its own cultural style. Based on house plans, the different forms of residential compounds can be grouped into two broad categories: the square and the circular plans (Fig. 7.1). Houses with rectangular plans are more common among the more urbanised tribal groups; those having circular plans with the smaller tribal groups. Examples of these are more common in northern than in southern Nigeria. Within these two broad categories, there are infinite variations and combinations of house forms, construction materials and detailing [3]. Like the diverse house forms, the courtyards of the different tribal groups vary greatly in character. It is easier to refer to and describe the courtyards of the different tribal groups, especially as some of these have a distinctive landscape character.

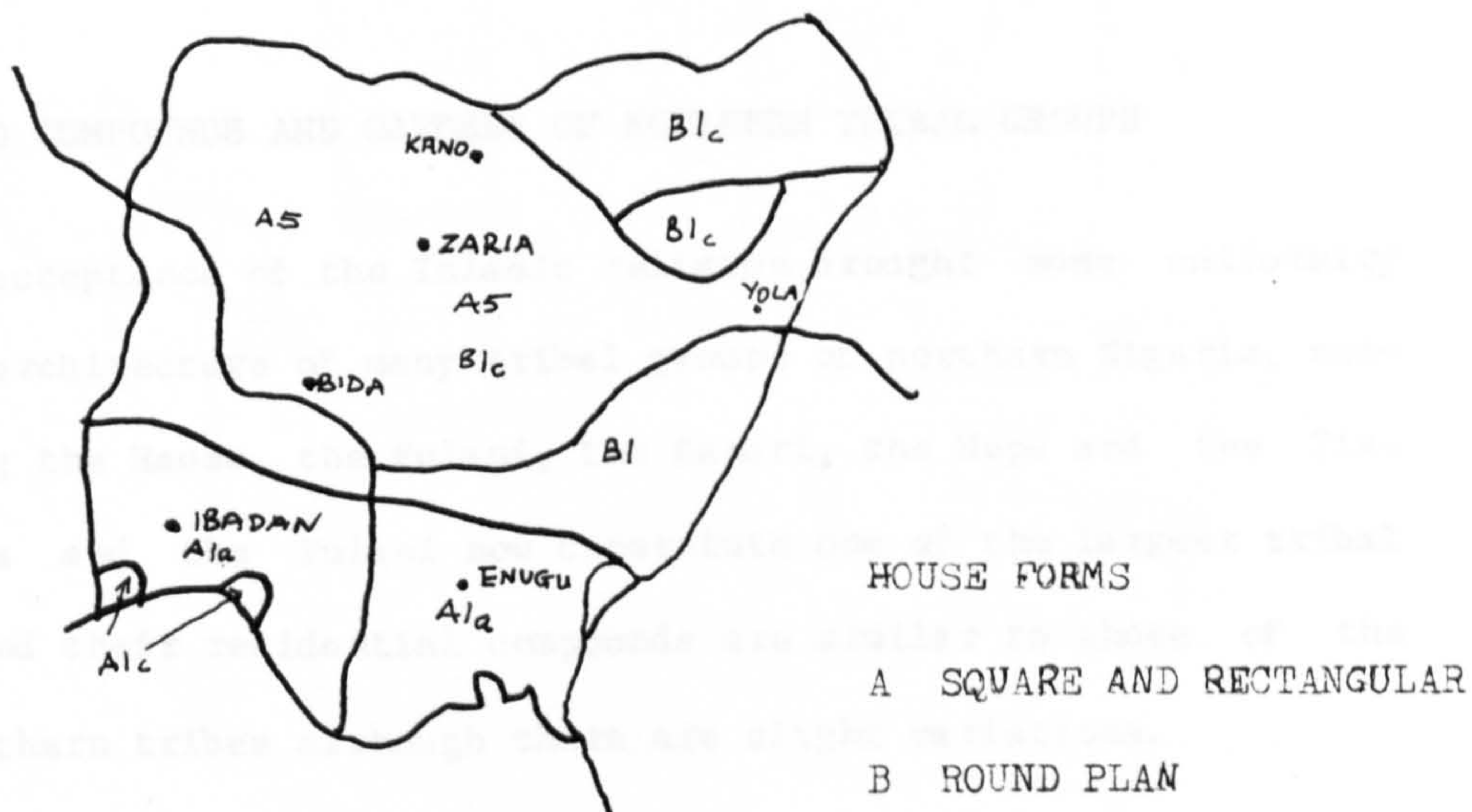


FIGURE 7.1: NIGERIA: DISTRIBUTION OF INDIGENOUS HOUSE FORMS AND TYPES



THE WALLED COMPOUNDS AND GARDENS OF NORTHERN TRIBAL GROUPS

The acceptance of the Islamic religion brought some uniformity to the architecture of many tribal groups of northern Nigeria, notably among the Hausa, the Fulani, the Kamuri, the Nupe and the Tiv. The Hausa and the Fulani now constitute one of the largest tribal groups, and their residential compounds are similar to those of the other northern tribes although there are slight variations.

The Hausa compound (Hausa: singl. gida or pl. gidaje) is of irregular shape, with the constituent dwelling units, sassa, either of rectangular or circular plan or a mixture of both (Fig. 7.2). The compounds in urban areas are laid out as super-blocks separated only by the roads, streets and paths that link them to the markets, mosques and the town gates. Around the compounds' main entrance halls, the zaure, are small left-over and largely unadopted spaces forming part of the fore-courts, which are now used by some as praying ground; and also for casual foraging by livestock, for storing fodder, bricks and fire wood and as teaching grounds. The environmental quality of these compounds is sometimes diminished by nearby unsightly green ponds, from which the clay for building has been dug out. There is a great need to reclaim these green pools by filling them up and turning them into attractive and useful open spaces, or to convert them into fish ponds or ornamental lakes.

Within the compounds are many functional courtyards. Each sassa opens onto one or more courtyards [4]. The Hausa, like other

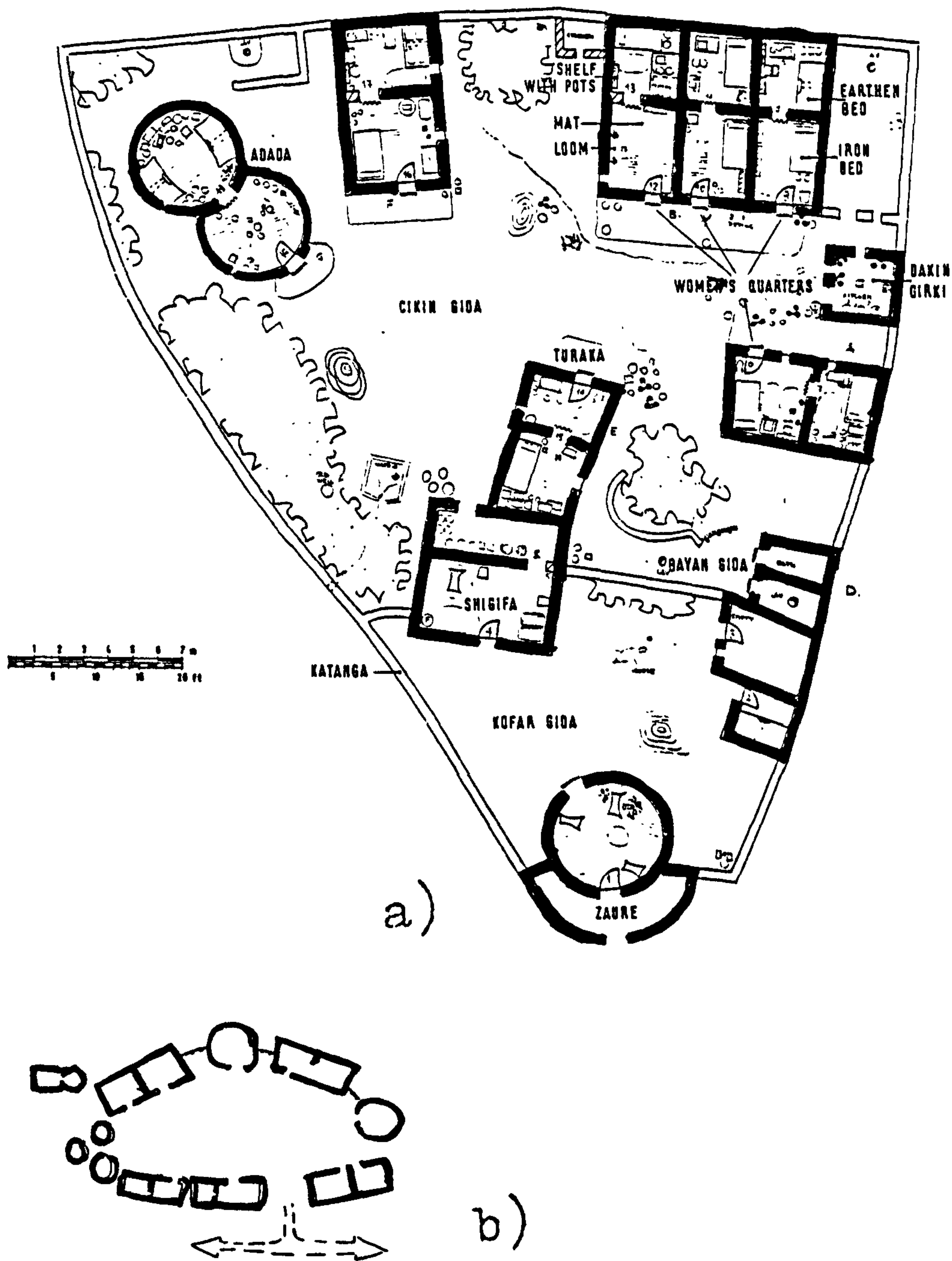


FIGURE 7.2: TYPOLOGY OF HAUSA COMPOUNDS

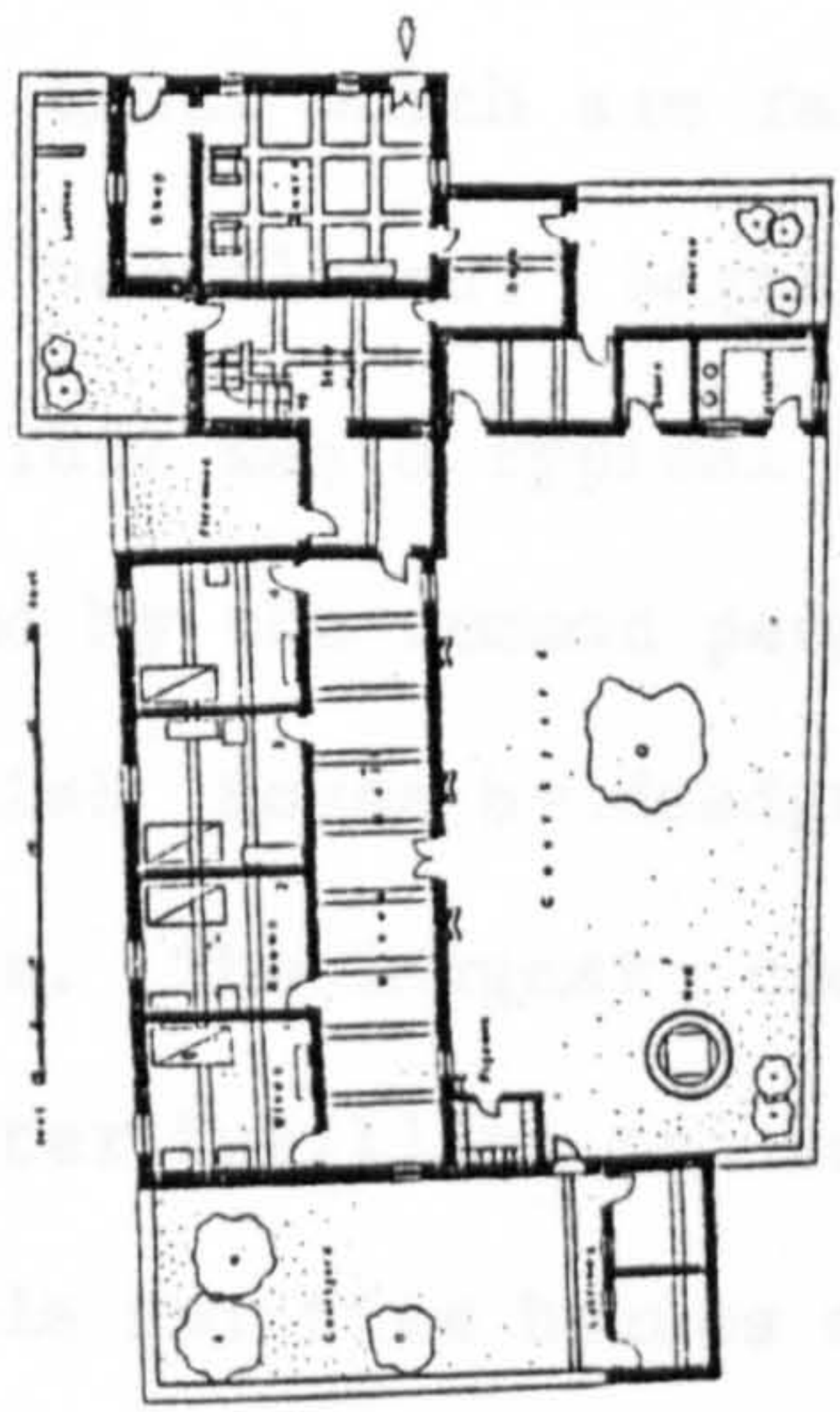
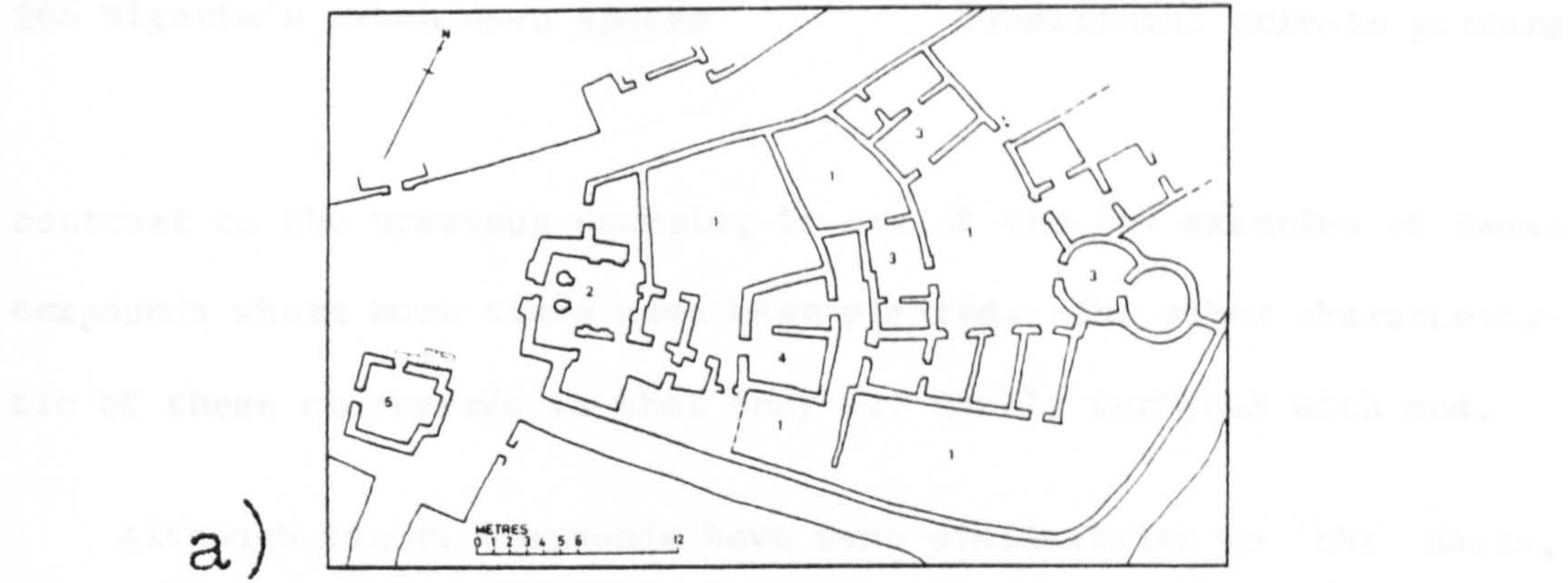
a. The Plan of a rectangular compound, Urban Type. b. The Plan of a typical circular compound, Rural Type.

northern tribal groups that have accepted the Islamic religion, use the courtyards to achieve complete segregation and privacy for the women in purdah who are married according to muslim rites known as auren jahilai. The muslim religion forbids leisure pursuits outside to married woman. Therefore, these courtyards are vital to them - being their most used and valued space for outdoor recreation. Such a consideration, however, is not of importance in the design of compounds inhabited by householders, maigidas, not married according to muslim rites. Such a marriage is often regarded as the marriage of the ignorant (quren jahilai).

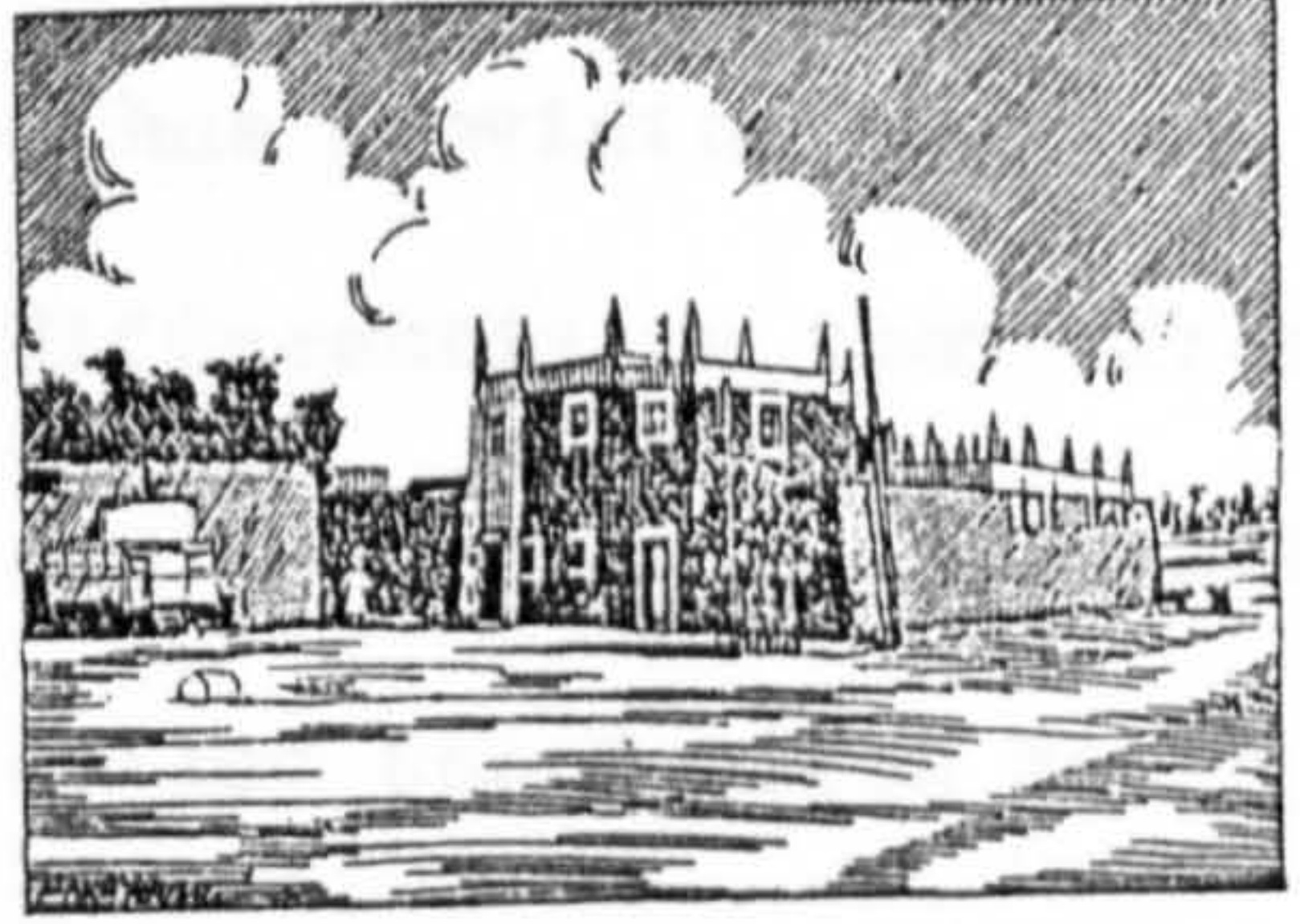
Usually, the sizes and architectural details of these compounds vary according to the wealth and social status of their owners. But each compound, whether small or large, has a number of courtyards and is surrounded by mud walls of about 1.6m in height. Figure 7.3a shows the plan of the compound of Babban Gwani, who designed the popular Old Zaria mosque. His compound is an example of the larger compounds inhabited by the mallams though this is smaller than those of the Emirs. It has four courtyards, but with no trees planted in any of them. The entrance to the compound is through the zaure which leads to the outer courtyard (kofar gida), in which are located the boys' huts. The wives' dwelling units to the south are arranged around the inner courtyards (cikin gida) and have been designed not only to be less exposed to outside views but also to be inaccessible to visitors. The design of this compound shows the great importance attached to privacy in the domestic Hausa architecture. It also

shows how little importance is attached to tree planting.

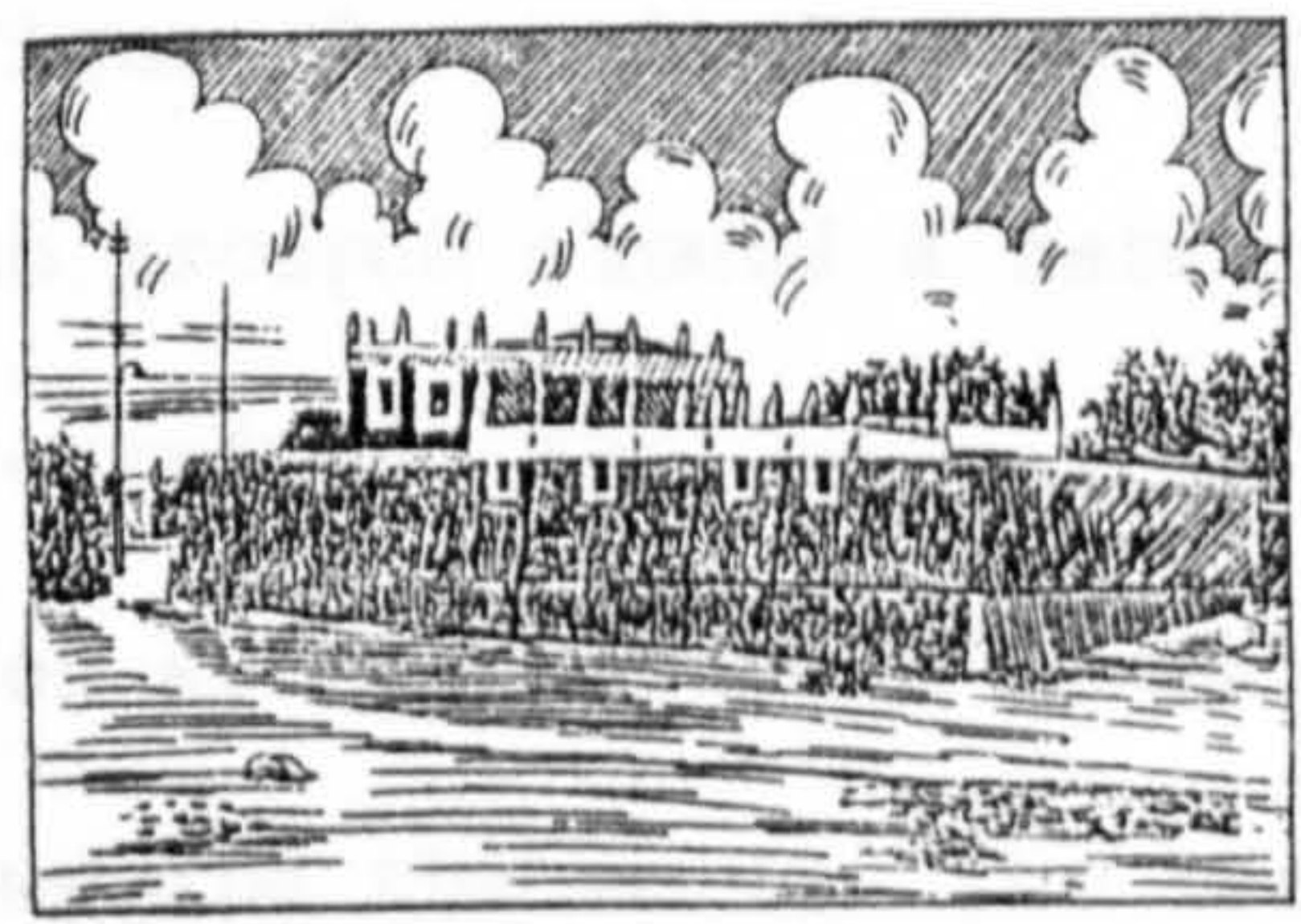
Figure 7.3b shows the plan of the compound of a merchant living at No 189 Kofamata Street, Kano. This is a compound typical of contemporary design based on domestic Hausa architecture. The zaure is constructed as a storeyed building with a stair from the entrance hall leading to a sitting room and a bedroom on the first floor for the householder (maigida). This compound has five courtyards and the main hall opens to one of the immediate courtyards which is adjacent to the shop; and it has a toilet in addition to being planted with two shrubs. The boys' dwelling units open onto the main hall with the courtyard adjacent to it planted with three shrubs: it is used as the stable. In order to prevent outside views, the abode of the wives has no direct access from the main entrance hall; moreover, the wives' rooms are not arranged opposite each other. For privacy, the compound is surrounded by a high mud wall; openings in the walls facing the womens' abode are kept to a minimum. In addition the entrance doors leading to them are staggered to block outside views. The women's apartment is surrounded by three courtyards; the one to the right and nearest to the main entrance hall is used for storing fire wood; the most central and the largest one is used as a general purpose courtyard and for cooking; while the one to the extreme left is for outdoor relaxation. The largest of these courtyards also has a large tree planted in the centre, and in the south-western corner, there are two shrubs next to the well. The other main feature is the rectangular aviary where pigeons are kept. This compound, in



Plan of the house of Hassan Jamal 189 Kofarmata Street, Kano



Front view—The two-storey block of the master's quarters is at the front with a low wing extending at the back in which are the four windows of the wives' rooms. Phallic symbols, picked out in white crown the parapets



Back view—The compound wall with the windows of the wives'

b)

FIGURE 7.3: THE PLANS OF HAUSA COMPOUNDS OF THE WEALTHY CLASS

a. The plan of Babban Gwani's Compound, Old Zaria b. The plan of a Merchant's Compound, Kofarmata Street, Kano. c. Sectional view of b.

contrast to the previous example, is one of the few examples of Hausa compounds where more trees have been planted. The other characteristic of these courtyards is that they are wholly surfaced with mud.

Although Kamuri compounds have some similarities to the Hausa, they nevertheless have their own distinct features. In urban areas they are as compact as those of the Yoruba, with their living rooms arranged around open courtyards thus providing for easy circulation and ventilation. This attribute differentiates them from those of the Hausa which are rather more secluded and organic, although still well ventilated. Barth's house, called the English house at Kukawa in 1851 was a typical example of a traditional Kamuri compound inhabited by the common people. In Figure 7.4, the living rooms of the English House by design have been grouped around a network of courtyards. The largest courtyard contained the servant's huts, the shelter fulfilling the same function as the European summer house, the stable for five horses and six cows and the well. The largest courtyard was planted with two fine specimens of Zizyphus spina-Christi, and the summer house had within it two reclining mud couches known locally as the dagali and zinzin. One of the smaller courtyards was planted with the widely spreading and shade providing Ficus thonni-gii. This same courtyard was said to have housed a monkey and a grey squirrel both tamed by Vogel one of the western explorers; the former was a menace to the tree, while the latter carefully dug out a hole under it [5].

The Nupe tribal group lived mainly in nuclear settlement

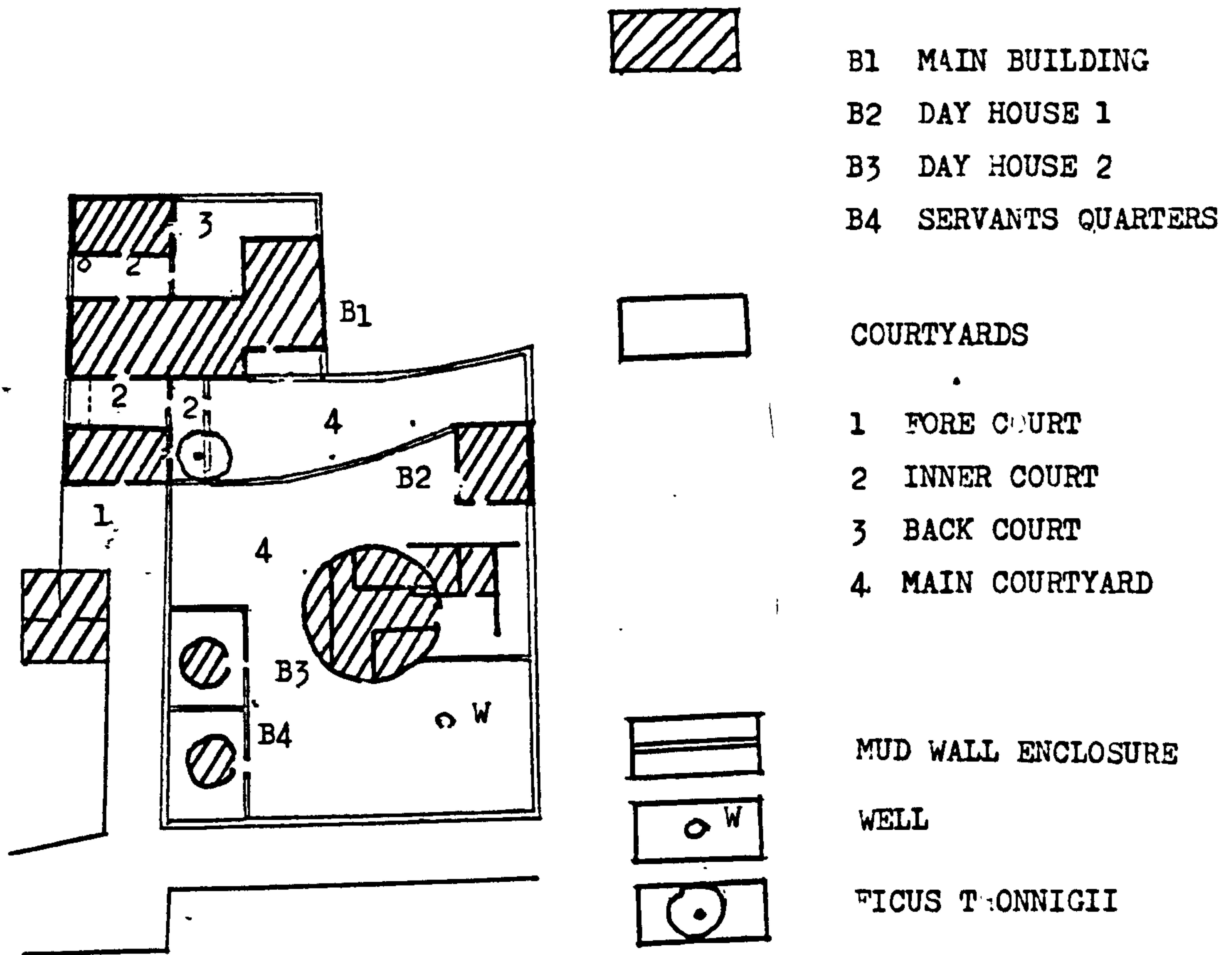


FIGURE 7.4: THE ENGLISH HOUSE, KUKAWA 1851: a typical example of Kamuri compound of the common people. The Figure shows the plan of the house and the relationship between the living rooms and the open courtyards.

patterns. To describe their towns and villages, they have only one word for both: ezi - which illustrates their identical nature. However, there exists two other Nupe words, tanga, and kangi, either of which is sometimes used to describe smaller settlements not so much because of their sizes but because of their social dependence on nearby towns or villages [6].

Generally, the arrangement of Nupe towns and villages is nearly the same. It consists of many wards, efu, which are agglomerations of many compounds clustered together. Each efu is generously laid out and separated from the next by stretches of open land and cultivated fields studded with clumps of trees. Figure 7.5 shows two examples of Nupe compounds; one of the rural type, and the other of the urban type. Usually the compounds are surrounded by clay walls that are highly polished. A small open space forms the fore-court for the main entrance hall (katamba) behind which are the numerous circular dwelling units and granaries arranged so irregularly that the open spaces around them are formless.

Courtyard construction materials

Mud is the universal material for the construction of courtyard walls and surfacing. The Hausa, in comparison to Nigeria's other tribal groups, are more proficient in the use of mud for building. Their successful use of mud for the construction of walls and roofs has conferred on their towns and villages a unique architectural character by a bright display of brown earth colour [7]. Examples of

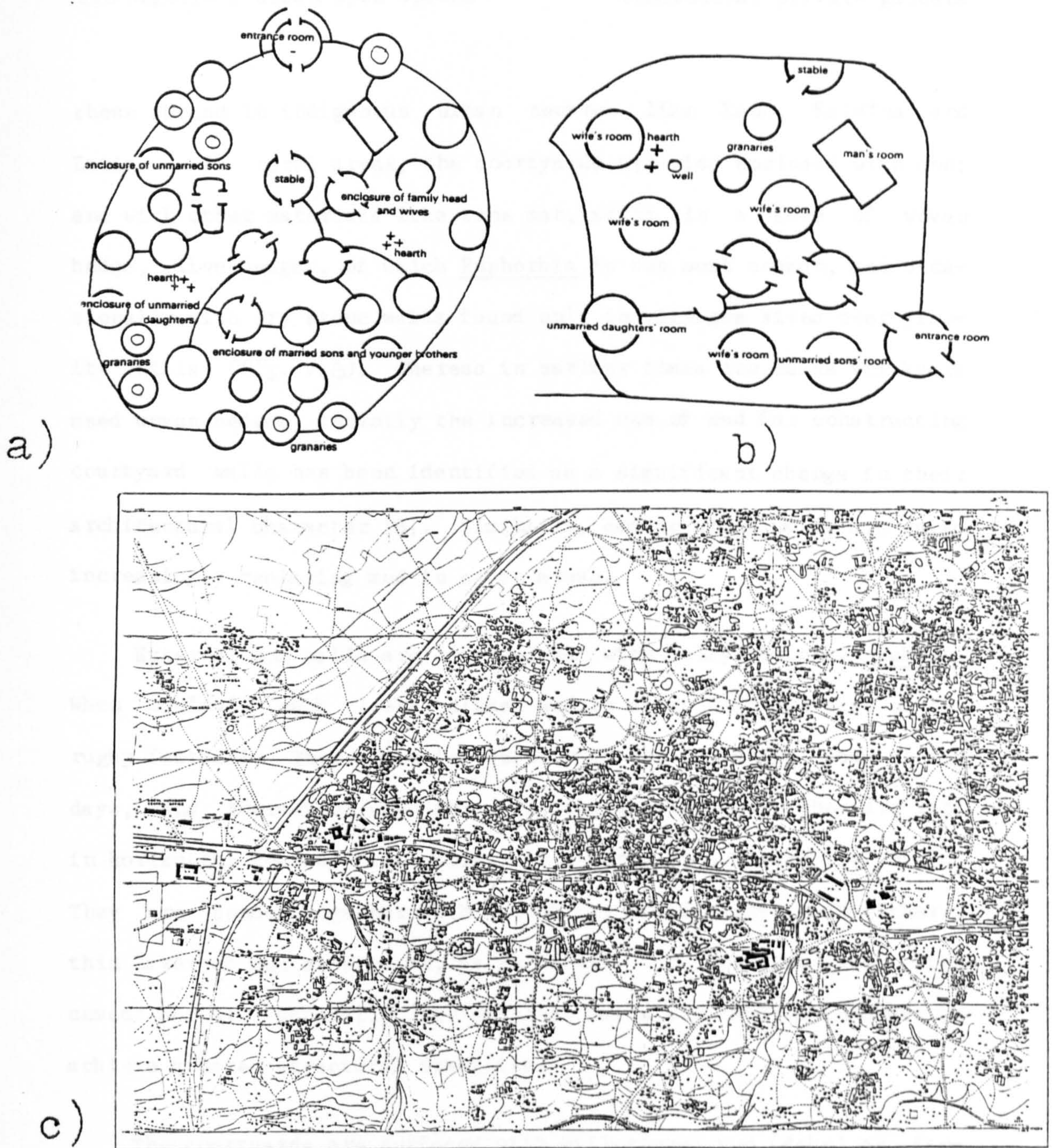


FIGURE 7.5: TYPICAL EXAMPLES OF NUPE SETTLEMENTS AND COMPOUNDS

a. The plan of Nupe compound rural type. b. Plan of Nupe compound urban type. c. The plan of part of Bida showing the nucleated pattern of Nupe settlement.

these abound in indigenous urban centres like Kano, Katsina and Zaria. In rural areas, the courtyards are also enclosed with mud; and with other materials like zana mat, which is a form of woven hedge, live hedges, of which Euphorbia is the most common, and occasionally with dry stone walls found only in villages sited near granite hills (Fig. 7.6). Whereas in earlier times the Hausa villagers used woven hedges, recently the increased use of mud for constructing courtyard walls has been identified as a significant change in their architectural character [8]. Similarly, cement block walls are also increasingly replacing mud in urban areas.

External mud walls are constructed with clay bricks, tubali. When moulded, each looks alike and is about half the size of the rugby football. They are dried quickly in the sunshine for a few days, and thereafter used for wall construction, when they are laid in horizontal courses from about half a metre to a metre in width. They are bonded together with mud mortar and finished with either a thin layer of mud plaster or, as is often the practice now, with cement mortar. Generally, the external walls are tapered in order to achieve greater structural stability.

The courtyards are surfaced with well-rammed mud (debe) or finished with cement concrete. The external surface of mud walls is also coated with a solution of either katsi, a waterproof substance produced from a dying industry or makuba: another waterproof solution made from the fruit of the locust bean tree, Parkia filicoidea [9]. These two substances only keep walls reasonably water-proof for just

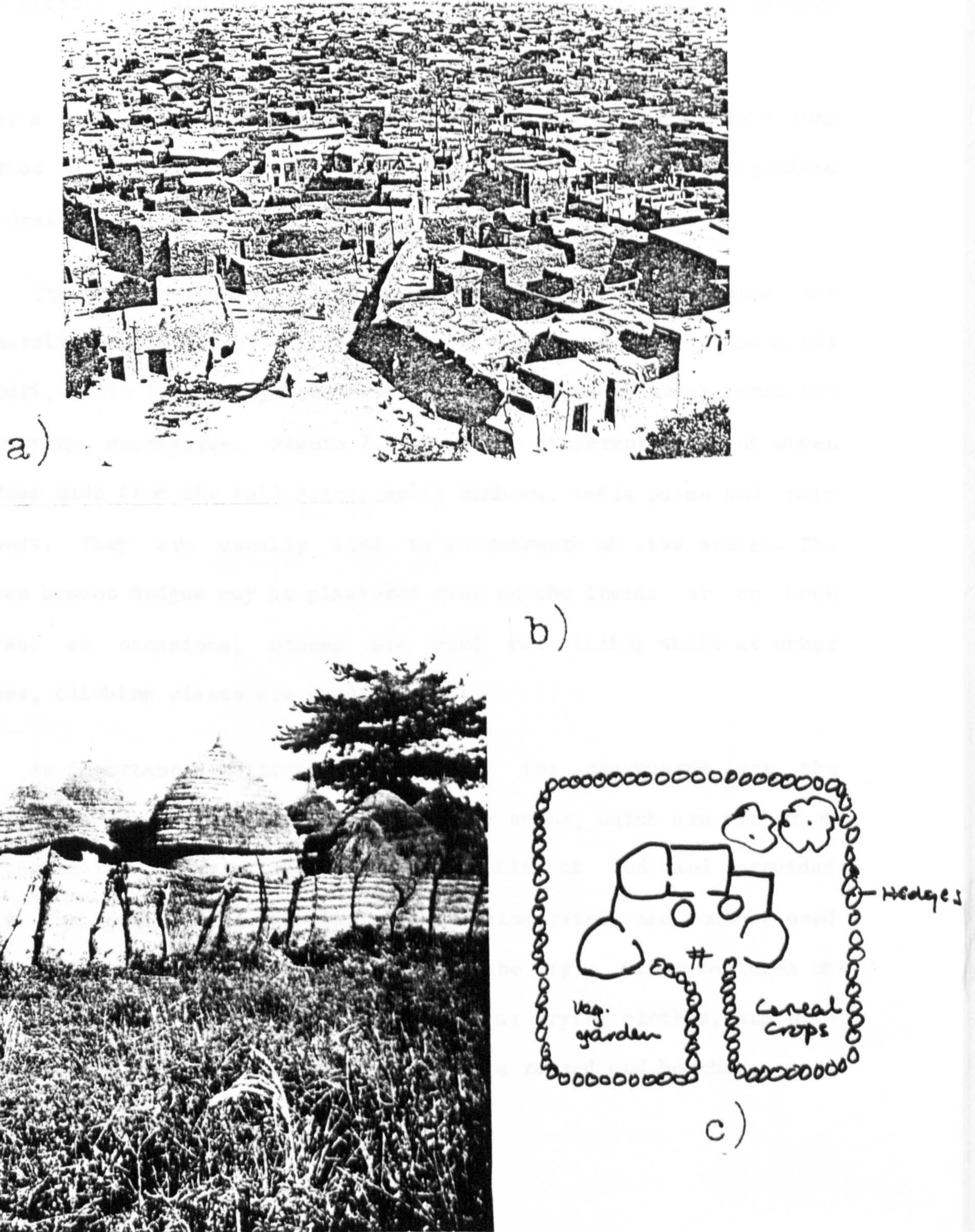


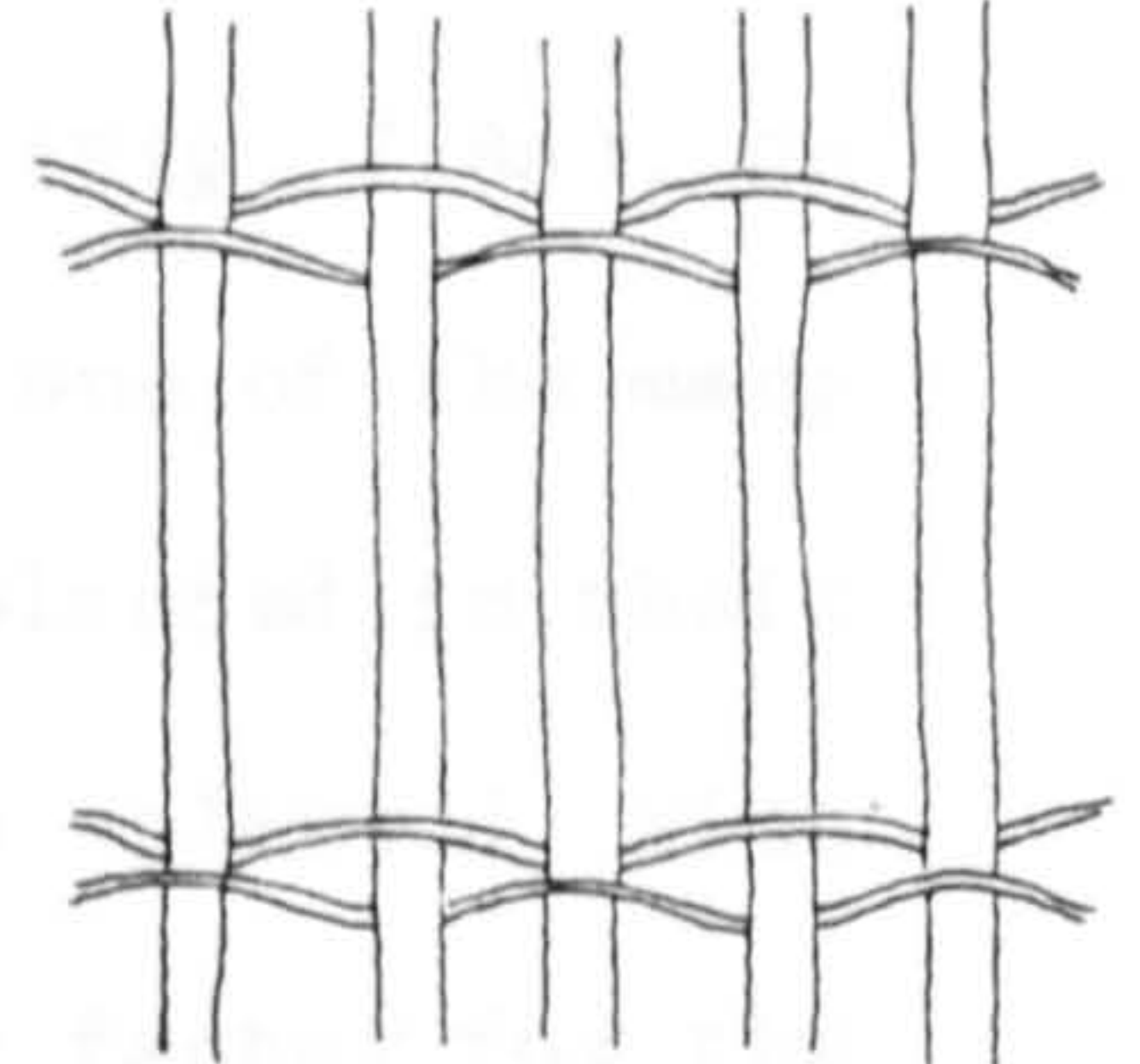
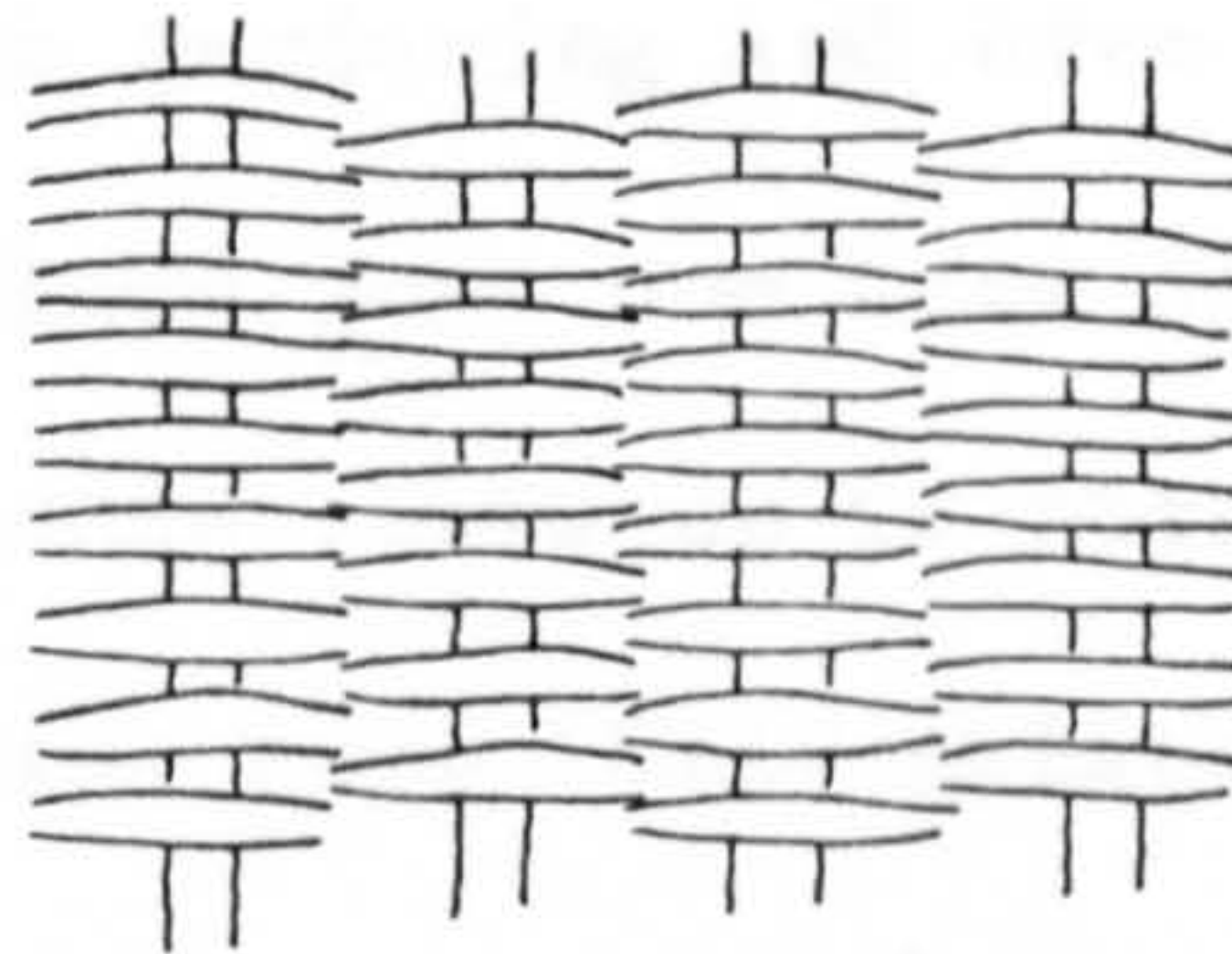
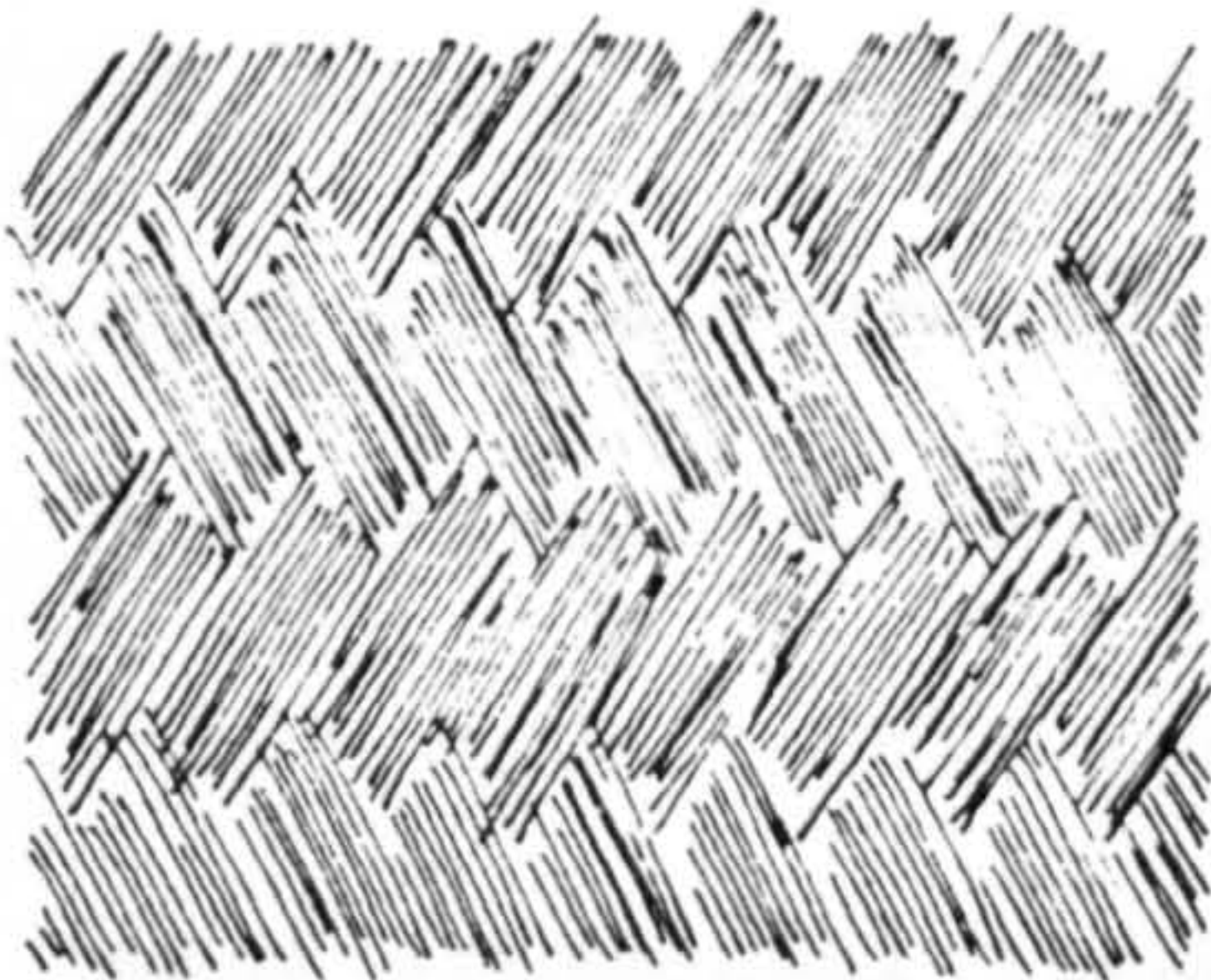
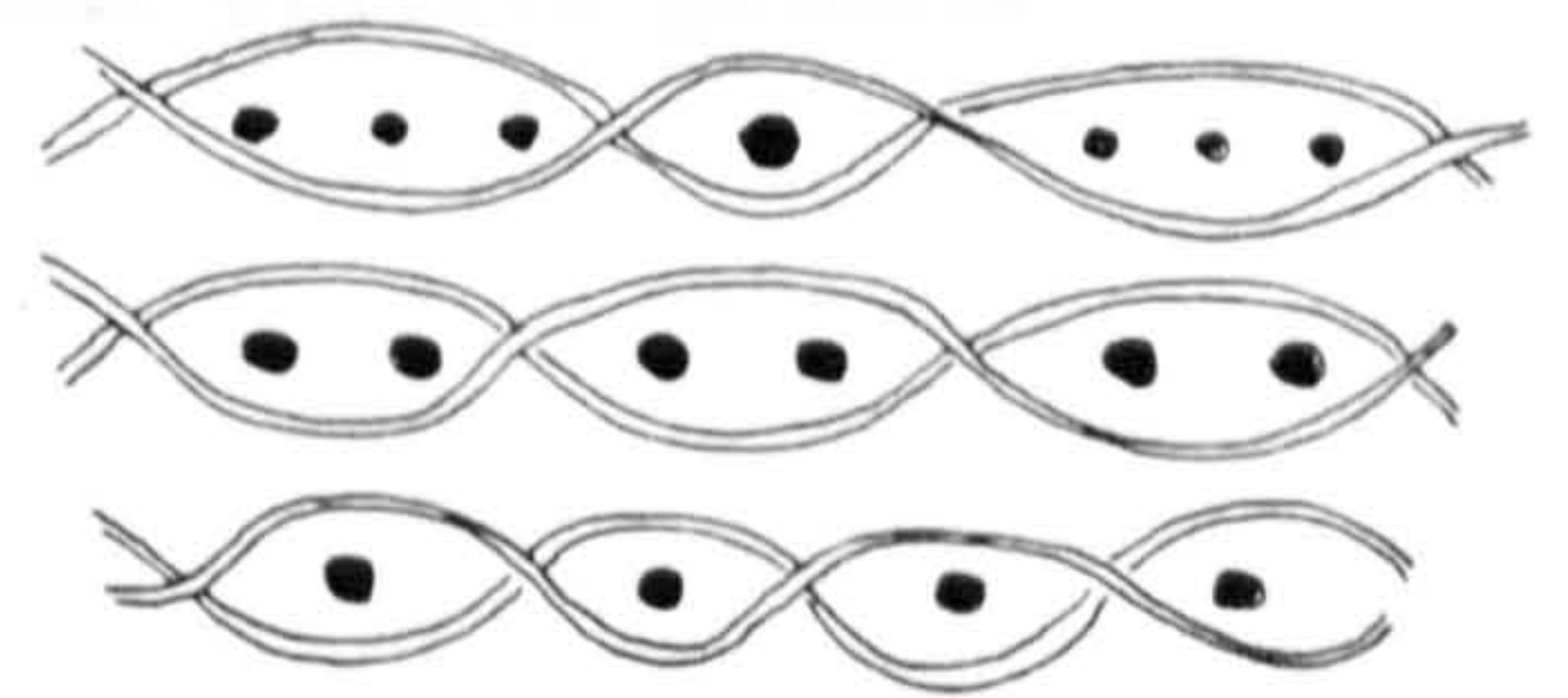
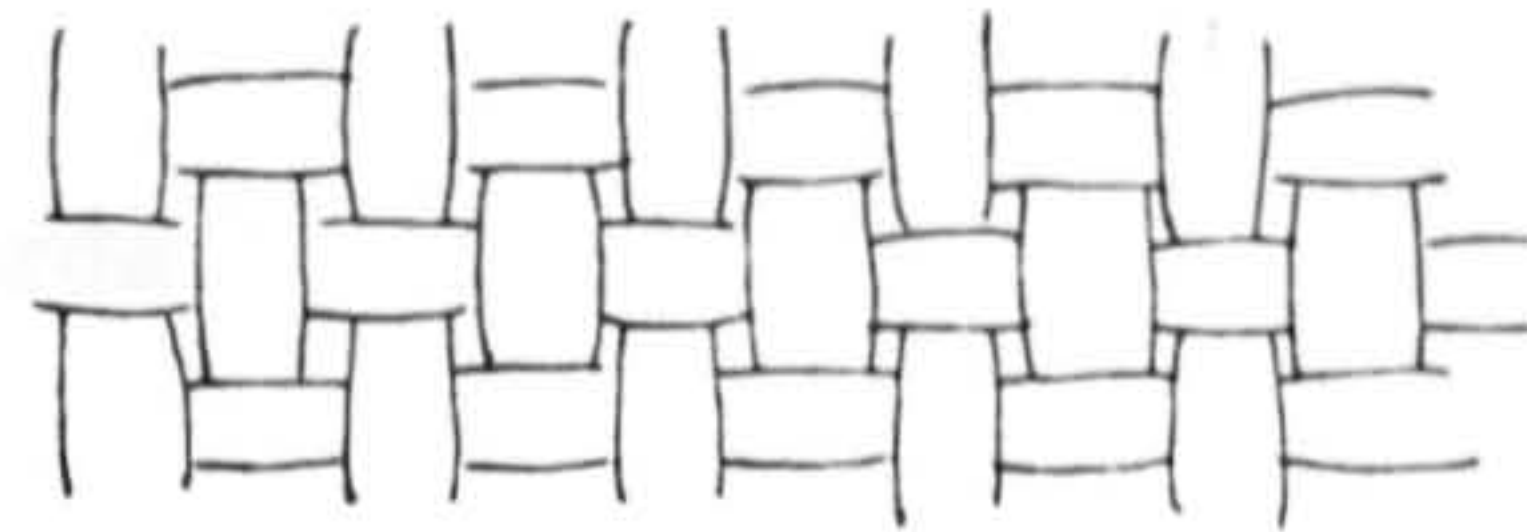
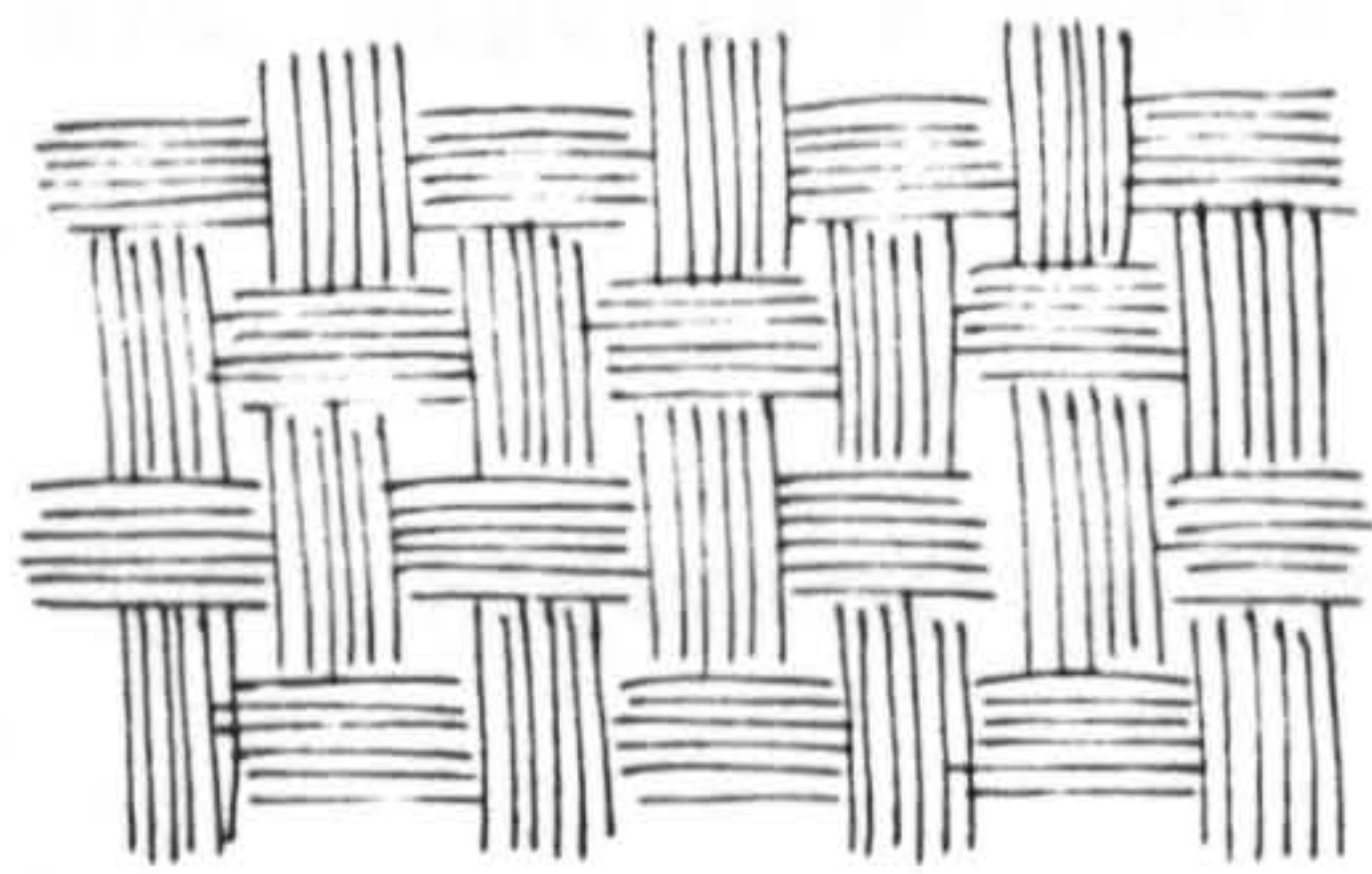
FIGURE 7.6: TYPICAL HAUSA COURTYARD CONSTRUCTION MATERIALS AND DETAILS

- a. Courtyard enclosed with Mud Wall: as the external walls do not have coping, the practice is to coat the topmost course with either makuba or katsi as damp proof materials.
- b. Courtyard enclosed with zana mat. In construction, the zana mats are tied to vertical stakes usually of the slender stems of trees and sometimes out of these mature trees have grown.
- c. Sketch plan of a rural compound enclosed by Euphorbia hedges

over a year, which makes their maintenance very expensive over a long period [10]. The courtyards are provided with central open gutters to drain the storm water.

The rural compounds of the Kamuri, the Hausa and the Nupe are generally enclosed by different types of woven fences. Among the Kamuri, Barth [11] recognised four different types of woven fence for enclosing courtyards. Figure 7.7 shows the different forms of woven hedges made from the tall grass, split bamboos, raffia palms and palm fronds. They are usually tied to a framework of live stakes. The woven bamboo hedges may be plastered over on the inside or on both sides; on occasions, stones are used for filling while at other times, climbing plants are used.

An important architectural feature of the courtyards are the shelter houses like the English summer house, which are either of rectangular or circular open structure, built of mud and provided with the dagali and the zinzin (both being raised mud couches used for reclining on during the hot hours of the day). Other features of the courtyards are the well, the lines for drying clothes, and outdoor sitting facilities which may either be raised mud benches, mats or movable wooden seats and chairs.

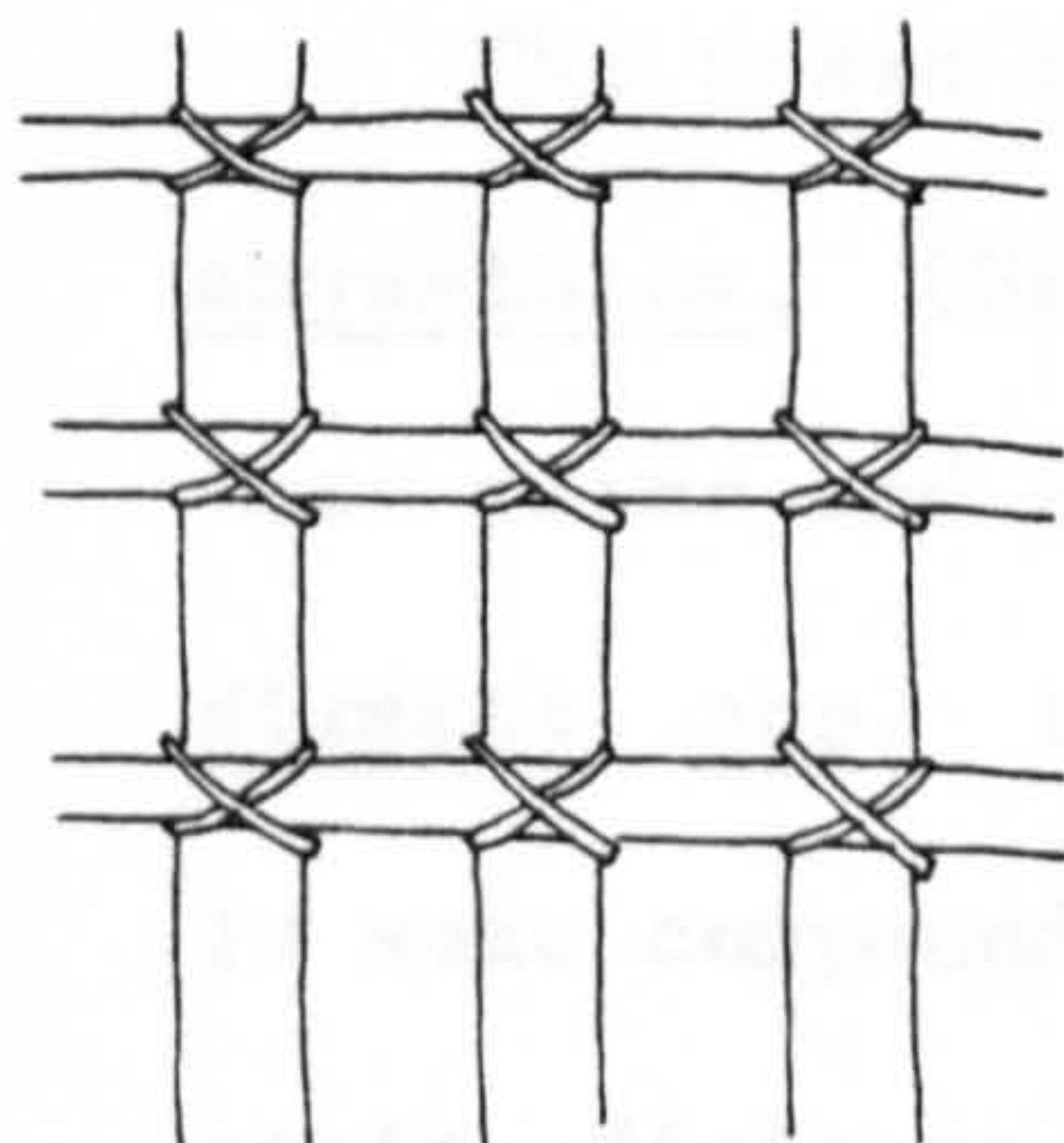


Zana matting

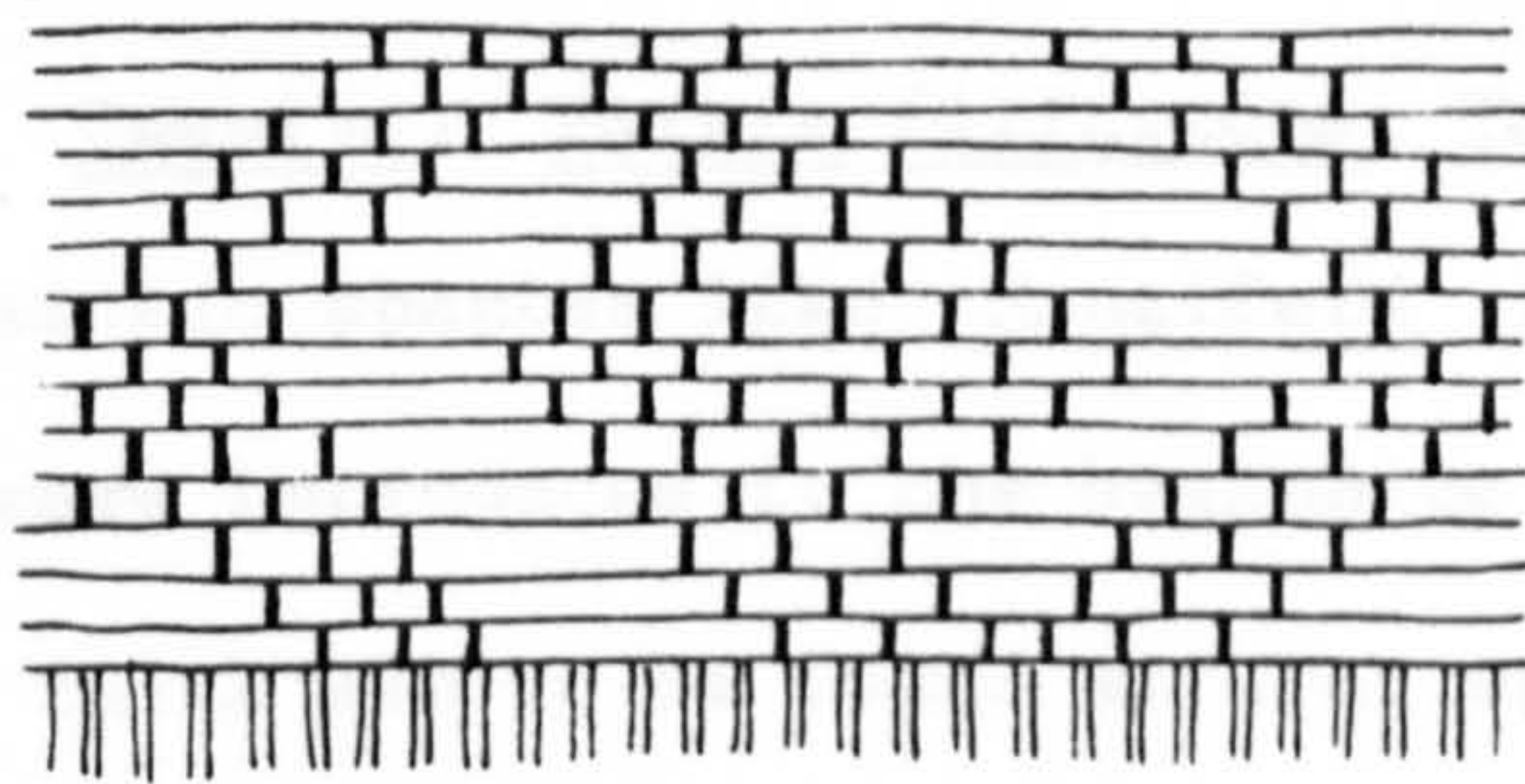
Bamboo split

Creepers woven to stake

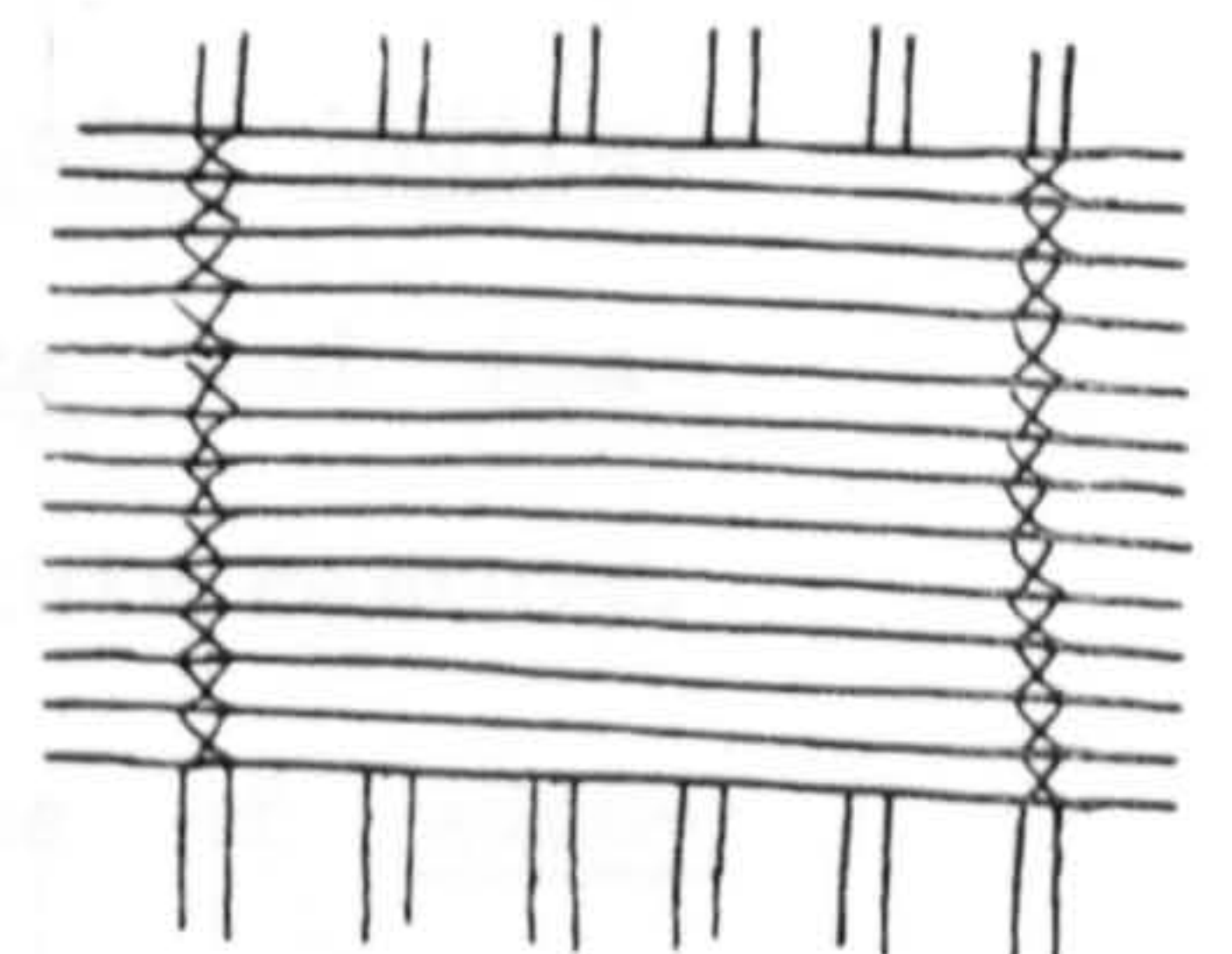
WOVEN FENCES



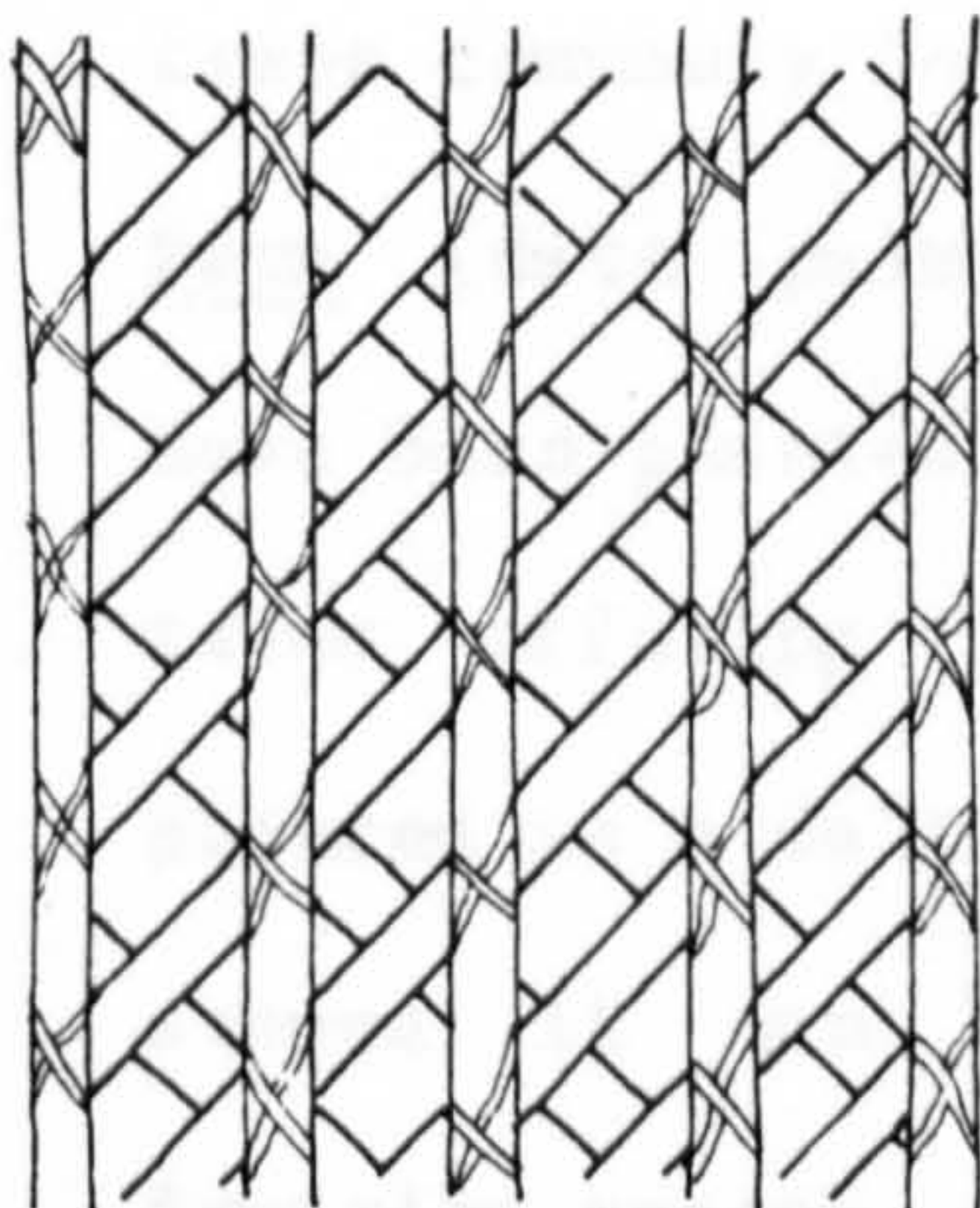
Regular Type



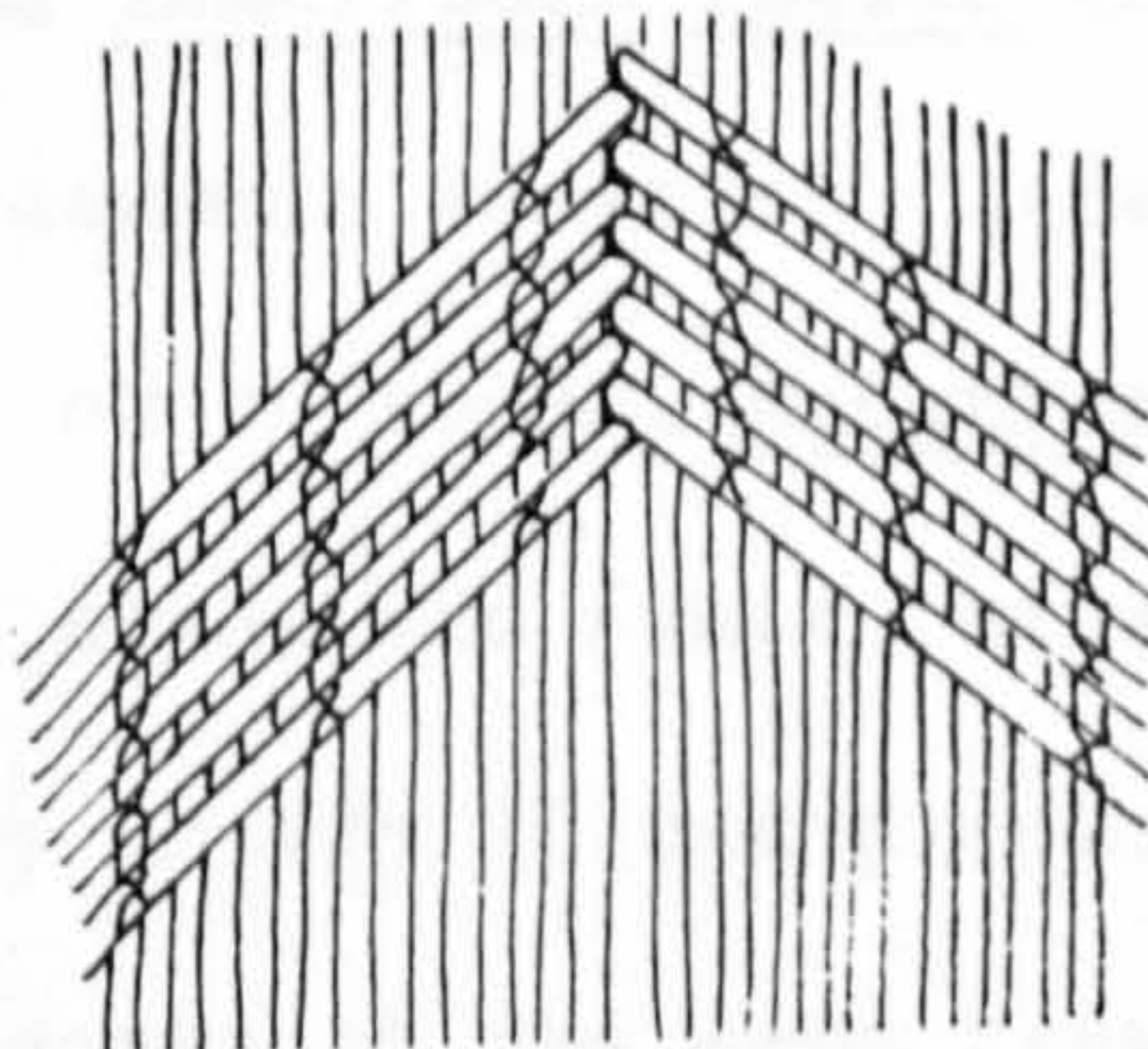
An example of elaborate bamboo fence tied to stakes in stretcher bond pattern.



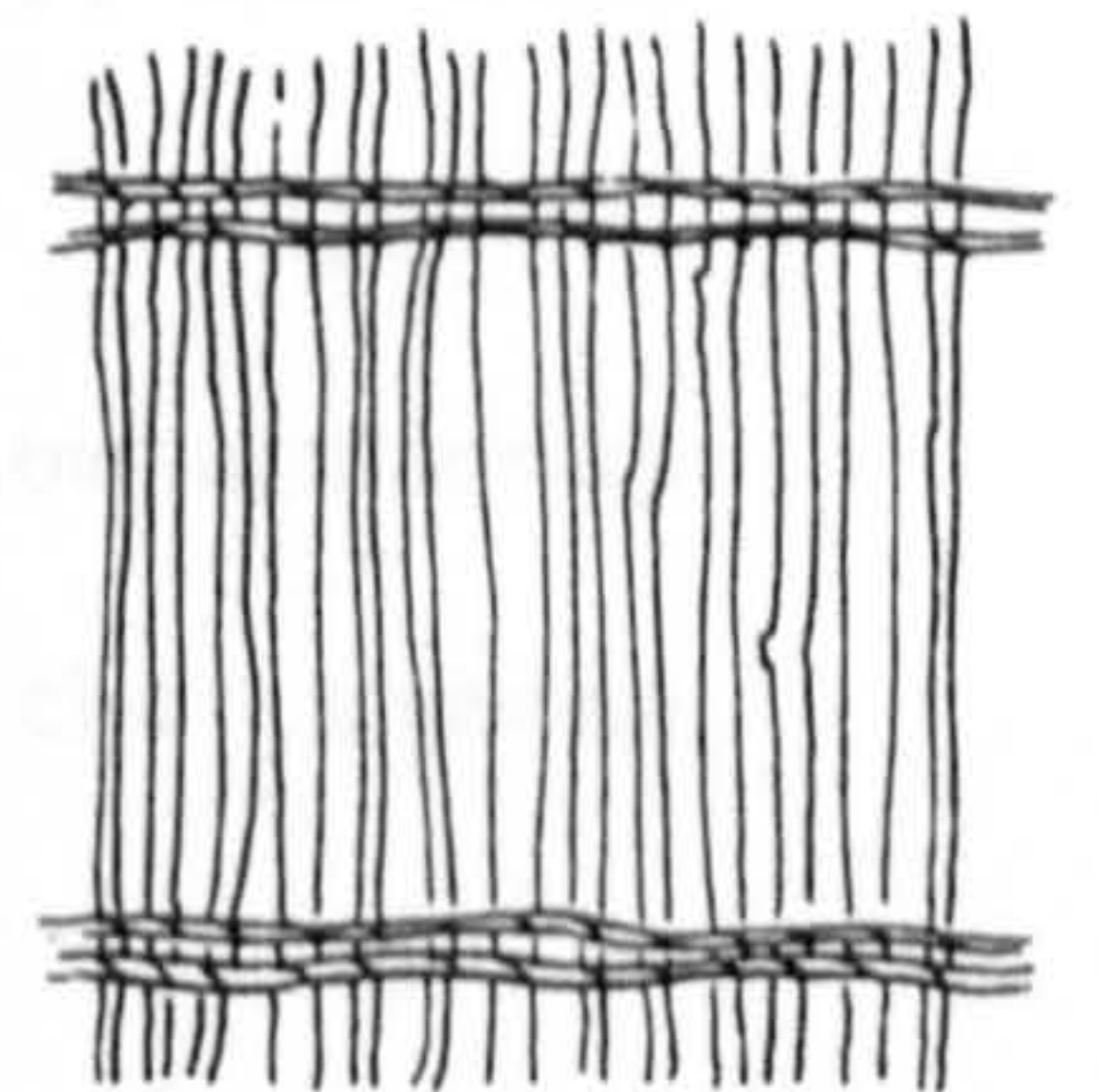
Regularly spaced vertical and closely packed horizontal members.



vertical combined with diagonal fencing.



Close vertical and horizontal members.



Closely packed vertical and staggered horizontal members.

CONSTRUCTED TYPES

FIGURE 7.7: WOVEN FENCES: A TRADITIONAL FORM OF COURTYARD ENCLOSURE
 Indigenous fences are of two broad types; the first is the woven cleft type, usually constructed of stakes, split bamboos and rafias which may be plastered with mud on one side. Belonging to this category are zana mats and other fences made of creepers. The second type is usually tied to a frame-work and also constructed of split bamboos, palm fronds, grasses and bullrushes. The latter forms are usually tied to a vertical member, a live stake.

Tree Planting in Courtyards

Although a typical Hausa compound has many courtyards only a few of these are devoted to gardening and tree planting (Fig. 7.8a). On average, a compound may have just one tree planted in one of the many courtyards. Few compounds have up to three trees planted in their courtyards. Only the Emirs have their palace gardens planted with many ornamental trees. Climate is perhaps a limiting factor for the development of gardens in the northern savanna since rainfall is limited to about three months of the year.

The trees commonly planted in these courtyards include Cordia abyssinica, (Hausa: Tsamiya), Parkia filicoidea, Tamarindus indica, date palms and some exotic species like Mangifera indica and Azadiracta spp. that were introduced in the beginning of this century. In some compounds in Zaria are to be found mature species of Adansonia digitata and Mangifera indica (Fig. 7.8a). Similarly, the trees commonly found in the older part of Kano are Phoenix dactylifera (date palms) and Tamarindus indica (Hausa: tsamiya), and both have been planted for economic reasons; since they are straggling trees offering little or no shade. Mangifera indica is now commonly planted as a delightful shade and fruit tree, although the spaces around it can be very untidy if not properly maintained during the fruiting season. The leaves of the neem tree, Azadiracta spp., are procured to make a drug for the treatment of malaria fever. The Carica papaya which was common in Kano when Barth visited it during the 19th century [12] seems to have almost disappeared as very few could

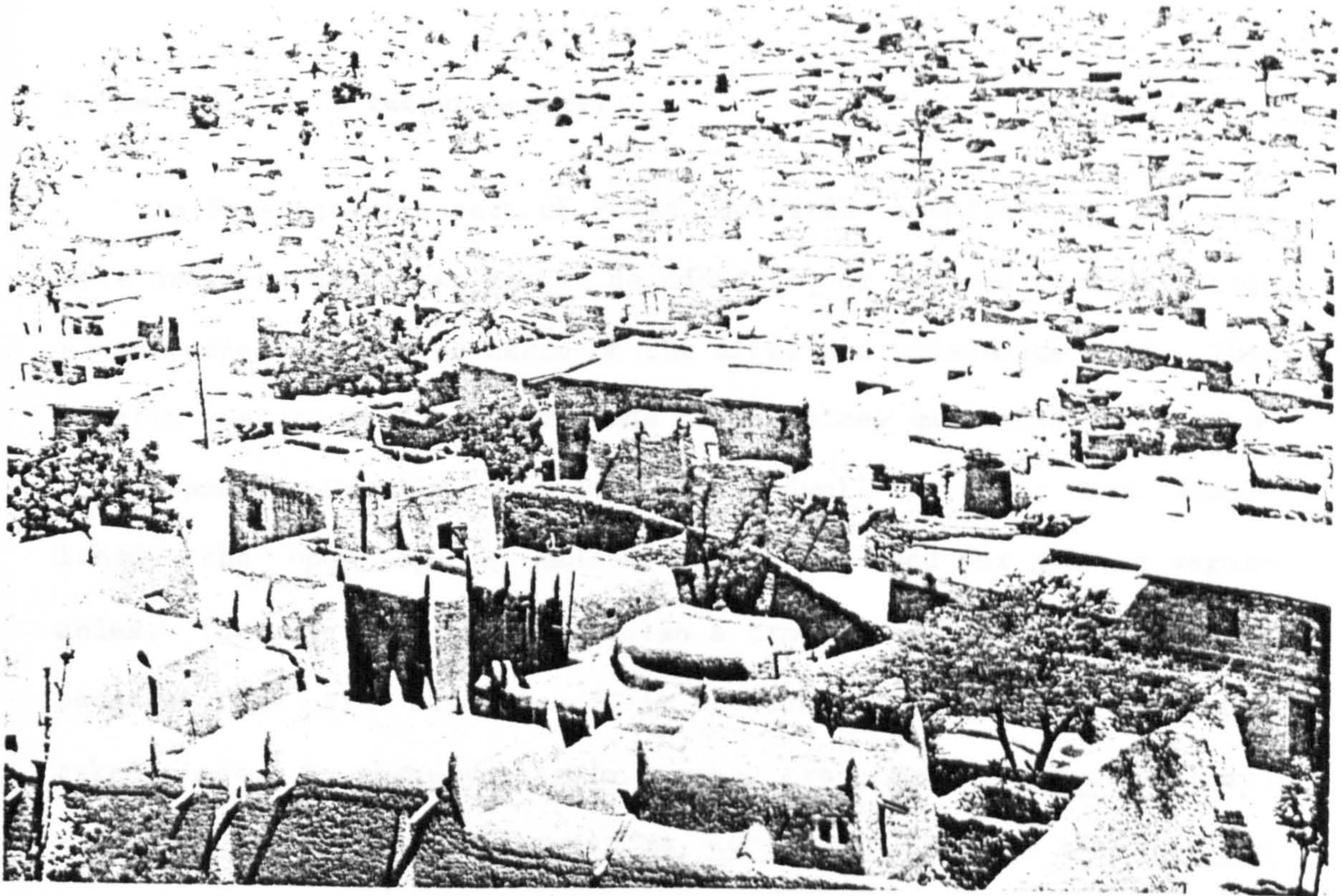


FIGURE 7.8: HAUSA COURTYARD GARDENS: showing sparing use of trees in courtyards

a). Aerial view of Kano: showing courtyards sparingly planted with either tsamiya or date palm. b). Aerial view of Zaria: showing courtyards planted with mango trees and baobab.

be seen during a recent survey.

An interesting aspect of Hausa domestic architecture is that more dwelling units can either be added to, or removed from, the compounds depending on the needs of the different households [11]. This organic nature of Hausa compounds is sometimes exploited for gardening purposes. Usually, when some of the dwelling units are demolished, the open spaces made available are used for growing vegetables. The vegetable garden is also a traditional use of courtyards because they are also found in compounds where no demolition has taken place. In these vegetable gardens are grown Sorghum (millet) Allium cepa (onion), Lycopersicon esculentum (tomato) and Spinacia oleracea (spinach). But the land most suitable and often used for the growing of vegetables is the fadama, the local name for the fertile lands along river valleys and basins. Those nearest the town are enclosed with bamboo fencing.

Wall Decorations and Landscape paintings

The Hausa and the Kamuri tribal groups attach great importance to the decoration of external walls; and this can be regarded as an essential aspect of their traditional architecture. The practice of wall decoration is most common among the wealthy merchants and aristocrats. The different types of wall decorations can be classified into three broad categories. The first and the commonest forms are the motifs which are made out of fresh mud plaster shaped manually into different features similar to Arabic writings. The second forms

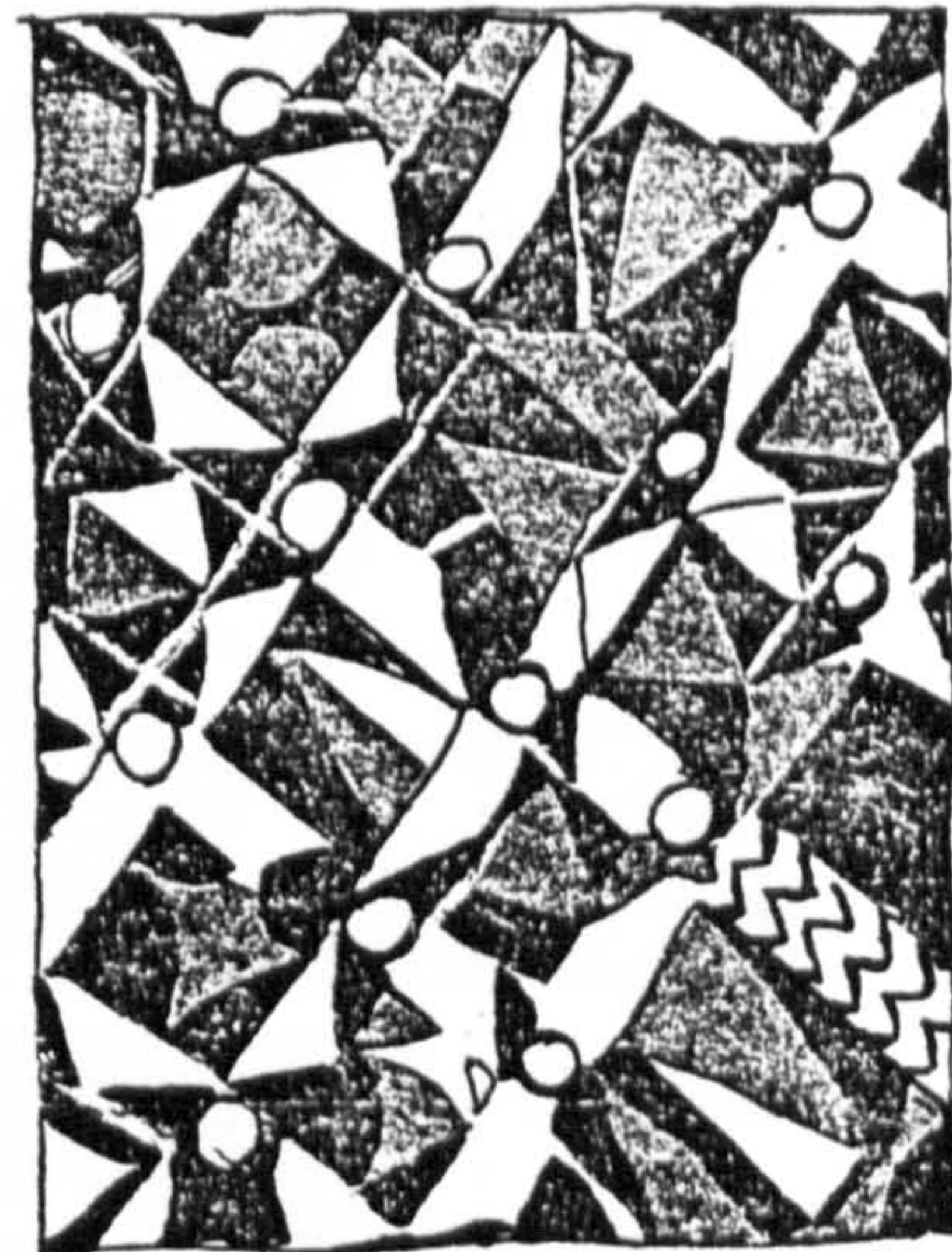
are the monumental features moulded into wall surfaces by using motifs which depict different objects like the aeroplanes, bicycles, guns and other traditional and contemporary things. Lastly, they are decorated by the artists painting interesting objects and scenes which depict material possessions as well as natural motifs like flowering plants [13]. Figure 7.9 shows examples of wall decorations that can be seen in some of the northern towns.

These wall decorations sometimes include intricate paintings of trees, shrubs and flowers alongside the other motifs used. Figure 7.10 shows two examples of landscape paintings on the front elevations of two compounds. One of these has been achieved by using the motifs of palm, lilies and other flowering plants. In the second example both flowering shrubs and herbs have been carefully painted so that they appear to be growing out of walls. Generally, the motifs around the doors and windows are the most central and tend to dictate the over-all pattern.

Crowder has classified the different forms of wall decorations found in northern Nigeria as a synthesis of the Arabic arts with that of the indigenous people. But considering their stylistic expressions, they are indigenous. In particular, these wall decorations show the bold forms and colours peculiar to African art which are quite different from the fussy and elaborate details of other muslim cultures [14]. Moughtin has also argued that these wall decorations are indigenous because they are part of architectural design undertaken by indigenous builders and designers. He stressed that the



WALL DECORATION, EMIRS PALACE, ZARIA.



ROOF DECORATION EMIR'S PALACE KANO

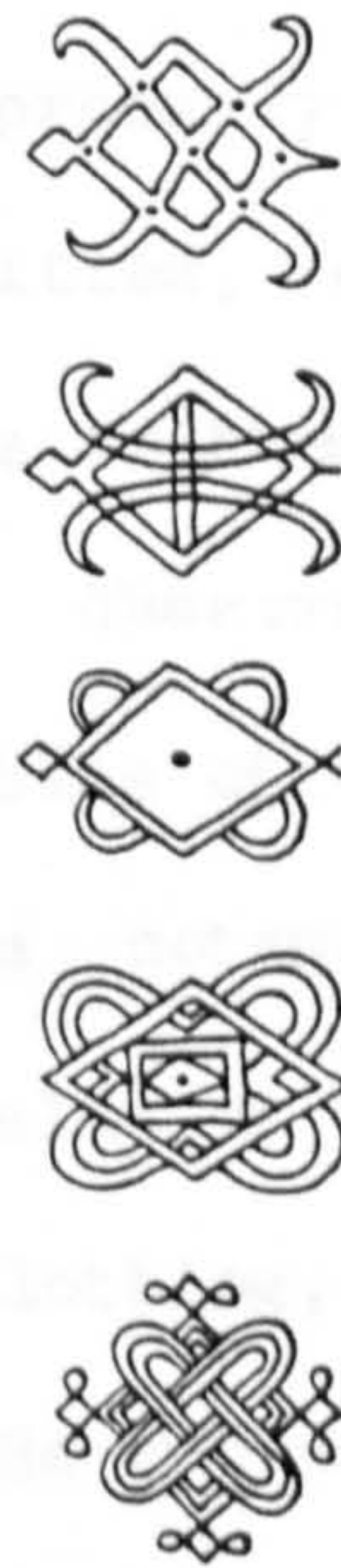
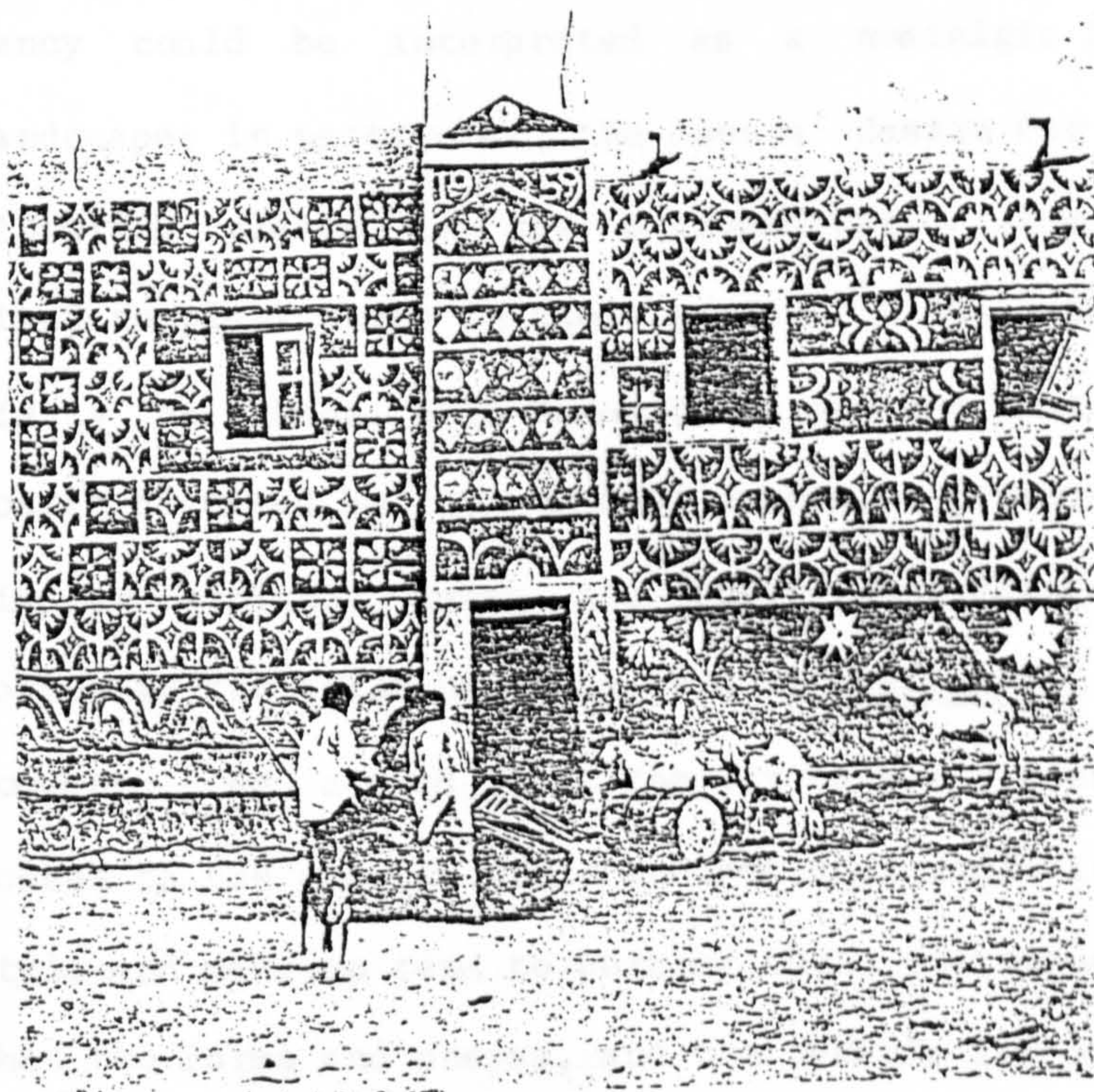
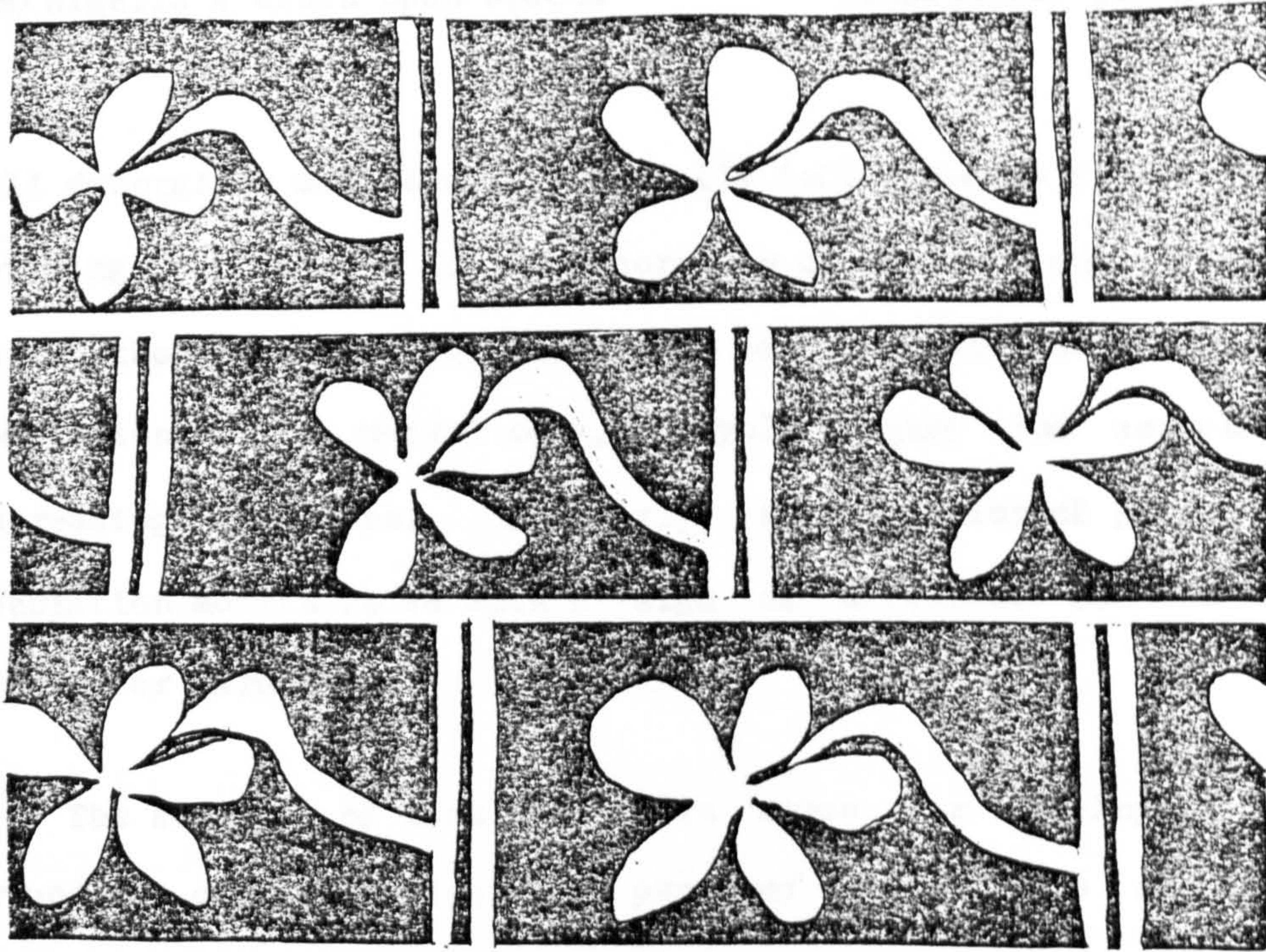


WALL DECORATION OLD KANO



WALL DECORATION OLD ZARIA

FIGURE 7.9: DECORATED HOUSES OF NORTHERN TRIBES: selected examples.



b)

c)

FIGURE 7.10: HAUSA COMPOUNDS: EXAMPLES OF WALL PAINTINGS AND DECORATION

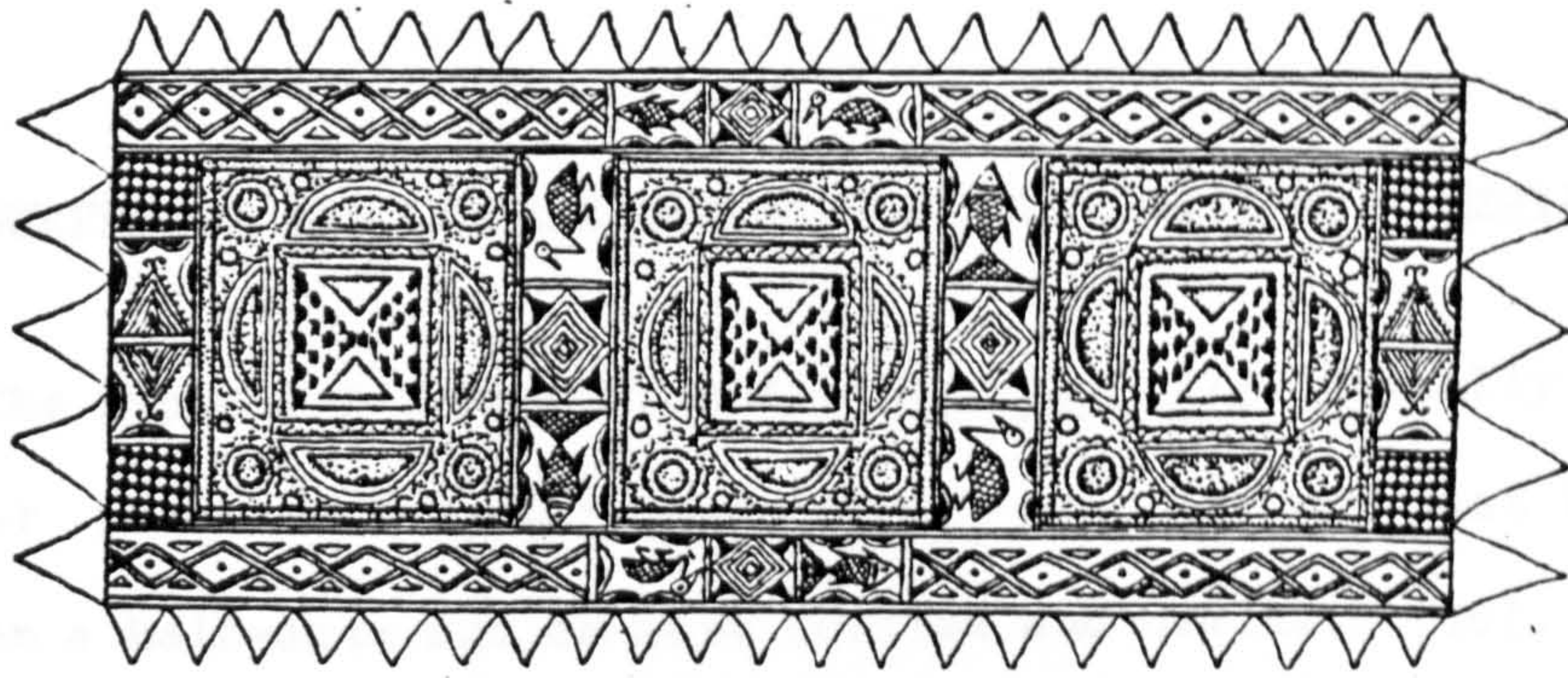
ab) are examples of external walls decorated with flowering plants and the palm. c) Examples of decoration motifs sometimes used in the decoration of walls and dress design.

wall decoration motifs were originally influenced by the structure of building such as seen in the decoration of Zaria mosque. He attributed the different wall decoration patterns which depicted material possessions like motor cars, bicycles, guns and aeroplanes to increasing affluence. Similarly, the inclusion of plants as wall decoration motifs is as much a sign of affluence as the express desire for gardens.

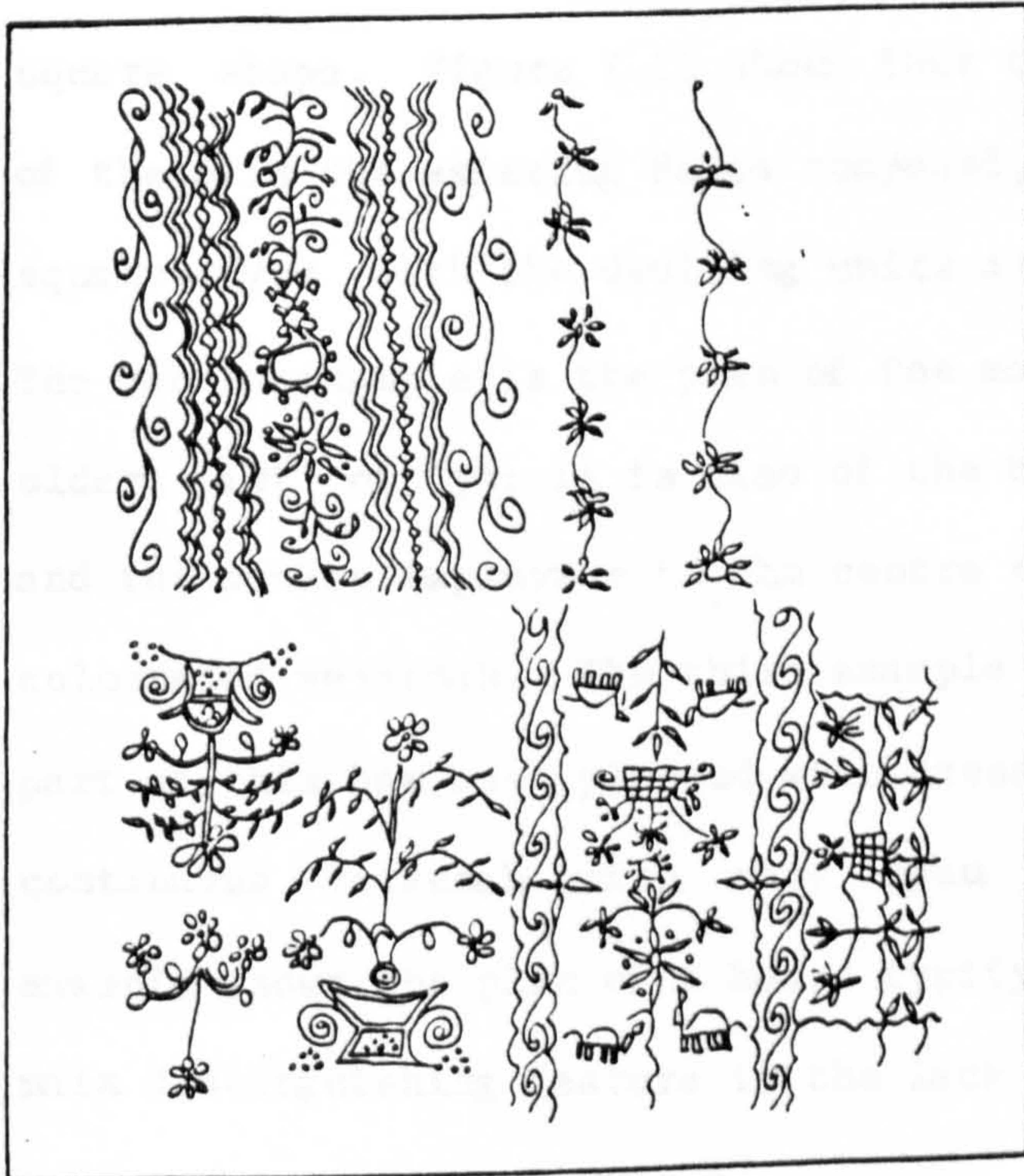
The scarcity of land in urban areas for developing gardens around the compounds might have prompted the desire to create garden scenery on walls by painting naturally occurring plants. This tendency could be interpreted as a nostalgic feeling for beautiful landscape; in particular, the owners' desire for trees, shrubs and flowering plants in his surroundings. They would probably have liked to plant these in their gardens if space had permitted, especially as these wall decorations and the patterns made on them are mostly dictated by the compound owners. Greenbie, who observed a similar attitude among the Dutch decorating the gables of their houses in the style known to them as halsgevel, made a noteworthy comment. He argued that the way people present the walls of their houses to the outside world reflect their identity, as clothing, hair style and make-up tend to portray their individuality. He emphasized that the forms and shapes, and the symbols and meanings we put forth and read back from the facades of our homes are expressions of our individual personalities combined with those of our class, culture and time [15].

The Hausa's love for gardens is largely implicit, and is more expressed in their arts and crafts than in the few gardens one can see in their towns. This implicit love of gardens is not only limited to wall decoration but has been repeatedly shown in other arts. Countless examples of these can be seen in Hausa carpets, pillow cases, book cases, embroidery and calabash carving (Fig. 7.11). There is a close similarity between the motifs used for wall decorations and embroidery. According to Heathcote, both arts flourished together and tended to copy each other [16]. The embroidery patterns in dresses, like the wall decorations, sometimes include camels and several kinds of potted and flowering plants as shown in Figure 7.11b. The similarity between them is brought out by the fact that some of the embroidered patterns on Hausa dresses, such as the knot motif design, are also used for wall decorations. Heathcote also suggested that the art of embroidery reached the Hausa through the Kamuri immigrants. This point may also serve to validate the origin of wall decoration.

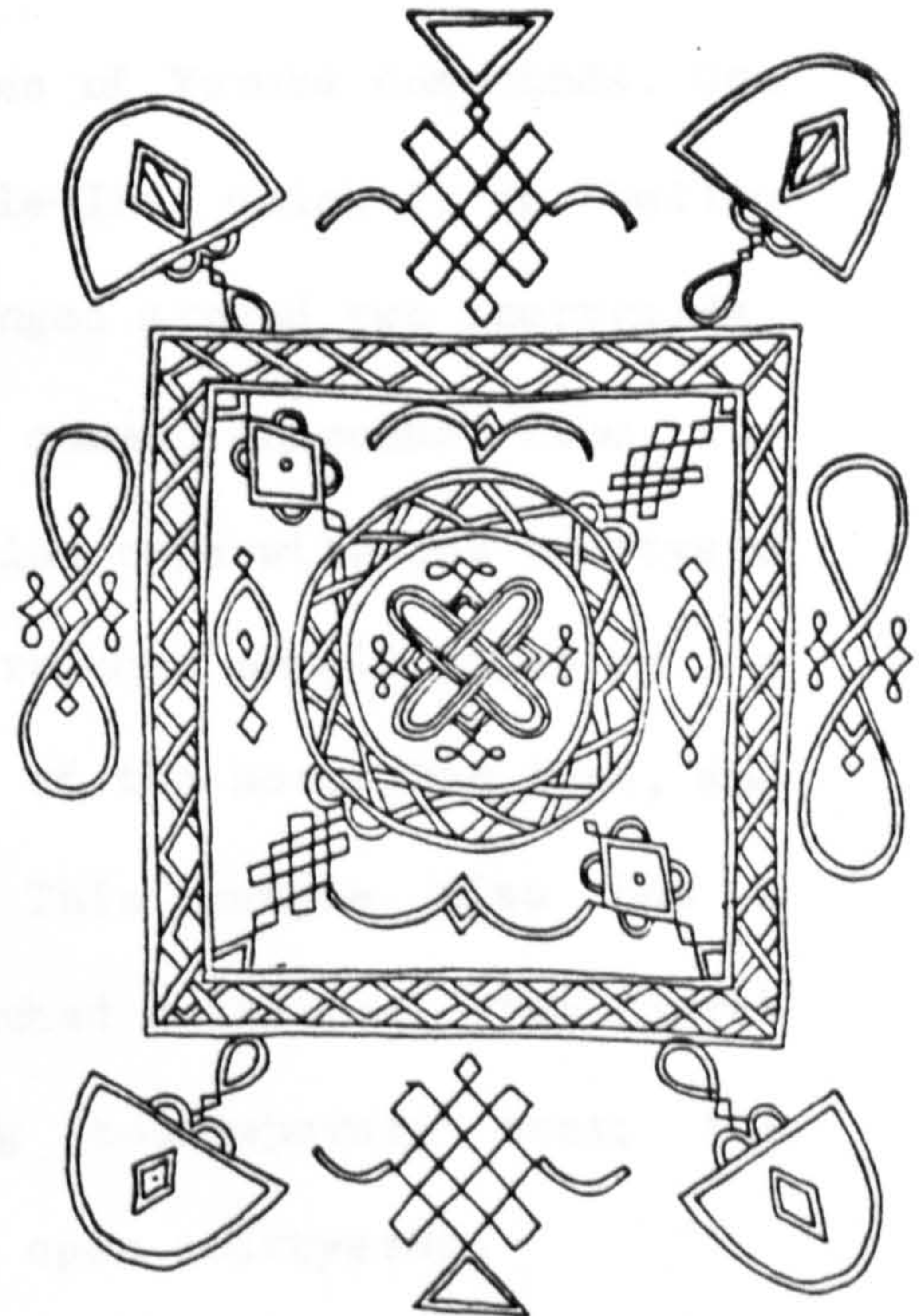
The important design attributes of these arts are their formality, symmetry of forms and the boldness of textures in the patterns. As discussed above, indigenous art is obviously related to landscape design. Therefore, any attempt to evolve a new landscape design style, must in its inspiration look towards all forms of indigenous arts - especially as they have achieved a higher level of central expression.



a)



b)



c)

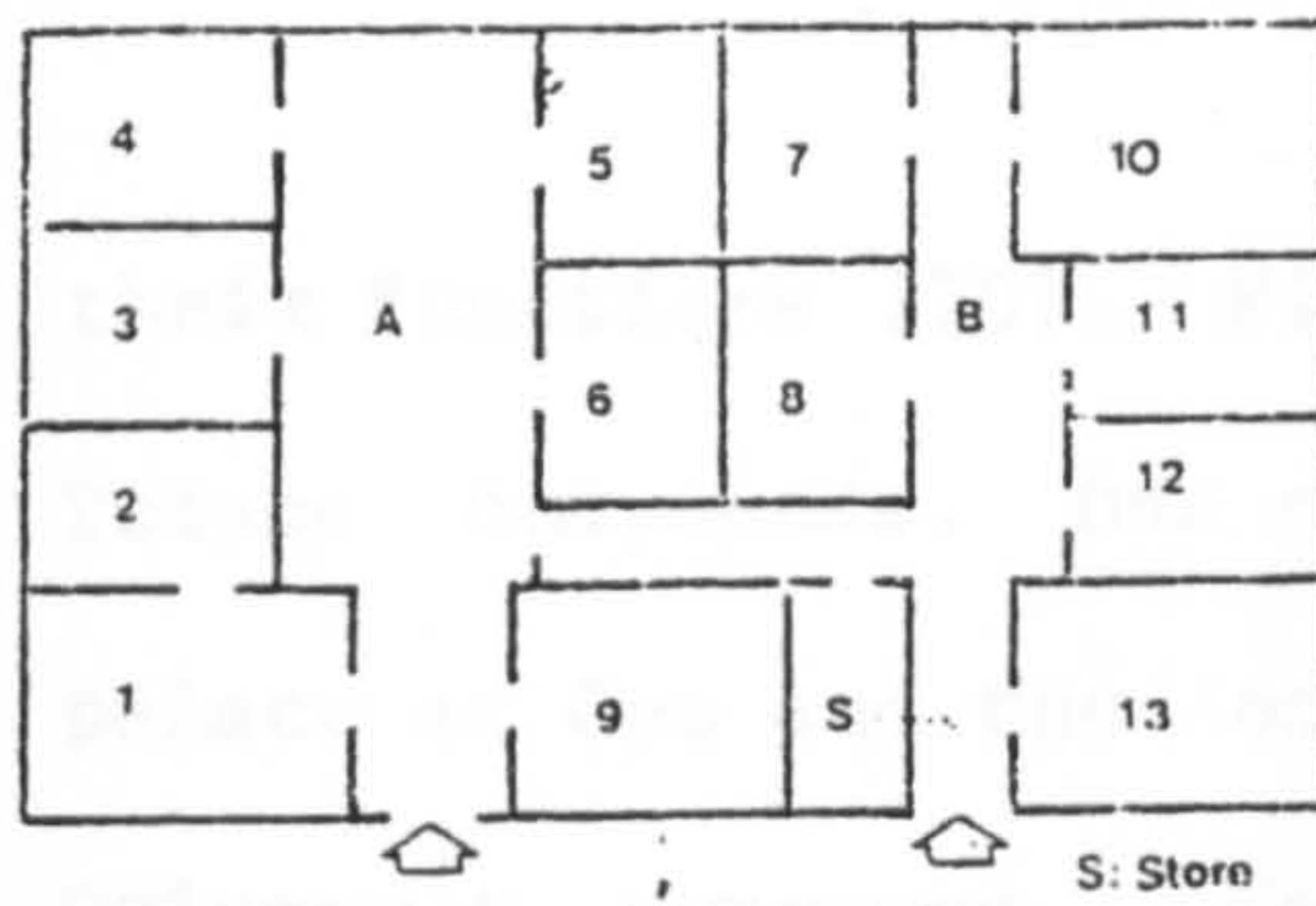
FIGURE 7.11: CARPETS, POTTERIES AND EMBROIDERIES DECORATED WITH PLANTS: showing interesting relationship between landscape design and the indigenous art.

- a. An example of Hausa book case decorated with flowers.
- b. Hausa's woman dress decorated with potted plants, vines and creepers and the ingenuity of the design can be seen in the larger plants with its vertical emphasis that has been appropriately located in the centre of the dress.
- c. The Knot motif.

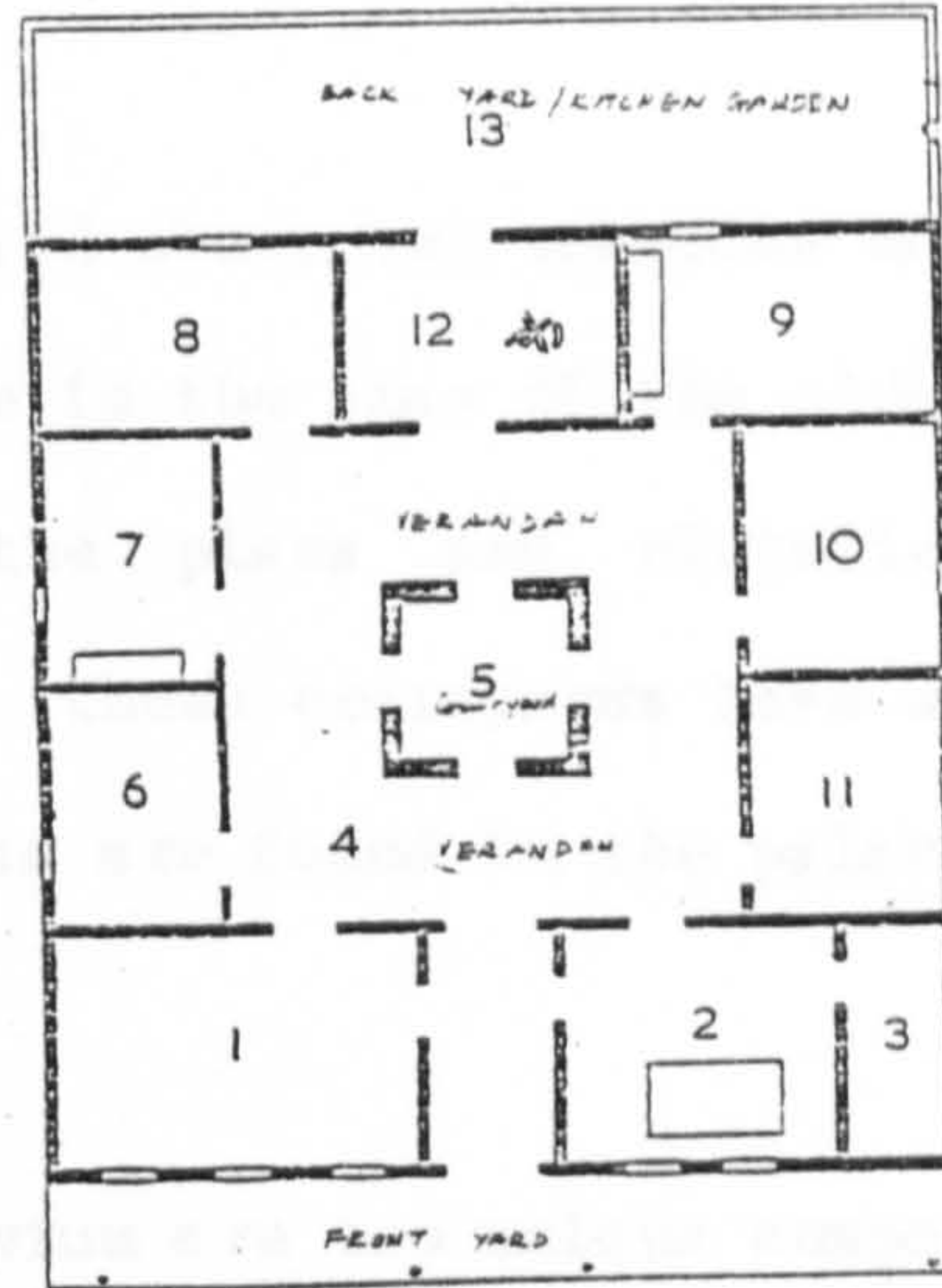
THE COURTYARDS AND KITCHEN GARDENS OF SOUTH-WESTERN NIGERIA

The typical Yoruba compound (Agbo-ile) [17] normally comprises two or more rectangular bungalows, and in the past it occupied between a half-acre and an acre (0.21ha and 0.41ha.) [18]. The rectangular bungalows forming the compound are arranged around one or more open courtyards (akodi) to form either a horseshoe or hollow square shape. Figure 7.12 shows four types of Yoruba compounds. One of these is the existing Balea compound, Ile-Ife, which is of hollow square type with the dwelling units arranged around two courtyards. The second example is the plan of the most common compound from the older part of Oyo; it is also of the hollow type with one courtyard and the sunken impluvium in the centre surrounded on all sides by a colonnaded verandah. The third example is of the horseshoe type, and part of this has been planted with trees. This example also has a continuous verandah with many open arched entrances. The fourth example shows the plan of a house typifying contemporary ones; its main distinguishing feature is the lack of open courtyards.

The compounds of Yoruba kings and chiefs are the most impressive; they are extremely large and spacious, and contain more dwelling units than that of the common people. They have courtyards which are interconnected with one another rather like the classical Roman houses with their sequence of atria [19]. The courtyards of the Yoruba palaces are functional, with some of them used as private open spaces by the kings' wives while others are used for special court ceremonies. The names of some of these courtyards corroborate



a)

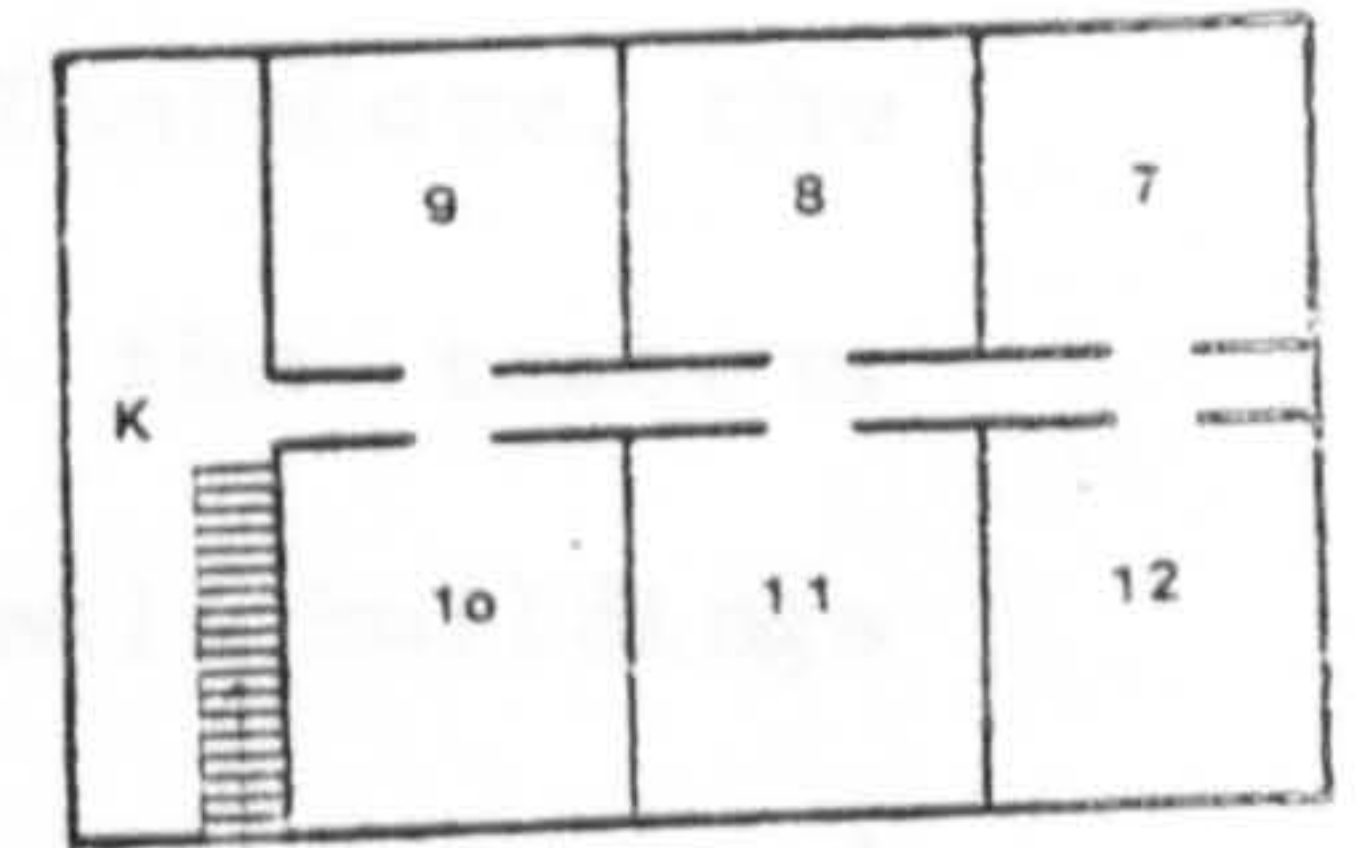


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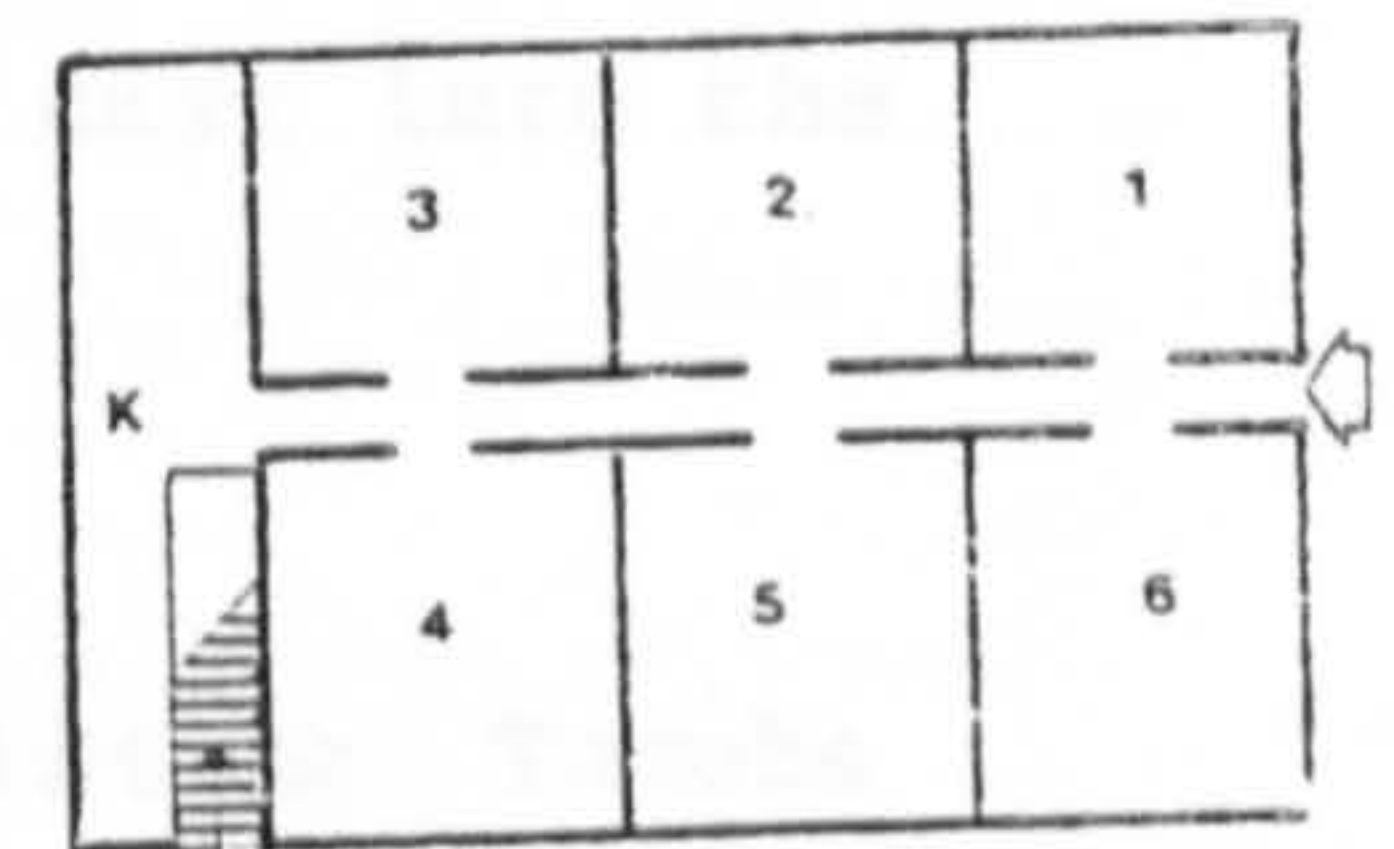
1. Common room, 2. Husband's bed-room, 3. Wardrobe, 4. Central hall, 5. Imploviu, 6-9. Bedrooms of the wives, 10-11. Store rooms, 12. Kitchen, 13. Yard.



c)



First Floor



Ground Floor

d)

FIGURE 7.12: TYPOLOGY OF YORUBA COMPOUNDS

a. Balea Compound, Ile-Ife: an example of the larger rectangular type b. Typical common man's compound, Oyo: and example of the smaller rectangular type c. A view of Traditional Compound, Ibadan: an example of the Horseshoe type. d. Examples of Contemporary Compounds: they are usually without courtyards and also with no back and front gardens.

their functions [20]. Figure 7.13 shows two examples of the larger Yoruba compounds. One of these is the plan of the older part of the palace at Oyo and the other, the plans and elevations of Chief Ogiamen's compound. Usually, these courtyards have well decorated and carved timber columns such as are found in the palace of Owa of Idanre (Fig. 7.13).

The verandah and the impluvium are two unique components of the Yoruba and the Benin compounds that are not often found together in the architectural styles of other Nigerian and African tribal groups [21]. Some of these courtyards are completely surrounded by a covered verandah thus serving both as a communicating corridor as well as an open but shaded outdoor sitting place. Therefore, the verandah is often the most used part of the compound by the members of the extended family. The gable roof over the main buildings stretches beyond the verandah space, and is supported by carved timber columns, while the rain-water from the roof is cast into the impluvium, the sunken space in the centre.

The palace of Deji at Akure is one of the existing Yoruba palaces with the best preserved examples of well developed and decorated courtyards with terraces. This has been possible because the late Deji Adesida I resisted most of the changes which destroyed the character of other Yoruba palaces. Some of these courtyards have raised mud galleries and terraces which are also connected to the floors below with mud steps. Within the ancient palace, the impluvia courtyard vary in types and include the largest uwa nla (the great

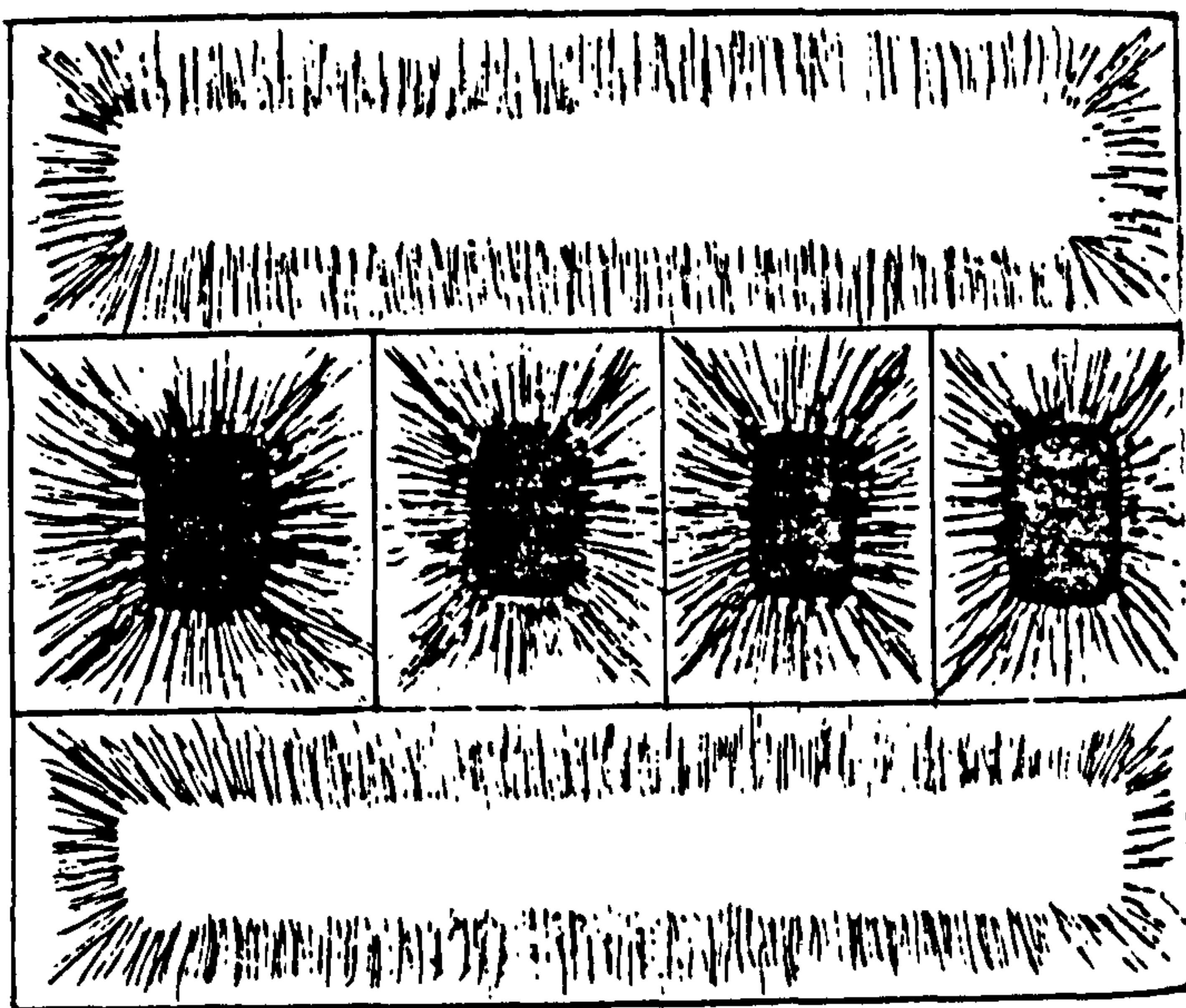
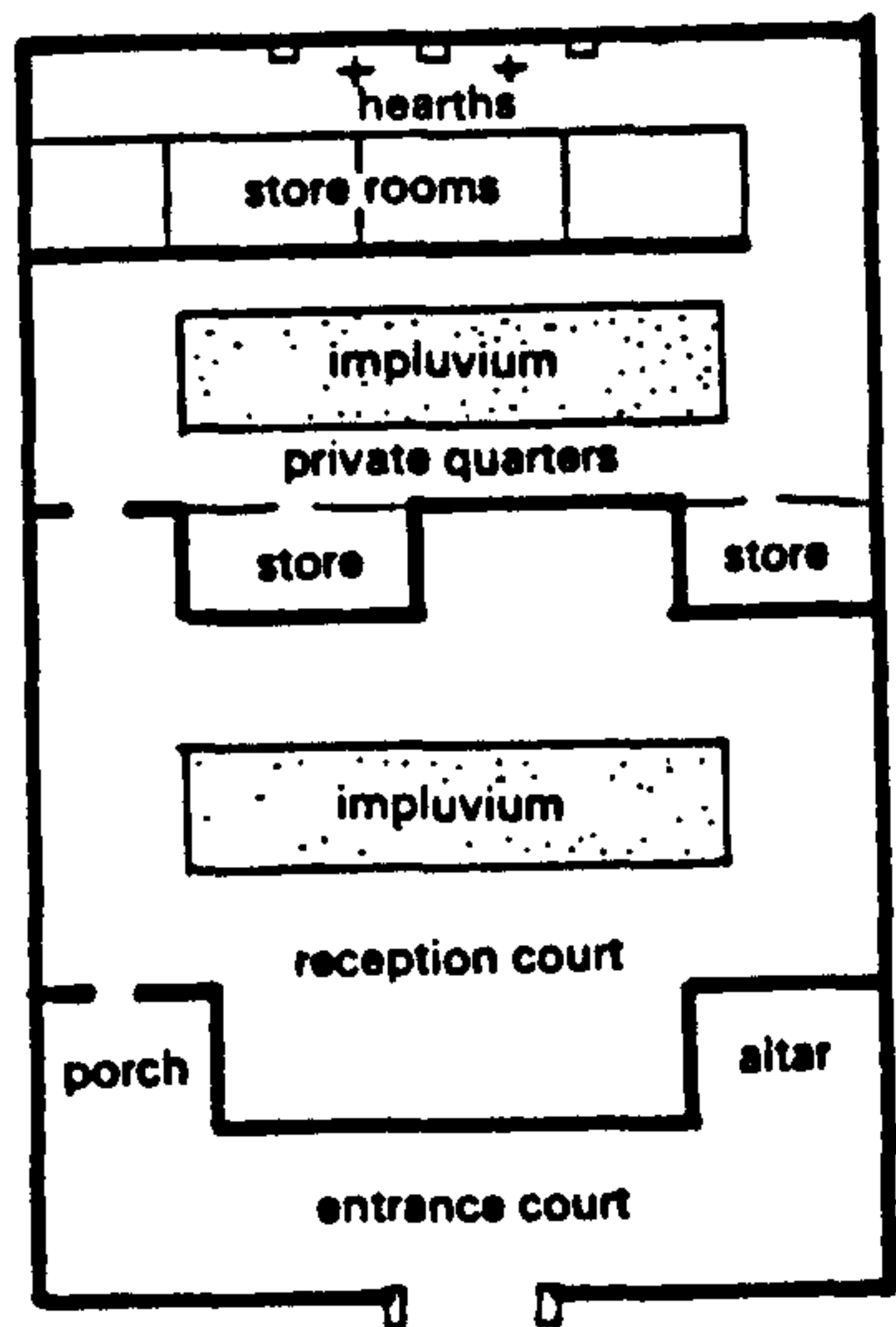
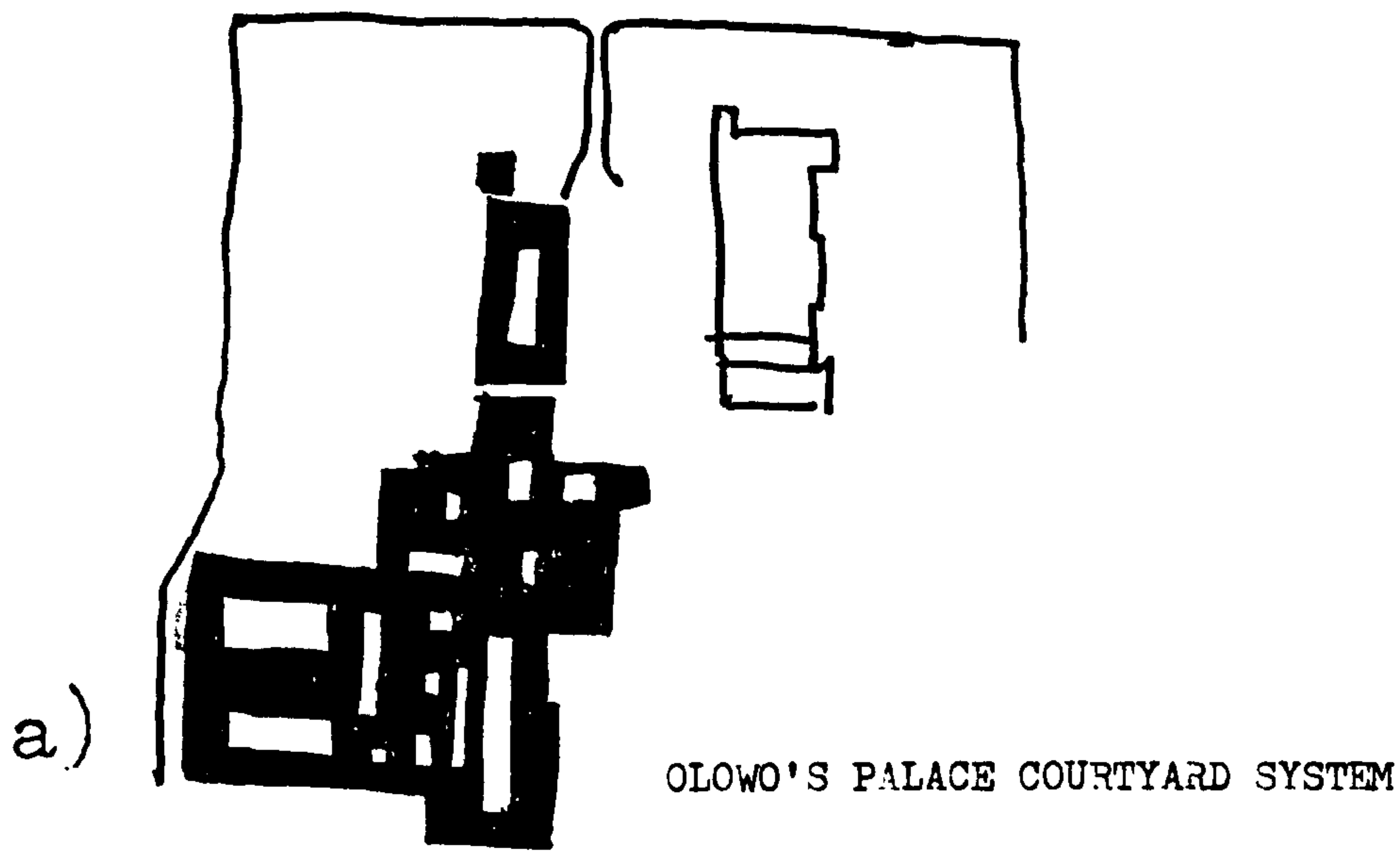


FIGURE 7.13: TYPICAL PLANS OF COMPOUNDS OF YORUBA KINGS AND BENIN CHIEFS

a. A typical example of the courtyard system of Yoruba palaces.

b,c. The roof plan of the compounds of Benin Chiefs. The main attraction of these compounds are their interconnected courtyards and impluvium.

courtyard), which measures about 46 metres in length and 23 metres in width and the very small uwa odo aya (courtyard of the River Aya) measuring 3 metres in length and barely 1 metre in width (Fig. 7.14).

Yoruba Courtyards: construction materials and detailing

The design of Yoruba courtyards in urban areas is more architectural than horticultural. They are generally developed as a hard landscape either barren or paved, although now increasingly surfaced with concrete but with no tree planting. This tendency is reflected in the small size of the impluvia. It is apparently feared that if nature is given a chance within the compound it might take over everything. But the design and detailing of courtyard floors, walls and columns have some outstanding architectural qualities.

The timber columns which support the roof over the verandah are carved with different bas relief features. The surrounding walls are either painted or polished to a high glaze with such durability that the oldest still appear recently built.

The compounds of Yoruba kings and chiefs have the most expensive forms of courtyard construction and detailing. Durable materials such as potsherds and quartz stones were used for courtyard paving. Traditional courtyards paved with potsherds and quartz stones have been excavated in Ile-Ife and other Yoruba towns such as Owo, Ikerin, Ede and Ifaki, and in other places to which the Yoruba civilisation had been carried such as Benin. The same paving patterns have also

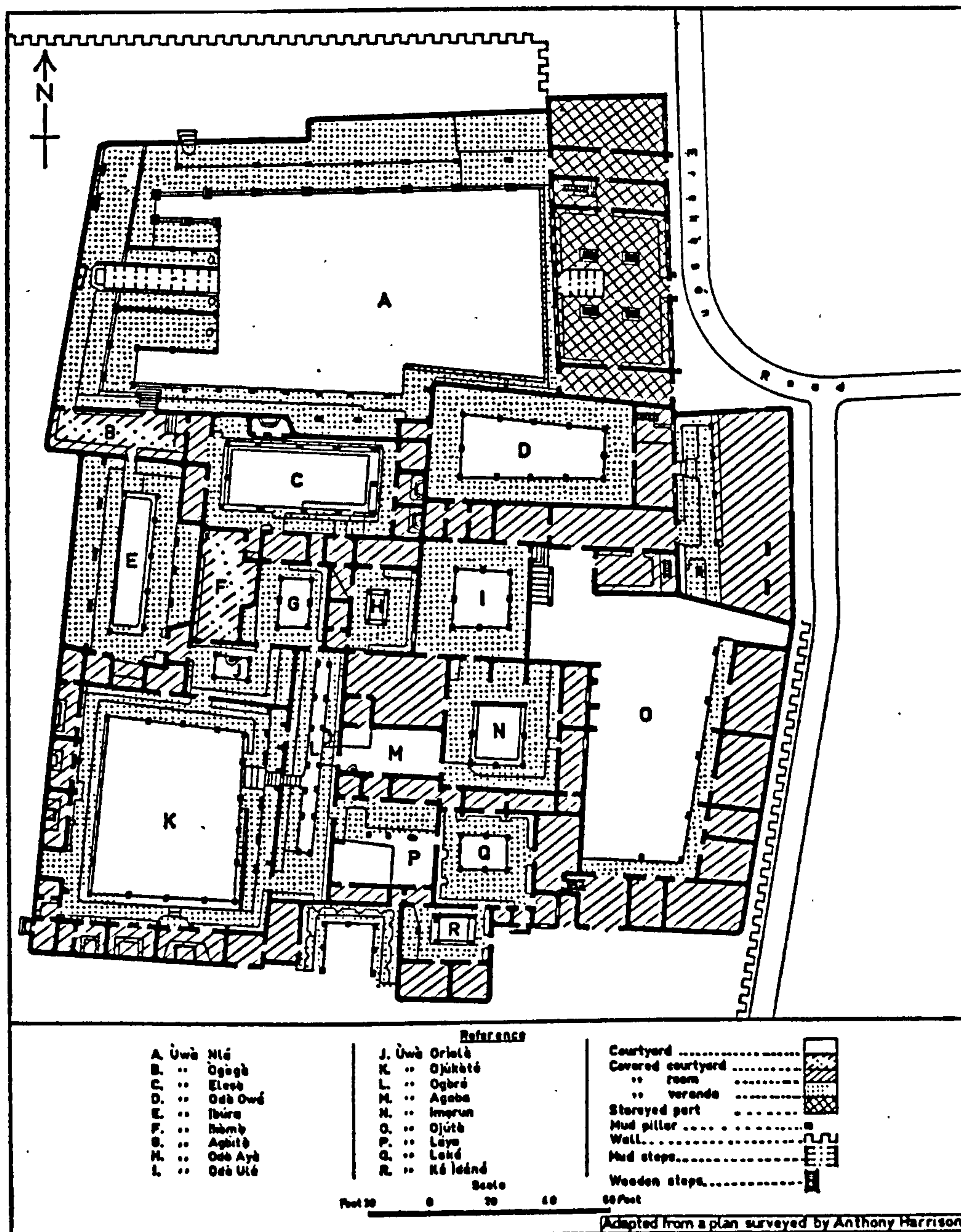


FIGURE 7.14: THE AAFIN, DEJI OF AKURE, AKURE: a typical example of existing Yoruba palace with well preserved traditional courtyards. The palace buildings contain many interconnected courtyards with raised galleries and mud steps.

been found in Ketu and Dassa Zoune in the Republic of Togo [22].

Figure 7.15 shows examples of indigenous courtyards paving and drainage patterns which have been recently excavated in Ile-Ife. In one of these examples two or more rows of potsherds had been laid in straight grids, with the rectangular voids between paved randomly with quartz stones. In another part of the same courtyard, both potsherds and quartz had been laid in alternating straight grids. Considering their variety, fine detailing and finishings, these forms of indigenous paving pattern are quite ingenious; but the unfortunate thing is that they are very uncommon even in the 20th century urban landscape of most urban centres.

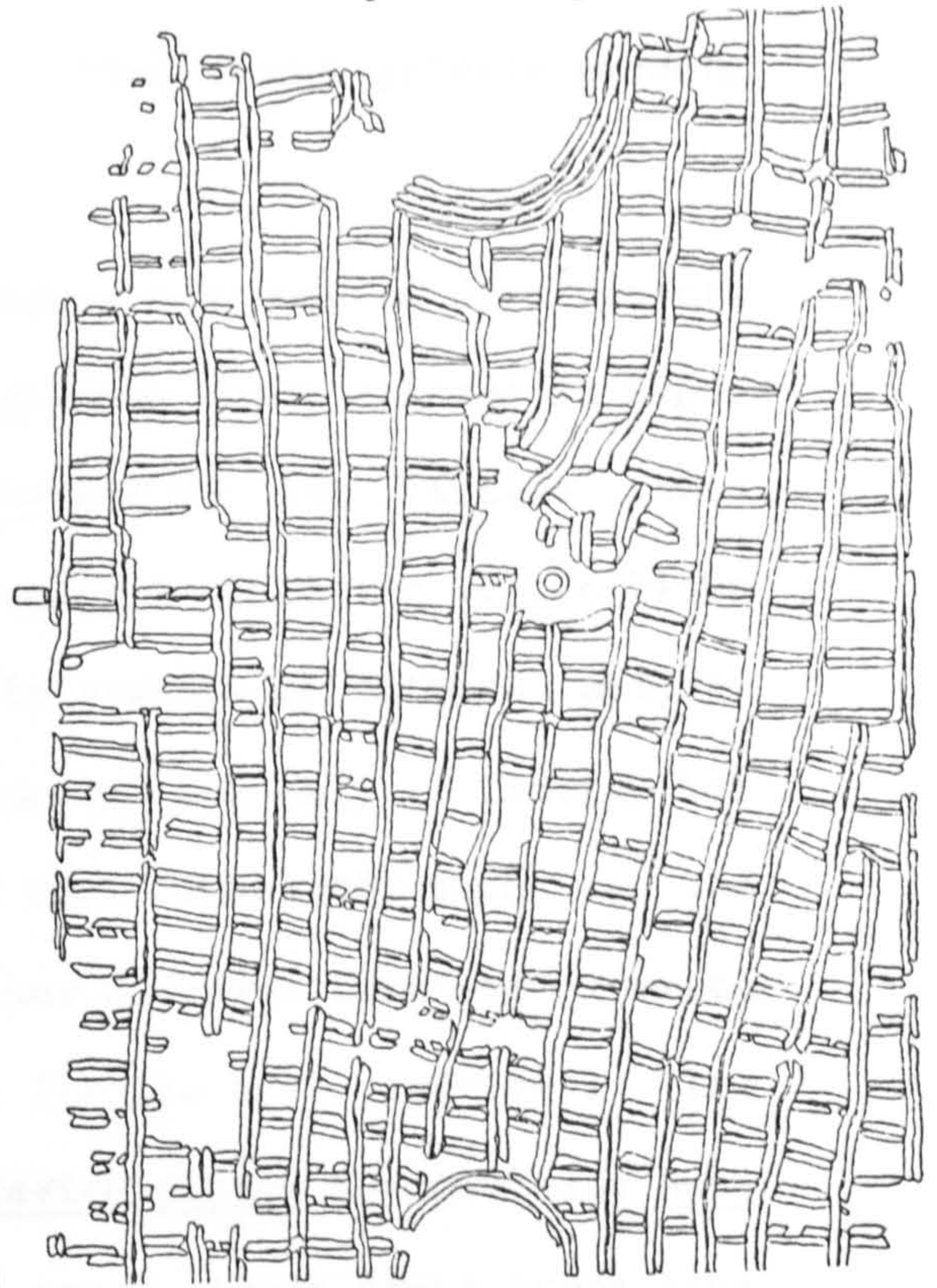
Yoruba Kitchen gardens, Allotments and cultural use of trees

At the back of Yoruba compounds are located the kitchen gardens surrounded by either a high mud wall, or a fence made of bamboo or palm fronds, to keep away domesticated animals like goats and sheep. The earlier examples of kitchen gardens described by Johnson [23] were said to have been manured with household refuse. Tree planting in the kitchen gardens is generally restricted to fruit trees like Carica papaya, Musa sapientum, Elias guinensis, Cola nitida and vegetables such as the garden egg plant (Solanum melogena), cocoyam and okro.

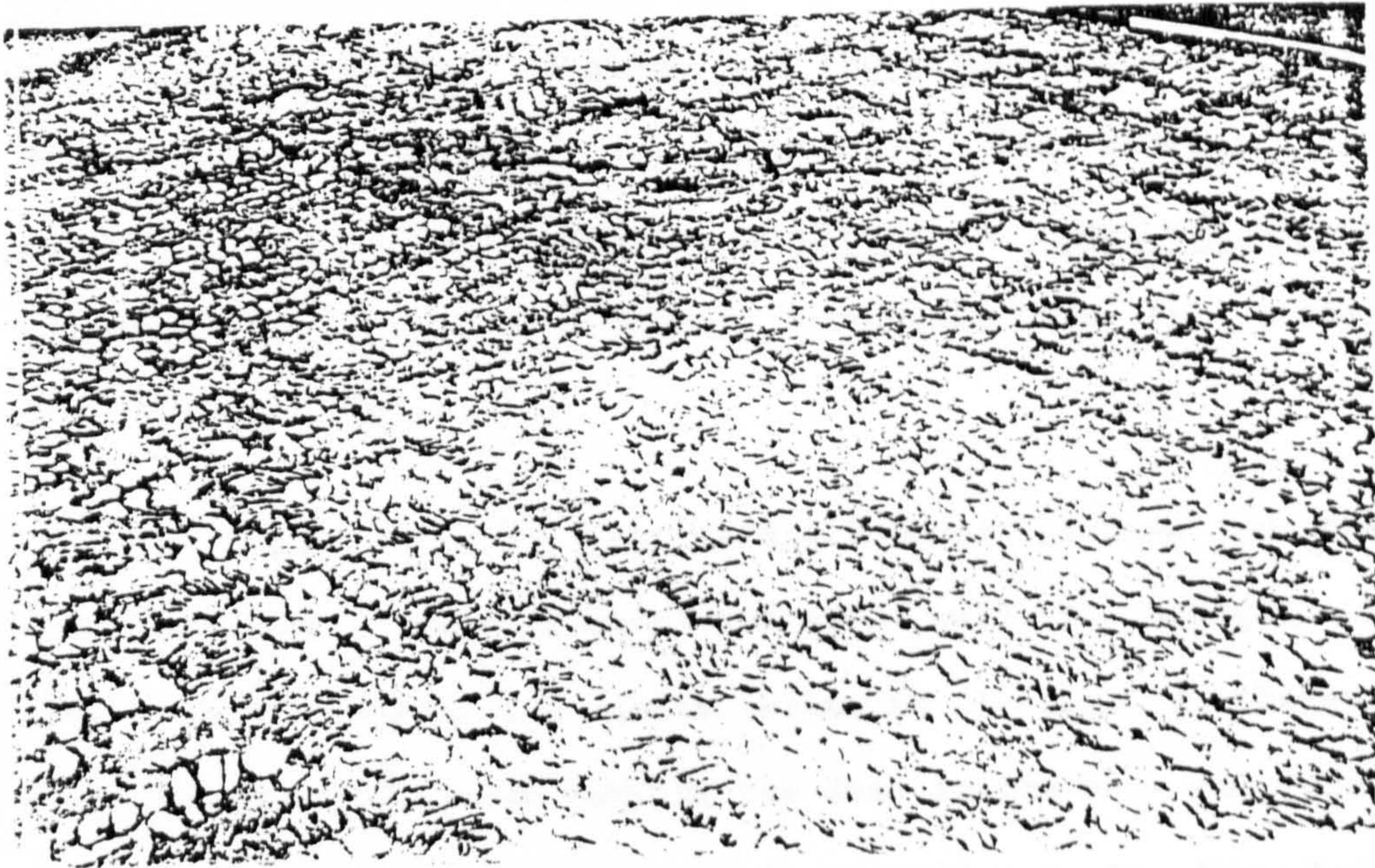
Unfortunately the kitchen gardens in Yoruba urban centres have disappeared due to increasing urbanisation which necessitated the



a)



b)



c)

FIGURE 7.15: TYPICAL PAVING PATTERNS AND DETAILING OF YORUBA COURTYARDS

a. Paving Plan b. Drainage plan c. View of Excavated Courtyards paved with quartz and potsherds paviments.

encroachment upon every available open space for housing development. Figure 7.16 is an example of kitchen gardens which existed in Lagos up till the second decade of this century but by the fifties these had disappeared, though aerial photographs of Ilorin in the 1950s still showed patchy examples. Today, the remnant of kitchen gardens of the early fifties have also disappeared not only in Ilorin, but in other major towns; and only the most well preserved, such as the ones attached to Ogboni court and another historic compound opposite Balea compound on Ilare Street, both at Ile-Ife have survived. The one at Ogboni court is planted with Carica papaya (pawpaw) and Musa spp. (banana); and in its unmaintained state, these fruit trees have been invaded by many climbers; and the garden which is covered with weeds looks both unsightly and unamenable. The adjacent courtyard garden contains fine specimens of Citrus and Mangifera indica, both are exotic trees that were perhaps introduced into the garden only this century (Fig. 7.17).

The Yoruba, however, also have allotment gardens in the town common and the fertile lands around river valleys. Examples of these abound along Odo-Ogbe and Agbara Stream in Ile-Ife. Furthermore, the former Yoruba culture of burying the dead in the back and front yards of the compounds also contributed in a small way to the number of trees commonly seen in urban areas. In the past it was common practice to plant live stakes to mark the graves; and from these have grown some mature trees like Ficus thonnigii. Similarly, mature trees have also grown from the live stakes used as structural members



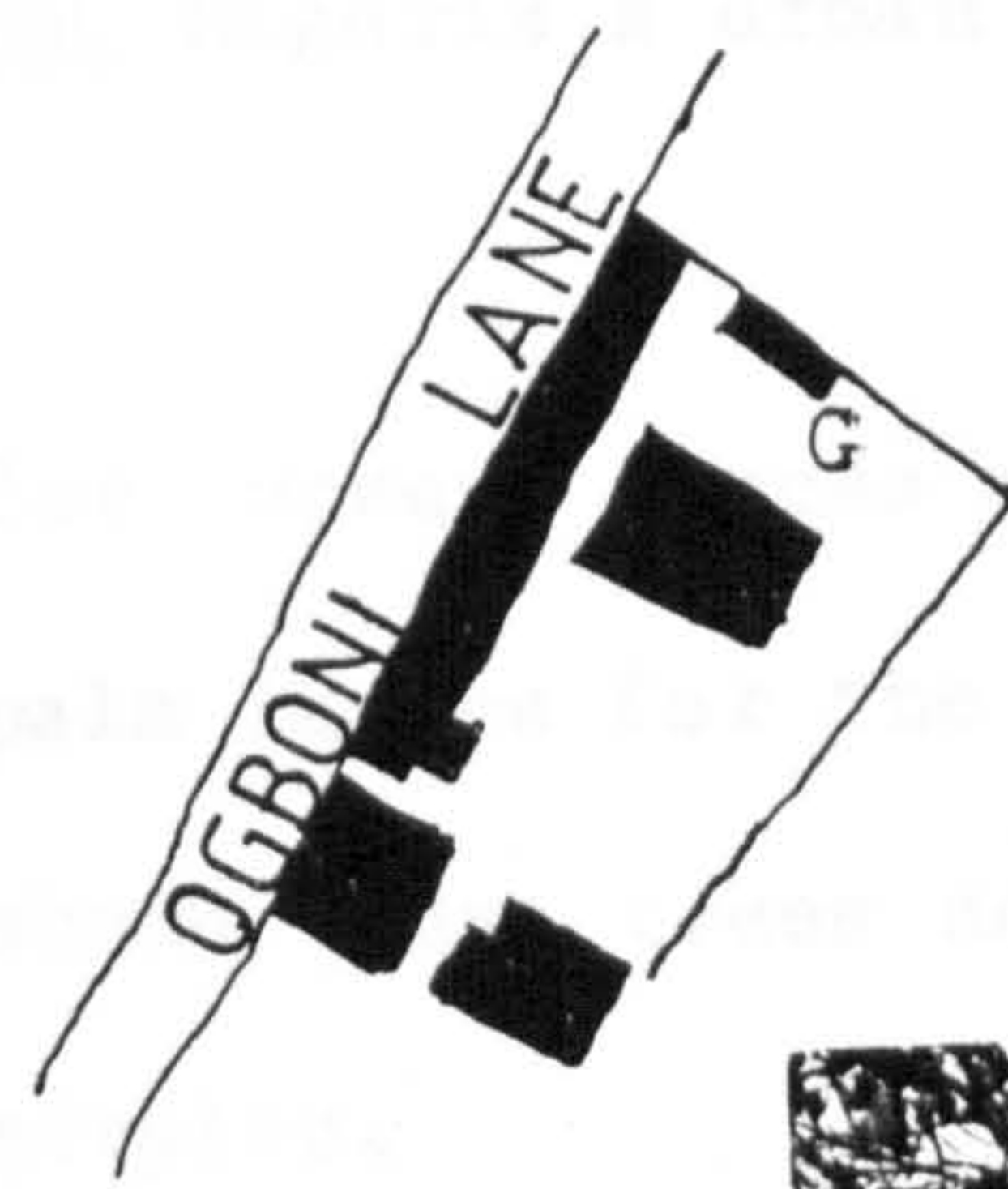
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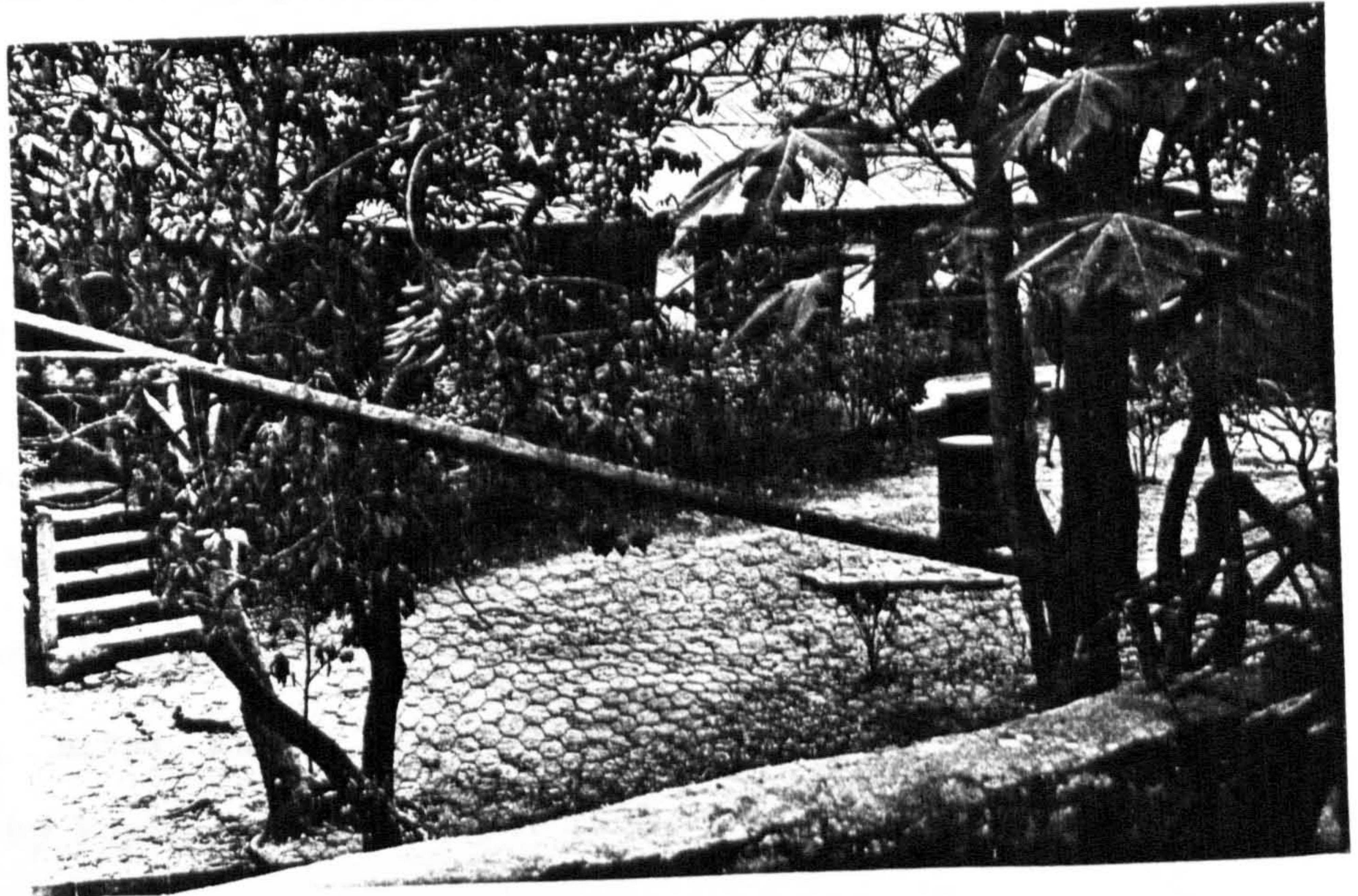
FIGURE 7.16: YORUBA KITCHEN GARDENS: Their disappearance with rapid urbanisation.

a. Lagos 1926 : almost every house had its kitchen garden shown as dotted areas in the plan. b. Ilorin by 1955 still had compounds with well preserved kitchen gardens. Today in most towns the kitchen gardens have disappeared as result of urban growth.

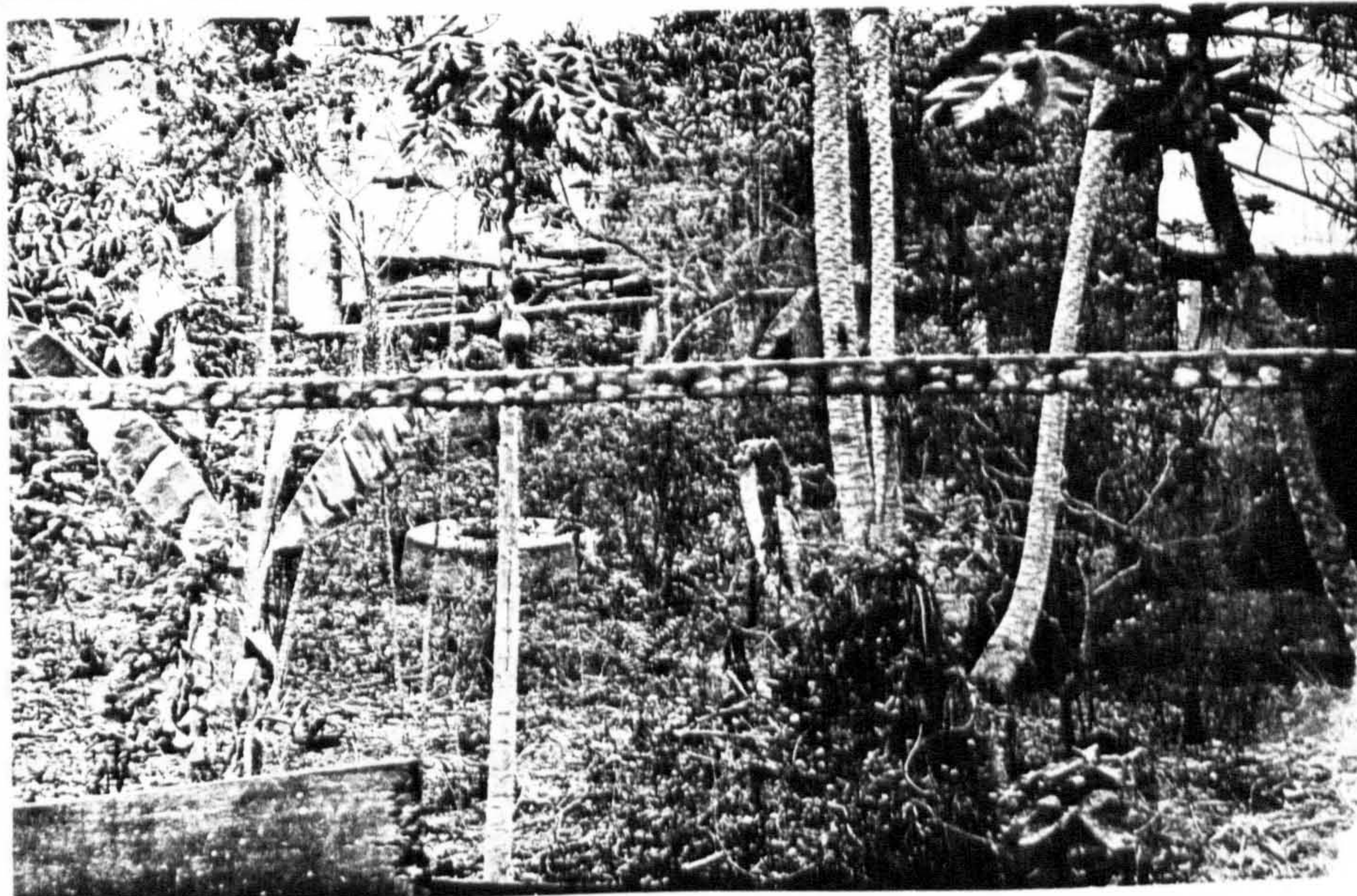


G = Location of the garden
Scale 1: 2500'

a)



b)



c)

FIGURE 7.17: SELECTED YORUBA COMPOUNDS WITH COURTYARD GARDENS

a. Plan of Ogboni Compound, Ile-Ife b. A View of the Courtyard: it is paved with precast hexagonal cement bricks and planted with orange and mango trees. c. A View of the Kitchen Garden: with the well as the focal element and is linked to the main house with a paved walk lined with herbs.

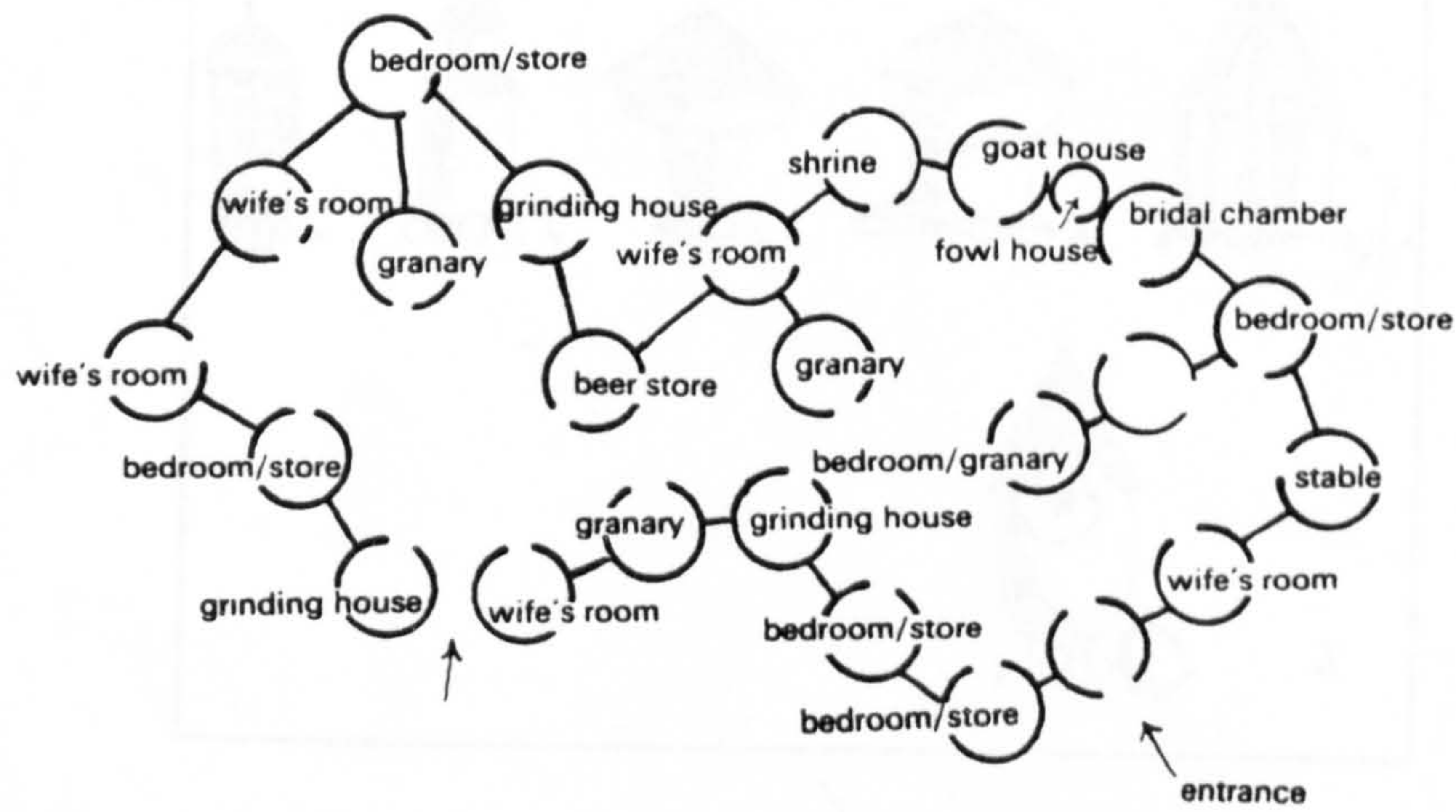
for woven fences made of materials like the bamboo, palm fronds and palm leaves for the construction of outside baths and toilets. This shows that trees not only grow easily but also mature quickly in the tropics.

THE VILLAGES OF THE JOS PLATEAU, NORTHERN NIGERIA

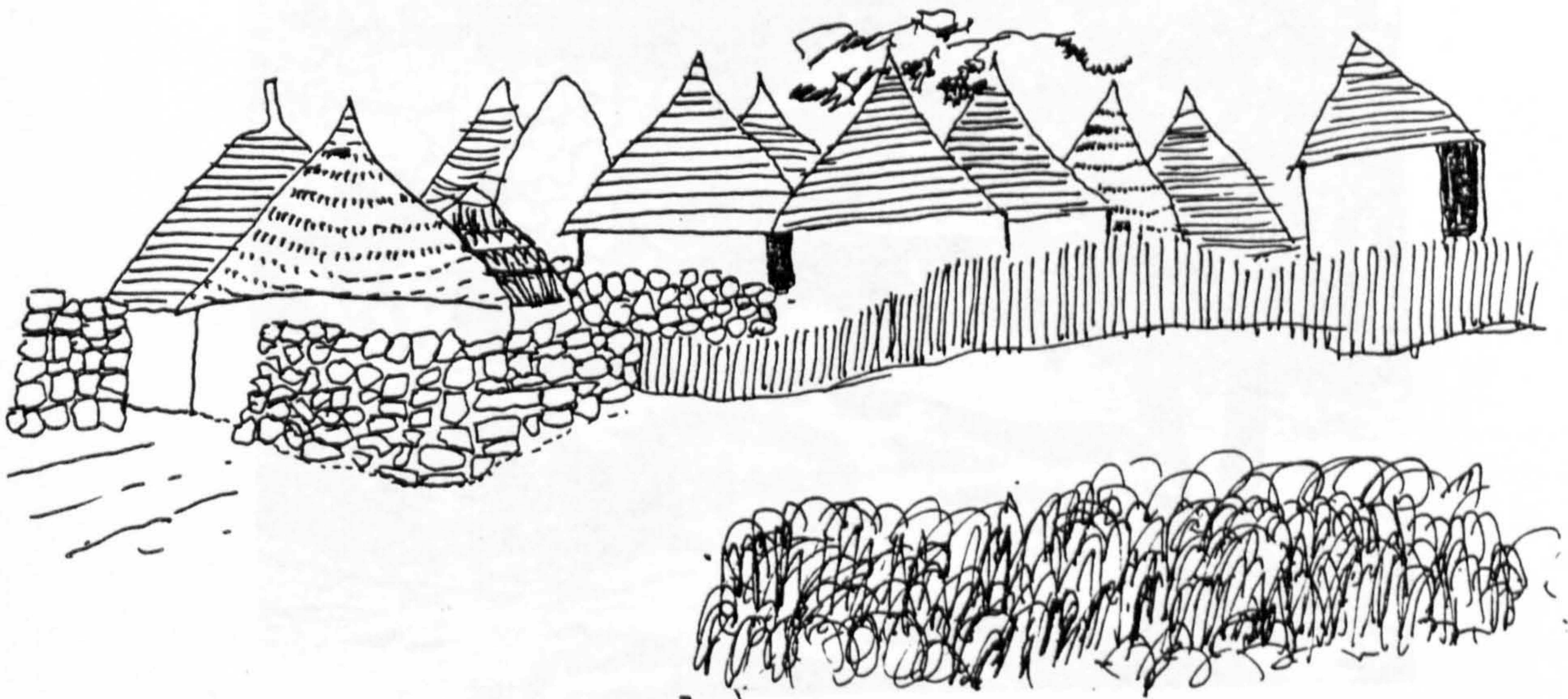
The compounds of the smaller tribes on the Jos Plateau, who lived mainly in villages and farmsteads, have their distinctive architectural and landscape qualities. Some of these villages include Angas, Jarawa, Birom, Rukuba, Ron and Waje. Their architecture has been described by Foyle [24] and Denyer [25].

These pagan villages are mostly in small groups, with their compounds surrounded in the background either by the open savanna landscape or farmed parklands which are sometimes punctuated by smooth and well eroded inselbergs. The circular residential compounds are grouped together like beehives around the village square, and are linked by a net-work of narrow footpaths (Fig. 7.18).

These villages exhibit skilful site planning and contain fine examples of well constructed dry stone walls around farm lands, compounds and, on occasions, in the construction of foot bridges. For defensive reasons most of these villages are sited at the brow of hill. Their most impressive features are the picturesque granaries of different types and shapes - either conical, or cylindrical; tall



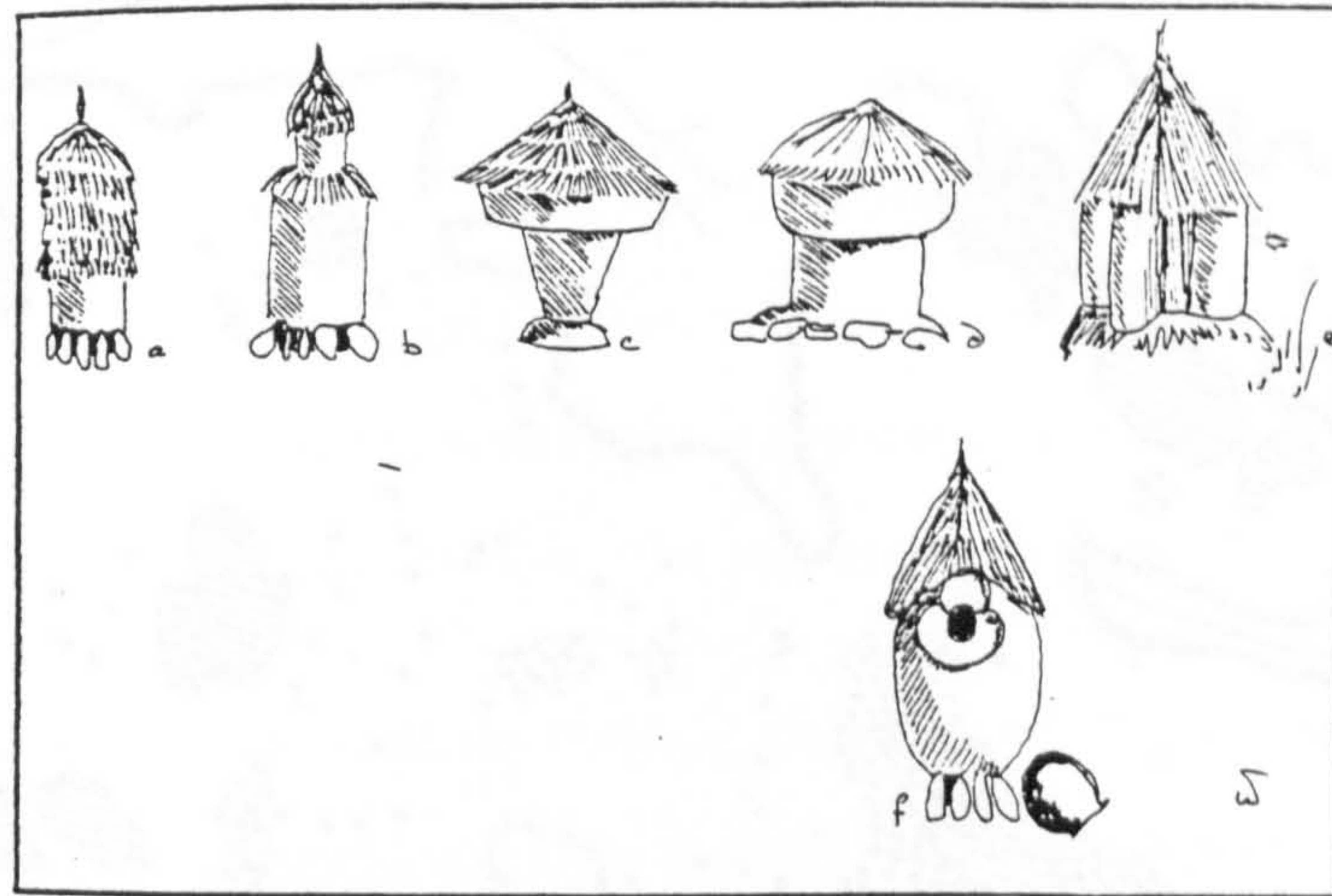
a.)



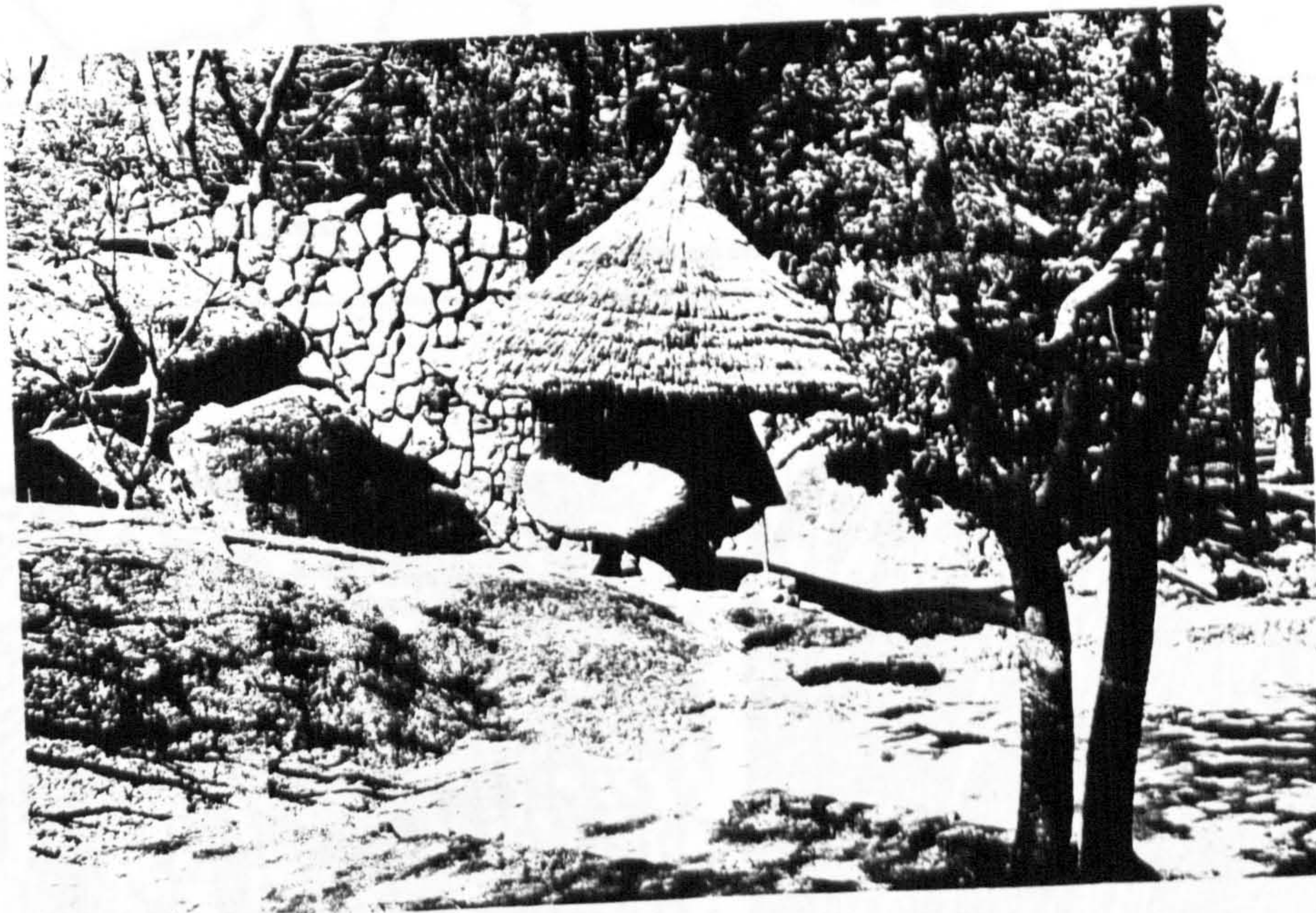
b.)

FIGURE 7.18: TYPICAL VILLAGE, JOS PLATEAU

a. A Typical compound Plan b. Compounds in relation to cultivated adjacent farmlands.



a)



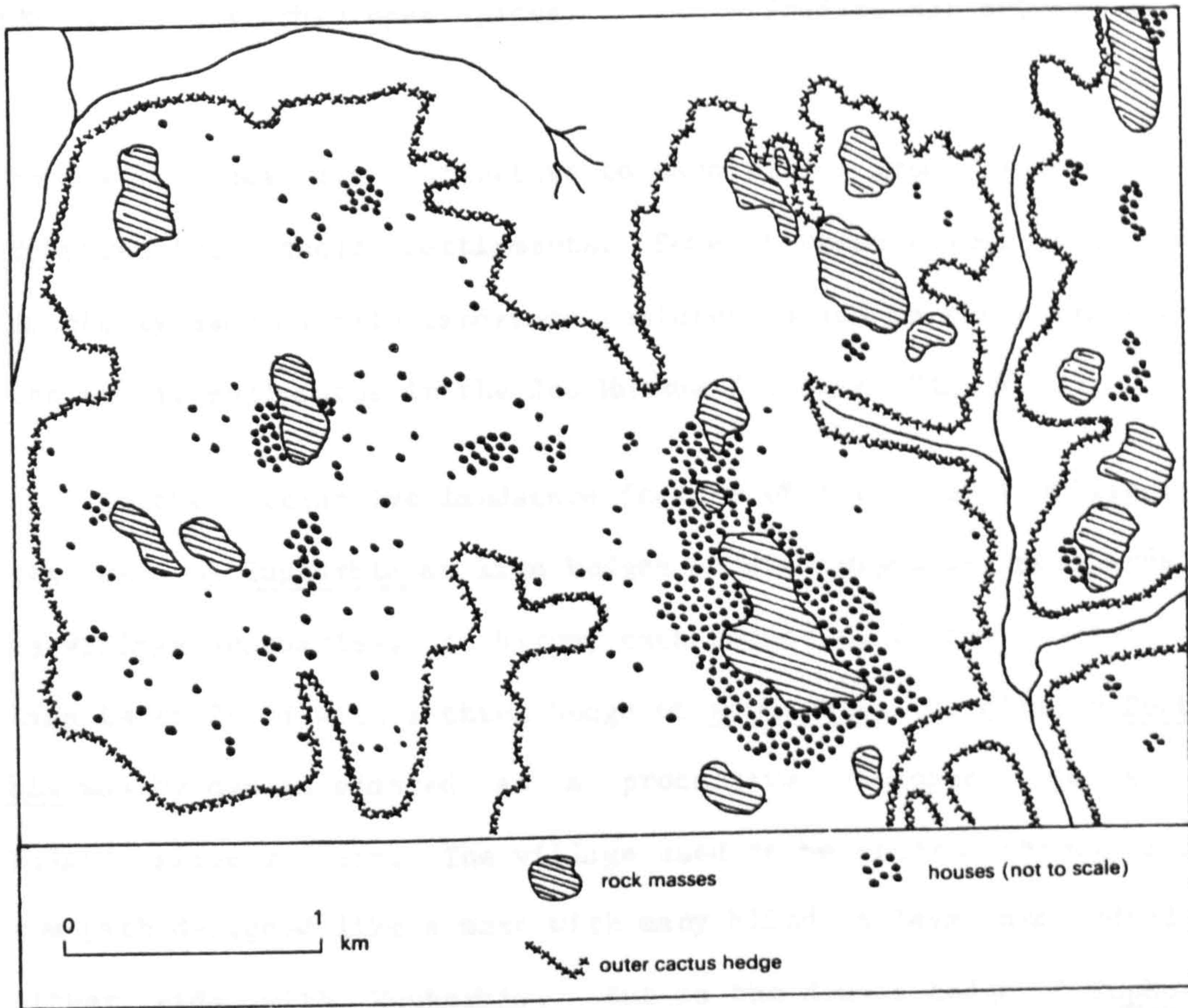
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FIGURE 7.19: SELECTED LANDSCAPE FEATURES OF VILLAGES, JOS PLATEAU.

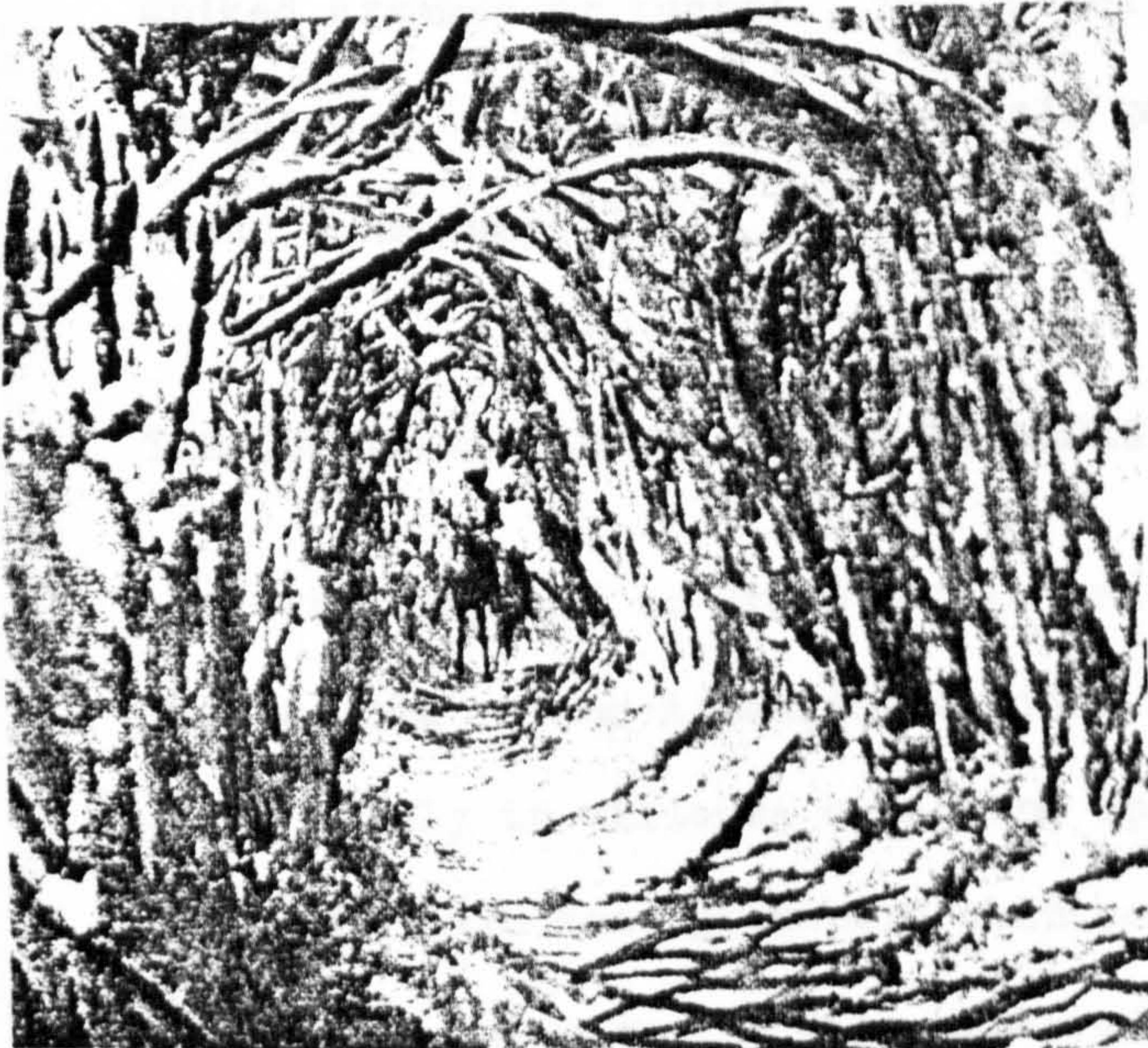
a. Types of Granaries b. A view of a Granary at Jos Zoo park

FIGURE 7.20: A VIEW OF EUPHORBIA HEDERA AND ANACARDIUM EASTWICK VILLAGES, JOS PLATEAU.

a. The village plan showing shade of Euphorbia hedera. b. A view of a double hedge of Euphorbia hedera used as a driveway. The road has not been clipped with.



a)



b)



c)

FIGURE 7.20: A VIEW OF EUPHORBIA HEDGES AND AVENUES, BIROM VILLAGE, JOS PLATEAU.

a. The village plan showing lines of Euphorbia hedges. b. A view of a double hedge of Euphorbia turned into an archway, because it has not been clipped back.

or dwarf. These are distinctive to each tribal group, and serve to differentiate their settlements. Some of these granaries have been gainfully used as main landscape features to add to the attraction of the animal enclosures in the Jos Museum Zoo park (Fig. 7.19).

Another attractive landscape feature of these rural villages is the use of Euphorbia as live hedges around compounds, farmlands and as village boundaries. At Birnin, each homestead in the entire village is enclosed with a thick hedge of Euphorbia. Originally Euphorbia was by design planted as a protective enclosure against the Fulani slave raiders. The village used to be entered through a narrow path designed like a maze with many blind alleys and edged on either side with Euphorbia. But as the double hedge of Euphorbia became fully grown, and was left unclipped, it created an interesting spiked archway or tunnel. The tunnel shown in Figure 7.20 is 4.5m in height and it is linked to the main gate of the village, which is about 1 km away [26].

THE COURTYARD GARDENS OF THE VILLAGES OF EASTERN NIGERIA

The Igbo had no urban settlement earlier than those that evolved during the trans-Atlantic trade. Prior to this time, the Igbo had lived mainly in villages numbering up to 2,000 [27]. Traditionally, the Igbo are keen gardeners when compared with other tribal groups in Nigeria and were the most employed for the same activity by the colonial administrative staff.

The Igbo's love for gardens is clearly shown in the landscape character of the hamlets and compounds. A typical Igbo village consists of a handful of compounds forming a much dispersed farmstead. Figure 7.21 shows two examples of Igbo villages; one is an aerial view of Ozubulu village and the other is the plan of Ezza village. The residential compounds in the two examples are surrounded by cultivated lands which look like farmed parklands.

Within the large Igbo compounds with their much dispersed dwelling units are vegetable gardens in which economic trees and food crops have been retained such as Elias guinensis (palm tree), Musa sapientum (banana), Allium cepa (onion), Lycopersicum esculentum (tomato), Xentocyma tara (water cocoyam) Rafia spp. (palm). and more recently, Cocos nucifera (coco nut). Generally, the courtyard gardens of Igbo compounds effectively gave an attractive landscape setting for the different isolated dwellings units within [27], thus making them different from those of other tribal groups such as the Yoruba in which gardens were shut out as much as possible. A typical Igbo compound has a porch entrance with over-hanging eaves which provides a sheltered space for visitors. It is surrounded either by a mud wall (isuofia) or a live hedge (isuochi) [28]. The building's walls are constructed with wattle and daub, and the floors with beaten clay inlaid with fruit kernels in an interesting pattern. Figure 7.22 shows three examples of Igbo residential compounds; two of these show typical Igbo house plans and the third the planting plan of a compound in Ikot Ekpene village which is an example of the

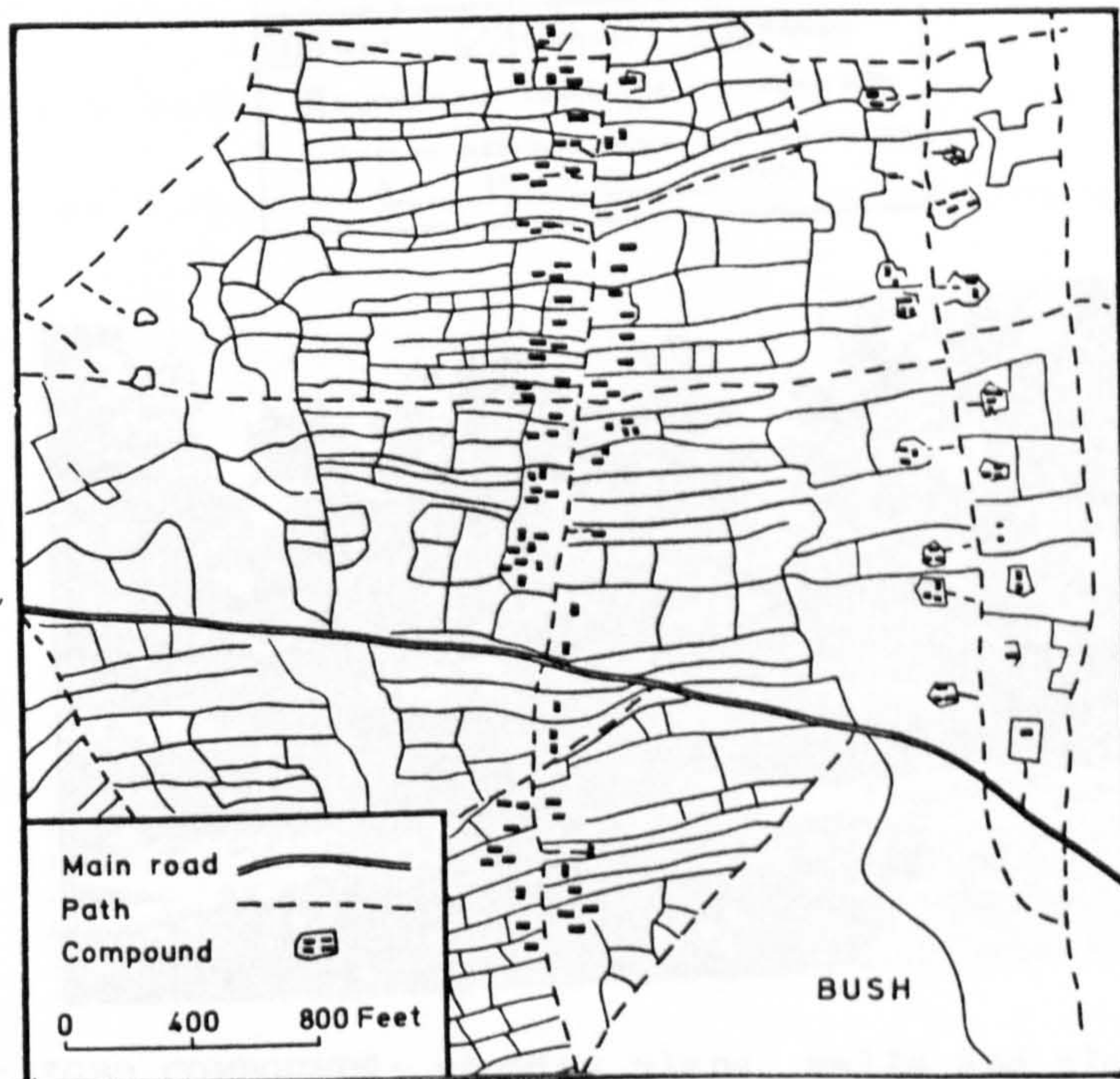
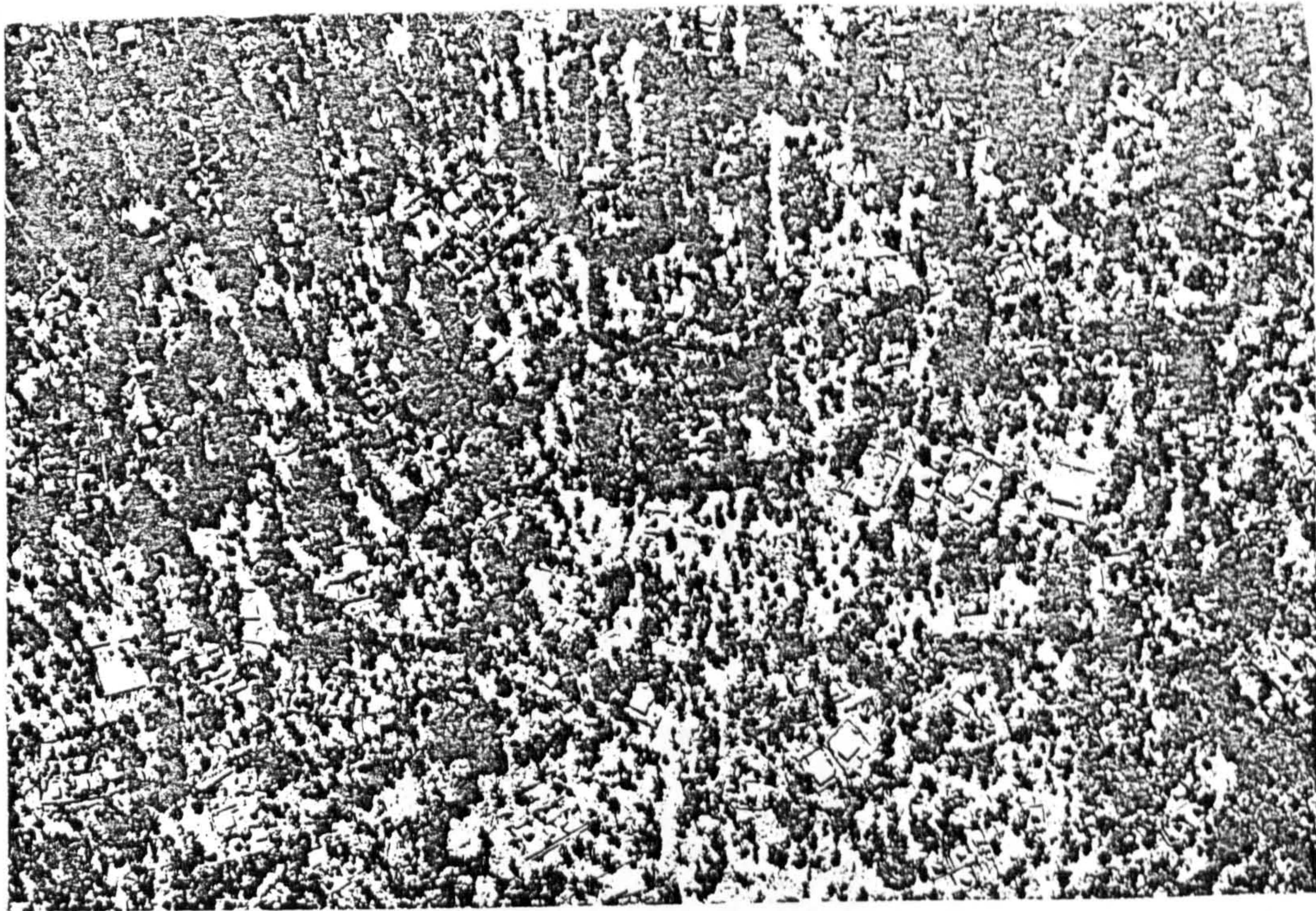


FIGURE 7.21: IGBO VILLAGES: Typical plans and views

a. Aerial view of Ozubulu hamlets; where each residential compound consists of between 1 and 10 dwelling units surrounded by mud walls. The surrounding land is wholly farmed with the retention of palm trees and other economic trees, and in this manner it creates an attractive farmed parkland landscape. b. The plan of Essa village, Abakaliki: showing the relationship between the hamlet and the surrounding agricultural landscape. The cultivated fields and the farm hedges make interesting patterns in the landscape.

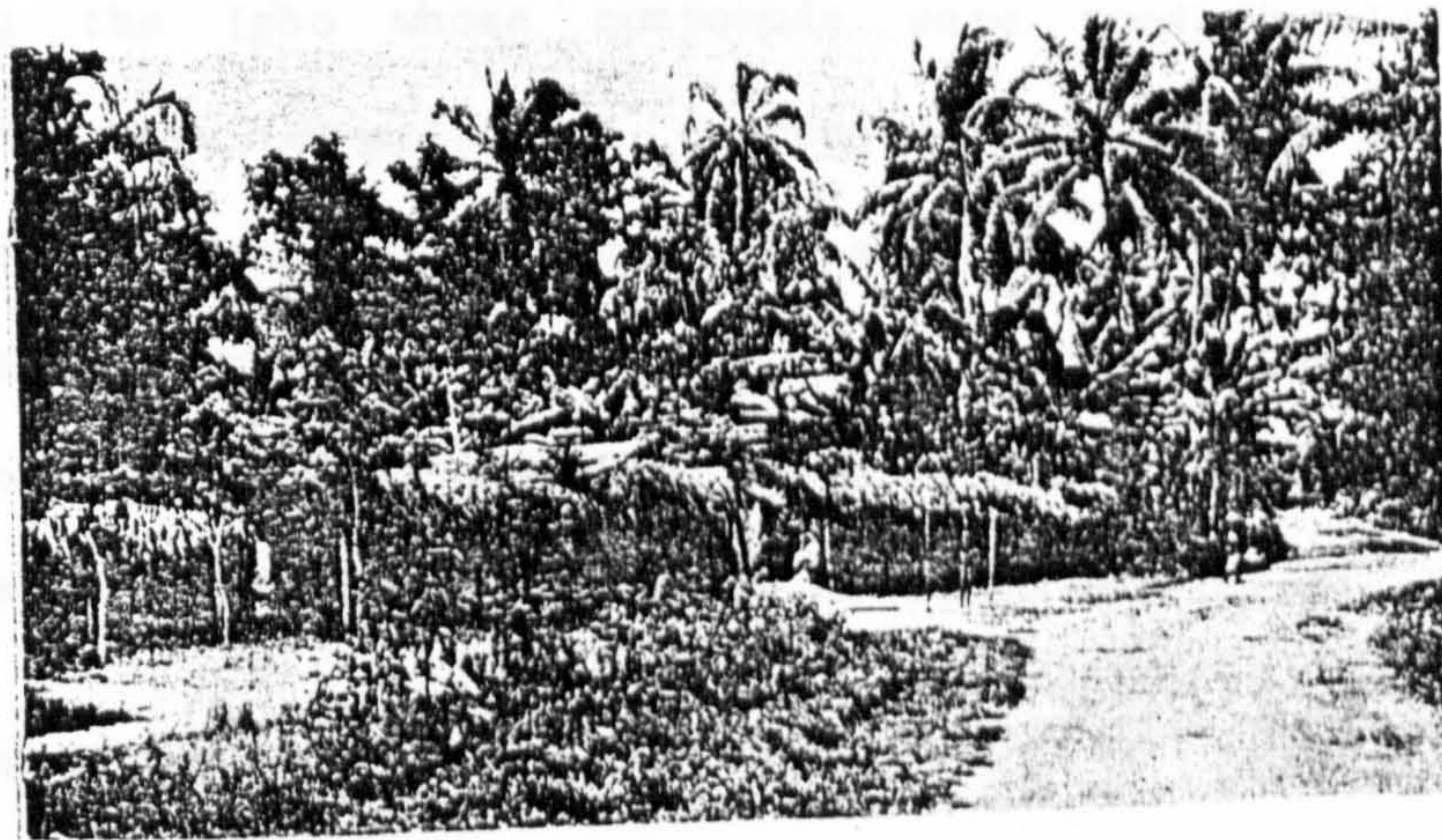
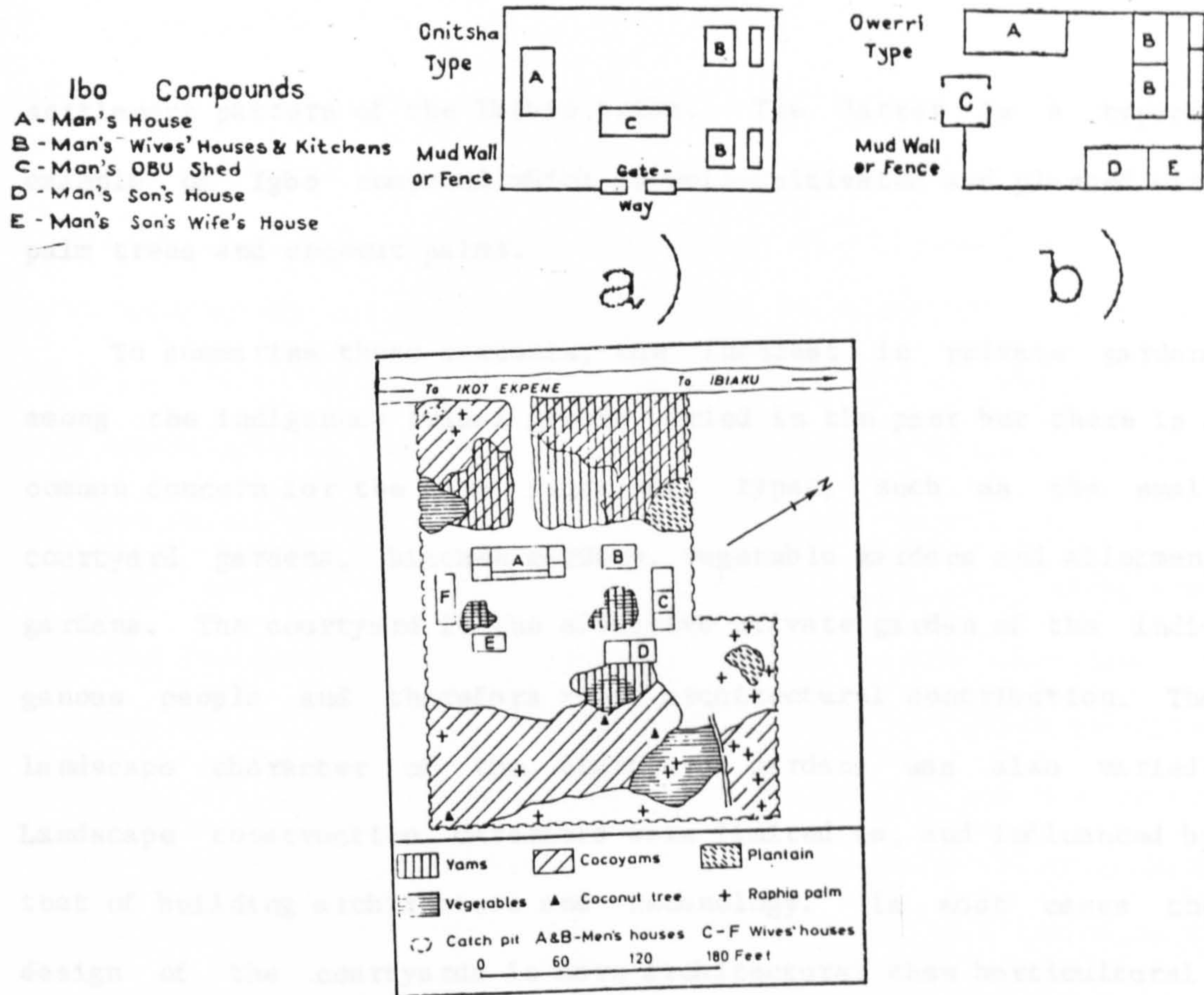


FIGURE 7.22: IGBO COMPOUNDS: showing plans, walls and planting details

a. Plan of Igbo compound: Owerri type. b. Plan of Igbo compound: Onitsha type. c. Planting plan of a typical Igbo compound at Ikot Ekpene. d. View of a Courtyard Wall: the wall is of mud construction and roofed with leaves of rafia palm as the coping. This courtyard is well planted with plantain and coconut trees.

settlement pattern of the Ibibio tribe. The latter is a typical example of Igbo compound which is well-cultivated and planted with palm trees and coconut palms.

To summarise these accounts, the interest in private gardens among the indigenous tribal groups varied in the past but there is a common concern for the more functional types; such as the small courtyard gardens, kitchen gardens, vegetable gardens and allotment gardens. The courtyard is the effective private garden of the indigenous people and therefore their architectural contribution. The landscape character of the courtyard gardens was also varied. Landscape construction materials were limited to, and influenced by that of building architecture and technology. In most cases the design of the courtyards is more architectural than horticultural, except among the Igbo whose compounds were traditionally well planted. The best examples of courtyard architecture and their detailed landscape construction are perhaps those developed by the Yoruba where sophisticated forms of courtyard construction and detailing was accomplished. However, there is need to give nature greater emphasis in the landscape design of these courtyards.

Among the Hausa and Yoruba the development of gardens is a status symbol; and relatively, the most attractive gardens are to be found in the abodes of kings, emirs, mallams, chiefs and the many gardens dedicated to the worship of gods (Chs. 6 and 8). The need for the development of formal gardens was never seriously considered since the indigenous people were always in close contact with nature.

Like all other medieval societies, people in the past lived in small settlements surrounded by wild nature, farmlands and open fields. Moreover, the indigenous people were (and still are) pre-occupied with toiling day and night, and had little or no time for the pursuit of gardening as an art. In addition, the fast rate at which plants and weeds grow in the tropical climate, the taboos attached to trees by some tribal groups and the shortage of water especially in the northern savanna, are other factors which, in the past, might have hindered the development of gardens. However, the tradition of painting natural trees and flowers on walls among the Hausa and other tribal groups may serve to illustrate the desire for, and the importance attached to, private open space for the development of gardens around residential compounds. Such an art form not only indicates an implicit love for gardens among the different tribal groups but it is also an expression of demand for space in traditional and contemporary housing.

As the open spaces for the development of kitchen gardens have been lost in the recent urban growth, it is most desirable that due consideration be given to the provision of land for public allotments and private gardens. This will go a long way to further the aims of the current national campaign: "Operation Feed the Nation". This campaign began in 1979 and has continued to-date. It was established to combat the shortage of food in the nation. While the messages of the OFN urge people to grow more food, most urban dwellers would say there are no allotments for gardening.

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CHAPTER 8
THE ROYAL GARDENS.

The Royal palaces are the most important and dominant landscape elements of traditional settlements, being the largest residential units and the focal and nodal centres, as everything revolves around either the obas, emirs or shehus who live in them. The outstanding architectural quality of these palaces reflects the political, social and religious values attached to the traditional rulers who inhabit them. For example, Ojo in his study, Yoruba palaces described the Yoruba Obas as the political and spiritual heads of the people [1], who were held as the epitome of mankind and deserving of the highest honour, privacy and comfort. The architecture of the Yoruba Oba's palace accords with his importance and the same can be said of other traditional rulers.

This chapter is devoted to the study of the past and present landscape character of some Royal Palaces and is illustrated with that of the Yoruba, the Hausa and the Kamuri.

THE ROYAL GARDENS IN THE PAST

Attempts to document the historical past of any aspect of African culture including those of Nigeria face a number of problems. One of the greatest tragedies of traditional African architecture is that the equivalents of the many great buildings and gardens around which the people in western countries can weave their local histories have virtually disappeared in Africa. This is because these buildings were built of mud [2] and because gardens have proved even more ephemeral than the mud buildings they embellished. Another aspect of this problem has been the great lack of written accounts and records and the absence of plans. Therefore, except for the existing evidence one has to rely on the very few surviving records, and on oral accounts and archaeology. But it is our western explorers, who had been curious enough in passing to describe some of the Nigerian historical gardens that much of the credit of this chapter is due.

THE YORUBA PALACE GARDENS IN THE PAST

The tradition of building elaborate Aafins (palaces) among the Yoruba dates to the earliest settlement at Ile-Ife. Because of the importance attached to kingship and all that goes with it, this tradition was carried to other Yoruba towns. Just as Yoruba towns approximated to a model town-plan, so did the palaces with their distinctive and similar architectural style. The most accomplished ones like that of Ile-Ife and Old Oyo became the set-pattern for the later ones. For example, the first palace at Ilesa was said to have been

laid out on Old Oyo's model with the help of one of the princes sent from Old Oyo [3].

The history of Old Oyo shows the evolutionary nature of the development of Yoruba palace architecture. Moreover, it seemed that the essential attributes of the palace architecture were perfected here. Old Oyo or Katunga was the headquarters of an extensive and powerful empire which rose to prominence only after Ife had begun to decline. The palace of Old Oyo was built by Oramiyan who had earlier pioneered the one at Ile-Ife. Oramiyan became the ancestral link between Ile-Ife, Old Oyo and Benin where he also founded a new dynasty [4]. It is recorded by Johnson that the first palace at Old Oyo was completely raised to the ground by fire during the time of Sango, a misfortune and retribution caused by his own magical skill of emitting fire from his mouth. Therefore, the task of building a new and a more attractive palace fell on Sango's successor, Aganju, who was described as a sovereign of high taste and a lover of gardens and wildlife. According to Johnson, "he greatly beautified the palace adding attractive squares front and back, with rows of brazen posts. He also originated the tradition of decorating the palace with (flower) hangings on state occasions" [5]. The success he had in rebuilding the Old Oyo palace is remembered by the old Yoruba adage which says; "Ile oba to jo esu ewa lose", meaning the goddess of beauty causes the palace to be burnt in order to ensure a higher architectural splendour [6]. This proverb is probably derived from this peculiar occurrence in Old Oyo. However, from this time the

destruction of Yoruba palaces by fire seems to have caused the kings little or no concern because they knew that the task of rebuilding them was that of the town's people. Another significant change, however, was that Aganju became synonymous with Afin. Oluaso, another King of Old Oyo, in later years constructed some 120 kobis, the imposing porch entrances to Yoruba Palaces [7].

Some impression of the magnitude of the old Yoruba palaces and their landscape character can be gleaned from the descriptions given by the 19th century explorers and missionaries. Of the royal palace at Old Oyo, Clapperton, a Scot, recorded that the king's palace, which covered some 226 hectares, was located on the south-facing slope of a hill (Ajaka hill). The king's residential quarters were built of clay and roofed with thatch. The posts which supported the verandahs and the doors were carved in bas-relief, which depicted figures representing the boa either killing an antelope or a hog, and of scenes of warriors in processions attended either by drummers or slaves [8]. The Old Oyo palace had two large parks: one to the front and another facing the north. The former covered half of the total palace area and overlooked the main entrance door. To the left of this park was a fetish house, and further south were two attractive large blocks of granite outcrops (inselbergs) near which was a mature deciduous tree. In the centre of the park were two beautiful clumps of shade trees; and a third one in the midst of them, a tall fan palm (Hyphaene thebaica) which towered over the whole scene.

Barely a decade after Clapperton had described Old Oyo, it was

attacked by the Fulani empire and crushed; and this led to its abandonment and the foundation of new Oyo in 1837 [9]. Since 1940, the site of Old Oyo has been designated as a Forest Reserve (Fig. 8.1). The site of the old palace is now largely overgrown with trees and saplings covered with many lianas [10].

Generally, Yoruba palaces contained many impressive buildings that were surrounded by very high walls while the gardens around mostly maintained in their primeval landscape character. Of the royal palace in Iwo and Ede, there is the account of Hinderer in 1858:

"The kings compound (in Iwo) is quite a palace in native style, with those curious kind of towers (kobi) peculiar to the Oyo palace. But the agbala (the palace ground), an extensive garden adjoining to it containing a variety of lofty and wide spreading trees was something..... (in Ede) the king's palace is the picture of neatness of a native building, and his agbala behind which is very large, would be a fine park if the walls were not in ruins" [11]

The palace at Ile-Ife, according to Frobenius in 1912,

"was the most impressive sight in the town, its massive walls being visible from whatever quarter one approached the town. Its front especially with the fine open square on which it stands makes an imposing effect in spite of all its ruin. The (enclosing) walls are mighty, over a yard at the base and some eighteen feet high (5 metres) [12]

The former kobi of the Ooni's palace is said to have measured 92 metres in length, 18 metres in width and over 7 metres in height [13]. Frobenius also noted that Ooni's residential compound had three open courtyards, and a building which overlooked the largest one had a projecting fore court like a baldachino, with a recessed

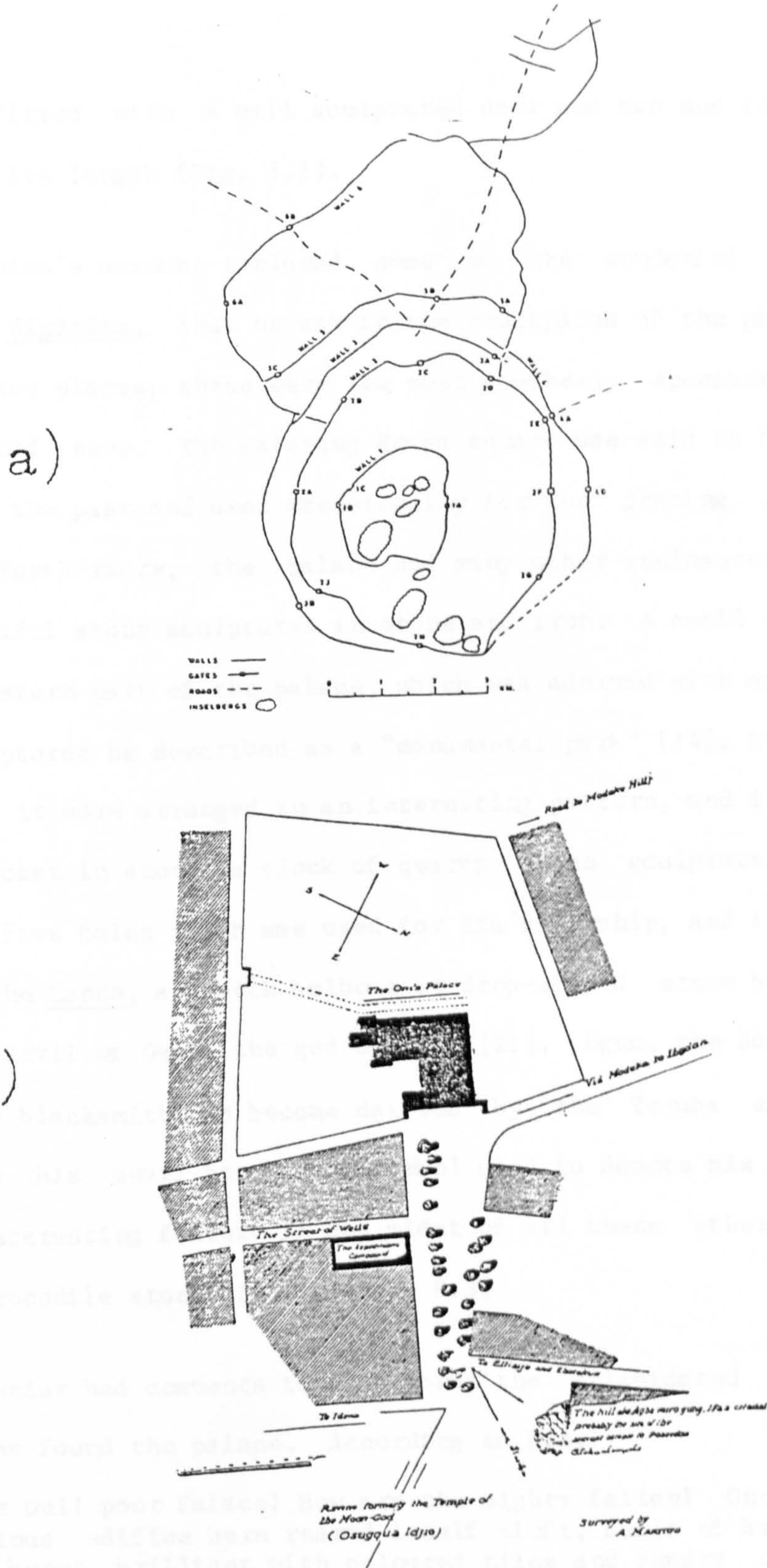


FIGURE 8.1: ALAFIN'S PALACE OLD OYO IN COMPARISON WITH THAT OF OONI OF IFE

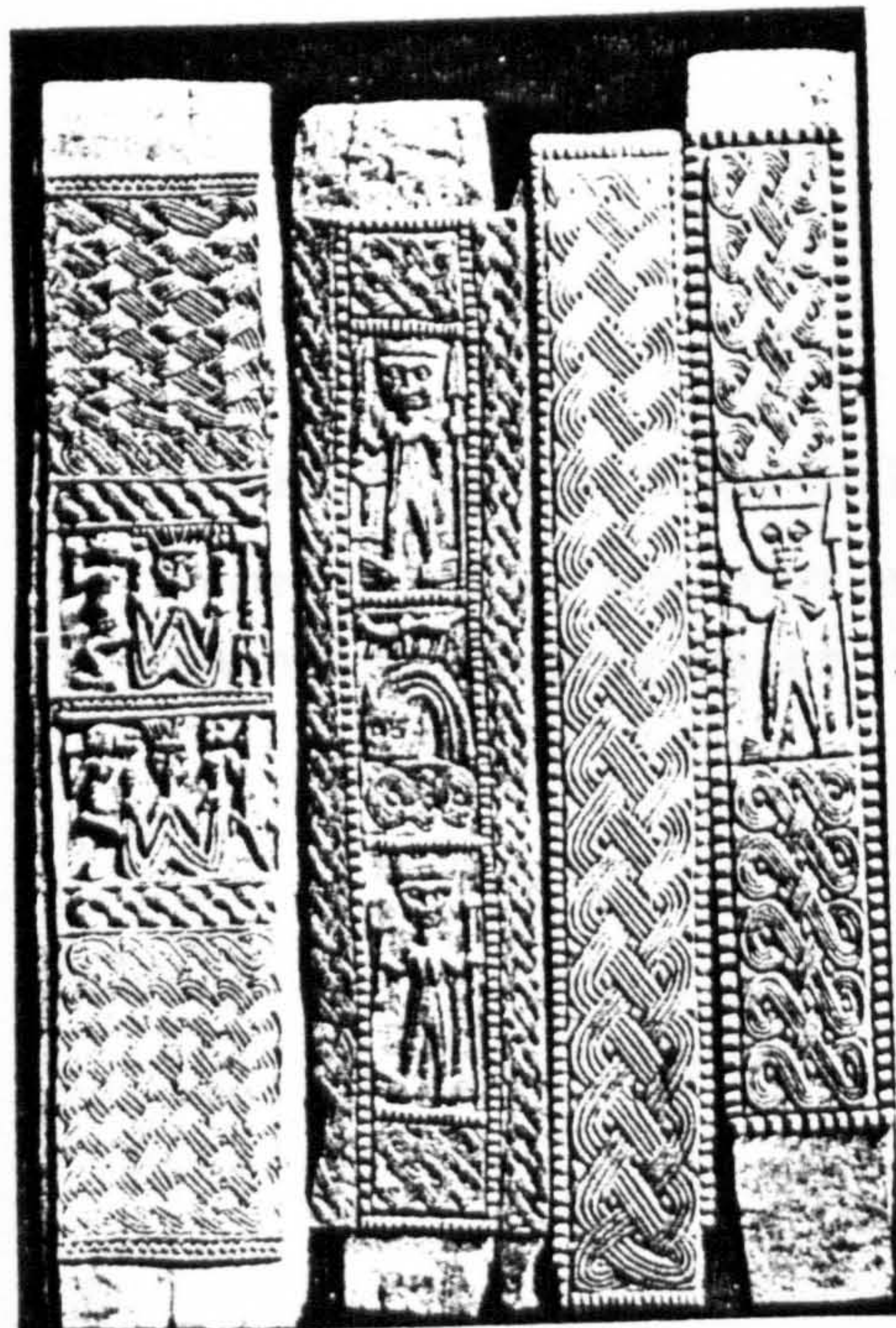
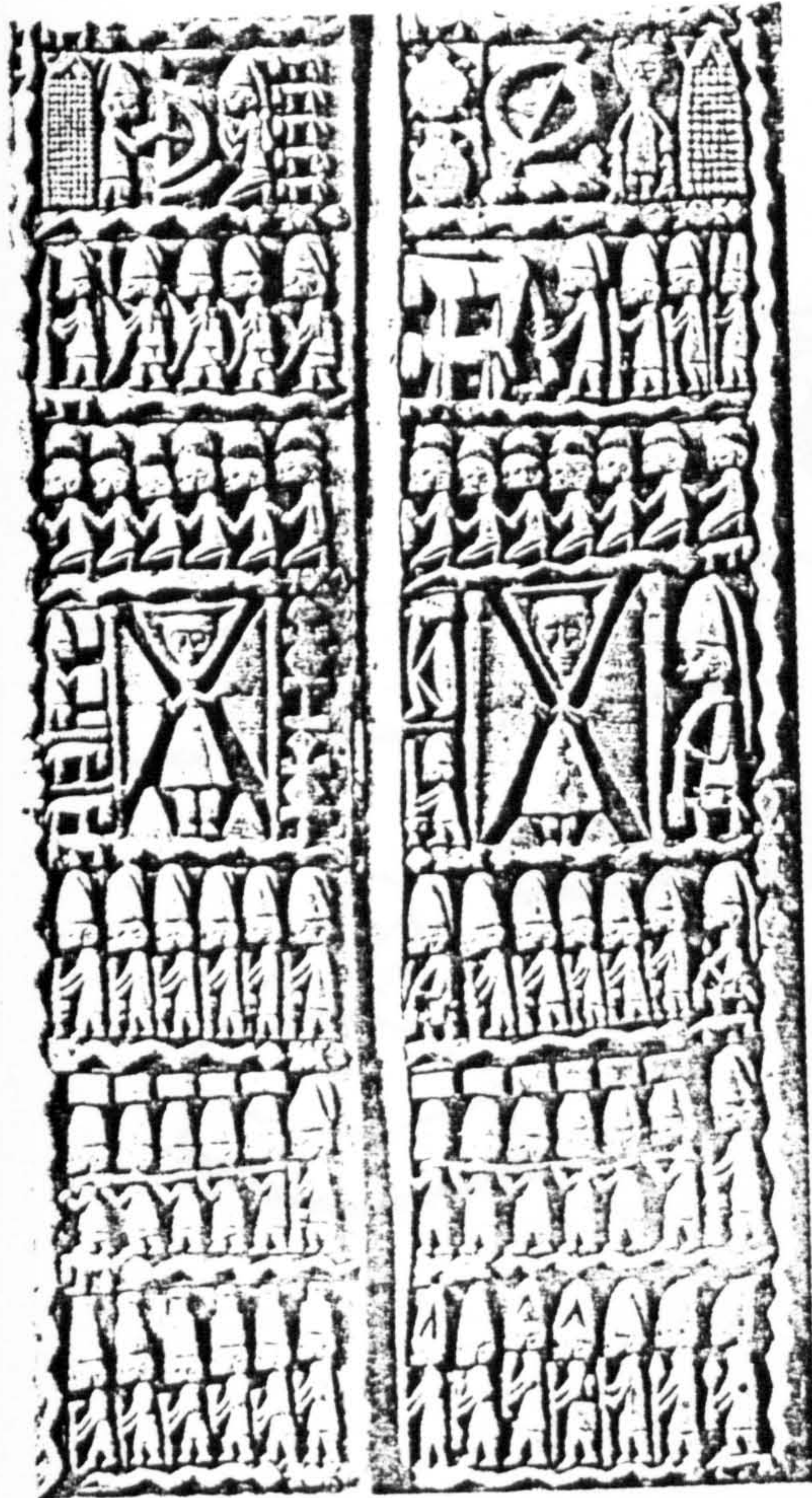
a) Plan of Old Oyo Palace. b) The plan of Ooni's Palace, Ile-Ife, 1912.

entrance fitted with a well sculptured door and two mud steps that ran across its length (Fig. 8.2).

Frobenius's account included some of the wonderful baobabs, Adansonia digitata, that he saw in the courtyards of the palace and in the market places; these were the most southerly specimens of the tree he had seen. The existing Enuwa square was said to have been grassed in the past and used occasionally for the grazing of royal cattle. Furthermore, the palace had many other enclosures adorned with beautiful stone sculptures in stone and iron. A small enclosure to the eastern part of the palace, which was adorned with many beautiful sculptures he described as a "monumental park" [14]. The sculptures in it were arranged in an interesting pattern, and included a fish head cast in stone, a block of quartz stone sculpture like a drum with five holes which was used for Ifa's worship, and in between them was the Lande, a smooth bulbous or drop-shaped stone block held to be the anvil of Ogun, the god of iron [21]. Ogun, the son of Oduwa was a blacksmith who became deified by the Yoruba after his death and his anvil has been a symbol used to denote his presence. Another interesting feature in the midst of all these other objects was the crocodile stone figure. (Fig. 8.3)

Frobenius had comments to make about the dilapidated condition in which he found the palace. According to him:

"Poor Oni! poor Palace! How are the mighty fallen! Once a glorious edifice here reared itself aloft, built of bricks well burnt, brilliant with coloured tiles and sundry other ornaments! Here the smoke of burning sacrifices rose into



a)

b)

FIGURE 8.2: EXAMPLES OF ARCHITECTURAL FEATURES OF YORUBA PALACES
a) Examples of Carved doors depicting scenes of wars and slavery.
b) An example of the many Carved timber columns at the Owa's palace Idanre.

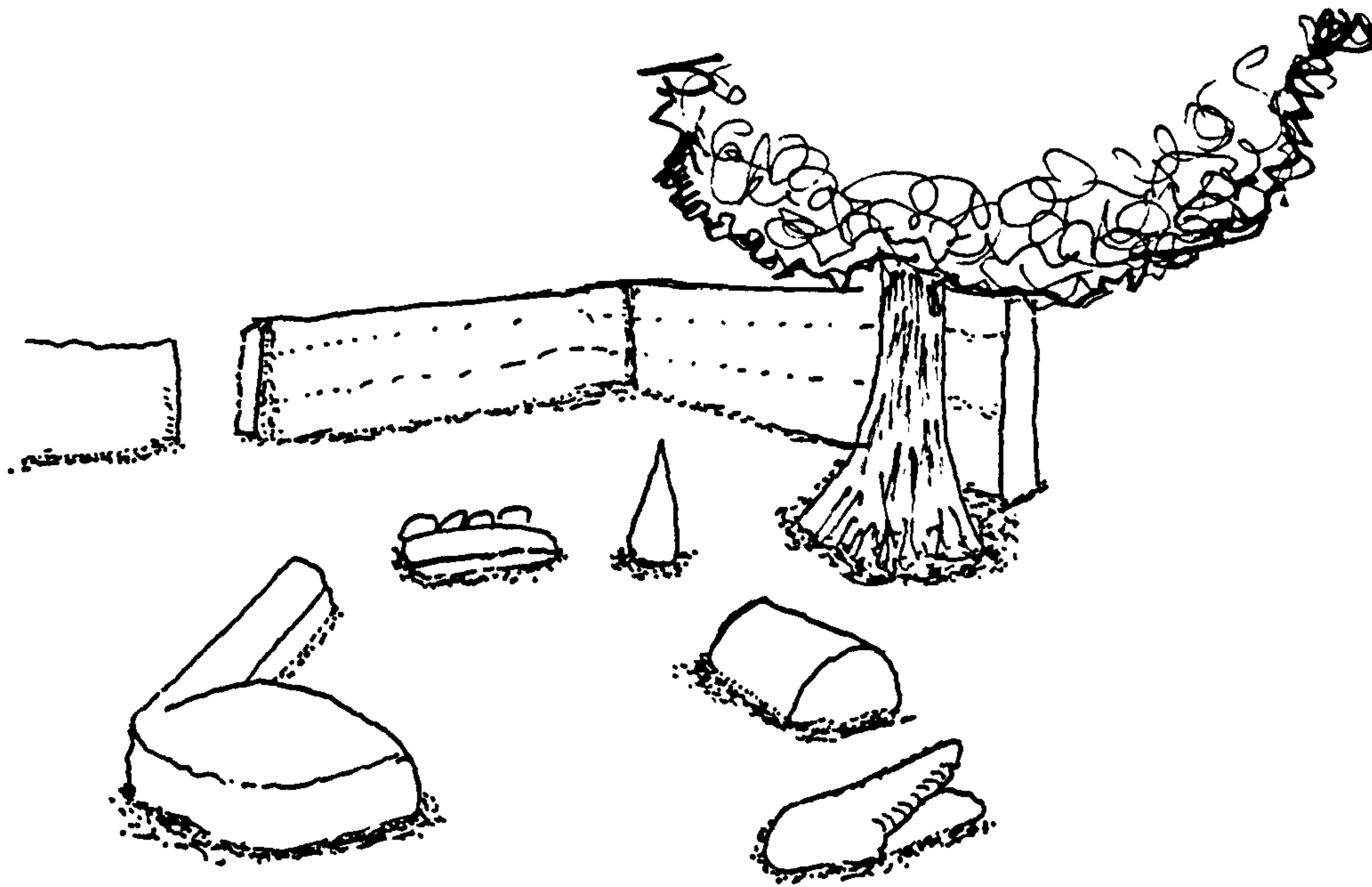


FIGURE 8.3: THE SCULPTURE GARDEN, OONI'S PALACE, ILE-IFE

Some of these sculptures include fish and crocodiles both symbolising water garden or the spirit of water worship.

the air and here the breath of life exhaled from the many a human victim offered up, while this strange country's high priest chanted prayer.

Other times other pictures | Let us see what the Oni is today; let us go to one of its audiences." [15]

The Ooni's palace was in such a state of ruin and neglect partly because of the protracted civil wars between the Modakeke and Ife people which led to the abandonment of the city twice during the 19th century. (See Ch. 2).

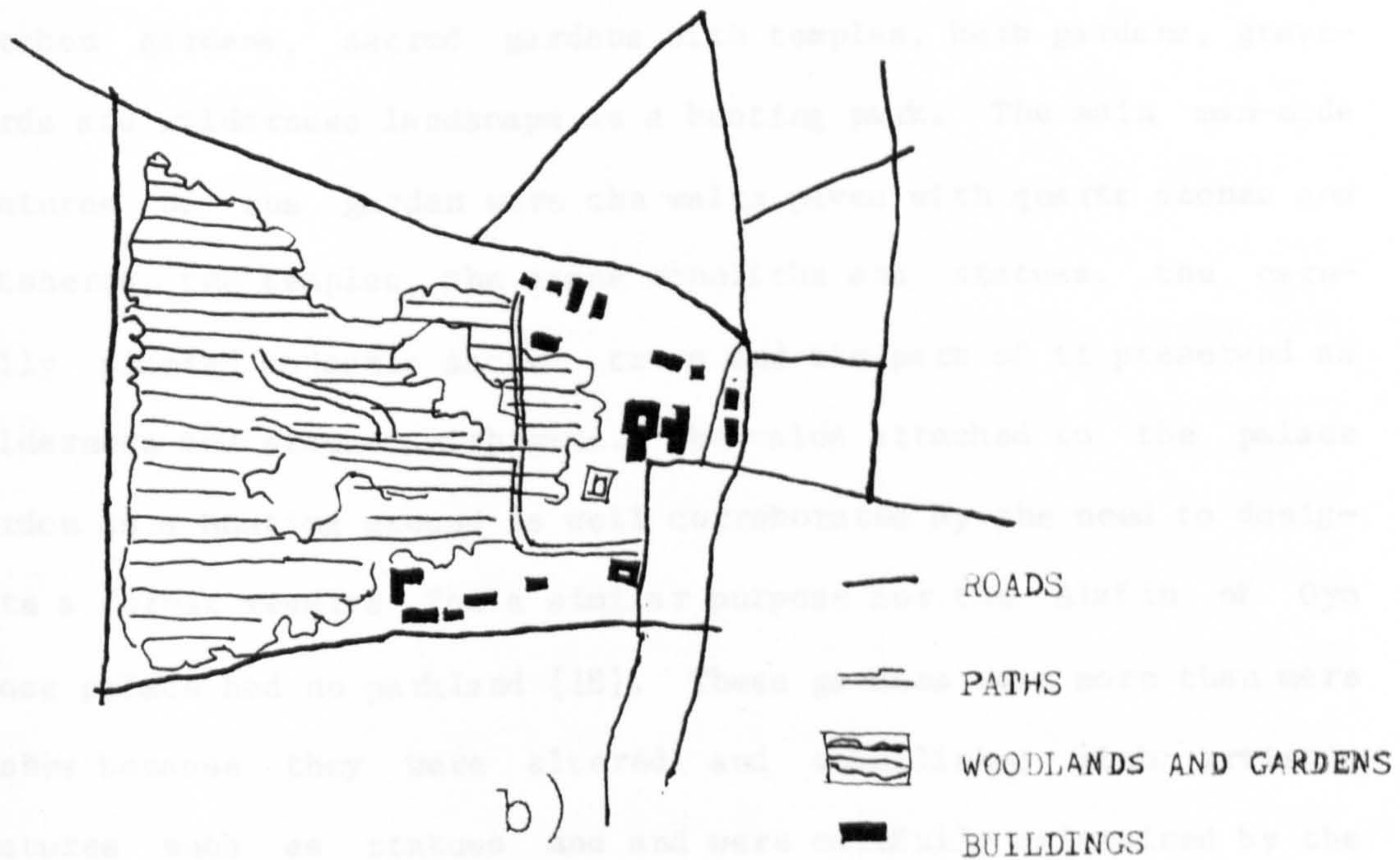
The above accounts of Yoruba palaces have shown that they had certain common characteristic features. These palaces were generally extensive, covering a large area including gardens in which were to be found religious temples, sculptures, monuments, and specimens of majestic trees such as the Adansonia digitata.

Considering the character of Yoruba palace gardens as described above, they hardly approximate to modern concepts of gardens, at least as known in the West. Nevertheless, they were gardens in their own right, and were of cultural importance being a haven for the Yoruba kings. Moreover, it was by design not by chance that the Yoruba palaces were laid out from the beginning with extensive grounds. Except for the sacred gardens dedicated to the worship of Yoruba gods only the abodes of Yoruba kings had extensive grounds devoted to tree planting (Fig. 8.4).

The underlying idea of the Yoruba palace gardens is summed up in the Yoruba word, Aganju, which has been derived from Aganju's name



a)



b)

FIGURE 8.4: TWO EXAMPLES OF THE LARGER YORUBA PALACES WITH GARDENS

a) Aerial view of Owa Bokun's Palace, Ilesa b) The Plan of Olowo's Palace, Owo; the largest among the existing Yoruba Palaces: an example of an older Yoruba Palace with well preserved gardens and woodlands of primeval character.

the builder of the imposing and attractive palace at Old Oyo. In Yoruba Aganju means "wilderness, the depth of forest, or grass field, an ocean" [16]. In short, it means the idealisation of the natural woodlands, and is quite different from other Yoruba words such as aginju and igbe or igbo which are often used as derogatory terms to describe natural and unmaintained landscapes. Therefore, it would be very inappropriate to describe Yoruba Palaces as containing mere "bushes" or "forest" as they have been portrayed in Ojo's study [17].

Generally, the open spaces around the Yoruba palaces served a number of functions. In it were (and still are) different types of gardens both utilitarian and ornamental which include farm gardens, kitchen gardens, sacred gardens with temples, herb gardens, graveyards and wilderness landscape as a hunting park. The main man-made features of the garden were the walks paved with quartz stones and potsherds, the temples, the stone monoliths and statues, the carefully planted majestic sacred trees and the part of it preserved as wilderness and stocked with game. The value attached to the palace garden as a hunting ground is well corroborated by the need to designate a forest reserve for a similar purpose for the Alafin of Oyo whose palace had no parkland [18]. These gardens were more than mere bushes because they were altered and embellished with artistic features such as statues and and were carefully maintained by the towns' people together with the market squares, roads, town squares and other public buildings.

The form of Yoruba palace grounds reflected cultural,

environmental and religious needs. The generally hot and humid climatic conditions meant that it was imperative to create out-of-door space for Yoruba kings for open-air relaxation near to the palace buildings. Culturally, Yoruba kings were generally held as the spiritual and political heads of the towns' people and the surrounding villages, and until early this century, were restricted to their palaces except on ceremonial occasions. They needed to worship daily in temples and groves on behalf of the towns' people. Thus these palaces were developed as self-contained paradise sanctuaries so that the kings could remain within them without feeling imprisoned. The immediate physical needs of the Yoruba kings were obviously partly met by the purely utilitarian gardens such as kitchen gardens, farm gardens, herb gardens and the wilderness stocked with game and the grazing fields. Similarly, the kings spiritual needs were met by the religious temples, monoliths and statues erected in these gardens where open air worship often took place; while the sensual and emotional were catered for in relief carving of semi-naked women on courtyard columns (Fig. 8.2b). Though Yoruba kings might have been restricted to their palaces in the past, their lives were not totally devoid of leisure pursuits. The bronze carving in Figure 8.5, which depicts an Ooni and his queen in a leisurely walk, could have been in their garden or on a ceremonial occasion; especially when one considers that the Ooni and his queen, like other Yoruba kings and their queens, were not frequently seen together in public.



FIGURE 8.5: THE OONI AND HIS QUEEN: as seen from the rear and depicted in a leisurely walk. Source: Willet, F. Ife in the History of West African Sculpture. London: Thames and Hudson, 1967; p 72. Plate III.

An important landscape feature that was conspicuously absent in these historic gardens was water. Besides naturally occurring water in the garden such as streams or lakes, water was represented in both abstract and symbolic forms such as the use of stone sculptures of water features like crocodile, boa and fish; and some of these were described by Frobenius as the objects seen in the sculptured garden of the Ooni's palace. In addition, the impluvium, (Yoruba: akodi), originally was a water garden in the courtyards of the Yoruba and the Benin compounds of which the best examples are preserved in the palaces of the kings and compounds of the chiefs. The impluvium is a small open area in the centre of the compound purposely created to collect the rain water, hence it is sometimes referred to as a 'rain courtyard'. Usually, provision was made to catch the water in large pots for storage but nowadays cement plastered mud water-tanks are used. Ground water around is collected by drain pipes. Archaeological excavations at Ife reveal some impluvia paved with sherds of broken pottery (potsherds) set on end and drained by pipes made out of clay pottery or grindstone pierced by a hole and forming a kind of funnel to avoid dampness and erosion of the adjacent walls (Fig. 8.6).

Whereas, the Yoruba look to the east as the place of origin of their ancestors, archaeological evidence tends to discount this claim. For example, archaeological investigations in Ile-Ife have not only shown the antiquity of Ife culture but the modern view is that the sculpture of Ife and Benin could have evolved quite

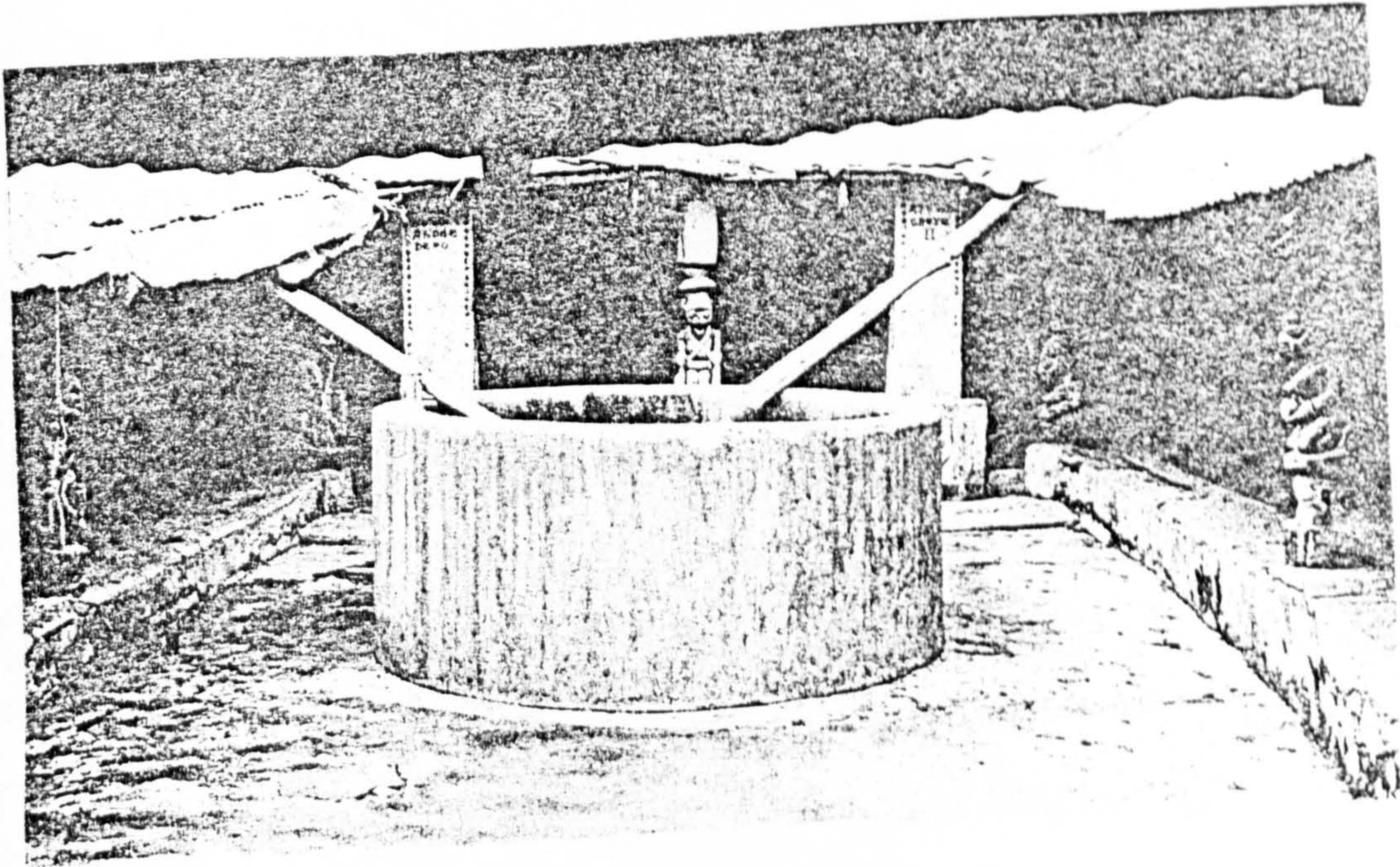


FIGURE 8.6: A VIEW OF A COURTYARD, THE PALACE, EFFON ALAYE: showing an impluvium constructed of mud and plastered with cement. The cylindrical water tank in the centre, which is plastered with cement now replaces the large clay pots. The low wall edging the courtyard trap rain water until it can be drained away. The verandah columns were carved by Agbonbiofe between 1900 and 1920. Source: Willet, F. (1971) p 129 Illust. 116.

naturally out of the older Nok culture [19] or might have been part of the same civilisation as suggested by Willet [20]. In this regard William Fagg commented on the similarities between the myths of Yoruba gods and those of the ancient Greeks and suggest that perhaps there was a similarity in intellectual and philosophical conditions of life in pre-Classical Greece and in ancient Ife. Similarly, it could be argued that the gardens of the Yoruba culture, like their art forms were quite capable of evolving independently.

In fact, the high standard of Yoruba arts such as the bronzes and terra-cottas, which have been judged as among the best accomplished in the world [21], cannot be separated from other aspects of their civilisation including architecture and gardening. All flourished together. Obviously, the historic gardens described above were the creations of the artists in that they existed both to house and exhibit important works of arts such as sculptures and monoliths. The art works treasured in museums have been excavated from sacred groves and palace gardens. Cordwell has rightly concluded that, among the Yoruba, elaborate architectural and artistic expression was closely associated with deities and kings [22]. It could be argued that gardens were no exception.

ROYAL GARDENS OF NORTHERN NIGERIA IN THE PAST

The earliest documented account of the Hausa and Kanuri gardens was again by Clapperton whose account of Old Oyo has been commented on. For the Hausa he described the royal garden at the Emir's palace Katsina and for the Kanuri that at Kukawa [23]. To start with and considering Katsina's background it was inevitable that an attractive garden should have been developed here.

Katsina, the focus of an historic Hausa garden, was named after a grove of naturally occurring trees known to the local people as Geshna or Casena [23]. Unfortunately, these two words have not been

found in the Hausa botanical index, and they were perhaps wrongly spelt by the western explorers. Miller at the beginning of this century noted that Zizyphus spinq-Christi (Hausa: kurna), Borassus flabellife (Hausa: ginginya) and the dum palm were trees commonly found around Katsina [25]. Among these other trees only the ginginya sound the same as Geshna and could also have been the tree in question. Other trees which also qualify for close consideration are "Kisni" (Bridelia scleroneura, B. ferrugina) or Parkia filicoidea (Hausa: Tsamiya) could have been as they sound the same as the two words and are commonly found in Katsina.

The origin of Katsina coincided with the introduction of Islam into Hausaland. Katsina, grew as the capital of the foremost and most powerful Hausa States. Her wealth, economic and political strengths, were effectively tied to her strategic location on the trans-Saharan trade route which passed through Agades, Air and Ahaggar to the Mediterranean (Ch. 1).

Katsina, unlike Kano, was laid out from the beginning with an extensive palace. It was not until the last half of the 15th century that Kano had a more imposing palace; and the site of the existing palace is said to have been built for the first time by Rumfa during the extension of the city's walls (see Ch. 3). By the 16th century, Katsina was already well developed and laid out to include many residential quarters for the aristocrats, the Arabs, for scholars and for immigrants from Bornu and Gober [26]. Katsina maintained its position until the beginning of the 19th century.

Emir Delogie's palace at Katsina, as described by Clapperton, was said to be a large village full of magnificent buildings with an attractive courtyard garden. This garden, according to him, was planted with fine fruit trees such as "figs, melon, pomegranates and limes". He added that many vines and grape that were planted in the garden were said to have been destroyed during the the Fulani Jihad [27]. Katsina was founded during the 14th century, so this garden described by Clapperton cannot have been developed earlier than this date.

In all probability Kano and Zaria, like Katsina, might have had an attractive garden well before the 19th century because Hausa towns, just as those of the Yoruba, were developed on similar ideological grounds. For example, existing records to show that Emir Rumfa of Kano laid out his palace with a menagerie. Furthermore, successive Emirs were also said to have enlarged the latter until it was completely destroyed during the Kano riot of the 19th century [28]. Gervis account has also shown that the Emirs' palaces at Zaria had a garden although it was less attractive than that at Katsina and Lafia [24].

Generally, the Kamuri were lovers of gardens, and as such they laid out their palaces with gardens and developed other attractive lakeside resorts and encampments. Kukawa, the then capital of the Bornu empire was founded in 1846, and like Katsina, was also named after a tree, the Adansonia digitata, locally known as Kuka.

When Clapperton and his colleagues visited Kukawa, Sheikh Omar, the ruler of the town, willingly gave them audience in his garden (Fig. 8.6). Both men remarked that the palace was like a great edifice and that its garden occupied a large courtyard with a portico in the centre. The garden, they said, was planted mainly with fruit trees including "lemon and figs" and these, with their ripened fruits, added to the gratifying scene. They also noted that Shehu Omar's garden was the only one in Kukawa planted with many fruit trees. It was a large garden with a plant nursery and it employed fifty gardeners [29].

The garden either dated from the mid 18th century or some time later. However, this garden was a continuation of the Borno's garden tradition that can be traced to their first capital city, Ngazargamo. At Ngazargamo, the Borno had already evolved a sophisticated form of architecture with the palace here built with fired clay bricks [30]. Like Old Oyo, Ngazargamo was brought to ruin by the Borno people and deserted at a much earlier date. However, the Kamuri palace here could also have been the scene of an attractive garden. Some of the trees recorded on the site of the ruined palace such as karage or kardaji (Mimosa asperata), baggaruwa or bagaruwa (Acacia arabica), makka (Moringa pterygosperm) and the dum palms, goriba (Hyphaene thebaica) could have been planted as garden plants. For example, trees like Moringa pterygosperm and Mimosa asperata, are cultivated as hedges, while both Hyphaene thebaica and Acacia arabica found on the ruined site were probably also commonly planted have been planted in

the gardens of the Kamuri nobles. Hyphaene thebaica, (Fig. 8.7a), the tree mentioned at the ruined palace at Ngazargamo, was also the commonest tree found on the ruined site of the Palace of Idris Alooma at Gamaru. The latter is another Kamuri capital town and a successor to Ngazargamo.

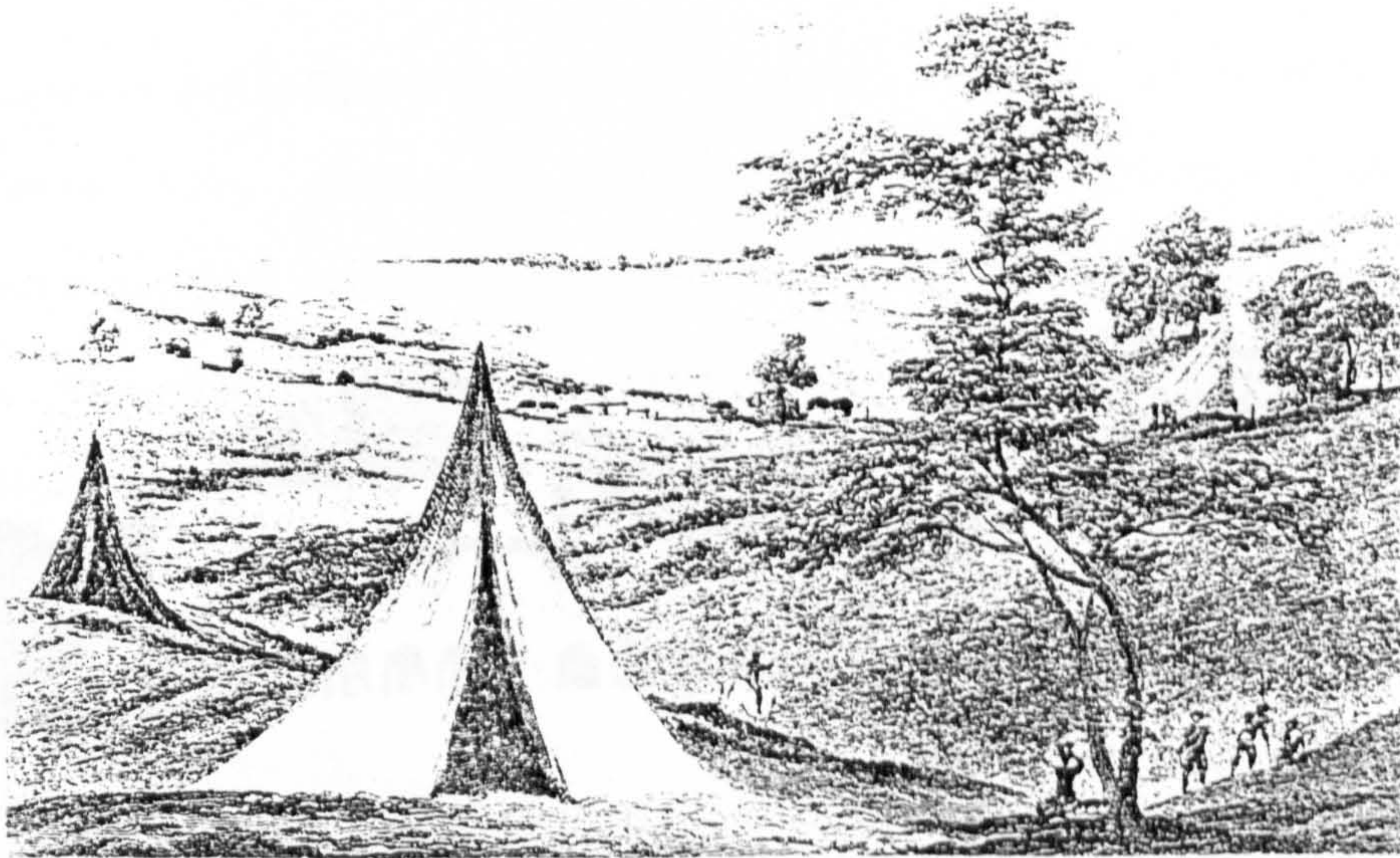
By the 19th century the Kamuri's love of gardens was already demonstrated beyond any doubt. For example, El-Kanemi, whose reign spanned the greater part of the century, not only founded Kukawa, the baobab Adansonia city, but also had lakeside resorts; and some of them were still well maintained by the time Barth visited Kukawa between 1851 and 1855 [31]. In addition, the rural areas of Bornu had many camping grounds carefully sited in attractive landscapes (Fig. 8.7b).

In 1901, Kamuri's capital was moved from Kukawa to Maiduguri by the colonial administration. The new capital built at Maiduguri was laid out with a garden and the dendal, which are two important landscape components of Kamuri towns (Fig. 8.8).

An attempt to pinpoint the origin of the gardens of the Kamuri and the Hausa cultures is no less problematic than that of the Yoruba even though the former have traces of outside influence. Obviously, certain landscape features of the two historic gardens of northern Nigeria, (such as the courtyard architecture, the portico, and plants like limes, grapes and pomegranates also found in Mediterranean and North African gardens of their time), tend to suggest some



a)

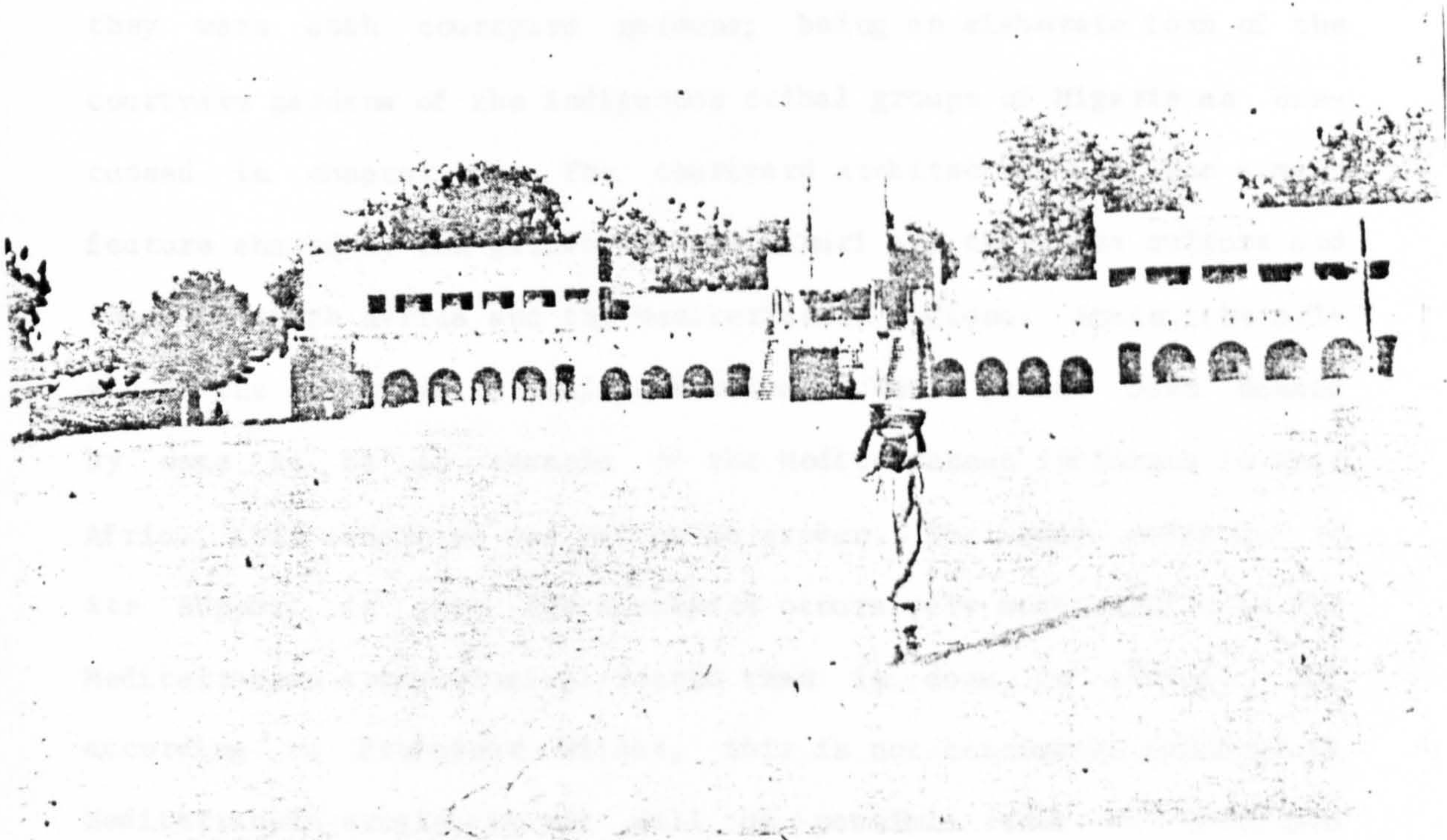


b)

FIGURE 8.7: TWO VIEWS OF KANURI'S HISTORIC GARDENS
a) View of the site of the abandoned Kanuri palace
at Gambaru. b) View of a Kanuri Lakeside Resort
during the 19th century. Source: Barth. H. (1857).



a)



b)

FIGURE 8.8: TWO VIEWS OF SHEIKH'S PALACE, MAIDUGURI.

a) A view of the palace by the early decades of this century; and was very much surrounded by an attractive garden. b) The Palace has been rebuilt with a very strong facade.

similarities. But such similarities are not conclusive of any direct influence although some seems likely. Important factors were the unifying influence of the Islamic religion and the known trading link between the Hausa and the Bornu, with North African and the Mediterranean regions. This was the trade across the Sahara. In order to sustain the trade, which was also important for political stability, most of the early Sudanese empires had to maintain good relations with north Africa, the Mediterranean and the Middle East through the exchange of diplomats. Other channels forming cultural links were the scholars, travellers, wandering Arab architects and the muslim pilgrims [32].

Another noticeable character of these historic gardens was that they were both courtyard gardens; being an elaborate form of the courtyard gardens of the indigenous tribal groups of Nigeria as discussed in chapter 6. The courtyard architecture was also a main feature shared by the gardens of the Kamuri and the Hausa culture and those of north Africa and the Mediterranean regions. Again, the origin of the courtyard is still unresolved. While it has been deemed by some to be an example of the Mediterranean influence in West Africa, this assertion was yet to be proven. The only evidence in its support is that the courtyard occurs very much earlier in the Mediterranean archaeological record than it does in Africa. But according to Professor Willet, this is not conclusive evidence of Mediterranean origin, it may well be possible that it developed separately or that the courtyard architecture was invented in West

Africa and spread from here to the Mediterranean [33]. He observed that as archaeology in Africa is at present rudimentary it is better to keep an open mind in the face of uncertainty. He stressed that it does not help the subject in question to "assert that because traits of culture have been found outside negro Africa that they must therefore have been invented outside Africa. To substantiate his argument he added that a few years ago it was thought that mankind originated in Asia; but now the weight of the evidence points to Africa [34]. In fairness it may now be said that both opinions are considered incorrect. It is likely that the gardens of the Kamuri and the Hausa cultures probably evolved locally, while the introduction of foreign plants happened later. The seemingly indigenous nature of the gardens of the Yoruba, the Kamuri and the Hausa cultures and their seeming similarity with those of some outside cultures attest to the fact that people of the same climatic belt and with similar environmental problems are quite capable of evolving similar architectural solutions independently.

THE ROYAL PALACE GARDENS TODAY

The Yoruba Palace Gardens Today

Since the beginning of this century, there have been two noticeable changes in the character of Yoruba palaces. The first of these has been the encroachment of buildings upon open spaces and gardens around the palace, which from their origins and until the recent past

were quite extensive. The period of considerable encroachment upon these palace gardens coincided with the advent and duration of the colonial administration. More recently encroachment has continued but with less intensity, either because of lack of space or finance for building purposes. Notable examples are the existing palaces at Abeokuta in Ogun State and Oyo in Oyo State, which are already overbuilt (Appendix 3).

The Ewi's palace garden, Ado-Ekiti, one of the eastern Yoruba towns now situated in Ondo State, is perhaps the most encroached upon by undesirable building activities of the past and some of these were well documented by Ojo in 1966. Between 1924 and 1966, these buildings included the native court, the police barracks, tax office, trading stores for the United Africa company and two other commercial concerns, the public reading room, a garage, a primary school, the district council office buildings and the Magistrate court. Similarly, Owabokun's palace, Ilesa, has lost about a third of its land area having been carved out for residential and commercial building purposes. Moreover, the palace is now overshadowed by a commercial bank building to the front. The Ooni's palace, like that of Ewi and Owabokun, now houses the district council office buildings, the town hall, the Museum and the court houses.

Despite the rate of building activity large areas of open land still exists in some of these palaces though mostly in a degraded form. These ought to be preserved and reinstated as attractive gardens. Up till 1966, Ojo's study showed that between 52 and 92

percent of the land area of Yoruba palaces was still left open. Since then building activities in these palaces have slowed down. At most, Yoruba kings, who have lost their inherited political and financial powers, will now endeavour to add just one new building, if they can, as their contribution to the palace architecture. This point is very true of the development of the Ooni's palace and perhaps of others.

The second significant change has been the opening up of the wooded landscape of Yoruba palaces so that they are now full of exotic trees and shrubs; increasingly they adopt the stereo-typed grassed character of the English landscape style introduced by the colonial administrators. This tendency is clearly reflected in the existing character of the Ooni's palace at Ile-Ife.

The Ooni's Palace Garden, Ile-Ife: A case study

The present Ooni's palace is the oldest and a typical example of existing Yoruba palaces although it is by no means the largest. It is situated in the centre of the indigenous area of Ile-Ife and is enclosed not by mud walls but by a formidable stone wall 3 metres high built for security and privacy. Its area is barely 8 hectares being much smaller than those at Owo (44 ha.) - the largest of the Yoruba Palaces with gardens - and Ilesa (21 ha.) (See Fig. 8.4 above). Other Yoruba palaces smaller than that of the Ooni are those at Oyo, Idowa, Owu and Abeokuta (Appendix 3).

Figure 8.9 shows the plan of the Ooni's palace and gardens, Ile-Ife. The triangularly shaped Emuwa square in front, leads to the main access points to the Ooni's palace, which are ornamented with iron gates (Fig. 8.10). The one nearest to Ife Museum is the Ooni's private drive and the other, which is the most central and the main public access, has an arched entrance passing through the local government office buildings and terminating in Oduduwa square.

Oduduwa square is a large open enclosure framed by the adjoining buildings. Its main features are the Oduduwa statue which serves as a central focus, the luxuriant and shady Cassia nodosa and the town hall with its wide colonnaded verandah to the south blocking the views from here of the Ooni's private apartment. (Fig. 8.11).

Ife Museum occupies the northern corner of the palace and is surrounded mainly by ornamental lawns and planted in parts with Lagestroemia indica. Within the museum building is an attractive but badly maintained courtyard garden in which are placed some of the stone monoliths found in the sacred groves of Ile-Ife; a pleasant space in itself but no substitute for the grove garden from which they have been removed.

The stretch of the Ooni's private drive along Oduduwa square, which borders on the museum, is planted with a hedge Phyllanthus miosus (ice plant) and a row of Ficus spp, under which is placed a straight line of hideous concrete seats in a linear fashion. From Oduduwa square, access to Ooni's private apartment is controlled at

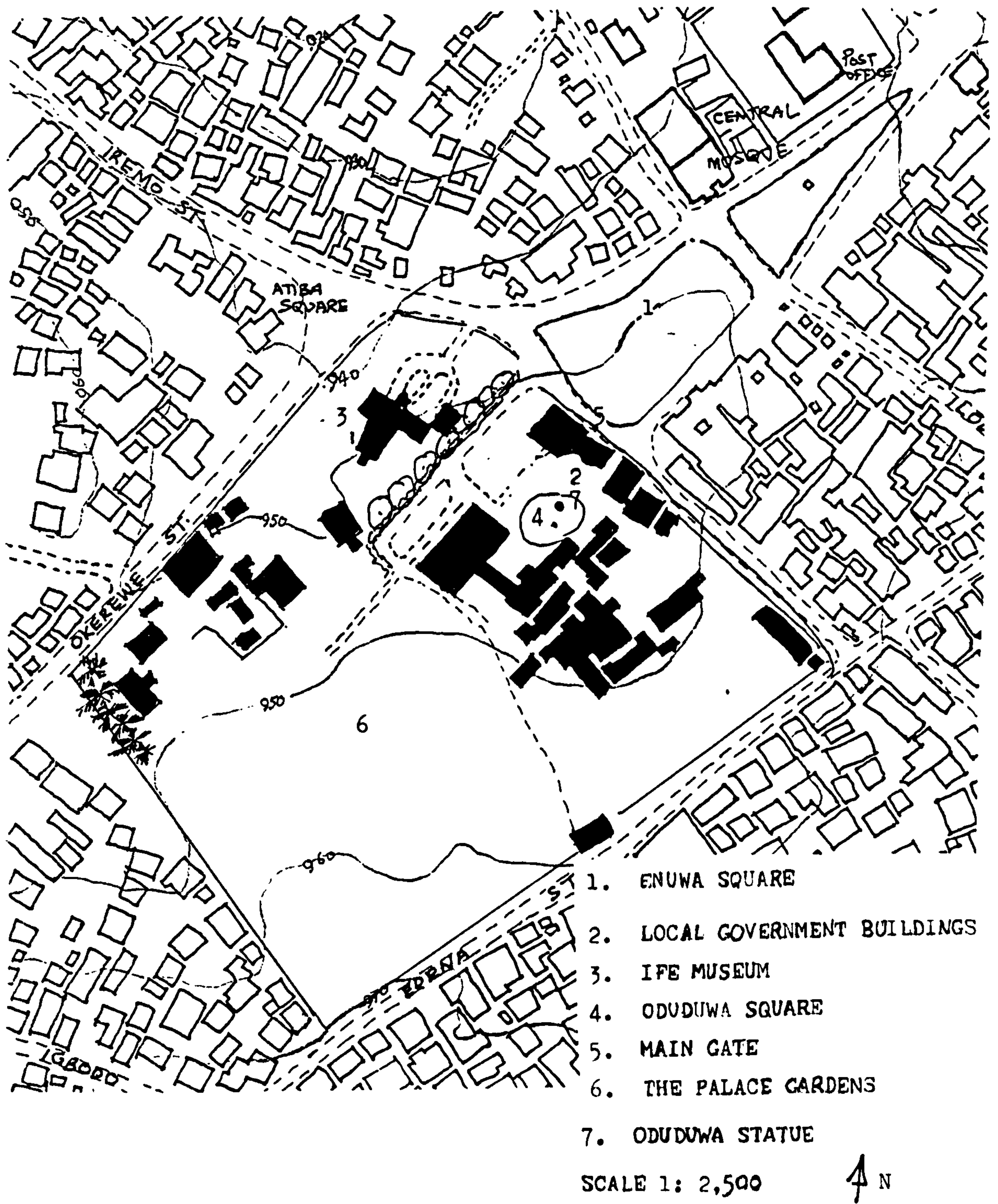


FIGURE 8.9: THE PLAN OF THE OONI'S PALACE, ILE-IFE

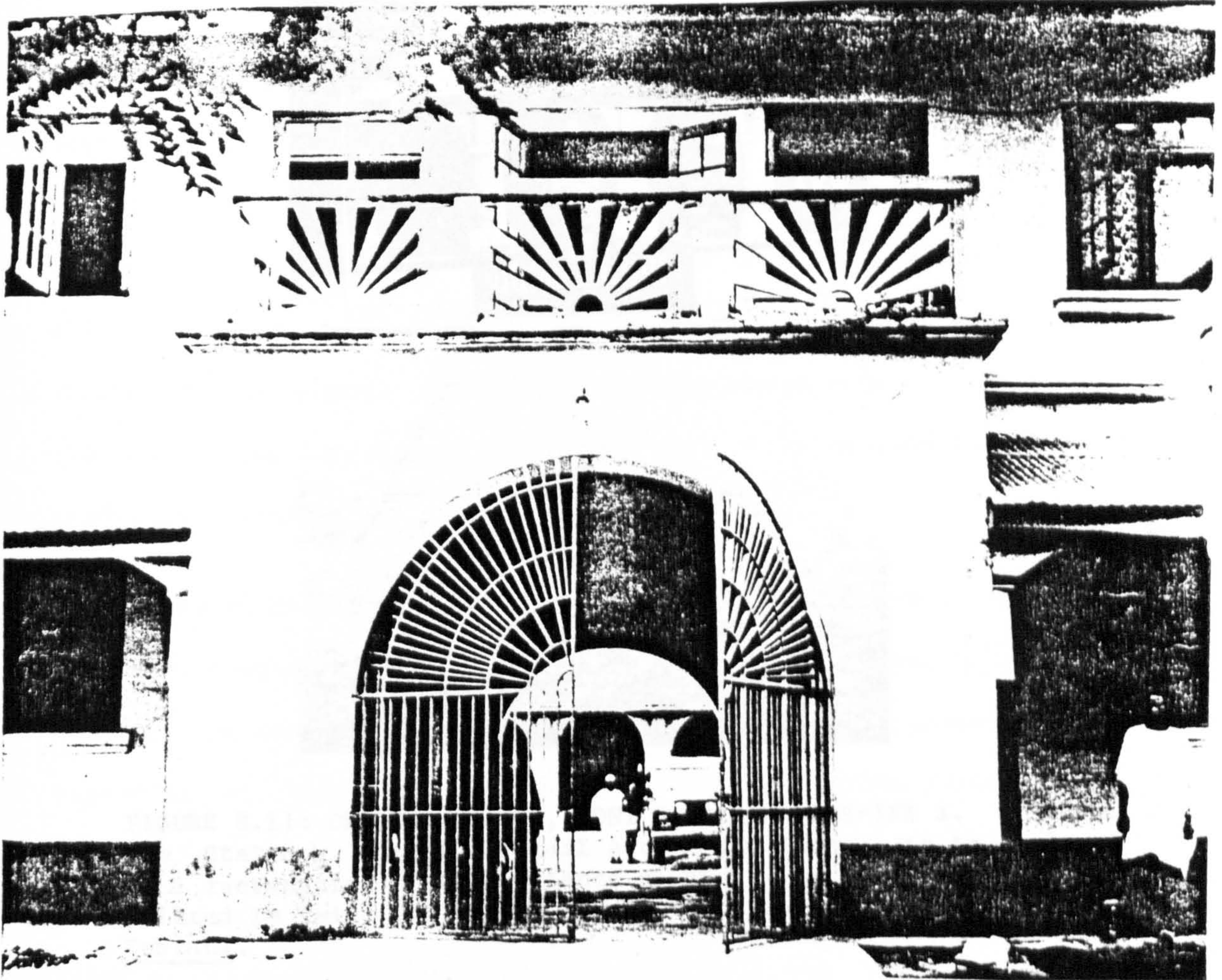


FIGURE 8.10: THE GATE ERECTED ON THE PUBLIC ACCESS TO OONI'S PALACE: An example of well constructed iron gate.



PLANNING DETAIL OF THE GATE

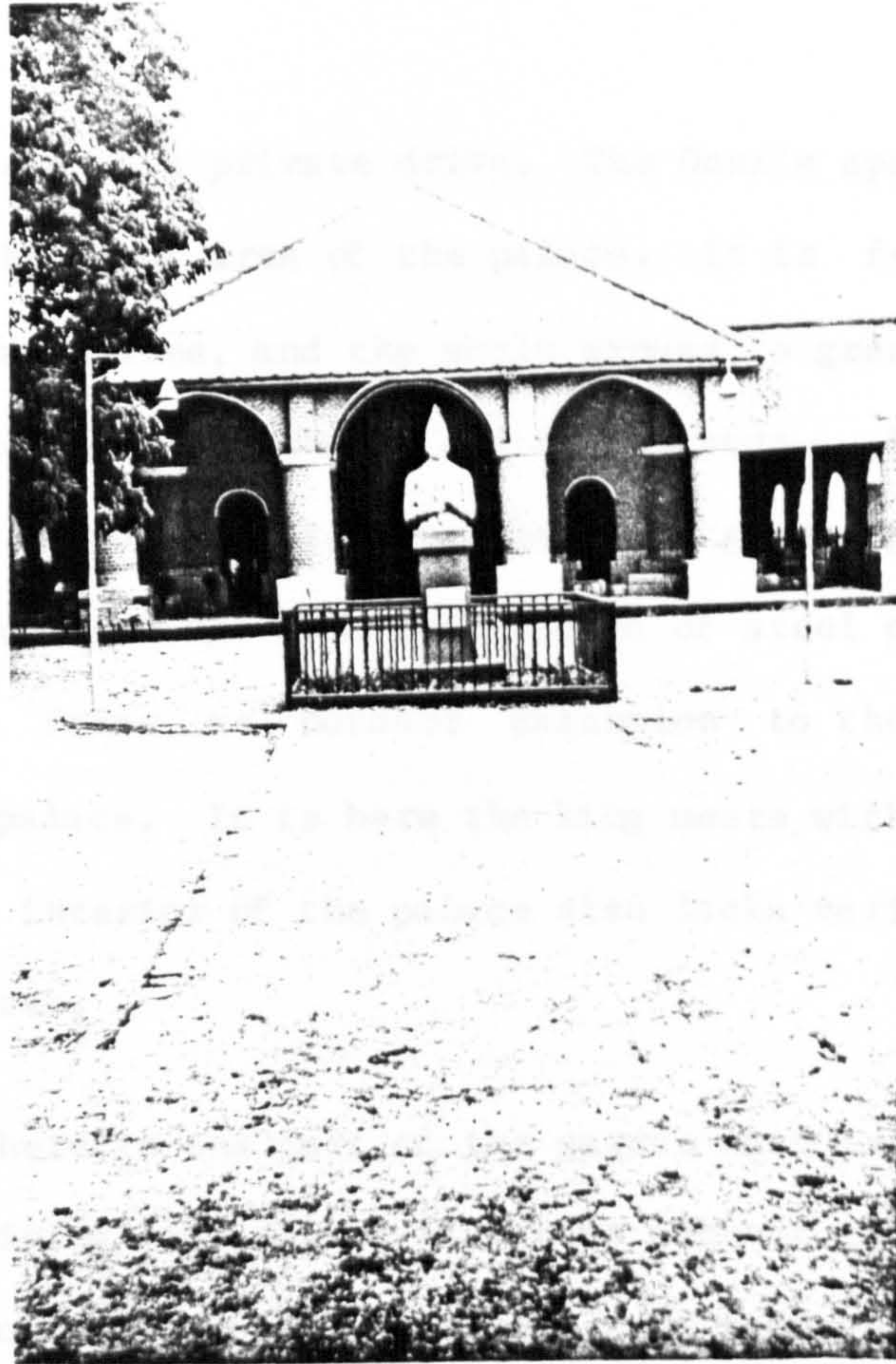
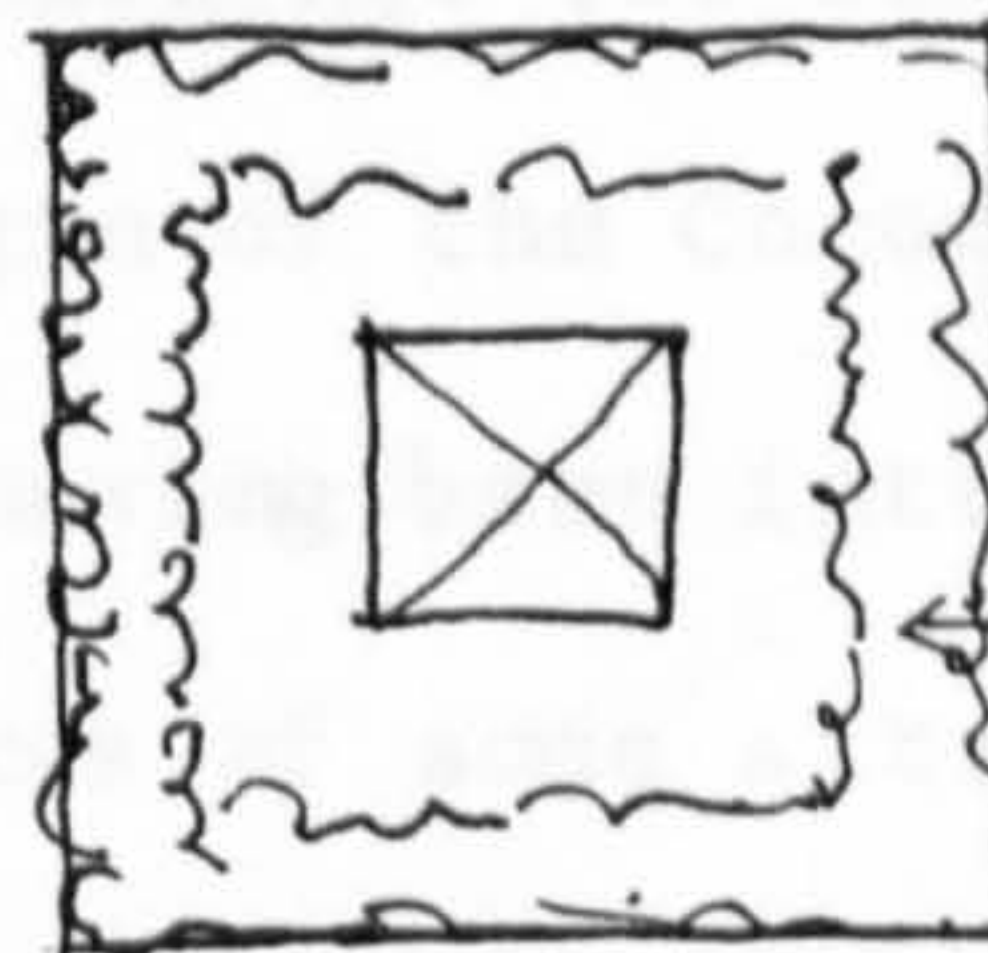


FIGURE 8.11: ODUDUWA STATUE, OONI'S PALACE, ILE-IFE a. View of the Statue b. Planting Detail Around the Statue; it is enclosed by a rectangular cast iron fence of about 1 metre in height and painted in red. The ground around it is planted with the purple Zebrana.



Zebrana planted as ground cover and edged with granite chippings

PLANTING DETAIL OF THE STATUE.

the second gate on his private drive. The Ooni's apartment occupies about half of the total area of the palace. It is fenced off from the palace's public area, and the whole ground is grassed and planted with a few specimen trees, shrubs and flower beds. By standing in one place, it is easy to take in the whole garden prospect. It is not very inviting. A large shed constructed of steel posts and roofed with tarpaulin forms an outdoor extension to the inner audience chamber of the palace. It is here the king meets with his chiefs in the open. The interior of the palace also lacks variety in terms of landscape features.

However, there is one part of the garden with interest. It is the area containing some groves of mature coconut trees, Cocos nucifera, in the south-west corner and which were perhaps planted at the beginning of this century. They help to provide shaded spaces around the nearby rows of rectangular buildings for the Ooni's wives and other employees of the palace. It was Sir Alfred Moloney who first put forward the policy of paying in kind the monthly salaries of the Obas and chiefs by using some of the food trees and others of economic value propagated in the then Lagos Botanical Station and up to the amount of three shillings (at half penny a plant) [35]. This probably explains the origin of the Coconut groves around the Ooni's palace, the coconut palm having been introduced for the first time in Lagos in 1887. Another area of some attraction is the ground of the recently built bungalow to the south-east corner. This bungalow is adorned with two long and narrow flower beds to the front which have

been planted with Hibiscus variegata and the red Acalypha. The planting has been undertaken by Chris Bankole, the then horticulturist of the Parks and Gardens Unit of the University of Ife. This new planting is conventionally European and in imitation of the similarly European treatment of the Ile-Ife campus.

Over the years Yoruba palace gardens have become increasingly more open and ornamental in their character. The most noticeable change has been the disappearance of the large and majestic trees like the Adansonia digitata and their replacement by smaller trees, and shrubs and the increased use of grass to create ornamental lawn which, in the tropics is a more or less lame imitation of western traditions. These are indicative of the changes which have taken place in the tastes and values of Yoruba kings especially those associated with their religion and political status. In contrast to the Ooni's Palace, those of Owabokun of Ilesa, Olowo of Owo and Owa of Idanre have retained their wooded landscape although most of these are currently neglected. Further studies of these might reveal other attributes of Yoruba garden tradition. But as existing Yoruba palace gardens are not opened to the public, one has to appeal to the kings for permission to make a detailed architectural study.

The Royal Gardens of the northern Emirs Today

In the recent past considerable efforts had been made to improve the palaces of the northern emirates, through the rebuilding of palace walls, the main entrance halls, refurbishing the audience

chambers and the addition of new buildings - mainly attractive and well decorated bungalows but European in character (Fig. 8. 12). Gervis provided an account of the recent changes in the character of the palaces of the Emirs. His accounts has^v been drawn upon for the purposes of this study because the author could not gain access to any of them for any detailed investigation.

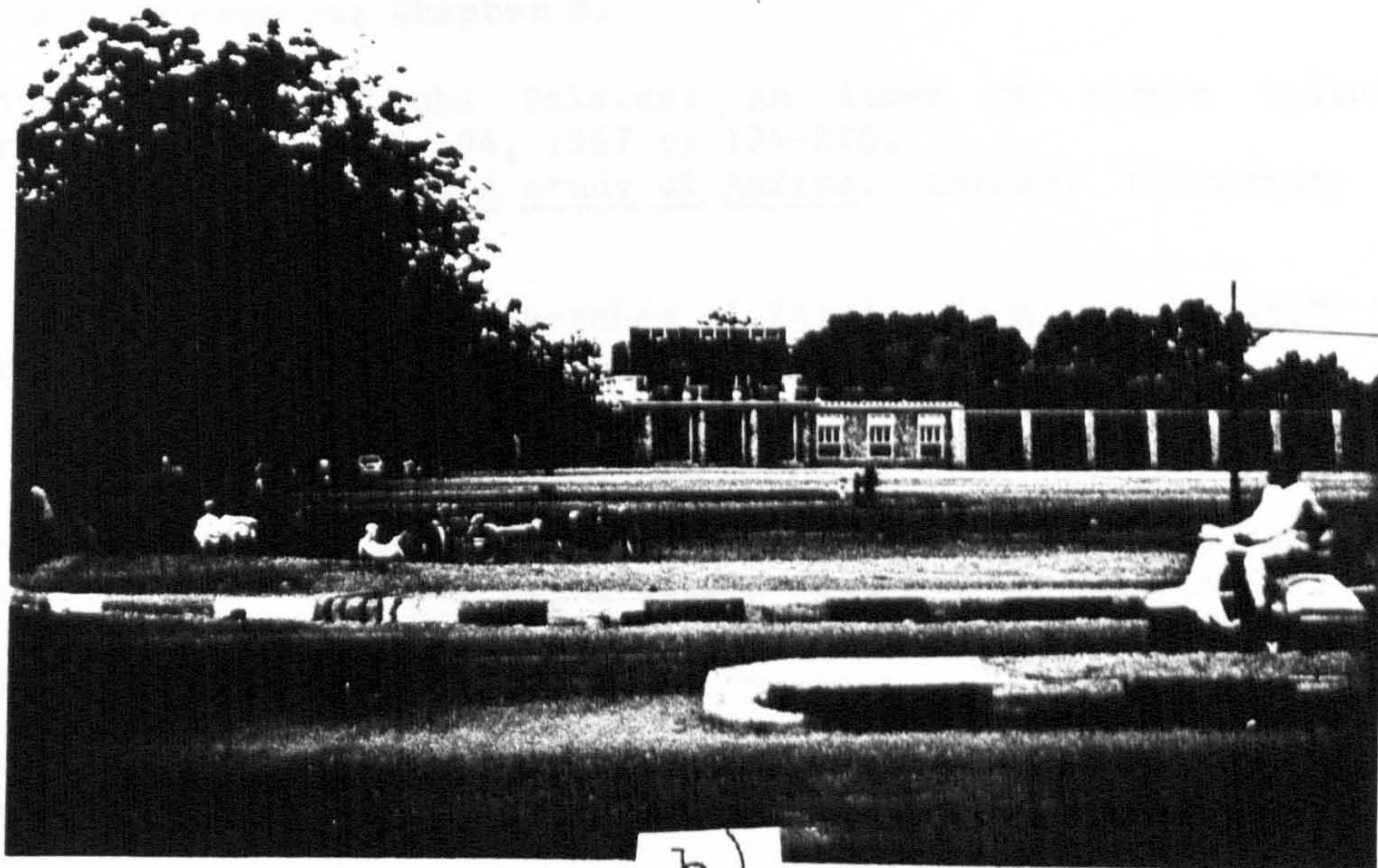
Of the Emir's palace Katsina writing in 1963, he said:

"A great courtyard of the old palace had been transformed into an English garden. In the centre had been built a modern white bungalow with a red roof, its deep settee and gaily stripped chairs were spread about.... .. the lovely garden had been laid out by a retired British Major who,..... discovered which of the English flowers could flourish in a tropical climate, flowers like Zinnia, Verbena, Salvia, Balsam and Petunia. like honey suckle and broken hearts..... were fast covering the drab high mud walls surrounding it; while climbing roses were fast hiding the arches and making a secluded arbor. A large fountain was then completed in the centre of the garden" [36]

At Lafia, Gervis also recorded his surprise at seeing a modern bungalow set in the centre of a large green lawn planted with many trees. On one side of the garden were the stables and among the horses there was a paddock with two ostriches, and next to that a group of the royal peacocks all white in colour added to the attractions of the garden [37]. Gervis also had the following comment to make about the palace of Emir of Zaria: the Palace walls are completely redecorated; with the mud decorative motifs plastered with cement; the outer walls of the great gateway are again picked for planting which covered quickly all the ground except the paths and flower beds which are filled with pot plants".



a)



b)

FIGURE 8.12: EXAMPLES OF THE ROYAL PALACES OF NORTHERN NIGERIA
a) A view of Kofar Soro and the avenue at Katsina Palace. b) A view of the Emir's Palace at Kano: showing the garden.

He added that the gardens of the old palaces are aging, and becoming dilapidated, musty and gloomy.

Considering the changes which have taken place in the character of the Royal palaces described above during this century, they demonstrate an interest in the development of ornamental gardens, which are European in character. Some changes incorporated into their design having nothing to do with African tradition, and amount to a weakening of African tradition in architecture and gardens. Most especially the buildings incorporated into the new design are less suitable than those of southern and northern Nigeria tribal groups; the Yoruba, the Hausa, the Nupe and the Kamuri. However, these changes are a manifestation of changing life styles in imitation of the colonial administrators.

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19. Frobenius, L. (1913) op cit., p 309 of Vol. 1.

15. Ibid., p 277-278.

16. Crowther, S Yoruba Dictionary. London, 1852 p 12.

To appreciate the deep meaning of Aganju one can compare it with other Yoruba words often used to describe some typologies of landscapes. For example, Aganju is different from other Yoruba words like Igbo - which means "forest, woodland or grove". It is also different from osusu - which means "bush" and papa - which connotes "burnt field" or odan - which means an "open field". More importantly, it is different from Igbe - which which means "bush".

17. Ojo, (1966) op cit., See Chapter 3: The size of Of Afins pp 22-28. See also pp 22, 25, 26, 27, 40, 44, 51, 55, 84.

18. Ibid.,

19. Fage, J. D. (1978) op cit., p 103.
20. Willet, F. (1967) op cit., See Chapter IX The origin of the Yoruba and of the Art of of Ile-Ife pp 119-128.
- ↓ 22. Caldwell, J. M. Some Aesthetic aspects of Yoruba and Benin Cultures Ph. D. Thesis, North Western University, 1952 p 45.
- . . . Elsofon, E. and Fagg, W. B. The Sculpture of Africa London (1958) p 60.
21. See Bascom, W. African Art in Cultural perspective: An introduction. New York, 1973.
See also Willet, Frank Ife in the history of West African Sculpture. London: Thames and Hudson, 1967. See pp 7-8.
23. Clapperton H. (1828) op cit., p 121
24. Gervis, P. Of Emirs and Pagans. London: Caswell, 1963.
25. Shaw, F. L. A Tropical Dependency: An outline of the ancient history of the Western Sudan with an account of Modern Settlement of Northern Nigeria. London, 1904. See Chapter XXIX Hausa to the end of 18th century pp 258-267.
See also Clapperton, H (1828) op cit., p 121.
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_____. "Katsina, A Region of Hausaland," Scots Geographical Magazine. Vol. 54, 1938; pp 203-205.
26. Shaw, F. L. (1904) op cit., p 262.
27. Clapperton, H. (1828) op cit., p 121.
28. Muhammad-Oumar, Abdulrazaque Ahmad "Traditional Kano city," West Africa. No. 3512, 10 December, 1984; pp 2531-2532.
29. Clapperton, H. (1828) op cit., p 120.
30. Bivar, A. D. H. and Shinnie, P. L. "Old Kanuri capitals," Journal of African History. Vol. 2, No. 1, pp 1-10.
31. Barth, H. (1857) op cit.,
32. Historical accounts of the Kanuri and the Hausa are full of examples of past good relation with countries of north Africa, Mediterranean regions and the Middle East.
Fage, J. D. (1978) op cit.,
Ajayi, J. F. Ade (1965) op cit.,
Barth. H. (1857) op cit.,

33. Willet, F. (1967) op cit., p 126
34. Ibid.,
35. Kew Bulletin 1889.
36. Gervis, P. (1963) op cit., pp 67-80.
37. Ibid., p 179.

CHAPTER 9

MODERN AND RECENT LANDSCAPE DESIGN IN NIGERIA

In Nigeria, the period from the time of colonisation to the present can be regarded as a new era of urban planning, architecture and subsequently landscape design. From the latter standpoint, it is a period marked by a new approach and attitude to the use of plants, building and landscape construction materials in the urban environment. This chapter is devoted to the study of open spaces and gardens which essentially belong to this period. An outline history of modern landscape design is provided as a necessary background to the later and more specific accounts of selected types of open spaces and gardens.

HISTORICAL PERSPECTIVES

The history of modern landscape design in Nigeria effectively dates from 1861 when McKoskry, a European merchant, was appointed as the first British consul for Lagos Colony. However, before 1861 European merchants had pioneered the development of some gardens and plantations around the Trading Forts in West Africa notably at Elmina Castle, Cape Coast and Dixcove Fort. These early Europeans gardens, were mostly utilitarian being largely devoted to the cultivation of

exotic food crops and fruit trees. The few ornamental gardens had summer houses built for the resident governors and were used for holding parties [1]. Until the era of colonisation, these gardens had little impact in most parts of West Africa including Nigeria except in the Gold Coast (the modern Ghana), where the trading Forts had been concentrated. Dating from the late 19th century one can trace the contributions made by some individuals to modern landscape design in Nigeria.

Following the ceding of Lagos, the British colonial administration began to build new houses for their employees. At first, these were prefabricated buildings erected on columns; usually of two storeys and built clear of the ground to prevent the Miasma, which at that time was believed to live in damp places. Therefore, only the first floor of the building provided for living rooms with the ground floor left open (Fig. 9.1).



FIGURE 9.1: AN EXAMPLE OF EARLY EUROPEAN BUILDINGS IN LAGOS

Mr. McKoskry was the first to have opened up the prospect of the Lagos Marina towards the lagoon and he turned the area into a pleasant and attractive walk, making it very different from other parts of Lagos [2]. Governor Glover, who succeeded McKoskry, extended the Marina. He, too, laid out the Broad Street and Ebute Metta for the Egba refugees. He was said to have built many fine buildings, planted many trees and the foundation of modern Lagos could be ascribed to him [3].

In 1886, Sir Alfred Moloney became the first governor of an independent Lagos Colony and the annexed Southern Protectorate.

Prior to this time, Lagos had been administered from the then Gold Coast. Governor Moloney was an horticulturist trained at Kew Gardens, London. As a keen gardener, Governor Moloney had started a model nursery on the site of the Old Debtors Prison at Kokomaiko, Lagos Island. Here, he succeeded in raising many plants including "Cacao theobroma, Coffea spp., Tamarindus indica, Mangifera indica, Borassus spp., and the bread-fruit [4]. Governor Moloney also spearheaded the establishment of The Lagos Botanical Station in 1887, which was the first of its kind in British West Africa and by so doing made the foremost contribution to horticulture in Nigeria. Mr. Morris, of Kew gardens London, actively supported the development of the Station. Another active supporter of Moloney in Nigeria was Sir Rowland Ross, the Assistant Colonial Surgeon who was a lover of gardens [5].

The Lagos Botanical Station was developed on a site of approximately 4 acres (1.52 ha.), being the former compound of Bishop Crowther. Mr. James McNair, a Jamaican, was trained at and seconded from Hope Botanical Gardens as the first superintendent of the Station and was assisted by Mr. T. B. Dawodu, a Yoruba. When Mr McNair arrived in Lagos on the 8th November 1887 with his wife and three daughters to assume his duty, he commented about the expensive and ugly Lagos. "The country is very expensive", he said, "fancy eight pence a pound for flour. I like the place very well although it is very hot, not like our beautiful Island" [6].

The Botanical Station, though short-lived, was a success

considering the many exotic trees that were successfully naturalised and propagated in it. In 1887 the plants raised in the Station included " Hevea spp., Tamarindus indica, Capsicum spp., Saccharum officinarum, Ananas sativus, Coffea spp., Cacao theobroma, Pitanga spp., Corrolita spp., Solanium melongena, Delonix regia, Banyam spp., Cassia spp., Lycopersicum esculentum, Casuarina esquitefolia, Lagerstromea spp., and others like camphor, cinnamon, arrow-root, tea, teak and traveller's palm [6].

Russell [8] also recorded that when Sir Rowland Ross was returning from his annual leave in the UK, he brought from Edinburgh Botanical Garden some exotic tropical plants which included Bougainvillea, Allspice, Plumbago and Poinsetta. By 1888 some of the plants propagated in the Station were already sold to the public at half penny per plant. Some of the plants were gifted to Christian missions nominated by the governor while others were used as part-payment of the monthly salaries of the native chiefs and Obas up to three shillings in value. The Station's first annual report stated that the Government House at Lagos, had been successfully planted with many coconut trees. 30,000 coconut trees were also said to have been planted in Lekki, Palma and Badagry. In the same year Mr. McNair wrote to Kew Gardens informing them that he had successfully raised from seed a large number of Casuarina stricta (beefwood), made a hedge of it in the Station and planted many in Lagos, which were all doing well. The following year, it was also reported that some 443 different plant species had been raised in the Station. In the same year Sir

Rowland Ross was reported to have planted many Casuarinas in Lagos along the Marina and Race Course.

The closure of the Lagos Botanical Station in 1902 coincided with the transfer of Governor Moloney, who was accompanied by Mr. McNair, to the British Honduras. It also coincided with the creation of a new Department of Forestry in 1903 with the Botanical Station subjected to it. Mr. Dawodu continued to serve the colonial administration as Assistant superintendent forester.

If Governor Moloney's major contribution to urban landscape design had been horticultural, that of his successor, Governor MacGregor, was largely sanitarian. Assisted by Sir Rowland, Governor MacGregor embarked on draining the swamps of Lagos. He turned one of the most objectionable swamps into an attractive canal which was named after him. His major contribution was the marked improvement to the landscape of the quarters. Miller described the European quarter along the Marina as convenient and hygienic, while the native areas of Lagos were squalid slum with narrow, winding streets and alleys with houses huddled together alongside open drains filled with foul water and garbage [9].

Following the setting-up of the Select Committee on Housing for colonial staff in 1926, new residential quarters were built to the recommended standards in the official reports for the Northern and Southern Protectorates. Prototype houses to be built in them were designed by architects employed by the Public works Department,

Lagos. The end product^s of this are now the houses to be seen in the older Government Residential Areas (GRA) surrounded by attractive gardens.

In developing the gardens of the GRA one can identify the contributions made by some individuals who were mostly foresters, botanists and horticulturists. It is only right to acknowledge that landscape gardening in Nigeria posed enormous problems to the early colonial administrators, who were the pioneers of the modern gardens. Direct application of of British practice generally failed. The few successful gardeners were either those who benefited from their experience of tropical gardening in other British colonies such as India, Malaysia and East Africa or those who quickly acquired a knowledge of tropical gardening from literature. The problems the pioneers of Nigeria's modern gardens had to contend with included what to plant, and when and how to grow different plants and crops.

MacMillan's book on Tropical Planting and Gardening was among the earliest on the subject [10]. Undoubtedly his book influenced some of the colonial gardens in Nigeria. Though written with special reference to Ceylon, it was well used as a handbook by gardeners in other tropical countries including Nigeria. In fact, the books written by Gibberd [11] and Williams [12] on tropical gardening with reference to Nigeria not only acknowledged MacMillan's book but were modelled on his book. In many respects these books are written like plant encyclopaedias; being a compilation of lists of plants suitable as flowering shrubs, foliage shrubs, flowering climbers, showy

annuals perennial, bulbous plants and so on. They offer scarcely anything on garden design.

A journal which has made a major contribution to the spread of gardening knowledge in Nigeria and parts of West Africa is The Nigerian Field. The Journal was first published in 1930 and was wholly devoted to many aspects of the country's natural environment and different aspects of local conditions and culture. In particular, the early Journals issues contained many interesting articles on gardening in Nigeria and West Africa such as wild flowers [13], vegetable culture [14], indigenous trees for Nigerian gardens [15] and the cultivation of exotic flowering plants in Nigerian gardens [16]. Most of these are horticultural in scope and again lack any design commentary. At best they put forward worthwhile suggestions on what to plant, how to grow plants and their associated problems. One can perhaps cite the case of two noteworthy contributors.

Saunders, a botanist, made the greatest contribution to amateur gardening in Nigeria. The Nigerian Field published many of his essays on gardening in Nigeria and Ghana [17]. He was appointed as the garden editor to the Journal perhaps by reason of his earlier contributions on vegetable culture in Nigeria. His first major contribution, and characteristic of his expatriate interests, was the compilation of the list of exotic plants from Europe including Dahlias, Chrysanthemums, Lilies and roses for Nigerian gardens (see Appendix 4) Another important contribution was his article entitled "Blue in the Nigerian Flower Garden" in which he explained how to make a blue

garden. He noted that the most common problem in developing a blue garden in Nigeria is finding suitable herbs, climbers and shrub with blue flowers. He suggested that it is desirable to include the blue-mauves and the blue-purples in order to achieve a reasonable contrast in a blue border garden. His account included a sketch for a hypothetical blue garden (Fig. 9.2). Some of the herbs, shrubs and climbers suggested as blue-mauves and purple-blues are also contained in Appendix 5. Saunder's most recent contribution to horticulture is his book entitled Wild flowers of West Africa. This book is essential for botanists as a companion for identifying plants in the field. However, a chapter he omitted on the use of these plants in the urban landscape would have been of great benefit to the landscape architect

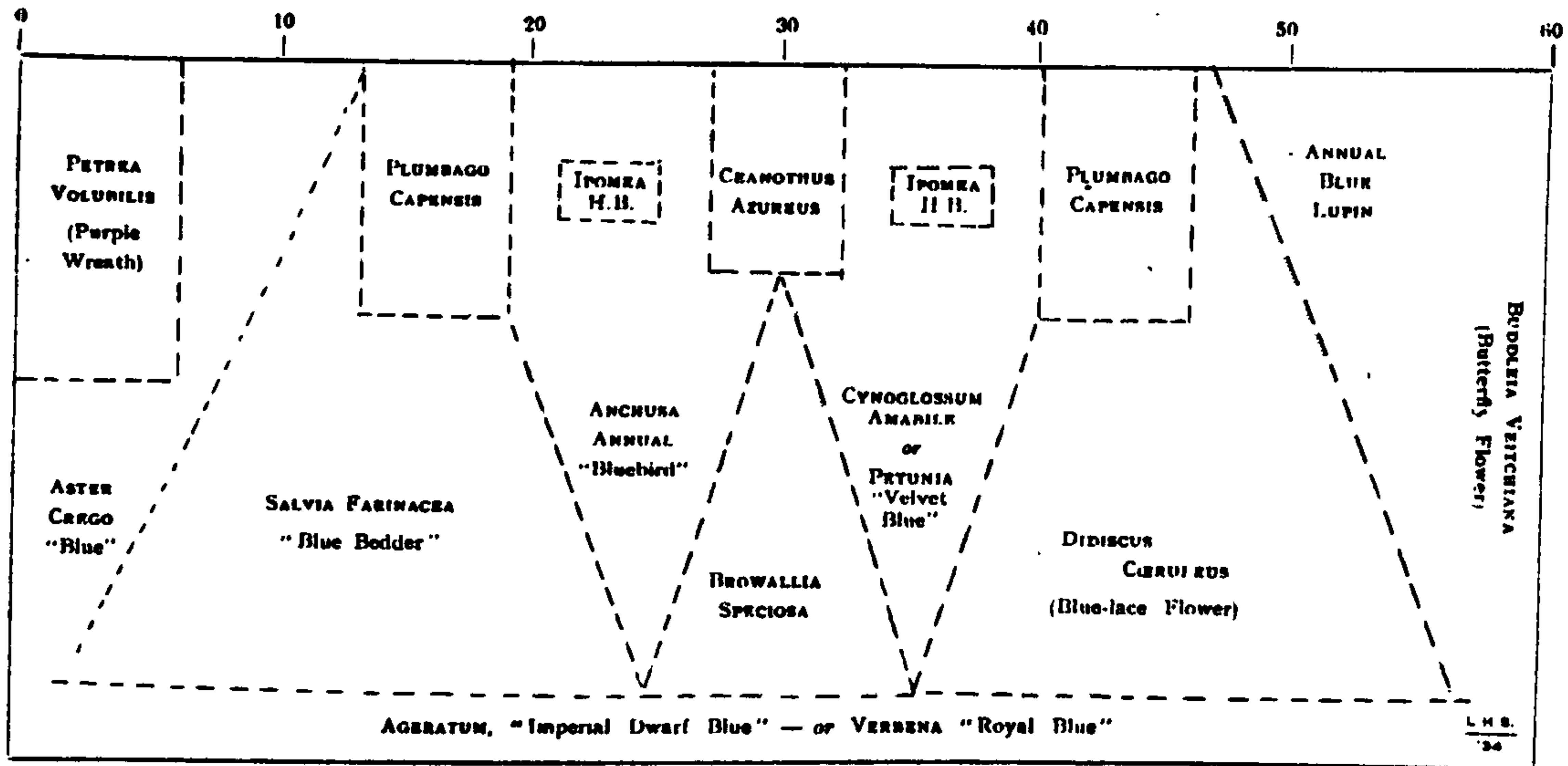


FIGURE 9.2: A HYPOTHETICAL BLUE FLOWER GARDEN FOR NIGERIA

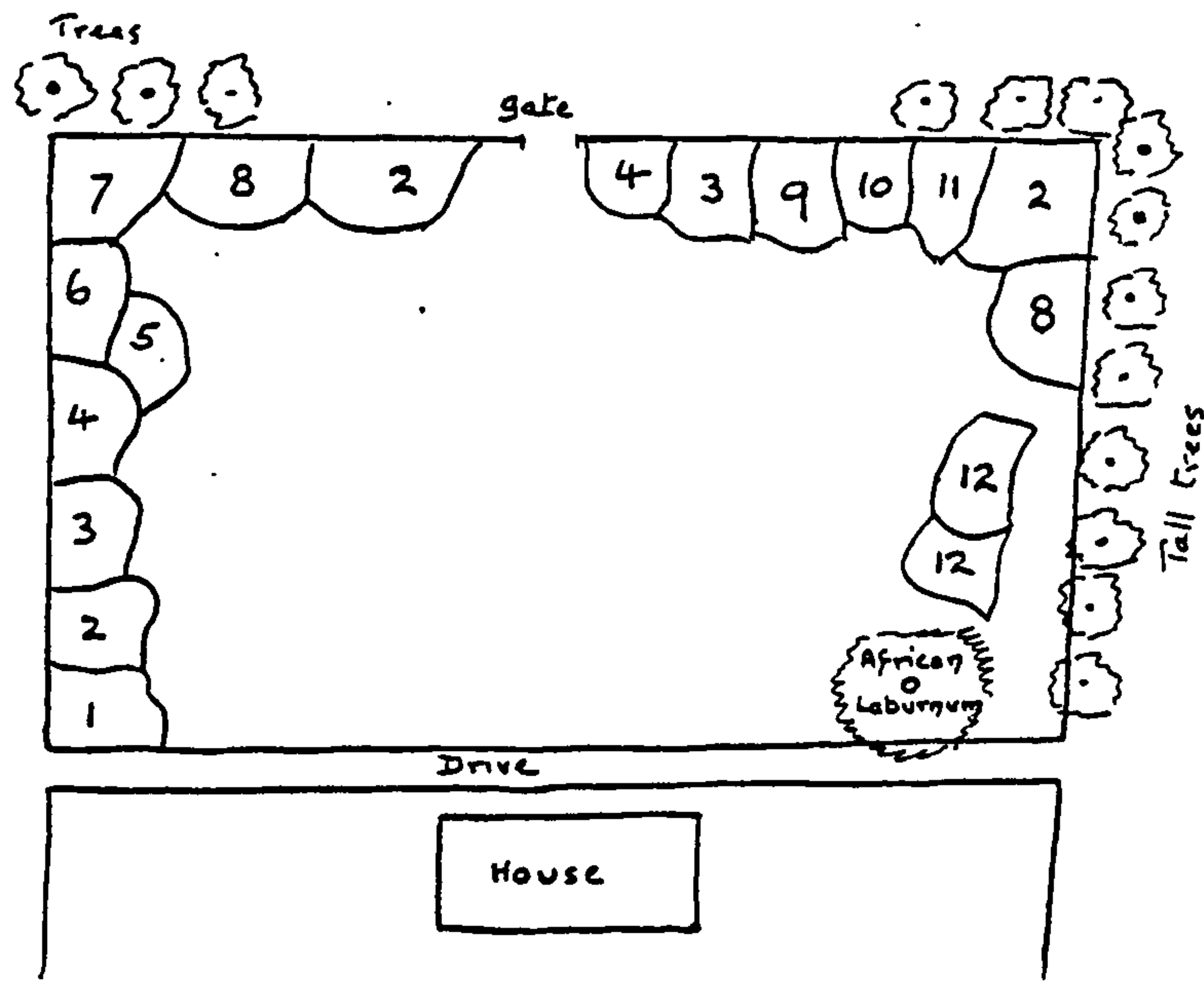
Source: H. N. Saunders (1935)

Mr. Bridges, was another note-worthy contributor. In fact, he made an honest confession in his article entitled "Garden Planning"[18] by saying that his main contribution was how not to garden in West Africa. This is because everything he had done in the English tradition about the garden was wrong. His experience shows some of the more obvious problems most early gardeners had to cope with in their attempts to more or less import the English style of landscape gardening into Nigeria.

Mr. Bridges returned from London where he had spent his annual leave and, observing the prevalence of attractive herbaceous borders, he determined to develop one. He said: "we have never been able to produce a true herbaceous border in Nigeria because only a few (exotic) herbaceous plants will grow" in the hot climate. What he forgot to consider was that the few exotics are no substitutes for the many native herbs waiting to be used. He added that one might tend to adopt the idea of the English garden shrub border to the West African conditions in preference to planting of single lines of shrubs. In essence, this shows that the colonial private gardens were often undertaken with those in England as the ultimate goal and by those with horticultural rather than design skills.

Mr. Bridges set for himself four objectives in developing his garden which were: to screen the garden from the roads; to hide the unlovely lines of the fence; to place each type of shrub where conditions best favoured its growth, and to group the plants in such a way as to give harmony of form and contrast of colour [19]. In other words, it is gardenesque in his approach [20]. To achieve harmony and contrast, Mr. Bridges said he had no problem because the choice of plants were limited to less than a dozen, a rather surprising statement perhaps indicating his lack of knowledge of tropical flora. Figure 9.3 shows a sketch of Mr. Bridges's garden which was situated in Port Harcourt. To the west this garden was surrounded by a row of tall trees and to the south-east by smaller ones. Mr. Bridges had many problems to cope with in developing his garden especially

flooding due to the heavy annual rainfall characteristic of Port Harcourt. These two contributors and most others show the increasing desire to make flower gardens similar to those in the GRA.



- | | |
|-----------------------------|-------------------------------------|
| 1. Pagoda Flower | 7. Yellow Crotons (tail broad leaf) |
| 2. Red Acalypha | 8. Iceplant |
| 3. Purple Bougainvillea | 9. Allamanda |
| 4. Yellow Pride of Barbados | 10. Red Pride of Barbados |
| 5. Dark purple Crotons | 11. Red Hibiscus |
| 6. <i>Jatropha</i> | 12. <i>Acalypha cordifolia</i> |

FIGURE 9.3: THE PLAN OF MR. BRIDGES' GARDENS, PORT HARCOURT, NIGERIA

The design of the garden is typical of the gardenesque approach.

The members of the Nigerian Field Society, which published The Nigerian Field, held many seminars and symposia [21] where topics of interest to amateur gardeners were discussed. They also held flower shows in different parts of the country. In 1938 the Ibadan Branch of the Society held their first flower show in which flowers, vegetables and fruits from private gardens were exhibited. At this

particular show the flowers exhibited by Mrs. S. B. Yates were judged as the best; her exhibits were mainly exotic flowers like Roses, Dahlias, and Phlox drummondii [22]. The activities of the Nigerian Field Society, though admirable, were very limited as these never led to the development of public gardens and open spaces. If members of the Nigerian Field Society had been as concerned as Octavia Hill was for London, they might have had at least a public park to their credit [23].

A suitable point to break the historical account of landscape design is to distinguish between the works of amateur gardeners and those of the professionals [24]. While Nigeria had been the scene and indeed contains many examples of the works of amateur gardeners, those of trained designers are too recent and too few to have made a significant impact on the wider urban landscape. Their all-important contributions are all associated with large scale building developments.

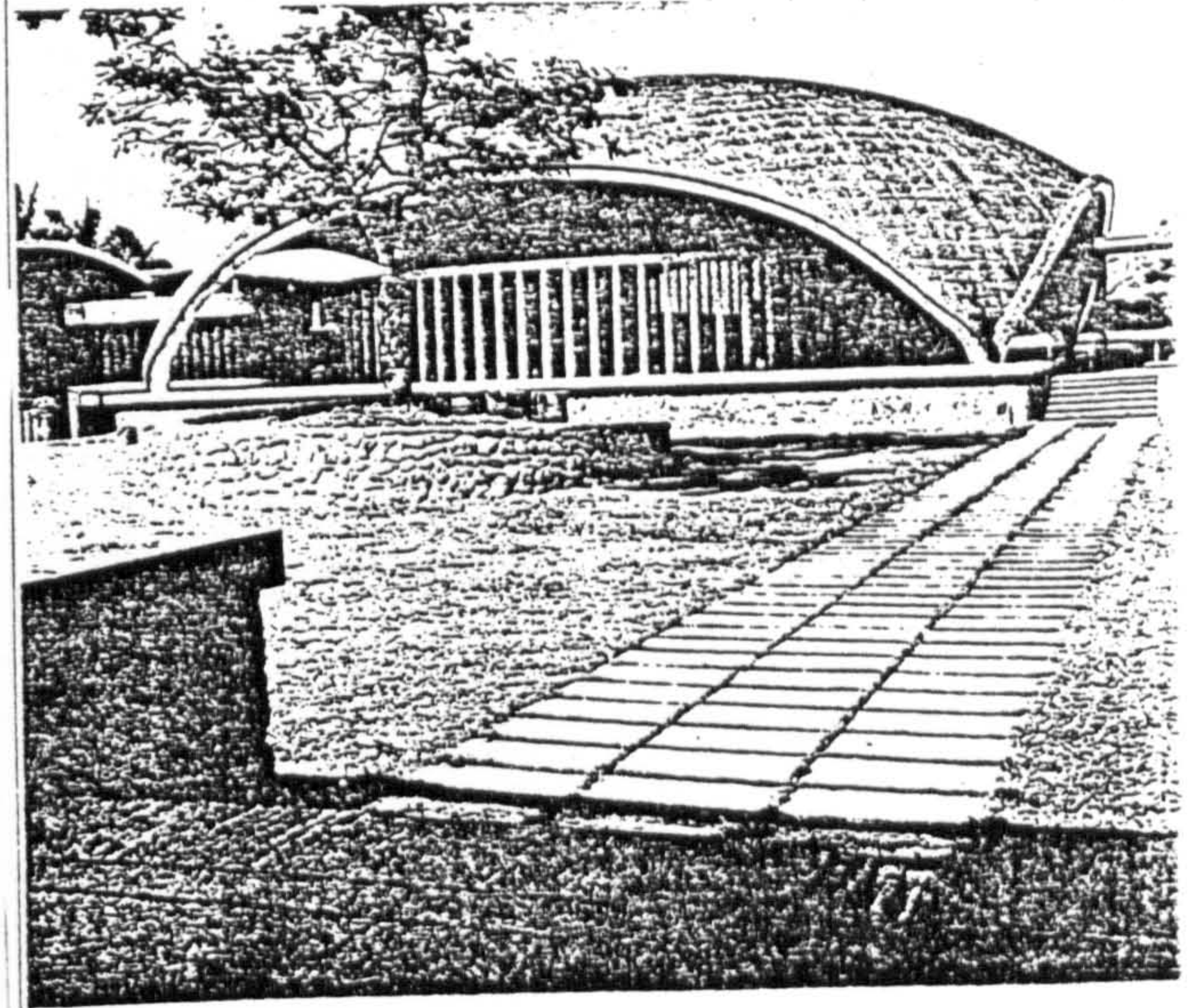
The development of our Universities and urban parks offered some landscape architects, both indigenous and foreign, the opportunity to make positive contributions to urban landscapes. Lancaster and Atkinson were much involved in the development of the landscape of the University of Ibadan campus, the former College of Arts and Science which now houses the North Campus of the Ibadan Polytechnic and the University College Hospital, Ibadan. The work of Lancaster deserves more than a mere passing comment as he could be described as the pioneer of modern landscape design as an art in Nigeria. He was

resident at Ibadan between 1958 and 1961 and employed as the landscape consultant to Fry, Drew, Drake and Lasdun, who were the main consultant architects engaged in the design of the Ibadan University campus. Lancaster developed the campus as a broad ornamental lawn with informal groupings of clumps of trees, mainly in the western style. He also developed a number of courtyard gardens which he diversified with herbaceous planting and paving and shaded with shrubs (Fig. 9.4). His work was greatly rewarded by the hot humid climate which encourages the fast growth of trees, and according to him, it took only eight years to shade a road with rain trees. He recounted that his greatest problem was to gain the confidence and support of the residents both foreign and Nigerian [25].

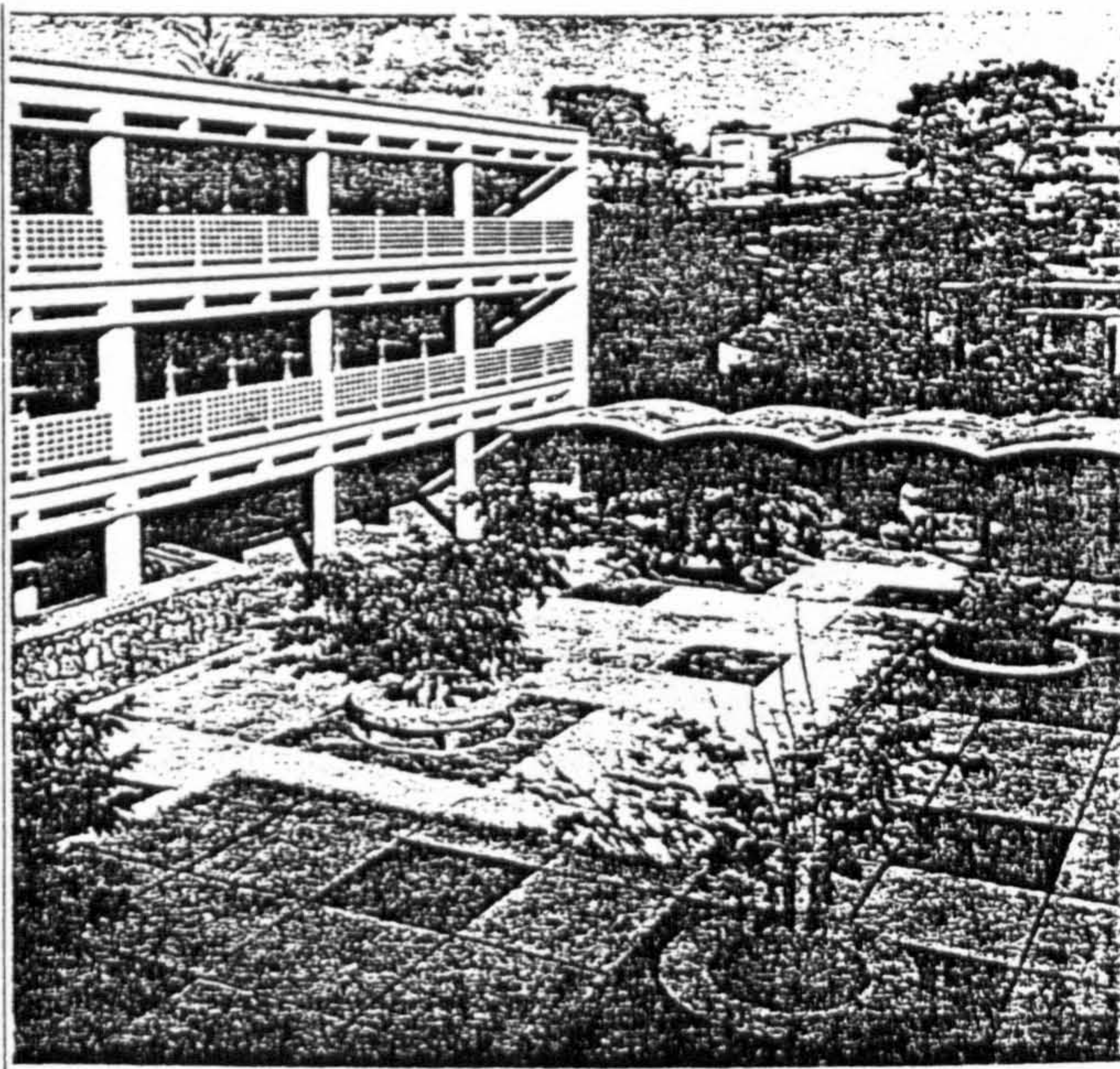
Another focus of an attractive landscape setting is the University of Ife Campus. The firm of A. M. Y. Architects and engineers of Haifa, Israel, prepared the master plan for the central area of the campus. But the landscape plan was prepared by the Landscape Department of the Wisconsin's College of Agriculture and Life Sciences under the guidance of Tishler and Niemann Jr. [26]. They came up with a management strategy that was published as the University's Development Plan - University of Ife Physical Development Plan: a design for Hot Humid Tropics. So far, the University has not employed the services of a landscape architect to implement this plan; but it has been successfully interpreted by the architectural consultants and much of the planting skilfully established by the horticulturist Bankole. The main contribution of Bankole has been



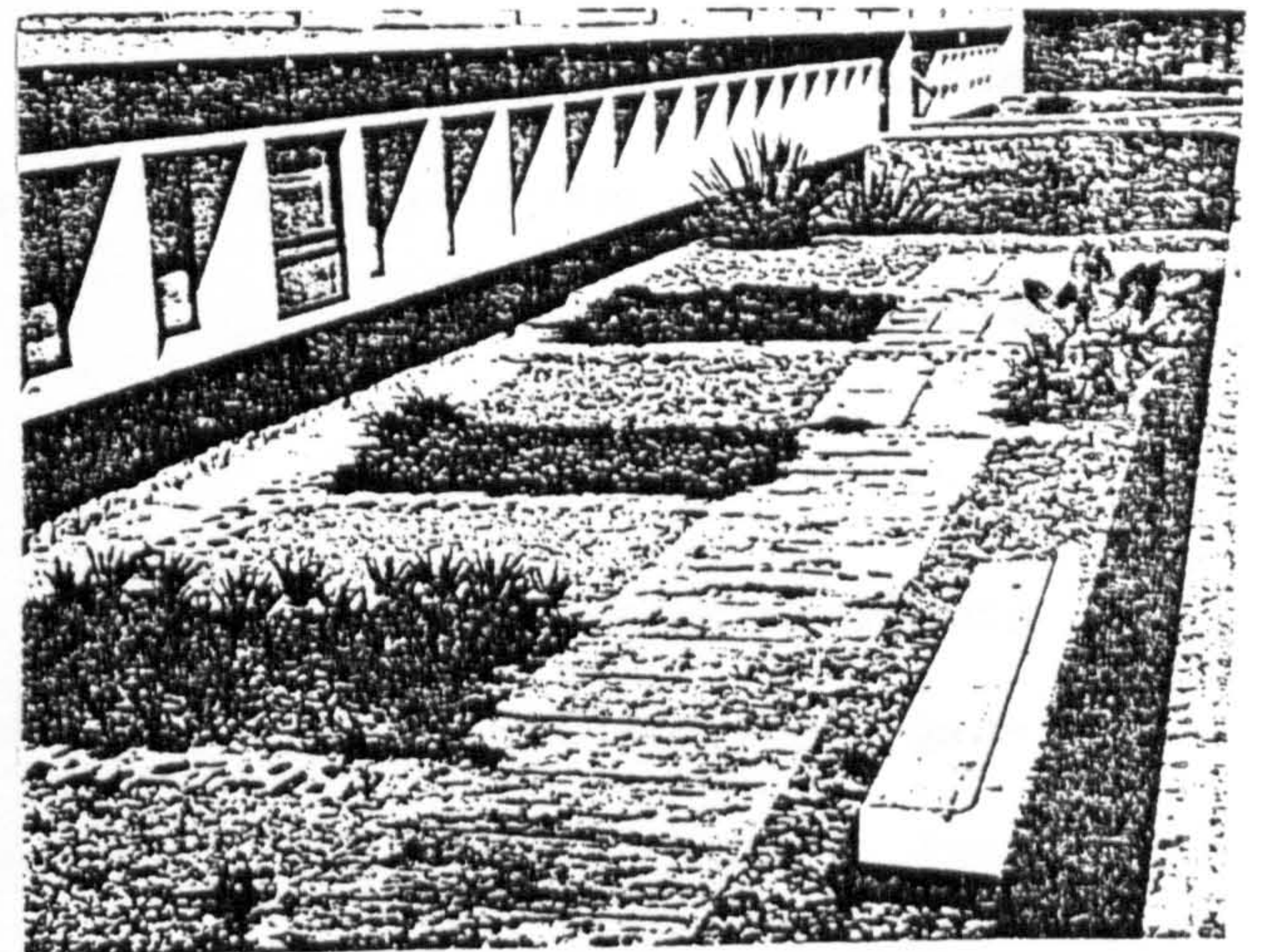
a)



b)



c)



d)

FIGURE 9.4: WORK BY LANCASTER AT THE UNIVERSITY OF IBADAN, NIGERIA. ab) View of the Central Area of the Campus: showing the highly ornamental lawns shaded by clumps of trees and broken by paved paths. cd) Two views of courtyard gardens.

the bold approach he has adopted to planting of shrubs, flower beds and ground cover plants and the concern for well maintained ornamental lawns in a closely mown fashion, a cumbersome task considering the fast rate of plant growth in the tropics (Figs. 9.5 and 9.6).

Architect Unwasombo is currently involved in the design and construction of Enugu parks and his works are elaborated upon in the later part of the chapter. There are other architects employed in Imo State whose recent works are examples of Nigerian landscape architects. But in truth none of these has come-up with any distinctive style. In this respect, the Polish architect responsible for the architecture of the Jos Museum has more guidance to offer to our Nigerians architects, who are at present too pre-occupied with the western style.

Modern landscape design can be identified with many developments in urban areas. The first and foremost examples are the private gardens of the GRA which became the model for other open spaces that were to be developed around major institutions, colleges, churches, cemeteries, regional government office building complexes and the University campuses. Modern landscape design can also be identified with zoo parks, regional parks, biological gardens, war memorials, cemeteries and the new generation of urban parks and tourist resorts like the Bagauda Lake, Kano (Figs. 9.7, 9.8 and 9.9). The remaining part of the study is devoted to a more detailed account of the landscape character of the GRA and urban parks.

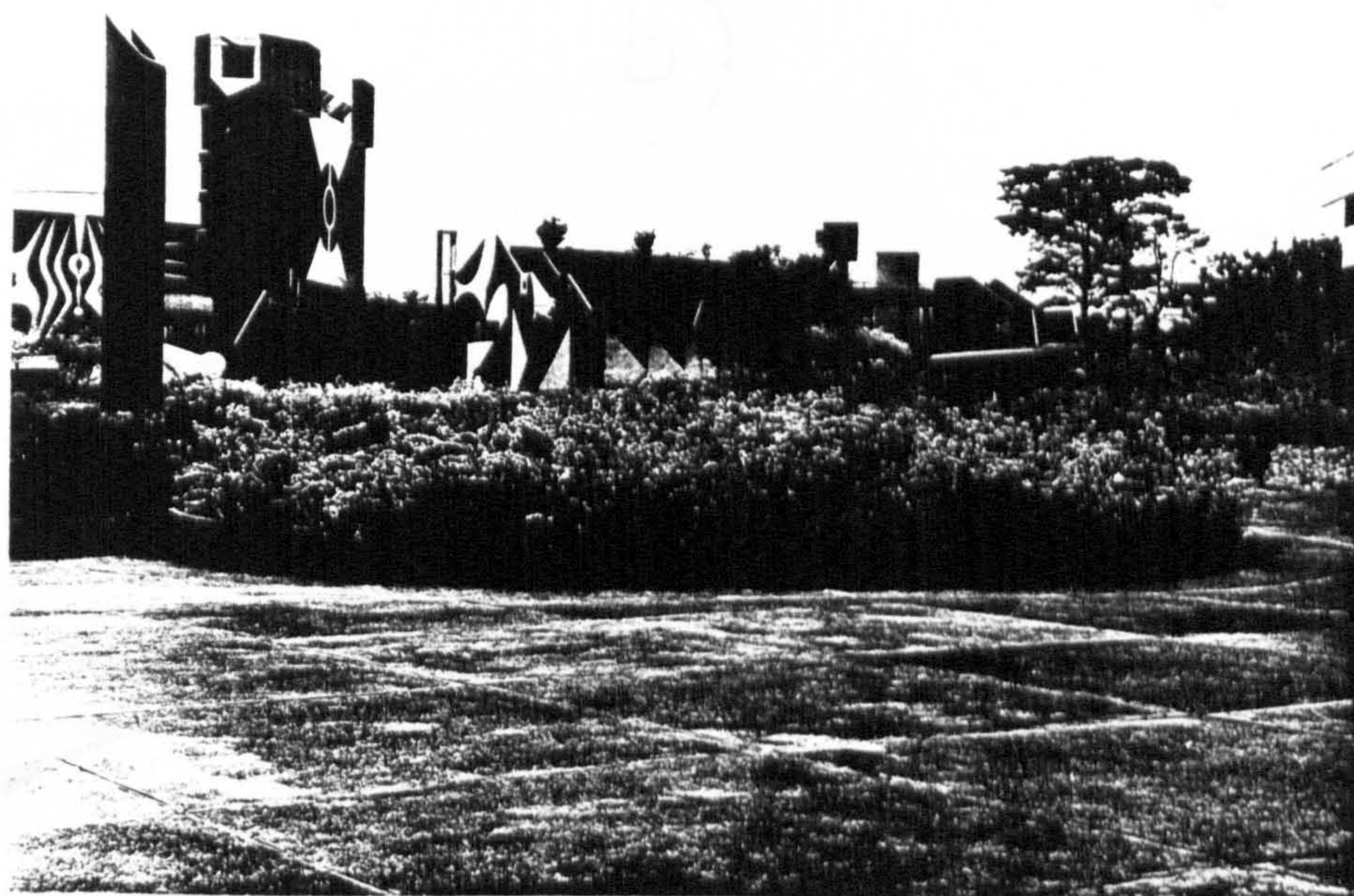
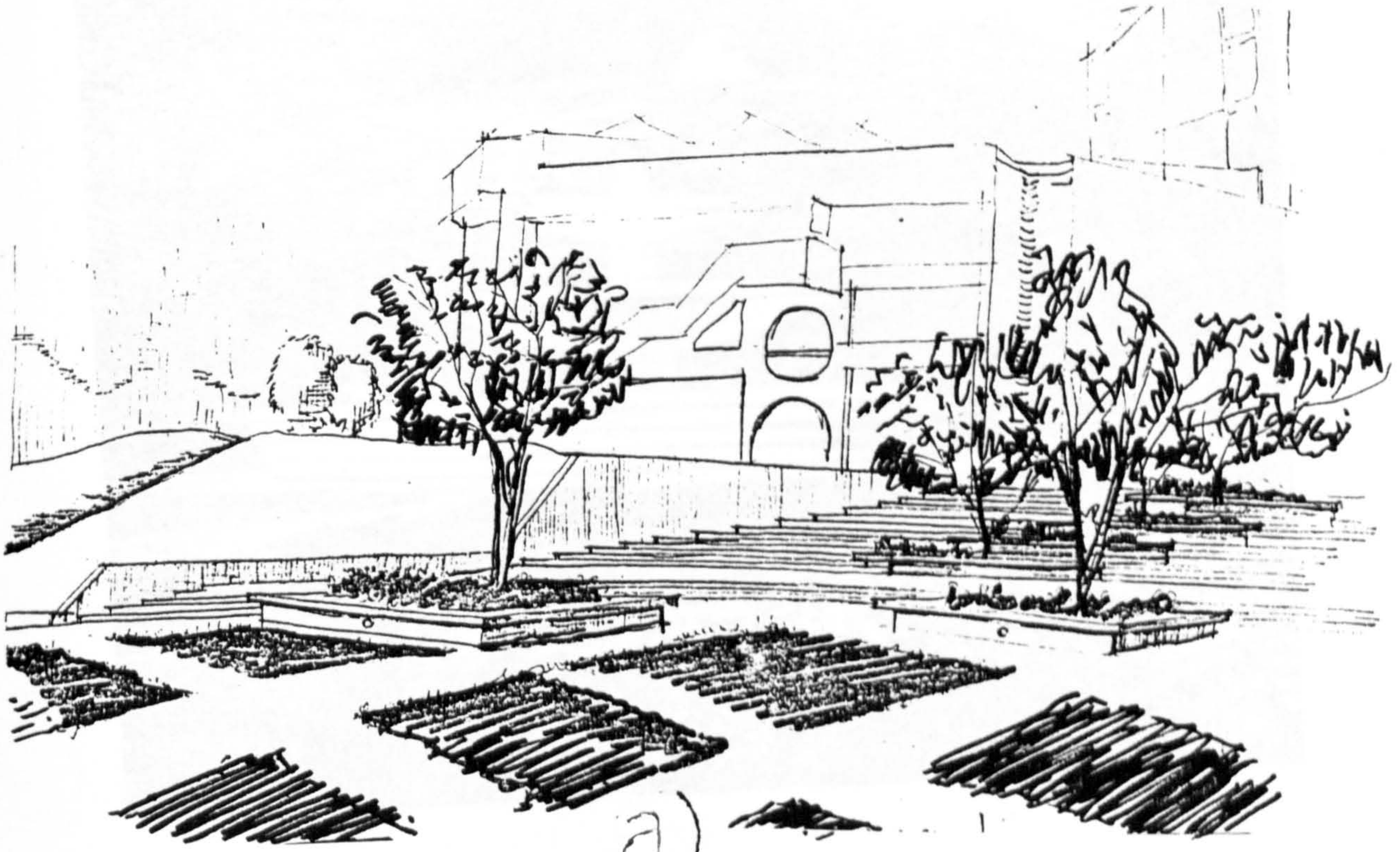


FIGURE 9.5: THE UNIVERSITY OF IFE CAMPUS, ILE-IFE:
Views of the central area of the campus with its attractive
lawns, densely planted flower beds and ground cover plants.

FIGURE 9.5: THE UNIVERSITY OF IFE CAMPUS, ILE-IFE:
Views of the central area of the campus with its attractive
lawns, densely planted flower beds and ground cover plants.



b)



a)

FIGURE 9.6: SKETCHES FROM UNIVERSITY OF IFE CAMPUS, ILE-IFE a) The University Quadrangle showing combined use of grass with paving. b) Potted plants at the Institute of African studies.

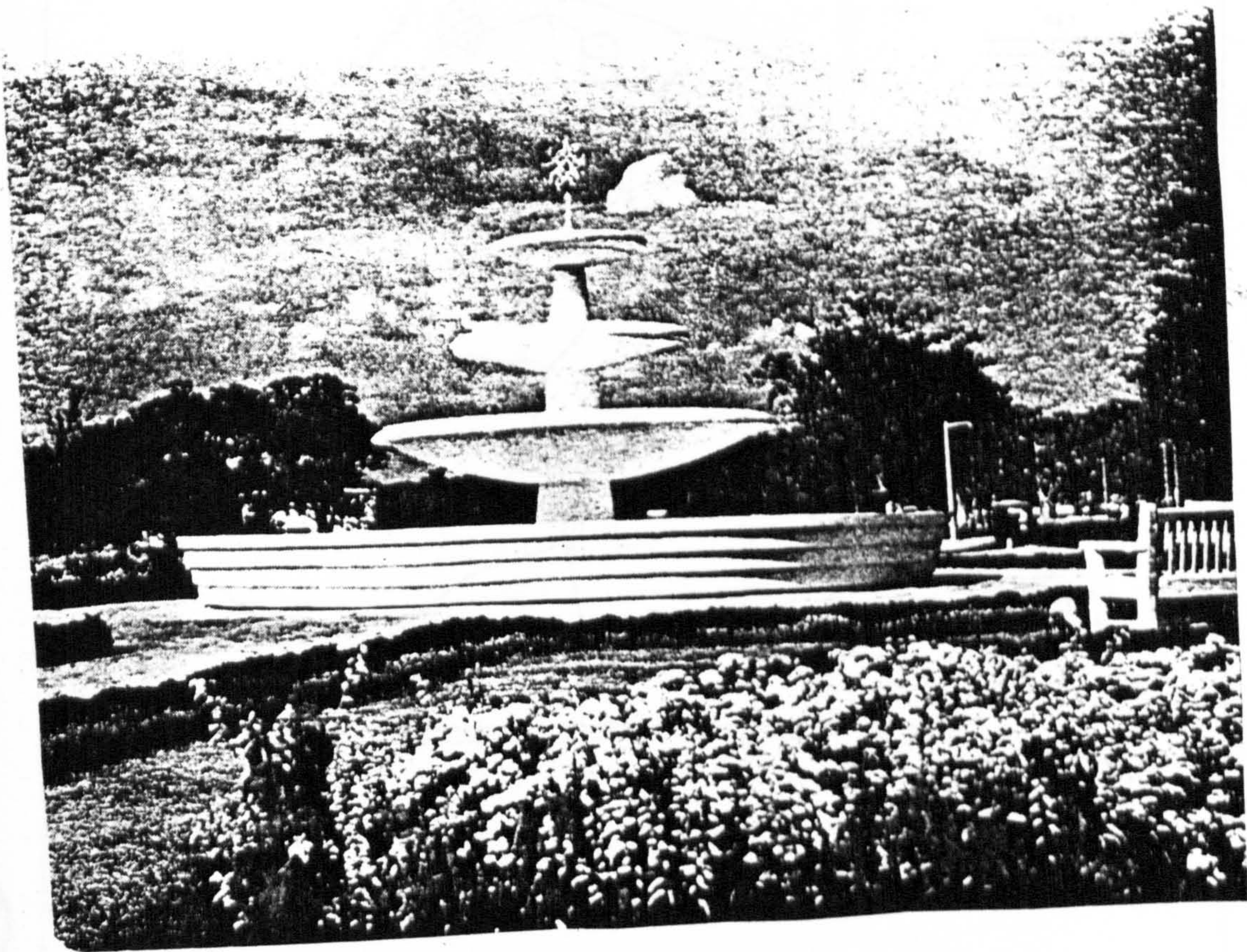
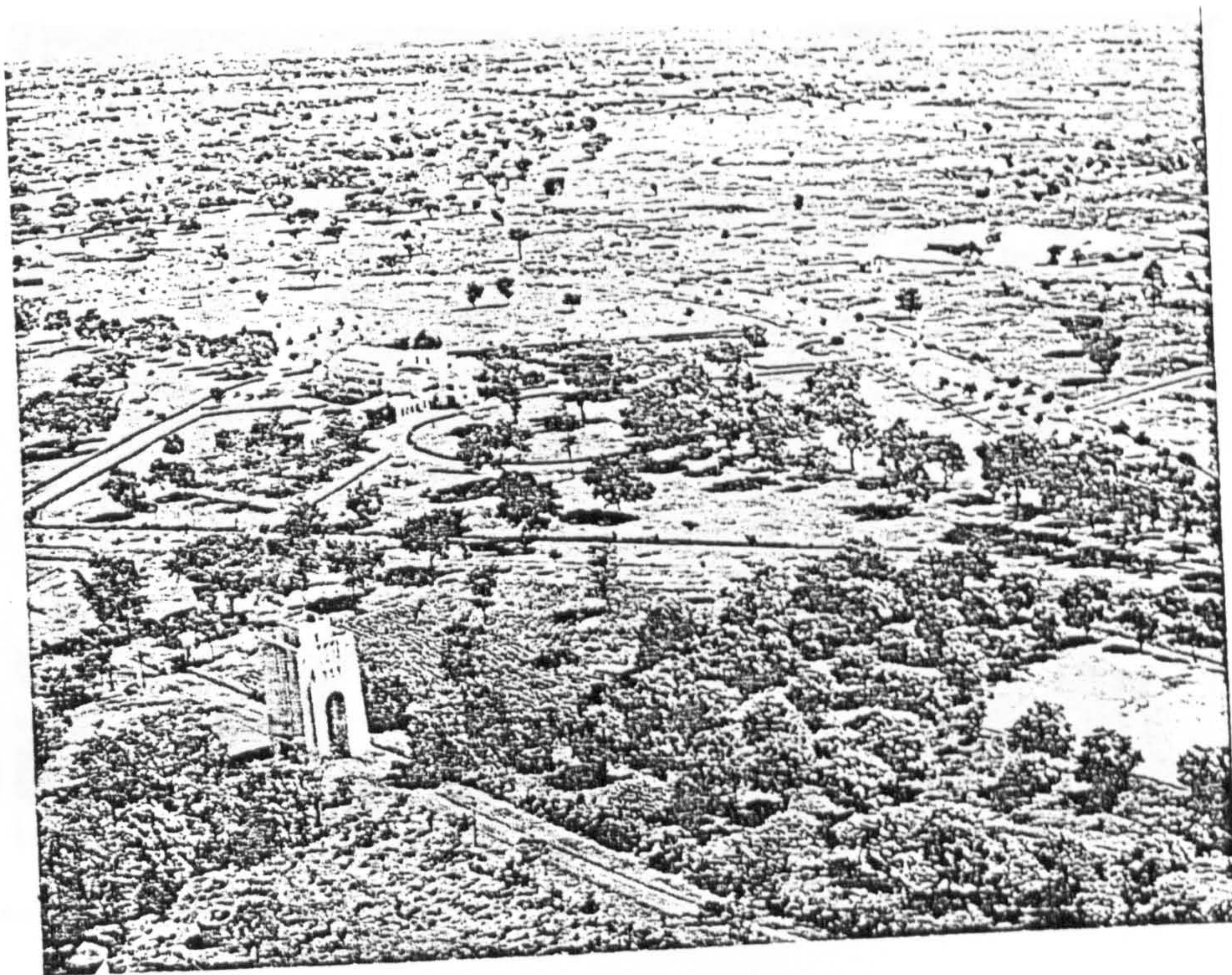


FIGURE 9.7: THE KADUNA SECRETARIAT: Aerial View and the water fountain. The whole complex has been developed as an attractive parklandscape.

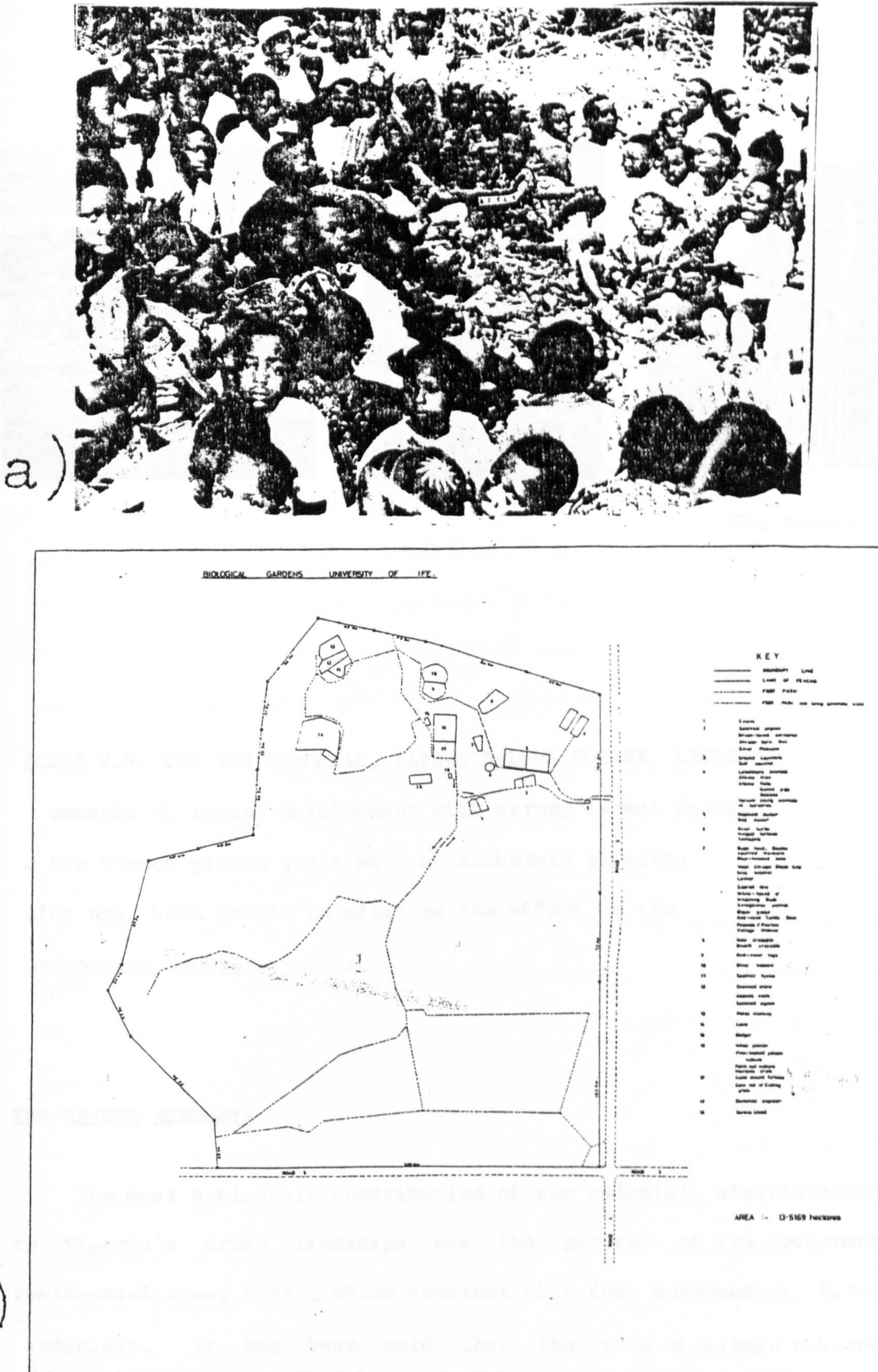
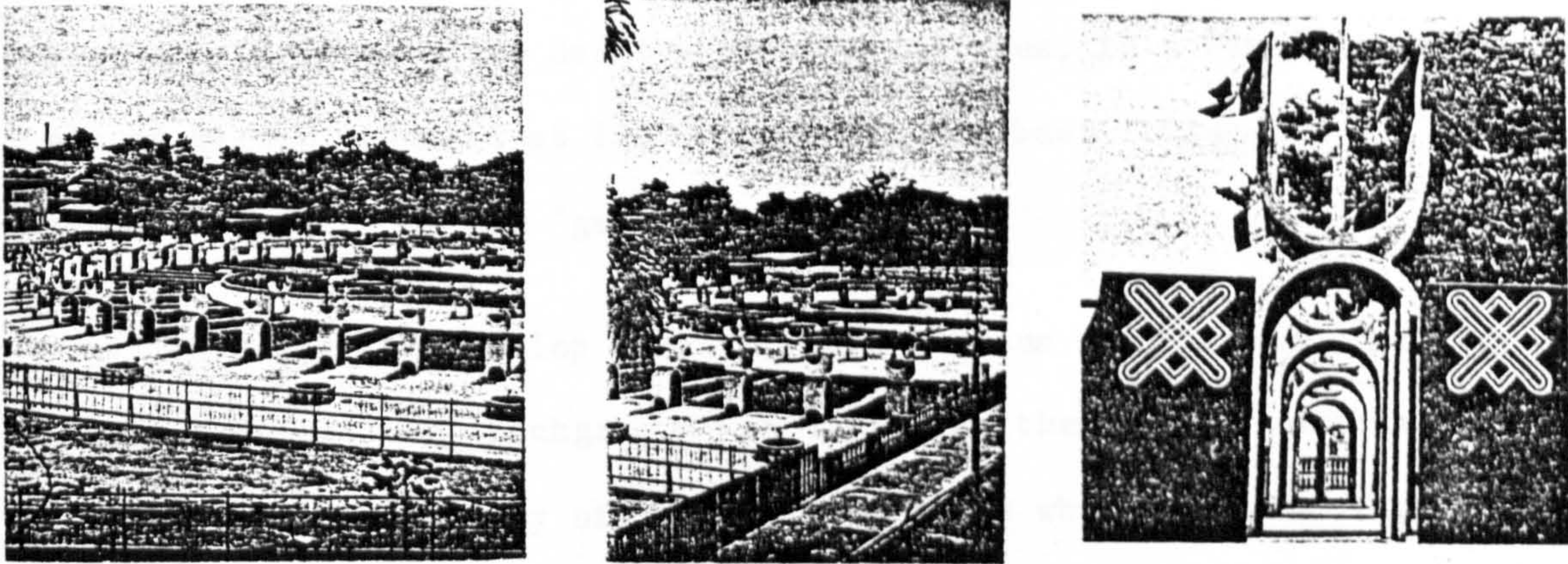


FIGURE 9.8: SELECTED ZOO PARKS IN NIGERIA: Plans and Views a) Easter Picnic at Agodi Gardens, Ibadan. b) The Plan of University of Ife zoological Garden, Ile-Ife: even though relatively under-developed the gardens still attract many visitors



The Arcade

FIGURE 9.9: THE WAR MEMORIAL, TAFAWA BALEWA SQUARE, LAGOS:
 An example of recent development with strong formal design
 in the French garden style with an elaborate planting
 which has been unable to minimise the effect of the
 surrounding concrete jungle.

THE GARDEN SUBURBIA

The most noticeable contribution of the colonial administrators to Nigeria's urban landscape was the gardens of the Government residential Areas (GRA), which contrast with the surrounding barren landscapes. It has been said that the idea of garden suburbia

underlies the garden city concept [27]. Indeed the GRA, which has been developed as a low density residential area, is a Nigerian example of garden suburbia as its development has been influenced by the imported version of the 'garden city' concept.

The desire to develop English style gardens in Nigeria can be attributed to the background and values of the British administrators. For example, many of the administrators who came to Nigeria had a rural background and felt the need to have nature around them even if only in the form of a garden. They brought with them traits of English cottage and manor house gardens which can be identified with the detached residences of top administrators such as the regional and provincial governors and district officers (Fig. 9.10).

Generally, the GRAs are developed with generous back and front gardens. In a typical residential plot each house occupies the centre of the rectangular garden, with the servants' quarters at the rear. The front and sides of the main building are flanked by ornamental lawns shaded by fruit trees and with flower beds, foliage and flowering shrubs. Behind the main house is the vegetable garden (Figs. 9.11 and 9.12).

The private gardens of the GRA are as varied in character and design as the amateur gardeners who created them. They are both functional and ornamental. The ornamental areas are mostly flower gardens planted with many colourful flowering trees and foliage plants all attesting to the English love for flower gardens. The

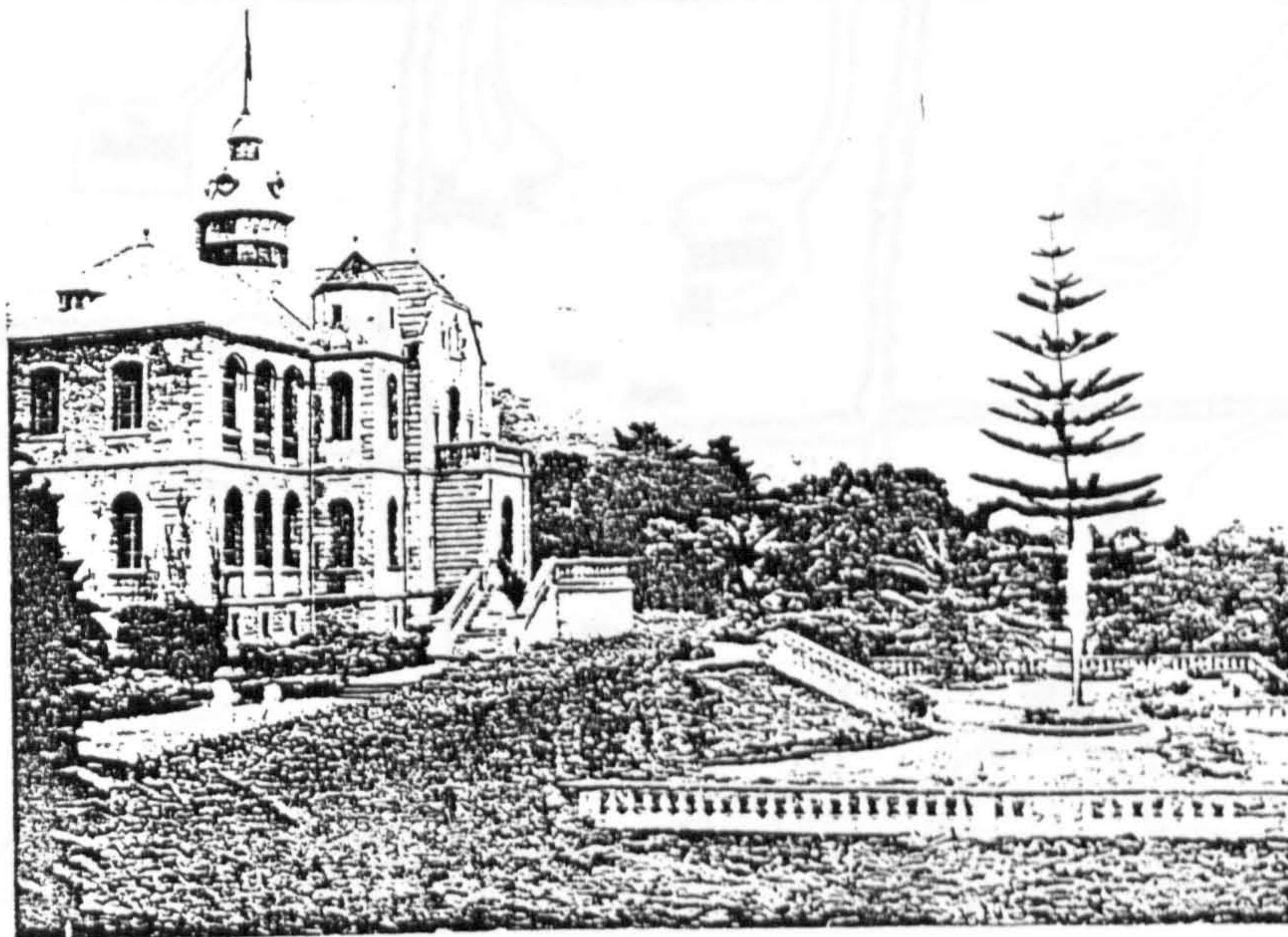


FIGURE 9.10: THE GOVERNMENT HOUSE, MARINA STREET, LAGOS: An example of the residency of top Colonial administrator which has one of the more imposing gardens undertaken in the English style. The house is surrounded by broad ornamental lawns with the walls covered with climbers and a line of coconut palm along the Marina. It compares with the Government House at Victoria, Cameroon.

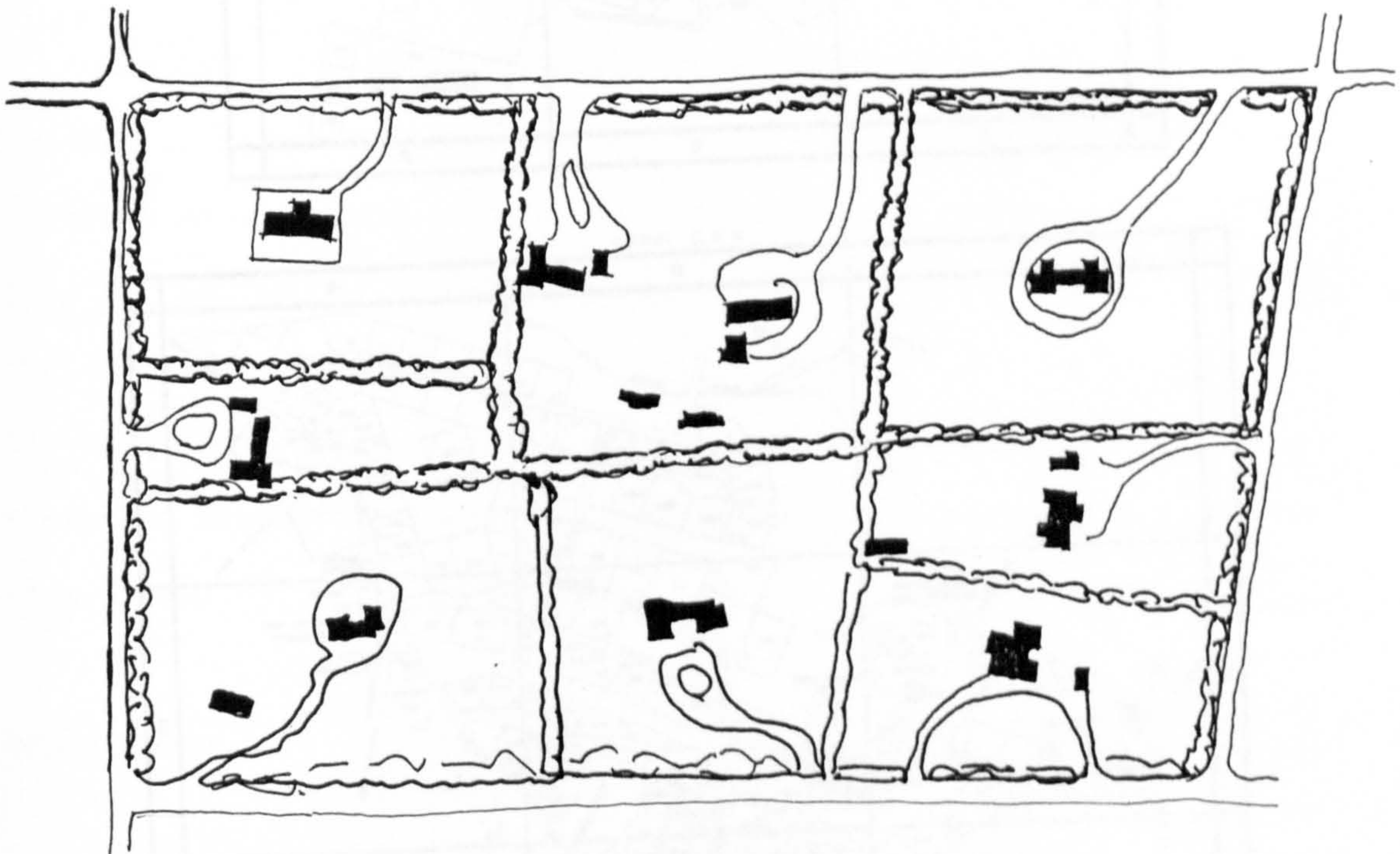
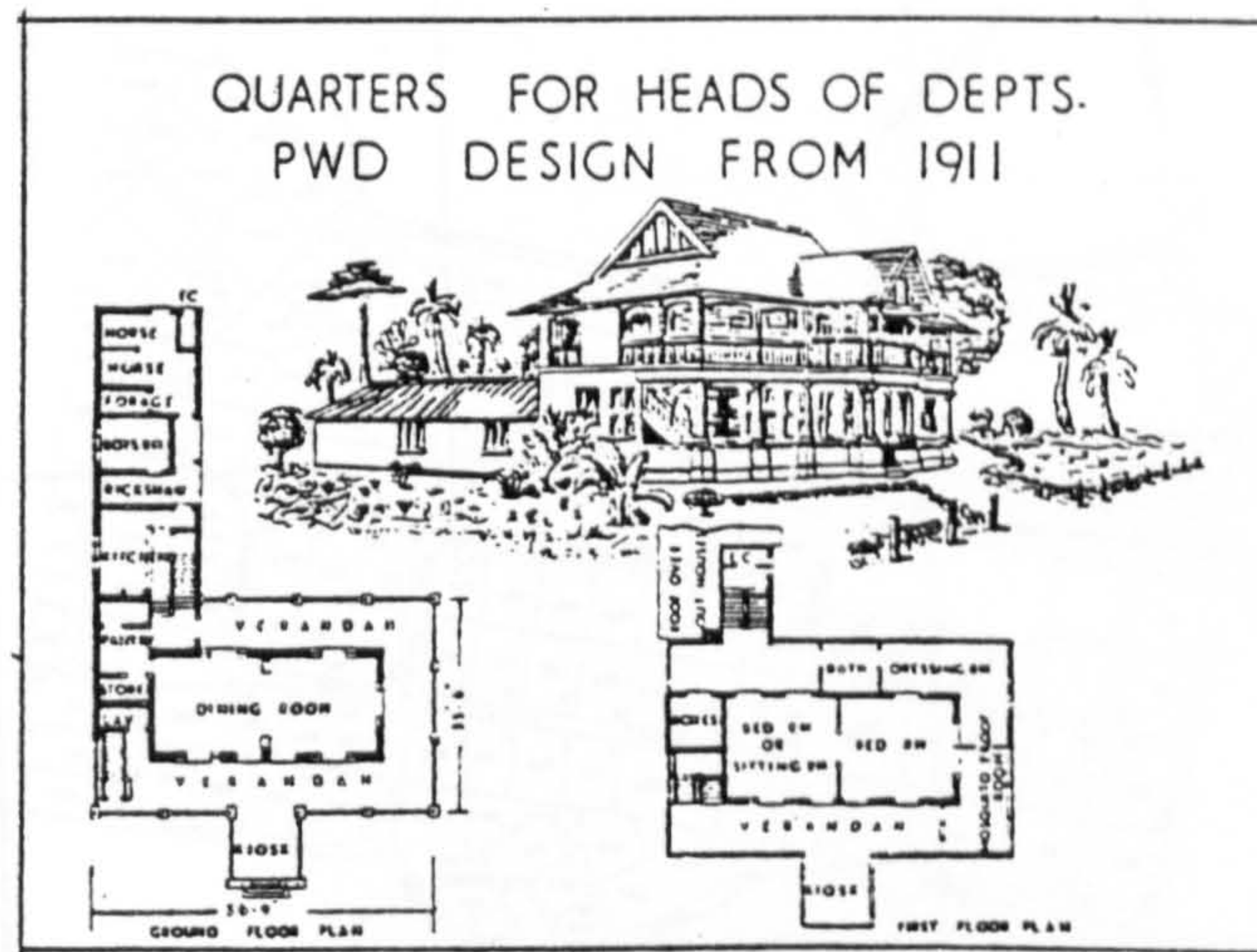


FIGURE 9.11: A MODEL PLAN FOR SOME HOUSES IN THE GRA: and the plan below shows a group of houses in the GRA, Kaduna. These are of generous layout and the house is the central feature of the garden and the use of hedges to define property boundaries and for privacy.

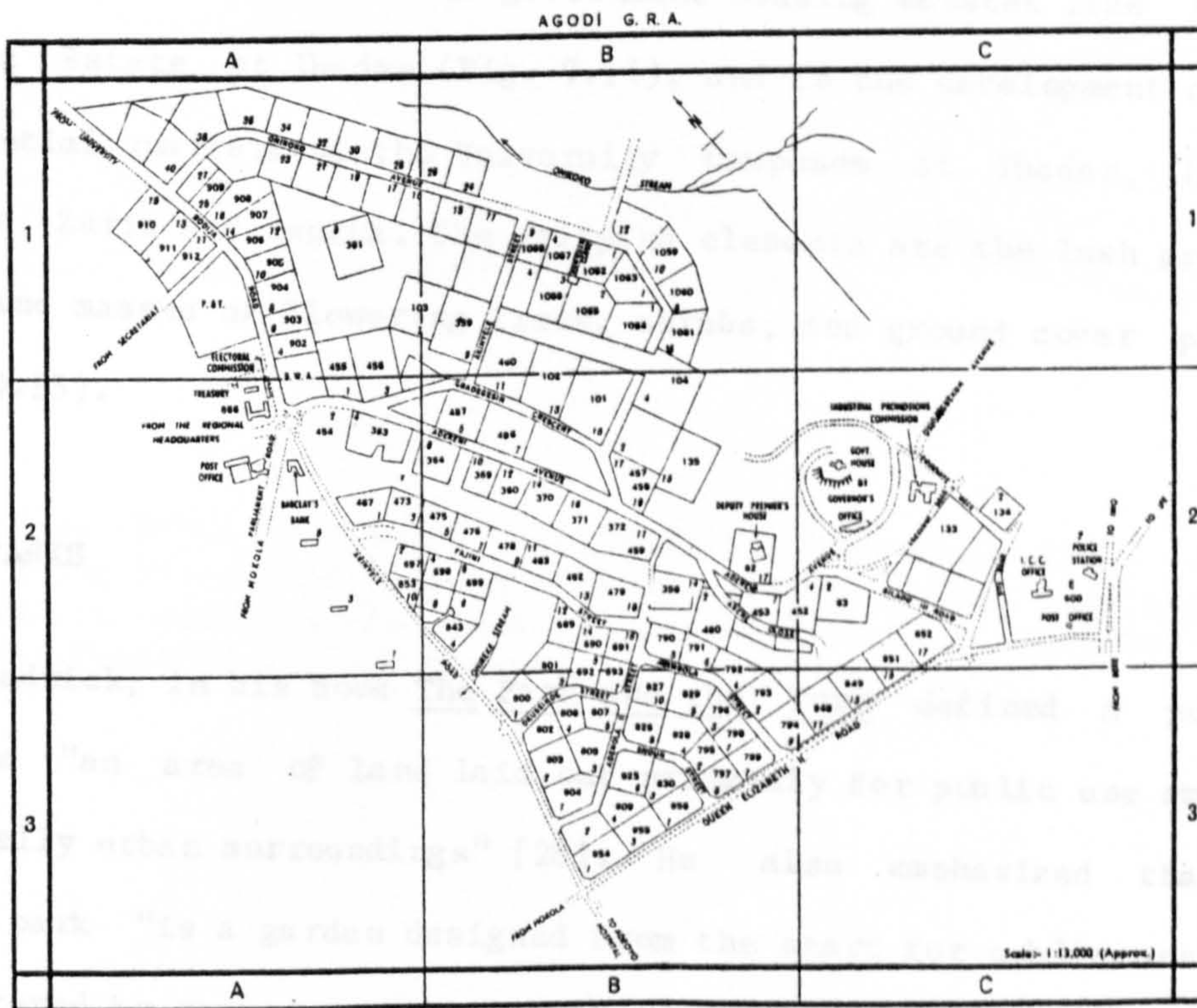
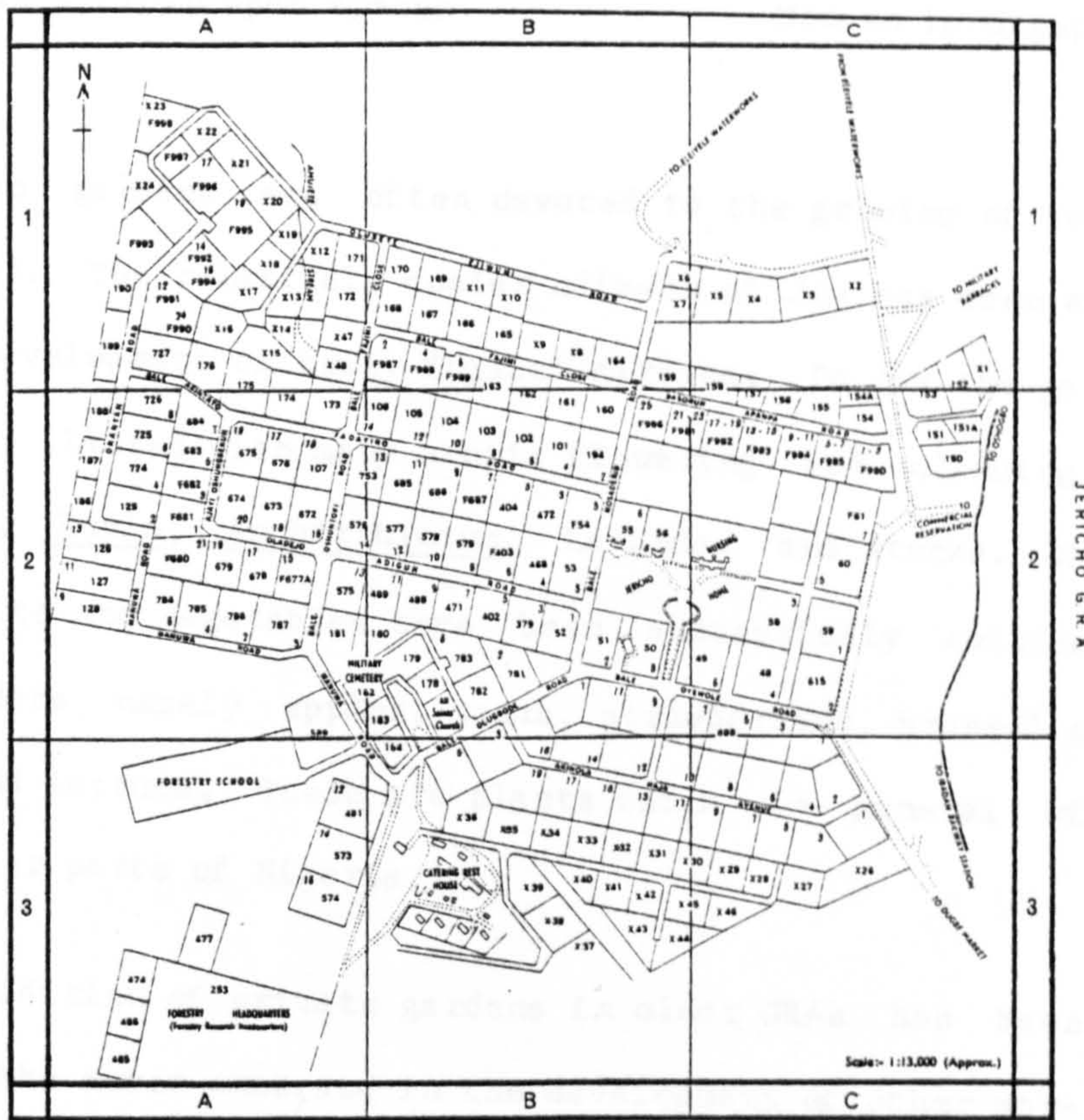


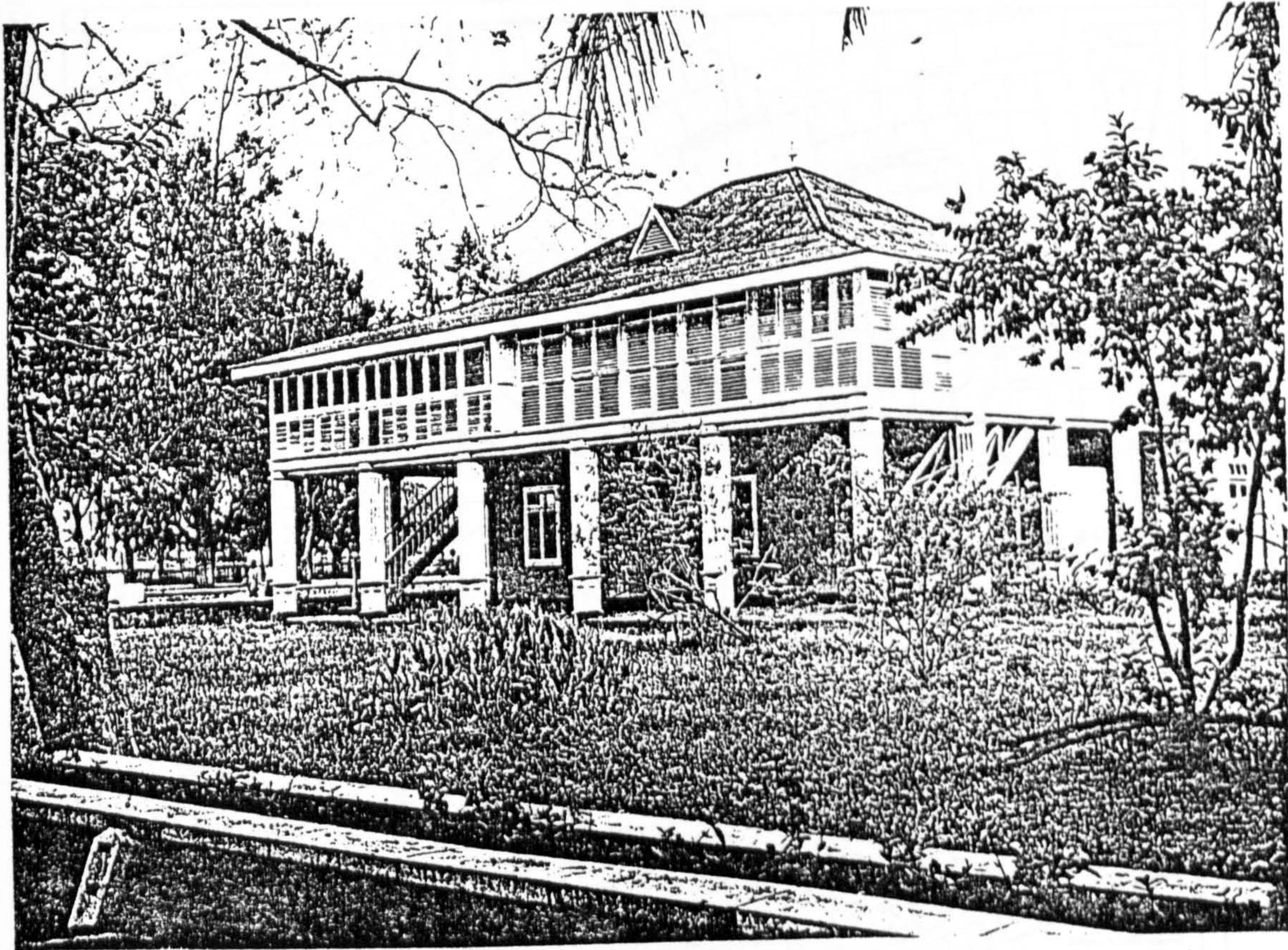
FIGURE 9.12: THE PLAN FOR THE GRAs IN SELECTED NIGERIAN TOWNS such as Ibadan and other important administrative headquarters. Note the grid layout of the housing plots and roads. This form of land use planning has been strictly adhered to.

utilitarian gardens are often devoted to the growing of vegetables (Fig. 9.13). The relatively cooler climate of Jos has been exploited for the development of truly English gardens. In Jos the gardens of the GRA are planted with many exotic flowering and climbing roses, Delphinium, Lupin, Anthirrhinium, Lavender and stocks. Many temperate fruits and vegetables have been successfully cultivated in these gardens namely apples, pears, strawberries, brussel sprouts, cabbages and lettuce. These are plants which in general will not grow in other parts of Nigeria.

The tradition of private gardens in older GRAs has been maintained, in the newer ones, and in the development of other more recent suburban developments such as government housing estates like Bodija Housing Estate at Ibadan (Fig. 9.14), and in the development of the residential quarters of the University Campuses at Ibadan, Lagos, Ile-Ife, Zaria and Nsukka. The unifying elements are the lush grassed areas and masses of flowering trees, shrubs, and ground cover plants (Fig. 9.15).

URBAN PARKS

Chadwick, in his book The Park and the Town defined a public park as "an area of land laid out primarily for public use amidst essentially urban surroundings" [28]. He also emphasized that a public park "is a garden designed from the start for public use and administered by representatives of the public" [29]. In other words, the public purpose and public ownership are the raison d'être for



2.

FIGURE 9.13: VIEWS OF PRIVATE GARDENS IN SELECTED GRAs Views of a garden along Force Road, Lagos. The same tradition has been continued in modern developments such as the university campuses and government financed housing estates.

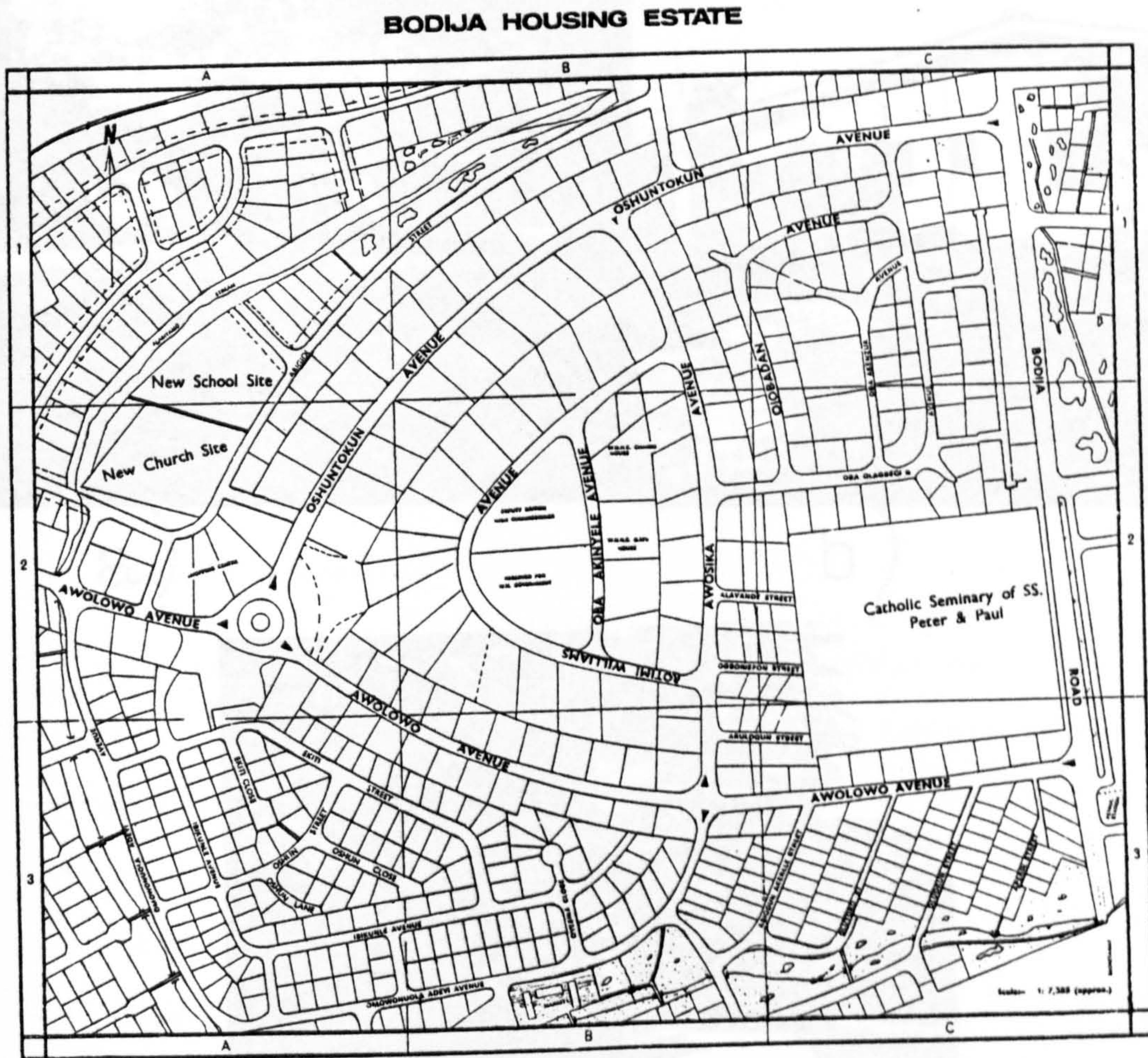
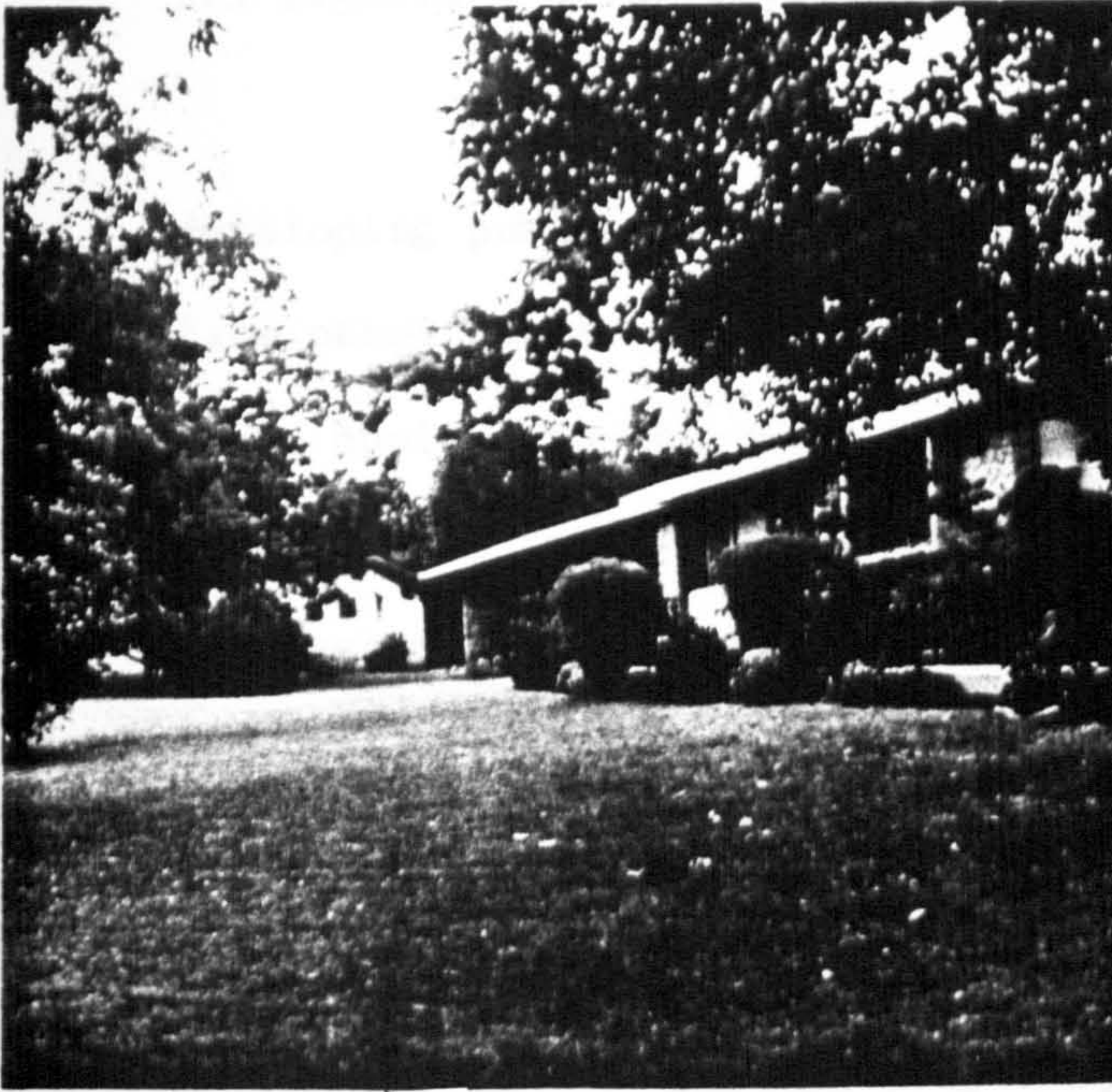
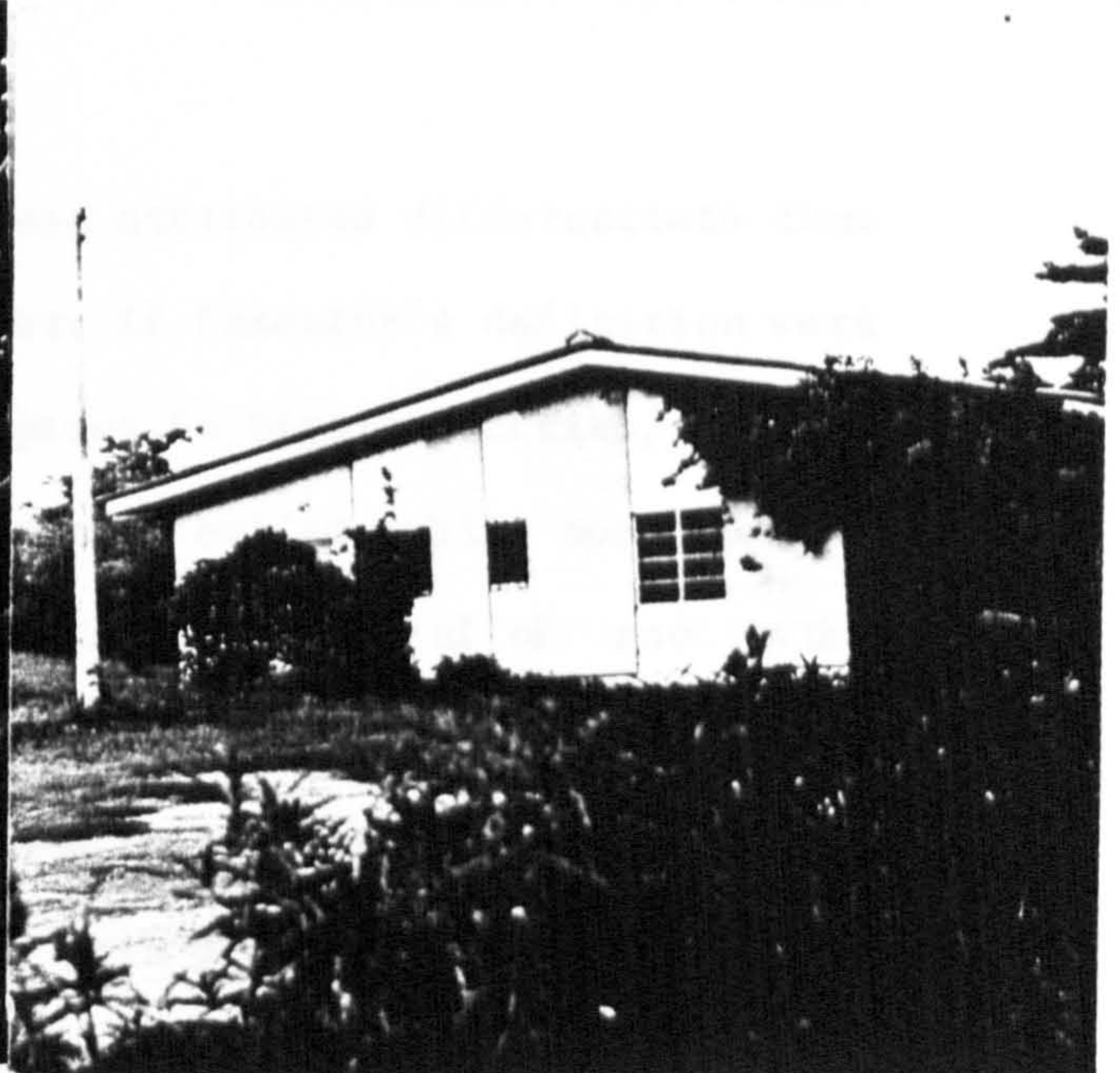


FIGURE 9.14: PLAN OF BODIJA HOUSING ESTATE, IBADAN: An example of post colonial housing development fashioned after the ideas of the GRA dating from the colonial period.



a)



b)



c)

FIGURE 9.15: VIEWS OF PRIVATE GARDENS, UNIVERSITY OF IFE, ILE-IFE a) View of Bungalow, Road 14 covered with a profusion of bougainvillea. c) View of an attractive hedge of ice plant framing a drive.

developing public open spaces and these attributes differentiate them from other urban open spaces. However, if Chadwick's definition were to be applied to the range of open spaces in Nigerian cities, it will surprise no one how few of them can be called public open spaces. At present only the school playgrounds and the handful of zoo parks and botanical gardens are available to the public which in any case are not developed by agencies charged with the provision of public open spaces. It also eliminates the polo grounds, race courses, and golf courses which were developed by the colonial administrators as club recreation grounds.

Thus the provision of public open spaces in Nigerian towns has hitherto received little or no priority. In most towns a concern for open spaces is generally non-existent. The development of parks which began so well in a few towns has since been discontinued. The only exception are the states of Anambra and Imo which are currently developing new public parks. But we must go back in history to inform ourselves of some past irregularities which have prevented the development of public open spaces in order to chart a possible course of future action.

BACKGROUND TO URBAN PARK DEVELOPMENT

The Lagos Botanical Station, already mentioned above, ought to have been the nucleus for developing public parks in Nigeria as other botanical stations were in some western countries [30], and in some British [31] and German [32] colonies in Africa.

Unfortunately, this Station never lived up to such expectations and was indeed hindered by three deficiencies. The first was the limited objective in setting it up as a centre for economic botany being wholly devoted to the propagation of economic trees; it was without full research facilities and was never independent of Kew Gardens, London. The curators of the garden, the plant stocked in it and the necessary technical advice were all furnished from Kew Gardens [33]. The second was its small size, which covered only 4 acres and was obviously too small to serve as a national garden. The smallness of the garden made it even more vulnerable to the third factor - the need to make adequate space for the new Ibadan-Iddo railway line in 1902, an encroachment which led to its eventual loss. In addition to the Lagos Botanical Station other earlier Botanical Gardens at Onitsha and Calabar [34] were also lost and unaccounted for. This attitude sadly showed the low priority given to the development of gardens in towns. It is even worse that today the same lack of concern still predominates among our politicians and city-fathers. However, a limited success of the Station was the range of exotic plants successfully introduced into the country. Most of these now form the bulk of the trees grown in urban areas.

With a hindsight the problem of park development was not limited to the loss of the Lagos Botanical Station. But it was its loss that led to the creation of the existing, fragmentary and unworkable administrative structure for park development. The Station became a section of the Forestry Department established in 1903 with its

relocation at Olokemeji Forest Reserve [35]. The Botanical Station was re-established as a mere silvicultural experimental station to study plant germination and rate of growth. Here its administration and its new aims and goals were equally disappointing. By 1930, it is said that the experimental station was abandoned for lack of finance [36]. Although other silvicultural centres in Nigeria, were established with little concern for the development of town gardens. In 1932 Stebbing commented that the Forestry policy of Nigeria gave little or no consideration to the aesthetic aspect of forestry. From this time the administrative arrangement for the development of public parks began to be shared by the Public Works Department and the Forestry Department [37]. This was the situation under Sir Frederick Lugard. Today, these two departments are reluctant to accept their responsibility for the development of public gardens in towns. In fairness some gardens resulted from the activities of a few individuals working against official indifference.

PUBLIC PARKS AND GARDENS: SELECTED CASE STUDIES

THE GOVERNMENT GARDEN, SOKOTO

The earliest example of a public park in Nigeria was the Government Garden, Sokoto. It was developed in 1918 when it became necessary to drain a 35 acre (14.2 ha.) site in the Government Residential Area (GRA). Dr. Moiser, then principal medical officer for Sokoto, persevered against official indifference in developing the garden.

Four years after the garden had been developed, Governor Clifford visited Sokoto and commended its beauty and ranked it equal to the Government House garden at Victoria in the Cameroon (Fig. 9.10 above). Thereafter, he gave the garden his approval and recommended it for funding to the Secretary of State for the Colonies [38].

The Sokoto Government garden was laid out as an attractive garden with a main central avenue planted with Azadiracta indica (Hausa: madachi) and Eriodendron orientale (Hausa: rimi). Similar shaded walks ran through the garden's broad ornamental lawns containing flower beds. The latter were planted with blue, white and red flowering plants including Phlox, Ageratum, Coreopsis, Cosinea and Salvia. Cassia siberiana, Delonix regia (flamboyant), the pride of Barbados, was planted to form the boundary of the garden. The utilitarian garden had a small orchard and a large vegetable garden. The orchard was planted mainly with Mangifera indica and guava and the vegetable garden with artichokes, beans, spinach, carrots, parsley, radish, tomatoes, turnips, potato, peas and ambergine.

By 1957 the Secretary of State for the Colonies had withdrawn financial support for the garden. Since then it has been declining fast due to neglect arising from lack of maintenance and finance. The Sokoto State or urban government is yet to take over and finance this garden.

THE LANZU PARK, BIDA

The Lanzu park, Bida, which was developed as a health improvement scheme in 1950 is another living example of a public park [39]. The valleys of the River Lanzu and its tributaries which flow through the city had been undesirable breeding grounds for mosquitos and tsetse fly. To facilitate the flow of the River its valleys were dug out and the adjoining grounds laid out as a public park. Many of the springs which existed on the site were diverted for important uses such as swimming, drinking and washing. The spring preserved for drinking was protected from contamination. Other springs were channeled to well designed and sheltered washing areas.

A large wooded parkland provided mainly with walks and outdoor sitting areas occupies the ground around the source of the River Lanzu. This park is predominantly planted with Taunguya and Cassia siberiana in a regimented form typical of forestry plantation. From the main entrance is a short drive up the undulating ground which terminates at the office of the Forestry Department, Bida. Adjacent to this drive are triangular and wretched rose beds in contrast to the adjacent neat and well swept rectangular praying ground, both edged with stone slabs (Fig. 9.16).

Both washing and bathing are popular and traditional use of the park. Since Bida has been provided with piped water the spring in the park is no longer used for drinking purposes. The sheltered washing area of thatched open structure has collapsed under its own

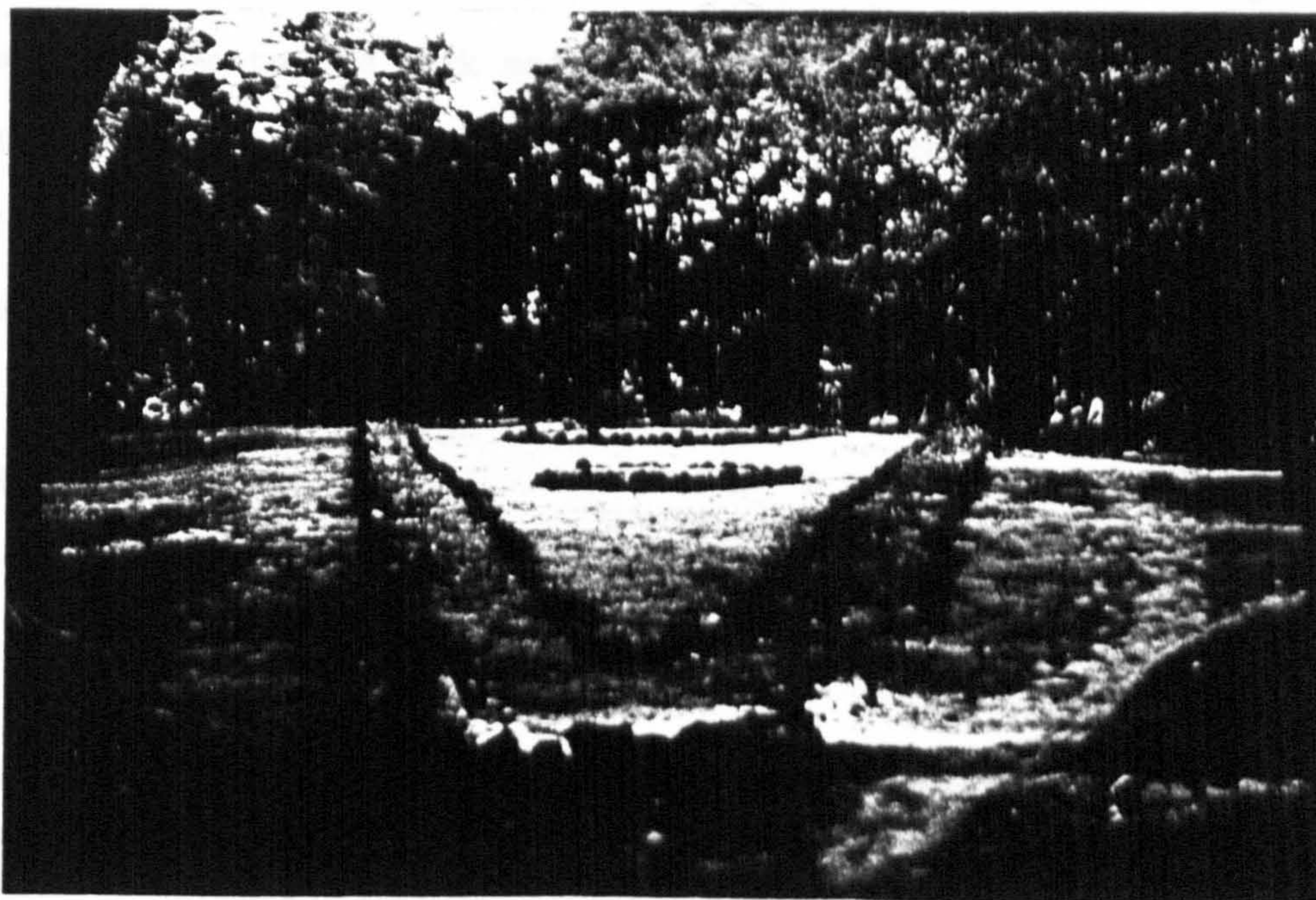
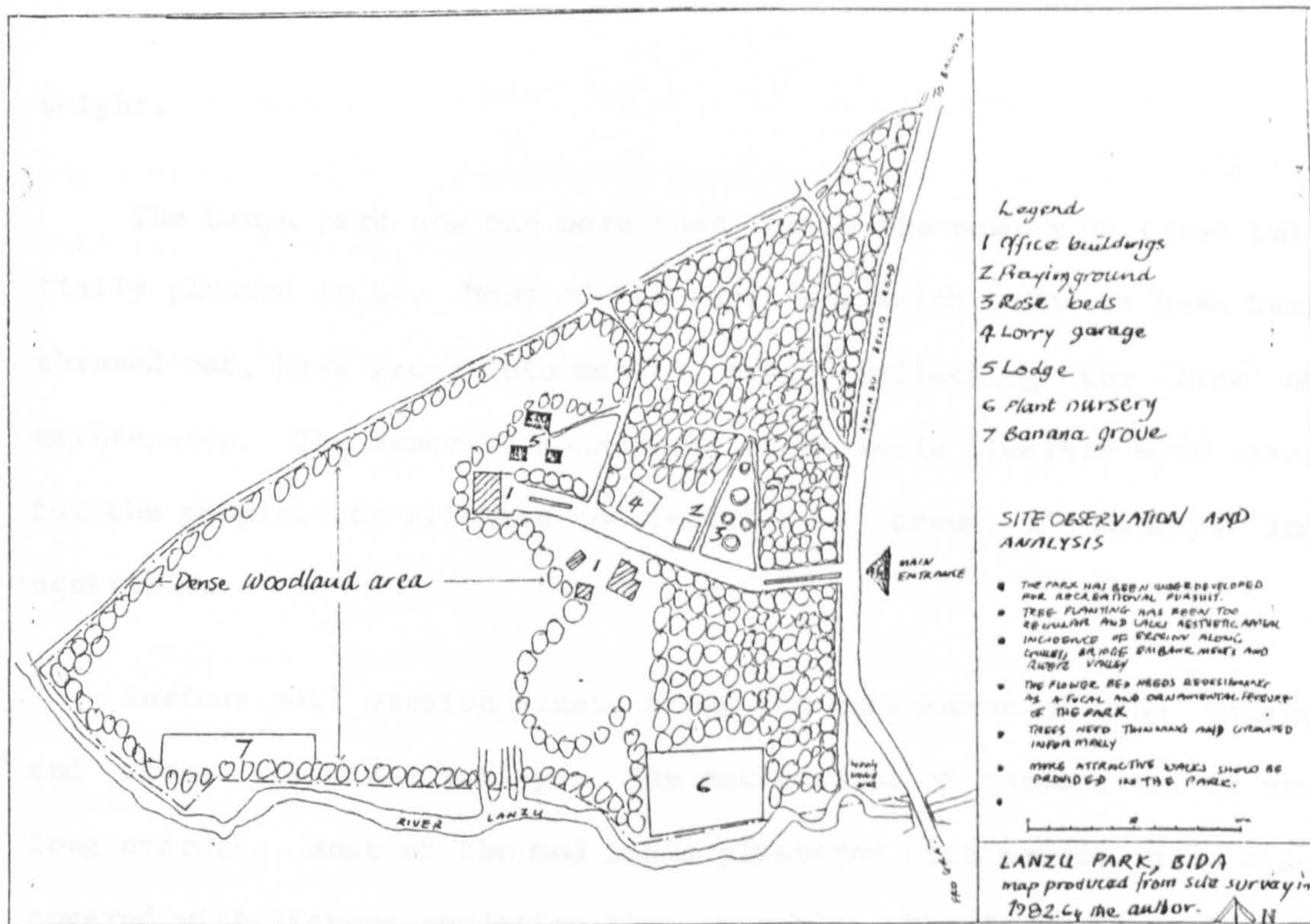


FIGURE 9.16: THE PLAN OF LANZU PARK, BIDA, 1983. The photograph below is a view of the rose garden and it shows the generally wooded character of the park.

weight.

The Lanza park now has more than double the number of trees initially planted in it. Many of the saplings, which ought to have been thinned out, have grown into mature trees reflecting the lack of maintenance. The removal of unwanted trees would liberate more space for the people. Its wildlife now includes a troop of monkeys and squirrels.

Serious soil erosion occurs along the embankment of the bridge and along the river valleys. The reclamation of these areas is now long overdue. Most of the mud seats plastered with cement are also covered with lichens rendering them unusable. The football field has been overgrown with tall grass. But the park is still frequently used for passive leisure pursuits by the young and middle-aged people, who come to the park mainly for a walk, to read and to chat with friends and sometimes to take a nap. The state of the park is a poor reflection on the inertia of the Forestry Department whose offices are within its grounds.

THE PARKS OF JOS

Jos is a unique Nigerian town which has a network of roadside parks. Although the park system of Jos is very limited and unbalanced, it represents a substantial improvement over the general apathy which still prevails in most Nigerian urban centres. The closest example to Jos are the roadside parks of the GRAs in Kano,

Zaria and Kaduna. However, the need for parks in the GRA, a middle-class garden suburb, is obviously less demanding than when compared with the high density residential areas of the inner city.

The parks of Jos are the result once more of individuals working within but against the general official indifference; individuals notably involved being from the Naraguta nursery and the Public Works Department. These parks had been maintained by the Naraguta Nursery until 1974 when they were handed-over officially to the Plateau Urban Development Board, following local government re-organisation. Already, certain aspects of the parks of Jos such as their origin, distribution and sizes have been dealt with in Chapter 4 of the study. One can perhaps discuss here their general character.

The parks of Jos are distinctive for their compact size and for the profusion of Eucalyptus spp. which shade them. They are essentially small neighbourhood parks that are well used by the people. These parks are enclosed by low external walls built either of mud or stone and lined by rows of Eucalyptus. As the boundary trees are too close to the adjoining walls, over the years, their roots have caused cracks in the masonry. These parks are generally planted with many shady trees although in a too densely and regimented fashion, making them too artificial and thus reducing their aesthetic value.

The Gray garden and Zaria Terrace Park are obviously overcrowded with trees (Figs. 9.17 and 9.18). No doubt, some of the excess trees can be removed and will not detract from the high degree



a)

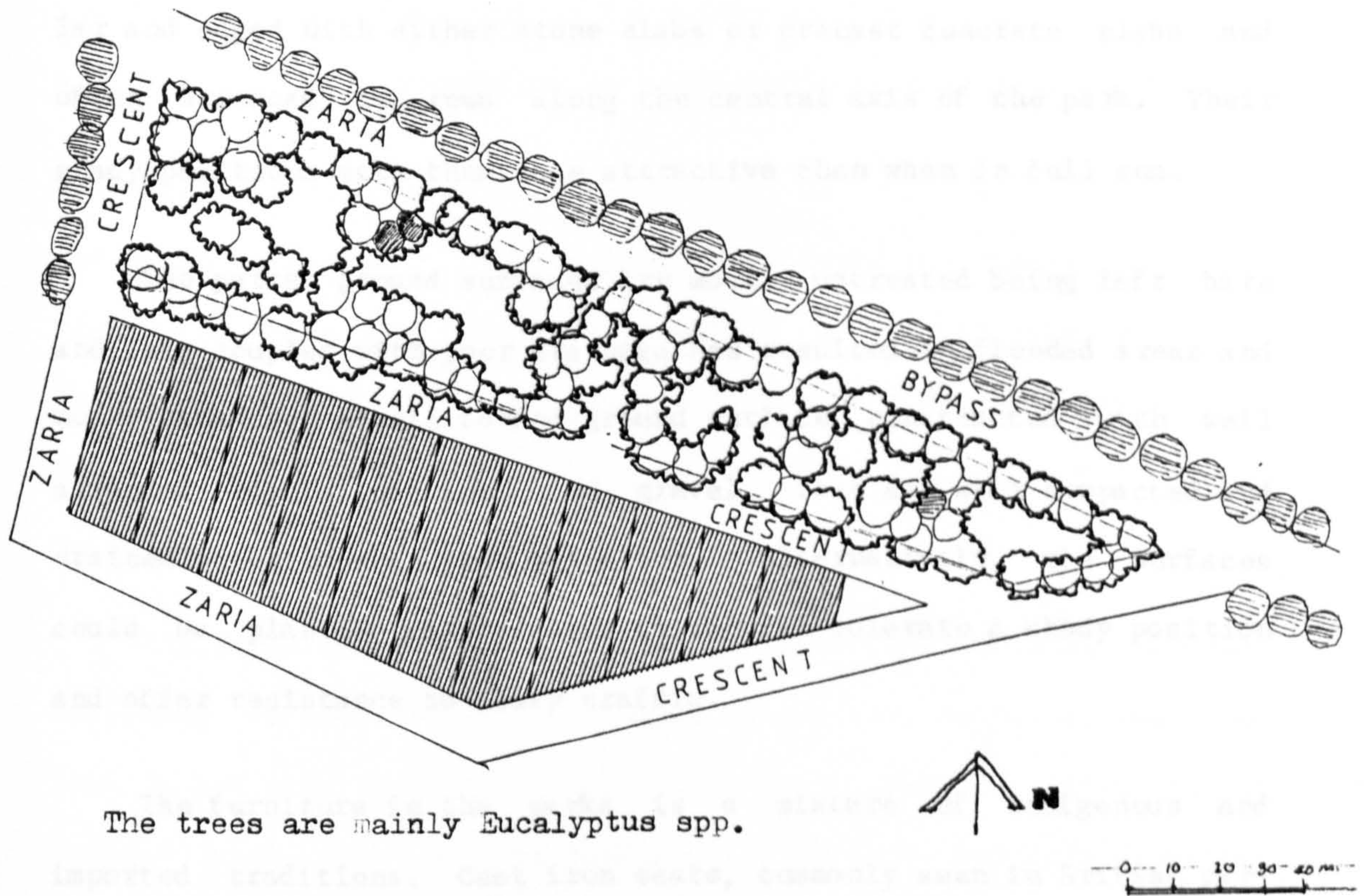


b)

FIGURE 9.17: VIEWS OF SELECTED PARKS IN JOS

a) Gray Garden: an example of a small, well-used but badly drained park.

b) Zaria Terrace Park: an example of a much larger but increasingly encroached upon by nearby services.



The trees are mainly Eucalyptus spp.

FIGURE 9.18: THE ZARIA CRESCENT PARK, JOS: showing the planting pattern.

Source: Site Survey by the author in July 1983

of sun shade already achieved in the park. By so doing more space would be formed for people to move around and play in the parks.

Other interesting features of the parks of Jos, though they seem to be out of character, are the flower beds. These are mainly circular and edged with either stone slabs or precast concrete slabs and often arranged in rows along the central axis of the park. Their shady positions make them less attractive than when in full sun.

The parks' ground surfaces are mostly untreated being left bare and this coupled with poor drainage has resulted in flooded areas and muddy patches. A well formed ground surface constructed with well arranged layers of sand and gravel that are well compacted and drained might improve the situation. Alternatively, the surfaces could be planted with grasses which will tolerate a shady position and offer resistance to heavy traffic.

The furniture in the parks is a mixture of indigenous and imported traditions. Cast iron seats, commonly seen in British gardens, found their way into the parks of Jos and tend to endorse their colonial origin; most have reached the end of their useful life. Another important article of garden furniture is the zinzin, which is the Kanuri and Hausa mud reclining seat commonly found in the summer house. Obviously, the zinzin has been transposed for use outside and in parks it has often been developed as an elaborate architectural feature forming the central focus and as a terminal feature for the park entrances from all sides. The opening to the zinzin is usually

aligned with that of the park's entrances. It is designed as a circular structure usually with four entrances leading into it. The design of the one in Gray garden also includes planting beds. The zinzin is definitely worthwhile and an innovative architectural feature of these parks, but it is barely comfortable and needs good and well drained surroundings to avoid muddy patches (Fig. 9.19).

Other problems are the encroachment on the parks by service industries and litter. The Zaria terrace park, for example, has suffered from the nearby upholstery, vehicle and motor-bike services. Part of the park has literally been taken over for the servicing of motor-bikes. The smell from burning of rubber and the draining off of engine oil adds nothing to the park's amenity.

The parks of Jos are well used for many recreational pursuits including outdoor sitting, informal ball games, courting, chatting, hawking and praying (Fig. 9.20). A common and very distinctive, if controversial, use of the Jos parks is by women for hair dressing. This phenomenon is presently causing such concern that it made a headline in the local news paper in 1982. It is still very much an unresolved issue. Whether hair dressing is successfully prohibited in the parks or not we must not lose sight of the fact that it is the shade and amenity of these parklands that have attracted the women. Hair dressing in parks, if well organised, could be regarded as a "social activity" offering them opportunity to meet friends away from the house. It needs to be emphasized that the right of women to use the park needs to be protected somehow especially as they are not

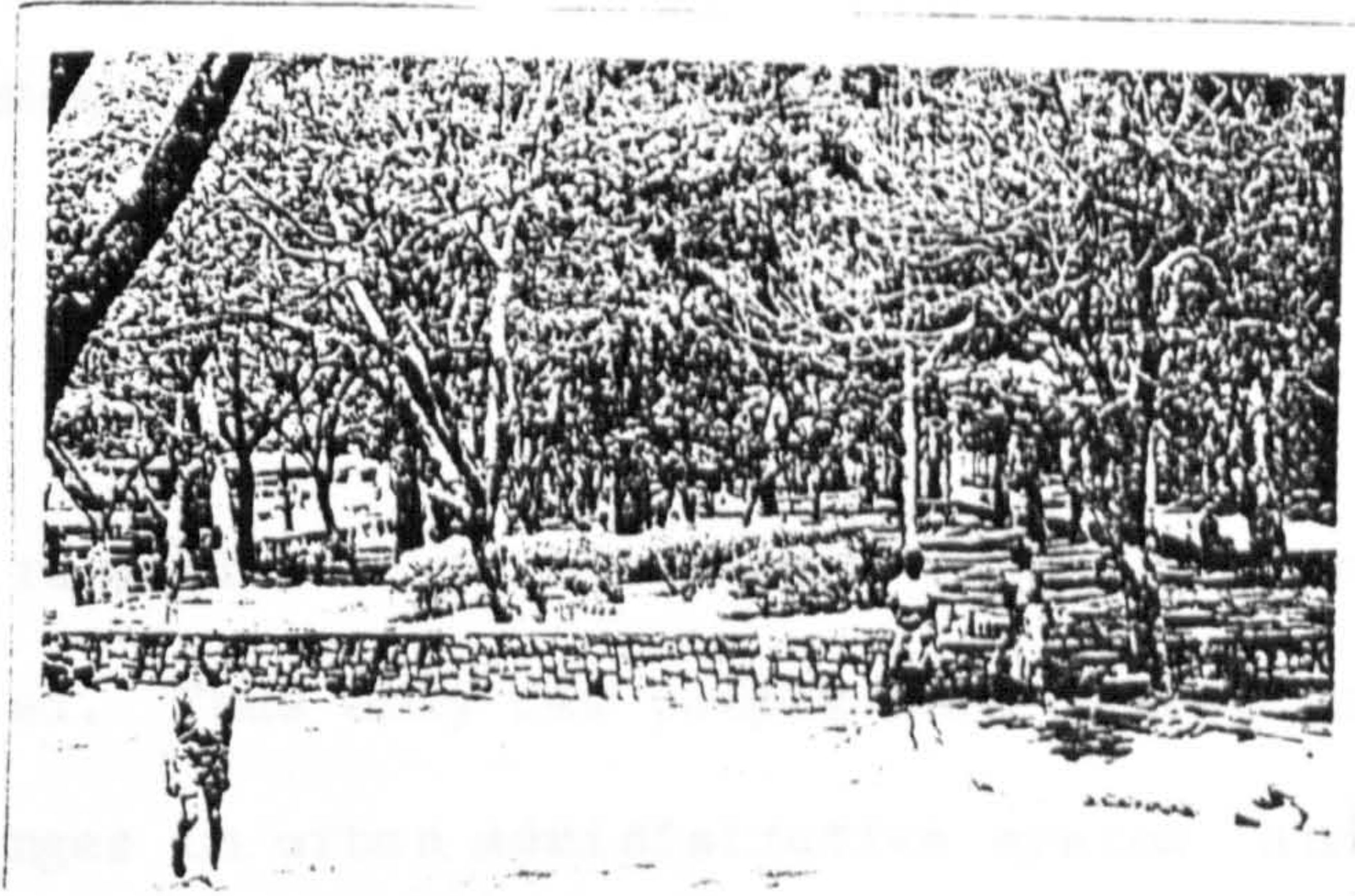


b)

FIGURE 9.19: EXAMPLES OF PARK FURNITURES IN JOS a) Cast iron chair, Zaria Terrace park b) Mud seat, Gray garden c) The Zinzin, Gray garden: The main problem of the design of the zinzin is with the reclining back, which has been erroneously curved in instead of outwards like that of the back of a comfortable chair.



a)



c)



b)

FIGURE 9.20: VIEWS OF LEISURE PURSUITS IN PUBLIC PARKS OF JOS a) sitting out b) informal ball games c) hawking

commonly found in public parks on their own in muslim cities like Kano, Zaria and Katsina. If it is decided, however, to relocate the hair-dressers it should be remembered that an attractive landscape is of no less importance even to services and marginal activities such as hair dressing.

While the parks of Jos are well used by the people they are too few and unevenly distributed. Thus only few people have access to them. Unfortunately, the changes in urban administrative system and persons sufficiently interested in parks have in the recent past occasioned the abandonment of the idea of continuing the development of the park system, thus making Jos fall-back in line with the general apathy which prevails in other Nigerian towns.

THE PARKS OF ENUGU

The Open Space Development Commission (OSDC): its history and functions

The last decade has seen the emergence of the Open Space Development Commission (OSDC) in the states of Anambra and Imo. The existing Commissions in these States are the offshoot of a similar body first set-up in 1974 by the defunct East Central State. The retention of the services of OSDC following the creation of State in 1976 is an indication of the values placed on its contribution to the development of public parks and to the general amenity of towns.

The constitution of OSDC is a fresh realisation of how to tackle the problem of inadequate organisational framework for the development and maintenance of public open spaces. The OSDC is a corporate body set-up as an arm of the planning department and charged with the development and maintenance of public open spaces in these states. As the establishment of an effective administrative framework for park development is still very much lacking in other Nigerian states, these may well learn from the good example set by the Anambra and Imo State governments. Moreover, the activities of the OSDC in these States have resulted in the development of many parks in major urban centres.

The history of the OSDC began in 1970 when the members of the Ministry of Lands, Survey and Urban Development in a departmental seminar resolved that the government should evolve ways of dealing with the problems of fast disappearing public open spaces in suburban developments. 'These open spaces', they said, 'have been reserved to be developed purposely for recreation and to enhance the general amenity of towns'. It was therefore decided to establish a Parks Commission to look after parks and open spaces in the State [40].

As a follow up of this decision the then East Central State government passed the Open Space Development Edict in 1973 [41] and in the following year the OSDC was formally launched. At the inaugural meeting of the Commission Mr. Anthony Mogbo, the then State Commissioner for Lands, Survey and Urban Development, spelt out the predicament of public open spaces in the State and one might even

argue that his feelings for the towns of Anambra State were not peculiar but common to towns in other Nigerian states. According to him:

"the few open spaces provided in most of our layout design both at State and non-state levels have been grossly misused and abused. There are many instances in our urban centres where these otherwise pleasant spaces have been converted into automobile workshops or garages or even refuse dumps. Worse still a good many of them have been converted into transit bases for night soil men." [42]

If the OSDC has been set-up to develop open spaces, it is only right to examine the scope of its interest and involvement in the subject matter. The Anambra State Open Space Development Commission Edict, 1978, which replaces the former one defines open space as:

"public parks, pleasure grounds, botanical gardens, village or public squares, places of natural beauty affording opportunities for open air recreation and other spaces designated as open spaces by the Commissioner under the Edict and spaces designated as open spaces in any layout schemes approved by the Ministry (ie. Ministry of Lands, Survey and Urban Development) responsible for the approval of layout schemes" (see Section 2 of the Edict).

With due regards to this definition OSDC's interests in open space are wide ranging including those in urban areas, villages and countrysides, especially areas of natural beauty. It also includes taking the initiative to plan for new open spaces as well as to develop those already approved in the layout schemes. These varied functions and interests are also endorsed by the detailed roles of the OSDC as provided in the Edict which include:

- i) to prepare schemes for the development of open spaces;
- ii) to take necessary measures for the provision, of preserving and enhancing the natural beauty of, and promoting the opportunities for open air recreation of places designated as open spaces;
- iii) to develop, preserve and maintain open spaces;
- iv) to provide in open spaces such amenities and facilities necessary for their proper enjoyment as places of natural beauty, or for open air recreation;
- v) to make proposal for land to be acquired and developed as open spaces; and
- vi) to effect other functions conferred on the body by the Edict (see Section 12 of the Edict).

Such other functions include the power to borrow money, the power to contract their services to other bodies, the power to charge for their services and provide information to the public. It also includes the power to enter into agreement with communities or other bodies for the preservation and management of open spaces so dedicated to it. The OSDC is also empowered to invest its funds in housing estates or any real and personal properties (Section 13 of the Edict).

A new Chairman, administrative and technical staff had been appointed in 1974. Among the specialist staff is a landscape architect in the person of Nwasombo, who has so far designed most of the parks of Enugu and the ones in other towns of the State. The OSDC also maintains its own park rangers and mowing gangs.

The Commission set about its job in the most feasible way by upgrading the plant nursery of barely over 2 hectares it inherited from the Landscape Unit of the Ministry. It also took active steps to identify all the open spaces in the approved layout plans in the State and drew-up a programme to tackle the project. Work began in earnest with the development of some parks in the major towns of the then East Central State. These included Murtala Mohammed Memorial Park, Ejindu Street Park both at Enugu. Work also began on the redevelopment of the Golf Course at Owerri, the Gorge Street park, Abaji; the Library Road, Umuahia and the Lapai Square Onitsha. More recently and following the creation of States, the activities of the OSDC in Anambra and Imo have been limited to within the State boundaries.

The Activities of OSDC, Enugu

In comparison, the activities of the OSDC in Anambra State have resulted in the development of more parks than in Imo State because of historical factors. In addition most of the parks developed to-date are concentrated in Enugu, which was the capital of the defunct East Central State and that of the existing Anambra; consequently, it has always been an important base for the activities of the OSDC and the development of public parks. This makes an appraisal of the activities of the OSDC, Enugu more rewarding than that of the sister State.

The OSDC in Anambra State, following the creation of the State,

is currently embarking on expanding its activities to the other towns outside Enugu which are administrative headquarters of the Local Government Areas, though not without some difficulty. Some of the towns tipped for the development of open spaces include Agubia, Nnewi, Udi, Ihiala, Ogidi, Agbani and Ezzangbo.

To-date, the OSDC in Anambra State has developed some public parks in the major towns of the State: in Enugu they include Murtala Mohammed Memorial Park, Ngwo Street Park, Ejindu Street Park, Onwudiwe Street park, Polo Field Amusement Park, Igwe Edward Nnaji Park, Osadebe Street Park, College Road and Nise Street Park; in Onitsha the Lapai Square Park and Nupe Park still in the construction phase; and at Abakaliki, the Green Lake park.

The Character of Enugu Parks

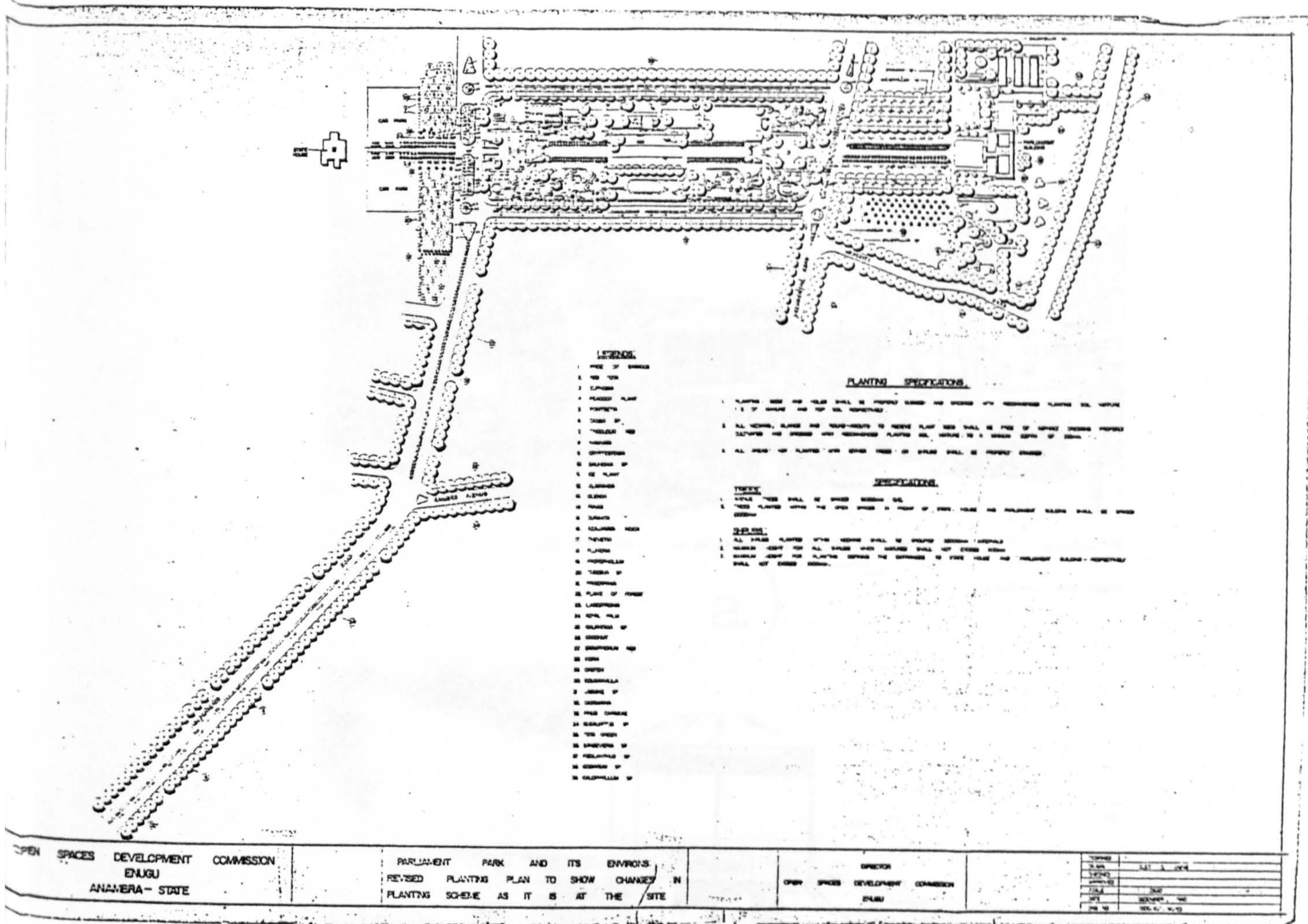
The Enugu Parks are generally well developed and managed with outstanding care and sensibility. Perhaps one can dwell on their general character and afterwards illustrate this with a detailed account of a most famous and typical example. The parks of Enugu, though very much of western influence in design, are commendable in that they are a welcome relief for the masses who live outside the middle-class garden suburbs. These parks offer them the only opportunity to enjoy a well cultivated landscape in densely built and squalid urban areas. The parks of Enugu are generally laid out in broad lawns planted with exotic colourful foliage trees and shrubs, mostly in a continuation of the colonial fashion. These parks are

generally small, being less than 3 hectares in area except a few examples like the Polo Field Amusement Park, Ngwo Street Park and Murtala Mohammed Memorial Park. They are designed to cater for both active and passive outdoor leisure pursuits. The provision for children's play facilities is given a high priority in all the parks.

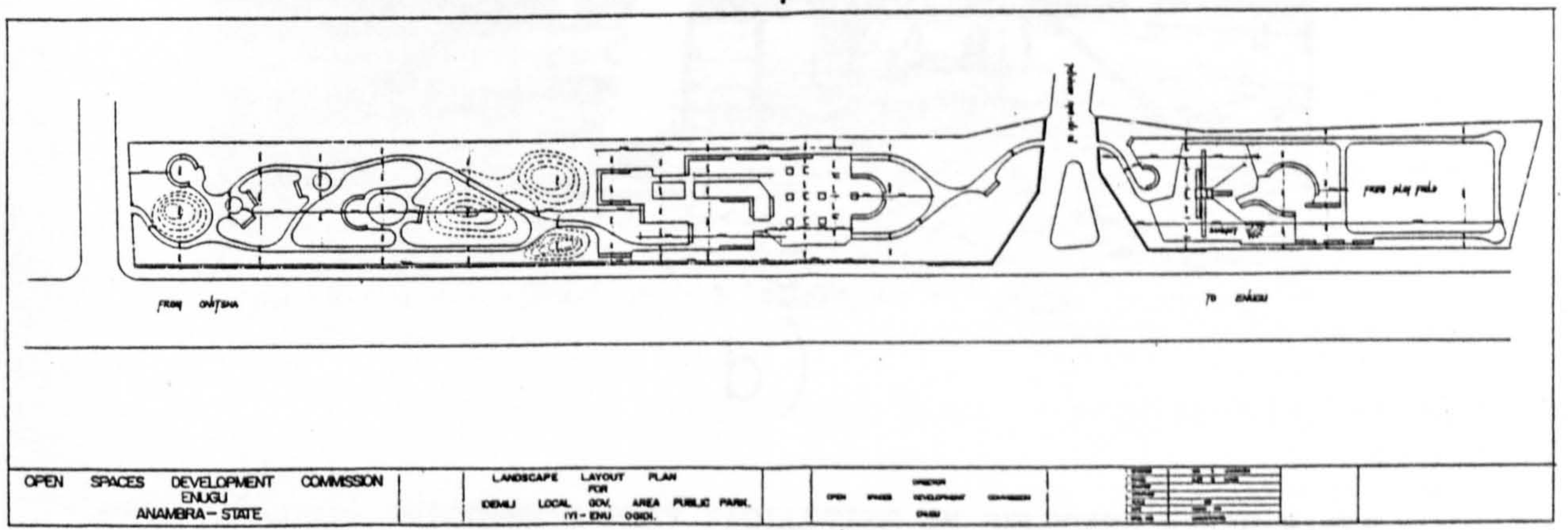
The most outstanding of Enugu Parks is the Polo Field Amusement park. By consent it is the best known nevertheless it is still the one with the most obvious problems. By comparison with the Polo Field Park, there are smaller but equally attractive parks like the Nnaji Park with its amphitheatre where pop concerts are recorded for the State's television programmes. So also is the Murtala Mohammed with its well shaded lawns and pleasantly winding walks along the Iva valley (Figs. 9.21 and 9.22).

The Polo Amusement Park: A case study

Because the Polo Field Amusement park has many of the problems facing Enugu parks in general it is possible to study it as a microcosm of the problem of park design. The main intention is not to discredit good works already undertaken by the OSDC. The advantage is that we can, in our study of the park go outside the authority's terms of reference in order to learn new things about park design and construction [43].

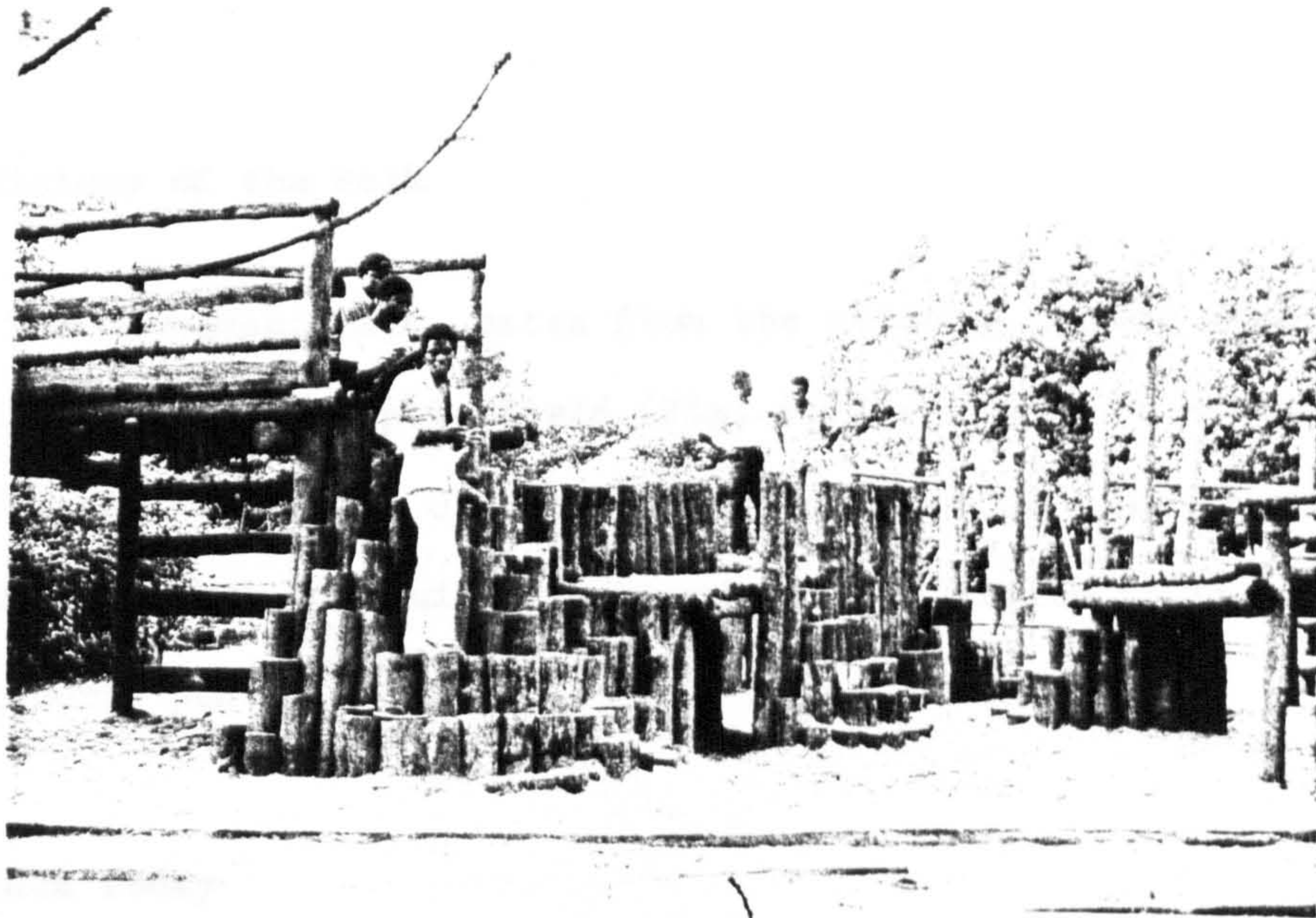


a)



b)

FIGURE 9.21: SELECTED PARKS DEVELOPED BY THE OSDC The Parliament Park, Enugu: the main attractions of the design are the broad avenues and the terraces developed around the central fountain (a). Ngwo Street Park at Enugu: a relatively small park developed for active recreational pursuits. (b) Idemu Public Park, Idemu: An example of the parks developed in the local government areas outside Enugu.



a)



b)

FIGURE 9.22: CHILDREN'S PLAY FACILITIES IN SELECTED ENUGU PARKS
a) The climbing logs at Nnaji Park. b) A view of the giant slide
a common feature of Enugu parks.

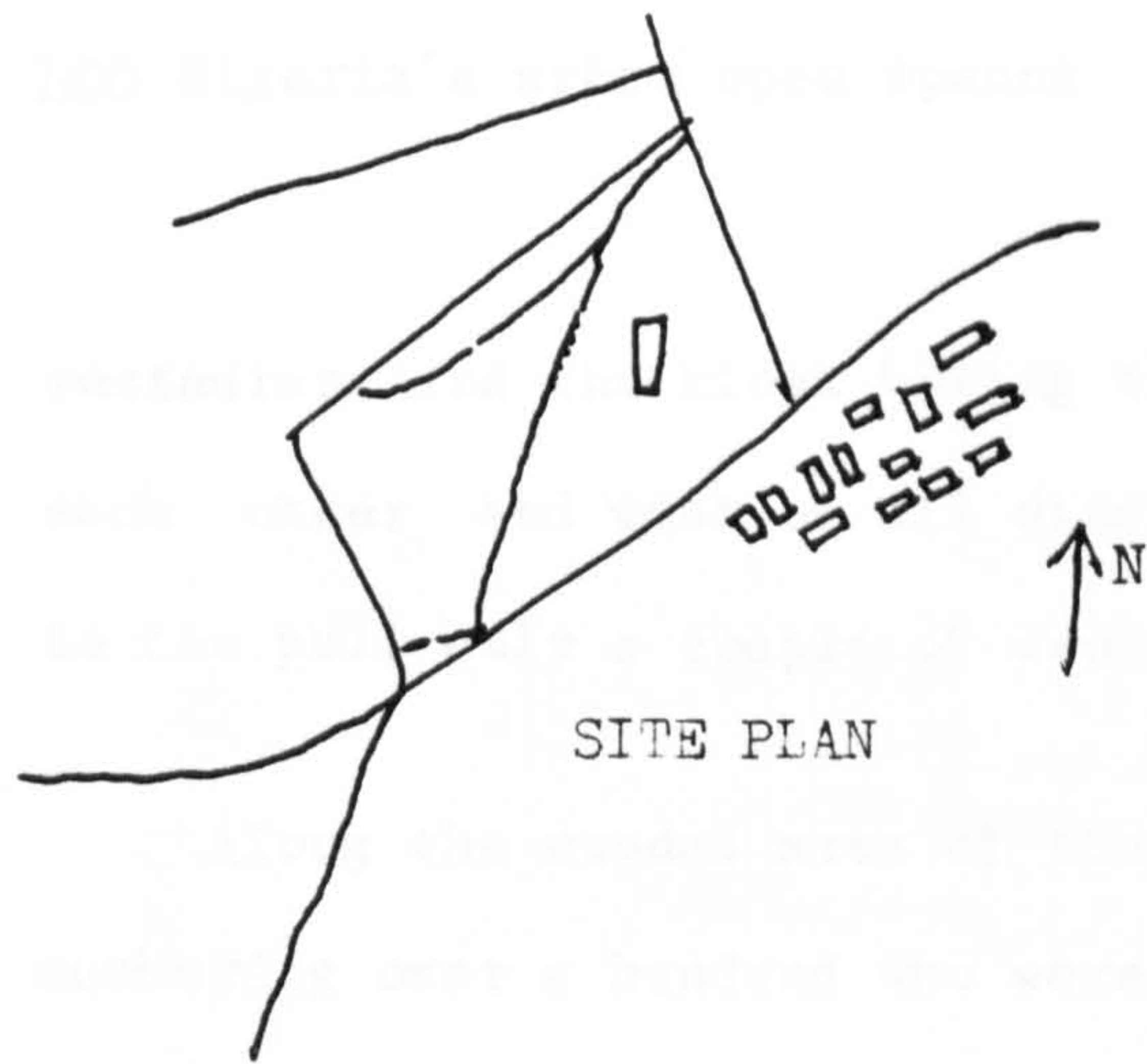
The History of the Park

The Amusement Park dates from the colonial period when it was first developed as a polo field (Fig. 9.23). Then, it existed mainly for the members of the club. Now that the park has been turned into an amusement park with wider recreational facilities it is of benefit to the general public.

The Park Today

The park has been redesigned to cater for both passive and active pursuits. It now provides a football pitch with a sheltered stand which occupies a large part of the former polo field. The remaining half has been laid out as an amusement park. This area of the park has been equipped with mechanically operated play facilities like the Go-Kart, merry-go-round and the Chain ride. The installation of these mechanical play facilities alone is said to have cost some N76,000 which seems to have taken a substantial part of the budget earmarked for the development of the park, although when asked, the total was not made known. The former Club house has been refurbished and turned into a restaurant and adjacent to it is a new snack and drink kiosk. Around here there is provision for an outdoor sitting area partly shaded, and a few yards away is a very sunny car park.

When I visited the park on the 21st. July 1983, the football pitch was occupied by a team of players. Many people sat around the



View to the west-end.



View to the main entrance and east-end.

FIGURE 9.23: THE PLAN OF POLO FIELD, ENUGU: An example of club recreational ground converted to public park. The two photographs below show the recent improvements such as the football field with the stand and the car park, a barren desert-landscape crying out for shade. The most recent plan for the improvement of the park was not made available for the purpose of this study.

restaurant and the kiosk having their drink, food and chatting to each other and most of all discussing politics as Nigeria was going to the poll only a couple of weeks later.

Along the wooded area of the park were a group of young people numbering over a hundred who were enjoying an organised picnic. They were being addressed by a militant individual and they seemed to represent a pressure group. From my discussion with some of the park visitors I was told that the park had been used on previous occasions for many political meetings. Nearly all the city parks had makeshift polling booths constructed for the long awaited election.

The amusement section of the park was virtually empty as all the mechanical gadgets were out of order (Fig. 9.24). The worn out parts, I was told, were not available locally. To run these mechanical gadgets, a stand-by generator had to be maintained to cope with power failure which was and still is a most frequent occurrence in all parts of Nigeria including Enugu. Because of the high cost of equipping and maintaining these play facilities, it would be a sensible thing to exploit opportunities of designing parks which provide for local recreational pursuits and to utilise local materials for their construction. Generally, the landscape design of the park shows the problem of improving an existing park to cater for wider recreational interests. Alternatively, the OSDC may lease these amusement facilities to private enterprises to turn it to a "fun" park provided it is very strictly controlled.



FIGURE 9.24: A VIEW OF AMUSEMENT SECTION OF THE PARK AND THE BLIND AVENUE. The former, which is shown in the above picture is an example of expensive and inappropriate park furniture. The latter is an example of inappropriate tree used in poor soil condition and for the wrong motive.

In order to appreciate the design problems of the Polo Field Amusement Park one can perhaps begin by asking the all important question - why a park? Not just a park; but why a park for the people of Enugu, Anambra or Nigeria for that matter? There are two sides to this question. One relates to the role of parks in urban areas as a landscape design element. The other relates to what are the people's expectation of their parks. Generally, the role of parks in urban areas is that of a rural escape from the urban surroundings. Jellicoe [44] regards a park as a world of make-believe, a world where we can associate with Nature in a kind of perfect Arcadia which only exists in our imagination. The park, he said, is also a place where we expect our spirit and body to be liberated. Indeed, the park is a world tailored to our own needs and its design needs to reflect all these aspirations.

In many respects the Polo Field Amusement park fails to be a place of rural escape, as it is not full of shaded areas with the best of trees and flowers. For the purpose of this brief appraisal of the park one can only discuss the more obvious problems of the park which include the lack of its relationship with the adjoining developments; the lack of harmony among the component parts; the absence of a sense of place, lack of either local or national identity, the insufficient and inappropriate use of trees and outdoor furniture.

Relationship of the park with the adjoining developments:

The first noticeable thing about the Park is its lack of relationship with the surrounding areas. The Park's boundary is jagged and ill-defined even although it is surrounded on all sides by urban developments mainly housing and schools. It is bounded on three sides by the middle-class housing suburbs and the fourth side faces onto the major road which separates it from the Institute of Management and Technology opposite. With due regard to the adjoining developments, the park's design ought to be inward looking. The first requirement of its design, therefore, would have been to screen outside views from the park as much as possible except where it became necessary to exploit views to the surrounding escarpments. Unfortunately, the park is too exposed to outside views and these need to be remedied by informal planting to form an effective and attractive boundary.

Absence of a sense of place and a sense of arrival:

As a relatively large park providing for wider recreational interests, one is most disappointed not to have a feeling of arrival. The park has an insignificant and unattractive entrance for the pedestrians and car-borne visitors, which leads to a long, sunny and unattractive car park. Here, motorists, and pedestrians hesitate about where to go, through lack of direction. There is a feeling of being lost, surely - a feeling of not being invited arising from the absence of direction.

There is little sense of place as one explores the different spaces created in the park. From the ill-defined areas around the restaurant and the drinking kiosk, one passes through the incongruous and most derelict amusement area. Thereafter, one is led to a lost avenue of royal palms which leads up to a fence. From here one can reach the foot ball pitch. Whether the pitch ought to have been given such prominence considering the size of the park is an important issue which still needs to be resolved.

The Flatness of the whole scene:

The park is as flat as its original topography. One thing about landscape design, which is perhaps not fully realised here, is to capitalise not only on the site topography but to alter it when necessary to add interest and enjoyment. For example, where a site is generally flat, one tends to create changes in level to forestall views forward and to increase the sense of apparent extent. Similarly, where views are too enclosed one tends to open them and when views are too expansive one can break them up into framed views. A judicious alteration to the topography of the park would have added to its attractiveness.

Unity of the different components of the park:

What is mostly needed in the re-design of the park is how to achieve unity of the whole by harmonising the different components. The park comprises five main areas - the restaurant and kiosk area; the car

park; the amusement park and the meadow. These areas have been designed as amorphous spaces whose functional organisations not only lack the coherence and sense of place, but their aesthetic impact is uniformly banal. To unify and harmonise these areas require creating a sense of place in each of these spaces and to link them to other areas by attractive walks reinforced by planting and by subtle changes in the use of materials.

Insufficient and inappropriate use of trees:

The park is generally too open and sunny. Indeed, in the tropics, trees are not luxuries in parks and open spaces, but a necessity for shade. The planting of more trees in the park is most desirable to achieve a reasonable canopy.

Another problem peculiar to the park is the inappropriate use of some trees. Trees like the royal palms (Delonix regia) provide little shade in the blazing sun. Bauhinia purpurea is another inappropriate tree for shading. Both trees seem to be intolerant of the underlying sandstone which occurs in a large part of the park. At present the Casuarina and Mangifera indica are doing well, though both are exotic trees. These, and other indigenous trees like Chlorophora excelsa, Eriodendron bombax, Elias guinensis could be planted to reinforce the trees already planted.

Lack of local or national identity:

There is nothing so disappointing as to make an urban park in Nigeria wholly of western influence by design. This is one of the worst aspects of the park especially the amusement section, the buildings, the recreational facilities provided for, and also through the use of exotic plants. The most obvious thing is the inappropriate use of mechanical play equipment and the domination of the park by the football pitch. What is even more lacking is the feeling that one is in an Enugu park, a feeling which should possibly have been created by introducing certain elements of Igbo architecture such as the Mbari House, the Mbala wall, the arbor of the Igbo town commons, the earth mounds of the village greens, the amphitheatre and even certain characteristic features of the Igbo agricultural landscapes of famed parkland covered with palms. The aim of these is to create a local identity. To cite an example the most outstanding character of the parks of Jos is that they can be identified with indigenous architecture and indigenous furniture. The zinzin, the traditional mud seat was exploited as a central feature of the roadside parks. The idea of this raised platform for sitting can be greatly developed in the shaping of detailed spaces within Nigerian parks. The parks of Enugu and other parts of Nigeria have a lot of interesting aspects of traditional architecture and arts to draw upon in order to create a local or national identity.

If I were to be asked to redesign the Polo Field Amusement Park, I would incorporate into its design all the above suggestions I

have already made. In addition, I would redesign its entrance as a welcoming place embellished with an attractive and imposing gate flanked on both sides by an external wall undertaken in the colour scheme of traditional Igbo architecture perhaps to imitate the interesting and using the admirable colour schemes of the Igbo Mbari houses, the Mbala walls and those domestic buildings. I would also redesign the area around the restaurant and the drinking kiosk and provide an outdoor restaurant garden with a framed overhead sun screen from the car park, I would provide a shaded walk leading to the restaurant. The restaurant area would be linked to the amusement area with a further shaded walk. I would remove all the mechanical gadgets and lay out the area as a play park with the provision of more realistic and interesting children play facilities both local and contemporary. Here, children would have abundant sand to play with. I would remove the football field and encourage the young to use the school playing fields for ball games, which is what they are doing already. I would only provide for a small kick-about area and free the space for passive recreational pursuits. Here, I would also alter the contours of the ground to add to the excitement and enjoyment of the place. I would redesign the area around the existing car park and provide for fewer cars. The adjoining area of flat sandstone would be developed for tennis. I would use large trees like Chlorophora excelsa, Eriodendron orientale and Adansonia digitata in different parts of the park as specimens to give scale and importance to the spaces in the park. In many parts of the park I would use trees to provide shade where it is necessary; trees with colourful

flowers and foliage to create the most desirable colourful appearance.

An account of the Parks of Enugu would be incomplete if one failed to comment on other interesting ideas pioneered by the OSDC as well as the imminent threats to its role. Foremost among these threats is finance. The Commission is short of cash. However, it has been able to overcome this partly by generating financial support from wealthy citizens some of whom have funded the development of parks. Both Nnaji and Greg parks have been named after the citizens who subscribed for their development.

It is also noteworthy that, so far, the OSDC has limited itself only to the development of open spaces in the approved layout plans. While the OSDC is increasingly catching-up with development of inherited open spaces, it is now strongly felt, quite appropriately, that the Commission ought to be involved at the planning and design stages of the new layouts. This is because open spaces like other land uses require planning ahead to secure good locations instead of relegating them to unbuildable sites such as river valleys which seem to be the current practice. Although difficult sites such as these offer scope for developing attractive landscapes, on many occasions their draw backs are accessibility and the inability to develop recreation grounds for active sports on them. At present planners are too quick to deny the OSDC the opportunity to be involved at the formative stage of land use planning; they hold the erroneous view that the OSDC should only be involved after all the planning

decisions have been made. That being so, it is such an irony that the planners, who first initiated the idea that the OSDC should be set-up, may well destroy it by their own lack of understanding.

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**PART THREE: THE CASE
FOR URBAN OPEN SPACES**

CHAPTER 10

THE CASE FOR OPEN SPACE

"A city is not built wholly for the sake of shelter, but ought to be so contrived, that besides more civic conveniences there may be handsome spaces left for squares, courses for chariots, Gardens, Places, to take Air in, for Swimming, and the like, both for Amusement and recreation." Alberti, L. B. (1484) [1].

"The desire for beauty in the lay-out and continuity of our towns may eventually come from young Africans who have had the opportunity of travelling abroad and seeing how towns can be made attractive with public gardens, seats and road-side trees."

Duckworth, H. E. "On Making Towns Beautiful," Nigeria Vol. 35, Lagos, 1950 p. 291.

The two quotes above provide a good start to argue the case for open spaces in Nigeria's urban centres. While the first quote stresses the need to provide for open spaces in towns, the second denounces the failure to attain this noble goal in Nigerian towns. Duckworth's appeal reflected his last hope of mustering support for his unfruitful campaigns against official indifference in providing for attractive open spaces and amenity in Nigerian towns [2]. Since this pronouncement more than three decades ago, our politicians, town planners, urban designers and the general public have yet to take any positive step to redress what has now become a glaring deficiency. In fact, much that is weak in our current practice can be attributed

not to anti-social action but largely to sheer indifference and ignorance. Considering the accounts of Part One of the study, it is no exaggeration to say that the open spaces in Nigeria's urban centres are no man's land, little tended, and lost in their surroundings as a small and apparently irrelevant detail in the country's physical, economic and industrial growth. Therefore, this chapter sets out some of the basic arguments for promoting attractive and functional public open spaces. This is followed by a discussion of specific land use and management approaches to solving some of the open space problems characteristic of Nigerian towns.

THE BASIC ARGUMENTS

There are many reasons in favour of promoting attractive open spaces in Nigerian towns but those endorsed by the findings of this study are set out below.

1. Traditional Nigerian settlements used to have public open spaces:

Foremost among the arguments is the fact that the provision for open spaces and gardens is as old as the earliest Nigerian settlements. Older Nigerian towns and villages provided for town squares, market squares, village squares, sacred gardens, sacred squares, paths, lanes and streets (see chapters 2, 3, and 6). Unfortunately, during this century urban developments have not only encroached upon traditional open spaces, but have also failed to extend them or provide for their equivalents in new and expanding settlements. Generally,

the open spaces promoted during this century have been mostly for private and commercial uses. In most towns public recreational facilities are too limited and often they have been provided and operated by institutions, corporations and commercial enterprises. But now that housing and traffic have encroached upon open spaces, public parks provide places where the open space needs of the people can be met.

2. The natural Climate encourages outdoor life:

Put simply, the provision for private, communal and public open spaces in Nigeria is not a luxury but a necessity. The hot humid climate, which prevails, encourages outdoor life. The medieval city-fathers understood this and incorporated it into building design and settlement planning. They for example evolved the courtyard architecture which provided outdoor rooms within residential compounds. Moreover, the house was a temporary shelter from rain and wild animals as man's occupation, social and religious life took place in the open rather than in enclosed space. Not only have we witnessed the continuing decline of courtyard architecture, every aspect of city dweller's life and activities have increasingly been confined and cramped to his total discomfort. Well shaded and ventilated open spaces serve as outdoor rooms and cooling places in cities whose buildings are storing up heat. Shade trees in open spaces also help to filter noise, dust and smell and by so doing help promote outdoor relaxation.

3.. Need to redress deficiency, improve and maintain public open spaces:

An acute shortage of open spaces as well as a widespread abuse of the existing ones abounds in Nigerian cities. The magnitude of these problems has already been commented upon in the studies of Ile-Ife, Jos and Kano. The deficiency of open spaces in other Nigerian towns can be inferred by comparing their land use data. The land reserved for open spaces in most of Nigeria's urban centres is far less than adequate. Only Kaduna has some 4 per cent of its built-up area reserved as open space. The provision for public open spaces in other towns is generally less and it is as low as 0.3 per cent of the total built-up area in Ilesa (Table 10.1). Moreover, what people take for granted as public open spaces in most towns are often either in private or institutional ownership. In Zaria, for example, out of a total of 23 hectares of land now in open space use, 17.30 hectares is in private ownership having been allocated to the race course and the golf course, and leaving only 5 hectares of open space accessible to the general public. The planners who prepared Zaria land use plan allocated at least on paper 559 ha. (7 per cent) of the total projected land use (6095 ha.) for public open space to redress the deficiency [3]. The deficiency of public open spaces is compounded by the non-development of land reserved for it in suburban housing and this leads to further encroachment, abuse and unsanitary conditions. It is imperative that local planning authorities should act immediately and responsively to develop and maintain these spaces

in order to conserve them.

TABLE 10.1: PROVISION FOR ORGANISED OPEN SPACE IN SELECTED NIGERIAN TOWNS

Town	Built-up area (ha.)	Per cent in open space
Kaduna	6829	4.0
Ilesa	1507	0.3
Osogbo	8656	3.3
Zaria	7543	1.0

Sources: See Max Lock Kaduna, Plan 1917, 1967 - 2017 London: Faber and Faber, 1967 p. 91. AOA - Uniconsult Services. Ilesa Master Plan: Second Interim Report 1978 p II.2 Nidan Consult. Master Plan for Ogbomoso 1978, p 2.16.

3. Youth needs space for its bustling energy:

Children's playgrounds are the most deficient form of recreational open spaces in Nigerian cities. A random questionnaire survey of availability and accessibility to children's play grounds at Ile-Ife and Jos was undertaken as part of the study (See Appendix 1) for details of the method of survey and analysis). The analysis of the survey reveals the magnitude of the problem: 62 per cent of the respondents from Ile-Ife said they had no access to formal children playgrounds and for Jos, 56 per cent (Fig. 10.1). What is even more disturbing are the type of children's playgrounds available in these cities: 26 per cent of the respondents from Ile-Ife and 37 per cent

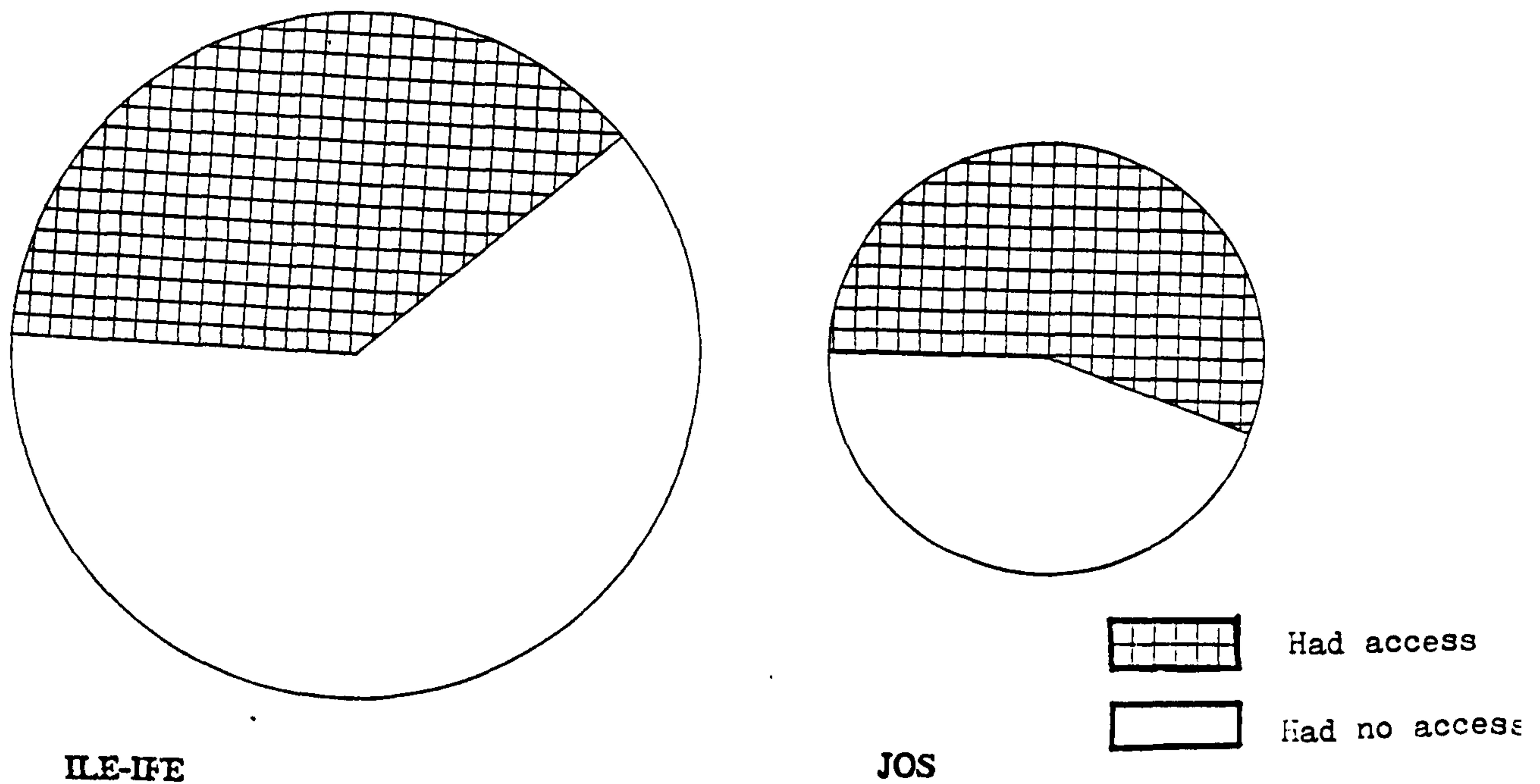


FIGURE 10.1: ACCESSIBILITY TO CHILDREN PLAYGROUNDS IN ILE-IFE AND JOS
Total Respondents Ile-Ife (160) and Jos (101).

of those from Jos said they used school playgrounds; 10 per cent of the respondents from both cities said they used private yards and gardens; about 3 per cent of the respondents from Jos said they had access to local authority children playgrounds and for Ile-Ife, barely 1 per cent. At present the phrase local authority owned children playground is a misnomer as Ile-Ife has none. Almost 6 per cent of the respondents from Jos said only the roadsides and market squares were the available and accessible playgrounds to their children and the corresponding figure for Ile-Ife was about 1 per cent (Table 10.2). The latter forms of playgrounds are unsuitable for many children for by Nigerian standards they are often too unsafe and unsanitary. Their use should be discouraged by providing properly equipped and safe children playgrounds.

TABLE 10.2: TYPES AND ACCESSIBILITY TO CHILDREN PLAYGROUNDS IN ILE-IFE AND JOS

Types of open space accessible	Per cent Response	
	ILE-IFE	JOS
School playgrounds	26.2	36.7
Private gardens	10.0	10.0
Public recreation grounds	1.3	2.9
Roadsides, markets and incidental spaces	0.6	5.9
Total ^h Having access	38.1	55.4
Total having no access	61.9	44.6
Total respondents	160	101

Source: Field survey July 1982 - February 1983 by the author.

4. Need to control and restore open spaces lapsing with urban growth:

During the last three decades, urban land use planning activities in Nigeria have failed to cope with the rapid population growth in an orderly manner. Generally, fast population growth leads to rapid outward expansion of towns with the attendant problems of congestion, overcrowding and fast disappearing green fields. High land values, land speculation and lack of development control often encourage encroachment upon every available space for building. While these problems are characteristic of the three towns studied in Part One of

the study, they are more noticeable in larger, fast-growing and expanding towns like Lagos, Ibadan, Kaduna and Enugu. In 1961 Mabogunje described Lagos as a city with very few open spaces 'despite its closely packed houses and its hot humid and stifling climate' [4]. Lagos is now Nigeria's biggest metropolis with the fastest population growth and a rate of expansion no longer under reasonable control. For example, it has now been calculated that Metropolitan Lagos grows by an additional 300,000 people each year; that is by an increment equivalent to the current size of the population of either Ile-Ife or Jos. Even though Lagos swallows all the land it can get, high population growth rates have also encouraged very high density residential development. For instance, while Nigeria's average population density is estimated at 85 people per square kilometre, and while that of Lagos State is 1,305 persons per square kilometre, that of Metropolitan Lagos is currently put as 20,000 persons per square kilometre [5].

Akinola's remark on Ibadan, whose population growth has been overtaken by Metropolitan Lagos, is also noteworthy. He noted Ibadan's gross deficiency in open spaces, public parks and playing fields and the rapid residential developments that are encroaching upon every available space [6]. While both Popoola and Obateru have recently described Ibadan as having four parks [7] to serve its population of well over a million people, none of them qualifies to be described as a public park.

Nigeria's urban centres have grown in response to important

economic and political decisions whose physical impacts were hardly anticipated. Among these decisions are those connected with the establishment of new universities, the location of industries and the creation of new administrative centres. At present urban populations are rising alarmingly leading to further congestion, overcrowding and to poor and insanitary environments. The people living in cities of over 500,000 people rose from 22 per cent in 1960 to 58 per cent in 1980. Over the same period the number of cities with high concentrations of people rose from 2 in 1960 to 9 in 1980. It is currently estimated by the World Bank that the population of Nigeria, is some 100 million and that it will have risen to some 161 million by the turn of the century [8]. Such an increase more than parallels the most intense periods of expansion of European cities during the 19th century. If radical measures are not taken at once to set aside adequate amounts of open space in Nigerian cities, there will be environmental consequences far greater than any experienced by British cities like Glasgow [9].

Generally, the need for public open spaces in cities increases with rapid population growth and other associated factors namely mobility and rising leisure pursuits. Whereas Nigeria's urban centres continue to manifest the land use problems in 1961 which accompanied the 19th century urban growth in the west, the idea that man-made landscape should be consciously planned and designed is still sadly enough very far from general acceptance. Lancaster, reacting to Nigeria's urbanisation problem and the associated landscape

problems, stressed that: we cannot stop rapid urban developments because they are the products of economic and industrial growth; nevertheless, we can control them by means of careful planning. For vital and useful evidence of failure and important lessons: 'we may look to parts of Europe and the USA' [10]. Failure also now stares at Nigerian in the face every day of his working life in towns and cities throughout the country.

5. Open spaces are needed to cope with rising leisure pursuits and demands:

Among the most powerful arguments for providing open spaces is the pursuit of leisure. At present there is very little useful statistical information about the leisure behaviour of Nigerians and the few recreational studies that have been accomplished are less vocal about the land use planning and design implications of the observed participation rates [11]. Therefore, the author decided to carry out a small social survey of the residents of Ile-Ife and Jos as a contribution to a better understanding of such behaviour. The survey was designed to establish the degree of involvement in outdoor leisure pursuits, the type of leisure activities pursued and demanded. It was hoped to draw some useful conclusions for planning and the design of public open spaces. For details about the method of study, time of survey, and size of sample refer to Appendix 1 (first part).

The respondents from both towns were presented with 17 leisure time activities (both passive and active and both indigenous and

contemporary) and asked to indicate all those they normally engaged in. Leisure activities like active sports in school playgrounds, club grounds or sitting out in private yards are so defined as to shed light on the available recreational open spaces and to show those under greatest pressure.

An analysis of the responses to leisure pursuits showed that participation in outdoor leisure activity was generally high and widespread among the respondents (Table 10.3). 98 per cent of the respondents from Jos said they normally participate in at least one of the seventeen leisure activities. The latter figure was slightly higher than that recorded at Ile-Ife (95 per cent). 33 per cent of the respondents from Ile-Ife had participated in between 5 and 7 of the seventeen activities and the corresponding figure for Jos was 42 per cent. Only 5 per cent of the respondents from Ile-Ife said they had not participated in any of the activities and 2 per cent of those in Jos.

The respondents' participation rates varied with each of the 17 leisure activities. Moreover, a comparison of the results of the analysis for both towns revealed some marked similarities as well as differences. Passive pursuits like sitting out in private gardens, sitting out in incidental open spaces and walking were popular pursuits among the respondents from both towns. However, while 47 per cent of those from Jos said they went for a walk as leisure pursuit, the figure for Ile-Ife was 37 per cent which was 10 per cent lower. Statistically with such a small sample this is scarcely significant

but the avenues of Jos probably encourage a higher proportion of the respondents to walk.

TABLE 10.3: DEGREE OF PARTICIPATION IN 17 OUTDOOR LEISURE ACTIVITIES

No. of Activities	Per cent participation rates	
	ILE-IFE	JOS
10 - 17	2	5
8 - 9	5	9
5 - 7	33	42
3 - 4	32	30
2	11	10
1	12	4
0	5	2
Total	100	100
Total Sample	160	101

Source: Field Survey July 1982 - February 1983 by the author.

TABLE 10.4: PARTICIPATION IN LEISURE ACTIVITIES IN JOS AND ILE-IFE

Activity	Per cent response	
	JOS	ILE-IFE
Walking	47.5	37.5
Active sports in stadia	46.5	38.1
Sit out in private yards	45.5	41.3
Attending parties	38.6	26.8
Leisure in public parks	36.7	13.1
Sit/play in incidental open spaces	36.6	45.0
Active sport in public grounds	36.6	36.9
Driving	30.7	24.4
Gardening/farming	25.7	29.4
Crafts and hobbies	24.8	12.5
Take children to playgrounds	23.8	15.0
Active sports on school playgrounds	22.8	27.5
Active sport on club grounds	19.0	7.0
Swimming	14.9	12.5
Fishing	10.9	3.8
Cycling	8.9	12.5
Hunting	8.9	3.1
Total sample	101	160

Source: Field Survey July 1982 - February, 1983 by the author.

than normally found in Ile-Ife. More people also sat out in incidental open spaces in Ile-Ife than Jos because of their relative abundance (Table 10.4). There was generally a lower participation rate in some traditional leisure pursuits such as fishing, hunting, gardening and indigenous crafts. However, the proportion of respondents who garden as a leisure pursuit in Ile-Ife (29 per cent) is slightly higher than in Jos (26 per cent). Engagement in hobbies and crafts is more popular in Jos (25 per cent) than in Ile-Ife (13 per cent). The low participation rate can be attributed to the decline in the value attached to indigenous crafts and hobbies due to increasing affluence among the educated elite. The higher figure for Jos can be attributed to Jos' rising importance as a tourist centre where indigenous crafts are sold to tourists.

Active pursuits are also relatively popular in both towns considering the various places in which they are undertaken namely school playgrounds, stadia and club grounds and the high per cent figure recorded in each of them.

Although participation rates in most of the 17 leisure activities were generally higher in Jos than in Ile-Ife, the differences recorded in two of them are noteworthy. Leisure pursuits in public parks were more popular in Jos (37 per cent) than in Ile-Ife (13.1 per cent). Similarly, those who said they take children to playgrounds in Jos (24 per cent) were also much higher than the figure for Ile-Ife (15 per cent). These differences may be partly explained by the relatively higher provision for outdoor recreational resources in

Jos, although these are presently inadequate; whereas Ile-Ife has none. Generally, the small proportion engaged in swimming are due to two conflicting factors. One of these is the nonavailability of swimming pools and the other is that swimming is a less socially acceptable leisure pursuit, at least among muslims.

An analysis of the factors which tend to explain the differences in the observed participation is vital to the planning and design of recreational areas. The frequency of participation in each of the leisure activities varies with the socio-economic and demographic variables of the respondents. In a further analysis employing the regression analytical technique (see Appendix 1) some of the more significant socio-economic factors, which tend to explain the variance in leisure pursuits among respondents are identified. In order of importance these include sex, educational level, marital status, car ownership, club membership, income and age (Figs. 10.2, 10.3 and 10.4). The same regression analysis showed that Nigerian women in the sample had fewer leisure pursuits than men which can be attributed to socio-cultural factors preventing them from participating in outdoor life. Those with low education and who were married also had fewer leisure pursuits than their counterparts with higher education or those who were unmarried. Car ownership did not appear to have influenced the choice and range of leisure activities except those associated with club activities (See Appendix 1 second part for details of the correlation matrix).

How much does a lack of recreational facilities prevent people

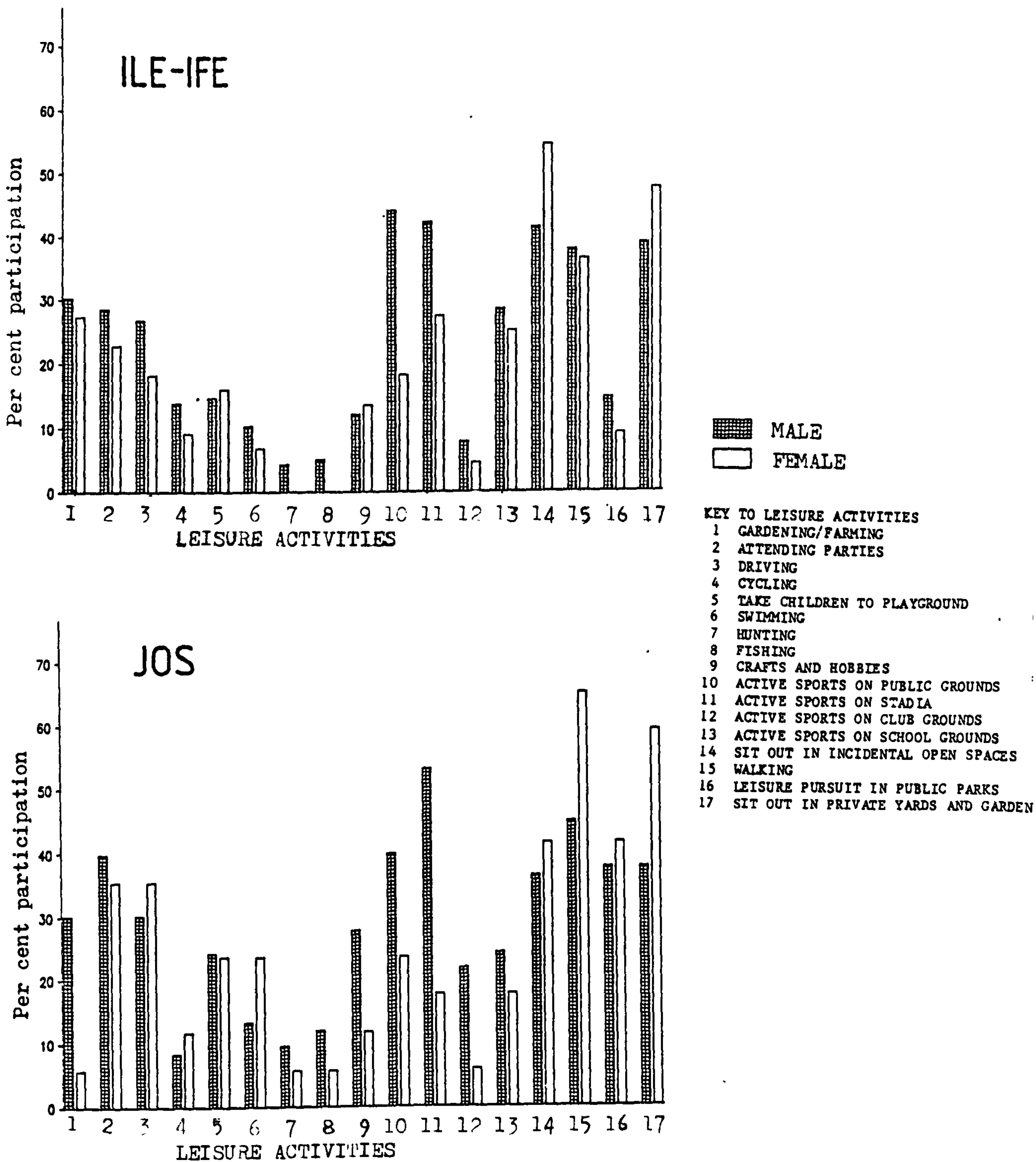


FIGURE 10.2: PARTICIPATION IN LEISURE ACTIVITIES BY SEX

By comparison, the participation rates in the 17 activities were generally higher among men than women. Men were more active in sports (9 - 13) although women were equally as active in sitting out, walking and leisure pursuits in parks (14 - 17).

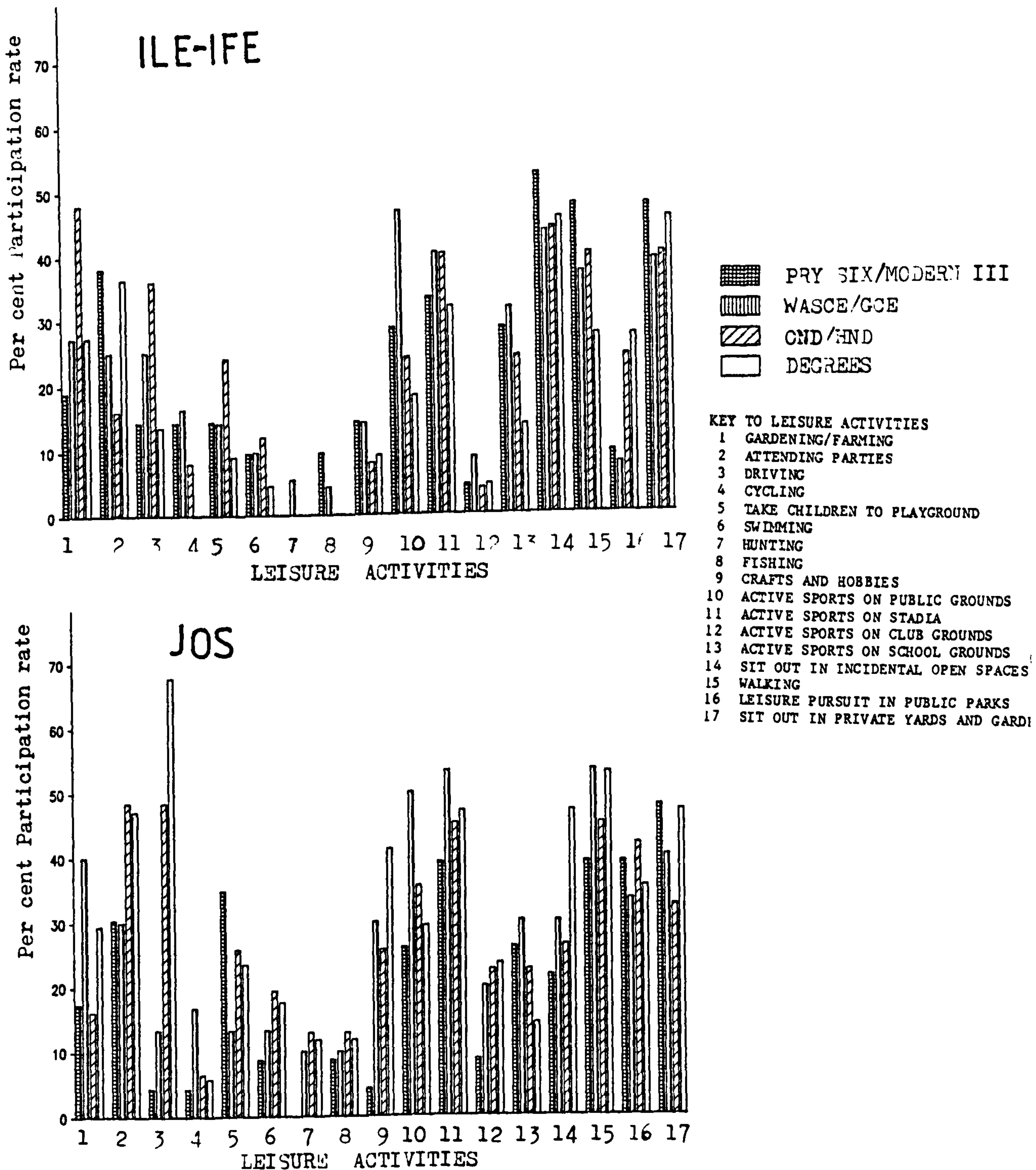


FIGURE 10.3: PARTICIPATION IN LEISURE ACTIVITIES BY EDUCATIONAL LEVEL

People with lower education participated less in most of the leisure activities except informal and traditional ones. However, leisure pursuits in public parks were generally high among all the respondents.

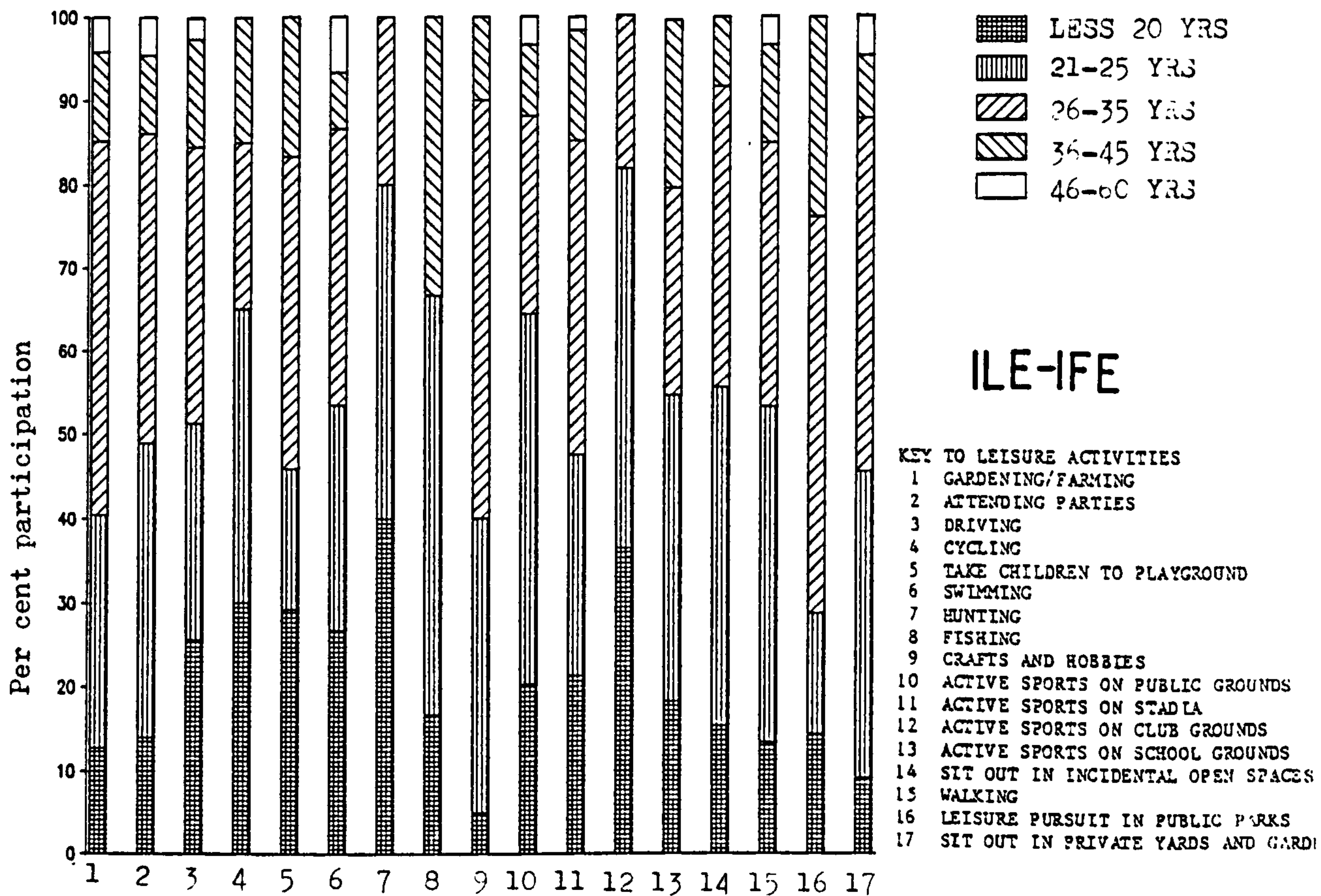


FIGURE 10.4: PARTICIPATION IN LEISURE ACTIVITIES BY AGE: The older people participated less in most activities. In Jos those with less than 20 years were under represented in the sample and the legend should be read with each fig

from full participation in outdoor activities? This question is of crucial importance to urban planners and designers. An angry 43 year old man in the sample survey who lived along Ondo By-pass, had expressed his dissatisfaction with the existing recreational facilities in Ile-Ife and he indeed spoke for the entire nation when he said:

"There is no provision for recreational open spaces in this country but people would be happy if such facilities were provided".

I therefore decided to make at least a token contribution by analysing the effect of available recreational open spaces on participation rates in Ile-Ife and Jos. To do this certain assumptions were made because respondents were not asked to state how the lack of recreational facilities prevented them from full participation in leisure pursuits. The first assumption was that outdoor leisure pursuits are influenced by available recreational open spaces; but what is not known and what we seek to find out is the degree of influence which available facilities exert on outdoor pursuits in these cities. The second assumption was that respondents who said they engaged in leisure pursuits in selected open spaces such as private yards, school playgrounds, club grounds, public parks obviously, had access to them. This assumption must be sound because the observed outdoor leisure pursuit was highly correlated with these recreational open spaces. Other factors were also correlated with outdoor leisure pursuit and intercorrelated with each other such as the high correlation between car ownership and high education (Appendixes 1). One

advantage of the regression analytical technique is that it is suitable for analysing a small sample survey in that it shows the confidence level of the observed phenomena. Another advantage of the technique is that it selects in order of importance the factors which tend to influence the observed phenomenon. The regression analysis was undertaken in three stages: first to establish the influence of the socio-economic and demographic factors on outdoor leisure pursuits; secondly, to establish the influence of availability and accessibility to recreational facilities on outdoor leisure pursuits; and thirdly, to establish the influence of all factors mentioned in the previous two analyses. The first two set of analyses showed the strengths of these factors which were also reflected in the third analysis (Appendix 1 second part).

The third analysis shows that the differences in participation rates were attributable more to the available recreational open spaces than the respondents' socio-economic and demographic factors. Availability and accessibility of recreational open spaces account for as much as 50 per cent of the factors which underlie the differences in the leisure behaviour of the respondents of Ile-Ife and Jos. In contrast, the total socio-economic and demographic variables account for 3 per cent. In other words, available open spaces and their accessibility by foot are more significant in preventing the respondents from full participation in leisure pursuits. This merely comes down to the simple fact that you cannot participate in what is not available. Accepted there are generally other barriers to full

participation in outdoor leisure pursuits such as lack of interest, lack of time and lack of money. But what this analysis shows is that if provision is made for more recreational open spaces that are accessible, this is likely to encourage more people to engage in outdoor leisure pursuits.

It is in the light of the above that one should place greater emphasis on the recreational open spaces and facilities demanded by the respondents from Ile-Ife and Jos. A cursory examination of the analysis shows that the demands are for facilities mostly deficient especially children playgrounds, attractive walks public parks, community centres and improvement of existing ones (Table 10.5)

Ideally, a community centre complex, if well developed, could provide for a wide range of indoor and outdoor recreational facilities. In particular, it could be developed to provide for library services, swimming pools, a theatre and a sport's hall. To cater for leisure pursuits in urban areas presents a new challenge to architects and planners to meet: the need for more spacious and adaptable homes, more sophisticated leisure buildings, more coherent open spaces, more accessible countryside, and a better deal for tourists [12].

TABLE 10.5 DEMAND FOR OUTDOOR RECREATIONAL FACILITIES IN ILE-IFE AND

JOS 1983 Activities Demanded response	Per cent	
	ILE-IFE	JOS
Equipped Children Playgrounds	54.0	55.4
Provision and improvement of roadside walks	53.1	78.2
More Community centres	48.0	49.5
More Public parks and gardens	38.0	46.0
More public recreation grounds	35.0	51.5
More open spaces and improve existing ones	33.1	68.3
More recreation Clubs	19.4	31.7
More cycle ways	13.0	25.7
Library and Community centres	52.5	67.3
Sports Halls	40.6	60.4
Cinema/Theatre	35.0	27.7
Club Houses with recreation grounds	33.1	46.5
Swimming Pools	28.7	41.6
Museum/Art Gallery	26.3	51.5
Dance Halls	18.7	27.7
Total Sample	160	101

Source: Field Survey July 1982 - February 1983 by the author.

6. People appreciate open spaces as beautiful landscapes in cities:

At present the complacent attitudes of Nigerians to the appalling conditions of urban open spaces is incompatible with their sense of appreciation for beautiful landscapes. In the questionnaire survey

already referred to above, the respondents were also asked to name their five most favourite and attractive outdoor recreational places in Ile-Ife and Jos. The aim of this was to find out the extent to which the respondents were either aware or were unaware of beautiful landscapes. The analysis of the responses showed that the recreational places mentioned in the two towns include the more attractive ones. The places mentioned in Ile-Ife are ranked as shown in Table 10.6. Those most frequently mentioned by the respondents from Ile-Ife either include component parts of the University of Ife campus such as the Sports centre complex, the Zoological and Botanical gardens, Oduduwa Hall, the Staff Club, or the entire campus which was described by some of them as 'an open space' (Fig. 10.4). Within the Old city, the places mentioned include the jumped up hotels and drinking bars. But fewer people from Ile-Ife mentioned historic landscapes such as Oramiyan grove and Yemoo grove. This was probably due to the cultural values attached to them as sacred places and the fact that people cannot use them freely for recreational pursuits. It is interesting to note that some of the places mentioned by the respondents from Ile-Ife included recreational places in Ibadan such as the K. S. Cinema, the Golf Recreation Club and the Premier Hotel; and in Lagos, the National Sports Stadium. These places are probably visited by the respondents on special occasions when important tournaments are featured.

Considering Table 10.7 most of the respondents from Jos mentioned the Jos Museum, which is more or less like the city's central

parkland offering opportunities for sight-seeing, watching nature, dining out, seeing treasured works of arts, important Nigerian traditional architecture and outdoor relaxation. Other places mentioned include the town's two most famous hotels - the Jos Hill Station Hotel and Plateau Hotel set within attractive landscapes. It also included the city's public parks and regional parks like the Wildlife park and nature conservation areas such as Shere Hill and Wase rock.

The response to this question, though small, nevertheless, showed that a certain proportion of the people in Ile-Ife and Jos were aware of the limited recreational open spaces in these cities and did consider some of them as attractive. Places like the University of Ife Campus, the Jos Museum, Jos Hill Station Hotel and Plateau Hotel were popular with the people because of the recreational facilities they offer and their attractive park-like landscape setting. The greenness of these landscapes apparently was highly regarded and according to Lancaster [13], they are the most valuable and noticeable British contribution to Nigerian urban landscape (Figs. 10.5, 10.6 and 10.7).

7. For other roles of open spaces in urban areas:

Apart from recreation, open spaces fulfill other roles including amenity, wild life and nature conservation. In particular, open spaces give form and enhance the definition and appearance of cities and therefore serve as a media for expressing civic pride and are necessary components of buildings and towns.

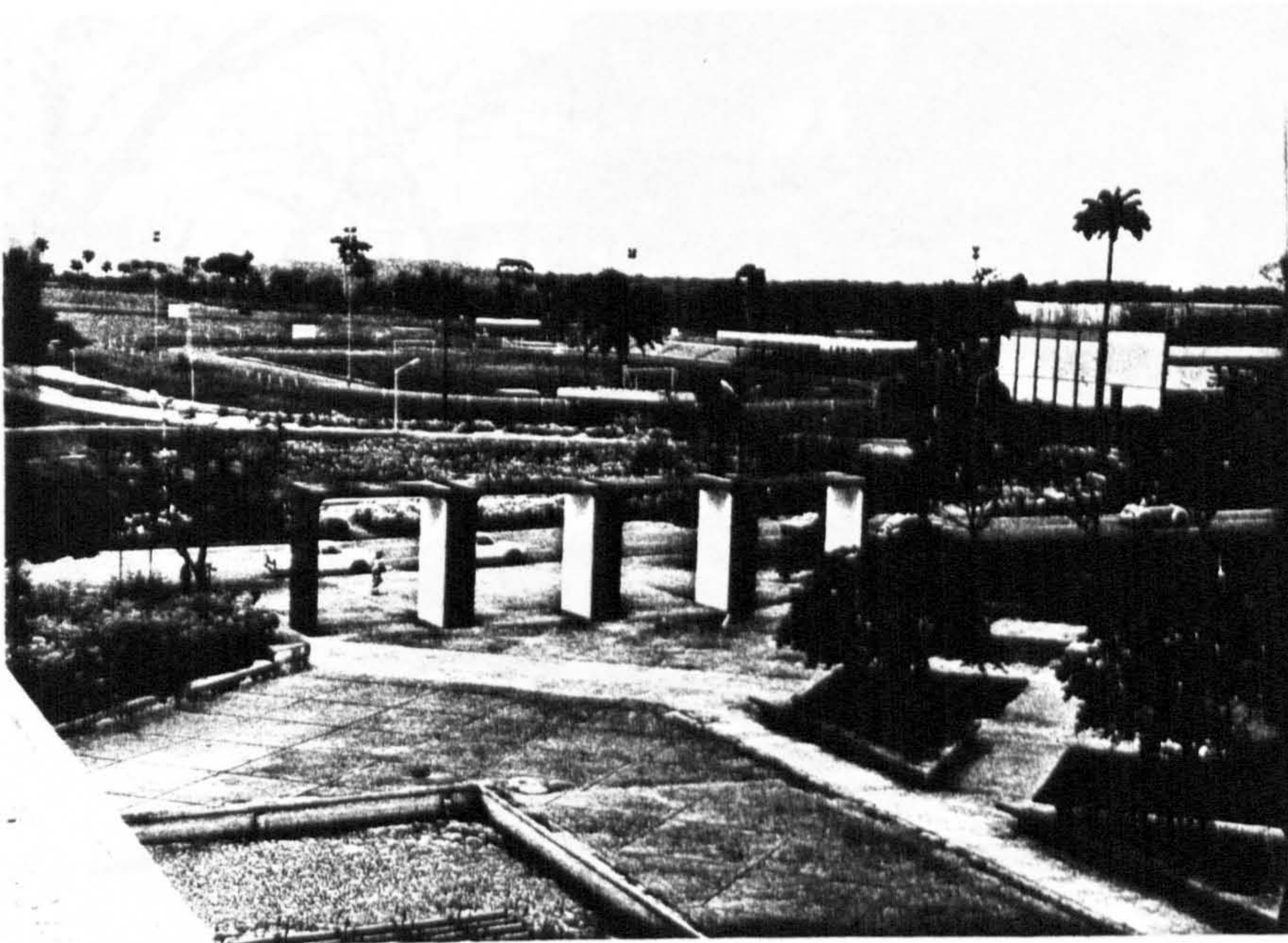


FIGURE 10.5: TWO VIEWS OF UNIVERSITY OF IFE CAMPUS
a) Oduduwa Hall b) The sports Centre complex: showing
the high standard of its park-like setting.

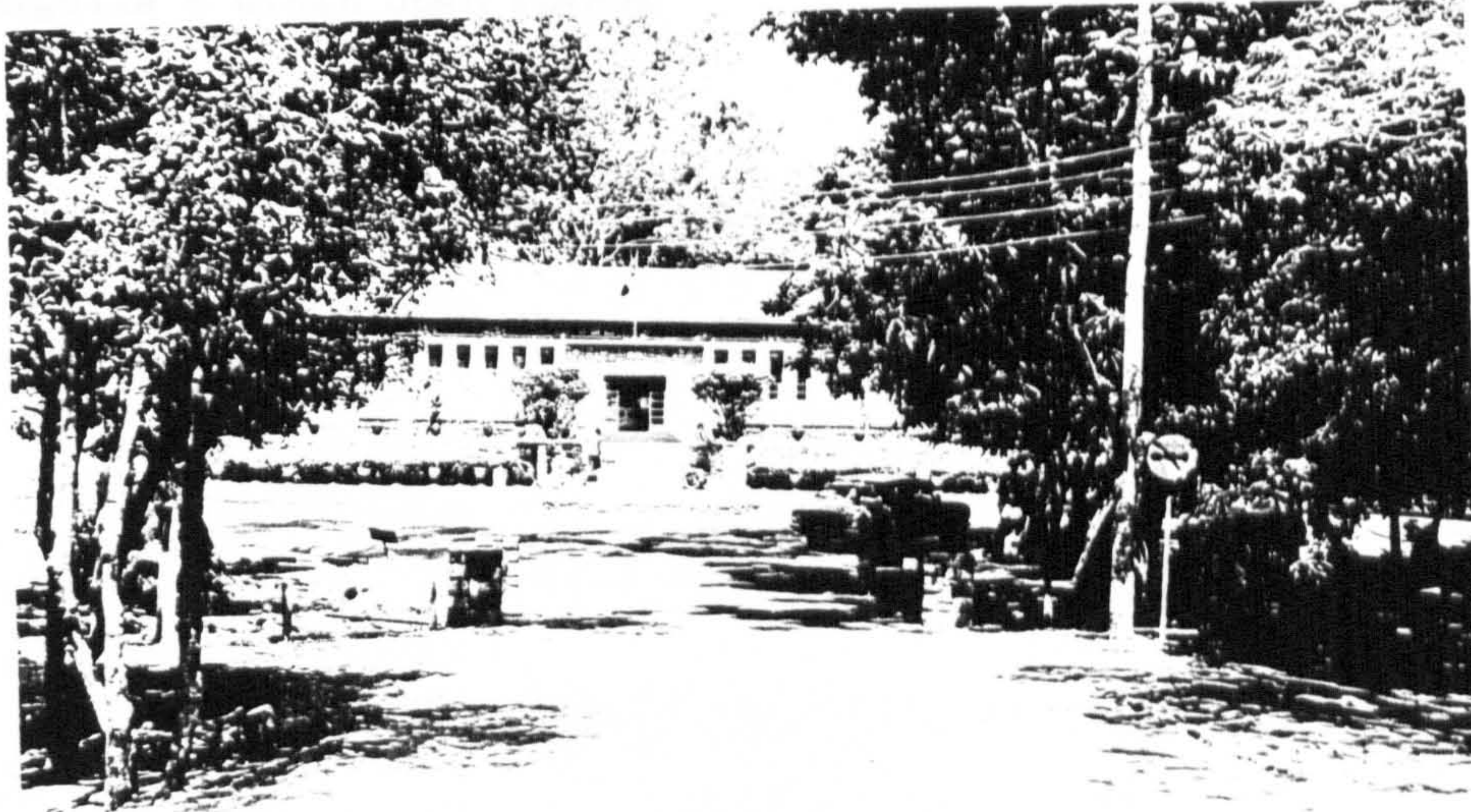


FIGURE 10.6: TWO VIEWS OF THE JOS MUSEUM

a) The Jos Museum Main building: its formal design has been reinforced with formal ornamental lawns and regularly arranged potted flowering plants. b) A view of the Zoo Park: an attractive outdoor recreational resource for the people.

TABLE 10.6: FAVOURITE RECREATIONAL PLACES IN ILE-IFE

Recreation places	People
Unife Sports Centre Complex	31
Hotels/Clubs/Bars	25
Unife Zoological and Botanical Park	19
Ife Museum/Unife Museum	13
School Playgrounds	10
Oduduwa Hall	10
Unife Campus as Park-like landscape	10
Unife Staff Club	6
Cinema Houses	6
Own and Friend's Houses	5
Orammiyan Staff	3
Ife Recreation Club	3
Table Tennis Club	3
Church Grounds	2
Oduduwa Estate	2
Yemoo Grove	1
Ife State Hospital Ground	1
Enuwa Square	1
Young Men's Christian Association	1
More Police Station	1
Premier Hotel Ibadan	1
National Stadium, Lagos	1
K. S. Cinema, Ibadan	1
Golf Recreation Club, Ibadan	1
Total sample	160

Source: Field Survey July 1982 - February 1983 by the author.

TABLE 10.7: FAVOURITE OUTDOOR RECREATIONAL PLACES IN JOS

Recreation Places	People
Jos Museum/Zoo Park	31
Hotels/Club Houses	31
Jos Stadium Complex	30
Wildlife Park	26
Public Parks and Gardens	20
Cinema Houses	16
Shere Hills, Wase Rock and others	13
Own and Friend's Houses	13
School Playgrounds	12
Plateau Club and Polo ground	10
State Library	7
Community Centres	5
Golf Course	2
Car Park on Ahmadu Bello Way	1
NTV Jos	1
Apollo Crescent	1
Scout Playground	1
Total	221

Source: Field Survey July 1982 - February 1983 by the author.

SUGGESTED PLANNING, DESIGN AND MANAGEMENT APPROACHES

The major weaknesses of existing land use planning practice, especially those associated with public open space problems, can be traced to two major factors. The first is the widespread inadequacy of local government, with no identifiable body charged with the development and maintenance of public open spaces. The second is the

lack of land use planning and design policies to guide the development, maintenance and conservation of open spaces. The latter accounts for many land use problems including lack of public open spaces in bye-law housing areas, the badly designed urban roads without shade and without pedestrian walkways, the barren, sun scorched and unsightly open market squares, the desert-like motor vehicle parks, the vacant land, and, the unadopted and undeveloped public open spaces (see Parts One and Two of the study). These are problems closely related to detailed landscape design and management and should be treated as such but more importantly they raise the problem of an inadequate local government structure, which hitherto has prevented most local authorities in Nigerian urban centres from developing and maintaining public open spaces. The discussion of the administrative problem serves as an appropriate background to the wider issues of landscape planning and management dealt with in the later part of the chapter. Without solving the major administrative problems of local governments and planning authorities, any effort to plan for open space is likely to be unfruitful.

The Organisational problem for Park development and suggestions

Many will agree that the reservation of land for public open space; their development and maintenance are related activities. The failure to coordinate them are the major problems besetting most Nigerian local planning and local government bodies; almost to paralysis in discharging their statutory duty - to provide well

maintained open spaces and amenity in towns as already outlined in Chapter 1.

The problem of inadequate local government, which is still unresolved in most urban areas such as Ile-Ife (Ch. 2), Kano (Ch. 3), Jos (Ch. 4) and excepting Enugu and Owerri (Ch. 9), dates from the time of the closure of the Lagos Botanical Station in 1902 (Ch. 9). Since then both the planning and development of public open spaces had become increasingly fragmented among different bodies including the Forestry Department, Public Works Department, the Local Planning Authority and the recently established Ministry of Youth and Sports. It has to be acknowledged that the present organisational framework has resulted in the development of a few regional parks and National Parks some of which are managed by the Forestry Department. It has also resulted in the development of a few State and National stadia by the Ministry of Youths and Sports. While the latter is also responsible for the provision of recreation grounds, but it has yet to act in this direction. So far, no statutory body has been responsible for the development of any public park, not even the smallest of local open spaces.

Generally, urban planning in Nigeria has been a State activity; only recently, has it been delegated to the local government. The Federal government, for example, has had little to do with land use planning activities. Prior to the Local Government Reform of 1976, planning activities had been the sole responsibility of the Town Planning Division, Ministry of Works and Surveys (or Ministry of

Lands, Surveys and Urban Development in some Nigerian States) and the Planning Authorities directly under their control. The Town Planning Division of the Ministry operates at the State level, and as the policy maker, supervises and guides the activities of the local planning authorities. The local planning authorities as set-up in most Nigerian States are still largely independent of the local government. Planning Boards have been established in the major urban centres especially of northern Nigeria such as Jos, Kaduna and Kano and which approximate to an ideal local government administration. Each of the Boards has many departments including health, education, town planning and judiciary. The administrative machinery of the Planning Board is like that of local government except that the latter has no town planning section.

A major constraint in the existing system has been the failure to evolve an administrative machinery which matches the fragmentary roles of the various bodies involved with the provision of public open space. The fragmentation of the present administrative machinery prevents full participation and coordination of the activities of the different bodies. For example, most of the bodies connected with the provision of public open spaces do not exist at the appropriate levels of government machinery for effective coordination, participation, and implementation of land use decisions. In Ile-Ife, for example, and most other Nigerian towns, the local planning authority, is wholly unrelated to the local government and thus to the many statutory bodies connected with socio-economic and

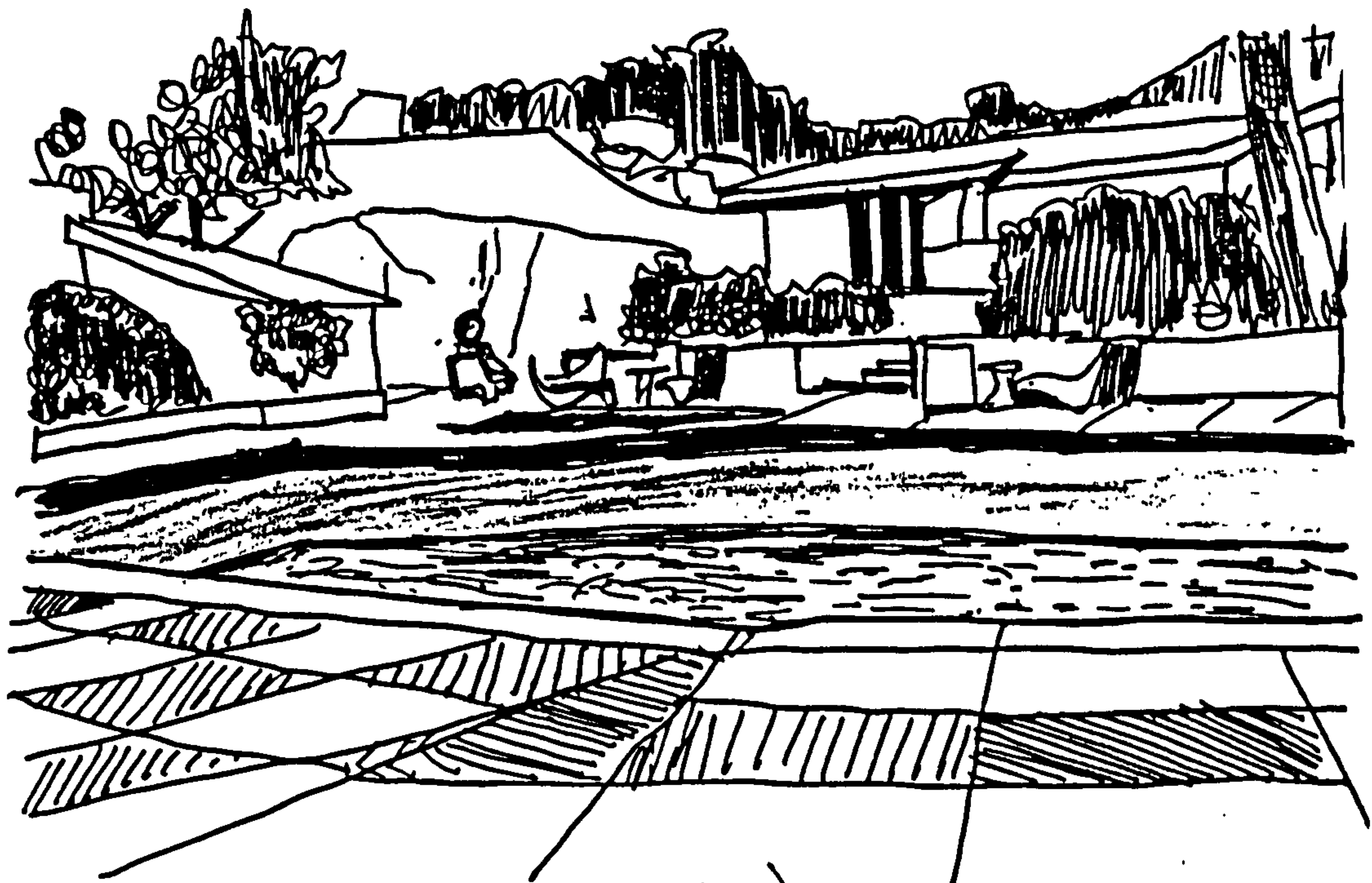
welfare policies which have a bearing on land uses. Moreover, the local planning authority is not directly related to the Forestry Department and Ministry of Youth and Sports both existing only at the State level and are involved in the provision of public open spaces. In addition, both Planning Board and the planning authorities have no departments dealing with landscape issues (Figs. 10.7 and 10.8).

At present the ill-defined roles of the various bodies connected with the provision and maintenance of public open spaces leads to uncertainty. Only that of the local planning authority has been well defined in the 1946 Act; though it fails to provide for the effective coordination of the activities of the various interested bodies. So far, the role of bodies like the Forestry Division is very unclear except for its former tenuous connection with the provision of open spaces [14]. When government agencies are not directly related and their roles are also imprecise, it gives room to too many opportunities for shunting unwanted responsibilities to safe dead-ends where nothing gets done. In particular, with no direct relationship between two agencies it is impossible to generate the much needed communication links and cooperation for implementing planning proposals.

Considering the gross inadequacy of existing local government it is scarcely to be wondered that they should ever be involved in the provision of public gardens. This is amply confirmed by the Public Review Committee which recommended the new roles of local Local government as:



a)



b)

FIGURE 10.7: TWO VIEWS OF ATTRACTIVE HOTELS IN JOS
a) The Jos Hill Station Hotel b) The Plateau Hotel

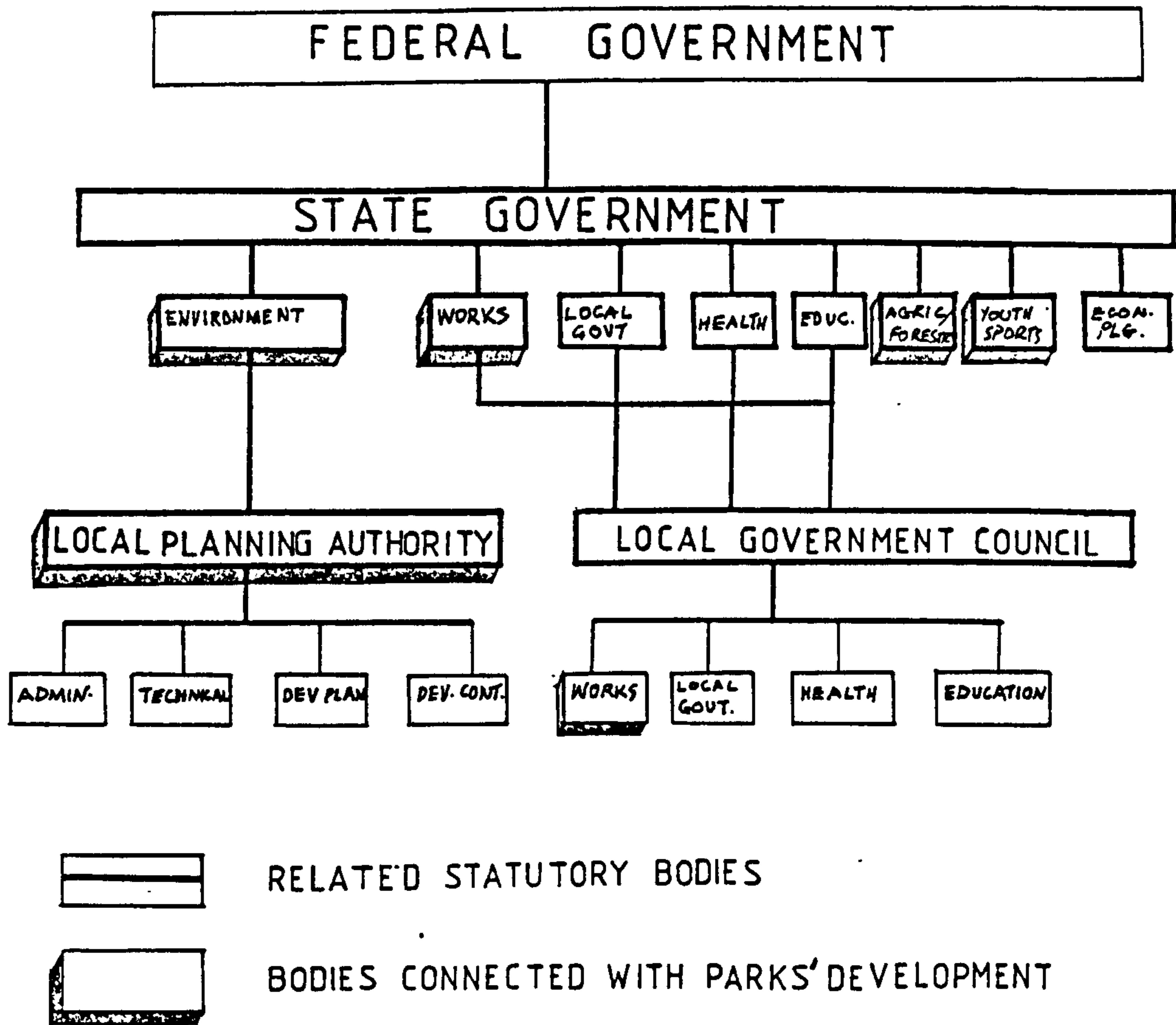


FIGURE 10.8: ADMINISTRATIVE STRUCTURE FOR URBAN PLANNING IN ILE-IFE: This is typical of most Nigeria towns with local planning authorities, except those in Anambra State

"roads, rural water supply, community development, markets, motor parks, transportation, registration of births, deaths and marriages, care of beggars and revenue collection" [15].

Parks and open spaces remain unmentioned. Therefore, in most urban centres the administration of urban parks seems to continue under the guise of the Forestry Division of the Ministry of Agriculture. It has been grossly inefficient in discharging its functions. According to Popoola, the 'civil servants in the Ministry of Agriculture to which most parks in Nigeria are subordinate are themselves not adequately knowledgeable in the field of park administration' [16] and other important areas like appropriate recreational facilities and landscape planning and design.

Anambra State's experiment with local government reform also coincided with the activities of the Open space Development Commission (OSDC). The OSDC is a newly formed statutory body attached to the Town Planning Division of the Ministry of Lands, Surveys and Urban Development and responsible for the development and maintenance of public open spaces in these states (Ch. 9). Undoubtedly, the establishment of the OSDCs in Anambra and Imo states with well defined roles backed by new legislation sets a useful precedence for the remaining 17 states of Nigeria. Local government in Anambra State has been reorganised in accordance with the provision of the Local Government Act, 1976. Now the local planning authorities have been fully integrated with local government. Each of the 23 local government areas now has a planning authority as a separate

department [17]. Whereas local planning authorities in most parts of Nigeria including the towns with Planning Boards, are still independent of local government.

Despite its recent reorganisation, local government in the Anambra State is still beset with problems. One problem is that the responsibility for land use planning now resides with the Town Planning Division of the Ministry Land and Survey and the Ministry of Local Government (Fig. 10.9). In fact, with the recent reorganisation in Anambra State the Town Planning Division has virtually lost its administrative control over the local planning authorities to the Ministry of Local Government. Another problem is the fact that the boundaries of local planning authorities cut across local government areas [18] making effective planning administration impossible.

Under the present administrative structure, OSDC's state-wide involvement with the development and maintenance of public open spaces is very constrained. The OSDC seems to have succeeded only by limiting its activities to developing the backlog of land reserved as open spaces in Enugu. But OSDC faces opposition when it attempts to become involved with land use planning decisions (Ch. 8). It is impossible to coordinate effectively the activities of the OSDC at the local planning level where it has no representation. This is a major constraint in realising the all pervading and centralised role of the OSDC (Fig. 10.10a). Opening up new lines of communication is necessary to cope with this problem but this would only amount to a

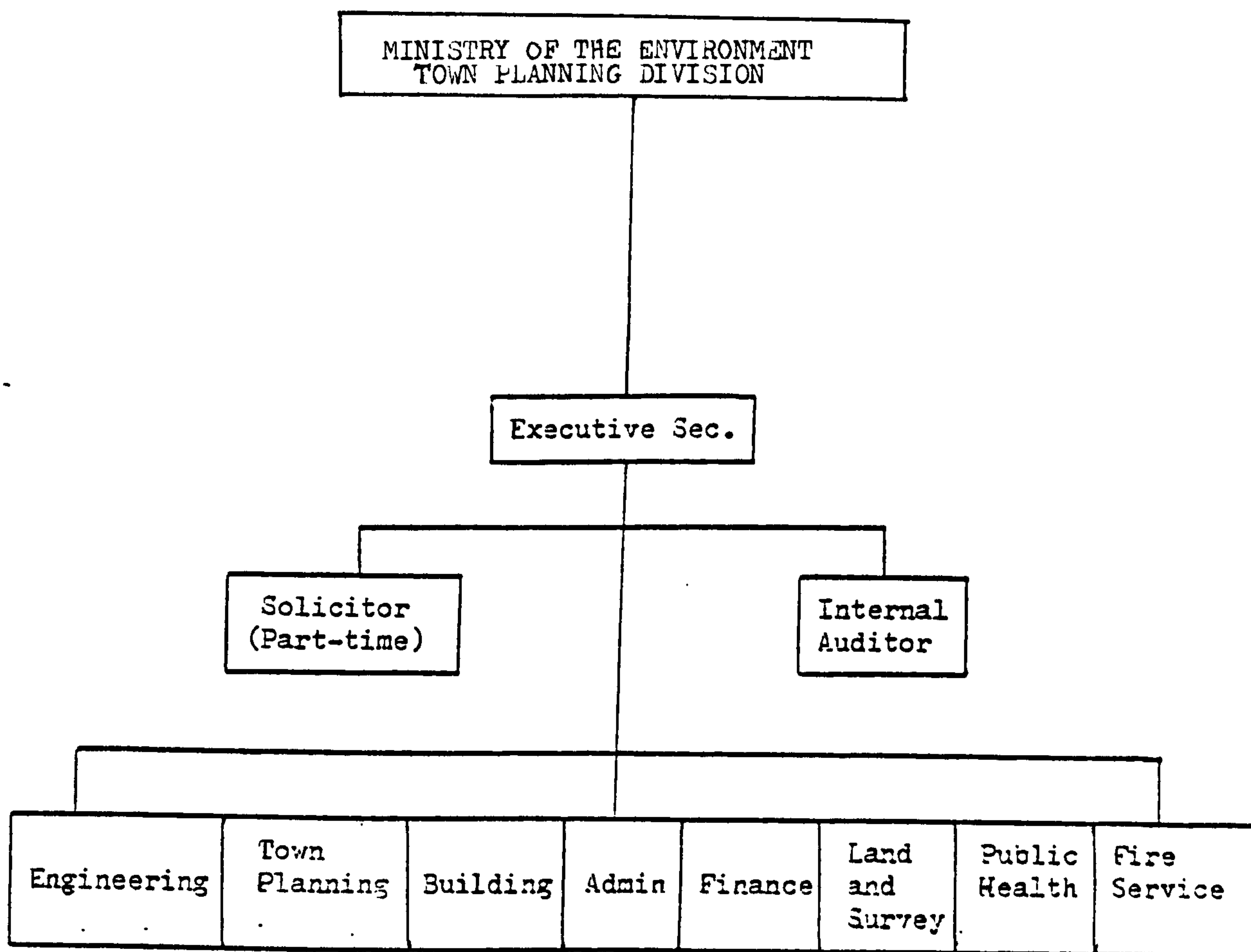


FIGURE 10.9: ADMINISTRATIVE STRUCTURE FOR URBAN PLANNING IN JOS:
 This is typical of most Nigerian towns with Planning Boards
 They all do not have a Parks and Gardens Unit to whom the development
 and maintenance of public parks can be trusted.

partial solution of a much larger problem. It is therefore proposed that a new section to be named The Parks and Gardens Unit be established and attached to the plan making section of the local planning authorities (Fig. 10.10b) that will be directly involved in all land use planning and design. At the State level, the OSDC should be involved in all stages of land use planning and implementation.

To remedy the present inadequate local government and local planning set-ups requires the sympathy and support of the politicians and city-fathers for the promotion of town gardens and parks. This requires a fresh standpoint and a change in the general attitudes to open space as already shown in the Anambra and Imo States; both stimulating a new pride in their surroundings. It will require re-organising local governments and local planning authorities to be able to discharge their statutory roles without hindrance. The proposed organisational structure for open space planning and management has been formulated in due recognition of the need for cooperation and relationship between all the departments of local government councils and the local planning authorities. In order to achieve this it is proposed that the local planning authority, as a separate department be fully integrated, with local government. By so doing all the departments of local government including the local planning authorities will exist at par and will be able to participate in planning and implementing land use proposals including public open spaces. To reiterate, other proposals include:

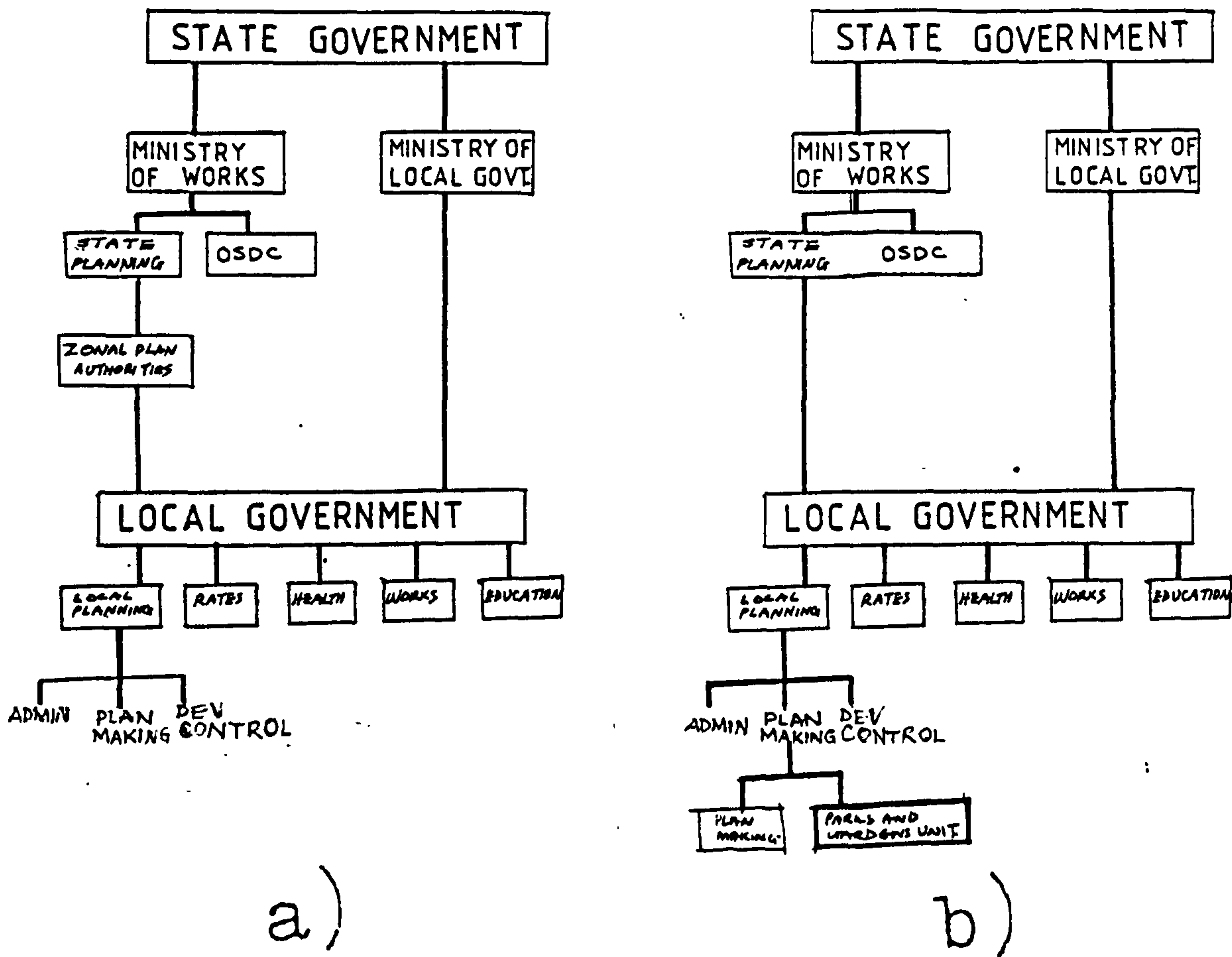


FIGURE 10.10 EXISTING AND PROPOSED ADMINISTRATIVE STRUCTURE FOR PARK DEVELOPMENT IN ANAMBRA. a) Existing. b) Proposed. The zonal planning offices have been abolished for reasons of efficiency; while a new Parks and Gardens Unit has also been proposed for all local planning authorities.

- i) The creation of a Parks and Gardens Unit as a subsection of the local planning department;
- ii) The devolution of the relevant functions of the Forestry Department and the Ministry of Youth and Sports with respect to the provision of public gardens and recreation grounds in urban areas to the newly formed Parks and gardens Unit.
- iii) The Department of Public Health should be involved in the plan to manage and curb refuse disposal in open spaces. Moreover, the land use planners have got to allocate land in urban areas for tipping and evolve policies on control of tipping which are effective.
- iv) New legislation is required to set-out important guide lines on the planning, development and management of open spaces, perhaps similar to that already passed in Anambra State and modified to encourage a corporate approach to open space planning, design and implementation between all statutory bodies connected with it. The new legislation must re-affirm the aims of the existing planning legislation in respect of open spaces and conservation of the environment.
- v) There is a need to form park groups in each town which will be able to mount pressures on local authorities to perform their statutory role in respect of open space. So far, Nigerians have been too complacent, sitting back and watching local planning authorities failing in their statutory duties to provide for public open spaces, without demanding a change in the status quo.

Moreover, the successful planning and management of public open spaces require the full support of the local authority and the general public for which they are developed. It has been suggested that effective management of open spaces requires a well organised task

force and provision of essential utilities and services, ample water supply, efficient refuse disposal, efficient drainage and sewage systems. Effective management of open spaces also requires tolerant and responsible tax and rate payers [19].

LANDSCAPE DESIGN PROBLEMS AND TACTICAL SUGGESTIONS

Failure to utilise open spaces as an urban design element

Open spaces are important settings for urban architecture, and their construction and management are the responsibilities of the landscape architects and managers. As a design element, an open space is used to structure, to give form, to broaden the use, and to beautify, adjoining buildings. Urban planning and landscape design in Nigeria have failed largely to utilise open space in these ways. The current failure can be seen in the sprawling suburban housing areas, the dire shortage of open spaces in bye-law housing areas, the crowded and appalling conditions of the older parts of our cities, the unsafe and inhospitable conditions of our roads and the utterly barren motor parks and markets which are nothing but desert landscapes crying out for shade.

The problems of open spaces and subsequently landscape design, are enormous and require a well judged and realistic response - in short a good, down to earth approach. Mumford in his book, Report on Honolulu, has defined what is a good approach to landscape planning. According to him, good planning is neither an abstract nor arbitrary

response to a given situation. It begins with a thorough knowledge of existing conditions and opportunities, aiming to conserve existing resources and to perfect them by employing useful ideas to solving similar problems [20]. To apply Mumford's suggestion to the solution of Nigeria's urban landscape problems, one would need to distinguish between the perceived problems; the opportunities which exist for their remedy by drawing upon local and where appropriate, well tested foreign ideas. Some of the design problems of major landscape areas in most urban centres and a possible solution to them are discussed below.

Open space problems of Low density Housing Suburbs and suggested design

Most Nigerian towns have grown during this century mainly through suburban housing development of either low or high density. A major criticism has been the failures of the designers to provide public open spaces for the gregarious life of the people. The main weakness of the present design is either the utter neglect or the poor relation of public open spaces with housing. These new housing areas which provide for few or no public open spaces undermine the character of the older areas of the city. They amount to a new kind of urban environment defacing attractive natural landscapes, with massed brick and mortar. Of necessity low density residential suburbs must trade some of its excessive area of private gardens for the more socially acceptable space to be developed as meeting places

[21]. In this respect 'The Radburn Design Concept' has relevance to solving suburban housing design problems to provide for public and private open spaces. The relevance of this concept has again been re-affirmed by many in the recent past. In particular, Chadwick [22] has argued that the Radburn concept is an ideal design solution for providing public open spaces in newer residential suburbs. He added that it should be accepted as the price to be paid for the convenience of using motor cars in less economical but socially viable housing areas. This concept is relevant to Nigeria because the car has taken over.

Open space Problems of High Density housing Areas and suggested design

These areas divide into two; the congested high density residential areas of the inner city and the bye-law housing areas built in this century. The term 'bye-law housing' has been used to describe the housing areas built strictly to the requirements of the Building Adoptive Bye-law and Regulations to provide low cost mass housing for poorer families (Ch. 1.). They are currently the most common type of housing areas and equally the most deficient in both private and public open spaces. They are characterised by house types with small front and back gardens. Moreover, the rear gardens are also encroached upon by the septic tank and the sides, by parked cars. By Nigerian standards both the rear and front gardens are neglected being encroached upon by trading and craft activities.

The problem of by-law housing areas is compounded by the sheer greed of developers attempting to build at a much higher density than that recommended by the Building Bye-law coupled with the lack of enforcing the minimum standard and thereby allowing abuse by speculators. At present nearly two out of three houses in Nigeria have spaces smaller than that stipulated by the bye-law. The open space problem of the bye-law housing areas is complex and highly sensitive to the urban land market economy as most urban poor can neither afford the high price to acquire large plots with generous open spaces nor pay the high rent for building at lower densities. To resolve these problems some of the existing buildings must give way to public open spaces to be paid for from public funds. A landscape redesign of these areas must introduce into them private gardens, public squares, children playgrounds and pedestrian walkways. The most profitable step in planning and designing for newer high density housing is to lower their existing density. Moreover, the residential plots need to be grouped around local and shared open spaces. Again, 'The Radburn Design Concept' can be used to plan the neighbourhood while the individual buildings should provide for courtyards to ensure privacy. In the design of new houses, the courtyards, which serve as outdoor rooms are still relevant to 20th century housing in Nigeria (Fig 10.11). However, a major criticism of the older courtyards has been the little concern for landscape gardening. Most of the traditional courtyards were developed to shut out nature as much as possible because nature was thought of as an enemy, fraught with religious values and to be appeased by sacrifices. However,

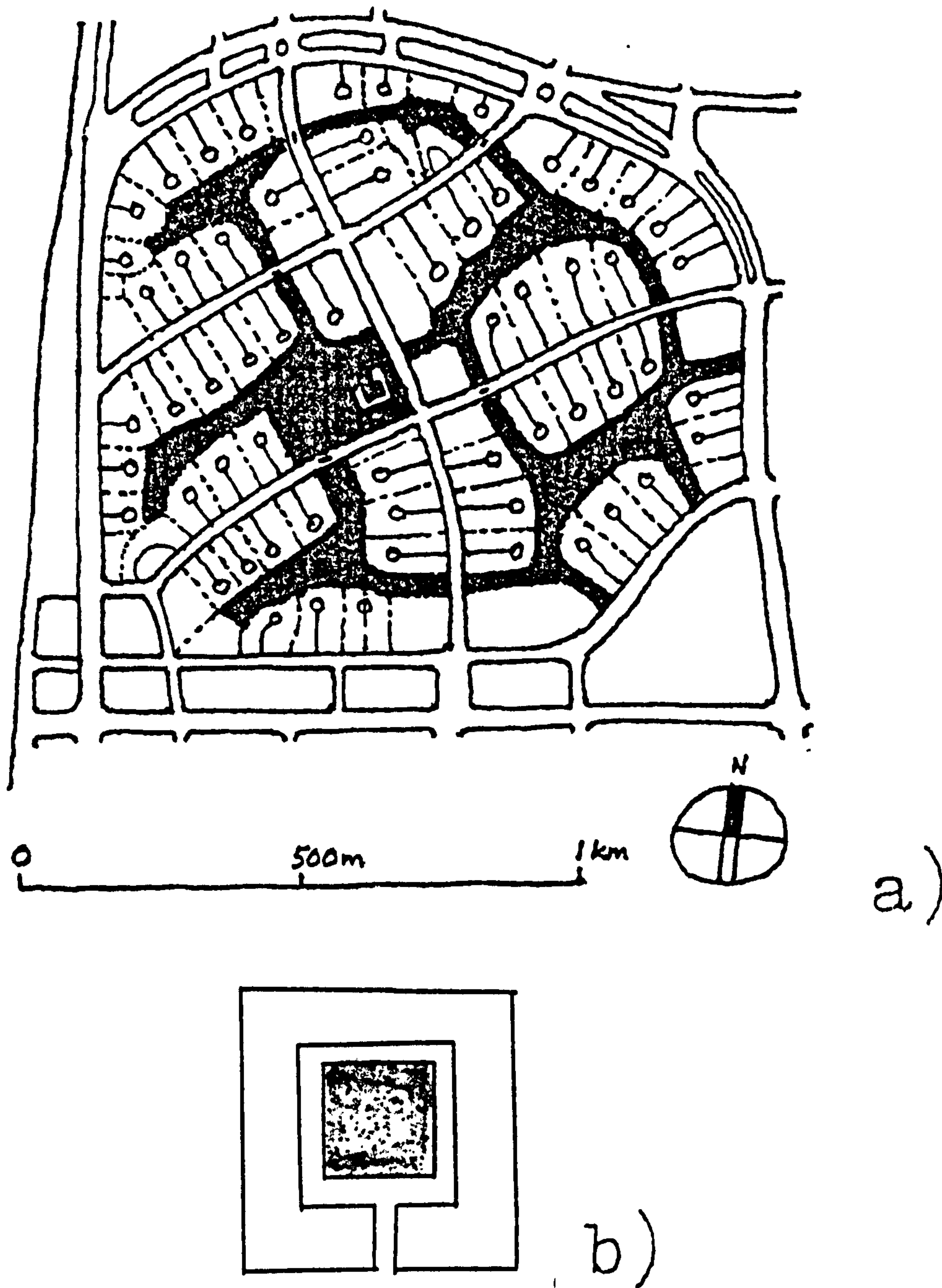


FIGURE 10.11: THE RADBURN DESIGN CONCEPT: The significance of the Radburn concept is that it liberates space for the pedestrians (a) and the courtyard in turn meets the open space needs of the residents for privacy and small gardens (b).

the lack of gardens in and around most traditional compounds was largely compensated for by the small size of medieval towns which were in turn surrounded by town commons and green belts (Ch. 6). A change in our negative attitudes to nature is now overdue considering that our towns have not only swallowed up the traditional commons and kitchen gardens but have also pushed further away the green belts and farmlands which gave form to medieval cities. The most pressing needs of our time is to accept the city as our man-made landscape to be consciously planned and designed to allow nature to play a part. This is not a return to nature but a re-creation of nature to promote beauty and delight. Therefore, the future courtyards should be the focus for the attractive and pleasant gardens of our time.

Roads, Motor parks and Bus-stops and the need for landscape improvement

The private car park, as an instrument of planning, or a substitute for lack of planning, is a symbol of what is most wrong with the living and working conditions of Nigerian people. The congestion on urban roads coupled with the appallingly filthy, dusty and dangerous conditions demands a realistic design solution by engineers and urban designers. Higbee described traffic congestion as the first serious symptom of imminent population congestion and if it cannot be handled efficiently, then there can be little hope of effectively accommodating the self-willed humanity that are likely to use it [23]. 'Ability to control and manage them', he said, 'is the surest test of our

capacity to organise and govern an increasing population'.

Among the most pressing improvement needed in urban roads is the separation of pedestrians from the vehicular traffic. Most roads fail in this respect by not providing for pedestrians. The fetid and open gutters, which line them need to be covered and they would free more space for pedestrians. Tree plantings along our roadsides are too few. The few avenues which can be seen in our towns today were those planted by some generous colonial officers. Unfortunately, many of these attractive avenues and the well planted reserves have been destroyed in the recent past. This act is most deplorable as we have witnessed in Ibadan the chopping down of the avenues along Elizabeth Road, Mokola road, Agodi road and the removal of the well planted roundabouts at Mokola, Adamasingba, Dugbe and Cocoa House. This shameful act goes a long way to show the small premium placed upon them by our road engineers and civic leaders. It may be emphasized again that a well planted road in urban area would be the one that offers to the pedestrians the much desired shade for a pleasant walk.

Reducing vehicular traffic on those roads which are utterly congested and unsafe for pedestrians is necessary. Some of these roads should be closed and turned into well furnished recreational spaces. Prospects of developing them as shaded market squares and children playgrounds should also be exploited since roadside trading is common along our urban and rural roads. Needed improvements are other road related uses such as shaded motor parks, bus-stops and car

parks. The amenity of these would be improved not only by tree planting but also the construction of well sheltered stands.

Unsightly Vacant Lands and Open spaces and the need for management policy

The present slack and poorly supervised process of urban development and land ownership give too much latitude for abuse and for the wastage and under-use of land. In most urban areas there are many gap sites which in theory have been approved for housing development but in practice have yet to be built upon. Some of these while still awaiting development are often encroached upon by servicing industries or filled with litter. At present some land owners profit on their land by allowing them to be used for services such as carpentry, cement making industry and motor servicing, which are not amenable to development control by the local planning authorities. Others which are not so used are often filled with rubbish, making them as public nuisances.

The local planning authorities need to evolve a land use control policy to guide temporary use of lands already approved for development. What is even more important is a properly updated survey which identifies vacant lands which have been approved for development, and to evolve a policy to deal with them either by setting a time limit or by allowing some less offensive uses. Possible temporary uses of these might include allotment gardens, markets, shopping, public and communal open space and compatible service industries. The local

authority should be able to collect tax on the more profitable uses but should maintain all of them. Through such a management approach some public open spaces may be established permanently on the site.

LANDSCAPE DESIGN FACTORS

The need for Landscape design style

The fact that there are not many orthodox town parks to evaluate tends to inhibit a critical account. However, it has been pointed out with respect to the parks of Enugu (Ch. 8) that the few that now exist have not come-up with any distinctive or distinguishing style which is truly Nigerian. This situation places greater responsibility on the emerging landscape architects to meet these challenges. The few open spaces, parks and gardens that exist in our towns have been the products of this century and largely inspired by western tradition. Private gardens have tended to be dominated by ideas of horticultural display and in the European gardenesque tradition of the 19th century. The landscape of some of the University Campuses show a better and more distinctively local touch and the hand of professional designers. In particular, the University of Ibadan and Ile-Ife have pleasing informality with clumps of shade trees and avenues in a parkland setting. The same character has been continued elsewhere. The bold use of plants and their massing together in the typical farmer's planting pattern shows the contribution of Barkole to campus landscape design and makes it quite distinct from that of

Lancaster.

The Natural Climatic factors

Foremost among the factors which should influence landscape design are those of the natural environment. Basically, the climatic factors which should be considered in landscape design include high overhead sun, heavy intermittent rainfall, rapid erosion, protection from dust-laden hot winds and ventilation from humid conditions. Nature offers some measures of reducing the effects of these problems. For example, the tropical woodland forms a well ventilated and shaded base for the humid heat of the sun and stops the erosive power of the rain. To prevent rapid erosion and dust pollution all bare surfaces must be covered in some way, either by trees, shrubs and ground cover plants, or by hard surfaces also shaded by trees to minimise the effect of the intense sunshine and reradiation. To achieve a high degree of ventilation requires the provision of semi-open space sheltered from direct sun and rain but otherwise open and well ventilated though the latter conditions are incompatible with the all pervading dust laden winds of Hamattan. This places a great and difficult responsibility when designing external spaces.

Landscape design needs to take into account the heavy down-pour of rains which makes necessary efficient surface drainage plans to prevent flooding, soil erosion and muddy patches. Some of these problems were already mentioned in connection with the parks of Jos and Enugu (Ch. 8). During the dry months plants require water to

survive. Therefore, water needs to be conserved for their use. This fact must also be incorporated by providing water stand pipes for watering plants during the dry months. Watering by hand is reliable but really only suitable for smaller gardens and this also requires tree shaded areas to cut down on evaporation losses.

There are other environmental factors to be considered in the use of water in the form of fountains in the open landscape. Water areas need to be recirculated, and if large enough should be stocked with fish and aquatic life. Otherwise deliberately designed still water is a health hazard as it becomes a breeding ground for mosquitoes.

Nigeria's tropical climate means that many tropical and subtropical plants can be grown. This in itself is an important factor which should be exploited in landscape design although not to the neglect of the indigenous ones as is currently the practice. The hot and humid climatic conditions also encourage the fast growth of trees. Here, trees reach maturity quicker than their counterparts in the temperate zones. In fact, the forest landscape and the orchard bush which abound in the different parts of the country could be regarded as a potential park. The judicious felling of natural woodland trees and retention of the more mature and attractive ones with under planting of grass, can provide in one season an effect similar to that which has taken a century to achieve in cool temperate countries of the world. The retention of relic bush in urban parks is desirable to give a feeling of wilderness and to contrast with the

well ordered part of the park.

The needs and values of Nigerians

Another important factor of landscape design is the people and their requirements for outdoor recreational pursuits. As the account of chapter 5 has shown, different tribal groups attach certain cultural and religious values to landscape features such as hills, trees and water. It is only reasonable that appropriate landscape design should consider local customs and traditions. There is also the need for adequate information about the recreational pursuits of the people to provide a sensible and orderly base for planning. A social survey is most desirable in each urban centre to establish the number of people, children, their age and recreational preferences. A new national census is urgently needed to help provide further information about Nigerians for purposeful land use planning and design.

The need for open space policies and plans

What has been missing in current planning practice is adequate land use plans and policies to guide the physical development of most Nigerian cities. In fact, most towns have no approved master plans; some are yet to consider having one. Even among the cities with development plans, land use policies are virtually non-existent. There is a need for planning policies for land use allocation, design and management. Ideally, open space policies are most desired for all towns and these must be worked out within the context of the

broader land use plan and based on the needs of the people. Open space policies cannot be wholly imported from somewhere but must respond to the needs of each urban centre and the people. In addition each urban centre needs to embark on the preparation of an open space plan and landscape improvement within the context of an overall land use plan. Each should aim at attaining a comprehensive and attractive park system.

The need for rudimentary landscape improvement measures

The first step in regaining the possession of our cities is to re-plan; to redesign them to create a counter-movement to the irrationalities, omissions and abuses of the past, which have created our much degraded environment. From now on we must draw upon what nature can contribute to the beautification of the human environment. In the redesign of open spaces there are fresh ideas which should stem from the already changing and mixed culture of the people. An emergent style should seek to harmonise the indigenous and foreign ideas and used to add to the excitement and variety of our urban scene. The suggestions below are worth considering for dealing with the more generalised open space problems as outlined in the earlier parts of the study.

- 1) The possibilities of redressing the deficiency of open space exist: they include the development of existing vacant lands, developing currently vacant and unadopted public open spaces, improvement of the existing ones for wider recreational interests and the up-grading of incidental open spaces as local

small urban parks, which should be equipped with outdoor seats and children's play facilities;

ii) Included in the above categories are the open spaces which exist along river valleys which have been so reserved because they are unsuitable for building. These pools of open spaces offer the scope for developing them as linear parks provided they are not already being used as sewers and rubbish tips or else they may need to be reclaimed before being redesigned as parks. One may only recall that Glasgow is an example of a British city which has successfully experimented with such an idea to redress the deficiency in its open spaces.

iii) To remedy the shortage of open spaces in most urban centres there are two practical steps needed. The first is to adopt a policy of joint use of existing playgrounds of primary schools, colleges and higher institutions by encouraging the public to use them. This suggestion also carries with it that a workable arrangement and management approach would need to be evolved jointly by the planning authority and the education authorities. It would also require feasibility studies of existing playgrounds to ascertain their carrying capacities and adequacy to cope with increased usage by the public. Such studies should also recommend suitable design solutions. The general public already uses school playgrounds for outdoor recreation and this suggestion is only an attempt to formalise what is in fact the existing practice. The second option for remedying the deficiency of open spaces is to designate green belts around the city and develop them as country parks. Although this idea has been pioneered by the British, it is very appropriate to the Nigerian situation. By comparison, the Nigerian equivalent of the green belt is the medieval town commons some of which are still well preserved around historic towns like Zaria and Kano. However, detail planning considerations of this proposal needs to be carefully worked out.

iv) The need to restore and conserve the historic landscapes in our towns such as the sacred gardens, the palace grounds, town walls and town commons. It is also necessary to seek ways of broadening their use for recreation and for promoting tourism.

v) It needs to be emphasized that the management of open spaces is of utmost importance. If open spaces cannot be maintained they ought not be provided; too often lacking development and maintenance they become public nuisances.

vi) There is need of landscape education to inform the public. The people need to be taught how to garden properly and to care for their urban environment. It is also necessary to develop botanical gardens in Nigerian towns as they are invaluable for the furtherance of the science of horticulture especially as Nigeria has yet to have one worthy of the name.

vii) It is necessary to start a massive tree planting programme in our towns to counteract the undesirable and appalling result of many sprawling urban centres.

Lastly, with respects to some of the landscape improvement measures which have been pioneered elsewhere, it is necessary to emphasize that nothing is directly relevant. Every detail of these useful concepts such as the 'Country Park Concept', 'The Radburn Design Concept' and the idea of the 'Park system' needs to be carefully reassessed for their relevance to Nigeria. Each city should suggest a different answer to its open space problems through careful planning and design even when proposals are based on broadly similar principles. Differences in topography alone should help to prompt this variety. Much as we need grand plans to correct the present deficiency by designating land for new parks, we also need simple

local solutions that can be applied on a smaller scale. Over the years a balance will be achieved in each of the cities. There are a number of pressing issues about landscape design which require further studies. However, understanding comes with doing, and improvement with practice; the knowledge necessary to deal with Nigeria's present open space problems already exist. It will develop and refine further only through experience and the need to raise standards. There is a great deal to be said for tackling them in the spirit of Haussman and his French Second Empire improvements to Paris in the 19th century. One of the major contributions of the present military government has been their determination to rid our towns of rubbish and to embark on a massive tree planting programme; even military dictatorships have their advantages!

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CONCLUSION

Among the many points raised in the study, it is necessary to end by reiterating the most important of them. Foremost is the fact that Nigeria, as a nation, is increasingly pursuing policies of faster economic and industrial growth, which so far have resulted in the rapid expansion of towns and cities. Regrettably, in the pursuit of these policies, Nigeria has failed to learn from the mistakes of developed Western countries in planning their towns adequately to cope with rapid growth. The result is that Nigeria now has cities growing out of control, being overcrowded with buildings and lacking attractive open spaces and amenities. To redress these problems is the present challenge facing us and whatever is done now in urban planning and city development must not only reflect great improvement in the structure and efficiency of local government but also in the quality of what is designed.

The enormous deficiency of open spaces in most towns is glaring indication of lack of foresight and adequate planning. The difficulty of redressing open space deficiencies in densely built areas in competition with many other deficiencies in provision cannot be underestimated. Opportunities for redressing the present shortage rest with all land use planning activities in the city notably in the plans for suburban developments, inner city renewal, highway planning

and city centre redevelopment.

Both in the long term and the short term, it is urgently necessary to develop a comprehensive park system for each Nigerian town. This must be based on an up-to-date survey to assess land resources, people's needs, finance and opportunities. A plan for a park system must be worked out in the context of an overall land use plan for each city. By whom one might ask as there are fewer than a dozen qualified landscape architects in the whole of Nigeria.

It needs emphasizing that the planning, development and maintenance of public open spaces are related activities which should remain the very core of a more socially acceptable city development and administration. The Open Space Development Commissions and the Parks and Gardens units which have been proposed in this study, should assume the leadership role to develop, manage and promote attractive open spaces in towns and villages. So far, Nigeria is yet to have attractive gardens truly distinctive of its varied cultures. However, the innumerable public parks that are likely to be developed in future offer us, and in particular the emerging landscape architects and managers, enormous opportunities to create gardens which are distinctively Nigerian in outlook and character. After all, out of the presently crowded, shabby and untidy urban environments a new beauty may eventually emerge, and out of their surrounding countrysides, a more stable and mature natural landscape.

Lastly, but not the least of importance, I make a general appeal

to our traditional rulers, civic leaders, politicians, wealthy individuals and the citizens of Nigeria to support the cause of urban park development personally. We can no longer afford to be complacent with the present failures of local planning authorities and local governments to develop public parks. Hitherto because of our lame tolerance of the most negligent city planning authorities all we have to the credit of most towns is their bankruptcy in attractive open spaces and environmental amenity and a pervading aura of neglect, shabbiness and filth. The most potent argument for such amenity in our cities is that time and space are running out. We need to act decisively and responsively to bring our cities under control. A city which is without adequate space for its people and ever more subject to increase in population exists only at the very fringes of what is tolerable. We should be concerned with what is enjoyable not merely with what is tolerable. As the present landscapes of Ibadan and Lagos show, each slips all too easily into being little more than a disease-ridden and litter-choked refuse tip rather than a place of dignity worthy of the title city.

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APPENDIX 1

THE METHOD OF QUESTIONNAIRE SURVEY AND ANALYTICAL TECHNIQUES

QUESTIONNAIRE SURVEY: AIMS AND METHOD

For a comparative study of the values placed on open spaces, their recreational uses and demand, Ile-Ife and Jos were selected for the questionnaire survey because both are of contrasting origin. They also differ in the amount and types of available open spaces. Ile-Ife, an indigenous and historic Yoruba town, has no tradition of contemporary urban parks in the purely western sense. But it has preserved some of its historic open spaces such as Emuwa Square and the sacred gardens. Nevertheless, its school playing fields are heavily used by the public as outdoor recreational open spaces. But these are yet to be managed and designed to sustain such a great pressure. Jos, by virtue of its colonial origin, has a few public parks which have proved to be delightful outdoor recreational spaces for the people. But unlike Ile-Ife, the rugged topography of Jos prevented the development of many school playing fields. The two towns therefore provide an ideal settings for a comparative study of the recreational use, the values attached to, and the demand for urban open space.

The objectives of the study include:

- (1) to establish the current participation rates in outdoor and indoor recreation activities in the two selected case studies;

- (ii) to examine the contribution and influence of private yards and gardens in the respondent's homes on their participation and demand for outdoor and indoor recreation activities;
- (iii) to examine the influence of demographic and socio-economic variables such as age, sex, car ownership, income and occupation and others on the participation and demand for outdoor and indoor recreation activities;
- (iv) to assess any observed similarities and differences in people's recreational values, interests and goals and to identify those by comparing the current participation rates and demand in the two towns; and
- (v) to outline the land use planning and landscape design implications of the effects of the present recreation behaviour and demand for open spaces.

The method of study was a structured questionnaire survey and questionnaires were distributed in each city at the place of employment of the respondents. This study also gave thought to a structured approach in the distribution of questionnaires. But as such an approach requires the existence of a reliable census data which in this case was not available and therefore impracticable to use it. Alternatively, the questionnaire distribution was planned to be distributed on the basis of 100 per cent of the employed in offices with less than 10 people, 50 percent of those employing up to 50 people 25 per cent of those employing above 50. However, as some people declined either to accept or return a completed questionnaire, the initial objective of a stratified sampled survey was also defeated. As such, the present study degenerated to one of a random sample.

In Ile-Ife, the questionnaires were distributed in major offices in the city including the State Hospital, all the Commercial Banks namely Standard Bank Ibadan road, Cooperative Bank, National Bank, Lagere, Cooperative Bank and United Bank both along Aderemi Street

and Union Bank along Remo Street. In the distribution of the questionnaires it was decided to discriminate against the residents of the University where open space provision is generally ample and beautiful. But the questionnaires were distributed among the junior staff living in town. They were distributed to the employees of a few private firms including Mayfair Hotel and Insurance Brokers. In Jos they were distributed in the offices of the Plateau Urban Development Board, Ministry of Land and Survey and the the State and Federal Ministries of the Environment. The total response from Ile-Ife was 160 (42 per cent) and from Jos it was 101 (51 per cent). The representativeness of the random distribution of the questionnaire in each of the town is shown shown in Tables A.1 and A.2.

TABLE A.1: DISTRIBUTION OF RESPONDENTS IN ILE-IFE AND JOS 1983

TOWN	RESIDENTIAL DISTRICTS	PER CENT RESPONDENTS
ILE-IFE	Okerewe	8.0
	Ilode	4.0
	More	7.0
	Remo	9.0
	Ilare	14.0
	Modakeke	21.0
	Eleiyele Layout	11.0
	Ede-Ibadan Road	11.0
	Unife Campus	3.0
	Owa Road	8.0
	Ondo Road	4.0
	TOTAL	100.0
JOS	Government Residential Area	21.0
	Central Jos	26.0
	Nassarawa/Gwong	24.0
	Jentar	12.0
	Sub-urban Jos	18.0
	TOTAL	100.0

Source: Field Survey 1982/1983 by the author

TABLE A. 2: DEMOGRAPHIC DATA OF RESPONDENTS IN ILE-IFE AND JOS 1983

DEMOGRAPHIC VARIABLE AND ELEMENTS	PER CENT RESPONDENTS	
	ILE-IFE	JOS
1. SEX		
Male	72.0	83.0
Female	28.0	17.0
TOTAL	100.0	100.0
2. MARITAL STATUS		
Married	65.0	69.0
Single	34.0	31.0
Widow	1.0	0.0
TOTAL	100.0	100.0
3. AGE GROUPS		
Up to 20 years	17.0	3.0
21-25 years	35.0	50.0
26-35 years	36.0	42.0
36-45 years	10.0	6.0
46-50 years	1.0	0.0
51-60 years	2.0	0.0
TOTAL	100.0	100.0

Source: Field Survey 1982/1983 by the author

THE SCOPE OF THE QUESTIONNAIRE

In the questionnaire each respondent was asked to provide information on residential district, age, sex, household population, children population and other socio-economic variables such as income, education, car ownership, club membership and occupational status. The respondents were also asked to provide information on the types of private gardens and yards they have around their homes and the subjective evaluation of these in relation to the degree of their spaciousness and a description of the landscape construction materials and over all maintenance. Other information desired included the

time available for leisure pursuits, participation in selected outdoor and indoor leisure activities, and, open spaces and leisure facilities desired. The questionnaire was designed so that each respondent could answer by a tick either 'yes' or 'no' against a number of alternative options. In parts of the questionnaire the respondents were asked to provide their own answer to some question such as enumerating the most popular outdoor recreation area and recreation activities issues of interest to them and on occasions they were asked to provide further comments on issues of interest to them. (See a copy of the questionnaire at end of the discussion of methodology).

Generally, the questionnaires were well received by those who completed them. Many commented on certain issues that are of relevance to the study. These comments tended to reflect the open space problems in both towns. For example, a 44 year old man from the central ward of Jos said that 'the nearest children playground to his house is two kilometres' Another 34 year old man, from the suburb of the town, said that 'the provision cycle ways is most desired because it will widen transport modes.

The comments made by some respondents from Ile-Ife are interesting as they highlighted the city's open space problems. A 34 year old man who lived in Ondo road, in response to the question on the opportunity which he had for leisure pursuits in public parks, commented that 'there is hardly any in this country'. He added that 'leisure pursuits in public parks would be highly cherished if such facilities are provided in our cities'. A 30 year old mother, who lived at Ede-Ibadan Road, said that 'women do not have time for leisure'. In contrast, another 28 year old lady living at Ilare demanded the 'provision for open stadium with a sports hall for the disabled and more religious centres'. Lastly, a young man of 20 year, resident on Ondo Road, in his own subjective evaluation, described the University of Ife Campus (Unife) as 'an attractive open space'. These comments are helpful as they touched on important

issues in the provision of urban open spaces and recreational facilities.

The responses to the questionnaires were analysed using simple statistical analytical techniques such as the frequencies, cross-tabulation and regression of the Statistical Package for Social Sciences (SPSS). A full account of the analyses of the study is beyond the scope of this thesis. The most important aspect which tends to support the need for open spaces has been analysed to buttress the basic arguments for open spaces.

THE REGRESSION ANALYTICAL TECHNIQUE

Before setting about the analyses it became necessary to identify the important factors which are likely to explain the recreational behaviour of the people. A review of the existing literatures showed that outdoor recreational pursuits and the facilities demanded by urban population can be related to a number of demographic and socio-economic variables. These include population, age structure, increase in younger population with active energy for recreation, marital status, education, income level, occupation, personal mobility and time available for leisure pursuit. Again, existing studies also showed that some of these variables had more influence on recreational behaviour than others. The study of the use of London's open spaces by the Greater London Council in 1969 showed that age structure, sex, marital status and income were the most important factors influencing the use of open spaces in urban areas. The study also singled out income as the most important socio-economic indicator of leisure pursuits because it is closely related to other factors such as education and occupation. Masser in 1966 studied the recreational behaviour of the people of Birmingham and concluded that car ownership was not particularly important for leisure pursuits in urban areas but in the countryside. Patmore in 1970 also surmised that the time available for leisure is a major determinant of recreational behaviour. Leisure time is also a vital

factor for analysing leisure demand. According to him, the consideration of time element in recreational behaviour and analysis is of importance because many leisure activities often require continuous and uninterrupted long time if they are to be fully enjoyed. The time available for leisure, which is not the same thing as time devoted to leisure pursuits, (leisure time) is a compound of four time elements; the weekly working hours, the journey to work, the week-ends and annual holidays. The first three components of time tend to influence leisure pursuits in urban areas while the fourth affects leisure pursuits in distant places.

Generally, the influences of these factors on the use of urban open spaces are bound to vary with different urban centres and societies with contrasting socio-cultural, economic and physical settings. In this study, some of the factors already mentioned above are expected to affect the recreational behaviour of Nigerians differently. Therefore, a fresh standpoint is adopted to analysing the questionnaire survey bearing in mind these factors and those not mentioned as of importance.

Based on the above literature review, it is possible to analyse the observed participation in outdoor pursuits with respect to two broadly related factors; the socio-economic and demographic and availability of recreational open spaces. A trial frequency analyses of the responses showed that respondents' participation in leisure activities varies with their socio-economic and demographic factors. But recreational studies in the West always assume that facilities are generally available and such factors were never investigated. A major consideration in this analysis is that outdoor leisure pursuits depend on the available open space resources such as availability of parks, private gardens, school playgrounds club recreation grounds, stadia and the like. The influences of these factors on leisure pursuits in Nigeria have not been verified except in the recent study of the recreational behaviour of Ibadan residents by Obateru, who ignored incorporating into the analysis the factor that Ibadan was

deficient in public open spaces.

Therefore, it was decided to carry out three interrelated analyses to identify the more dominant factor or factors influencing the leisure pursuits of the respondents. These analyses were based on three hypotheses:

i) That outdoor leisure pursuit was dependent on the socio-economic and demographic factors of the respondents such as age, income, educational level, marital status, occupation, club membership; all of which are among the information sought for in the questionnaire.

ii) That outdoor leisure pursuit was dependent on the availability of recreational open spaces and accessibility to open spaces resources such as parks, private gardens, school playgrounds, club recreation grounds, stadia and children's playgrounds.

iii) That outdoor leisure pursuit was dependent on the combined influences of the factors mentioned in the first two analyses and by so doing the strength of each of them can be verified mathematically.

Whereas it is generally true that these factors influence leisure pursuit but what we seek to know in these analyses and we do not yet know is the degree of importance of each or a set of these dependent factors in explaining the observed variance in the recreational behaviour of the respondents.

These factors were analysed with the use of the multi-variate analytical method known as the step-wise multiple regression technique. It is a statistical analytical technique suitable for analysing the factors underlying recreational behaviour of people. This method has gained increasing popularity in recreational studies. A full account of this method was first described in the ORRC study Report No. 22 in 1962. One of the advantages of this method is that

it is suitable for analysing both a small and large sampled population. Moreover, it is capable of identifying the most important factor which explains a given phenomenon by attaching weights and levels of significances to the more important factors. The regression analytical technique starts by computing the mean, standard deviation and the correlation matrix for all the factors included in the analysis all in one go as shown Table A.3. An over view of the analysis shows that the observed participation is negatively correlated with sex, car ownership, marital status and the level of education. It also shows that outdoor leisure pursuits are positively correlated with age, club membership, income but only slightly, while it is highly correlated with the available open space resources in the two cities. In this analysis Jos was given a factor of one in order to compare it with Ile-Ife or vice versa. The correlation of Jos and other factors with outdoor leisure pursuit are shown in Table A.3.

The step-wise analytical technique which follows selects in order of importance the factors which explain the variation in the observed leisure pursuits by computing the degree of their contribution R^2 , the standard error (E) and the level of their significance (F). The results of the analyses for the three hypotheses set above are shown in Tables A.4, A.5 and A.6.

TABLE A.3: CORRELATION BETWEEN OUTDOOR LEISURE PURSUIT, ILE-IFE, JOS AND THE INDEPENDENT FACTORS

Variable	Correlation Coefficients				Cases
	Outdoor	Ile-Ife	Jos	Mean	
Outdoor leisure pursuits	1.000	-0.189	0.189	2.24	261
Income level	0.002	0.002	0.002	2130.40	261
Car ownership	-0.002	0.002	-0.002	0.42	261
Low educational level	-0.110	0.184	-0.184	0.48	261
Club Membership	0.060	0.086	-0.086	0.39	261
Female	-0.092	0.116	-0.116	0.42	261
Incidental open spaces	0.334	0.083	-0.083	0.49	261
Children Playgrounds	0.246	-0.110	0.110	0.39	261
Private yards and gardens	0.316	-0.015	0.015	0.49	261
Age	0.054	0.422	-0.422	7.51	261
School Playing fields	0.394	0.053	-0.053	0.44	261
Parks and gardens	0.353	-0.285	0.285	0.42	261
Accessibility by foot	0.006	-0.040	0.040	0.31	261
Married	-0.042	-0.045	-0.045	0.47	261

Source: Statistical output from Computer Programme run on ICL 2988 using SPSS

The regression analysis, which were undertaken in three separate stages and the results are shown in Tables A. 4 to A. 6.

TABLE A.4: THE RESULT OF THE ANALYSIS OF VARIANCE OF OUTDOOR LEISURE PURSUITS WITH SOCIO-ECONOMIC FACTORS

Independent Factor	Multiple R	R SQUARE	Standard Error	F-Ratio
Jos (as a factor against Ife)	0.80	0.04	0.29	7.52 ^{x3}
Low educational level	-0.50	0.04	0.35	1.92 ^{x2}
Female	-0.35	0.05	0.35	1.12
Married	-0.43	0.05	0.32	1.75
Club Membership	0.45	0.05	0.37	1.57
Income level	-0.1D-03	0.06	0.00	2.07
Age	0.03	0.07	0.02	1.68
Car ownership	0.05	0.07	0.37	0.02
CONSTANT	3.58			

x3 = 1 per cent level of significance

D-03 = 10³

N. B. Initially, when Jos as factor was not included the factors explained by socio-economic factors equalled 3 per cent. If took away the figure attained by Jos they the 3 per cent was still maintained

Source: Statistical output from Computer Programme using SPSS on ICL 2988

TABLE A.5: THE RESULT OF THE ANALYSIS OF VARIANCE OF OUTDOOR LEISURE PURSUITS
WITH AVAILABLE OPEN SPACES AND THEIR ACCESSIBILITY

Factor in the Equation	Multiple R	R Square	Standard Error	F-Ratio
School Playing Fields	1.76	0.16	0.24	54.68 ^{x3}
Incidental open spaces	1.40	0.26	0.21	41.72 ^{x3}
Children Playgrounds	1.58	0.35	0.26	35.69 ^{x3}
Parks and gardens	1.13	0.41	0.26	19.38 ^{x3}
Private Gardens and yards	1.01	0.46	0.21	22.31 ^{x3}
Jos	0.60	0.47	0.22	7.37 ^{x2}
Female	-0.61	0.49	0.24	6.26 ^{x2}
CONSTANT	1.75			

x3 Significance at 1 per cent level

x2 significant at 5 per cent level

N. B. Accessibility by foot was rejected in the analysis an indication that most of these space are within ease reach of those who said they had access to them.

Source: Statistical output from Computer programmed run on ICL 2988 using SPSS by the author.

TABLE A.6: THE RESULT OF THE ANALYSIS OF VARIANCE OF OUTDOOR LEISURE PURSUITS
WITH SOCIO-ECONOMIC FACTORS, AND AVAILABILITY OF OPEN SPACE RESOURCES

Factor in the Equation	Multiple R	R SQUARE	Standard Error	F-Ratio
School Playgrounds	1.79	0.16	0.24	53.98 ^{x3}
Incidental open spaces	1.36	0.26	0.22	37.82 ^{x3}
Children Playgrounds	1.62	0.35	0.27	36.56 ^{x3}
Parks and Gardens	1.11	0.41	0.27	17.56 ^{x3}
Private yards and gardens	1.00	0.46	0.22	20.59 ^{x3}
Jos	0.54	0.47	0.23	5.62 ^{x2}
Female	-0.66	0.49	0.25	6.98 ^{x2}
Low educational level	-0.45	0.49	0.27	2.68 ^{x2}
Marital status	-0.24	0.49	0.24	1.02 ^{x1}
Car ownership	-0.34	0.50	0.28	1.54 ^{x1}
Club membership	0.32	0.50	0.28	1.36 ^{x1}
Income level	-0.8D-04	0.50	0.00	1.29 ^{x1}
Accessibility by Foot	0.11	0.50	0.34	0.11 ^{x1}
Age	0.2D-02	0.50	0.02	0.01 ^{x1}
CONSTANT	2.28			

Multiple R = regression coefficient

R square = per cent contribution

F- Ration = Level of significance

x3 Significant at 1 per cent level

x2 Significant at 5 per cent level

x1 Significant at 10 per cent level

D-04 = 10^4

Source: Output from Computer Programme ran on ICL 2988 using SPSS by the author.

**STUDIES OF URBAN OPEN SPACES AND LEISURE
PURSUITS IN SELECTED NIGERIAN CITIES:**

A QUESTIONNAIRE SURVEY

A. LOCATION OF RESPONDENTS IN TOWN

Name

Street Address

Ward/District

Town

B. SOCIO ECONOMIC FACTORS WHICH INFLUENCE LEISURE PURSUITS AND OPEN SPACE.

1. Sex: MALE/FEMALE
2. Marital status: MARRIED/SINGLE/WIDOW
3. Age:..... yrs
3. Total Population in Household
5. Total No. of children
6. No. of children under 4 years
7. No. of children between 5 and 10 years
8. Car ownership: No. CAR/1. CAR/2 CARS 2+ CARS.
9. Membership of recreation Club YES/NO
10. Name of Recreation Club
11. Highest Educational Qualification attained
12. Please indicate your Income Group.
13. Please indicate your occupational Status.

<input type="checkbox"/>	N1,500	<input type="checkbox"/>	MANAGERIAL/PROFESSIONAL
<input type="checkbox"/>	N1,500 - N3,000	<input type="checkbox"/>	SKILLED TECHNICAL
<input type="checkbox"/>	N3,000 - N5,000	<input type="checkbox"/>	SKILLED ADMINISTRATIVE
<input type="checkbox"/>	N5,000 - N7,000	<input type="checkbox"/>	UNSKILLED/MANUAL
<input type="checkbox"/>	N7,000 - N9,000		
<input type="checkbox"/>	N9,000 - N11,000		
<input type="checkbox"/>	N11,000 - N15,000		
<input type="checkbox"/>	N15,000 Above		

C. DESCRIPTION OF YOUR HOUSING AND ITS ADJOINING OPEN SPACES

1. Indicate your house type by a tick (✓)

<input type="checkbox"/>	DETACHED BUNGALOW	<input type="checkbox"/>	SEMI DETACHED BUNGALOW
<input type="checkbox"/>	2 STOREY FLATS	<input type="checkbox"/>	MORE THAN 2 STOREY FLATS
<input type="checkbox"/>	2 STOREY TENEMENT HOUSES	<input type="checkbox"/>	MORE THAN 2 STOREY TENEMENT HOUSES

2. If you live in a storeyed building indicate your floor level

3. Tick

<input type="checkbox"/>	OWNER OCCUPIED	<input type="checkbox"/>	RENTED SINGLE ROOMS
<input type="checkbox"/>	RENTED FLATS/HOUSES	<input type="checkbox"/>	GOVERNMENTAL/INSTITUTIONAL HOUSES (e.g. GRAS/CAMPUS)

4. Type of open space and their approximate area.

<input type="checkbox"/>	Front yard/Garden	<input type="checkbox"/>	SPACIOUS / SMALL / TOO SMALL / NONE
<input type="checkbox"/>	Back yard/Garden	<input type="checkbox"/>	SPACIOUS / SMALL / TOO SMALL / NONE
<input type="checkbox"/>	Inner Courtyard (if any)	<input type="checkbox"/>	SPACIOUS / SMALL / TOO SMALL / NONE
<input type="checkbox"/>	Verandah spaces (if any)	<input type="checkbox"/>	SPACIOUS / SMALL / TOO SMALL / NONE
<input type="checkbox"/>	Spaces between houses	<input type="checkbox"/>	SPACIOUS / SMALL / TOO SMALL / NONE

5. Is the Front Yard/garden large enough for children running around YES/NO
6. Is the Back Yard/Garden large enough for children running around YES/NO
7. Is the spaces between buildings on either side large enough for children running around YES/NO
8. Which is the nearest children playground and indicate the approximate distance (if none say so)

9. Surface Treatment of outdoor spaces around your house (please tick)

	Front Yard/Garden	Back Yard/Garden	Inner Court Yard	Spaces Between Buildings
a) Bare earth only	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Bare earth with trees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Grassed only	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Grassed with trees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Concrete only	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Concrete only	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Paved slab with trees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10. If any of the above spaces is grassed what is the approximate monthly cost of maintaining it N _____ (if it is self-maintained and you cannot put cost to it mark X in the space provided).

11. Maintenance of outdoor spaces around your house (please tick)

<input type="checkbox"/> Front Yard/Garden	WELL MAINTAINED/FAIRLY MAINTAINED/UNMAINTAINED
<input type="checkbox"/> Back Yard/Garden	WELL MAINTAINED/FAIRLY MAINTAINED/UNMAINTAINED
<input type="checkbox"/> Inner Court Yard	WELL MAINTAINED/FAIRLY MAINTAINED/UNMAINTAINED
<input type="checkbox"/> Spaces between buildings	WELL MAINTAINED/FAIRLY MAINTAINED/UNMAINTAINED

D. TIME AVAILABLE FOR LEISURE PURSUITS

1. Please tick your official working hours during week days

(Monday to Friday)AM toPM

2. Do your office work during weekends (excluding compulsory overtime) YES/NO

3. If yes. Is it on SATURDAYS ONLY / SUNDAY ONLY / BOTH DAYS. (Delete)

4. Please indicate your official working hours at weekends

.....AMPM

5. Please indicate the time available for leisure pursuit during weekdays by a tick (✓) of those applicable:

	4pm - 5pm	5pm - 6pm	6pm - 7pm	7pm - 8pm	8pm above
Mondays	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tuesday	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wednesdays	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Thursdays	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fridays	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. Please indicate the time available for leisure pursuits at weekends:

	Before Noon	Afternoon	Evening	Night-time
Saturdays	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sundays	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

E. TYPE OF LEISURE ACTIVITIES UNDERTAKEN WEEKLY.

1. Indicate by a tick of the various outdoor recreational activities undertaken during weekdays (Monday - Friday).

<input type="checkbox"/> Gardening/farming	<input type="checkbox"/> Take children to public playground
<input type="checkbox"/> Attend outdoor parties	<input type="checkbox"/> Outdoor swimming
<input type="checkbox"/> Driving for pleasure	<input type="checkbox"/> Hunting
<input type="checkbox"/> Cycling for pleasure	<input type="checkbox"/> Fishing
<input type="checkbox"/> Craft and outdoor hobbies	
<input type="checkbox"/> Play organised field sports (eg. football, tennis, Hockey) on public recreational grounds.	
<input type="checkbox"/> Watch sports on field sports/stadium	
<input type="checkbox"/> Play field sports on club recreation grounds eg. Golf, polo etc.	
<input type="checkbox"/> Play/watch field sports on school/colleges playgrounds.	
<input type="checkbox"/> Sitting out/play outdoor games like ayo, draft, chess, etc, in incidental open spaces.	

- Leisure walk along streets
- Leisure pursuits in public parks and gardens
- Sitting out/play in private front yard/Back yards/Court yards
- Others specify

2. From the above write your 5 most frequent week day outdoor leisure activities.

- a)
- b).....
- c)
- d)
- e)

3. Indicate by a tick of the various indoor leisure pursuits during weekdays.

- | | |
|--|--|
| <input type="checkbox"/> Dancing | <input type="checkbox"/> Watch TV/listen to radio |
| <input type="checkbox"/> Religious activities | <input type="checkbox"/> Play indoor games like ayo, ludo, chess |
| <input type="checkbox"/> Library/Reading | <input type="checkbox"/> Visit museum |
| <input type="checkbox"/> Dining out | <input type="checkbox"/> Indoor hobbies (Knitting, weaving, carving) |
| <input type="checkbox"/> Cinema/Theatre | <input type="checkbox"/> Indoor swimming |
| <input type="checkbox"/> Play indoor games in clubs House | |
| <input type="checkbox"/> Play indoor games in hotels | |
| <input type="checkbox"/> Play indoor games in community sports centres | |
| Others specify | |

4. From the above write up to 5 of your most frequent week day indoor leisure activities. (If less write less).

- a)
- b)
- c)
- d)
- e)

5. Indicate by a tick (V) of the following leisure activities pursued during weekends.

- | | |
|---|--|
| <input type="checkbox"/> Gardening/farming | <input type="checkbox"/> Play Golf |
| <input type="checkbox"/> Play field sports | <input type="checkbox"/> Watch sports |
| <input type="checkbox"/> Visit friends | <input type="checkbox"/> Visit Museum |
| <input type="checkbox"/> Travel to other towns | <input type="checkbox"/> Visit national park/forest reserves |
| <input type="checkbox"/> Go hunting | <input type="checkbox"/> Watch TV/listen to Radio |
| <input type="checkbox"/> Attend parties | <input type="checkbox"/> Leisure walk along streets |
| <input type="checkbox"/> Driving for pleasure | <input type="checkbox"/> Cycling for pleasure |
| <input type="checkbox"/> Take children to playground | <input type="checkbox"/> Dancing |
| <input type="checkbox"/> Picnicing | <input type="checkbox"/> Swimming Indoors |
| <input type="checkbox"/> Library/reading | <input type="checkbox"/> Indoor games like ayo, darts ludo |
| <input type="checkbox"/> Cinema/Theatre | <input type="checkbox"/> Outdoor sedentary games like ayo |
| <input type="checkbox"/> Play organised games like squash etc. | <input type="checkbox"/> Sports centres/recreation clubs. |
| <input type="checkbox"/> Visit urban park and gardens eg. Zoo, park, botanical gardens etc. | |
| Others specify | |

6. From the above write up to 5 of your most frequent weekend leisure activities.

- a)
- b)
- c)
- d)
- e)

F. MODE OF TRANSPORT TO OUTDOOR AND INDOOR RECREATION AREAS.

1. Please indicate your mode of travel to the various outdoor recreational areas you visit.

- BY FOOT BY CYCLE/MOTOR BY CAR
- BY PUBLIC/PRIVATE COMMERCIAL TRANSPORT

- 2. If by foot how many minutes walk Minutes
- 3. If by car how many minutes drive Minutes
- 4. Please write 5 of your favourite outdoor recreation PLACES in the town.

- | <u>Name</u> | <u>Location</u> |
|-------------|-----------------|
| a) | |
| b) | |
| c) | |
| d) | |
| e) | |

5. Please indicate your mode of travel to the various indoor recreation areas you visit (It could be more than one mode).

- BY FOOT/BY CYCLE/MOTOR CAR BY CAR
- BY PUBLIC/PRIVATE COMMERCIAL TRANSPORT

- 6. If by foot how many minutes walk Minutes
- 7. If by car how many minutes walk Minutes

8. Please write up to 5 of your favourite indoor recreation sports in town.

- | <u>Name</u> | <u>Location</u> |
|-------------|-----------------|
| a) | |
| b) | |
| c) | |
| d) | |
| e) | |

G. DEMAND FOR OUTDOOR AND INDOOR RECREATION FACILITIES

1. Please indicate your demand by a tick of the following outdoor recreation areas.

- More equipped children playgrounds in housing areas
- More parks and gardens (eg. Zoo, botanical gardens etc.)
- More open spaces around housing environment eg. Grove
- More public recreation grounds
- More district sports centres.
- Provision of attractive and safe pedestrian walkways
- More private club recreation grounds, eg. golf, polo, etc.
- Improvement of existing incidental open spaces in older area
- Make roadside walks more attractive and well shaded from sun
- Develop the open spaces in newer residential suburbs
- More open spaces in residential areas for leisure pursuits
- Maintain the existing open spaces
- More cycle ways
- Others specify

.....
.....
.....

2. Please indicate your demand by a tick (V) of the following indoor recreation areas.

- | | | | |
|--------------------------|--------------------------------|--------------------------|-------------------------------|
| <input type="checkbox"/> | More sports halls | <input type="checkbox"/> | More cinema/theatre |
| <input type="checkbox"/> | Dance Halls | <input type="checkbox"/> | More hotels with indoor games |
| <input type="checkbox"/> | More swimming pools | <input type="checkbox"/> | More recreation clubs |
| <input type="checkbox"/> | More library/community centres | <input type="checkbox"/> | Museum/Art Gallery |

Others specify

.....

.....

Thank you for your cooperation

APPENDIX 2: SIZE OF DENDALS IN SOME KANURI TOWNS

Town	Date	Dimensions of the Dendal		
	Founded	Width (m.)	Length (m.)	Area (ha.)
Ngazargamo	1490	80	460	3.68
Kukawa	1846	70	560	3.92
Damaturu	n.a.	70	560	3.92
Maiduguri	1901	126	1680	21.20
Bama	1942	122	770	9.39

Source; Abdurrahman, Ibrahim The structure of Kanuri towns M.Sc Thesis
Department of Urban and Regional Planning, Ahmadu Bello University Zaria (1977)

APPENDIX 3: SIZE OF YORUBA PALACES AND GARDENS

Yoruba Town	Palace Area (Ha.)	Garden Area (Ha.)	Garden Area as P.C of total
Owo	43.9	40.1	91.3
Ilesa	20.7	18.2	88.0
Ondo	17.4	15.4	88.4
Ado-Ekiti	10.9	5.7	52.2
Ile-Ife	8.1	6.3	78.0
Oyo	6.8	0.0	0.0
Idowa	4.5	3.2	71.1
Owu	2.8	1.6	57.8
Abeokuta	2.5	0.0	0.0

Source: compiled from Ojo, G. J. A. Yoruba Palaces: a study of Afins
University of London Press, (1966) p. 27.

APPENDIX 4: SUGGESTED PLANTS FOR NIGERIAN FLOWER GARDENS

DAHLIA

Cactus
 Craigwell Exhibitor (crimson)
 Mrs. Titterington (deep blue)
 Miniature decorative
 Chad vanity
 Peony and Decorative
 Berengana (orange and gold)
 Jersey Beauty (salmon pink)
 Lord Lamborne (pink and gold)
 Mabel Lawrence (crimson)
 Purple king (purple)
 Rapallo (deep plum)
 Rosa Taylor (blackish maroon)
 Thomas hay (lilac)
 Bochnage (crushed strawberry)

ROSES

Betty Uprichard
 Ophelia
 Etiole de Hollande
 Glorie de Dijon
 Malrechal Neil
 General MacArthur
 Captain Cant
 La France
 Mine Butterfly
 Else Poulsen

CHRYSANTHEUMS

Waterers Sunrise (deep yellow)
 H. Sutcliffe (golden yellow)
 Supreme (crimson red)
 Bronze Buttercup (chestnut bronze)
 Avalanchia (white)
 Elspeth (mauve pink)
 Cranford (yellow)
 G. Hobbs

LILIES

Lilium Candidum (mandola lily)
 L. speciosum roseum (Japanese rose lily)
 L. speciosum nitrium (Japanese crimson lily)
 L. Congiflorum hariseii (Bermuda lily)

Source: Sauders, H. N. (1935)

APPENDIX 5: SUGGESTED PLANTS FOR NIGERIAN BLUE FLOWER GARDENS

HERBS

Ageratum
Anchusa
Asters
Browalia speciosa
Dadiscus coerulens (the blue flower)
Cynoglossom
Larkspur (annual Delphinium)
Lupins (annual blue)
Newmophila
Salvia
Farinacea
Verberna

SHRUBS AND CLIMBERS

Buddelia veitchiana (butterfly shrub)
Ceanothus azurens
C. dentatus (the butterfly shrub)
C. Florinbundus
Ipomea (heavenly blue)
Petree volubis (purple wreath)
Plumbago carpensis (blue leadwort)
Thumbergia grandiflora.

Source: Saunders, H. N. "Blue in the Nigerian Flower Garden," The Nigerian Field, Vol. IV No. 3, 1935, pp 133-137.

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