

URBANIZATION IN DEVELOPING COUNTRIES: A CASE STUDY, KAMPALA UGANDA
An Elementary Survey of Land and Dwelling Environments.

By

STANLEY S. MULUMBA

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Signature of the Author

Department of Architecture June 1974

Certified By

Thesis Supervisor

Accepted By

Chairman, Departmental Committee on Graduate Students.

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URBANIZATION IN DEVELOPING COUNTRIES

A CASE STUDY: KAMPALA UGANDA

an elementary survey of land and dwelling environments

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ABSTRACT

As the city spreads over rural areas it becomes more and more urgent to carry out immediate land subdivision reform which will facilitate easier provision of infrastructure services and utility lines. The present generation of local independent professionals and planners has the moral responsibility of creating an orderly city development so that future generations do not blame us and inherit from us square miles of unplanned settlements of the magnitude of Kisenyi, Mulago and Kibuli-Wabigalo,.

PREFACE

CONTENT

This is a study/evaluation of dwelling environments in the context of rapid urbanization in developing countries. The study is focused on 14 selected residential areas in Kampala Uganda, and covers an existing broad housing spectrum from very low to high income, and from complete private sponsorship to complete public(Government) control and sponsorship of the dwelling development. Each of the 14 cases is summarily described in similar terms; tables, matrixes, graphs, socio-economic data, drawings and photographs to allow easy comparisons of the cases studied. These cases are grouped into 5 major sub-systems based upon similarity of model types, development sponsorship participation, cultural-socio-economic status, and environmental characteristics of the localities. An attempt has also been made to suggest development models.

PURPOSE

The object of this study is to provide firsthand material with which to identify the existing basic housing patterns in the total housing system, especially as regards land subdivision and land utilization in the hope that it will serve as a tool for formulation of housing policies and programs.

APPLICATION

It is hoped that this study will not only serve as a reference for understanding the dwelling environment situations in Kampala but it will also be applied as a guide for making surveys and evaluations of other existing and new towns in Uganda and other developing countries.

DATA

The difficulties involved in carrying out a study about a place thousands of miles away can not be over-emphasised, especially when the city like Kampala happens to be one of the least documented cities in the world. I was, however, able to go to Kampala for a 3-months field-research in the summer of 1973, during which I also worked with the Town and Regional Planning Department and was able to collect very useful information and statistical data. Nevertheless much of the information in this study is speculative and based upon my limited estimations and knowledge of Kampala, and should not be read as conclusive. Useful information was obtained from Makerere Economic Development Research Papers, particularly those written by M. Tribe and M. Safier. All maps and aerial photographs were acquired from Lands and Surveys Department of the Ministry of Water and Natural Resources, Entebbe. All other photographs were taken, developed and printed by the author. The arrangement of this book line-negatives and half-tone negatives in the printing process were also made by the author.

SSM

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INTRODUCTION

Much has been said and written about the massive unemployment; economic; social; cultural; physical; environmental and housing problems which face developing nations as masses of people move from rural to urban centers in search of better employment; educational, and cultural opportunities and the more attractive city life.

Africa in particular stands at the cross-roads with one hand clutching to the traditional past where such problems were unknown and the other hand groping for guidance from the Western World which has lived with such problems for centuries.

As our societies progressively go through this rapid transformation from rural agriculturally-based to urban industrially-based societies we are confronted - in addition to our traditional three major enemies of poverty, disease and ignorance - by the challenge of a spiritual-cultural directional perspective. The challenge is particularly marked in urban centers such as Kampala where not only is there a large scale

rural-to-urban migration but the city itself and its hinterland influence are rapidly expanding outwards engulfing rural areas.

People caught in this city expansionist spread have to quickly reassess their spiritual, material and social values - the values they attach to individual land rights and sizes of such lands, their family compositions and their attitudes to the old African concepts of communal responsibilities.

The chief aim of this study therefore is to attempt to throw some light on some of the characteristics which accompany this rural-to-urban transformation of societies and settlements.

Although this study tries to take a cross-section across all existing housing subsystems in the city, special interest is attached to Kisenyi, Kibuli and Mulago localities which amply demonstrate the strains and trends which accompany a rural-to-urban-transformation situation.

Specific interest is centered on land and its utilization

as affected by coordinated settlement controls and policies or lack of them. Comparison is made between settlements which have had professional guidance in matters relating to proper land subdivision; layout of services utility lines, and communication lines, taxation; coordination between public semi-public semi-private and private lands; and those localities which have not had such guidance.

Using conclusions drawn from the study of this city and the neighbouring city of Nairobi, Kenya, an attempt has been made to suggest a model upon which future planners of residential localities might base their planning policies.

THE HOUSING PROBLEM

The term Housing has many connotations some of which include:

1. Physical design, construction, management and maintenance of dwellings and the land on which they stand.
2. The structure of Market Demand And Supply.
3. Housing Finance.
4. Aspects of ownership v.s.v. rental use of land and dwellings.
5. Living standards as affected by the physical social cultural and economic circumstances of the environment.

(4) URBANIZATION IN DEVELOPING COUNTRIES

This particular study concerns primarily in an evaluation of the merits and demerits of participation of the individual user in the decision-making, process, financing, physical design, construction and maintenance of his dwelling unit and its surroundings, and the various levels of participation of the public sector in these processes.

It is important however to get an overall picture of the present housing problem in Kampala in its total summary:

● With a population of 330,000 in 1969 and a theoretical number of 94,000 households (based on households of 3.5 persons of any homogenous composition occupying a self-contained dwelling unit, from a room to a country-house), studies done by Dr. Anthony Lubega in 1967 indicated that there were only 30,000 household dwelling units available in Kampala. The deficit of 64,000 dwelling units is compounded by the city's growth rate of 8% p.a. and is estimated at over 80,000 units in 1974.

● Of the existing housing stock about 20% are in bad condition and need replacement.

● More than 80% of the existing housing stock is privately built for owner-occupation and sub-letting. The majority of the remaining housing provided

by the public sector is for civil servants and other government employees mostly in the middle and high income groups. The few government housing projects for general rental can only be afforded by middle and high income people.

● 85% of Kampala residents earn less than 400/= (Ugandan Shs.) (\$58) per month of which they can afford only 15-20% for housing. 30% of the population earn less than 150/= (\$21) p.m. and can afford 22-30/= (\$7-8.5) per month on housing.

Unlike the middle and high income people who have access to institutional financing such as loans from commercial banks, insurance companies, mutual aid loans, loans from employers or private money-lenders, low-income people have virtually no access to such financing and must rely on self-help, savings contributions from family, relatives and friends, and from social security funds in order to build their own houses.

● Presently there is no investment by big private developers in low-income housing because the returns from high-income housing are by far more attractive to the investors.

● High rents in the high income housing sector are encouraged by the government's practice of providing housing rent subsidy of up to 90% to people who are

already earning well above the national average - a practice inherited from the colonial times when large housing subsidies and other benefits had to be offered on top of big fat salaries in order to attract expatriate staff (and settlers). Embassies and multi-national corporations also offer a lucrative market for the private developer.

● Unlike Nairobi and other cities all over the world where old buildings in the city center originally occupied by large wealthy families have gradually escalated down the income ladder to within reach of the low-income people as they grow older, Kampala has no such process because of the high competition of high-income housing market escalated by government subsidies. It is more profitable for a building owner to tear it down and build a new one on which he can recover his capital outlay usually in less than 5 years by renting to high-level administrative civil servants than to sub-divide the old building into tenements for low-income multi-family use. The few existing tenements in Kisenyi were designed and built by low income people for the purpose. It is probable that former Asian residences above shops in the business city center will now be converted into tenements since the commercial use of the buildings still makes them more

profitable than new residential buildings.

● More than 85% of dwellings privately built are constructed by artisans and small contractors and - especially with mud-and-wattle houses - by jobbing unskilled labour. Complete self-help and aided self-help accounts for perhaps less than 5% of the total dwelling construction in Kampala because most of the dwelling owners are too busy doing other jobs

● Within the low income sector building costs of mud/wattle dwellings range from 7 to 14/= (\$1-2) @ sq.ft. depending on the quality of finishes used, and on the social relationship between the developer and the artisan or jobbing team. In 1972 masonry/wood building cost were 30-40/= @ sq.ft. but have since gone up perhaps by more than 50% due to current inflation.

● More than 80% of the land in Kampala - especially that occupied by the low income people is privately owned by "mailo" landlords, which makes it difficult to coordinate land subdivision and development. But this also explains the absence of large-scale squatter settlements of the magnitude of Mathare Valley in Nairobi because poor people can not organise themselves to invade land which is already owned in small parcels.

REGIONAL CONTEXT

EAST AFRICAN COMMUNITY:

Uganda together with Tanzania and Kenya form a non-political economic federation which is composed of four major areas of central planning and administration.

1. The Common Market established in June, 1967, maintains a common external tariff; and controls industrial investment in partner states and allows easy flow of manufactured goods and labor.

2. The Transportation Council runs the East African Airways Corporation; the East African Railways Corp., the Harbours Corp., and the East African Posts and Telecommunications.

3. The Research and Social Council includes the Veterinary and the Meteorology Departments.

4. The Finance Council includes the Economic and Consultative Council; and the East African Development Bank.

The supreme authority in the Community is the East African Authority consisting of

the three heads of state and three special ministers. Administratively the Community is headed by a Secretary General who is based at the headquarters at Arusha in Tanzania.

NATIONAL CONTEXT

UGANDA

1. GEOGRAPHICAL:

LOCATION: In the heart of Africa between Lat. 1°S and 4°N and Long. 30° and 35°E. Neighbouring countries include Kenya to the east, Tanzania and Rwanda to the South, Zaire (Congo Kinshasha) to the west, and Sudan on the North.

AREA: About 236,000Km. (91,000 sq. miles) of which 17% is water and swamp.

ALTITUDE: On a plateau between 900m (3,000 ft.) around Lake Victoria, and 1,800 m. in the Kigezi highlands. The highest point is Margherita, 4,025 m., in the Rwenzori Mountains.

TEMPERATURE: 20°C (60.8°F) is the mean with a maximum of about 35°C (95°F) in Karamoja and a minimum of 4.4°C (40°F) in the Kigezi highlands.

RAINFALL: Average annual precipitation is 1270 mm (50 in.) with the highest in areas around Lake Victoria at about 1,626 mm (54 in.) and the lowest in Karamoja at about 800 mm.

HUMIDITY: Mean Relative Humidity is 95% in Kigezi and 50% in the north-east. Average is 70%.

2. POLITICAL HISTORY: The existence of Lake Victoria and the 'mountains of the moon' at the center of Africa was foretold by the Egyptian geographer, Ptolemy, in the second (2nd) century A.D. Herodotus also knew about the three great lakes and the mountains of central Africa.

By the time Europeans arrived in Uganda there were several kingdoms with well-developed political institutions dating back several centuries. Some historians suggest that the imperial kingdom of Bunyoro-Kitara

extended as far as Tanzania and Ruanda. During the 1880's, under a line of powerful kings, Buganda had built up a strong government system and was actively overrunning and extending her sphere of influence over the smaller neighbouring tribes.

Arab traders from Mombasa and Zanzibar first reached Buganda in the 1830's, thus

✓
(6) URBANIZATION IN DEVELOPING COUNTRIES

introducing cups, plates, cotton cloth, and Islamic religion into the region.

Captain John Speke, the first European to visit Uganda arrived in Buganda in 1862 in search of the source of the Nile River. He was soon followed by Protestant Missionaries in 1862 and Catholic Missionaries in 1879. British colonization of Uganda started in 1888 with a Royal Charter granted to the Imperial British East African Co., under Captain Lugard.

The company was replaced by a British Protectorate Commissioner in 1894. In 1896 the Commissioner began to extend his administration into Bunyoro, Busoga and other parts of Uganda.

Buganda was very disturbed in the period immediately before 1900. In fourteen years between 1884 and 1900 there were four kings, three civil wars and minor disturbing incidents. The first major conflict was between the Moslem Kabaka (King) Mwanga and Christian missionaries and their con-

verts as a result of which 24 African Christians were burned alive on Namugongo Hill. Later the civil war shifted to Protestants against Catholics.

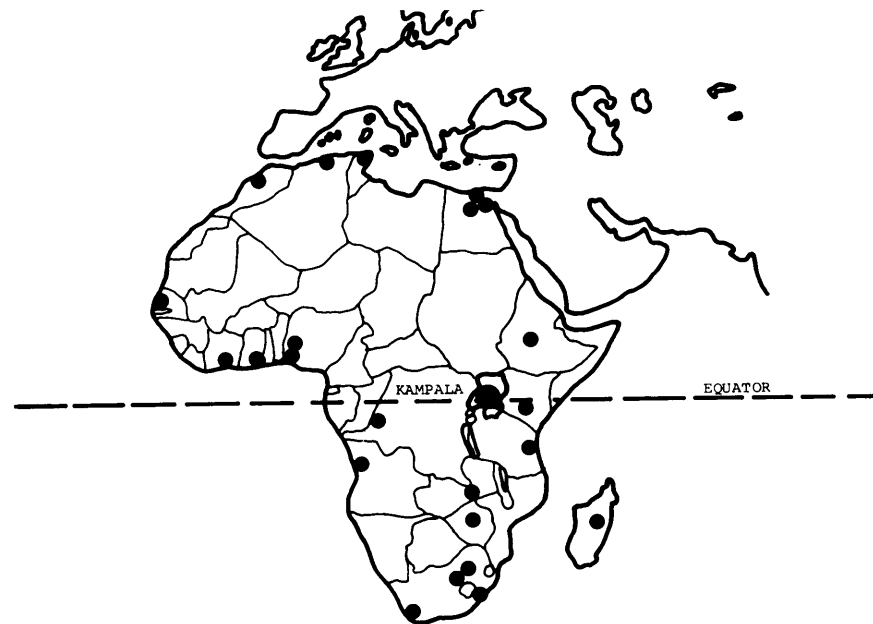
The final Protectorate agreement was signed with Buganda in 1900 and with the Toro and Ankole kingdoms in 1900 and 1901 respectively. From then on the country enjoyed relative peace until the 1966 monarch constitutional crisis.

Constitutional changes lead-

ing to independence started in 1955 leading to the 1961 London Constitutional Conference which established a time table for independence. Uganda attained self-government on March 1, 1962 and full independence on October 9, 1962. In 1964 and with the election of the Kabaka by Parliament as a figure-head President, a federal-type government was consolidated to achieve a compromise between conflicting tribal interests mainly between



LOCATION: WORLD MAP



LOCATION: AFRICA

● African cities larger than or equal to Kampala.

the Bantu tribes of the four highly organized kingdoms of the south and the pastoral Nilotic tribes of the north.

Uganda became a Republic in 1968 when Prime Minister Dr. Milton Obote revoked the old constitution and introduced a new one desbanding and superceding the powers of the traditional kingdoms after the Kabaka was forced to flee. The last Kabaka went into exile in Britain where he dies in 1970.

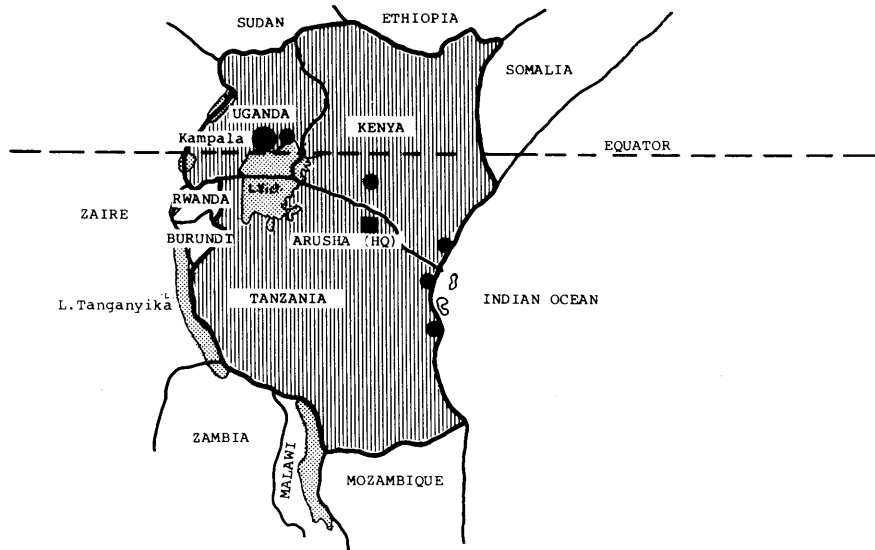
Dr. Obote was deposed in January 1971 by Major General Idi Amin's army take-over and the declaration of the second Republic. Political activity was banned in Uganda. In August 1973 a new administrative framework was set up headed by a State Supreme Council of which the President, Vice President, the Ministers of Defense and Provincial Administrations and the heads of the armed services are members.

3. POPULATION: The total population of Uganda was 9.5 million in 1969, and was estimated at 10.5 million in 1972 showing a population increase rate of 3.2% per year. Population density is about 52 per sq. Km. (130/sq. miles).

Urbanised population is about 12% based on urban centers with at least 10,000 people. The rate of urbanisation is about 8% per year. The main towns include Kampala (Capital) 330,000;

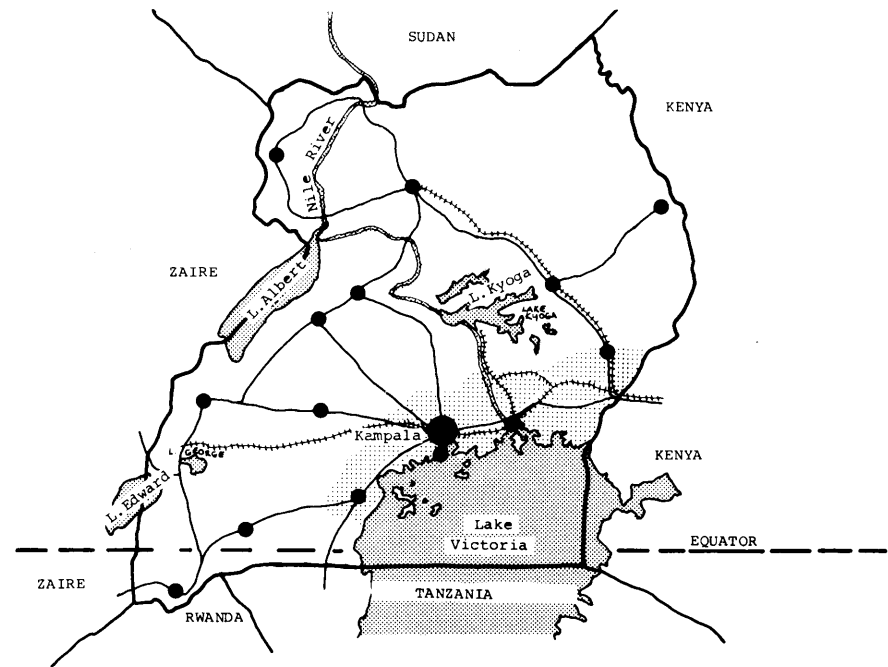
Jinja 47,000; and Mbale 23,500. (1969 Census).

There are four major African groups in the country; the Nilotics in the north, the Nilo-Hamitic in the west, the Sudanic in the north and the Bantu group in the south and west, which is the most influential and includes three of the four largest tribes; the Baganda who are over one million, and the Banyankole and Basoga each over 0.5 million people.



LOCATION: EAST AFRICAN COMMUNITY

● Major Urban Centers



LOCATION: UGANDA

● Major Urban Centers

▨ Kampala-Jinja-Mbale Urban Region.

(8) URBANIZATION IN DEVELOPING COUNTRIES

In 1971 there were about 80,000 Asians but now only 5,000 remain in the country. There were 9,500 Europeans but less than 5,000 remain. Uganda has about 162,000 Rwanda, 65,000 Sudanese and 64,000 Zaire refugees.

LANGUAGES: There are about 24 tribes in Uganda each with its own language. Luganda language in the most widely used and is spoken or understood by about two thirds of the total population. Swahili, though the "lingua franca" of East and

Central Africa, is little used in Uganda outside the military service, Kilembe Copper mines and some commercial establishments in Kampala. English is the official language.

4. **ECONOMY:** Uganda's Gross National Product was about US \$1.1 billions in 1971 and growing at the rate of 4.2%. Real G.N.P. per capital was \$105. The rate of economic growth has declined considerably since then and is about 1.2% ac-

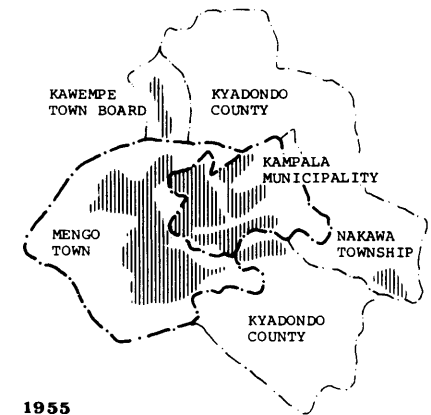
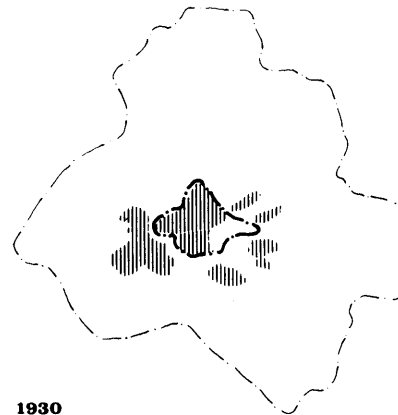
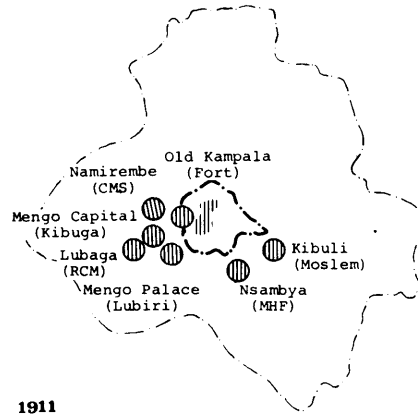
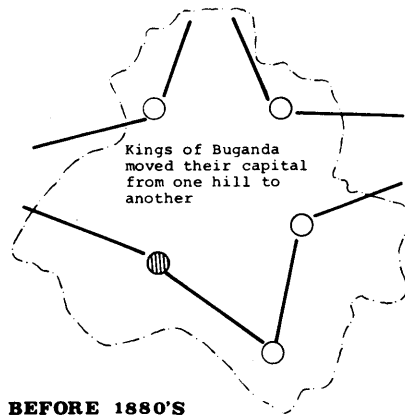
cording to Barclays Bank International Review.

The following table illustrates the economic standing of Uganda in comparison to other countries:

		GNP BILL. \$US	PER CAPITA \$US
UGANDA	1971	1.1	105
KENYA	1971	1.5	121
NIGERIA	1972	6.8	100
GHANA	1973	8.4	294
U.K.	1973	127.0	2,286
USA	1973	1151.8	5,515
TANZANIA	1971	1.2	80

Agriculture and related Activity account for about 60% of the GNP and provides employment for about 90% of the working population. Manufacturing accounts for less than 10% of GNP.

The cost of living had increased by 20% among low-income and 12% in the middle range income groups by 1971, and is thought to have more than trebled by 1973.



URBAN GROWTH PATTERN

URBAN CONTEXT: KAMPALA

LOCATION: On the northern shores of Lake Victoria in southern Uganda; on the Equator and Longitude 32° west.

AREA: 195.3Km. (75.4 sq. miles)

ALTITUDE: About 1219m (4,000 ft.) above sea-level.

TEMPERATURE: Mean temperature is 20°C (68°F); highest ever recorded was 36.2°C (97°F) and lowest: 13.3°C (56°F).

RAINFALL: 114.3mm-1270mm (45 in.-50 in.) per annum: rain is fairly distributed throughout the year with two peak seasons in March - May and October - November.

WINDS: Thunderstorms are frequent in the October - November rainy season; strong high winds are unknown in Kampala and Uganda as a whole.

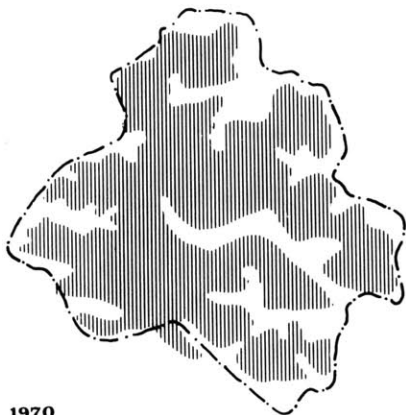
HUMIDITY: About 70 -75%.

POLITICAL HISTORY: Modern Kampala City can be said to have been founded by Capt. Lugard of the defunct British East African Company in 1890. His first post was established on Old Kampala Hill and was later transferred to Nakasero Hill.

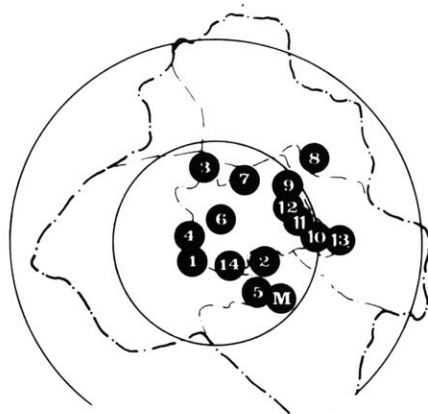
Before the 1880's the capital of Buganda was not fixed but moved from one hill-top to another within the hinterland of present Kampala. The establishment of the Church Missionary society (Protestant) on Namirembe Hill in 1884 and the Roman Catholic Mission on Lubaga Hill in 1885 and later the Moslim Community on Kibuli Hill helped to stabilize and consolidate the position of Mengo Hill as the permanent palace-capital of Buganda. Soon the four centers attracted sufficient population for urban development forming what was called the Kibuga (King's Capital) or Mengo Municipality until 1968.

Of special interest is the relationships between the former Kibuga and Kampala Municipality. While the later was economically supported by the central government and was able to afford various services and employ qualified professional planners and advisers, Mengo Municipality was administered by the Buganda Local Government which had neither the finances nor the qualified planners to advise and direct its growth. The village settlements on the boundary between the two towns enjoyed the benefits of both towns and therefore became major centers of attraction for low-income wage earners. This led to the slum-like settlements such as Kisenyi, Kibuli, Kagugube-Makerere, and Mulago all along the boundary.

Nakawa and Kawempe, the two other townships before 1968 were established in the 1950's. Nakawa was meant to develop into a satellite town mainly for immigrant workers.



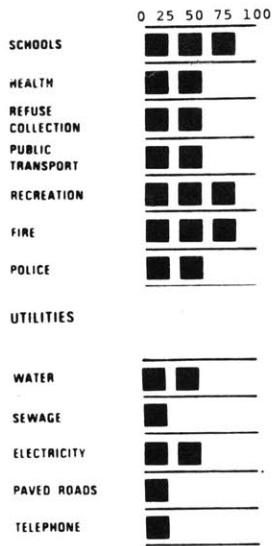
1970



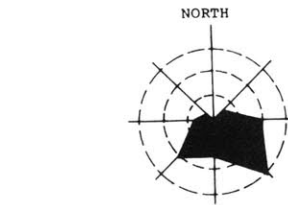
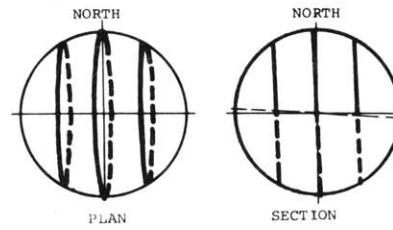
LOCALITY STUDY AREAS

(10) URBANIZATION IN DEVELOPING COUNTRIES

SERVICES

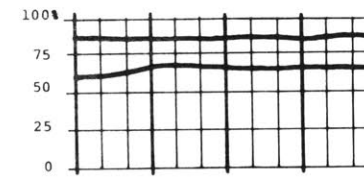
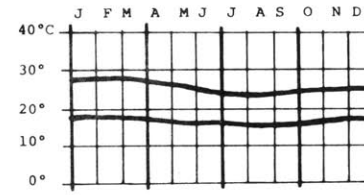


SUN



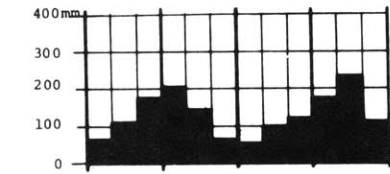
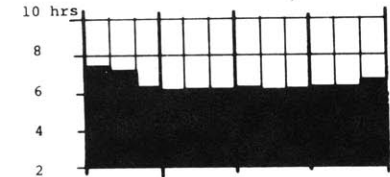
WIND

TEMPERATURE

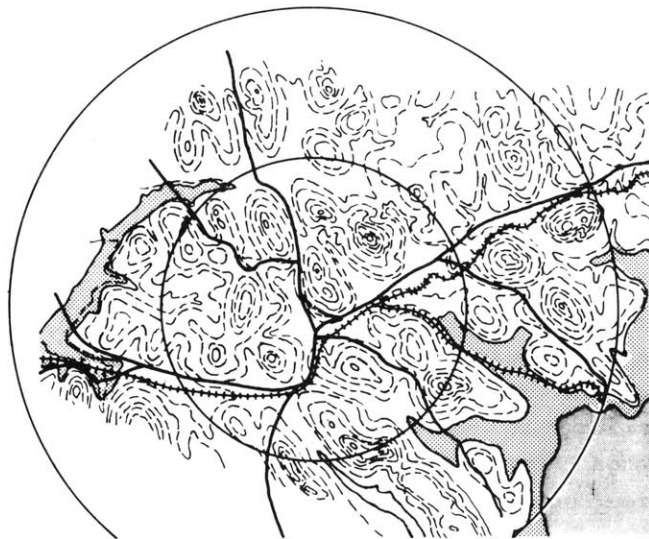


HUMIDITY

SUNSHINE

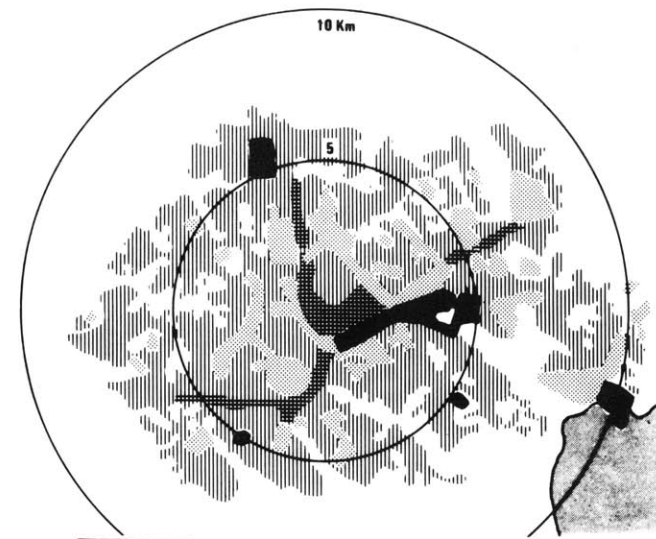


RAINFALL



TOPOGRAPHY AND CIRCULATION

1:25000



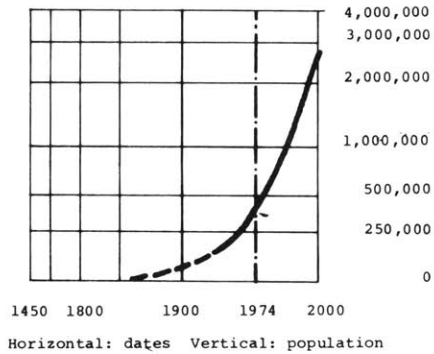
RECREATIONAL/
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RESIDENTIAL
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URBAN AREA LAND USE

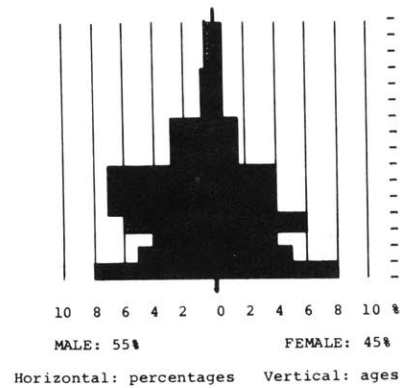


URBAN POPULATION GROWTH



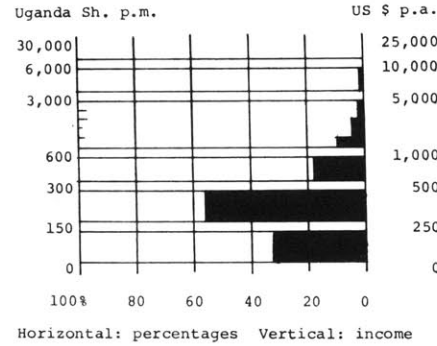
1969 Census: 330,000

URBAN AGE DISTRIBUTION



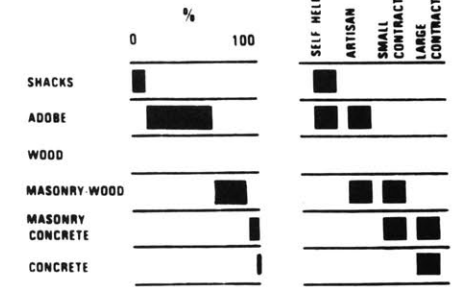
1969 Pop.Census.

URBAN INCOME DISTRIBUTION

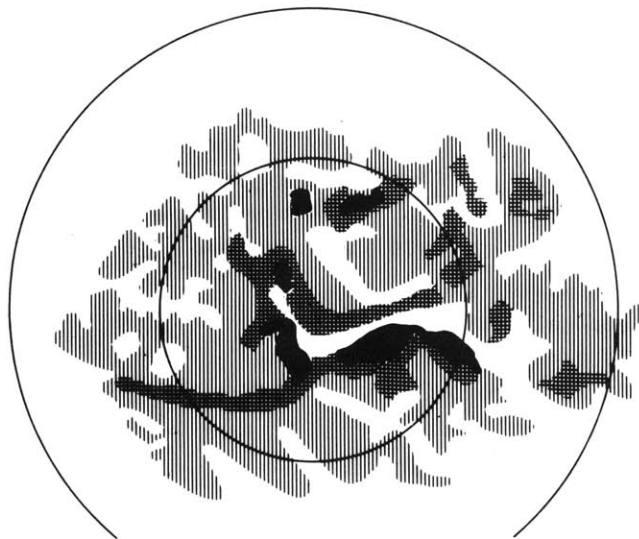


1974 Estimate

CONSTRUCTION TYPES



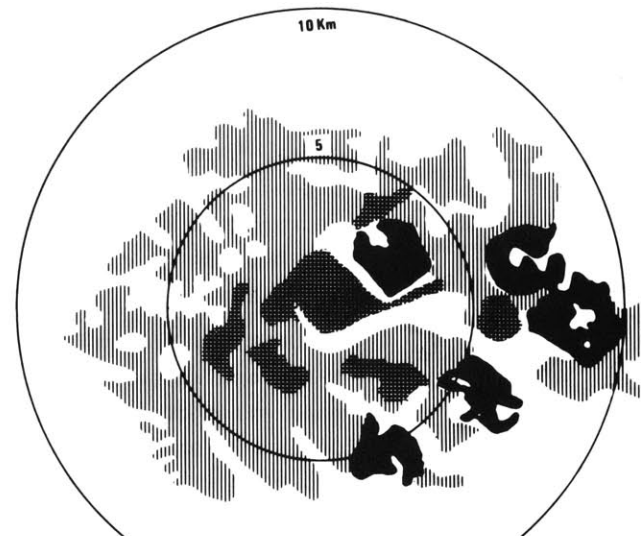
The chart shows (1) approximate percentage of each construction type within the total number of dwellings; and (2) building group that generally produces each type.



LOW MEDIUM HIGH

POPULATION DENSITY

1:250000



LOW INCOME MEDIUM HIGH INCOME

URBAN INCOME PATTERN



Kawempe was established to encourage Asian businessmen to establish a new industrial satellite town. Most Asian businessmen who built factories in Kawempe had already sold them out to Africans before the early 1970's social-political changes.

ADMINISTRATION: Before Buganda Administration was abolished in 1966 Kampala City was run by four authorities; Kampala City Council; Mengo Municipal Council; Nakawa Town Council; and Kawempe Town Board. The last three were under Buganda Local Government Administration while Kampala City Council was under the Central Government.

An act combining all these authorities under one boundary was passed in 1968. Although most of the various personnel in the former administrations were absorbed in the City Council the post of the Mayor and councillors were abolished and the city appears to be under the sole control of the Chief Engineer. Besides the City Council which deals with the day-to-day administration and implementation of policies, there are two bodies which affect the

planning and direction of growth of the city; the Coordinating Committee consisting of officers from the ministries of Regional Administrations; Health; Planning and Economic Development; and Kampala and District Water Board. The third body is the Town and Country Planning Board.

There is a definite need to define the relationships between these three bodies since a number of their duties seem to overlap sometimes causing conflicts and delay of decisions especially in the field of housing policy.

In the field of housing, for instance, it is not very clear who has the responsibilities of formulating and directing the policies affecting housing as a whole in Kampala.

POPULATION: According to the 1969 Population Census the population of the politically defined area of Kampala was 330,000. The city population growth is about 8% per annum against a national population growth rate of 3.2% p.a.. The sex pyramid shows a balance between men and women as well

as between adults and children. This contrasts considerably with prevailing situations in cities in developing countries which are overwhelmingly occupied by middle-aged single migratory labourer workers.

Part of the explanation lies in the fact that Kampala has not been invaded by rural migratory labourers as much as the city has invaded rural villages swallowing well-established families and crowding and sprawling over rural farms. In addition recent rural to urban migration patterns have shifted from uneducated "green-collar" labourers to young blue-collar school-leavers who intend to make the city their permanent home.

INCOMES: Kampala average annual per capita is US \$70 (500 Uganda shillings p.m.) against a national per capita of US \$105 (750/=p.m.). This compares with a USA per capita of \$5,500. Although living standards are higher in Kampala the anomaly of per capita compared to the national level may be explained by the fact that 90% of Uganda's GNP derives from the rural

agricultural sector.

Processing of agricultural products together with manufacturing (heavily geared to agricultural produce) account for 16% of the total city employment. Commerce accounts for 18%, and government institutions provide 16% of employment. The construction sector employs only about 9%; communications 7%; education 6%; and health 3%.

THE HOUSING PROBLEM: About 80% of Kampala workers earn less than US \$70 p.m. (500/=p.m.) while only 10% earn over US \$300 (2,000/= per month). In fact 60% of Kampala employees earn less than US \$36 p.m. (250/=p.m.), an income which is unstable to buy or even rent a market-priced housing of acceptable standards.

LAND TENURE IN BUGANDA

It is important to understand the special land tenure circumstances surrounding Kampala in order to understand the unusual land use and property subdivision which exist in some areas of Kampala such as Kisenyi Kibuli and Mulago.

TENURE SYSTEM BEFORE 1900

Before the Europeans arrived, land in Uganda was controlled by chiefs and some few individual peasants, through rights based on a political system and through hereditary rights associated with original clan claims. Control could also be based on ritual or political functions of the chieftainship or through rights granted directly by the king to an individual either as a function of political office or as a reward for political or personal service to the king.

Three components of real land control can be identified:

1. Control based on clan hereditary rights.
2. Control based on political rights of the king and chiefs.

3. Control based on individual hereditary rights.

1. CLAN LAND CONTROL:

There are 42 clans in Buganda region. A few of these clans were originally settled in the region before the advent of Buganda kings; others came with various invading monarchial dynasties, while the majority were conquered or sought protection of particular Buganda kings. All clans have land on hill-tops or in specific villages either by virtue of centuries of occupation or by right granted by one king or another. In both cases the effective control of clan lands is exercised by the hereditary head of the clan. This control was strongest in areas furthest away from Kampala whose hinterland contained most of the kings' palaces and the kings' personal control.

2. KING AND CHIEFS LAND CONTROL:

The king had some of the richest villages and the greatest number of estates all over the country. These were administered by palace officials or their deputies. The rights over such lands

controlled by officials such as the Queen Mother, the king's sister, princes and princesses, the prime minister, keeper of fethishes, the chief cook, chief executioner, county and sub-county chiefs etc. were terminated with the removal or the demise of the office holder.

3. LAND CONTROL BY INDIVIDUALS HEREDITARY RIGHTS:

Such lands were held on claims based on long occupation of the land holding and confirmed by the king, or on original grant of the holding or estate granted to the individual prince, chief or peasant by the king. Such holdings were small and occupied only by the title holder, his relatives or his servants. These lands were held for life and could be inherited.

PEASANT RIGHTS:

Although land was controlled by a few individuals such as hereditary chiefs and political officials, every individual in the country had the right to occupation and use of land derived from his status as a member of kinship or as a subject under a particular chief. The

degree of the rights of occupation, grazing, water use firewood gathering and other activities done on a particular piece of land varied depending on social and political conditions.

There was a high degree of mobility particularly with peasants under political chiefs who were transferable to any part of the kingdom. The mobility was particularly accentuated by the civil wars between 1884 and 1900 which were responsible for transfers of large sections of the population from one corner of the country to another as Moslems fought Christians and then Protestants fought Catholics. Usually peasants under a particular chief were converts to the religion which he supported and had to fight or flee with him when need arose.

THE 1900 AGREEMENT AND AFTER

Although Buganda was declared a British Protectorate in 1894 it was not until 1900 that an agreement was finally signed between the Kabaka (King) and the British Special Commissioner. The agreement laid down the conditions governing the relationships between the

(14) URBANIZATION IN DEVELOPING COUNTRIES

Kabaka's Government and the Colonial Government, and factors related to land ownership in the kingdom.

By the terms of this agreement 1,003 sq. miles of the 17,300 sq. miles in Buganda (6%) were allotted to the Kabaka and his family and the big chiefs in their official capacity and in private ownership. Another 8,000 sq. miles were allotted to 1,000 chiefs and other important people. The remaining 8,000 sq. miles and more became Crown Lands which were reserved for later distribution to peasants and for public use such as forest reserves, roads and towns.

To define and to legalize the allotted sq. mile-holdings the "Land Law of 1908" was enacted and the "freehold" land tenure system under which these land rights were held was termed the "mailo" system.

The position of the peasant was not defined in the Buganda Agreement of 1900 or the Land Law of 1908 although he continued to live on both the private mailo land and the public Crown lands in the same federal relationship

to the new land-owners as before especially since the old chiefs became the new "mailo" land owners. But as cash crops were introduced and the peasants in both rural and urban areas got richer need arose to re-define this relationship and this was done in the Busulu and Envujo Law of 1928 which consolidated the security of the peasant.

LAND SUBDIVISION IN KAMPALA:

By the terms of the 1908 Land Law, a "mailo" owner could transfer land by sale, gift or will to another person of native origin. Most of the mailo lands were in and around Kampala. As the area got more and more urbanised the landowners subdivided and sold off substantial parts of their lands to speculators. Thus by 1950 the number of freehold landowners in Buganda had risen from the original 3,700 to over 50,000 and were estimated to be over 100,000 in 1972.

Most of the land subdivision was done by the owners without any technical help and central co-ordination. No land was reserved and laid out for future public uses

such as roads and water mains. Property lines were drawn in all kinds of forms and shapes. In areas like Kisenyi, Kibuli, and Mulago land property lines are drawn through buildings because the building owners are old "Envujo" tenants caught on site in the land transfer process. The new land owner usually keeps the traditional tenants whom he finds living on his land. In city-periphery areas this does not create many problems because these areas are still primarily rural. In the more urbanised sections of the city however traditional tenants create problems for the landowner who may want to invest in the land more economically, but finds it difficult to kick out tenants as they are protected by the Envujo Law. It also poses a great challenge to the city planners who would like to initiate renewal programs.

Following the removal of the Kabaka and the desolution of kingdoms in the country, large areas of Kampala City formally belonging to the Kabaka and some former chiefs were taken over by the central government and made public

lands. This presents an excellent opportunity for central re-planning.

CASE STUDIES

From the point of view of user-participation, housing development in Kampala can be classified under three major systems:

1. Private Owner-User-Developer System.
2. Private & Public Owner-User Developer System.
3. Public Developer System.

These systems may further be summarised under five subsystems:

- I. Private Owner-User Developer Low Income: KISENYI KIBULI MULAGO.
- II. Private Owner-User Developer High Income: OLD KAMPALA NSAMBYA COMMONWEALTH, KIRA ROAD, NAKASERO.
- III. Public & Private Owner-User Developer (Site & Service): NTINDA, KISWA, KATALI.
- IV. Public/Institutional Employee Rental: NAKAWA, NAGURU, NSAMBYA RAILWAYS.
- V. Public General Rental: NSAMBYA RAILWAY LINES, BUGOLOBI PREFABRICATED PROJ.

Each of these subsystems can be further developed into more components: For example subsystem No. I. has the following sub-groups:

- a) Traditional Rural Houses in either thatched huts (very rare in Kampala), or mud/wattle rectangular houses unsystematically grouped in compounds around irregular courtyard.
- b) Tenements - mud/wattle or masonry/wood rooms arranged around central courtyard (a recent innovation in Kampala)
- c) Scattered Squatter Shanty dwellings in public areas bordering the Industrial area (Wabigalo)

Subsystem No. II has the following components:

- a) Private individual Developed houses, e.g. all of Old Kampala and most of Nakasero.
- b) Commercial Company mortgage housing., e.g. Nsambya Commonwealth Project.
- c) Government/Parastatal/Institutional built mortgage houses., e.g. Nakasero & Kira Road.

Subsystem No. III has the following subgroups:

- a) Core Housing: where land plots and a minimum dwelling unit consisting of a kitchen two rooms and a detached pit-latrines were provided with the hope that the tenant/mortgage-owner would add upon the unit as need arose., e.g. Ntinda.
- b) Site and Service lines provided., e.g. Katali, Kiswa.

- a) Industrial Row Housing: XIX Century European model used by low income industrial labourers and imported into Africa by the British in a degraded colonial form, (Dwelling was squeezed into one small room for family).
- b) Labour "Camp" Row/Group Houses: XIX Century Colonial military model., e.g. Nakawa, Naguru.

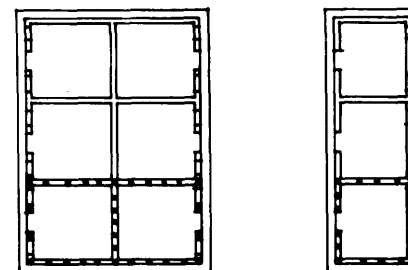
Subsystem No. V

- a) Walk-up Apartments., e.g. Bugolobi Prefabricated Project, Nsambya Railways.
- b) High Rise Apartments: These are located above office buildings.

For the sake of simplification however this summary will describe the five major subsystems. Although these subsystem models are mixed in various locations all over the city, they are nevertheless characteristic of specific geographical localities in which they are predominant. All the fourteen case studies can therefore be fitted into one subsystem or another

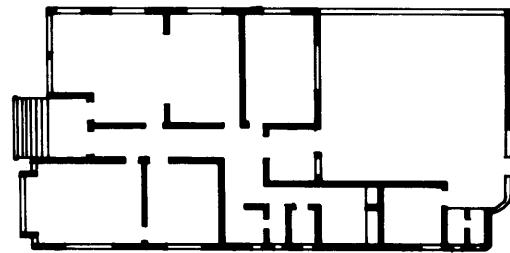
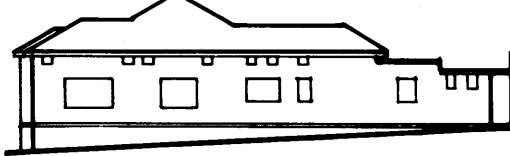
SUMMARY EVALUATIONS

I. OWNER DEVELOPER LOW INCOME:



CASE STUDIES		KISENYI, KIBULI MLAGO
USER:	Income Social Status:	Very Low; Low Usually rural migrants with very limited skills and mostly self-employed in marginal jobs.
LAND/LOT	Areas: Tenure: Utilization: Plot-Layout:	Medium and Large Plots - usually with plenty of private dwellings on one lot. Legal ownership/legal rental. All land is private; no planning coordination. Determined by social structure; based on traditional land subdivision in rural areas.
LAND AND DWELLING DEVELOPER:	Developer: Builder: Mode of Development: Construction Type: Financing:	Popular and Private. Owner (Self-help)/Artisan. Incremental. Mud/Wattle, Masonry/Wood. Savings (from farms in countryside)/Relatives.
DWELLING:	Dwelling Unit: Dwelling location: Dwelling Type: Densities:	Mostly rental rooms in row/grouped houses in subletting arrangements. Rooms in tenement houses around courtyards are a recent innovation copied from Asians. City Center, Periphery (Semi-rural) 1 Story detached houses crammed together in all directions. High in City Center and inner-ring locations. Low in periphery semi-rural areas.
MODEL ASSESSMENT:	Past:	The physical dwelling models in this category reflect the popular effort by the people to solve their own housing problem themselves. In the past the dwelling used to be a hut made of wooden post and elephant grass reeds frame and papyrus or grass thutch. Present: There is a dynamic constant change as people improve their houses with better incomes or years of saving while new ugly shacks spring up here and there with new migrant arrivals. Future: Model is bound to remain the main form of housing accessible to low income people. It should be encouraged but receive urgent guidance especially in the field of plot subdivision and service/utility planning.

II. OWNER DEVELOPER HIGH INCOME:



OLD KAMPALA, KIRA ROAD, NAKASERO, NSAMBYA

Middle, High Businessmen, Professionals, Executives in multinational companies, High Level Civil Servants, Diplomatic Personnel.

Usually large lots with spacious gardens surrounding dwelling. Mostly legal ownership. Otherwise rental. Land is private with clearly defined public spaces. Uneconomically planned.

Private. Govt. Proj. for employees is private. Builder is small contractor. Instant development. Masonry/wood. Access to Institutional Financing.

Spaceous houses with 2-room servants houses attached

City center , Inner ring and Periphery. I-2 storey detached "Victorian" sub-urban houses in large land plots.

Very low densities.

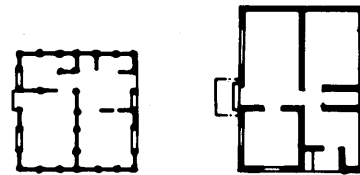
Model reflects extravagant living times of colonial masters and their Asian partners. It accessible to less than 5% of the people.

Dwelling models were imported from Europe USA, and Asia. They reflect Western and Asian culture.

Before independence the dwellings were used by Europeans and Asians. In the -resent they are occupied by Africans in the high income sector.

Financially this is a model likely to keep expanding since it attracts financial institutions most. Based on total allocation of scarce financial resources in the country however, this sector should receive the least encouragement especially from the government.

III: PRIVATE/PUBLIC DEVELOPER:



NTINDA, KATALI, KISWA.

Low, Medium-low, Middle Small businessmen, semi-professionals junior civil servants etc.

Small plots based on modern design concepts on "Site & Service" projects. Legal Ownership. Private with little public spaces. Well laidout. Economically planned.

Private and Public effort. Large contractor, Self-help/Artisan. Incremental development. Mud/wattle; Masonry/wood. Savings; Limited access to Institutions.

Small-roomed single/multi-family houses with subletting space. Usually separate pit-latrines

Inner ring. I Storey houses arranged in square blocks and along main roads surrounding central semi-private open spaces.

Medium/densities.

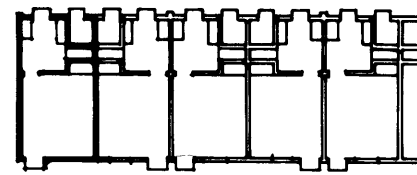
Model reflects previous concern about finding new homes for migrant Africans in the past by colonial administrators.

Dwelling models are a confused mix of ideas of Western expatriates with "site and service" concepts for people they do not understand well and "reformed African" culture.

Before independence the model was used by Africans and is still so used.

If properly organised and managed this model has the highest potential for solution: to the housing problem especially if it is planned in conjunction with model No1.

IV. PUBLIC/INSTITUTIONAL EMPLOYEE RENTAL:



NAKAWA, NAGURU

Low, Med/Low, Middle Originally meant for semi-skilled and unskilled labourers in colonial government service. Situation has not changed much.

No private plots. Public rental Public and semi-public. Buildings uniformly distributed in common land.

Public/Institutional. Large contractor Instant development Masonry/wood. Public

I-family room units arranged in long "Industrial/Low Houses"; Oversimplified squeezed apartment type houses arranged in groups around communal space and services.

Inner ring Semi-detached and "row-housing. Med.High density

Med/high density

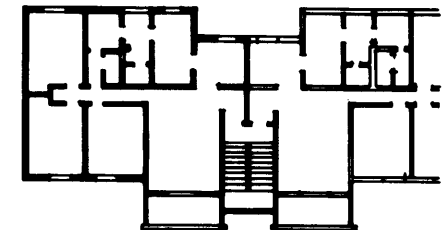
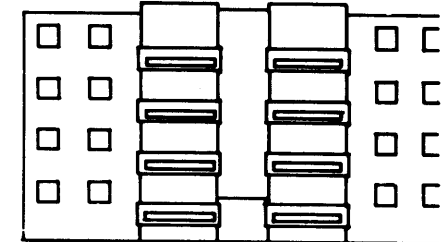
Model reflects colonial solutions to African housing needs. Of special note is the disregard for family occupation considerations.

Models were developed for low-income industrial labourers in the XIX Century Europe. They were later modified to serve African colonial requirements.

Model Model has been used by Africans in the past and still is .

This model has limited future applications because of its political association with the colonial past and its social-cultural shortcomings.

V. PUBLIC GENERAL RENTAL:



NSAMBYA RAILWAY LINES, BUGOLOBI PREFAB.

Med/Low, Middle, High. Model is used by skilled and semi-skilled people mostly in junior (assistant) administrative positions

No private plots. Public, rental. Public and semi-public Buildings uniformly distributed in common land

Public/Institutional. Large contractor. Instant development. Masonry/concrete, concrete. Public/Institutional

Complete apartment houses.

Inner ring and periphery. 3-5 walk-ups.

High and Med/High.

Model reflects XX Century approaches to housing problems at a universal level.

Model was developed in XIX Century Europe and USA originally for low income Public Housing.

Used by Africans and Asians.

If improved the model has appealing applications in the future. It has the attractions of economic use of land and centralisation of services. Improvements should include better land-use efficiency; User control and responsibility over semi-public spaces etc.

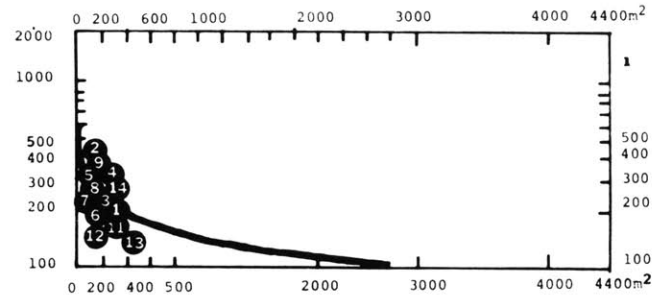
(18) URBANIZATION IN DEVELOPING COUNTRIES

CATEGORY	I. OWNER DEVELOPER LOW INCOME:			II. OWNER DEVELOPER HIGH INCOME:			
	Popular/Private: Owner			Private: Owner (Public involved only in a private role)			
DEVELOPER ((Land and Dwelling)				Instant Private House			
TYPE OF DEVELOPMENT				Instant Private House			
INCOME	Low and Middle			Middle and High			
LOCALITY	KISENYI	KIBULI	MULAGO	OLD KAMPALA	NSAMBYA COMM.	KIRA ROAD	NAKASERO
HECTARE-BLOCK Building & Plot Study							
LAND USE PATTERN Public Semi-Public Semi-Private Private							
LAND USE PERCENTAGES Public Semi-Public Semi-Private Private							
DENSITIES @) 20 People ●							
LOCALITY POPULATION GROWTH Horizontal: Percentages Vertical: Population							
LOCALITY AGE DISTRIBUTION Horizontal: Percentages Vertical: Ages							
LOCALITY INCOME DISTRIBUTION Horizontal: Percentages Vertical: Incomes							

III. PRIVATE/PUBLIC DEVELOPER:			IV. PUBLIC EMPLOYEE RENTAL:		V. PUBLIC GENERAL RENTAL:		COMPARATIVE SUMMARY/EVALUATIONS:
Public/Private Owner Site and Services			Public Colonial Row-Housing Type		Public and Institut Rental Apartments.		
NTINDA	KATALI	KISWA	NAKAWA	NAGURU	NSAMBYA RAILWAYS	BUGOLOBI	
							<ol style="list-style-type: none"> 1. Unplanned plot sub-division. 2. Planned/coordinated plot subdivision. 3. Small coordinated plots. 4. No private plots. 5. No private plots.
							<ol style="list-style-type: none"> 1. All land is private. 2. All land in plot-clusters is private. 3. All land in plot-clusters is private. 4. All land is public; no plot subdivision. 5. All land is public.
							<ol style="list-style-type: none"> 1. 90% private, 10% public. 2. 60% private, 40% public. 3. 80% private, 20% public 4. 10% private, 80% semi-private, 10% public. 5. 20% private, 70% semi-private, 10% public.
							<ol style="list-style-type: none"> 1. Medium & high density. 2. Low density. 3. Low density. 4. Medium density. 5. High density.
							<ol style="list-style-type: none"> 1. Progressive rapid growth. 2. Progressive moderately slow growth. 3. Instant/progressive slow growth. 4. Instant static growth. 5. Instant static growth.
							<ol style="list-style-type: none"> 1. Young families with many infant children. 2. Age equally distributed. 3. Young families with many infant children. 4. Young families with many infant children. 5. Young families with many infant children.
							<ol style="list-style-type: none"> 1. More than 80% low income. 2. More than 60% is in the high income group. 3. Low and middle-low income. 4. Low and middle-low. 5. Middle and high income.

(20) URBANIZATION IN DEVELOPING COUNTRIES

LAYOUT EFFICIENCY



KEY:
 VERTICAL SCALE: R-Value on logarithmic scale.
 HORIZONTAL SCALE: Lot Area(m²).
 CURVE: Optimum R-Value (the optimum values are derived from plots of different areas having a width to depth ratio of 1:4, a public street serving only the short dimension of the plot and transverse streets at intervals of 150 meters).

The efficiency/effectiveness of a network is the ratio of the length of the network to the area(s) served:

$$\text{NETWORK EFF.} = \frac{\text{network length}}{\text{area(s) served}} = \text{R-VALUE}$$

The R-Value varies inversely to the network efficiency; a smaller R indicates a higher efficiency and vice versa. The layouts of the case studies have been evaluated in terms of network efficiency and are shown in the graph, and tabulated as follows:

- Very Efficient: One side service: --
Small plots:
- Efficient: One side service: 4,6,8,9,10.
Small plots
- Inefficient: Two side service: 5,7.
Large plots:
- Very low density:
- Very Inefficient: Large plots: 1,2,3
2-3 side service:
Too frequent transverse streets:

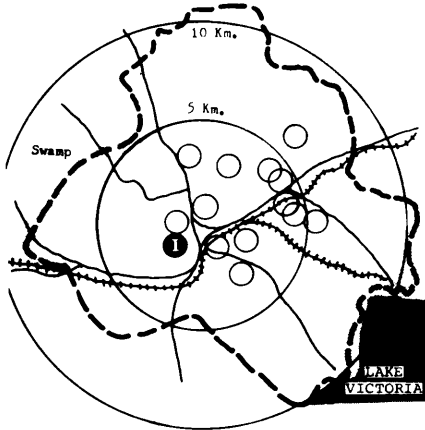
The Layout Efficiency of an urban configuration is determined by the combination of circulation areas and the areas served.

	Effic. R-Val.	Density P/H	Land Use Percentages.		
			Private	Semi-Private	Public
KISENYI: (1):	185	320	90%	--	10%
KIBULI: (2):	300	280	90	--	10
MULAGO: (3):	200	300	92	--	8
OLD KAMPALA (4):	430	108	54	--	46
NSAMBYA COMM. (5):	270	120	69	--	31
KIRA ROAD (6):	200	240	62	--	38
NAKASERO (7):	200	18	85	--	15
NTINDA (8):	200	96	80	--	20
KATALI (9):	300	84	45	32	23
KISWA (10):	350	96	80	--	20
NAKAWA (11):	170	240	25	70	5
NAGURU (12):	145	160	10	83	7
NSAMBYA RAILWAYS (13):	130	540	18	75	7
BUGOLOBI					
PREFABRICATED (14):	280	340	18	62	20

PHYSICAL DEVELOPMENT MATRIX

1	2	3	USER			LAND/LOT						LAND/LOT DEVELOPMENT					DWELLING				DWELLING UNIT			
			4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		
Category	Classification	LOCALITIES	Income	Area	Tenure	Utilizat'n	Develo-per	Builder	Mode	Construct'n Type	Year of Construction	Location	Type	Floors	Utiliza'n	Phys. State	Tenure	Type	Area M ²	Rent Morg.	People/Ha.	Locality		
1	Popular/Private Owner/Developer Low Income	1 KISENYI	Low	507	Legal Ownership	Public	Popular	Self-Help	Incremental	Shack	1965	City Center	Detached	1	Single	Bad	Legal Ownership	Shanty Room	50 or Less	320	1			
		2 KIBULI	Low	743	Legal Rental	Private	Popular	Artisan	Instant	Mud/Wattle	1971	Inner Ring	Semi-Detached	2	Multiple	Fair	Legal Rental	Apartment House	50-100 or More	280	2			
		3 MULAGO	High	N/A	Extra-Legal Owner. Extra-Legal Rental	Public	Popular	Small Contractor	Instant	Wood	N/A	Periphery	Row-Grouped	3 or More	Multiple	Good	Legal Rental	House	101 or More	300	3			
2	Private/Owner Developer High Income	4 OLD KAMPALA	Middle	464	Legal Ownership	Private	Popular	Self-Help	Incremental	Masonry/Wood	1940	City Center	Detached	1	Single	Bad	Legal Ownership	Shanty Room	50 or Less	108	4			
		5 NSAMBYA COMMONWEALTH	Middle	464	Legal Rental	Private	Popular	Small Contractor	Instant	Masonry/Wood	1970	Inner Ring	Semi-Detached	2	Multiple	Fair	Legal Rental	Apartment House	50-100 or More	120	5			
		6 KIRA ROAD	High	1071	Extra-Legal Rental	Public	Popular	Large Contractor	Instant	Masonry/Concrete	1952	Periphery	Row-Grouped	3 or More	Multiple	Good	Legal Rental	House	101 or More	240	6			
		7 NAKASERO	High	2265	Private	Public	Popular	Large Contractor	Instant	Concrete	1921	Periphery	High Rise	1	Single	Good	Legal Rental	House	20% or Less	18	7			
		8 NTINDA	High	704	Private	Public	Popular	Large Contractor	Instant	Concrete	1954	Periphery	High Rise	1	Single	Good	Legal Rental	House	20% or Less	96	8			
3	Public/Private Owner/Developer Low & Middle (Site & Service)	9 KATALI	Middle	360	Private	Public	Popular	Large Contractor	Instant	Concrete	1967	City Center	Detached	1	Single	Good	Legal Rental	Shanty Room	50 or Less	84	9			
		10 KISWA	High	585	Private	Public	Popular	Large Contractor	Instant	Concrete	1966	City Center	Detached	1	Single	Good	Legal Rental	Shanty Room	50 or Less	96	10			
		11 NAKAWA	High	N/AP	Private	Public	Popular	Large Contractor	Instant	Concrete	1957	City Center	Detached	1	Single	Good	Legal Rental	Shanty Room	50 or Less	240	11			
4	Public/Rental Low/Mid. Inc.	12 NAGURU	High	N/AP	Private	Public	Popular	Large Contractor	Instant	Concrete	1953	City Center	Detached	1	Single	Good	Legal Rental	Shanty Room	50 or Less	160	12			
		13 NSAMBYA RAILWAY OTRS.	High	N/AP	Private	Public	Popular	Large Contractor	Instant	Concrete	1961	City Center	Detached	1	Single	Good	Legal Rental	Shanty Room	50 or Less	540	13			
5	Public/Institutional/Rental Apartment	14 BUGOLOBI PREFABRICATED	High	N/AP	Private	Public	Popular	Large Contractor	Instant	Concrete	1972	City Center	Detached	1	Single	Good	Legal Rental	Shanty Room	50 or Less	340	14			

1. KISENYI KAMPALA Low Income Uncontrolled Central Settlement



LOCATION: Kisenyi, an area of about 121.4 hectares (300 acres), lies on the north-eastern slopes of Mengo Hill, the site of the former palace of the King of Buganda (Kabaka). To the north and separated by Namirembe Road is Old Kampala, the site of the first British colonial settlement in Uganda. The eastern boundary is formed by Nakivubo Sports Stadium and Owino Market. To the south and separated by Kasese railway line and Kampala-Masaka road is Katwe, a settlement similar to Kisenyi settlement.

ORIGINS: Kisenyi means "swamp" in the Luganda language. Most of Kisenyi was reclaimed by drainage from a swamp along Nakivubo River.

During the mailo Land Settlement in 1900, most of Kisenyi went to the Kabaka and the rest to one senior prince and four senior chiefs. In

subsequent years the land was further subdivided with landlord titles increasing from the 6 to 59 by 1952. The settlement is particularly attractive as a tenement rental neighborhood for low-income people because of its proximity to job opportunities in the city center and its prestigious location on the foothills of the former Kabaka's Palace.

LAYOUT: The honeycomb dusty lanes have developed from natural unplanned footpaths cutting across private property lines which have been laid out by individual landlords without any central and professional guidance and control.

Until 1969, Kisenyi was under Mengo Municipal Administration which had no land-use planning by-laws. Individual landlords subdivided their plots as they wished and with no considerations for future public access and utility line layout.

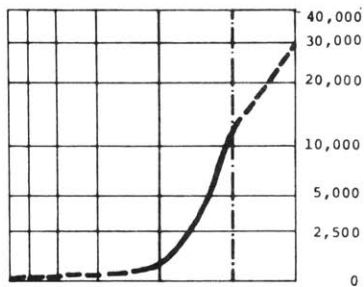
POPULATION: Kisenyi has a large percentage of adult employable population. Most of the residents are immigrants from rural areas who

come alone to look for work and then bring their families later on to work for a short time and go back to the countryside. The percentage of children is increasing. In 1954 it was only 9%. In 10 years it had increased to 17% and is now over 22%. The total population increased from 2914 in 1954 to 4847 in 1964. In 1969 it had more than doubled to 11,000.

LAND USE: About 78% of Kisenyi is residential, 17% commercial and 3% agricultural. The percentages however do not reveal the multi-functional nature of the locality because almost every house has a home-industry or commercial establishment. Most houses rented by women are used for such businesses as brewing and selling of beer, or preparing food to sell to town workers.

Small industrial enterprises such as bicycle-repairs, wood-workshops, metal repairs, shoe, and watch repairs are found along major streets and sometimes in the open under tree sheds.

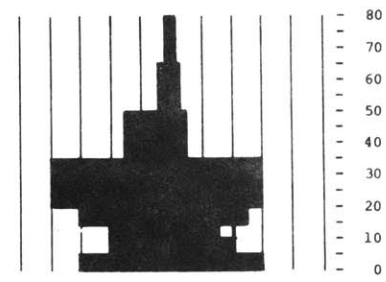
LOCALITY POPULATION GROWTH



Horizontal: dates Vertical: populatio.

1969 Census; II,000

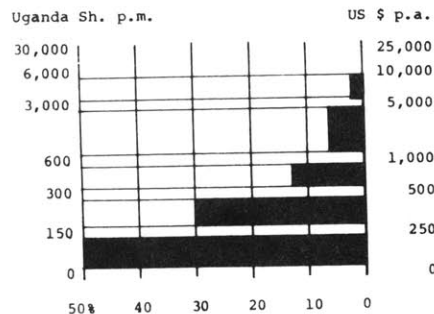
LOCALITY AGE DISTRIBUTION



Horizontal: percentages Vertical: ages
 MALE: 56% FEMALE: 44%

1969 Census

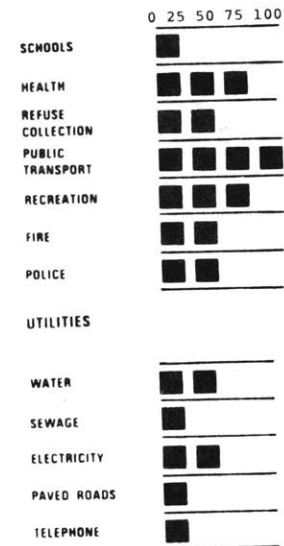
LOCALITY INCOME DISTRIBUTION



Horizontal: percentages Vertical: income

1974 Mulumba Estimate

SERVICES

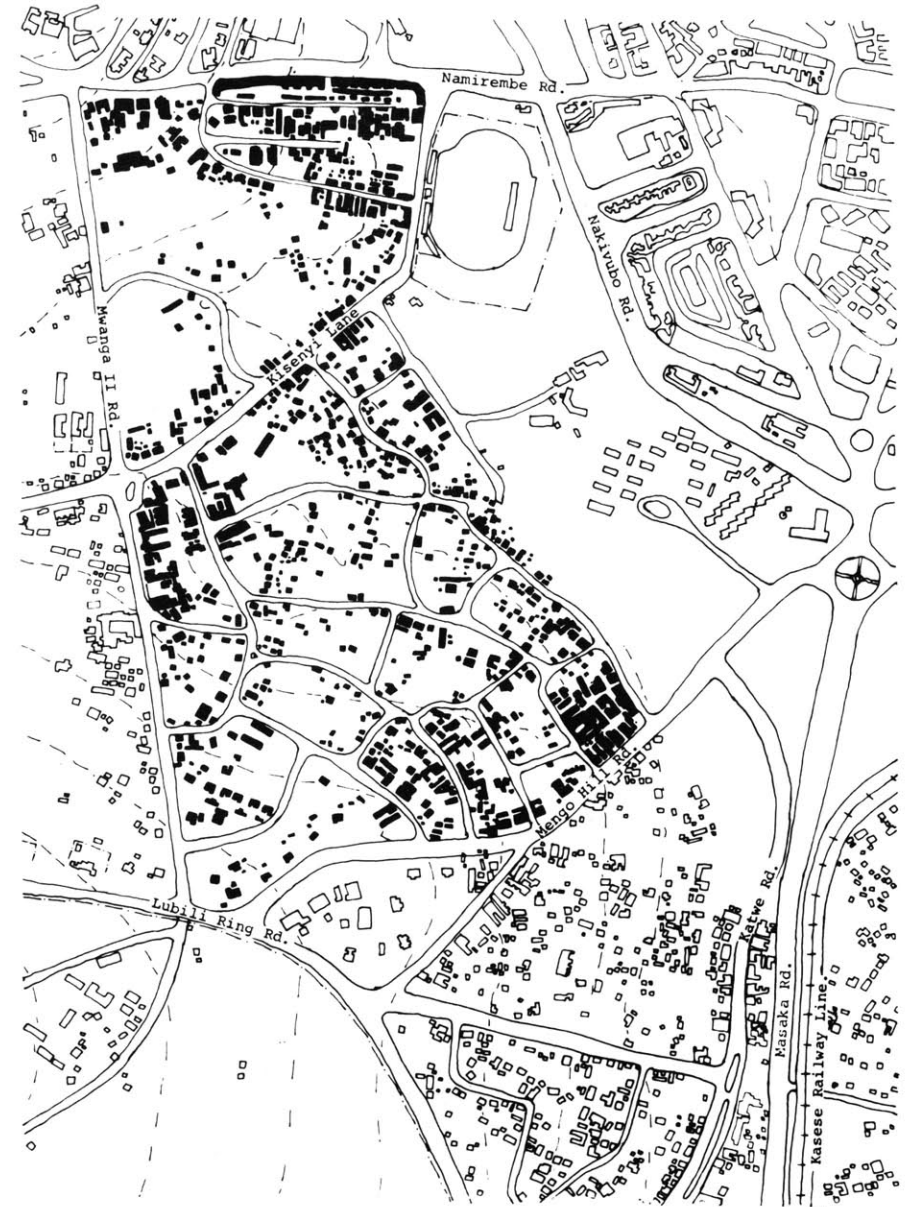


VIEW FROM NAKASERO MARKET: Overlooking Nakivubo Car Park, Kisenyi and Mengo. Note the mixture of old Indian shops and modern concrete banks and offices in the foreground.

(24) URBANIZATION IN DEVELOPING COUNTRIES

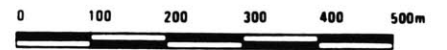


LOCALITY AERIAL PHOTOGRAPH



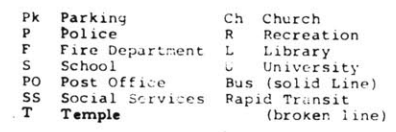
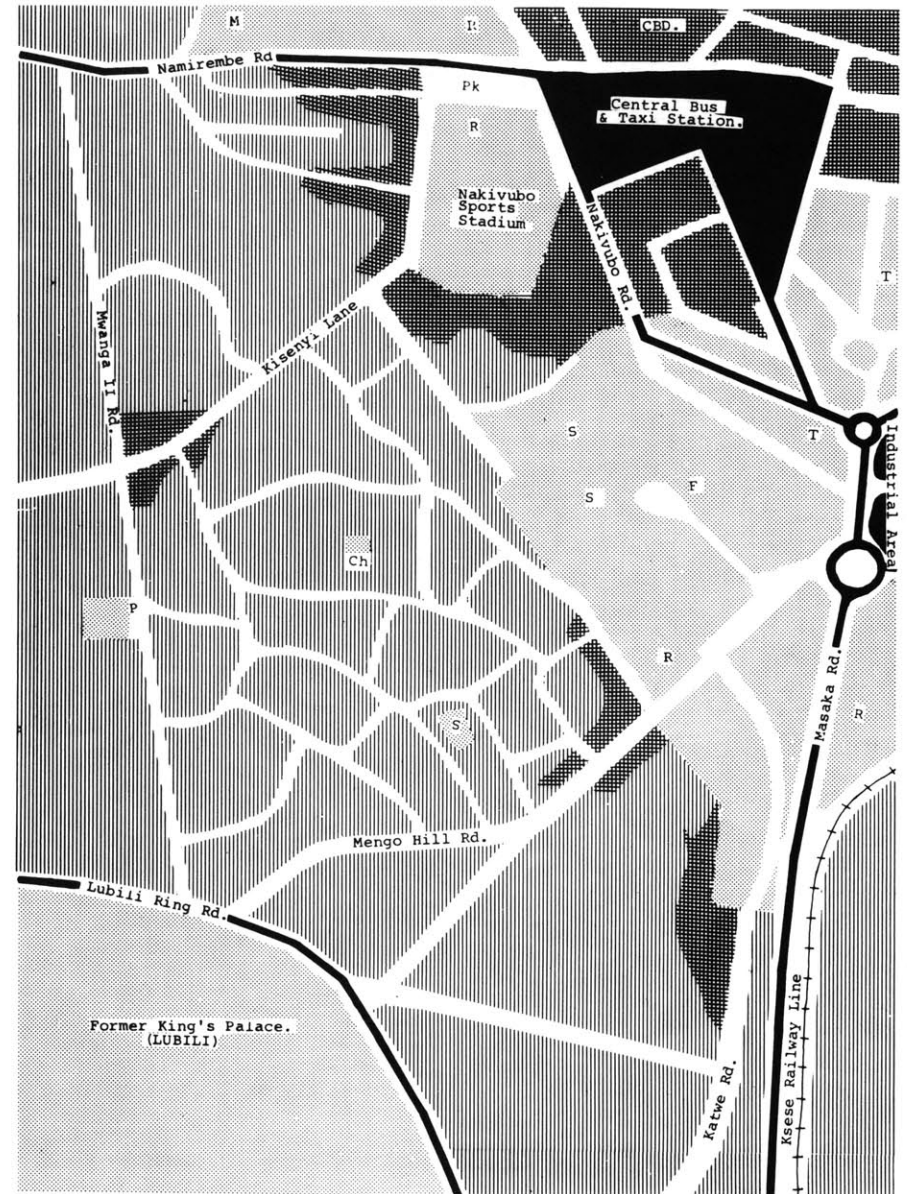
LOCALITY PLAN

1:10000

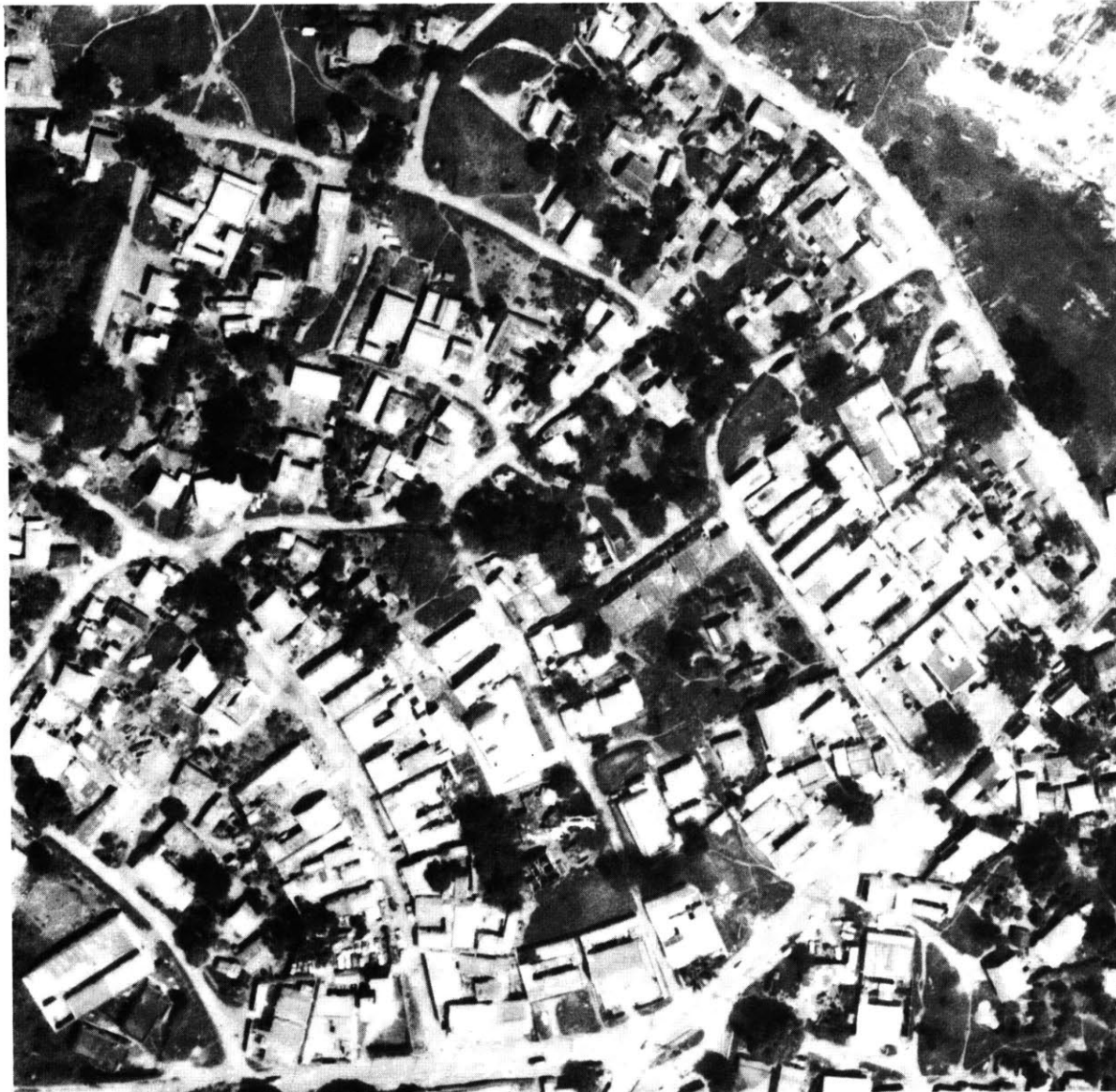




LOCALITY CIRCULATION PATTERN



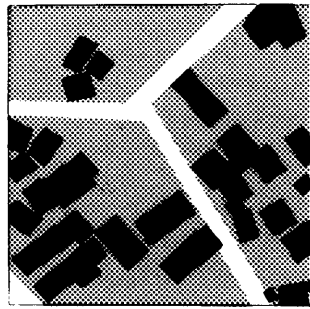
LOCALITY LAND USE PATTERN



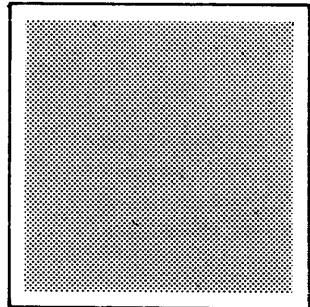
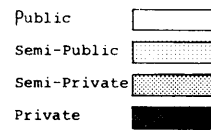
INCOMES: The average income is very low, approximately 3300/= (480 US\$) p.a.. People earning 100/= (\$15) a month live next to those earning 1,000/= (\$140) per month. Only about 1% earns 12,000/= (\$1,700) per year while more than 85% earn less than \$425 per year.

CIRCULATION: Kisenyi locality is surrounded by primary vehicular routes. All internal lanes although used by vehicles are mostly dusty pedestrian routes.

LOCALITY SEGMENT AERIAL PHOTOGRAPH

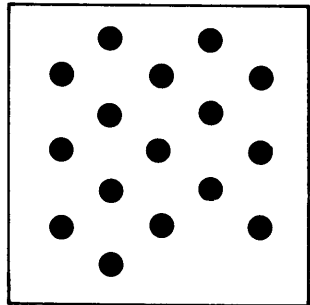


LAND USE PATTERN



LAND USE PERCENTAGES

	Area (Ha)	%
Public	0.10	10
Semi-Publ.	--	--
Semi-Priv.	--	--
Private	0.90	90
Total	1.00	100



DENSITIES

	No./Ha.
Lots	15
Dwelling Units	50
People/Ha.	320

20 people ●

NETWORK EFFICIENCY

N = network length (circulation) = 185

A = area(s) served (circulation, lots)
= block area (10,000 m²) = 1 Hectare

$$R = \frac{N}{A} = \frac{185}{1} = 185$$

Locality block studied is 100 meters by 100 meters (1 Hectare).

LOCALITY BLOCK STUDY



LOCALITY SEGMENT PLOT STUDY

1:2500



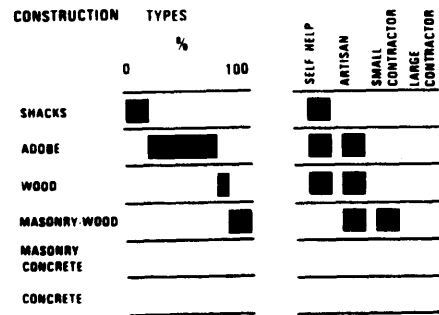


TOP LEFT: Low-middle income tenements constructed from plans. This kind of innovation is relatively new.. old tenements in this locality were not planned but converted from family houses.

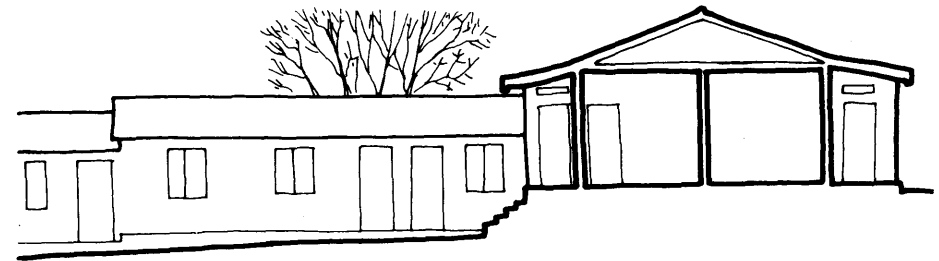
BOTTOM LEFT: Small dark courtyards serve as out-door living spaces as well as for commercial enterprises such as "bars" for selling locally brewed banana beer, and "hotels" for serving self-employed workers from Nakivubo.

BOTTOM RIGHT: "Dry Cleaner" business thrives even along dusty lanes. Note the fire place in the fore ground where illegal spirits are usually brewed.





The chart shows (1) approximate percentage of each construction type within the total number of dwellings; and (2) building group that generally produces each type.



SECTION ELEVATION

SOCIO - ECONOMIC DATA

SOURCES: INTERVIEW
 QUALITY OF INFORMATION: APPROXIMATE

TYPICAL DWELLING

PHYSICAL DATA

SOURCES: CITY COUNCIL
 QUALITY OF INFORMATION: ACCURATE/APPROXIMATE

DWELLING UNIT

Type: ROOM
 Area (m²): 258.5m² (2783ft²)
 Tenure: RENTAL

LOT/LAND

Utilization: PRIVATE
 Area: 507.2m² (9600ft²)
 Tenure: OWNERSHIP

DWELLING

Location: CITY CENTER
 Type: SEMI-DETACHED
 Number of Floors: 1
 Utilization: MULTIPLE
 Physical State: GOOD

DWELLING DEVELOPMENT

Mode: INSTANT/INCREMENTAL
 Developer: PRIVATE
 Builder: ARTISAN
 Construction Type: MASONRY/WOOD
 Year of construction: 1965/66

MATERIALS

Foundations: CONCRETE
 Floor: CEMENT SCREED
 Walls: 6" & 4 1/2" CONC. BLOCKS
 Roof: G.C.I SHEETS

GENERAL: SOCIAL

User's Ethnic Origin: UGANDANS
 Place of Birth: KAMPALA
 Education Level: PRIMARY

NUMBER OF USERS

Married: 7 COUPLES
 Single: 23
 Children: 23
 Total: 35

MIGRATION PATTERN

Number of Moves: varies
 Rural - Urban: from couple
 Urban - Urban: to couple
 Urban - Rural:
 Why Came To Kampala: WORK

GENERAL: ECONOMIC

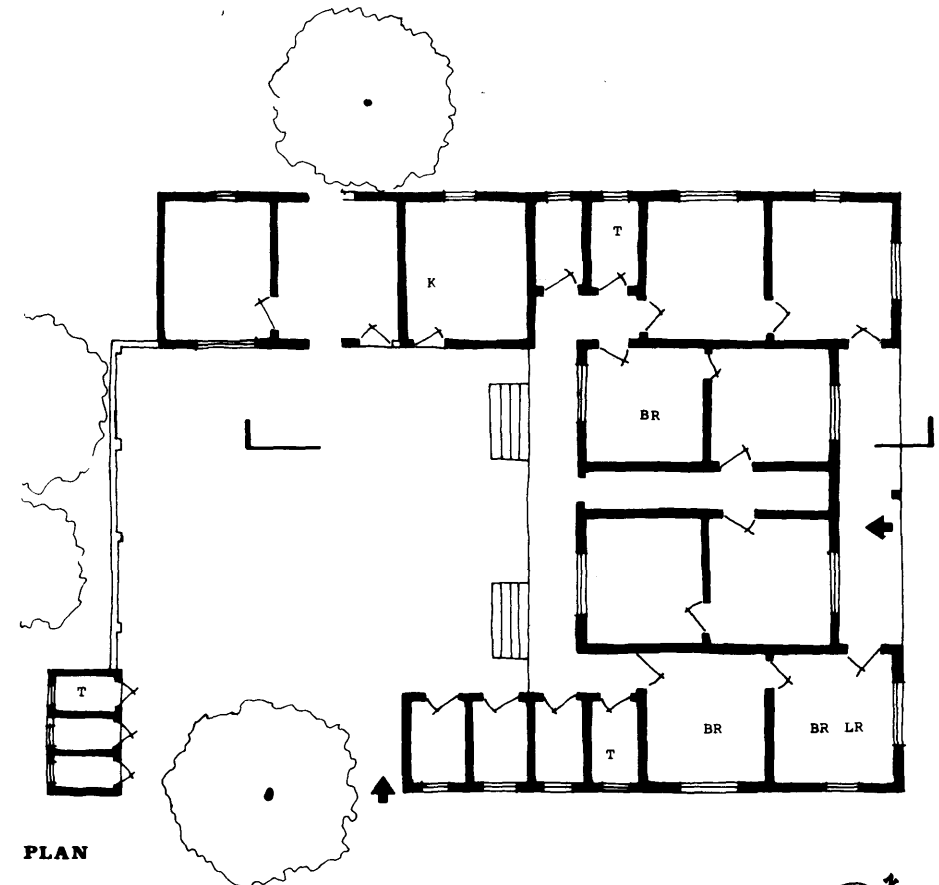
User's Income Group: LOW-HIGH
 Employment: SALESMAN
 Distance To Work: 1 MILE
 Mode of Travel: WALKING

COSTS

Dwelling Unit: NOT AVAILABLE
 Land - Market Value: "

DWELLING UNIT PAYMENTS

Financing:
 Rent/Mortgage: \$14 (100/=)
 Income For Rent/Mortgage: Per month per room.

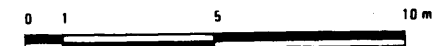


PLAN

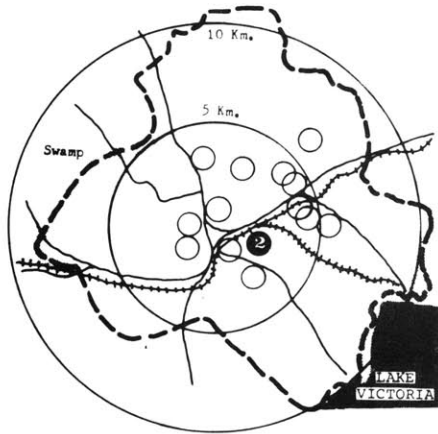
LR Living Room
 DR Dining Room
 D Dining
 BR Bedroom
 K Kitchen
 L Laundry
 T Toilet-Bathroom
 C Closet

DWELLING

1:200



2. KIBULI KAMPALA Low Income Uncontrolled Central Settlement



LOCATION: Kibuli hill is located about 3 Km. (1.5 miles) to the north of the city center.

ORIGINS: Kibuli's development is based upon religious and economic factors. Kibuli hill is generally associated with the Moslem Faith as much as Lubaga and Nsambya hills are associated with the Catholic Church and Namirembe hill the Protes-

tant Church.

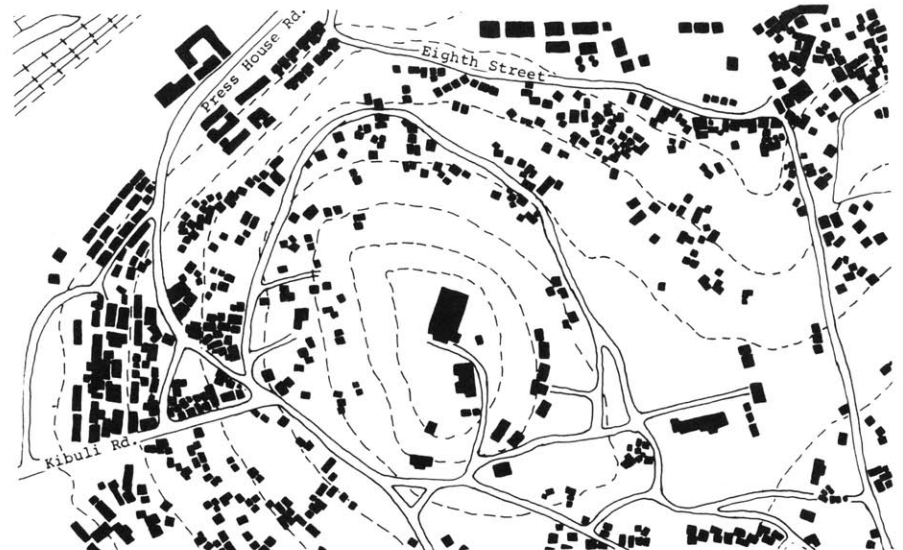
Kibuli mosque which lies on the crest of the hill is the headquarters of Moslems in Uganda. As you move down the hill you pass through spacious properties and modern houses of mostly well-to-do Moslems of social significance. Further down the hill towards a papyrus swamp the valleyside is invaded by low-income settlers a good number of who are immigrants from Kenya, Rwanda and Congo.

LAYOUT: The layout is typical of a rural setting under the invasion of the unguided hand of urbanization. There is no coordination of the buildings and the service routes that feed them. Land properties are privately owned in irregular unstandardized shapes and sizes.

POPULATION: In 1969 there were slightly over 10,000 people. Most of the people have lived in the locality for generations.



LOCALITY AERIAL PHOTOGRAPH

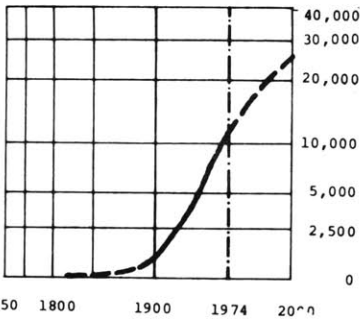


LOCALITY PLAN

1:10000

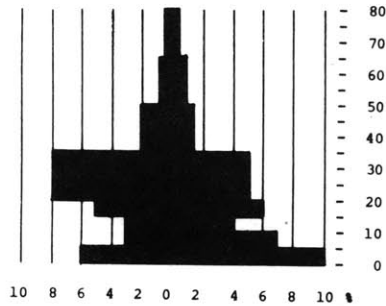


LOCALITY POPULATION GROWTH



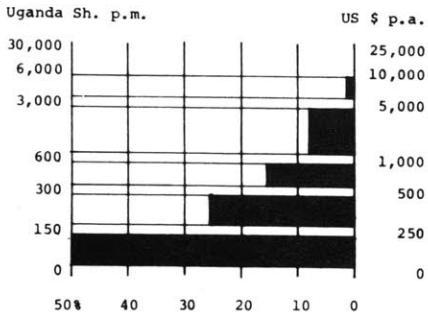
Horizontal: dates Vertical: populatio.

LOCALITY AGE DISTRIBUTION

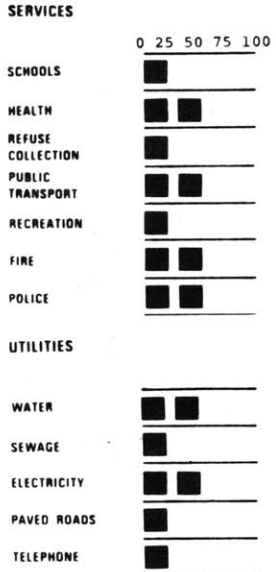


MALE: 46% FEMALE: 54%
Horizontal: percentages Vertical: ages

LOCALITY INCOME DISTRIBUTION



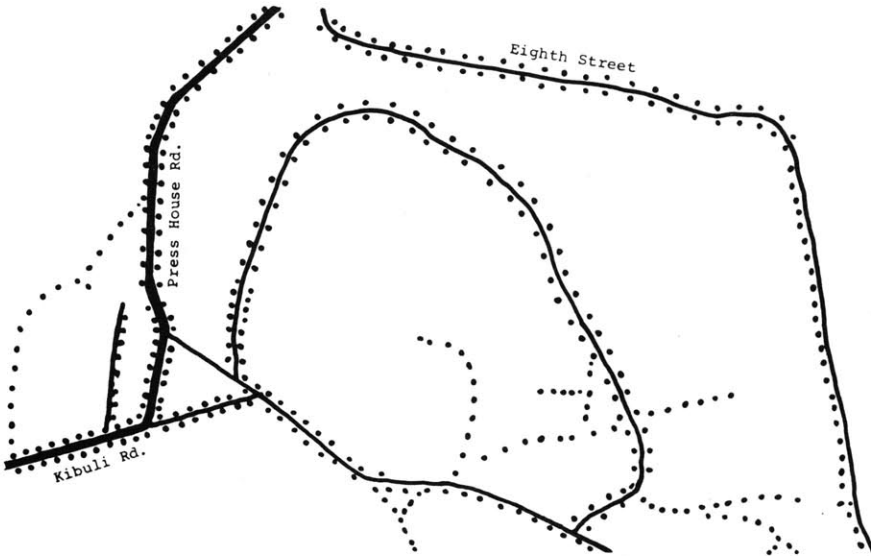
Horizontal: percentages Vertical: income



1969 Pop. Census

1969 Census

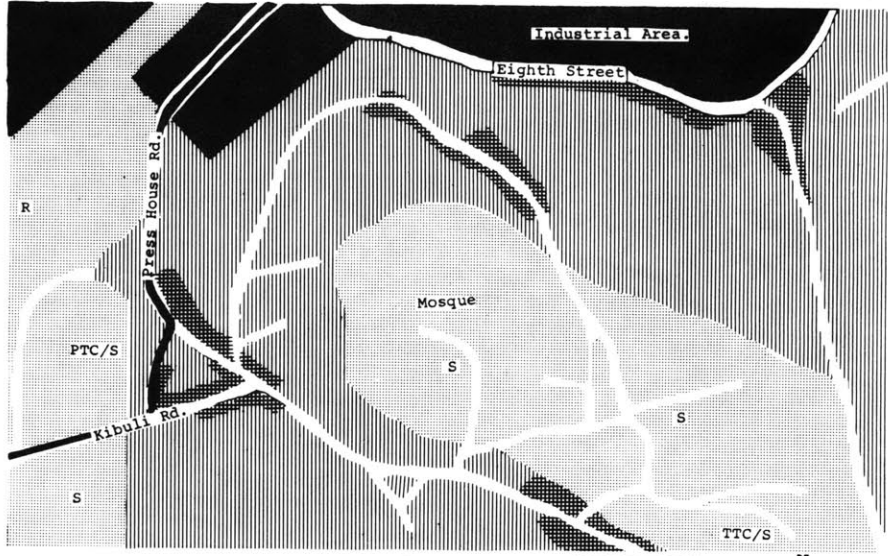
1969 Figures



LOCALITY CIRCULATION PATTERN

Vehicular: Express-way	—————	Pedestrian: Heavy	●●●●●●●●
District Road	—————	Light	●●●●●●
Minor Road	—————	Railway	—+—+—+—+—

1:10000



LOCALITY LAND USE PATTERN

Pk	Parking	Ch	Church	RESIDENTIAL	
P	Police	R	Recreation	COMMERCIAL	■■■■■
F	Fire Department	L	Library	INDUSTRIAL	▨▨▨▨▨
S	School	U	University		
PO	Post Office	B	Bus (solid line)		
SS	Social Services	RT	Rapid Transit (broken line)		

0 100 200 300 400 500m



LAND USE: Land use ranges from the industrial area on the northern boundary to residential on hill slopes and institutional on the hill top.

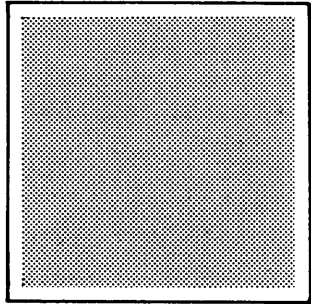
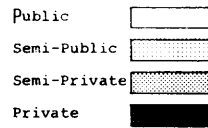
INCOMES: The majority of the people are in the low-income sector earning less than 300/=p.m.. However, some of Kampala's richest bussiness men live in this locality. Moslems have been the leading African bussinessmen in Uganda.

CIRCULATION: There is no tar-mac road in the locality although the murram roads are good and accessible all year round. Pedestrians dorminate. Again most access routes are unplanned.

LOCALITY AERIAL PHOTOGRAPH

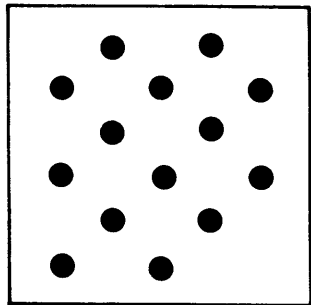


LAND USE PATTERN



LAND USE PERCENTAGES

	Area (Ha)	%
Public	0.10	10
Semi-Publ.	--	--
Semi-Priv.	--	--
Private	0.90	90
Total	1.00	100



DENSITIES

	No./Ha.
Lots	1
Dwelling Units	46
People/Ha.	280
20 people	

NETWORK EFFICIENCY

N = network length (circulation) = 300
 A = area(s) served (circulation, lots)
 = block area (10,000 m²) = 1 Hectare
 $R = \frac{N}{A} = \frac{300}{1} = 300$

Locality block studied is 100 meters by 100 meters (1 Hectare).

LOCALITY BLOCK STUDY



LOCALITY SEGMENT PLOT STUDY

1:2500



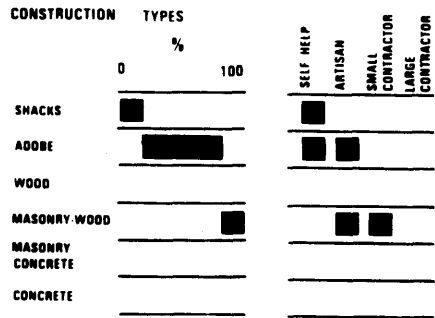


TOP LEFT: "Urba-rural" characteristics • modern western and traditional rural dwellings stand side by side in green banana plantations.

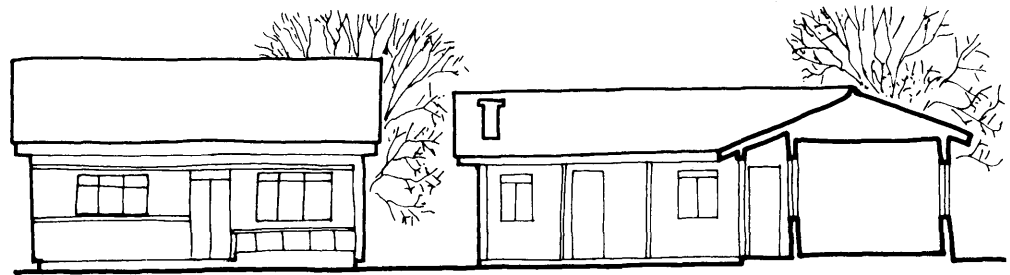
BOTTOM LEFT: Nursery school. Schools like this one spring up all over the city usually without the knowledge and consent of the City Council.

BOTTOM RIGHT: Kibuli-Wabigalo settlement was created by the housing demand of industrial workers. Cooking, conversation, laundry and other household activity take place in the open compound.





The chart shows (1) approximate percentage of each construction type within the total number of dwellings; and (2) building group that generally produces each type.



SECTION ELEVATION

TYPICAL DWELLING

PHYSICAL DATA

SOURCES: CITY COUNCIL
 QUALITY OF INFORMATION: ACCURATE/APPROXIMATE

DWELLING UNIT

Type: HOUSE
 Area (m²): 140m² (1513sq. ft.)
 Tenure: OWNERSHIP

LOT/LAND

Utilization: PRIVATE
 Area: 743.2m² (8000ft²)
 Tenure: FREE-HOLD

DWELLING

Location: INNER RING
 Type: DETACHED
 Number of Floors: 1
 Utilization: SINGLE
 Physical State: GOOD

DWELLING DEVELOPMENT

Mode: INSTANT
 Developer: OWNER
 Builder: SMALL CONTRACTOR
 Construction Type: MASONRY/WOOD
 Year of construction: 1971

MATERIALS

Foundations: CONCRETE
 Floor: CEMENT SCREED
 Walls: 6" & 4" CONC. BLOCK
 Roof: G.C.I. SHEETS

SOCIO - ECONOMIC DATA

SOURCES: STANLEY
 QUALITY OF INFORMATION: ESTIMATE

GENERAL: SOCIAL

User's Ethnic Origin: UGANDA
 Place of Birth: KAMPALA
 Education Level: GCE.

NUMBER OF USERS

Married: YES
 Single:
 Children: 5
 Total: 7

MIGRATION PATTERN

Number of Moves: 1
 Rural - Urban: 1
 Urban - Urban:
 Urban - Rural:
 Why Came To Kampala: WORK

GENERAL: ECONOMIC

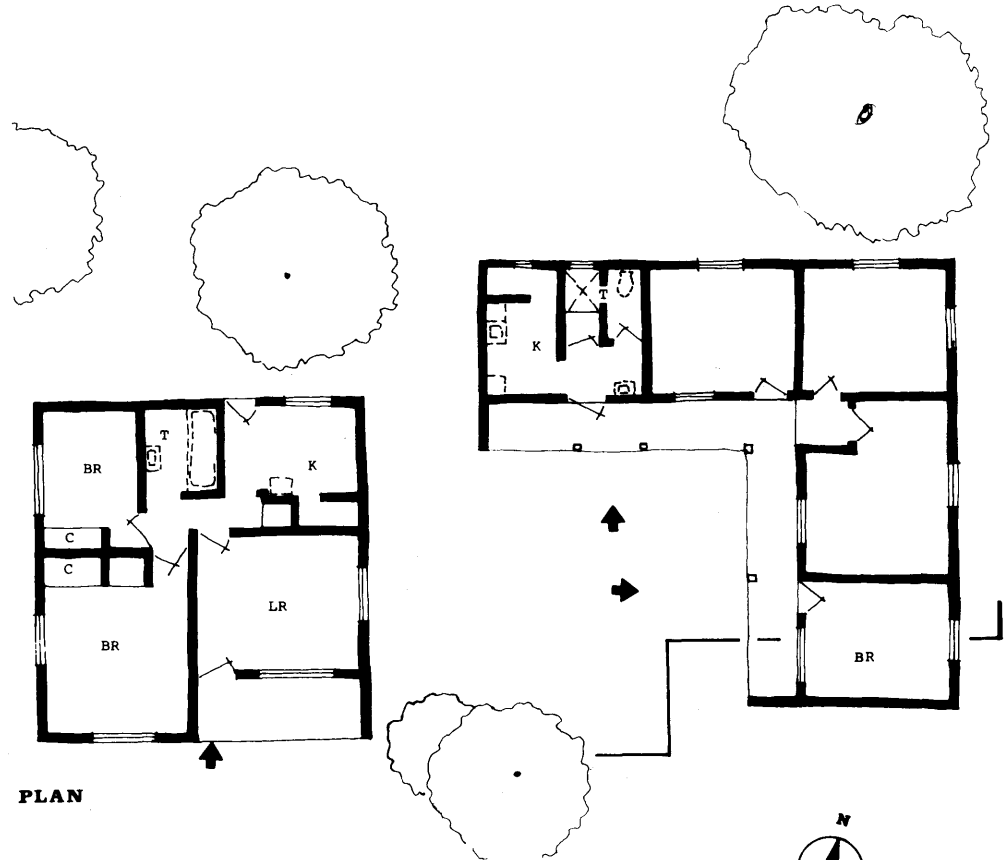
User's Income Group: MIDDLE-HIGH
 Employment:
 Distance To Work: 3 MILES
 Mode of Travel: CAR

COSTS

Dwelling Unit: \$5,000
 Land - Market Value: \$1,000 per 1/4 acre

DWELLING UNIT PAYMENTS

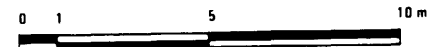
Financing: LOAN
 Rent/Mortgage:
 Income For Rent/Mortgage:



PLAN

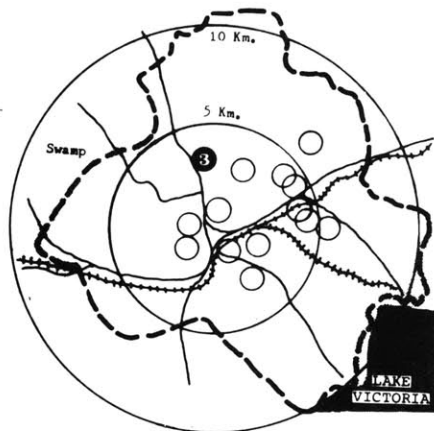
LR Living Room K Kitchen
 DR Dining Room L Laundry
 D Dining T Toilet-Bathroom
 BR Bedroom C Closet

1:200



DWELLING

3. MULAGO KAMPALA Low Income Uncontrolled Suburban Settlement



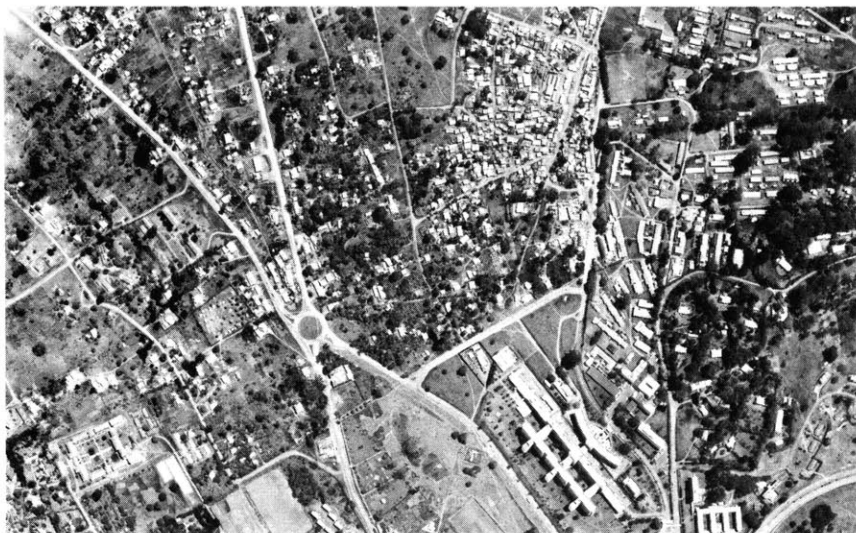
LOCATION: Mulago is located on the north western slopes of the flat topped-hill, about 5 Km. to the north of the city center where the Mulago General Hospital is located. It is bounded on the west by Bombo road and Makerere University.

ORIGINS: Although there are no surviving castles and palaces on the hill

Mulago is one of the hills in and around Kampala frequently settled by the ancient kings of Buganda. When Mengo became firmly established as the capital of the Buganda Kingdom around the early 19th century, it became the chief center of second homes or "town houses" of important rural chiefs who came occasionally to Kampala to attend court meetings. As the hill quickly developed the most important medical institution in the country in the

early 1920's, the chiefs were forced to move out by the mashrooming "bedroom" community of immigrant labourers and patients which occupies the western slopes of the hill today.

LAYOUT: The settlement layout was determined by irregular footpaths as the settlement developed from a rural-type open system to a dense conglomeration of buildings erected without any coordination and control. As in the case of Kisenyi and Kibuli, siting



LOCALITY AERIAL PHOTOGRAPH

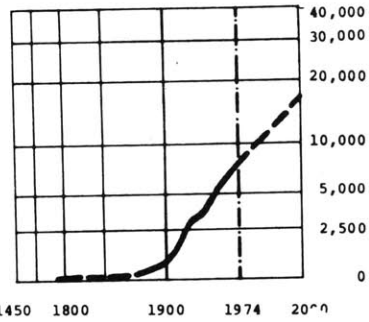


LOCALITY PLAN

1:10000



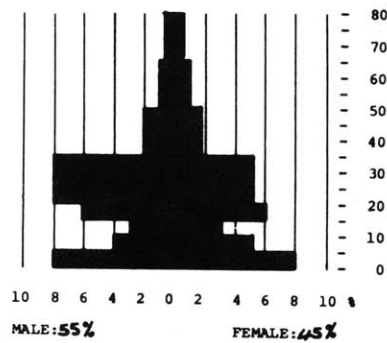
LOCALITY POPULATION GROWTH



Horizontal: dates Vertical: populatio.

1969 Pop. Census: 7,000

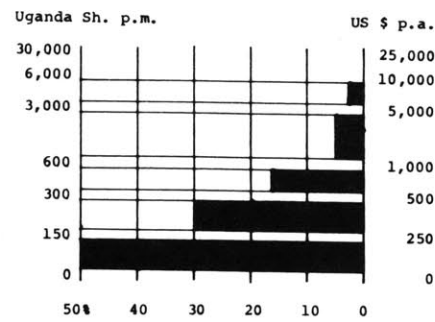
LOCALITY AGE DISTRIBUTION



Horizontal: percentages Vertical: ages

1969 Census

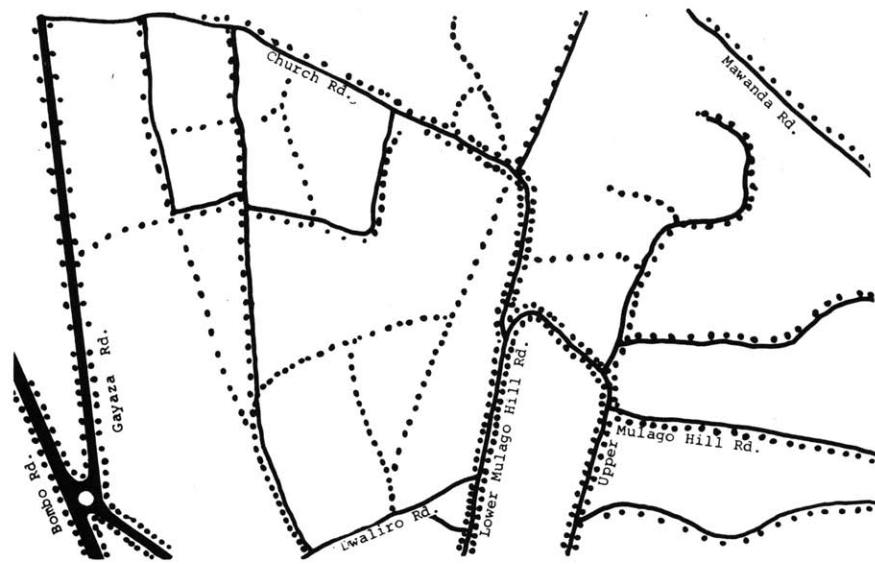
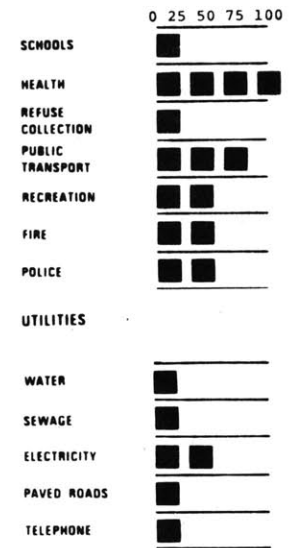
LOCALITY INCOME DISTRIBUTION



Horizontal: percentages Vertical: income

1969 Figures

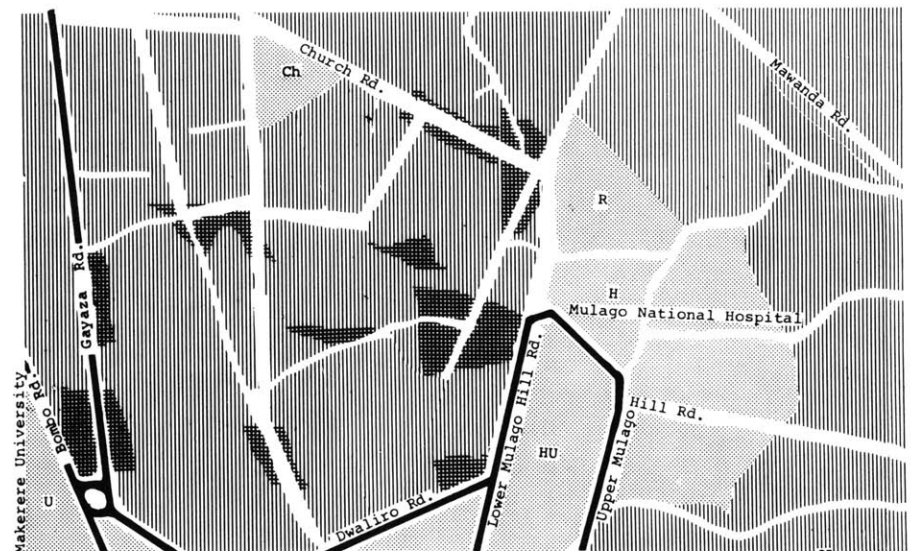
SERVICES



Vehicular: Express-way District Road Minor Road Pedestrian: Heavy Light Railway

LOCALITY CIRCULATION PATTERN

1:10000



Pk Parking Ch Church
P Police R Recreation
F Fire Department L Library
S School U University
PO Post Office Bus (solid line)
SS Social Services Rapid Transit (broken line)

RESIDENTIAL COMMERCIAL INDUSTRIAL

LOCALITY LAND USE PATTERN





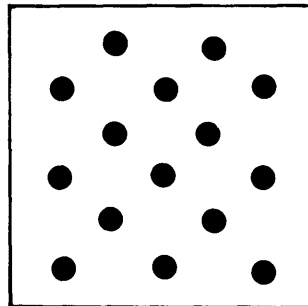
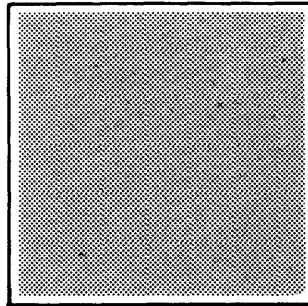
of dwellings bears no relationships to plot sizes and shapes. As many as ten or more dwellings may be scattered or packed on a single plot in various orientations and configurations.

POPULATION: Mulago has been referred to as a "bedroom" community because it provides short term lodging spaces mostly to patients and their attendants.

In 1969 there were about 7,000 permanent residents in the locality, of whom more than 50% were in the employable age of 20-50.

LAND USE: Less than 50% of the dwellings are for residential use only. The majority of dwellings are used also for such commercial and industrial activities as car-repairs, bicycle-repairs, welding of charcoal stoves making paraffin lanterns and etc.. There are no public, semi-public or controlled open spaces in the community.

LOCALITY SEGMENT AERIAL PHOTOGRAPH



LAND USE PATTERN

Public	
Semi-Public	
Semi-Private	
Private	

LAND USE PERCENTAGES

	Area (Ha)	%
Public	0.8	
Public	0.08	8
Semi-Publ.	--	--
Semi-Priv.	--	--
Private	0.92	92
Total	1.00	100

DENSITIES

	No./Ha.
Lots	7
Dwelling Units	50
People/Ha.	300
20 people	



NETWORK EFFICIENCY

N = network length (circulation) = 200
 A = area(s) served (circulation, lots)
 = block area (10,000 m²) = 1 Hectare
 $R = \frac{N}{A} = \frac{200}{1} = 200$

Locality block studied is 100 meters by 100 meters (1 Hectare).

LOCALITY BLOCK STUDY

LOCALITY SEGMENT PLOT STUDY

1:2500





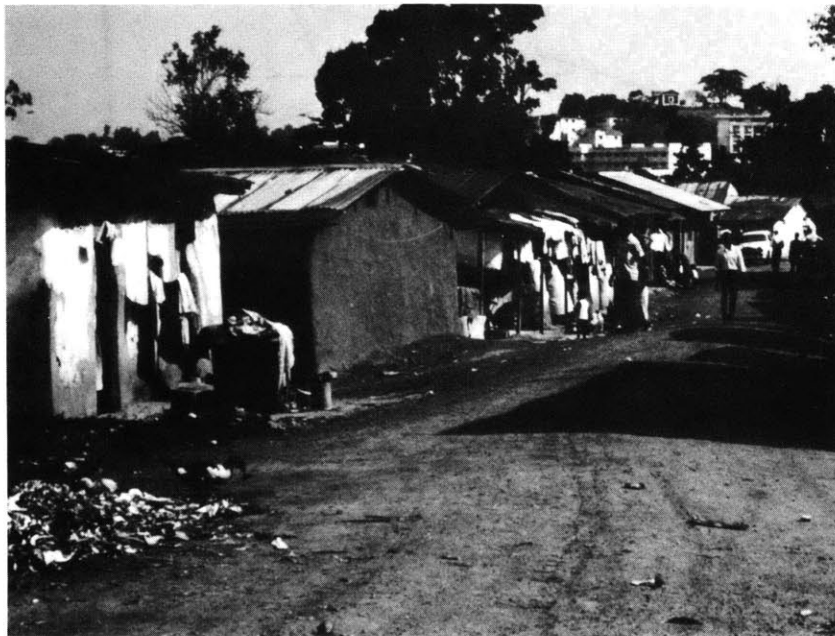
TOP LEFT: Mulago overflows with activity. Merchandise, light industry, and household activities flow out of the dwellings into the streets and open spaces to intermingle with children playing areas, garbage dumps and animal husbandry.

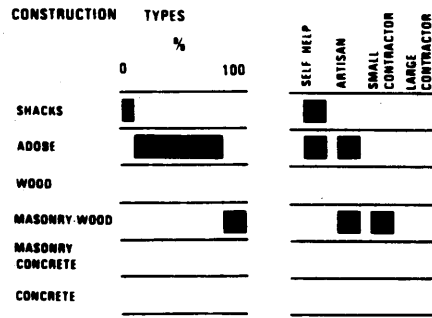
BOTTOM LEFT: One of the main streets. National Hospital in the background.

BOTTOM RIGHT: Main street. Chairs, tables, cooking pans, wash-basins, and hand wagons in the background indicate the extent to which outdoor spaces are put into multi-purpose use.

INCOMES: No data is available but the economic set-up although poorer is very similar to that of Kisenyi.

CIRCULATION: The dusty murrum-finished streets are generally accessible and moderately used by motor-vehicles. Primarily pedestrian routes are often invaded by motorists, hand-carts, cyclists and even cows.





The chart shows (1) approximate percentage of each construction type within the total number of dwellings; and (2) building group that generally produces each type.

TYPICAL DWELLING

PHYSICAL DATA

SOURCES: STANLEY
 QUALITY OF INFORMATION: ESTIMATE

DWELLING UNIT

Type: HOUSE
 Area (m²): 210m².
 Tenure: OWNERSHIP

LOT/LAND

Utilization: PRIVATE
 Area: NOT AVAILABLE
 Tenure: MAILO LAND LEASE

DWELLING

Location: INNER CITY RING
 Type: DETACHED
 Number of Floors: 1
 Utilization: MULTI-FAMILY
 Physical State: MODERATE

DWELLING DEVELOPMENT

Mode: INSTANT
 Developer: OWNER
 Builder: ARTISAN
 Construction Type: MUD & WATTLE
 Year of construction: -

MATERIALS

Foundations: WOODEN POST CONSTRUCTION
 Floor: CEM. SCREED ON HARDCORE
 Walls: MUD & WATTLE
 Roof: TIN

SOCIO-ECONOMIC DATA

SOURCES: STANLEY
 QUALITY OF INFORMATION: ESTIMATE

GENERAL: SOCIAL

User's Ethnic Origin: UGANDAN
 Place of Birth: KAMPALA
 Education Level: NONE

NUMBER OF USERS

Married: YES
 Single: YES
 Children: -
 Total: 15

MIGRATION PATTERN

Number of Moves: VARIES
 Rural - Urban: -
 Urban - Urban: -
 Urban - Rural: -
 Why Came To Kampala: WORK

GENERAL: ECONOMIC

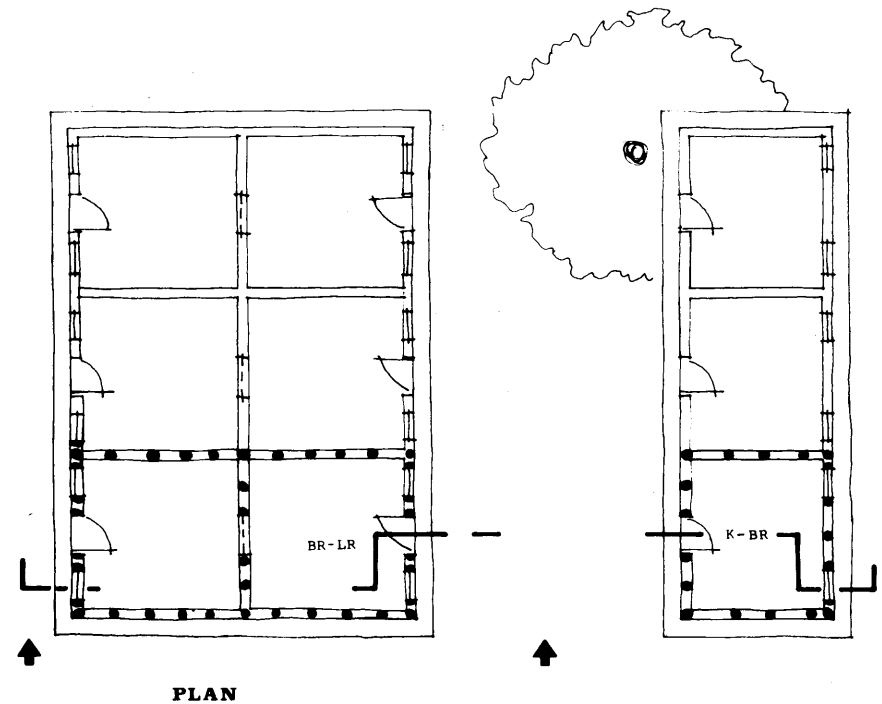
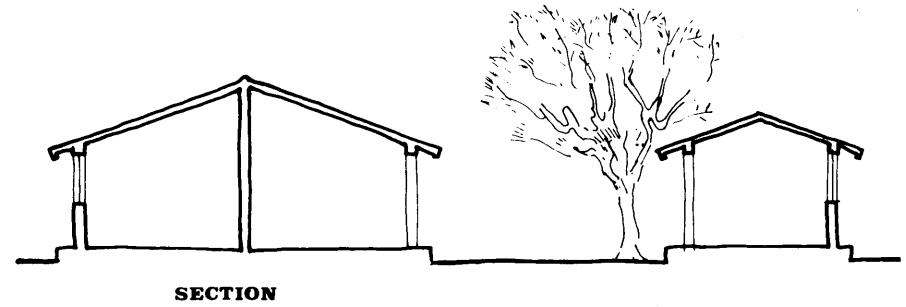
User's Income Group: LOW
 Employment: SELF-EMPLOY.
 Distance To Work: -
 Mode of Travel: -

COSTS

Dwelling Unit: \$700 (5,000/)
 Land - Market Value: MEDIUM

DWELLING UNIT PAYMENTS

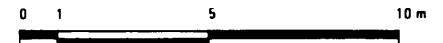
Financing: SAVINGS
 Rent/Mortgage:
 Income For Rent/Mortgage:



- LR Living Room
- DR Dining Room
- D Dining
- BR Bedroom
- K Kitchen
- L Laundry
- T Toilet-Bathroom
- C Closet

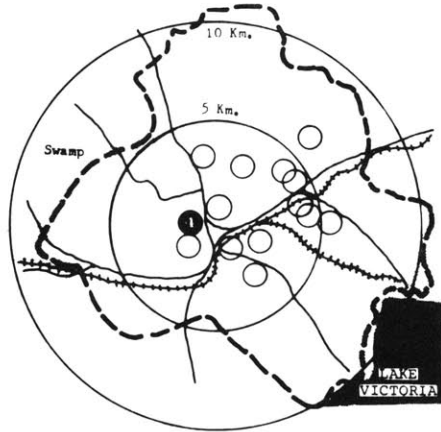
DWELLING

1:200

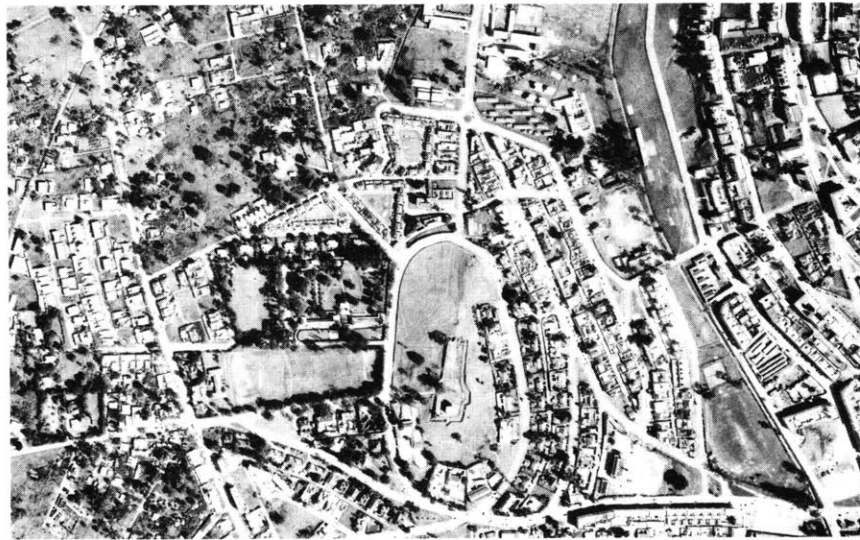


4. OLD KAMPALA KAMPALA

High Income Private Central Settlement



LOCATION: The locality is located about 2 Km west of the city Center on the former boundary between the defunct Mengo Municipality and Kampala Municipality. To the south and south-east lie Kisenyi and the former Lubili (King's Palace) and to the west and north-west Lubaga Cathedral and Namirembe Cathedral, the two main centers of the Catholic



LOCALITY AERIAL PHOTOGRAPH

and Protestant Churches in Uganda.

ORIGINS: In 1890 Captain Lugard of the British East African Company made a forced entry into Buganda against the wishes of the Kabaka and pitched up his tent on Old Kampala Hill, then called "Impala" - the Luganda name of the antelopes which the Kabaka used to herd on the hill. In 1891 the old fort was built on the summit of the hill and its security attracted Asians to settle and establish trading busi-

ness on the hillside. When government transferred to Nakasero Hill a few years later the Asian businessmen also transferred their business to the lower slopes of Nakasero. Their residential houses however remained on Old Kampala and the locality has been occupied almost exclusively by Asians until 1972 when Asians moved out of Uganda.

LAYOUT: The streets of Old Kampala are parallel to the slopes of the hill. A large open space at the hill apex

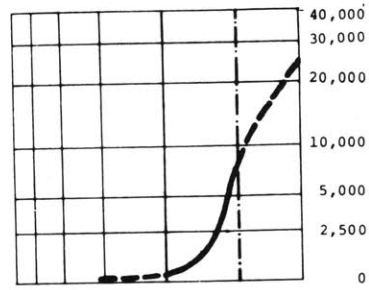


LOCALITY PLAN

1:10000



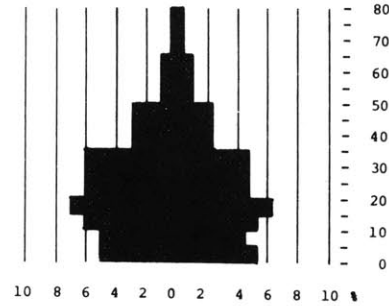
LOCALITY POPULATION GROWTH



Horizontal: dates Vertical: populatio.

1969 Pop. Census; 6,500

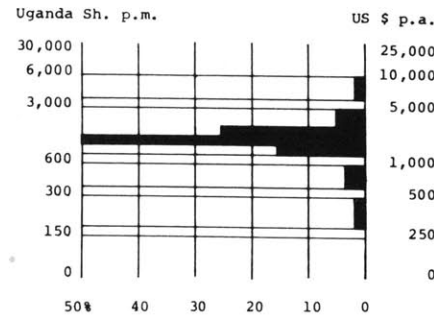
LOCALITY AGE DISTRIBUTION



MALE: 55% FEMALE: 45%
Horizontal: percentages Vertical: ages

1969 Pop. Census

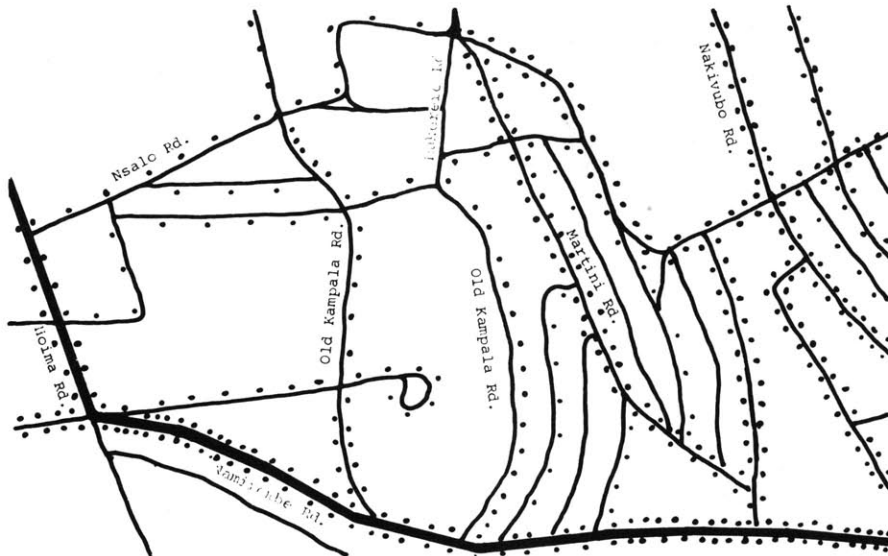
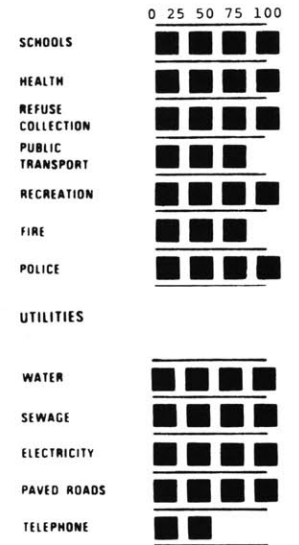
LOCALITY INCOME DISTRIBUTION



Horizontal: percentages Vertical: income

1969 Figures

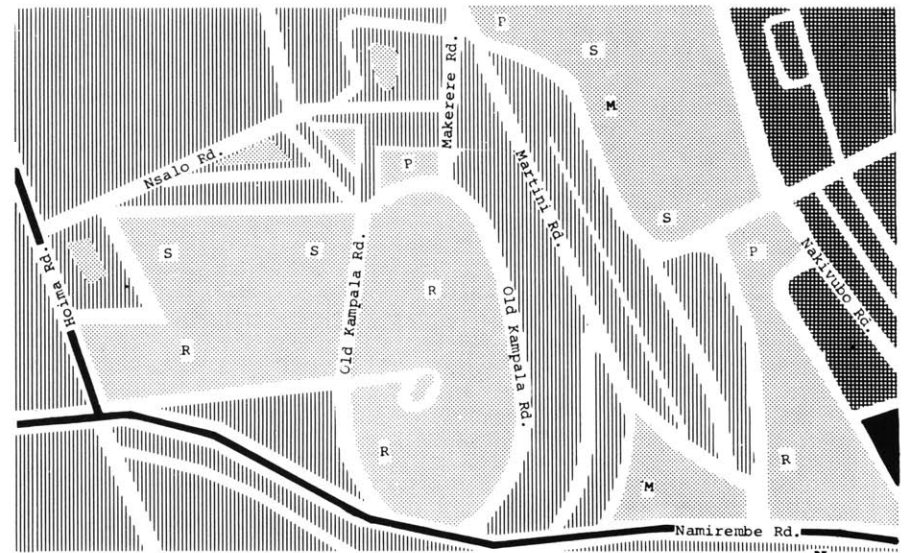
SERVICES



Vehicular: Express-way (thick line), District Road (medium line), Minor Road (thin line).
Pedestrian: Heavy (dotted line), Light (dotted line), Railway (line with cross-ticks).

LOCALITY CIRCULATION PATTERN

1:10000



Pk Parking, P Police, F Fire Department, S School, PO Post Office, H Health, Ch Church, R Recreation, L Library, U University, Bus (solid line), Rapid Transit (broken line).

RESIDENTIAL (horizontal lines), COMMERCIAL (diagonal lines), INDUSTRIAL (cross-hatch).



LOCALITY LAND USE PATTERN



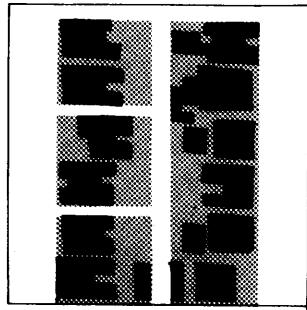
is reserved as a landmark of the city beginning. The locality is a strong mixture of British colonial and Asiatic-Oriental traditions.

POPULATION: In 1969 the total population of the locality was about 6,500. It is difficult to estimate the present population characteristics since the re-occupation of the premises left by the Asians is still in progress. In some cases houses have been taken up by large families while in others large houses have been allocated to bachelors. It will be interesting to watch the results of wholesale instant replacement of one ethnic group by another on the character of the locality.

LAND USE: About half of Old Kampala is residential. The rest is covered by open spaces, Hindu temples, mosques, schools and other institutions.

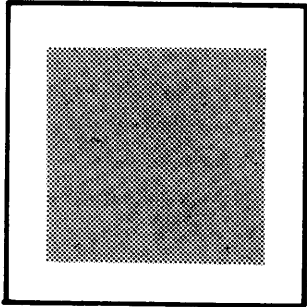
INCOMES: It is again difficult to assess the present income levels of the people

LOCALITY AERIAL PHOTOGRAPH



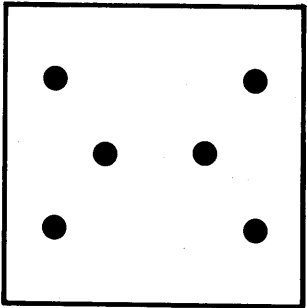
LAND USE PATTERN

Public	
Semi-Public	
Semi-Private	
Private	



LAND USE PERCENTAGES

	Area (Ha)	%
Public	0.46	46
Semi-Publ.	--	--
Semi-Priv.	--	--
Private	0.54	54
Total	1.00	100



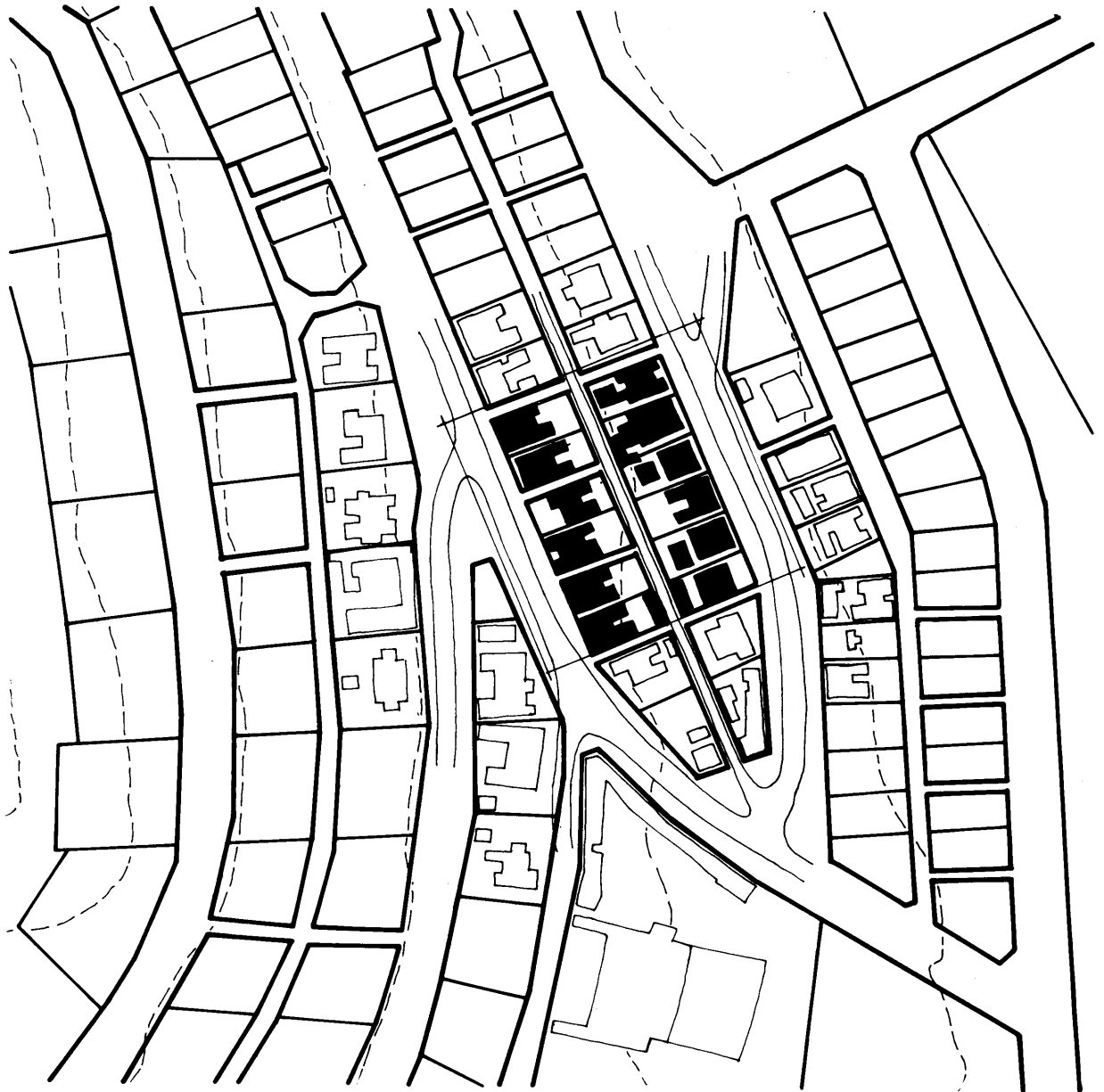
DENSITIES

	No./Ha.
Lots	12
Dwelling Units	24
People/Ha.	108
20 people	

NETWORK EFFICIENCY

N = network length (circulation) = 430
 A = area(s) served (circulation, lots)
 = block area (10,000 m²) = 1 Hectare
 $R = \frac{N}{A} = \frac{430}{1} = 430$

Locality block studied is 100 meters by 100 meters (1 Hectare).



LOCALITY SEGMENT PLOT STUDY

1:2500





TOP LEFT: Rich spacious grounds with good roads and plenty of vehicular traffic.

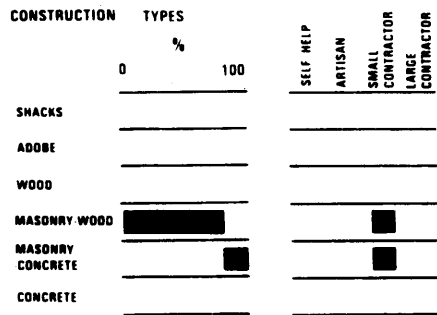
BOTTOM LEFT: Expensive high income dwellings combining Indian and Western European culture.

BOTTOM RIGHT: Houses left over by Asians and now occupied by middle and high income Africans.

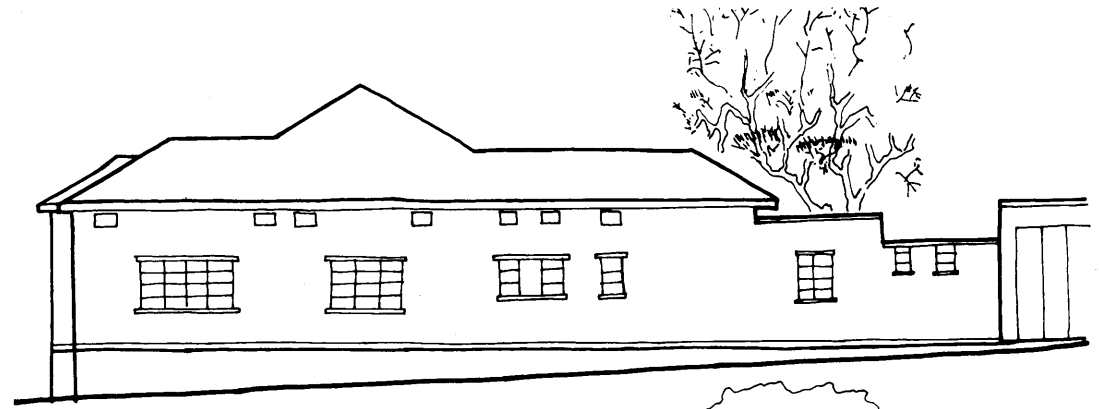
moving into the locality. The Asian community was mostly middle and high income community of businessmen and professionals. The new tenants are a mixture ranging from African graduates to small businessmen and even low-income clerical and office workers.

CIRCULATION: Vehicular circulation dominates. All roads have permanent all-weather surfaces and are well-kept. A bus route along Namirembe road serves the area.





The chart shows (1) approximate percentage of each construction type within the total number of dwellings; and (2) building group that generally produces each type.



ELEVATION

SOCIO - ECONOMIC DATA
 SOURCES: STANLEY
 QUALITY OF INFORMATION: APPROXIMATE

TYPICAL DWELLING

PHYSICAL DATA

SOURCES: CITY COUNCIL
 QUALITY OF INFORMATION: ACCURATE

DWELLING UNIT
 Type: HOUSE
 Area (m²): 226.7m² (2440ft²)
 Tenure: OWNERSHIP

LOT/LAND
 Utilization: PRIVATE
 Area: 464.5m² (5,000ft²)
 Tenure: LEASE

DWELLING
 Location: CITY CENTER
 Type: DETACHED
 Number of Floors: 1
 Utilization: SINGLE FAMILY
 Physical State: GOOD

DWELLING DEVELOPMENT
 Mode: INSTANT
 Developer: PRIVATE
 Builder: SMALL CONTRACTOR
 Construction Type: MASONRY/WOOD
 Year of construction: 1940

MATERIALS
 Foundations: R.C. CONC.
 Floor: CEM/SCREED
 Walls: CONC. BLOCK
 Roof: G.I. SHEETS

GENERAL: SOCIAL
 User's Ethnic Origin: ASIAN
 Place of Birth: UGANDA
 Education Level: GCE

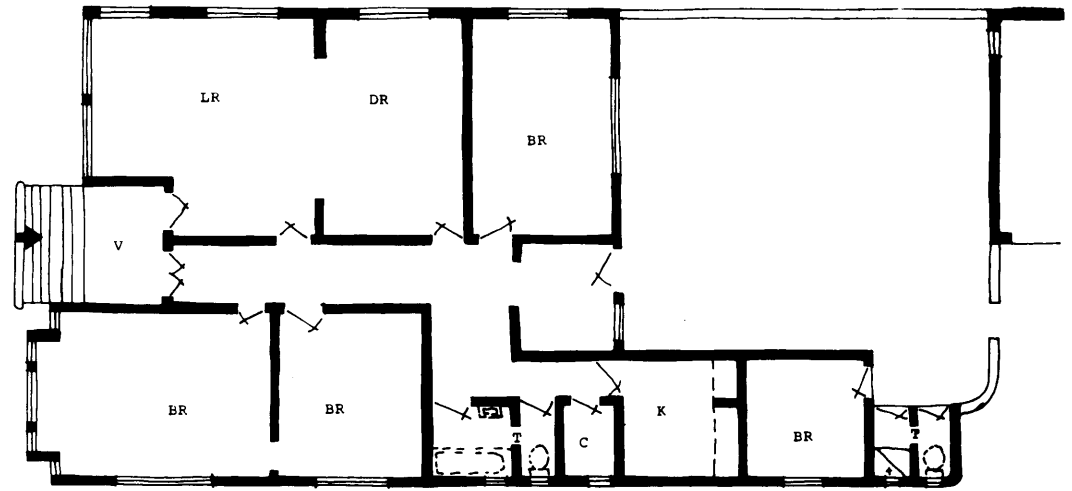
NUMBER OF USERS
 Married: YES
 Single:
 Children: 7
 Total: 9

MIGRATION PATTERN
 Number of Moves: NONE
 Rural - Urban:
 Urban - Urban:
 Urban - Rural:
 Why Came To Kampala: WORK

GENERAL: ECONOMIC
 User's Income Group: HIGH
 Employment: BUSINESS
 Distance To Work: 1 MILE
 Mode of Travel: CAR

COSTS
 Dwelling Unit: \$10,000
 Land - Market Value: \$3,000

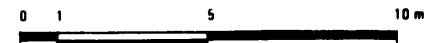
DWELLING UNIT PAYMENTS
 Financing: LOAN
 Rent/Mortgage: YES
 % Income For Rent/Mortgage:



PLAN

LR Living Room K Kitchen
 DR Dining Room L Laundry
 D Dining T Toilet-Bathroom
 BR Bedroom C Closet

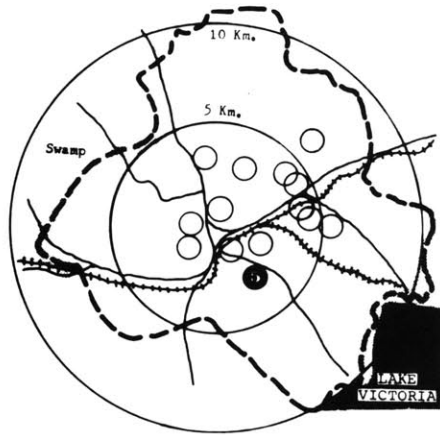
1:200



DWELLING

5. NSAMBYA COMMONWEALTH

Middle/High Income Private Suburban Project



LOCATION: Nsambya Commonwealth Project is located about 3.2 Km. from the city center on the south-eastern slopes of Nsambya hill. The apex of the hill is occupied by the Mill Hill Missionary Headquarters and Nsambya Hospital. To the north lies the Railways and Police Housing estates.

ORIGINS: Development of the

estate was initiated in 1968 by the Commonwealth Development Corporation (London), who are 50% share-holders of Housing Finance Company Uganda Lt., in conjunction with the Registered Trustees of the Catholic Archdiocese of Kampala, (The Catholic Church are the owners of the land). The purpose of the project was to provide housing for Kampala middle income workers on an ownership (mortgage) basis.

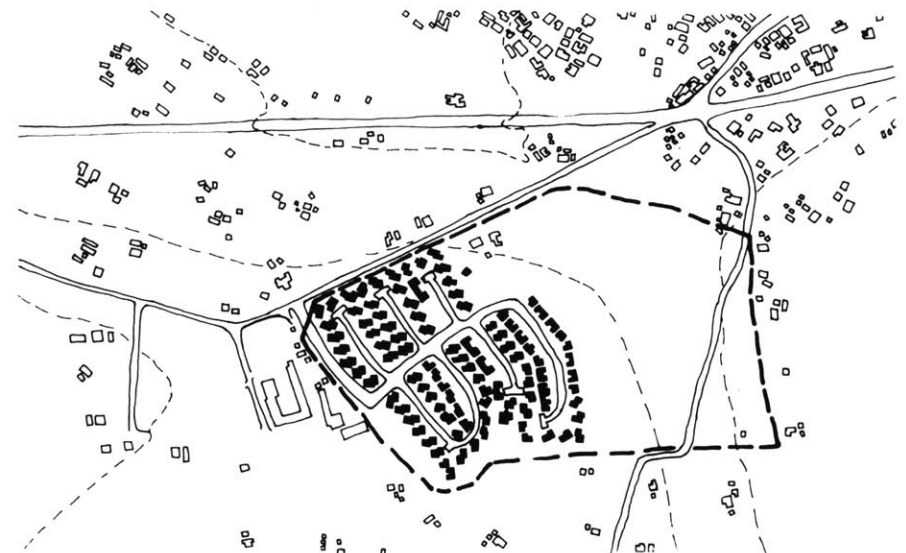
Only 60 hectares of the 121.4 hectares (300 acres) origi-

nally planned were developed, because of the lack of finance support following the pull-out of the Commonwealth Development Corporation, the shortage of skilled manpower, materials, and an unstable political and social climate.

LAYOUT: The street pattern is planned on a typical rectangular grid for middle and upper income families. Streets are wide and dwellings are surrounded by open spaces. All property boundaries were demarcated with



LOCALITY AERIAL PHOTOGRAPH

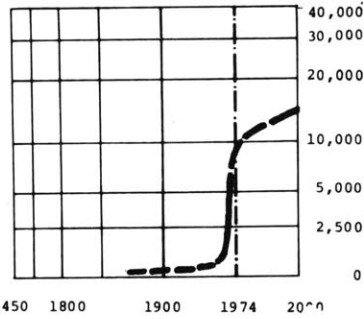


LOCALITY PLAN

1:10000

0 100 200 300 400 500m

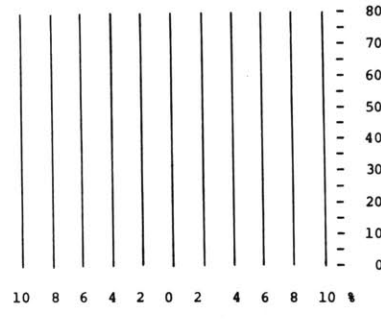
LOCALITY POPULATION GROWTH



Horizontal: dates Vertical: populatio.

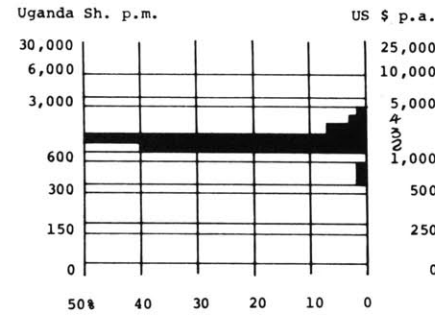
1973 Estimate; 10,000

LOCALITY AGE DISTRIBUTION



Horizontal: percentages Vertical: ages

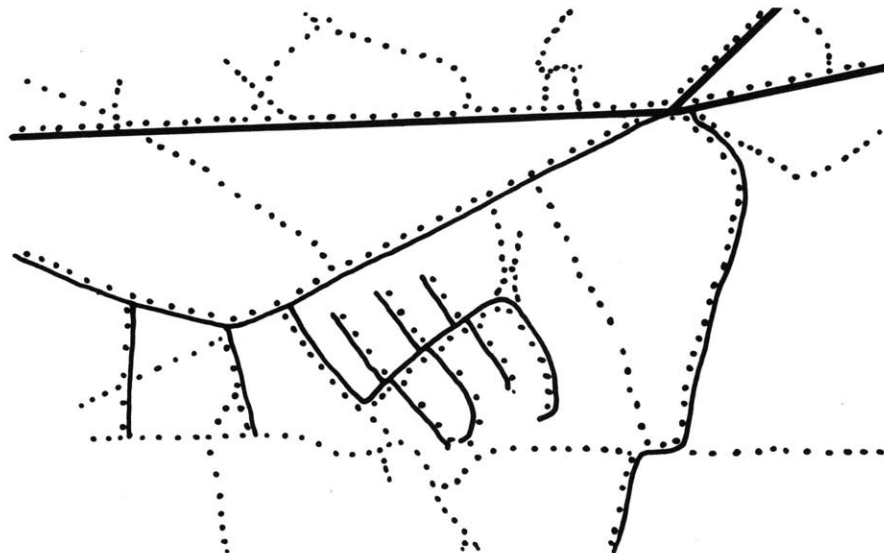
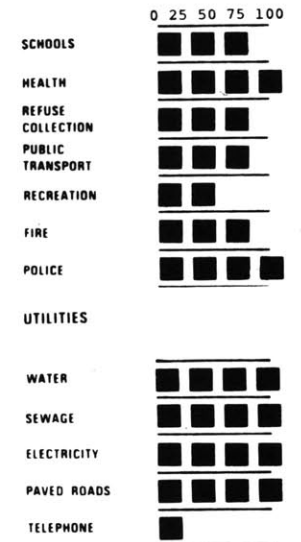
LOCALITY INCOME DISTRIBUTION



Horizontal: percentages Vertical: income

Mulumba Estimate.

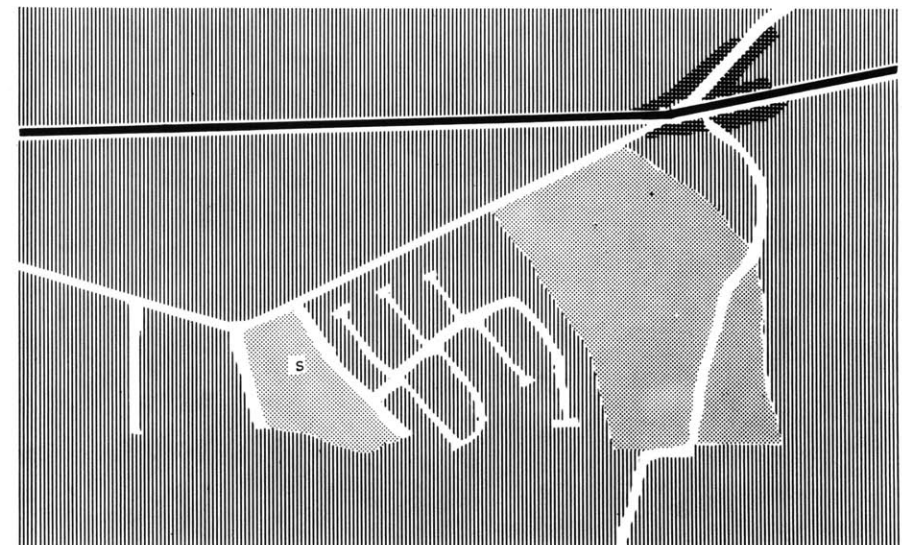
SERVICES



Vehicular: Express-way District Road Minor Road Pedestrian: Heavy Light Railway

LOCALITY CIRCULATION PATTERN

1:10000



Pk Parking Ch Church
P Police R Recreation
F Fire Department L Library
S School U University
PO Post Office Bus (solid line)
SS Social Services Rapid Transit (broken line)

RESIDENTIAL
COMMERCIAL
INDUSTRIAL



LOCALITY LAND USE PATTERN



wire fences; individual plot owners have already started planting hedges along the wire lines.

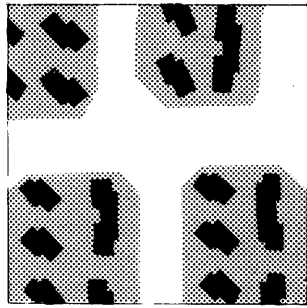
POPULATION: No population statistics are available, but based on 6 people per dwelling unit the housing project will house about 10,000 people of young and middle income families.

LAND USE: The total scheme was designed to include shopping facilities and institutions such as schools etc. when completed. The completed section is basically residential.

INCOMES: The average income is 2300/= (\$.330) per month. Some tenants earn over 3,500/= per month.

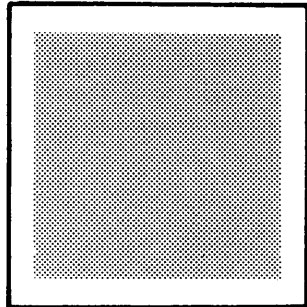
CIRCULATION: All streets in the locality are designed for vehicular traffic. A bus service along Gaba road is easily accessible.

LOCALITY SEGMENT AERIAL PHOTOGRAPH



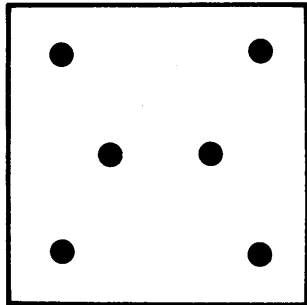
LAND USE PATTERN

- Public
- Semi-Public
- Semi-Private
- Private



LAND USE PERCENTAGES

	Area (Ha)	%
Public	0.31	31
Semi-Publ.	--	--
Semi-Priv.	--	--
Private	0.69	69
Total	1.00	100



DENSITIES

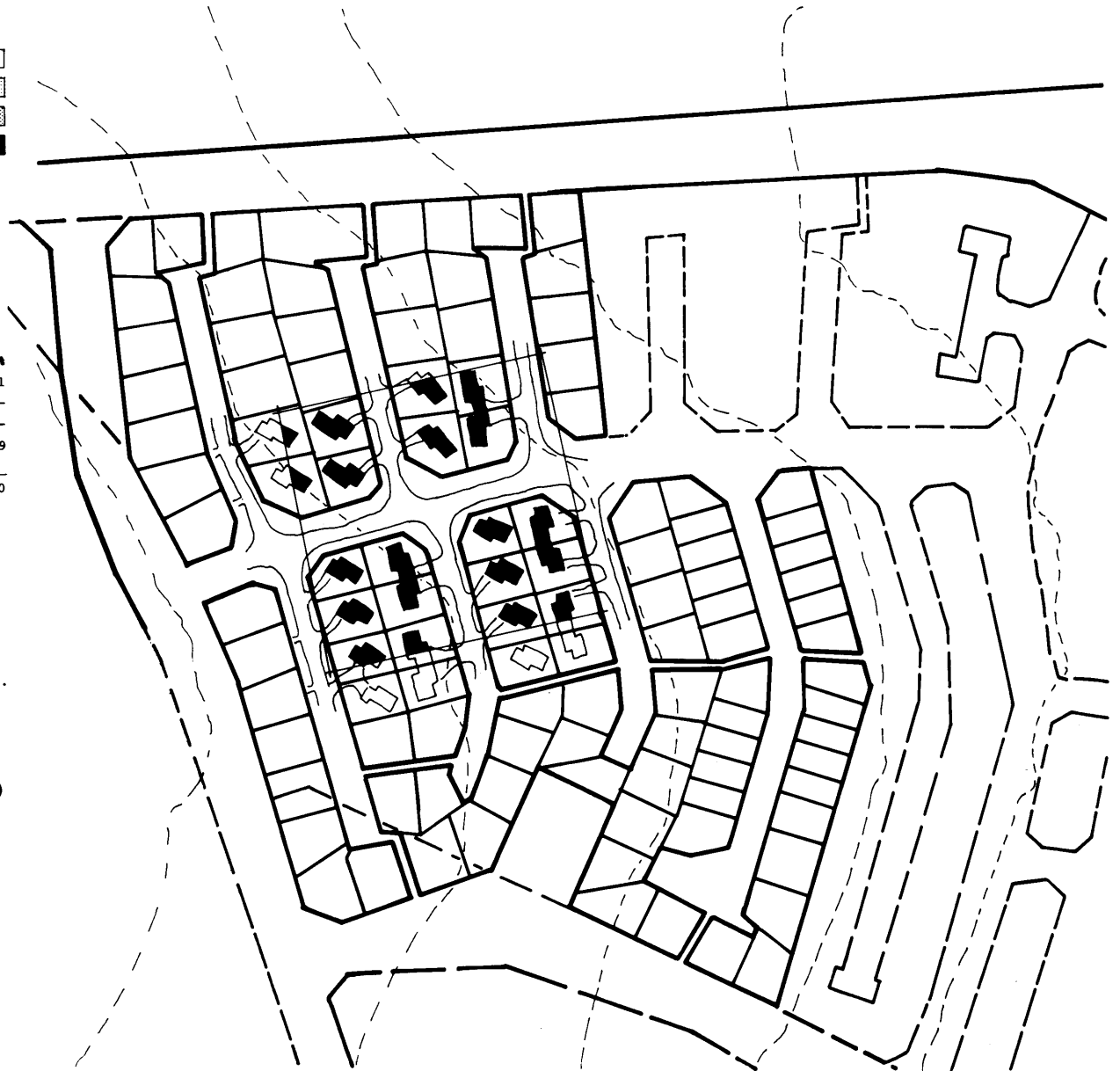
	No./Ha.
Lots	20
Dwelling Units	20
People/Ha.	120
20 people	

NETWORK EFFICIENCY

N = network length (circulation) = 220
 A = area(s) served (circulation, lots)
 = block area (10,000 m²) = 1 Hectare
 $R = \frac{N}{A} = \frac{220}{1} = 220$

Locality block studied is 100 meters by 100 meters (1 Hectare).

LOCALITY BLOCK STUDY



LOCALITY SEGMENT PLOT STUDY

1:2500

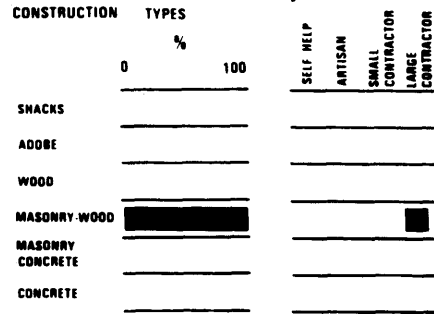




TOP LEFT: Mortgage houses for middle and high income groups by the Commonwealth Finance Co. and Nsambya Catholic Church.

BOTTOM LEFT: BOTTOM RIGHT: Kireka Housing Estate mortgage houses by the National Housing Corporation. This represents the first attempt by the corporation to deal with low-income housing problems. However not only are the houses too expensive for the low income people but the project is located so far from work and is not easily accessible to people without cars that it is now occupied by high and middle income people.





The chart shows (1) approximate percentage of each construction type within the total number of dwellings; and (2) building group that generally produces each type.

TYPICAL DWELLING

PHYSICAL DATA

SOURCES: CITY COUNCIL
 QUALITY OF INFORMATION: ACCURATE

DWELLING UNIT
 Type: HOUSE
 Area (m²): 68.51
 Tenure: MORGAGE

LOT/LAND

Utilization: PRIVATE
 Area: 464.5m²
 Tenure: LEASE

DWELLING

Location: INNER RING
 Type: SEMI-DETACHED
 Number of Floors: 1
 Utilization: SINGLE FAMILY
 Physical State: NEW

DWELLING DEVELOPMENT

Mode: INSTANT
 Developer: PRIVATE COORPORATION
 Builder: LARGE CONTRACTOR
 Construction Type: MASONRY/WOOD
 Year of construction: 1972

MATERIALS

Foundations: R.C. CONCRETE
 Floor: CEMENT/SCREED
 Walls: PRECAST CHECCOLITE
 Roof: ASBESTOS SHEETS

SOCIO - ECONOMIC DATA

SOURCES: STANLEY
 QUALITY OF INFORMATION: APPROXIMATE

GENERAL: SOCIAL

User's Ethnic Origin: UGANDAN
 Place of Birth: MBARARA
 Education Level: UNIVERSITY

NUMBER OF USERS

Married: _____
 Single: YES
 Children: _____
 Total: 1+2servants

MIGRATION PATTERN

Number of Moves: 4
 Rural - Urban: 1
 Urban - Urban: 3
 Urban - Rural: _____
 Why Came To Kampala: WORK

GENERAL: ECONOMIC

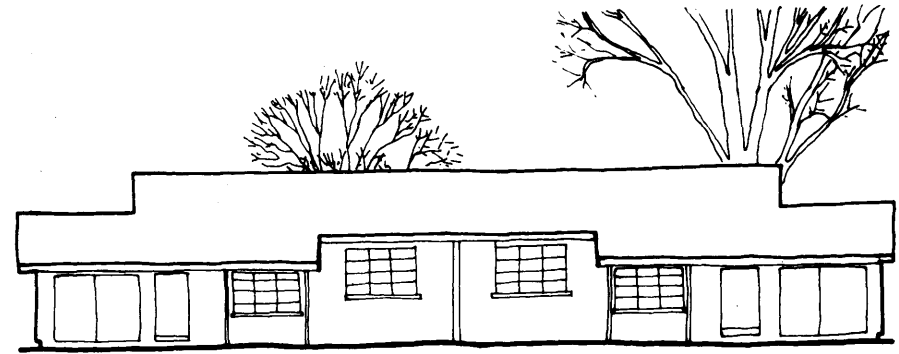
User's Income Group: MIDDLE HIGH
 Employment: ACCOUNTANT
 Distance To Work: 4 MILES
 Mode of Travel: CAR

COSTS

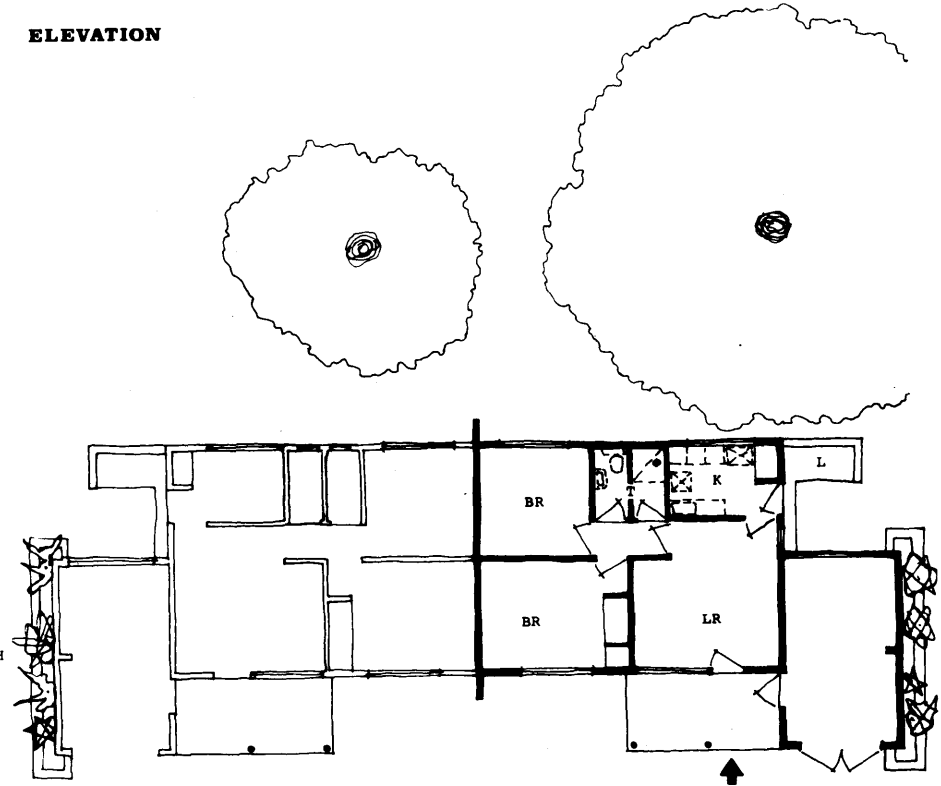
Dwelling Unit: \$6,000
 Land - Market Value: _____

DWELLING UNIT PAYMENTS

Financing: _____
 Rent/Mortgage: _____
 % Income For Rent/Mortgage: _____



ELEVATION

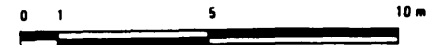


PLAN

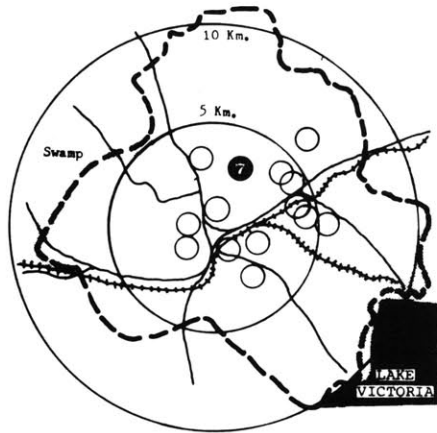
LR Living Room K Kitchen
 DR Dining Room L Laundry
 D Dining T Toilet-Bathroom
 BR Bedroom C Closet

DWELLING

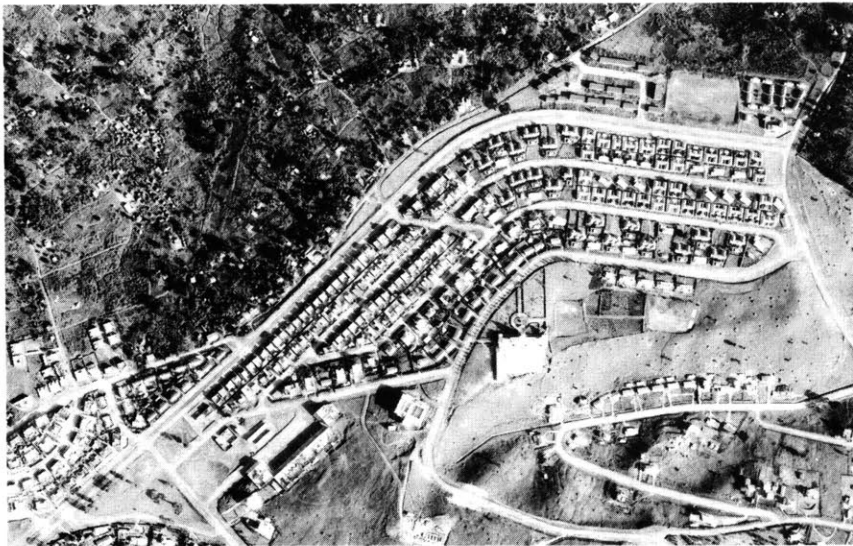
1:200



6. KIRA ROAD High Income Government Suburban Dwellings



LOCATION: Kira Road falls within the 5 Km ring about 4.5 Kms from the city center. The area is bounded by Kira Road highway and Mulago-Kamwokya housing estates to the north and the high-income diplomatic-core residential Kololo Hill to the south. To the north-east lies a new City Council middle-income estate of walk-up apartments. To the east is Lugogo By-Pass.

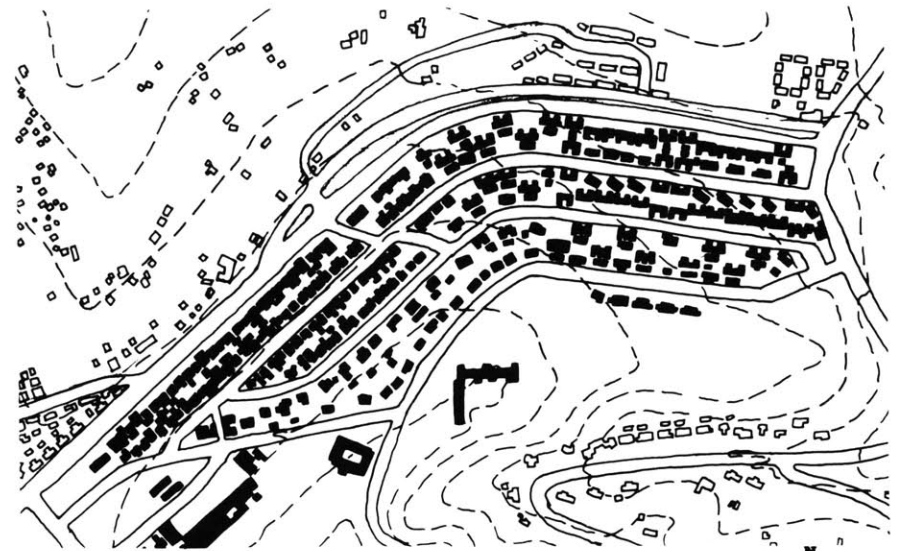


LOCALITY AERIAL PHOTOGRAPH

ORIGINS: Most of the present Kira Road locality buildings were constructed by the Colonial Central government in the late 1940's and 1950 for use of European and Asian civil servants. More than 80% of the buildings belong to the government but a few companies and individual employers have constructed complexes of flats and apartments either for use of their employees or for rent to government civil servants, Foreign Embassy personnel or other companies.

LAYOUT: Kira Road has the most compact building layout in Kampala. Buildings are arranged along four parallel streets in a way that minimizes lengths of service and utility lines.

POPULATION: Before independence and the 1971-73 changes the locality was dominated by Asians with large families and middle-high incomes. At present many Asians especially those employed in government service, teaching and the medical institutions

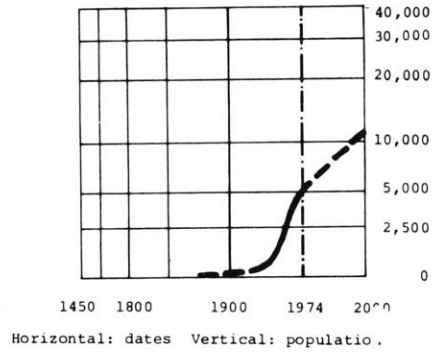


1:10000

0 100 200 300 400 500m

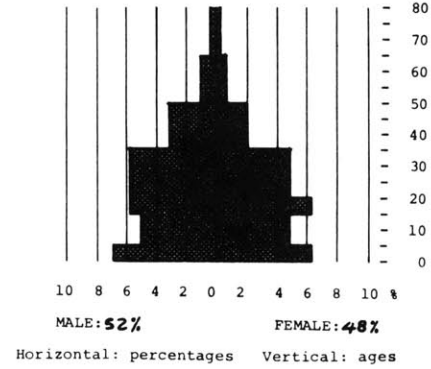
LOCALITY PLAN

LOCALITY POPULATION GROWTH



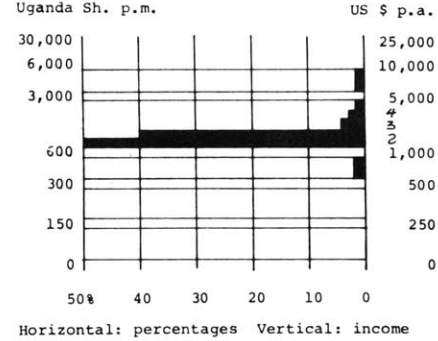
1969 Pop. Census: 5,000

LOCALITY AGE DISTRIBUTION



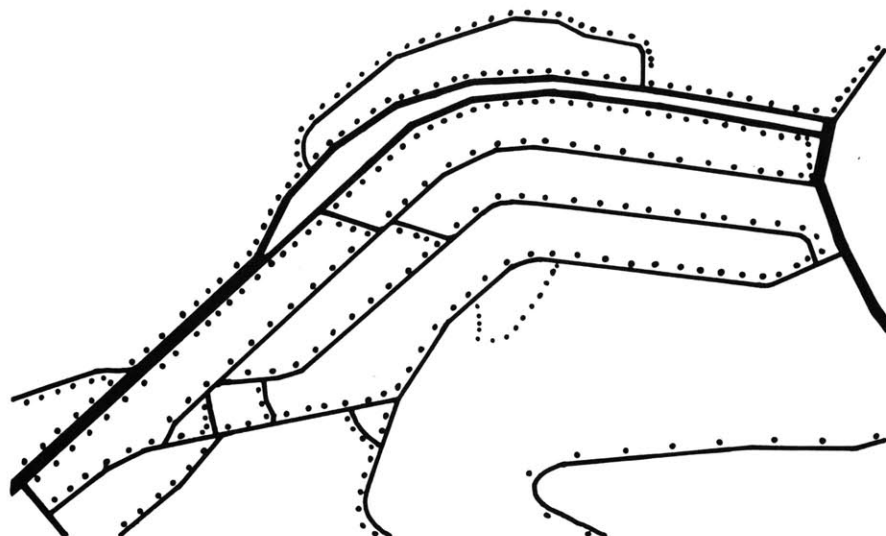
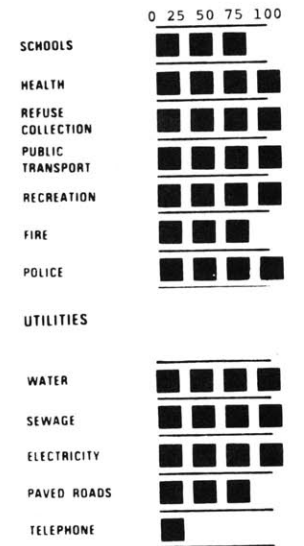
1969 Census

LOCALITY INCOME DISTRIBUTION



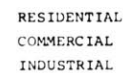
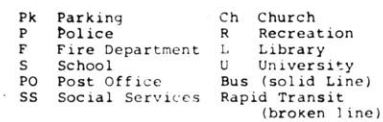
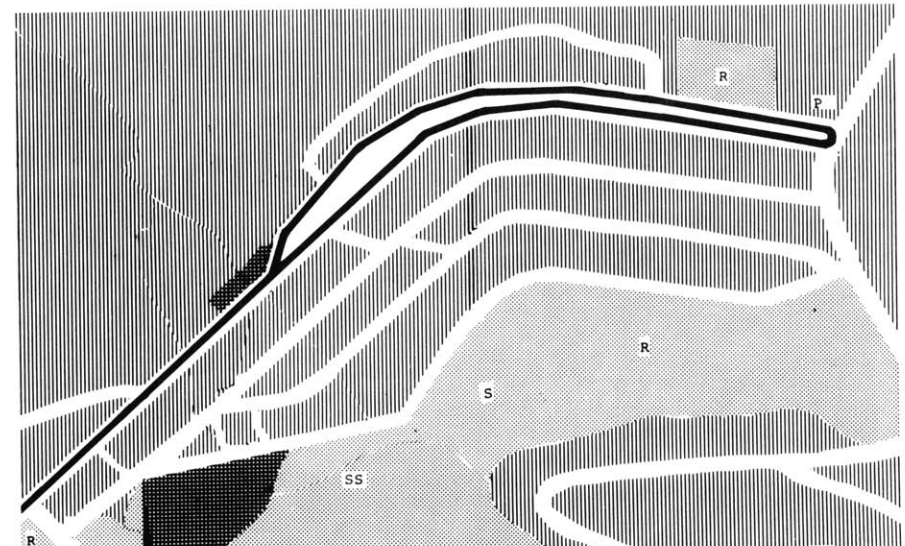
1974 Estimates

SERVICES



LOCALITY CIRCULATION PATTERN

1:10000



LOCALITY LAND USE PATTERN



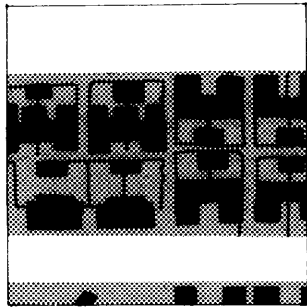
LOCALITY SEGMENT AERIAL PHOTOGRAPH

still live in the area. But the number of Africans with varying employment fields and varying incomes are moving into the area to occupy houses left as a result of the "Asian Exodus" to Britain and other countries.

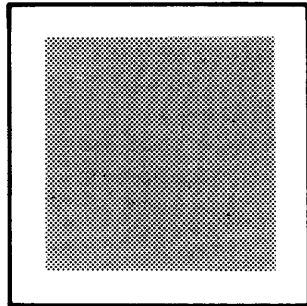
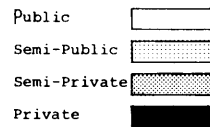
LAND USE: More than 80% of the land is residential. There is a market in the southwestern corner of the locality but most of the shopping is done by car in the city center. The rest of the land accommodates schools and playgrounds in the valley boundary between the locality and Kololo Hill.

INCOMES: Most of the residents earn executive salaries of at least \$400 (2800/=) per month. Some company executives earn twice that much. Average income is about \$500 (3500/=) a month.

CIRCULATION: Circulation within the locality is mostly pedestrian although each dwelling is accessible by car, travel to town and other places is by private car but a bus runs very frequently along the main Kira Road highway.

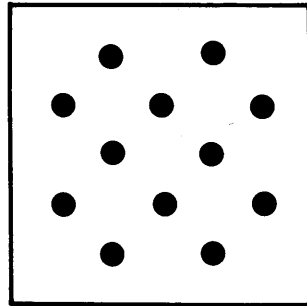


LAND USE PATTERN



LAND USE PERCENTAGES

	Area (Ha)	%
Public	0.38	38
Semi-Publ.	--	--
Semi-Priv.	--	--
Private	0.62	62
Total	1.00	100



DENSITIES

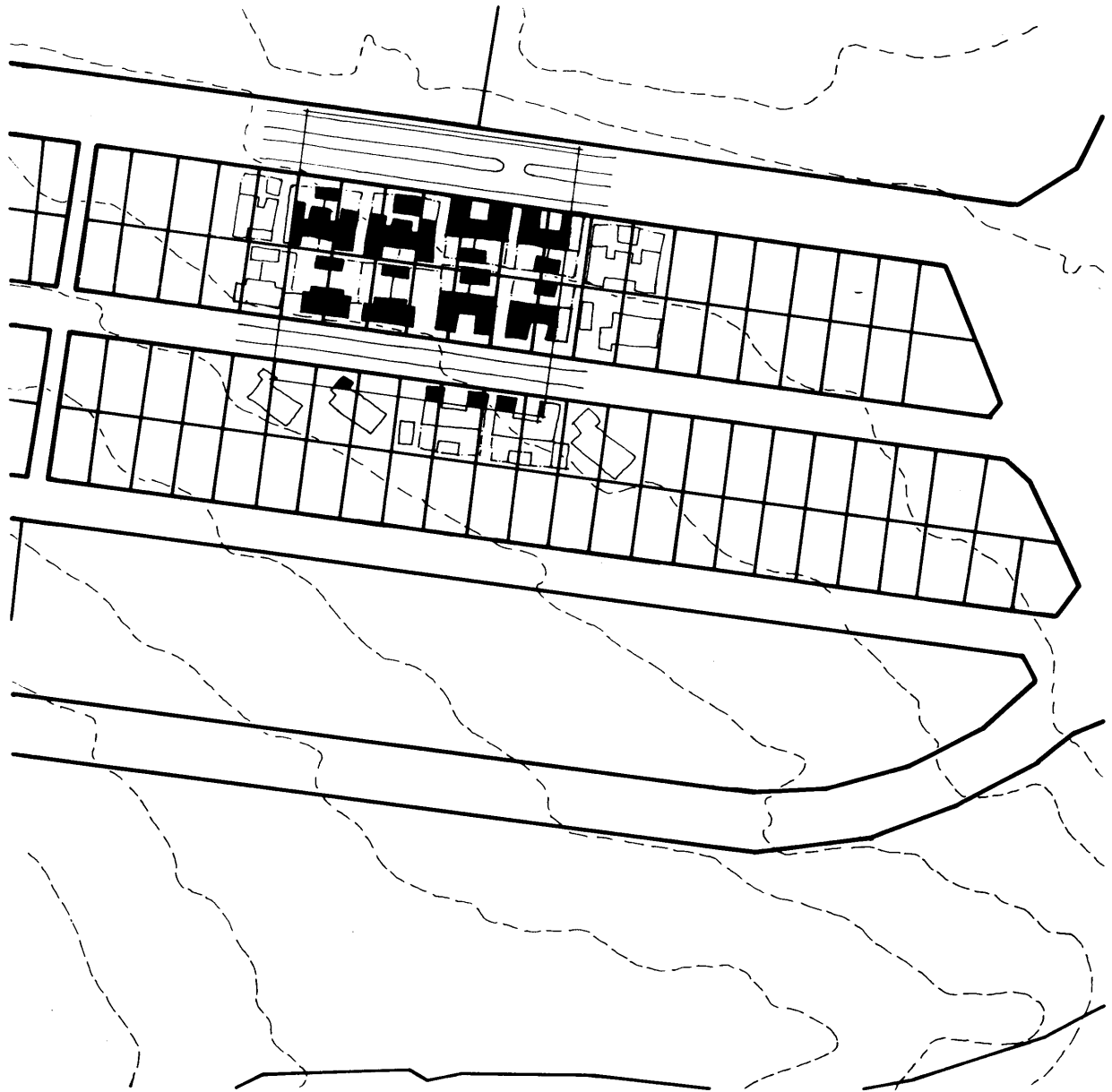
	No./Ha.
Lots	14
Dwelling Units	56
People/Ha.	240
20 people	●

NETWORK EFFICIENCY

N = network length (circulation) = 200
 A = area(s) served (circulation, lots)
 = block area (10,000 m²) = 1 Hectare
 $R = \frac{N}{A} = \frac{200}{1} = 200$

Locality block studied is 100 meters by 100 meters (1 Hectare).

LOCALITY BLOCK STUDY



LOCALITY SEGMENT PLOT STUDY

1:2500





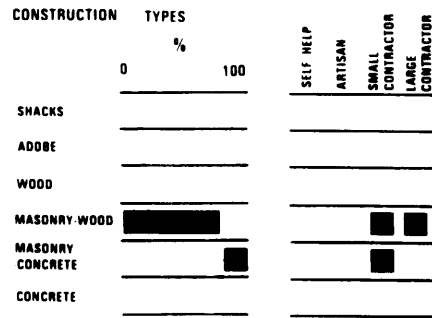
TOP LEFT: Kira Road by-pass. Kampala and District Bus Co. has the monopoly of the public transport

TOP LEFT: Kira Road. Kampala and District Bus Co. has the monopoly of public transportation within the city.

BOTTOM LEFT: Middle class residential houses formerly used by Indian clerical and semi-professional civil servants and now occupied by Africans in high senior administrative positions.

BOTTOM RIGHT: Dwellings reflect the strong combination of Indian and European cultural backgrounds.





The chart shows (1) approximate percentage of each construction type within the total number of dwellings; and (2) building group that generally produces each type.

TYPICAL DWELLING

PHYSICAL DATA

SOURCES: CITY COUNCIL
 QUALITY OF INFORMATION: ACCURATE

DWELLING UNIT

Type: APARTMENT
 Area (m²): 131.9 (1420ft²)
 Tenure: RENTAL

LOT/LAND

Utilization: SEMI-PRIVATE
 Area: 1071.4 (11536ft²)
 Tenure: LEASE

DWELLING

Location: INNER RING
 Type: SEMI-DETACHED
 Number of Floors: 2
 Utilization: MULTI-FAMILY
 Physical State: GOOD

DWELLING DEVELOPMENT

Mode: INSTANT
 Developer: GOVERNMENT
 Builder: LARGE CONTRACTOR
 Construction Type: MASONRY/CONCRETE
 Year of construction: 1952

MATERIALS

Foundations: R.C. CONCRETE
 Floor: CEM/SCREED
 Walls: CONC. BLOCKS
 Roof: R.C. SLAB

SOCIO-ECONOMIC DATA

SOURCES: STANLEY
 QUALITY OF INFORMATION: ESTIMATE

GENERAL: SOCIAL

User's Ethnic Origin: UGANDAN
 Place of Birth: KAMPALA
 Education Level: UNIVERSITY

NUMBER OF USERS

Married: YES
 Single: 5
 Children: 5
 Total: 7+ SERVANTS

MIGRATION PATTERN

Number of Moves: 1
 Rural - Urban: 1
 Urban - Urban: 2
 Urban - Rural: 1
 Why Came To Nairobi:

GENERAL: ECONOMIC

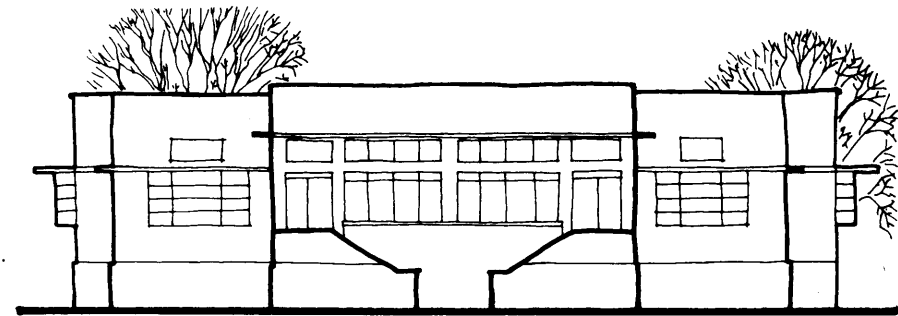
User's Income Group: HIGH
 Employment: CIVIL SERVI
 Distance To Work: 3 MILES
 Mode of Travel: CAR

COSTS

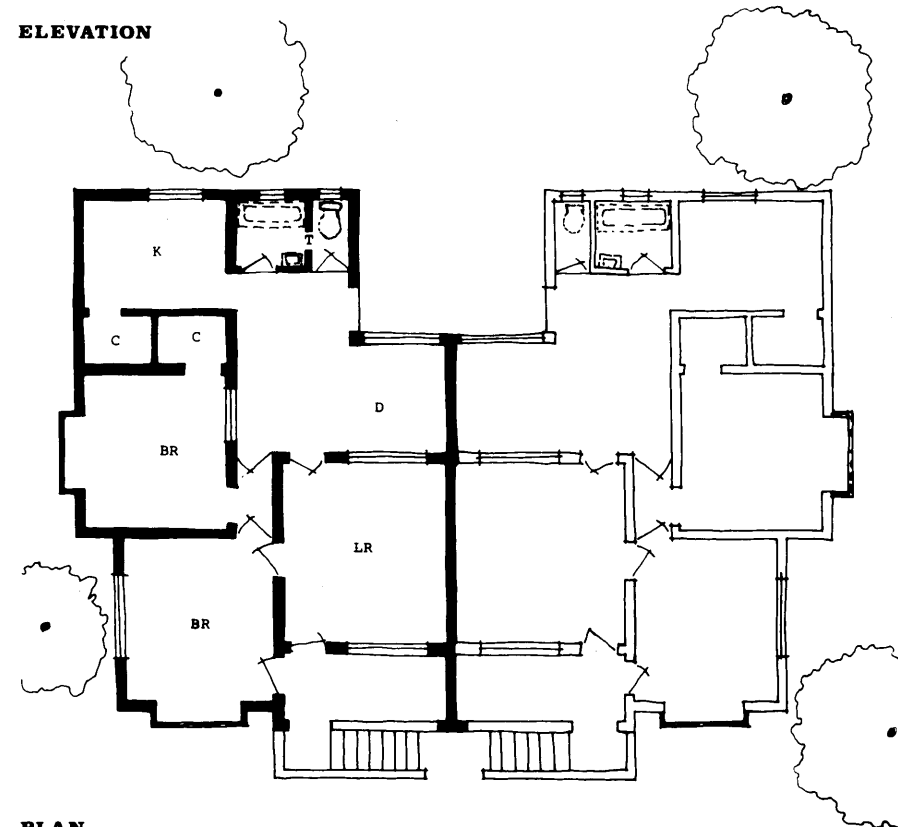
Dwelling Unit: \$8,000
 Land - Market Value:

DWELLING UNIT PAYMENTS

Financing:
 Rent/Mortgage:
 % Income For Rent/Mortgage:



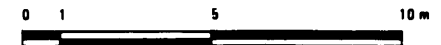
ELEVATION



PLAN

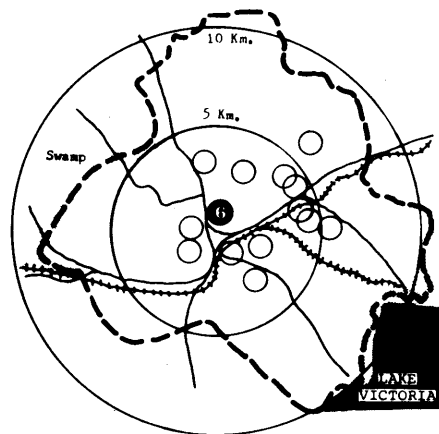
LR Living Room K Kitchen
 DR Dining Room L Laundry
 D Dining T Toilet-Bathroom
 BR Bedroom C Closet

1:200



DWELLING

7. NAKASERO HILL High Income Private Central Settlement



LOCATION: Nakasero residential area lies on the upper slopes of Nakasero Hill, the lower slopes of which are built up with the central business and administrative center of Kampala city.

ORIGINS: In the later half of 1800's the British Colonial Government transferred its administrative post from Old Kampala to a fort on top of Nakasero Hill. As more and more British administrators and advisors arrived into the country the hill slopes were built up in a truly Colonial British style.

LAYOUT: The street pattern, typical of conventional colonial town, is an irregular triangular pattern following the contours of the hill side. Dwellings are spaced far and apart and surrounded by large gardens.

POPULATION: Today there are very few Europeans left in

the country and these are more concentrated in the Ambassadorial areas such as Kololo and Mbuya Hills. Nakasero is now dominantly settled by Africans in high managerial posts and with large families. According to 1969 Census there were about 4,000 people in Nakasero residential area. Figures today are difficult to estimate since some of the houses are still empty while others have been occupied by families twice or three times the former occupant's sizes.

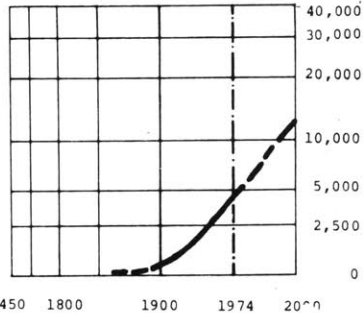
LAND USE: The residential section of Nakasero Hill has large areas of land devoted to governmental buildings such as the State House, Chief Justice's House, Law Courts and the Historical Fort at the apex and various social clubs. There is hardly any commercial or industrial activity in this section.

INCOMES: The locality still remains a high income area with average salary over 2,500/= (\$355) per month.

CIRCULATION: There are no public bus routes in the

locality. Although the area is adjacent to the business and commercial area each household has at least one car, and vehicular circulation dominates.

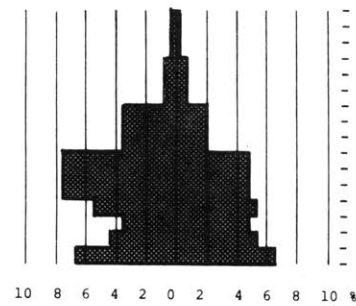
LOCALITY POPULATION GROWTH



Horizontal: dates Vertical: populatio.

1969 Pop. Census: 4,000

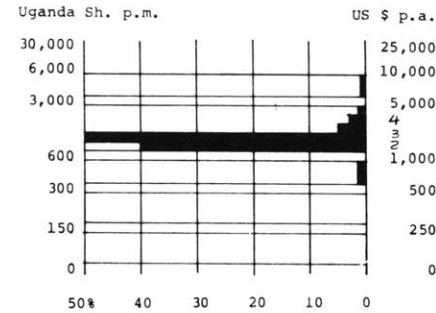
LOCALITY AGE DISTRIBUTION



MALE: FEMALE:
Horizontal: percentages Vertical: ages

1969 Census

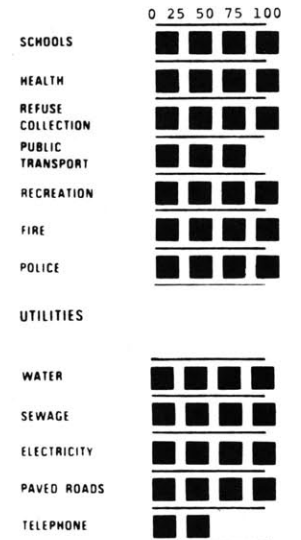
LOCALITY INCOME DISTRIBUTION



Horizontal: percentages Vertical: income

1969 Figures

SERVICES



Market Street overlooking Nakivubo Car-park and Old Kampala Hill. 19th. Century Asian-type shopfronts still survive along side walk-up and high-rise concrete office blocks. Peddlers carry merchandise on hand-carts to and from Nakasero Market and Nakivubo carpark.



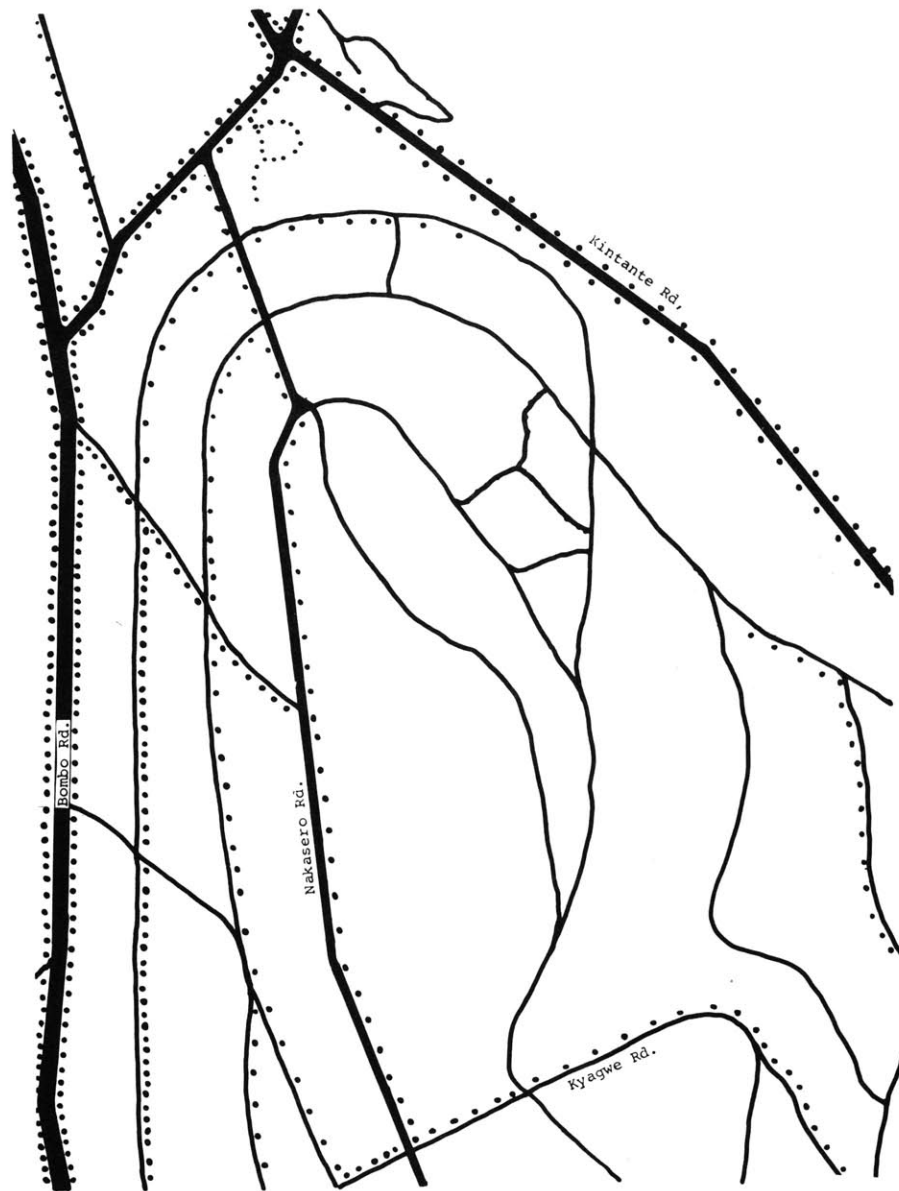
LOCALITY AERIAL PHOTOGRAPH



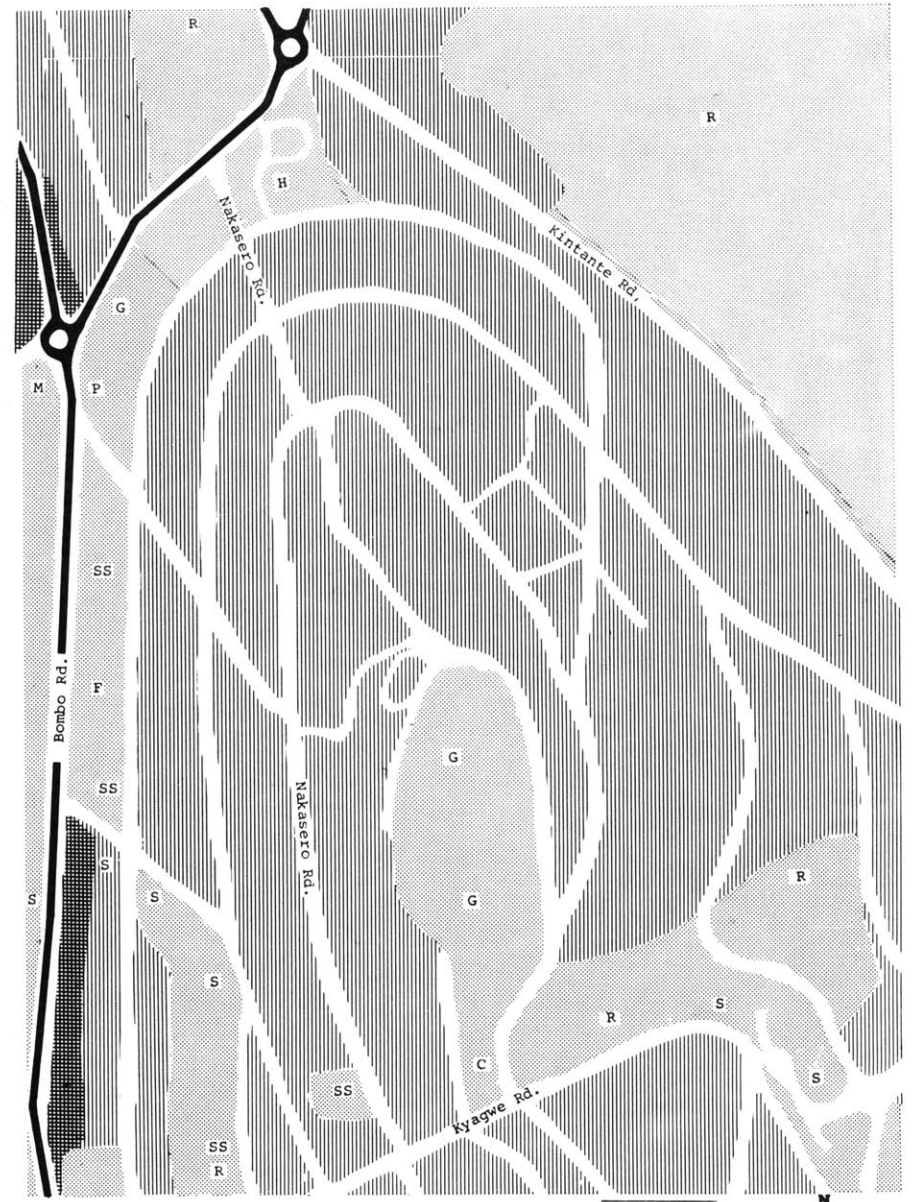
LOCALITY PLAN

1:10000





LOCALITY CIRCULATION PATTERN



- | | | | |
|----|-----------------|---------------|---------------|
| Pk | Parking | Ch | Church |
| P | Police | R | Recreation |
| F | Fire Department | L | Library |
| S | School | U | University |
| PO | Post Office | Bus | (solid line) |
| SS | Social Services | Rapid Transit | (broken line) |

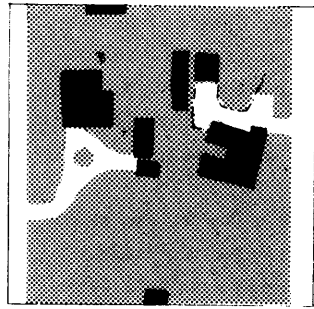
- | | |
|-------------|--|
| RESIDENTIAL | |
| COMMERCIAL | |
| INDUSTRIAL | |



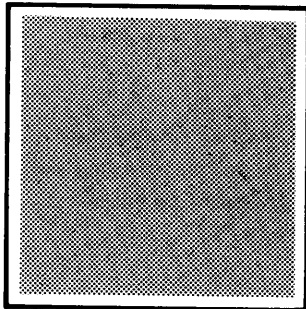
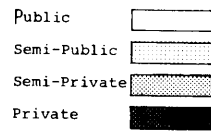
LOCALITY LAND USE PATTERN



LOCALITY SEGMENT AERIAL PHOTOGRAPH

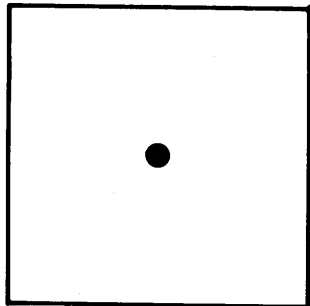


LAND USE PATTERN



LAND USE PERCENTAGES

	Area (Ha)	%
Public	0.15	15
Semi-Publ.	--	--
Semi-Priv.	--	--
Private	0.85	85
Total	1.00	100



DENSITIES

	No./Ha.
Lots	2
Dwelling Units	4
People/Ha.	18
20 people	●

NETWORK EFFICIENCY

N = network length (circulation) = 200
 A = area(s) served (circulation, lots)
 = block area (10,000 m²) = 1 Hectare
 $R = \frac{N}{A} = \frac{200}{1} = 200$

Locality block studied is 100 meters by 100 meters (1 Hectare).

LOCALITY BLOCK STUDY



LOCALITY SEGMENT PLOT STUDY

1:2500



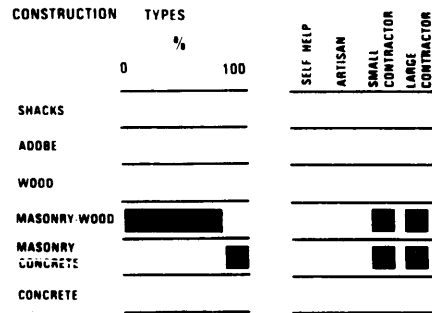


TOP LEFT: Former Uganda Club. Rich equatorial trees provide luxurious privacy and shelter to the houses. In the background are Kitante and Kololo Hills, both high income areas.

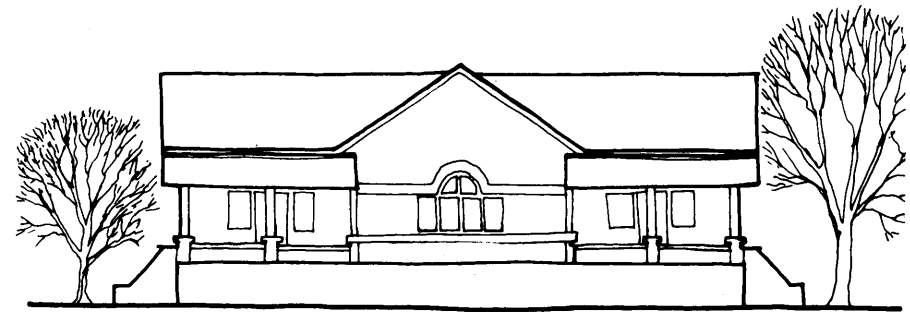
BOTTOM LEFT: A neglected unoccupied house left after the departure of Asians and Europeans in 1972. Most of such houses are being replaced with high rise and walk-up rental apartments by the National Housing Corporation.

BOTTOM RIGHT: British country-type houses set in rich extensive gardens now occupied by senior government African officials.





The chart shows (1) approximate percentage of each construction type within the total number of dwellings; and (2) building group that generally produces each type.



ELEVATION

TYPICAL DWELLING

PHYSICAL DATA

SOURCES: CITY COUNCIL
 QUALITY OF INFORMATION: ACCURATE/APPROXIMATE

DWELLING UNIT

Type: HOUSE
 Area (m²): 205.8m² (2215ft²)
 Tenure: OWNERSHIP

LOT/LAND

Utilization: PRIVATE
 Area: 2265.4m² (24380ft²)
 Tenure: LEASE

DWELLING

Location: CITY CENTER
 Type: DETACHED
 Number of Floors: 1
 Utilization: SINGLE FAMILY
 Physical State: OLD

DWELLING DEVELOPMENT

Mode: INSTANT
 Developer: PRIVATE
 Builder: SMALL CONTRACTOR
 Construction Type: MASONRY/WOOD
 Year of construction: 1921

MATERIALS

Foundations: R.C. CONCRETE
 Floor: CEMENT/SCREED
 Walls: CONC. BLOCK
 Roof: G.I. SHEETS

SOCIO - ECONOMIC DATA

SOURCES: STANLEY
 QUALITY OF INFORMATION: APPROXIMATE

GENERAL: SOCIAL

User's Ethnic Origin: EUROPEAN
 Place of Birth: BRITAIN
 Education Level: UNIVERSITY

NUMBER OF USERS

Married: YES
 Single:
 Children: 2
 Total: 4+3 SERVANT

MIGRATION PATTERN

Number of Moves: 1
 Rural - Urban:
 Urban - Urban:
 Urban - Rural: 1
 Why Came To Kampala: WORK

GENERAL: ECONOMIC

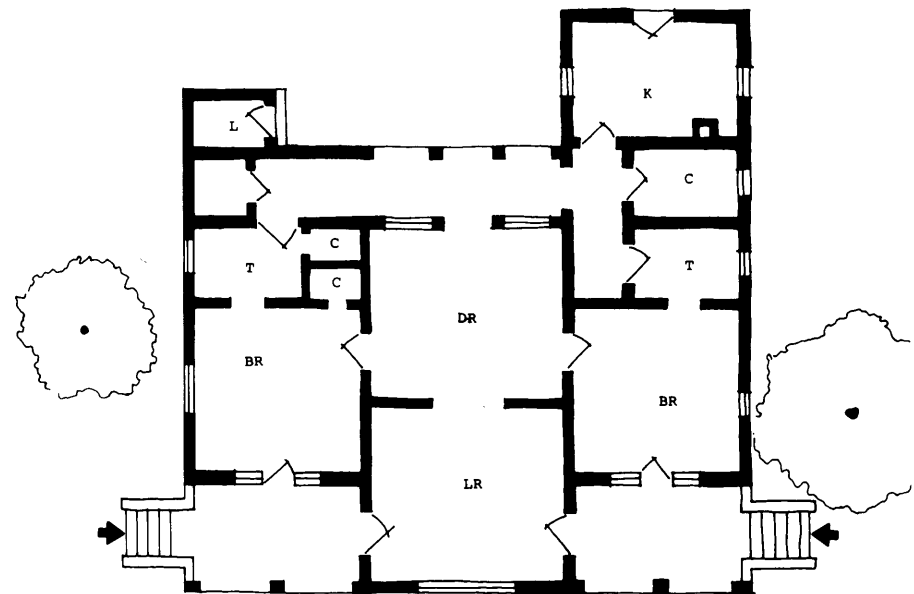
User's Income Group: HIGH
 Employment: EXECUTIVE
 Distance To Work: 1/2 MILE
 Mode of Travel: CAR

COSTS

Dwelling Unit: \$10,000
 Land - Market Value: \$4,000

DWELLING UNIT PAYMENTS

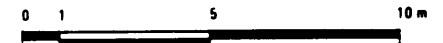
Financing: MORTGAGE
 Rent/Mortgage:
 % Income For Rent/Mortgage:



PLAN

LR Living Room K Kitchen
 DR Dining Room L Laundry
 D Dining T Toilet-Bathroom
 BR Bedroom C Closet

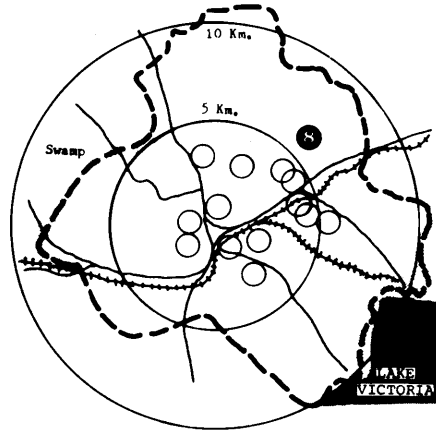
1:200



DWELLING

8. NTINDA ESTATE KAMPALA

Low/Middle Income
Government Suburban Project



LOCATION: Ntinda estate which is about 160 Ha. (400 acres) lies about 7.2 Km. (4.5 miles) from the city center and about 1.6 Km. to the north of a junction 5.5 Km. (3.5 miles) along Kampala-Jinja Road.

ORIGINS: The project was initiated in 1953 after the government began to change the Building By-Laws to deal with the realities of low-income town dwellers. The movement of Africans into urban centers was already changing to permanent residence from migratory labour.

At the same time the colonial government began to realize that "the cost of building quarters for low income African labourers to good standards must place an economic rent beyond the pocket of such persons and therefore the rent of even the smaller houses must have considerable element of subsidy".

It was further recognised that to reduce the high

costs associated with the high standard of building construction and materials specified in Grade One Building By-Laws, and to reduce any government subsidy while bringing the houses nearer to the economic means of the poorer Africans for whom they were intended, the tendency is to reduce drastically the number and size of rooms and otherwise simplify or reduce houses's amenities so that in the end they are not the sort of houses which Africans would like.

The government decided to simplify building standards by introducing Grade II and Grade III which made it permissible to build houses in traditional methods such as mud and wattle within specified areas provided certain minimum building standards were maintained. Ntinda was one of the areas specified.

LAYOUT: Ntinda locality consists of two sections; Grade I Section where houses were built and completed by the government in high standard materials and then mortgaged off to prospective

buyers. This section is on the higher slopes and is arranged along three parallel streets.

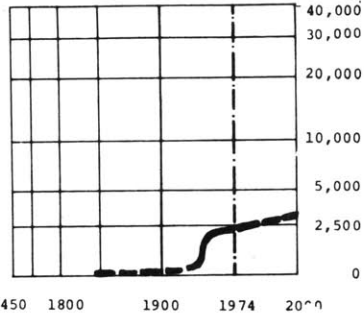
Grade II Section arranged around a ring-road consists of site and service scheme where-by tenants were given sites and stand-pipes and then built their own houses.

POPULATION: Interpolation of 1969 Census data indicates that there were about 2,200 people in Ntinda estate. Although most of the houses in the tenant purchase scheme were already purchased by 1973 a good number of original owners has moved to larger houses in high income areas such as Kololo, following the departure of Asians and Europeans.

LAND USE: More than 90% of the locality is used for residential purposes and the rest is used for administrative and other institutional purposes. There is very little commercial and no industrial activity.

INCOMES: The locality houses people with higher incomes than originally planned for. Average income is over 1,000/= per month. More than 4% earns over 2,000/= per month.

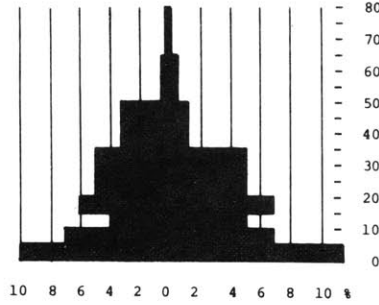
LOCALITY POPULATION GROWTH



Horizontal: dates Vertical: populatio.

1969 Pop. Census: 2,200

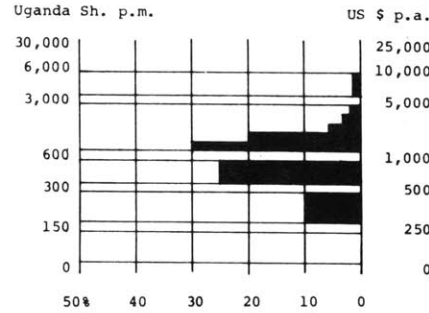
LOCALITY AGE DISTRIBUTION



Horizontal: percentages Vertical: ages

1969 Census

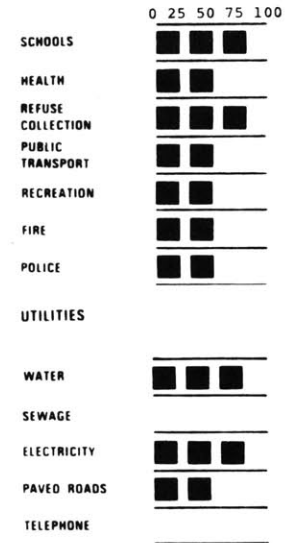
LOCALITY INCOME DISTRIBUTION



Horizontal: percentages Vertical: income

1974 Estimates

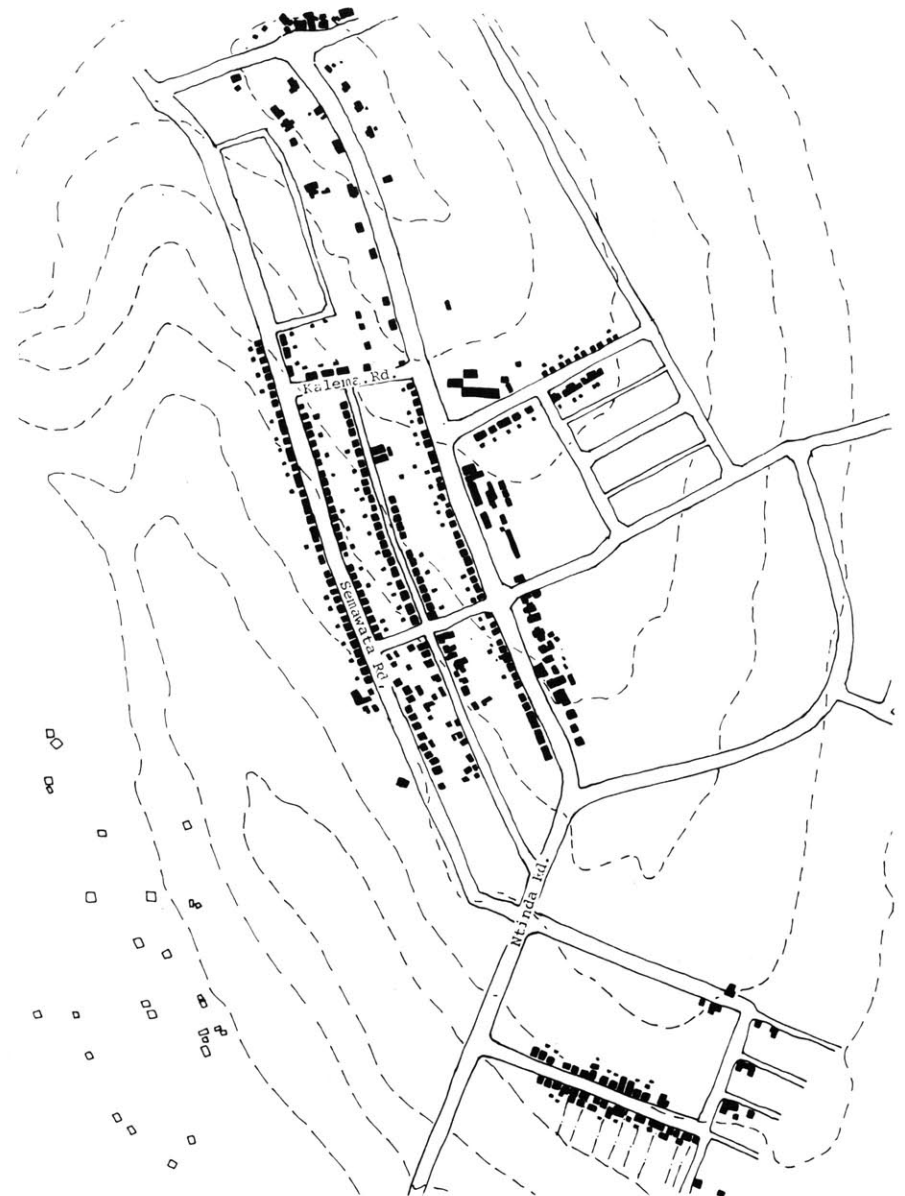
SERVICES



Streicher Road: Site and service Self-help Scheme. Mud/wattle houses. Murram finished roads get muddy during the rainy season and dusty during the dry season. Note children playing in storm-water trenches due to lack of sufficiently defined children play-grounds.

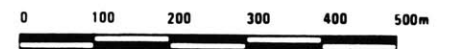


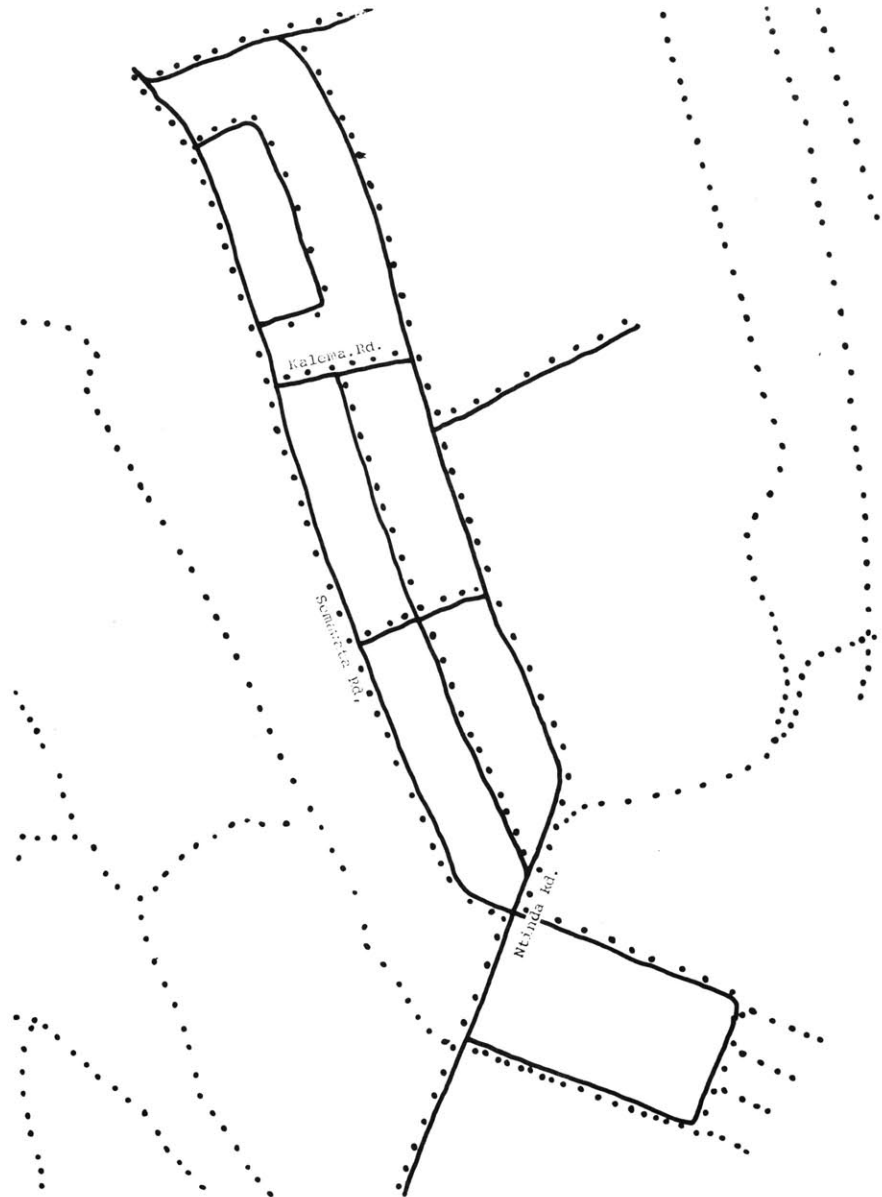
NTINDA ROAD: NTINDA ESTATE IN THE BACKGROUND



LOCALITY PLAN

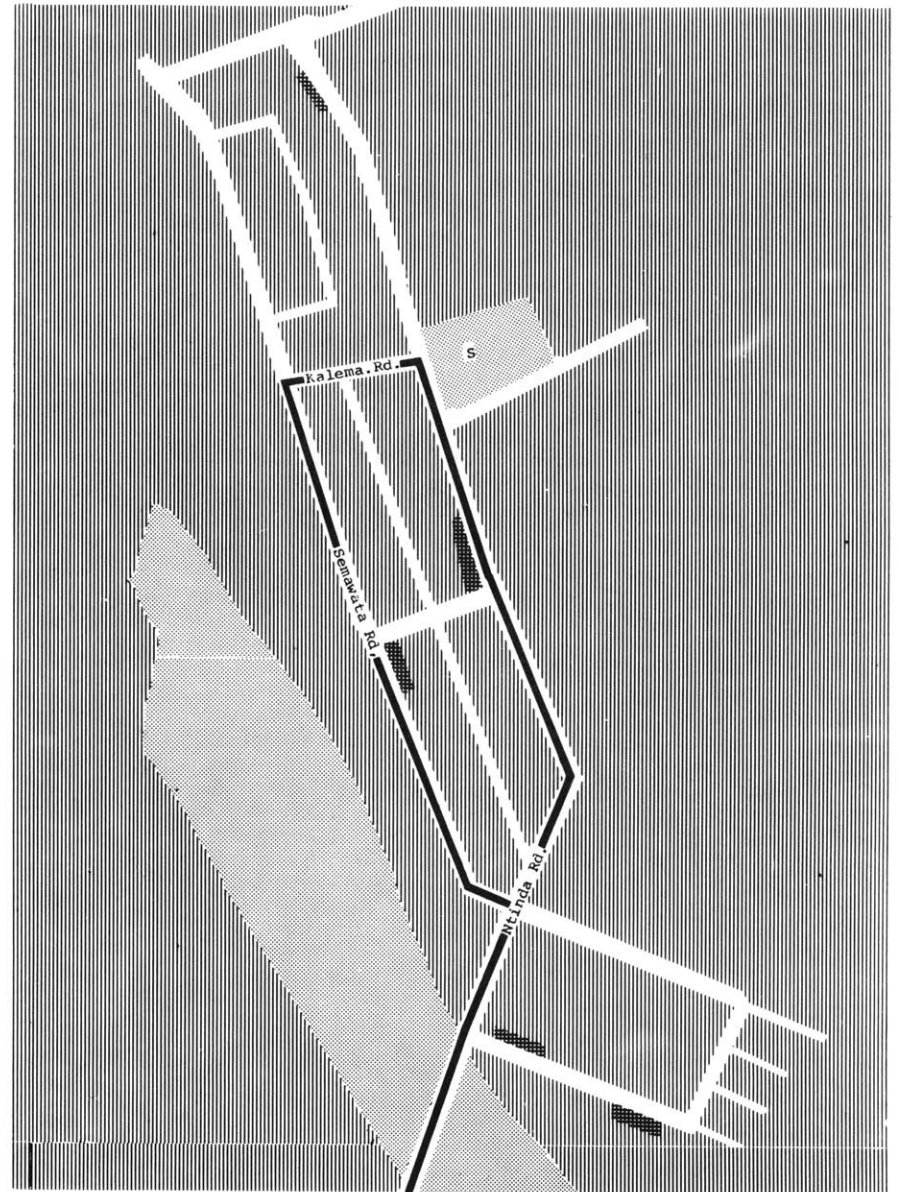
1:10000





Vehicular: Express-way		Pedestrian: Heavy	
District Road		Light	
Minor Road		Railway	

LOCALITY CIRCULATION PATTERN



PK	Parking	Ch	Church
P	Police	R	Recreation
F	Fire Department	L	Library
S	School	U	University
PO	Post Office	Bus	(solid line)
SS	Social Services	Rapid Transit	(broken line)

RESIDENTIAL

COMMERCIAL

INDUSTRIAL

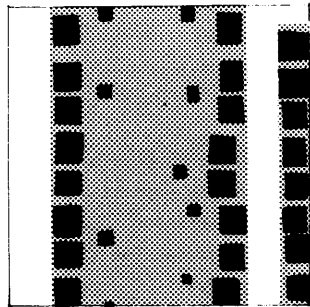


LOCALITY LAND USE PATTERN



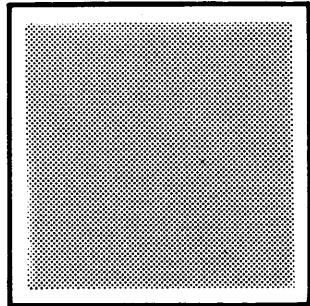
CIRCULATION: New streets besides the three existing parallel streets in the upper section and the ring road in the lower section are being constructed. All the streets are equally used by both pedestrians and vehicles.

LOCALITY SEGMENT AERIAL PHOTOGRAPH



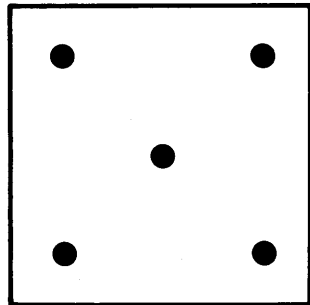
LAND USE PATTERN

- Public
- Semi-Public
- Semi-Private
- Private



LAND USE PERCENTAGES

	Area(Ha)	%
Public	0.20	20
Semi-Publ.	--	--
Semi-Priv.	--	--
Private	0.80	80
Total	1.00	100



DENSITIES

	NO./Ha.
Lots	16
Dwelling Units	16
People/Ha.	96
20 people	

NETWORK EFFICIENCY

N = network length (circulation) = 200m

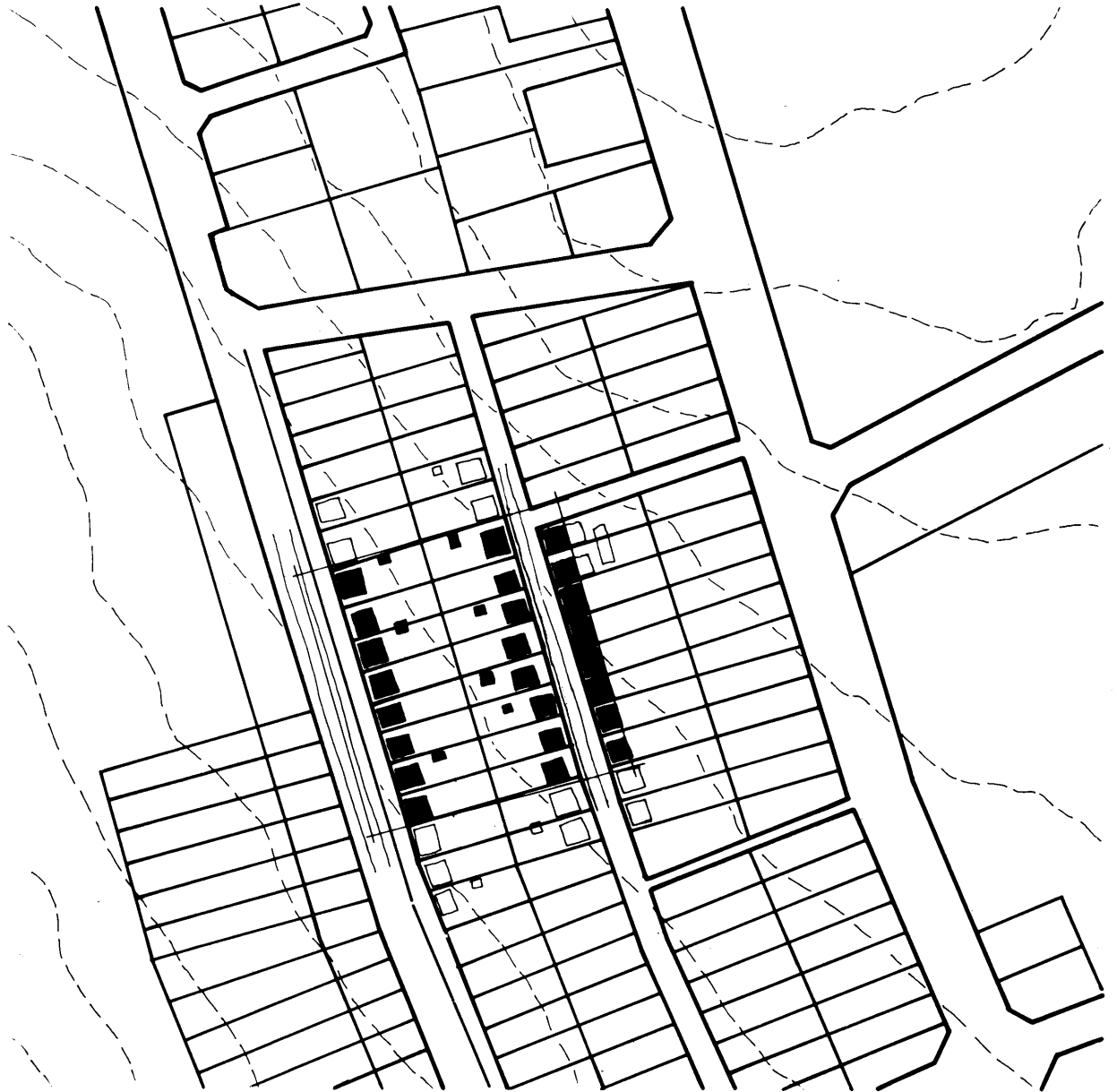
A = area(s) served (circulation, lots)

= block area (10,000 m²) = 1 Hectare

$$R = \frac{N}{A} = \frac{200}{1} = 200$$

Locality block studied is 100 meters by 100 meters (1 Hectare).

LOCALITY BLOCK STUDY



LOCALITY SEGMENT PLOT STUDY

1:2500

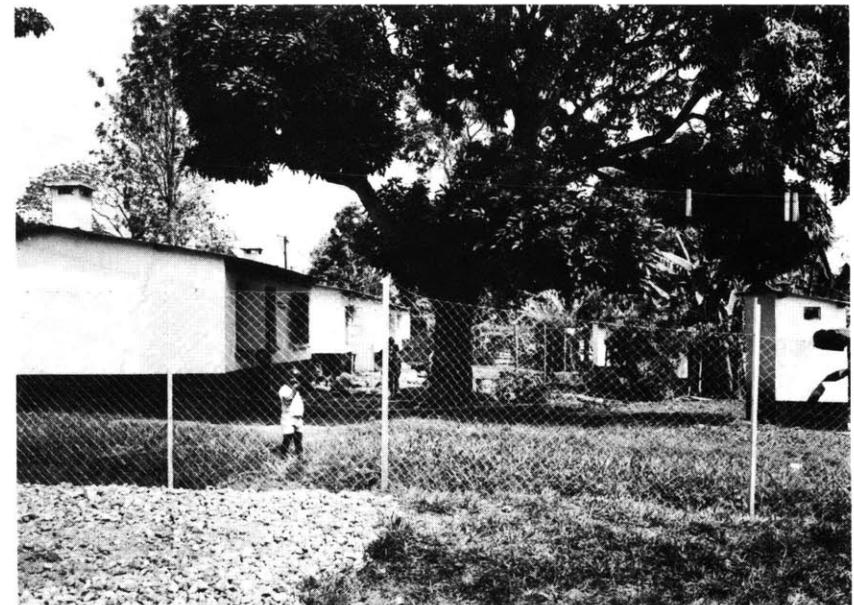


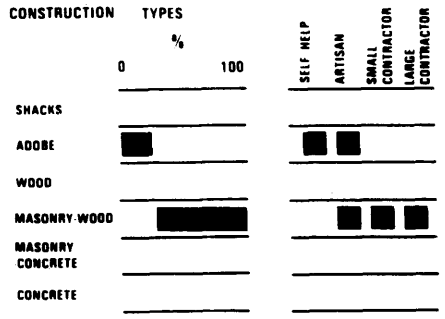


TOP LEFT: Site and Service Self-Help Scheme. Main house in concrete blocks and kitchen and service unit in mud/wattle walls.



BOTTOM LEFT AND RIGHT: Mortgage housing by the African Housing Department of the old colonial government. Limited agricultural subsistence food production still persists.





The chart shows (1) approximate percentage of each construction type within the total number of dwellings; and (2) building group that generally produces each type.

TYPICAL DWELLING

PHYSICAL DATA

SOURCES: CITY COUNCIL
 QUALITY OF INFORMATION: ACCURATE

DWELLING UNIT
 Type: HOUSE
 Area (m²):
 Tenure: MORGAGE

LOT/LAND
 Utilization: PRIVATE
 Area: 704m² (7550ft²)
 Tenure: LEASE

DWELLING
 Location: PERIPHERY
 Type: DETACHED

Number of Floors: 1
 Utilization: SINGLE FAMILY
 Physical State: GOOD

DWELLING DEVELOPMENT

Mode: INSTANT & INCREMENTAL
 Developer: PRIVATE SECTOR
 Builder: LARGE CONTRACTOR AND ARTISAN
 Construction Type: MASONRY/WOOD & MUD & WATTLE
 Year of construction: 1954

MATERIALS

Foundations: CONC.
 Floor: CEM/SCREED
 Walls: CONC. BLOCK
 Roof: LOCAL CLAY TILES

SOCIO - ECONOMIC DATA

SOURCES: STANLEY
 QUALITY OF INFORMATION: APPROXIMATE

GENERAL: SOCIAL
 User's Ethnic Origin: UGANDA
 Place of Birth: KAMPALA
 Education Level: GCE.

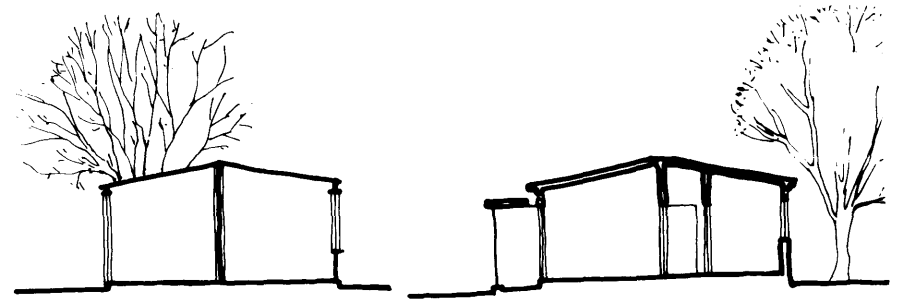
NUMBER OF USERS
 Married: YES
 Single:
 Children: 2
 Total: 6

MIGRATION PATTERN
 Number of Moves: 2
 Rural - Urban: 1
 Urban - Urban: 1
 Urban - Rural:
 Why Came To Kampala: WORK

GENERAL: ECONOMIC
 User's Income Group: MIDDLE
 Employment: CLERICAL
 Distance To Work: 5MILES
 Mode of Travel: BUS

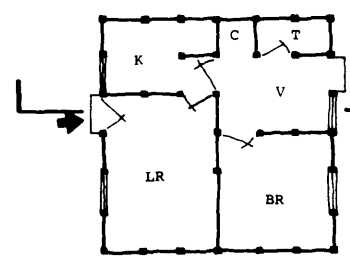
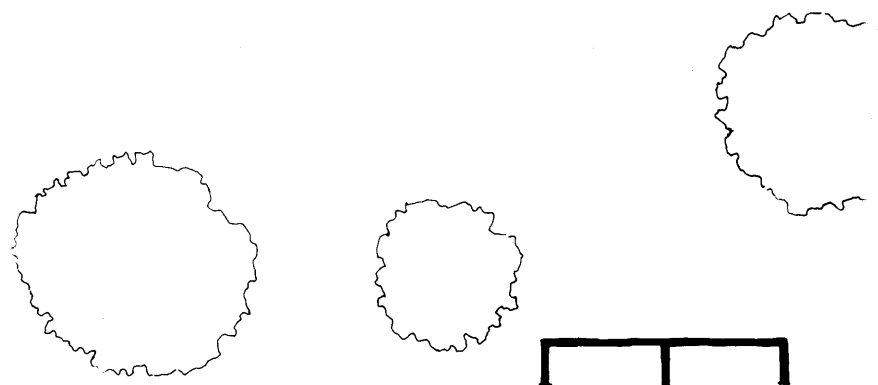
COSTS
 Dwelling Unit:
 Land - Market Value:

DWELLING UNIT PAYMENTS
 Financing:
 Rent/Mortgage:
 % Income For Rent/Mortgage:

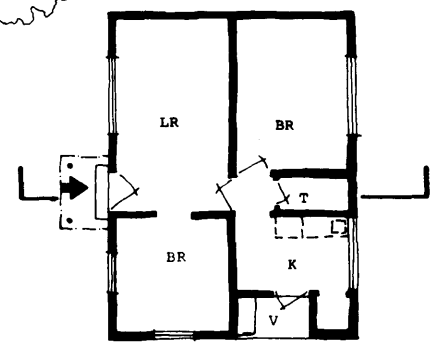


SECTION

SECTION



PLAN

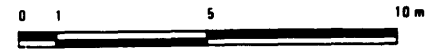


PLAN

- LR Living Room
- DR Dining Room
- D Dining
- BR Bedroom
- V Verandah
- K Kitchen
- L Laundry
- T Toilet-Bathroom
- C Closet

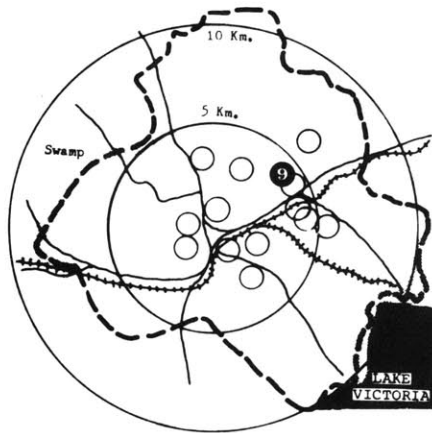
DWELLING

1:200



9. KATALI KAMPALA

Low/Middle Income Site and Services
Government Suburban Project



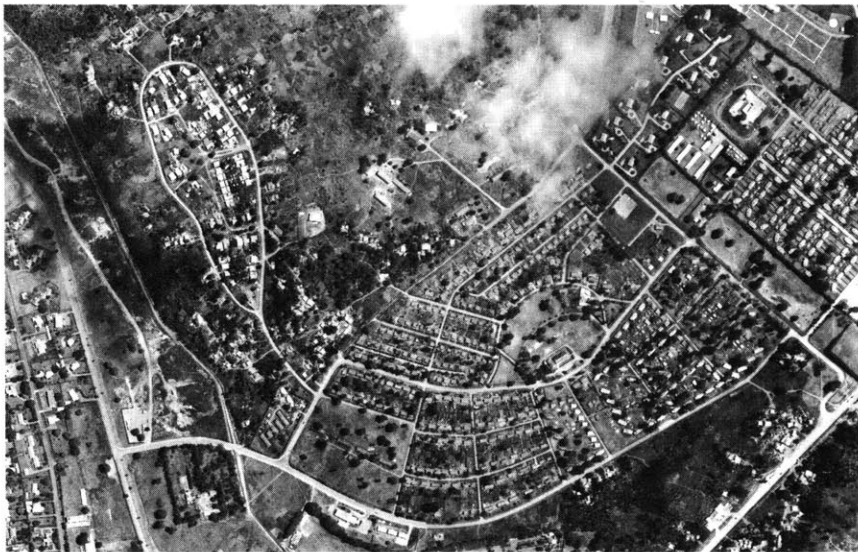
LOCATION: Katali lies 4.5 Km. to the east of city center and immediately to the northwest of Naguru estate.

ORIGINS: Katali originated at the same time and in similar manner as the Kiswa estate but was meant to be of higher standard than Kiswa. Roads, streetlights and water mains with stand-

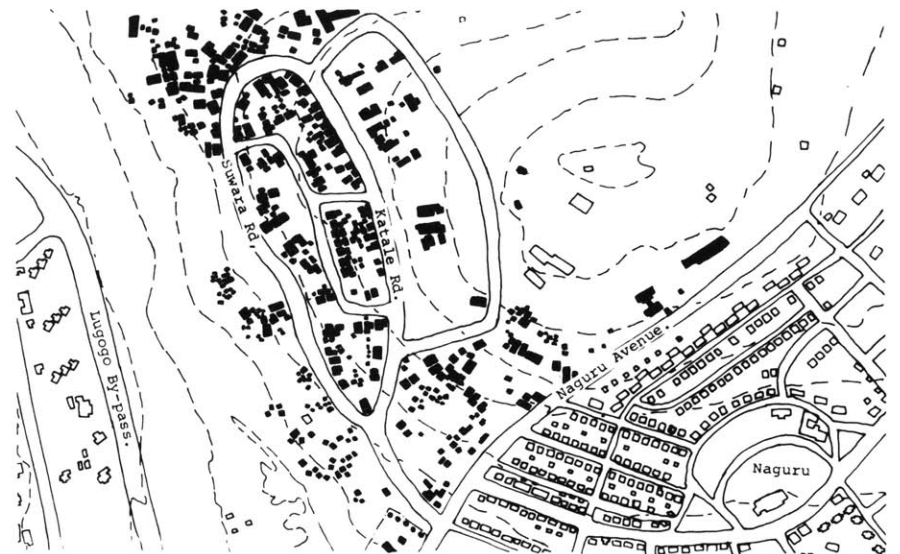
pipes every 200 yards were included with 12m x 33m plots which were allocated to poor people at a premium of 600/= (\$90) and an annual ground rent of 15/= (\$2). The African Housing Department provided loans of corrugated iron sheets and doors. Yet the poor people could not develop the plots and soon sold them to richer Africans in top managerial positions.

The reason for this kind of universal phenomenon are quite clear. The original

plot allocatees at that time (1957) were earning only 92/= (\$13) a month or 844/= (\$140) a year and yet were required to develop instantly a dwelling costing 4000/= (\$370) a year and this in addition to land premium, ground rent, and food and clothing for their families. On the other hand richer Africans found it much cheaper to pay a 49 year lease premium of 600/= for 0.1 Ha. (0.25 acres) instead of a 99 year lease premium of 10,000/=

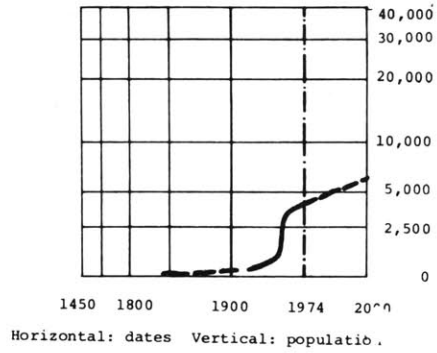


LOCALITY AERIAL PHOTOGRAPH



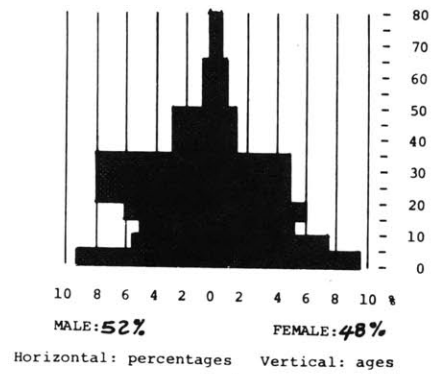
LOCALITY PLAN

LOCALITY POPULATION GROWTH



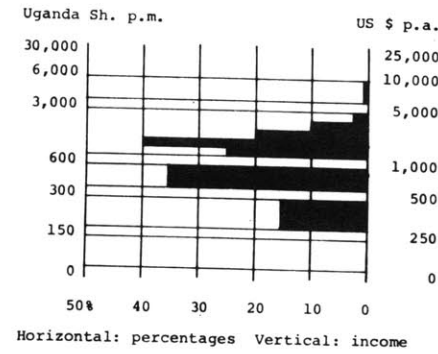
1969 Pop. Census: 850

LOCALITY AGE DISTRIBUTION



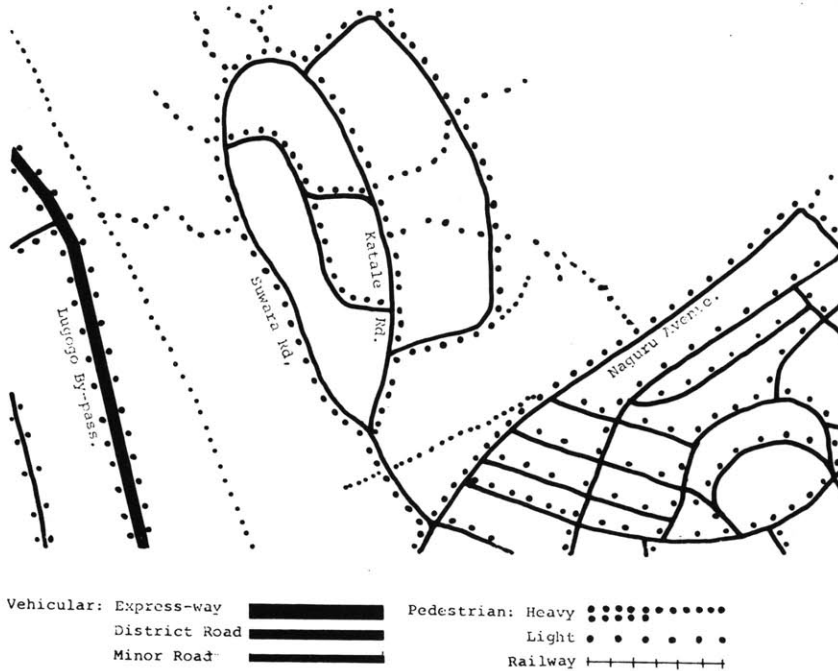
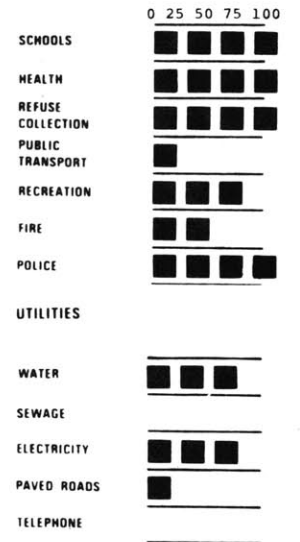
1969 Census

LOCALITY INCOME DISTRIBUTION



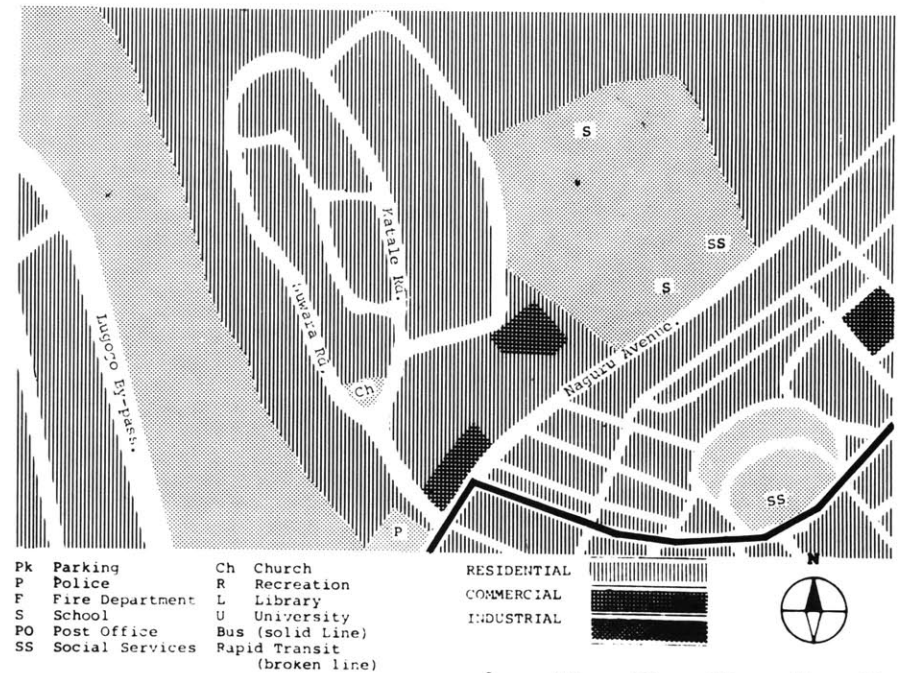
1969 Estimate

SERVICES



LOCALITY CIRCULATION PATTERN

1:10000



LOCALITY LAND USE PATTERN



to 45,000/= (\$1,430 - 6,430) for the same size of land area in high-class areas such as Kololo and Mbuya.

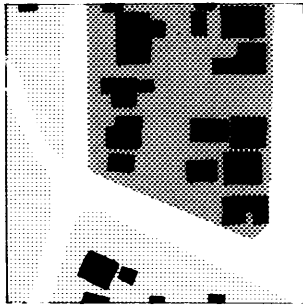
LAYOUT: The controlled settlement is looped by a murram-surfaced road and is now composed of dwellings of Grade I and Grade II.

POPULATION: In 1969 there were about 850 people living on the estate. All dwellings are occupied by families with an average of 4 people.

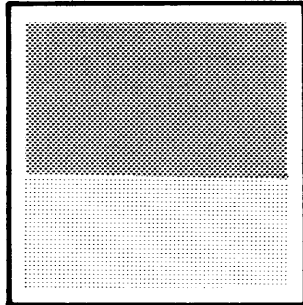
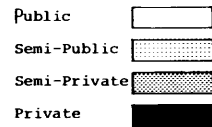
LAND USE: More than 80% of the land is used for residential purposes. A few institutions such as a church, schools and a social security fund building are located on the fringes of the locality.

INCOMES: Katali is rapidly becoming a high income residential area. Only about 5% of the families earn less than 500/= per month. About 70% earn over 1,000/= while more than 10% earn well over 2,000/= (.290) per month. Two big slums per-

LOCALITY SEGMENT AERIAL PHOTOGRAPH

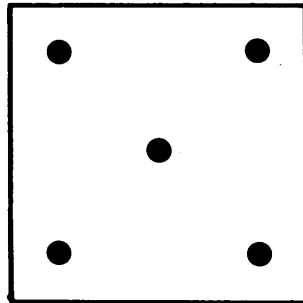


LAND USE PATTERN



LAND USE PERCENTAGES

	Area (Ha)	%
Public	0.23	23
Semi-Publ.	0.32	32
Semi-Priv.	--	--
Private	0.45	45
Total	1.00	100



DENSITIES

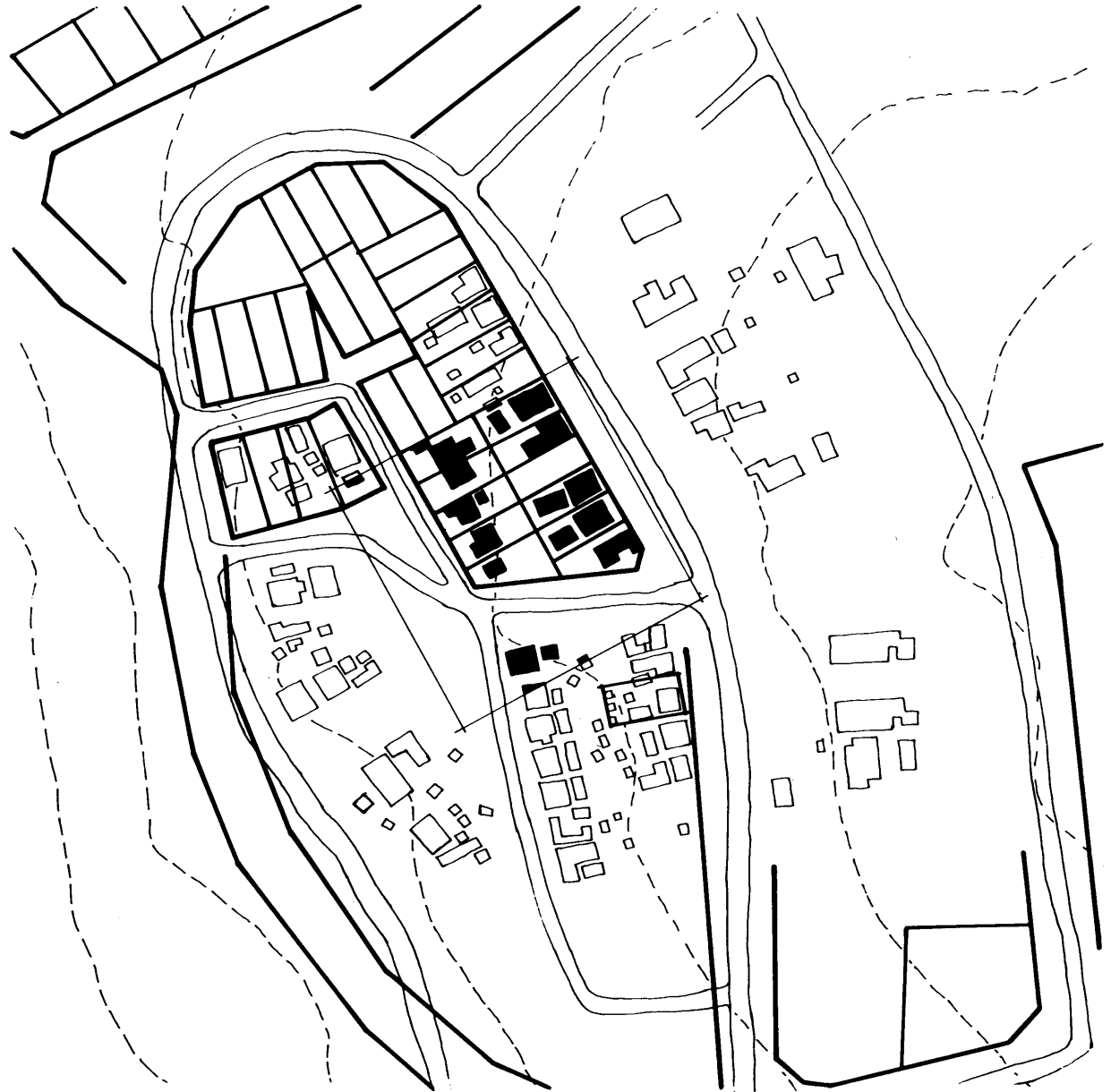
	No/Ha.
Lots	11
Dwelling Units	14
People/Ha.	84
20 people	●

NETWORK EFFICIENCY

N = network length (circulation) = 300
 A = area(s) served (circulation, lots)
 = block area (10,000 m²) = 1 Hectare
 $R = \frac{N}{A} = \frac{300}{1} = 300$

Locality block studied is 100 meters by 100 meters (1 Hectare).

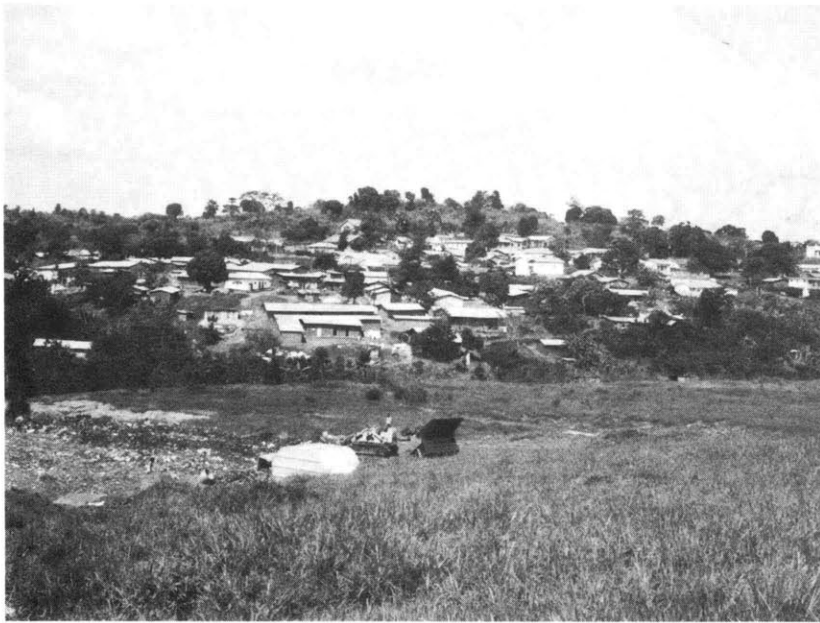
LOCALITY BLOCK STUDY



LOCALITY SEGMENT PLOT STUDY

1:2500





TOP LEFT: View of Katali Estate from Kira Road.

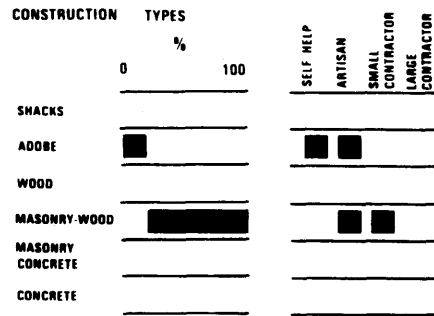
BOTTOM LEFT: Site and Service Self-Help scheme. Mud/wattle houses with cement plaster and bag-wash paint.

BOTTOM RIGHT: Mud/wattle thatched houses and concrete block glazed houses stand side by side and usually belong to the same family.

haps built by the original plot allocatees, are located in the banana plantations in the valley bordering the planned project.

CIRCULATION: No public transport reaches the estate but it is a short walk up to the bus stop in adjacent Naguru. The estate has a relatively high percentage of car-ownership.





The chart shows (1) approximate percentage of each construction type within the total number of dwellings; and (2) building group that generally produces each type.

TYPICAL DWELLING

PHYSICAL DATA

SOURCES: CITY COUNCIL
 QUALITY OF INFORMATION: ACCURATE APPROXIMATE

DWELLING UNIT

Type: HOUSE
 Area (m²): 139.4 (1500ft²)
 Tenure: OWNERSHIP

LOT/LAND

Utilization: PRIVATE
 Area: 360 (3880ft²)
 Tenure: LEASE

DWELLING

Location: INNER RING
 Type: DETACHED
 Number of Floors: 1
 Utilization: SINGLE FAMILY
 Physical State: NEW MODERN

DWELLING DEVELOPMENT

Mode: INSTANT
 Developer: PUBLIC/PRIVATE
 Builder: ARTISAN/SMALL CONTRACTOR
 Construction Type: MASONRY/WOOD
 Year of construction: 1967

MATERIALS

Foundations: R.C. CONCRETE
 Floor: CEMENT/SCREED
 Walls: CONCRETE BLOCK
 Roof: G.I.SHEETS

SOCIO - ECONOMIC DATA

SOURCES: STANLEY
 QUALITY OF INFORMATION: ESTIMATE

GENERAL: SOCIAL

User's Ethnic Origin: UGANDAN
 Place of Birth: KAMPALA
 Education Level: HIGH SCHOOL

NUMBER OF USERS

Married: YES
 Single:
 Children:
 Total: 8

MIGRATION PATTERN

Number of Moves: 1
 Rural - Urban: 1
 Urban - Urban:
 Urban - Rural:
 Why Came To Kampala: WORK

GENERAL: ECONOMIC

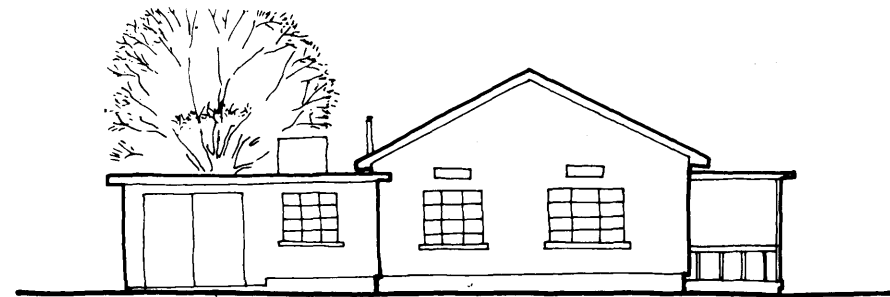
User's Income Group: MEDIUM
 Employment: BUSINESS
 Distance To Work: 4 MILES
 Mode of Travel: BUS

COSTS

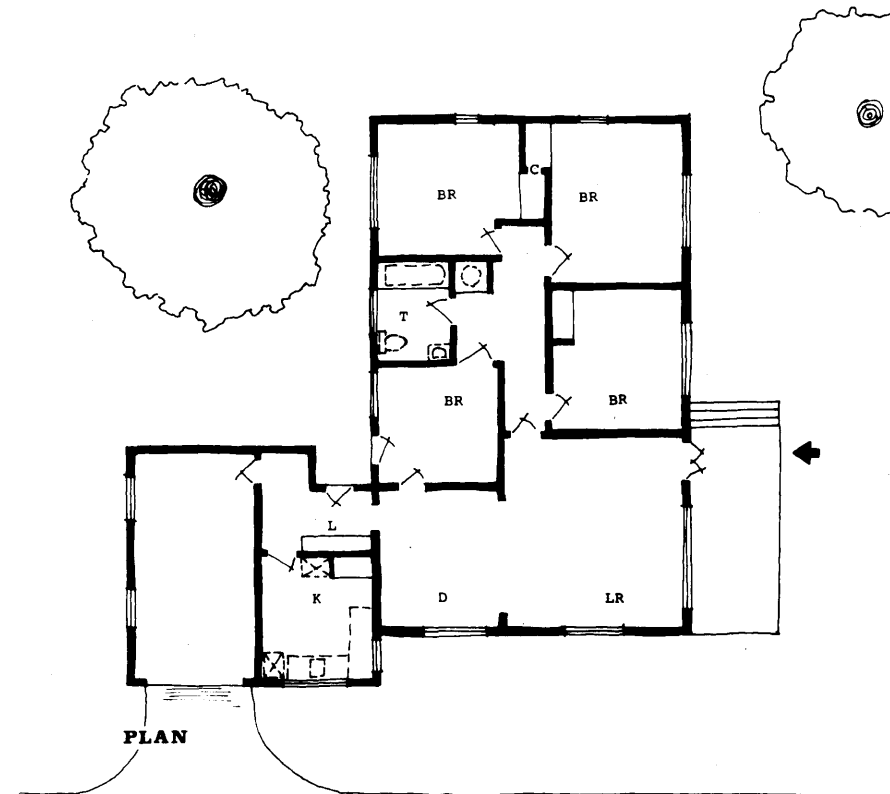
Dwelling Unit: \$3,000
 Land - Market Value:

DWELLING UNIT PAYMENTS

Financing: LOAN/SAVINGS
 Rent/Mortgage:
 % Income For Rent/Mortgage:



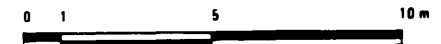
ELEVATION



PLAN

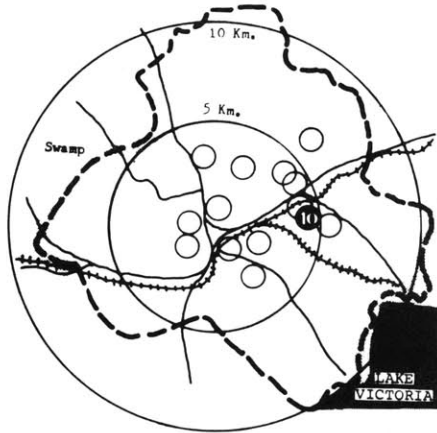
LR Living Room K Kitchen
 DR Dining Room L Laundry
 D Dining T Toilet-Bathroom
 BR Bedroom C Closet

1:200



DWELLING

10. KISWA KAMPALA Low Income Site and Services Government Suburban Project



LOCATION: Kiswa estate lies about 4.5 Km. east of the city center just south of Nakawa housing estate and between Kampala-Jinja-Mombasa railway, Spring road and Port-Bell Road. Immediately to the south is the Bugolobi prefabricated Housing Scheme.

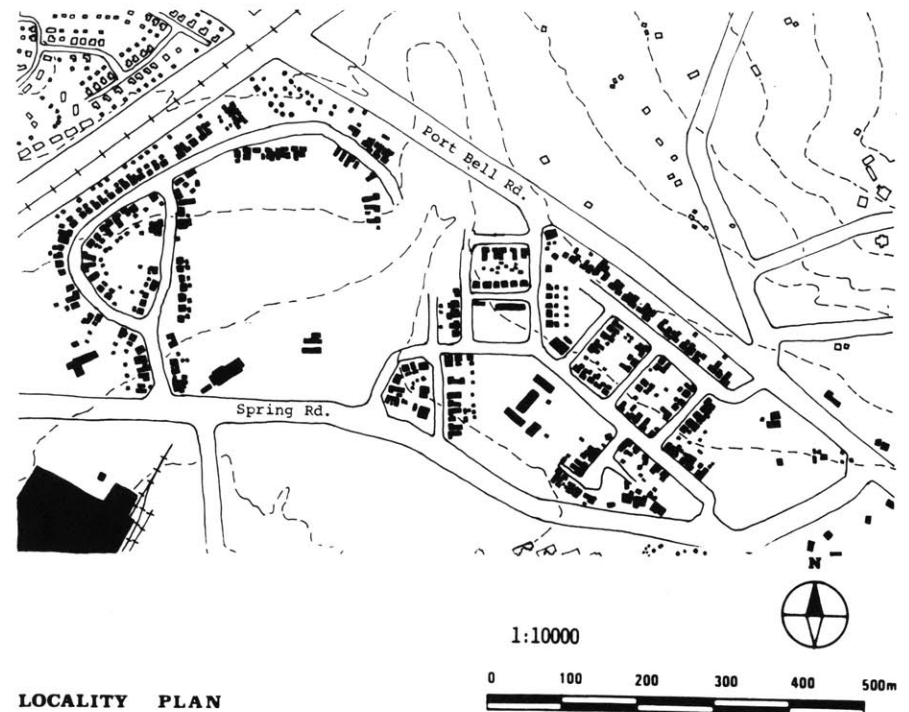
ORIGINS: In early 1956 when the former Kampala Municipal boundary was extended

to the east, new areas such as Kiswa and Katali were brought under the control of the city council. The few people living in the areas at the time were encouraged to stay on while new streets, water mains along the streets, and 200 plots were laid out. Low income African labourers, especially immigrants from outside Buganda region were invited to build houses in traditional mud and wattle but of good quality and with a corrugated iron roof or

asbestos roof specification (Grade II Building By-Laws). By the end of a thirty-year lease the buildings were intended to have been upgraded to Grade I standards by the owner, and for this reason the area was referred to as a "Temporary Housing Area". Nubian Moslems, descendants of Sudanese Emin Pasha's army which came to Kampala in the 18th. Century were particularly encouraged to settle in this area because they were more urbanised and were meant to

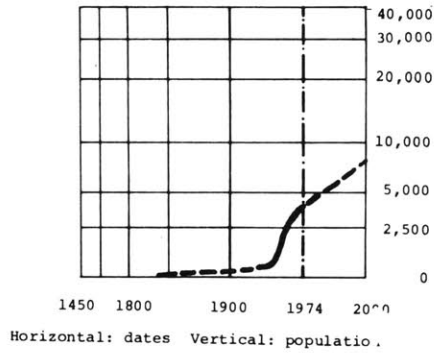


LOCALITY AERIAL PHOTOGRAPH



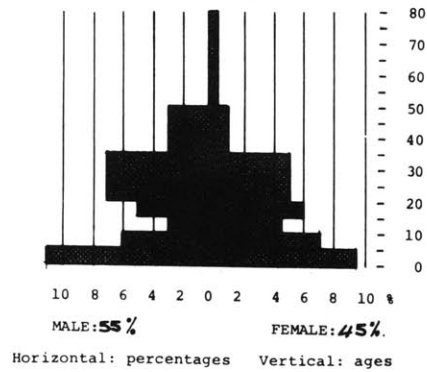
LOCALITY PLAN

LOCALITY POPULATION GROWTH



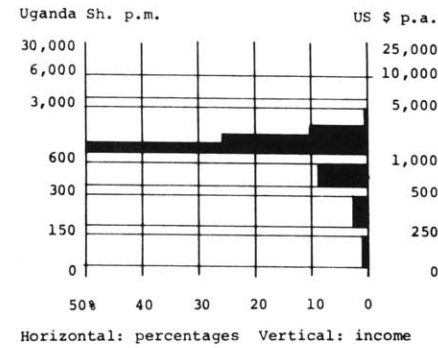
1969 Pop. Census: 2,600

LOCALITY AGE DISTRIBUTION



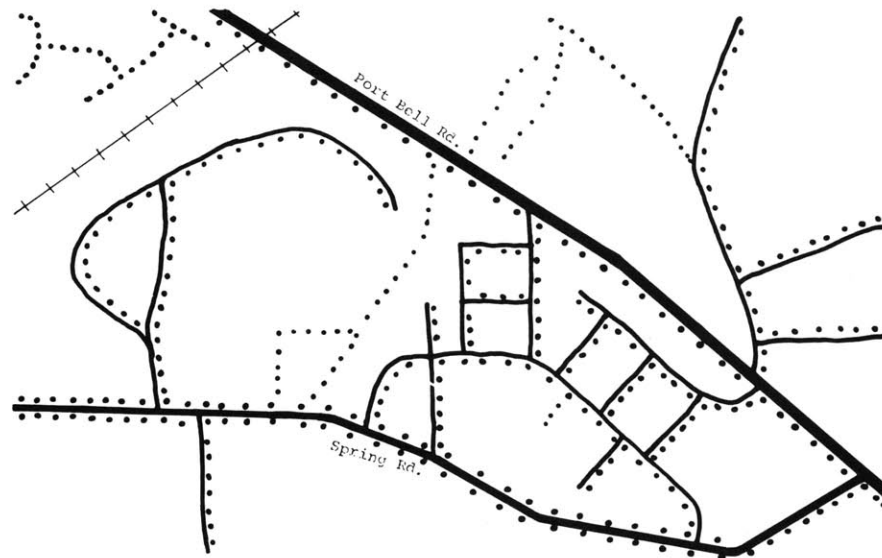
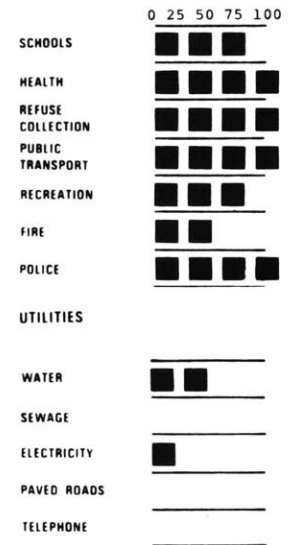
1969 Census

LOCALITY INCOME DISTRIBUTION



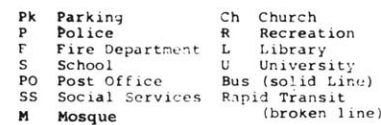
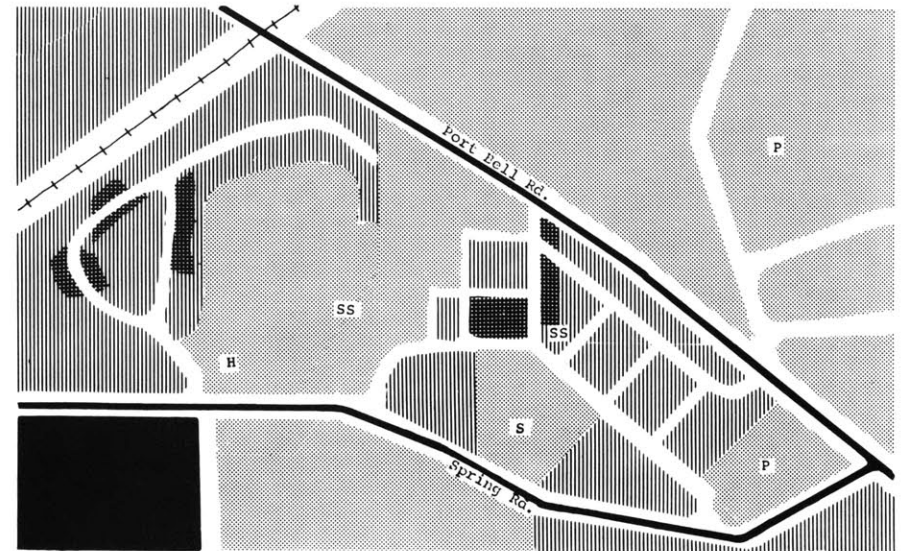
1974 Estimate

SERVICES



LOCALITY CIRCULATION PATTERN

1:10000



LOCALITY LAND USE PATTERN



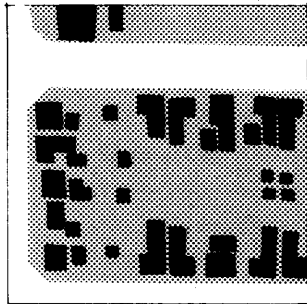
become a standard and example to the rest.

LAYOUT: The street pattern is regular and follows the slope of the hill.

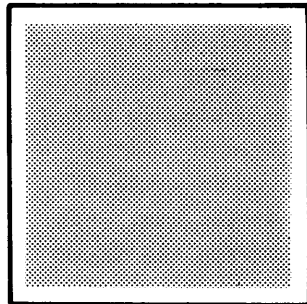
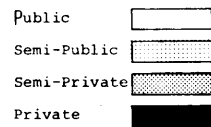
POPULATION: As in most parts of Kampala the age-sex pyramid for Kiswa shows a fairly balanced ratio of men to women and adults to children. Again most of the population lies in the employable age group of 20 and 50. There are very few aged people because these keep to the "shambas" in the rural areas. The 1969 census indicated 2,600 for the estate and has been growing very fast.

LAND USE: 75% of the total area of 32 hectares (80 acres) are used for dwellings and shops. The rest is taken up by institutions: a school, a church, a community center, a youth hostel, and a cemetery.

INCOMES: The income distribution figure shows a very wide variation ranging from 150/= (\$21) to over 2,000/= (\$290) a month. According

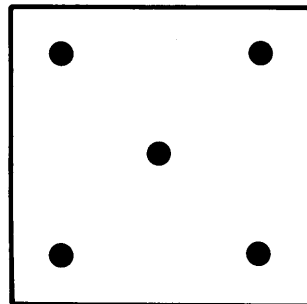


LAND USE PATTERN



LAND USE PERCENTAGES

	Area (Ha)	%
Public	0.20	20
Semi-Publ.	--	--
Semi-priv.	--	--
Private	0.80	80
Total	1.00	100



DENSITIES

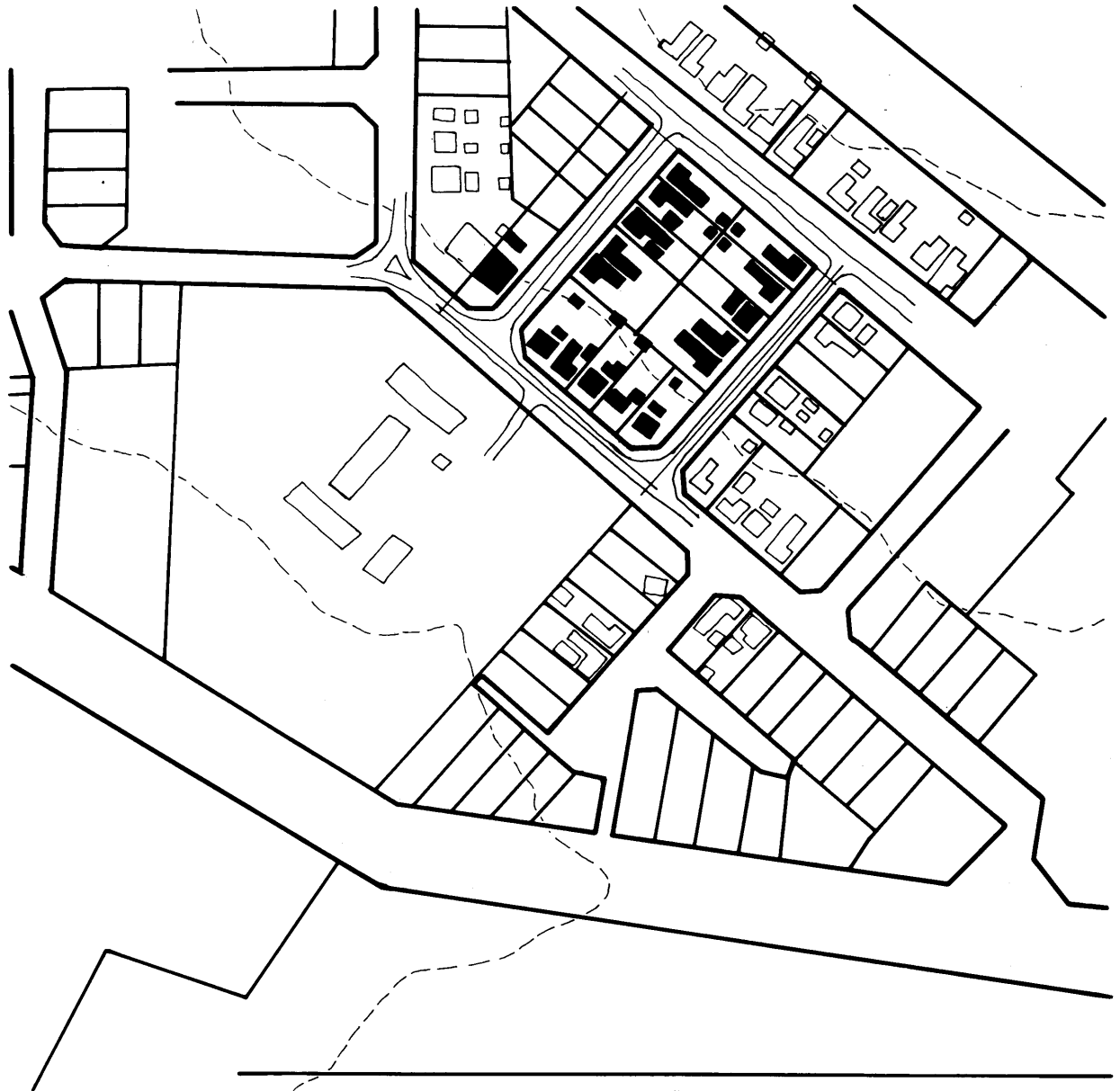
	No./Ha.
Lots	17
Dwelling Units	16
People/Ha.	96
20 people	●

NETWORK EFFICIENCY

N = network length (circulation) = 350
 A = area(s) served (circulation, lots)
 = block area (10,000 m²) = 1 Hectare
 $R = \frac{N}{A} = \frac{350}{1} = 350$

Locality block studied is 100 meters by 100 meters (1 Hectare).

LOCALITY BLOCK STUDY



LOCALITY SEGMENT PLOT STUDY

1:2500





TOP LEFT: Mud/ wattle houses in Site and Services scheme.

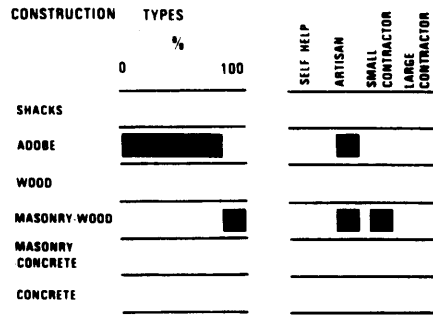
BOTTOM LEFT: mud/wattle houses.

BOTTOM RIGHT: Sugar cane and Maize (corn) in the foreground.

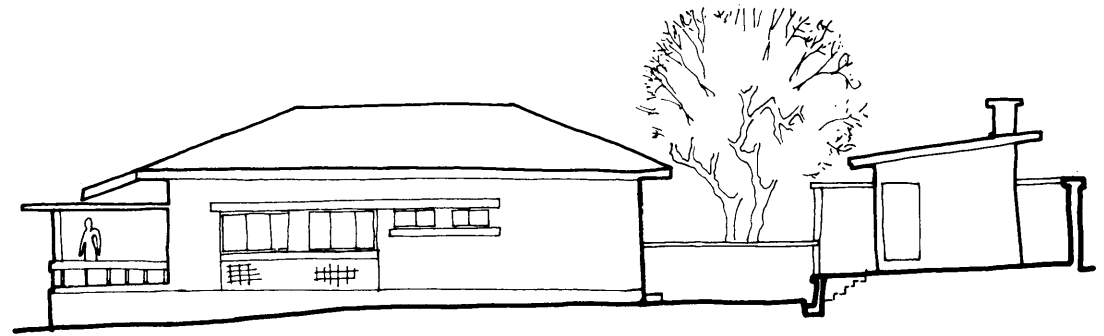
to Mr. Butamanya, the estate manager, 60% of the people earn 500-1,000/= (\$70-140) per month, while more than 15% earn over 1,500/= (\$210) per month a salary higher than the official government salary for graduates.

CIRCULATION: Public service routes form two of the three boundaries of the locality. Many people prefer to walk to town and to the industrial area which is less than a kilometer away. The streets are wide and intensively used.

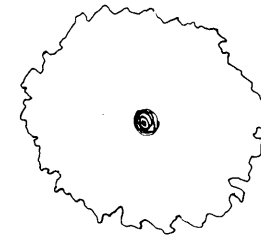




The chart shows (1) approximate percentage of each construction type within the total number of dwellings; and (2) building group that generally produces each type.



ELEVATION



SOCIO - ECONOMIC DATA

SOURCES: STANLEY
 QUALITY OF INFORMATION: ESTIMATE

TYPICAL DWELLING

PHYSICAL DATA

SOURCES: KAMPALA CITY COUNCIL
 QUALITY OF INFORMATION: RELIABLE

GENERAL: SOCIAL UGA
 User's Ethnic Origin: UGANDAN
 Place of Birth: JINJA
 Education Level: H.SCOOL

DWELLING UNIT
 Type: HOUSE
 Area (m²): 123.4 m² (1544ft²)
 Tenure: OWNED

NUMBER OF USERS
 Married: YES
 Single: -
 Children: 5
 Total: 7

LOT/LAND
 Utilization: PRIVATE
 Area: 585.3m² (6300ft²)
 Tenure: LEASE

MIGRATION PATTERN
 Number of Moves: 2
 Rural - Urban: -
 Urban - Urban: 2
 Urban - Rural: -
 Why Came To Kampala: WORK

DWELLING
 Location: INNER RING
 Type: DETACHED
 Number of Floors: 1
 Utilization: SINGLE FAMILY
 Physical State: GOOD

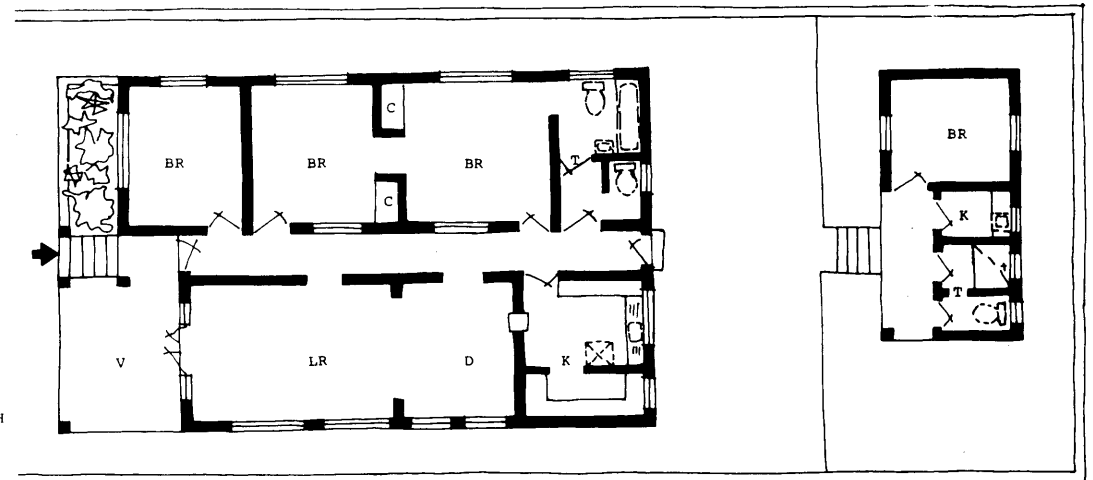
GENERAL: ECONOMIC
 User's Income Group: MIDDLE-HIGH
 Employment: CLERICAL
 Distance To Work: 2 MILES
 Mode of Travel: CAR

DWELLING DEVELOPMENT
 Mode: INSTANT/INCREMENTAL
 Developer: PRIVATE
 Builder: SMALL CONTRACTOR
 Construction Type: MASONRY/WOOD
 Year of construction: 1966

COSTS
 Dwelling Unit: \$6900.00
 Land - Market Value:

MATERIALS
 Foundations: CEMENT/CONC.
 Floor: CEMENT SCREED
 Walls: 9"/6" CONC. BLOCK
 Roof: G.C.I. SHEETS

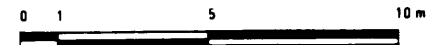
DWELLING UNIT PAYMENTS
 Financing: YES
 Rent/Mortgage:
 % Income For Rent/Mortgage:



PLAN

LR Living Room K Kitchen
 DR Dining Room L Laundry
 D Dining T Toilet-Bathroom
 BR Bedroom C Closet
 V Verandah

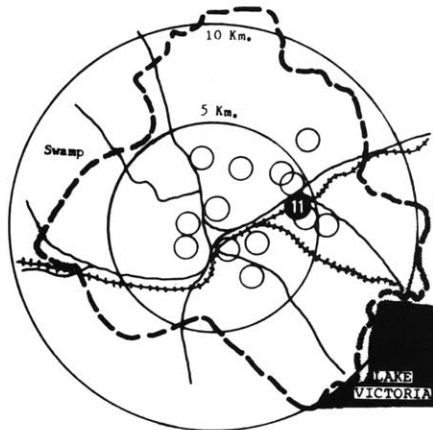
1:200



DWELLING

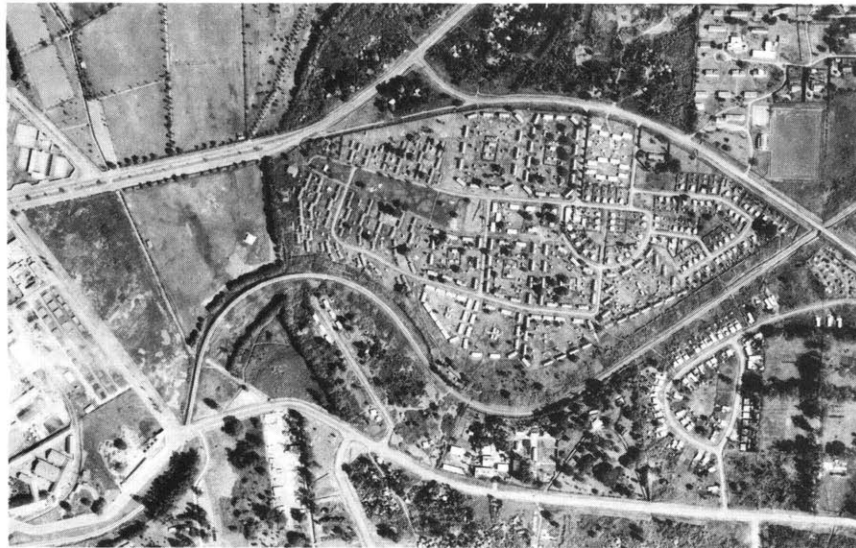
11. NAKAWA KAMPALA

Low Income Government Suburban Project



LOCATION: Nakawa lies to the south of Jinja-Port-Bell junction about 4 Km. (2.5 miles) from the city center and less than 1 Km. from Naguru estate. It was started in 1949 and is now composed of 850 dwellings.

ORIGINS: Like Naguru, Nakawa was started by the Protectorate Government African Housing Department to meet



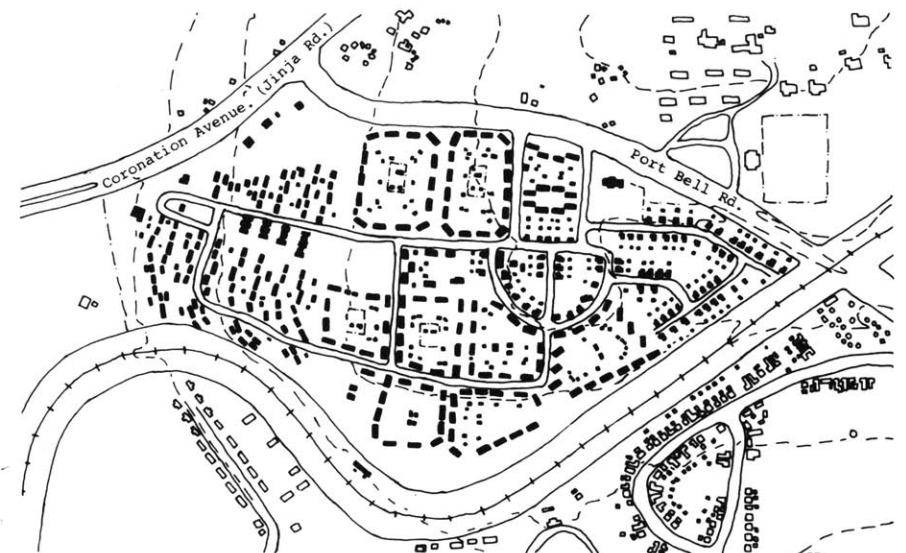
LOCALITY AERIAL PHOTOGRAPH

the influx of big numbers of Africans flocking into the urban centers for work opportunities following the boom in economic and commercial and industrial development in Uganda after the second World War. The estate was originally intended to provide rooms and small housing units for low-income labourers on subsidized rents.

LAYOUTS: Nakawa was planned around rectangular courtyards which contain service and utility blocks serving

about 20 dwellings. There are no clearly defined semi-public and public areas.

POPULATION: Nakawa population is difficult to assess and to control due to constant over-night visitors who sometimes stay for months due to changing of tenants who pass their room or dwellings to friends without informing the administration. Extracts from the 1969 Census show the total population at about 7,000.

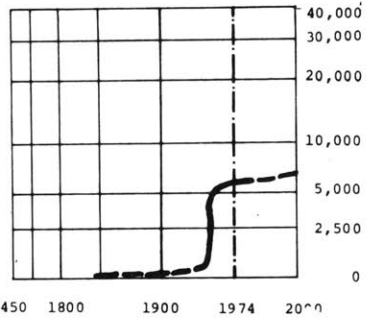


LOCALITY PLAN

1:10000

0 100 200 300 400 500m

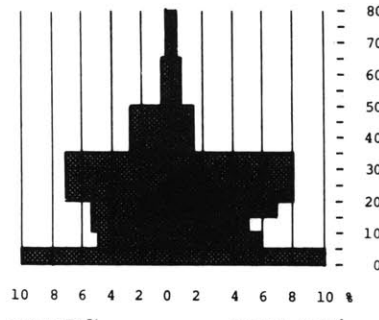
LOCALITY POPULATION GROWTH



Horizontal: dates Vertical: populatio.

1969 Pop. Census: 7,000

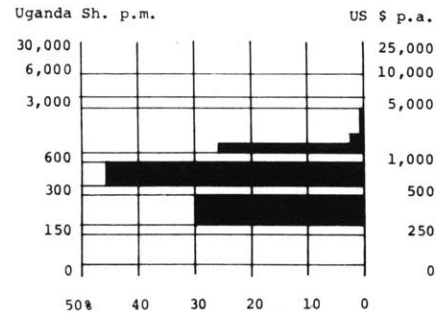
LOCALITY AGE DISTRIBUTION



MALE: 51% FEMALE: 49%
Horizontal: percentages Vertical: ages

1969 Census

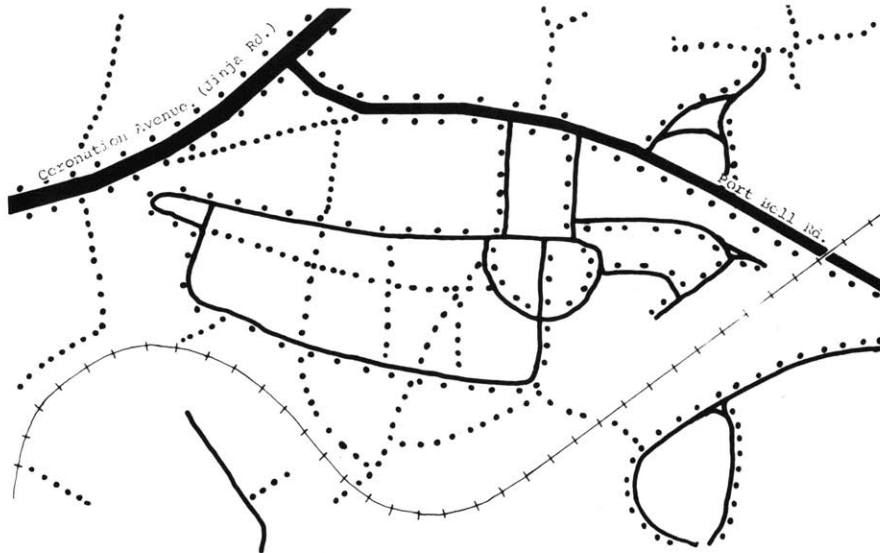
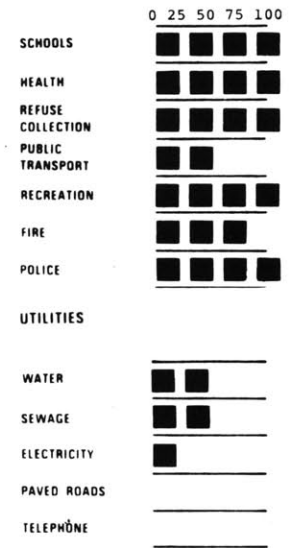
LOCALITY INCOME DISTRIBUTION



Horizontal: percentages Vertical: income

1974 Estimate

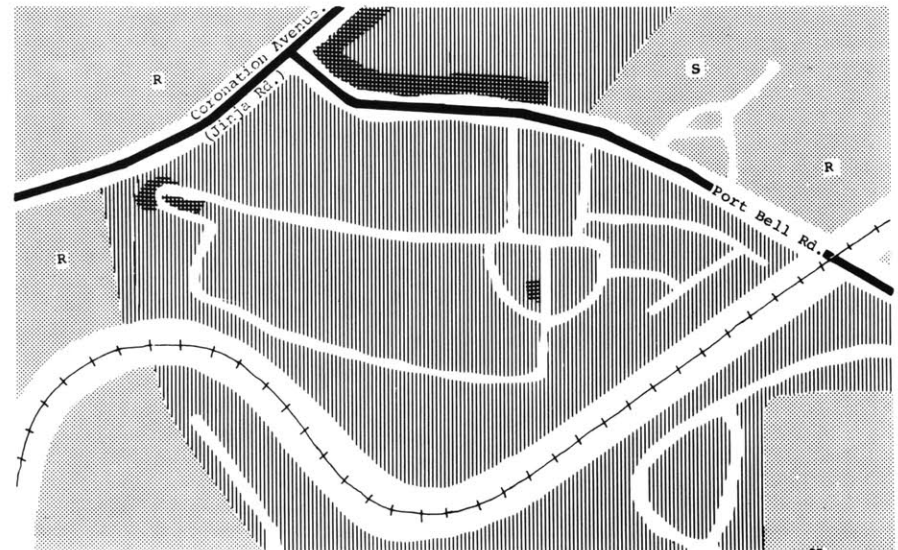
SERVICES



Vehicular: Express-way (thick solid line), District Road (medium solid line), Minor Road (thin solid line).
Pedestrian: Heavy (dotted line), Light (dashed line), Railway (line with cross-ticks).

LOCALITY CIRCULATION PATTERN

1:10000



PK Parking, P Police, F Fire Department, S School, PO Post Office, SS Social Services, Ch Church, R Recreation, L Library, U University, Bus (solid line), Rapid Transit (broken line).

RESIDENTIAL (horizontal lines), COMMERCIAL (vertical lines), INDUSTRIAL (diagonal lines).



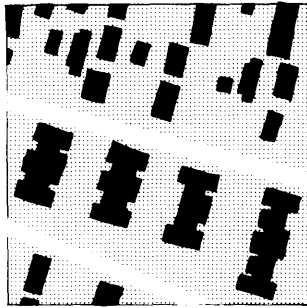
LOCALITY LAND USE PATTERN



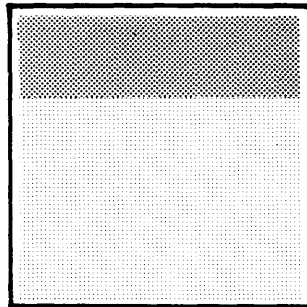
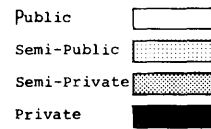
LAND USE: The area is predominantly residential. Shopping is done in Nakawa market just outside the estate.

INCOMES: More than 50% of the population earns less than 350/= (\$30) per month which is the average income of the locality. Less than one percent earns over 1,000/= per month.

CIRCULATION: The estate is inadequately served with vehicular traffic. There are very few car-owners on the estate and most houses can not be reached by car. The estate is well connected by a bus route to the city center.

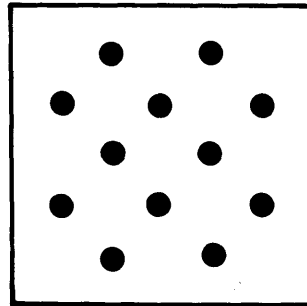


LAND USE PATTERN



LAND USE PERCENTAGES

	Area (Ha)	%
Public	0.05	5
Semi-Priv.	--	--
Semi-Publ.	0.70	70
Private	0.25	25
Total	1.00	100



DENSITIES

	No/Ha.
Lots	N/A
Dwelling Units	80
People/Ha.	240
20 people	●

NETWORK EFFICIENCY

N = network length (circulation) = 170
 A = area(s) served (circulation, lots)
 = block area (10,000 m²) = 1 Hectare
 $R = \frac{N}{A} = \frac{170}{1} = 170$

Locality block studied is 100 meters by 100 meters (1 Hectare).

LOCALITY BLOCK STUDY



LOCALITY SEGMENT PLOT STUDY

1:2500





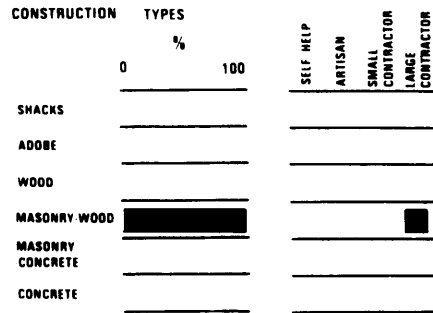
TOP LEFT: Semi-detached concrete block houses for low-middle income government employees.

BOTTOM LEFT: T

BOTTOM LEFT: Note the poor maintenance of the communal compound. Lack of individual responsibilities over the land surrounding dwellings leads to careless littering and abandonment of articles and garbage.

BOTTOM RIGHT: Communal Compound.





The chart shows (1) approximate percentage of each construction type within the total number of dwellings; and (2) building group that generally produces each type.

TYPICAL DWELLING

PHYSICAL DATA

SOURCES: CITY COUNCIL
 QUALITY OF INFORMATION: ACCURATE/APPROXIMATE

DWELLING UNIT

Type: ROOM/HOUSE
 Area (m²): 30.38 (327ft²)
 Tenure: RENTAL

LOT/LAND

Utilization: SEMI-PUBLIC
 Area: UNDEFINED
 Tenure: PUBLIC

DWELLING

Location: INNER RING
 Type: SEMI-DETACHED
 Number of Floors: 1
 Utilization: FAMILY/SINGLE
 Physical State: FAIR

DWELLING DEVELOPMENT

Mode: INSTANT
 Developer: PUBLIC
 Builder: LARGE CONTRACTOR
 Construction Type: MASONRY/WOOD
 Year of construction: 1957

MATERIALS

Foundations: R.C. CONCRETE
 Floor: CEMENT/SCREED
 Walls: CONC. BLOCK
 Roof: CORRUGATED ASBESTOS

SOCIO - ECONOMIC DATA

SOURCES: STANLEY
 QUALITY OF INFORMATION: ESTIMATE

GENERAL: SOCIAL

User's Ethnic Origin: UGANDAN
 Place of Birth: TESO
 Education Level: PRIMARY

NUMBER OF USERS

Married: YES
 Single:
 Children: 3
 Total: 5

MIGRATION PATTERN

Number of Moves: 2
 Rural - Urban: 1
 Urban - Urban: 1
 Urban - Rural:
 Why Came To Kampala: WORK

GENERAL: ECONOMIC

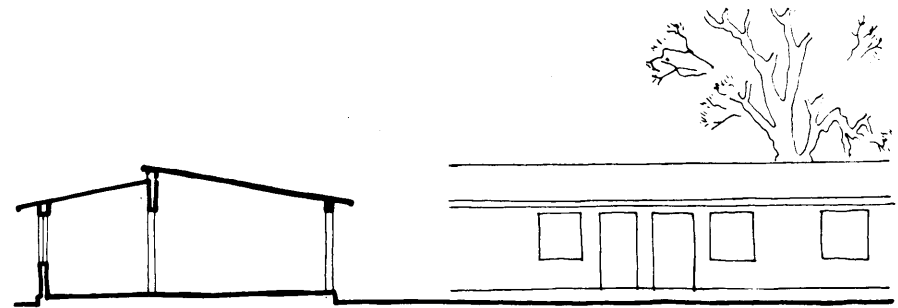
User's Income Group: LOW
 Employment: LABOURER
 Distance To Work: 4 MILES
 Mode of Travel: BUS

COSTS

Dwelling Unit: \$900
 Land - Market Value:

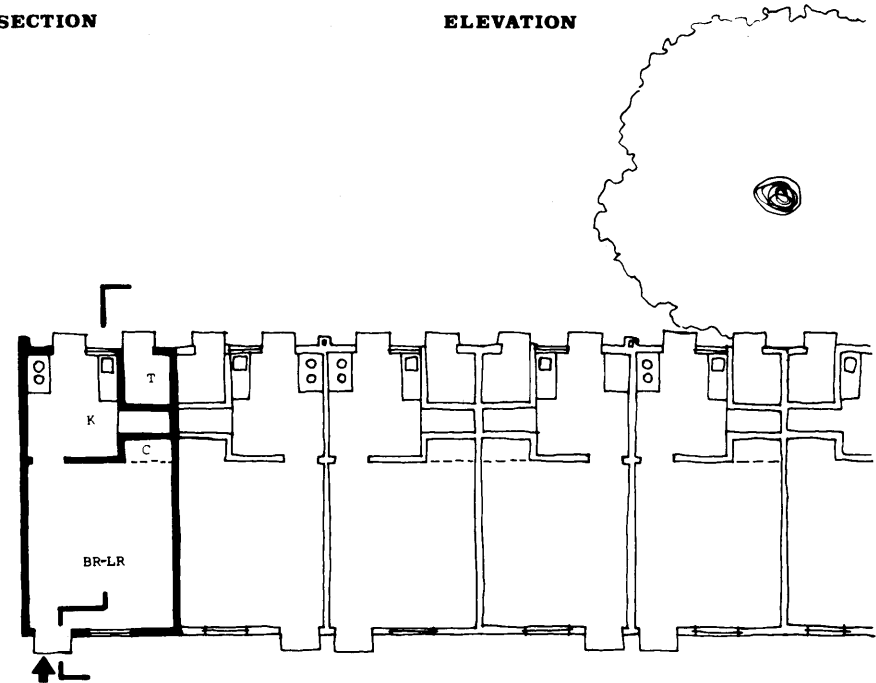
DWELLING UNIT PAYMENTS

ECON. RENT \$8per month
 Financing:
 Rent/Mortgage: SUBS. RENT
 Income For Rent/Mortgage: \$3



SECTION

ELEVATION

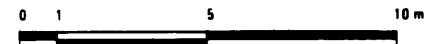


PLAN

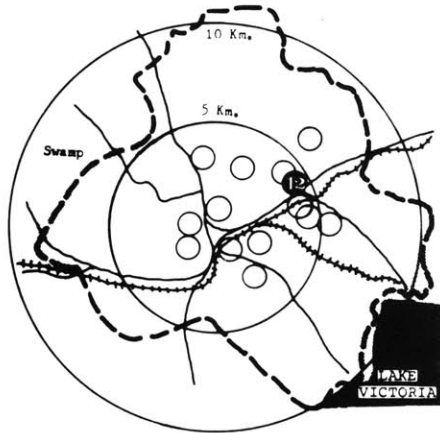
- LR Living Room
- DR Dining Room
- D Dining
- BR Bedroom
- K Kitchen
- L Laundry
- T Toilet-Bathroom
- C Closet

DWELLING

1:200

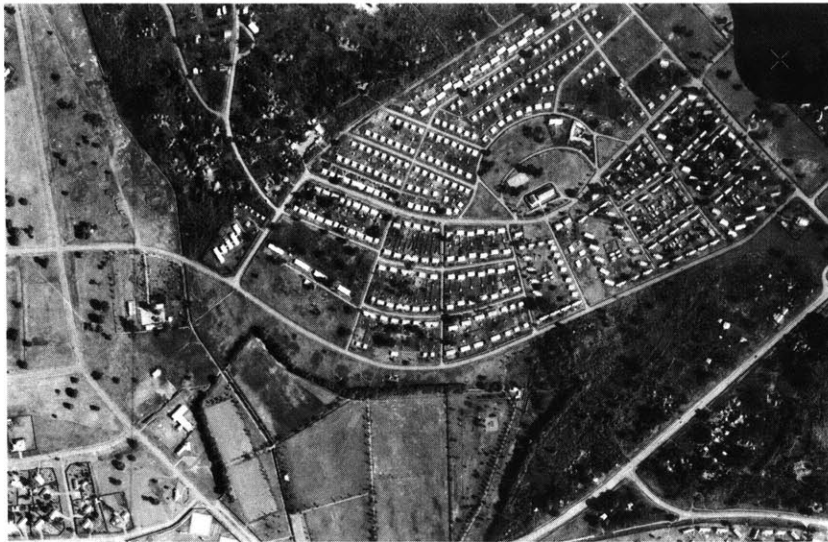


12. NAGURU KAMPALA Middle/High Income Government Suburban Project



LOCATION: Naguru estate, with 182 dwellings lies on the southern slopes of Naguru Hill to the north of Kampala-Jinja Road about 4 Km. ($2\frac{1}{2}$ miles) from the city center. The estate which was begun in 1950 is about 1.6 Km. (1 mile) from the main industrial area of Kampala.

ORIGINS: Together with



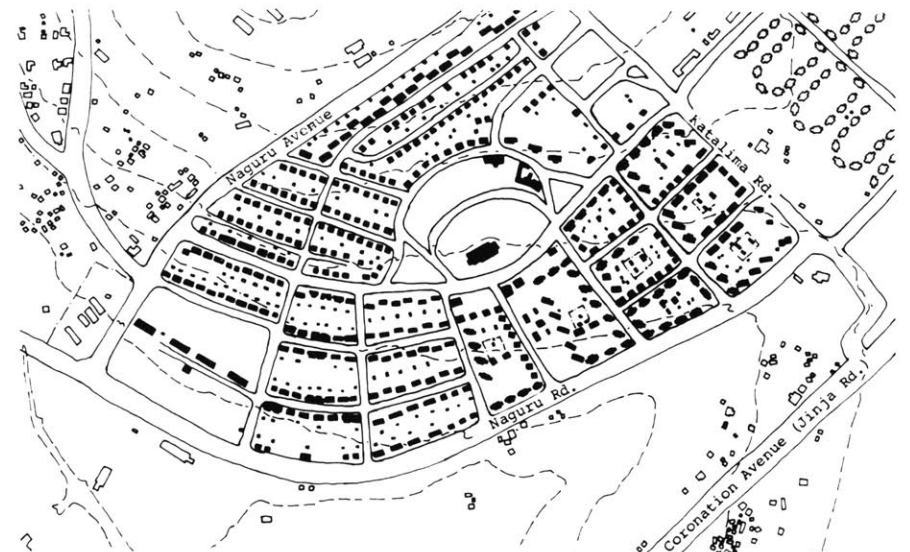
LOCALITY AERIAL PHOTOGRAPH

neighboring Nakawa, Naguru is one of the oldest estates in Kampala. It was established in the early 1950's by the colonial "African Housing Department", primarily to cater to the housing needs of the middle and high income African city dwellers who were unable to build their own houses.

LAND LAYOUT: Designed for rent and built instantly on a planned layout, the estate is based on a rectangular grid. In common with all public centrally adminis-

tered housing projects Naguru has no clearly defined semiprivate and private areas.

POPULATION: Naguru has a total population of about 3,500 mostly of the middle income and are primarily middle aged. Exact figures are difficult to obtain even for the city council because tenants keep changing very often without informing the estate management.

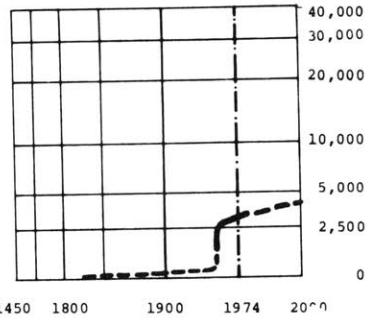


LOCALITY PLAN

1:10000



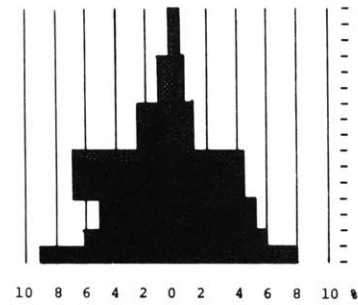
LOCALITY POPULATION GROWTH



Horizontal: dates Vertical: populatio.

1969 Pop. Census: 3,500

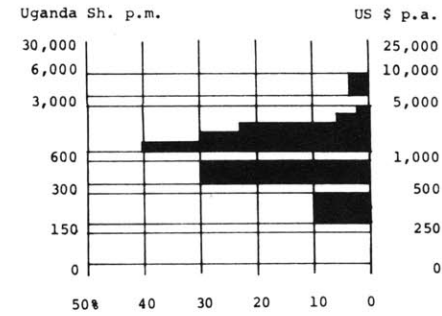
LOCALITY AGE DISTRIBUTION



MALE: 57% FEMALE: 43%
Horizontal: percentages Vertical: ages

1969 Census

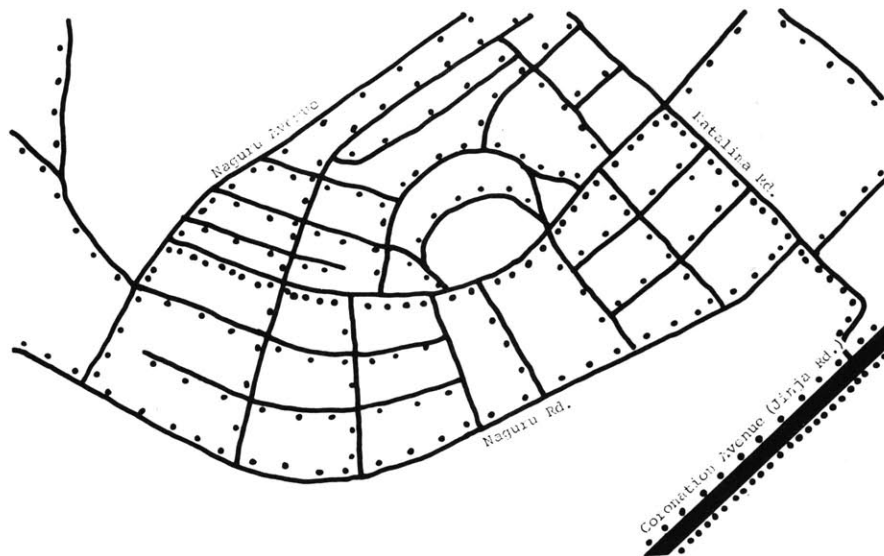
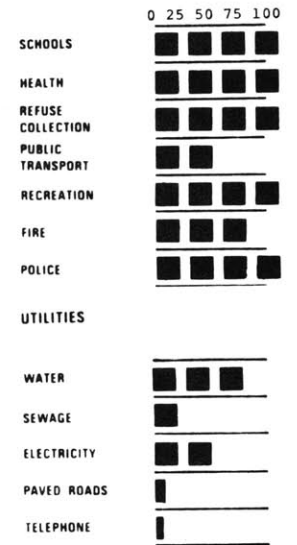
LOCALITY INCOME DISTRIBUTION



Horizontal: percentages Vertical: income

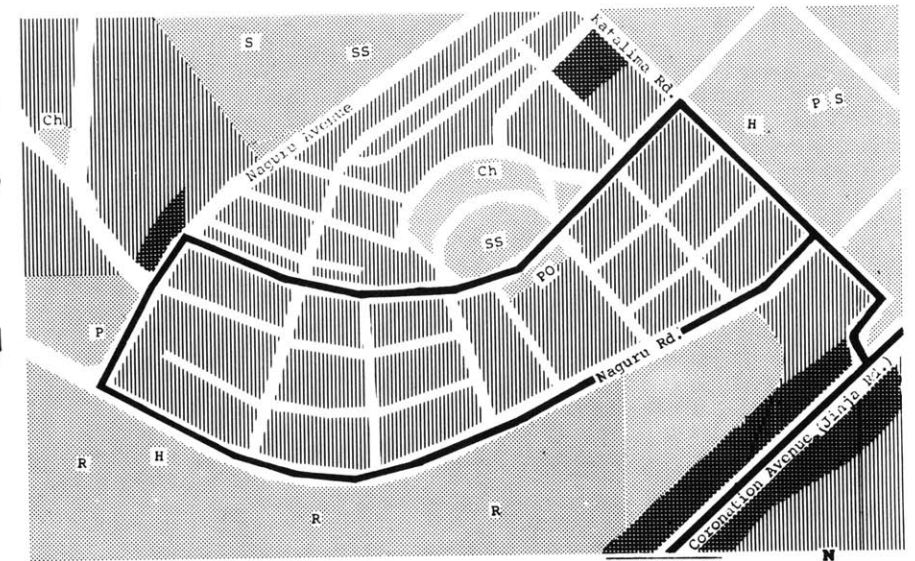
1974 Estimate

SERVICES



LOCALITY CIRCULATION PATTERN

1:10000



- Pk Parking
- P Police
- F Fire Department
- S School
- PO Post Office
- SS Social Services
- Ch Church
- R Recreation
- L Library
- U University
- Bus (solid line)
- Rapid Transit (broken line)

- RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL



LOCALITY LAND USE PATTERN

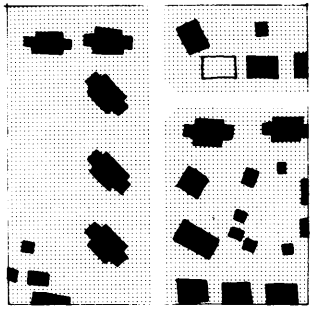


LAND USE: More than 90% of the locality is used for residential purposes. The rest is used for institutions: a community and social center, churches, etc.. There is hardly any commercial activity within the locality. Nakawa market on Jinja Road provides the community with most foods.

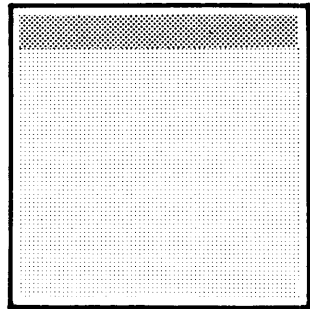
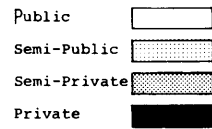
INCOMES: Average income is 12,000/= (\$1,850 dollars) p.a. or 1,000/= p.m.. About 40% earns less than 500/= per month while 7% earns 1,500/= and over.

CIRCULATION: Most of the community uses private cars. The estate is served by a regular bus connection to the city center. Most young people, especially students, prefer to cycle or to walk to the city.

LOCALITY SEGMENT AERIAL PHOTOGRAPH

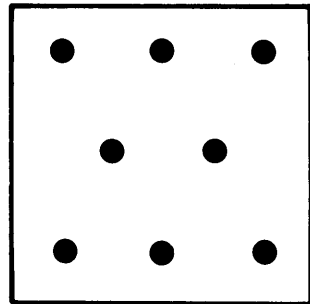


LAND USE PATTERN



LAND USE PERCENTAGES

	Area (Ha)	%
Public	0.07	7
Semi-Publ.	0.83	83
Semi-Priv.	--	--
Private	0.10	10
Total	1.00	100



DENSITIES

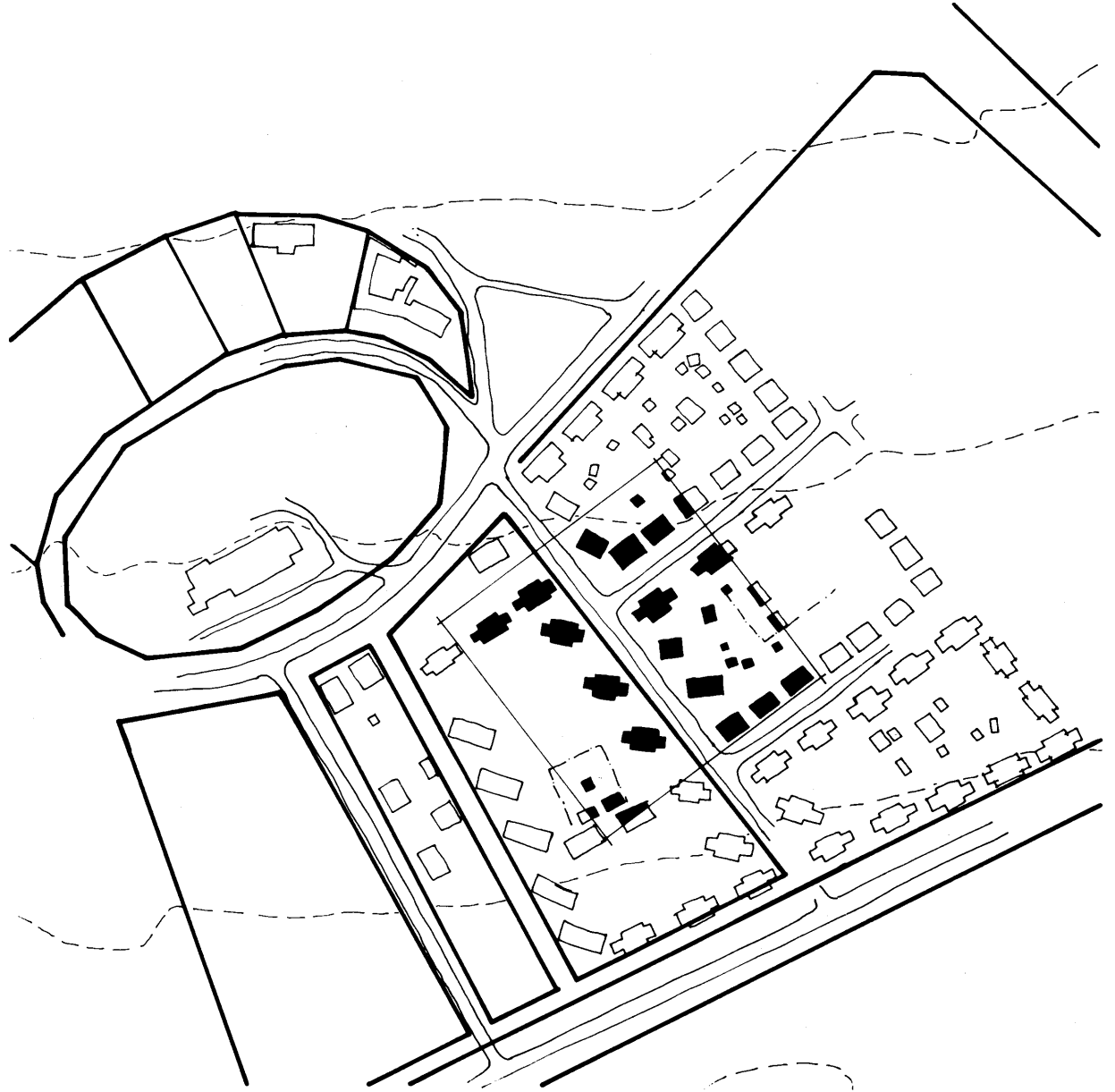
	No/Ha.
Lots	--
Dwelling Units	27
People/Ha.	160
20 people	

NETWORK EFFICIENCY

N = network length (circulation) = 145
 A = area(s) served (circulation, lots)
 = block area (10,000 m²) = 1 Hectare
 $R = \frac{N}{A} = \frac{145}{1} = 145$

Locality block studied is 100 meters by 100 meters (1 Hectare).

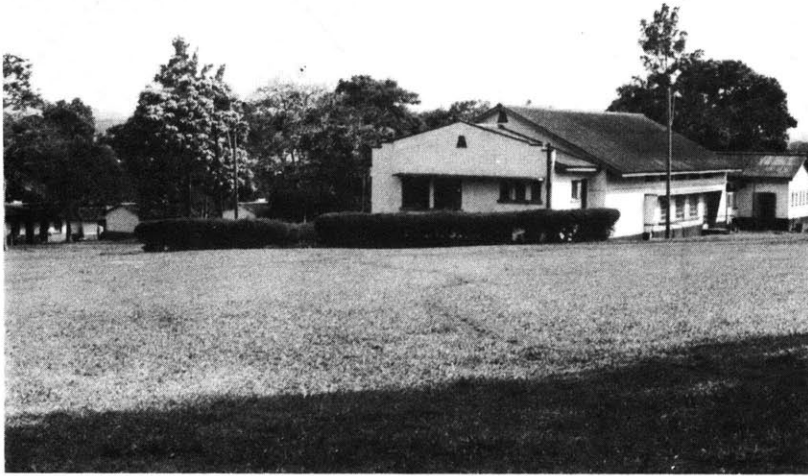
LOCALITY BLOCK STUDY



LOCALITY SEGMENT PLOT STUDY

1:2500





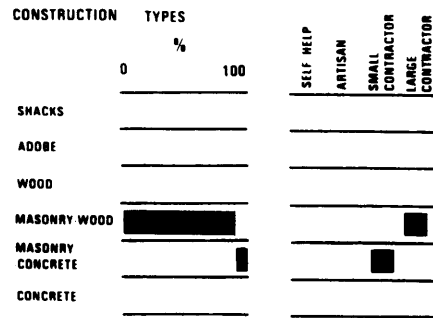
TOP LEFT: Community social hall.

BOTTOM LEFT: Semi-detached concrete blocks with cement plastered houses with Mangalore roofing tiles.

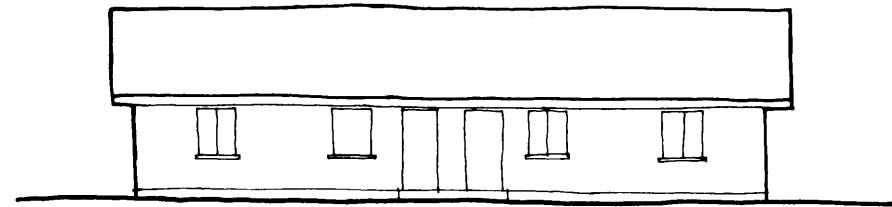


*BOTTOM RIGHT: New walk-up apartments
BOTTOM RIGHT: New walk-up apartments.
Foreground shows single storey row-houses in precast concrete pannel models. In the background is Kololo high income locality.*





The chart shows (1) approximate percentage of each construction type within the total number of dwellings; and (2) building group that generally produces each type.



ELEVATION

SOCIO - ECONOMIC DATA

SOURCES: STANLEY
 QUALITY OF INFORMATION: APPROXIMATE

TYPICAL DWELLING

PHYSICAL DATA

SOURCES: CITY COUNCIL
 QUALITY OF INFORMATION: ACCURATE/ESTIMATE

DWELLING UNIT

Type: HOUSE
 Area (m²): 35.2 (379ft²)
 Tenure: RENTAL

LOT/LAND

Utilization: SEMI-PUBLIC
 Area: UNDEFINED
 Tenure: LEASE/PUBLIC

DWELLING

Location: INNER RING
 Type: SEMI-DETACHED
 Number of Floors: 1
 Utilization: FAMILY
 Physical State: FAIR

DWELLING DEVELOPMENT

Mode: INSTANT
 Developer: PUBLIC
 Builder: LARGE CONTRACTOR
 Construction Type: MASONRY/WOOD
 Year of construction: 1953

MATERIALS

Foundations: R.C. CONC.
 Floor: CEMENT/SCREED
 Walls: CONC. BLOCK
 Roof: CLAY TILES

GENERAL: SOCIAL

User's Ethnic Origin: UGANDAN
 Place of Birth:
 Education Level: PRIMARY

NUMBER OF USERS

Married: YES
 Single:
 Children:
 Total: 5

MIGRATION PATTERN

Number of Moves: 3
 Rural - Urban: 1
 Urban - Urban: 2
 Urban - Rural:
 Why Came To Kampala: WORK

GENERAL: ECONOMIC

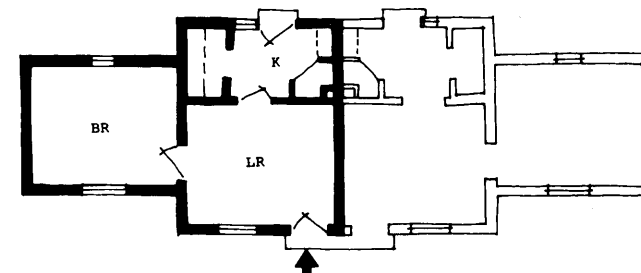
User's Income Group: LOW
 Employment: CLERICAL
 Distance To Work: 4MILES
 Mode of Travel: BUS

COSTS

Dwelling Unit: \$2,000
 Land - Market Value:

DWELLING UNIT PAYMENTS ECON. RENT

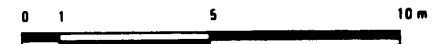
Financing: \$ 21
 Rent/Mortgage: SUBS. RENT
 Income For Rent/Mortgage: \$5



PLAN

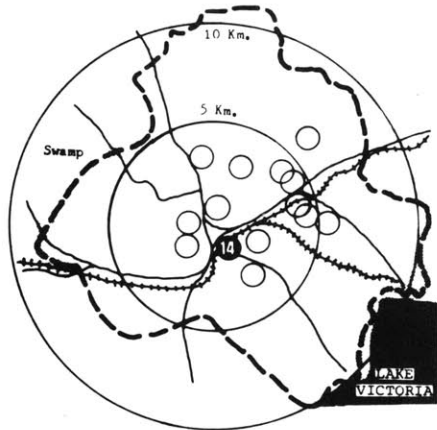
LR Living Room K Kitchen
 DR Dining Room L Laundry
 D Dining T Toilet-Bathroom
 BR Bedroom C Closet

1:200



DWELLING

13. NSAMBYA RAILWAY LINES



LOCATION: This Railway Housing Estate - one of many built by the Corporation for its employees - lies within the inner 5 Km ring less than 3 Km from the city center, on the northern slopes of Nsambya Hill. It is defined on the north by Kibuli Road and Railway Club Sports grounds. To the east and with no clearly defined

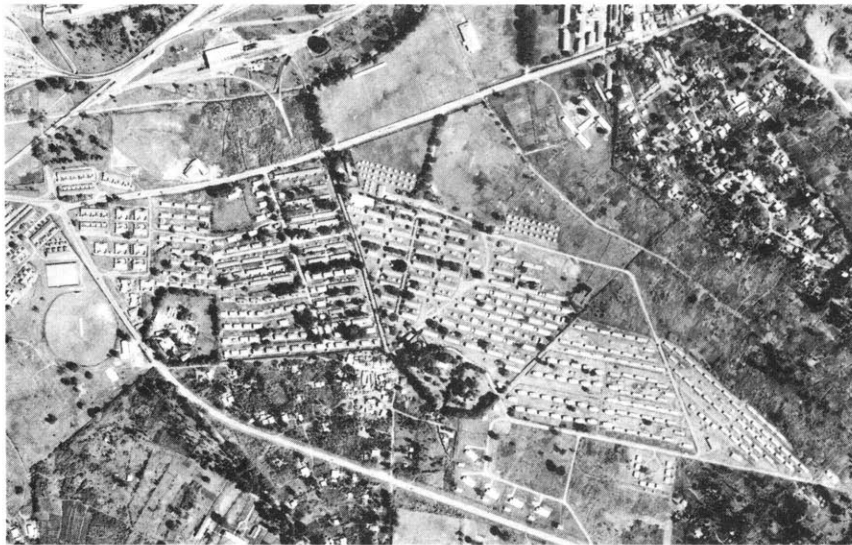
boundary lies neighbouring Nsambya Police Lines. To the south lies Nsambya Catholic Missionary church of Mill Hill Fathers and Nsambya Hospital.

ORIGINS: The Rai
ORIGINS: The East African Railway line originally started as The Uganda Railway to develop the rich fertile shores north of Lake Victoria did not reach Kampala until the 1930's. Nsambya Housing Estate was the first large-scale housing estate the company built for

its employees in the 1940's.

LAYOUT: In common with colonial designs of low-income African and Asian residential localities the design of this estate has a monotonous linear layout of dwellings with unimaginative use of open spaces.

POPULATION: The estate has the highest density in Kampala with over 500 people per hectare. It appears that the dwellings were originally planned for use by Asians in the low and middle income



LOCALITY AERIAL PHOTOGRAPH

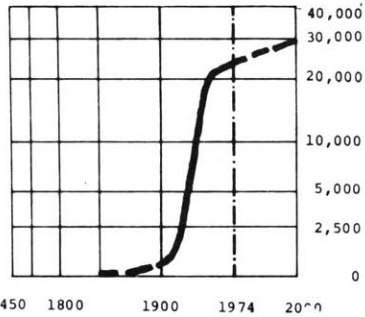


LOCALITY PLAN

1:10000

0 100 200 300 400 500m

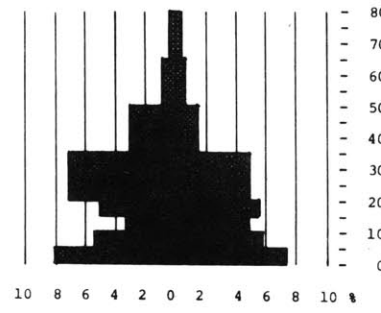
LOCALITY POPULATION GROWTH



Horizontal: dates Vertical: populatio.

1969 Pop. Census: 8,000

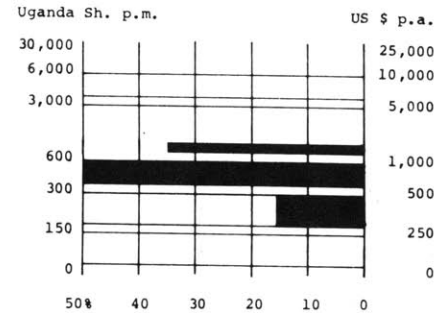
LOCALITY AGE DISTRIBUTION



Horizontal: percentages Vertical: ages

1969 Census

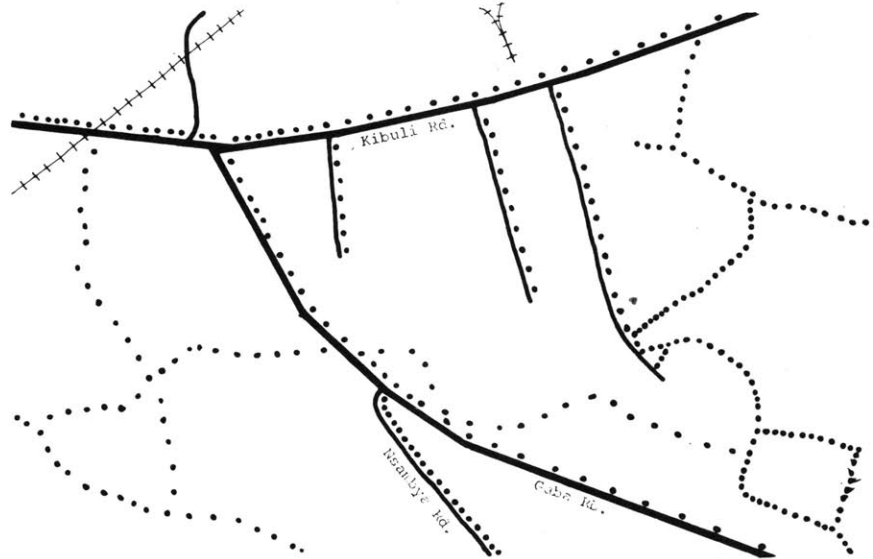
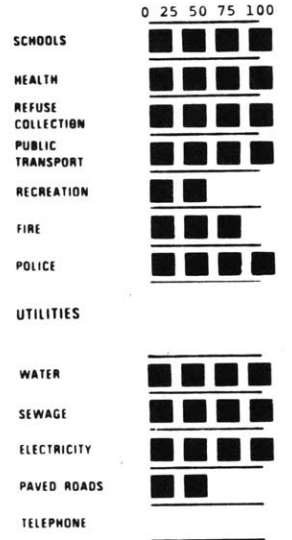
LOCALITY INCOME DISTRIBUTION



Horizontal: percentages Vertical: income

1974 Estimate

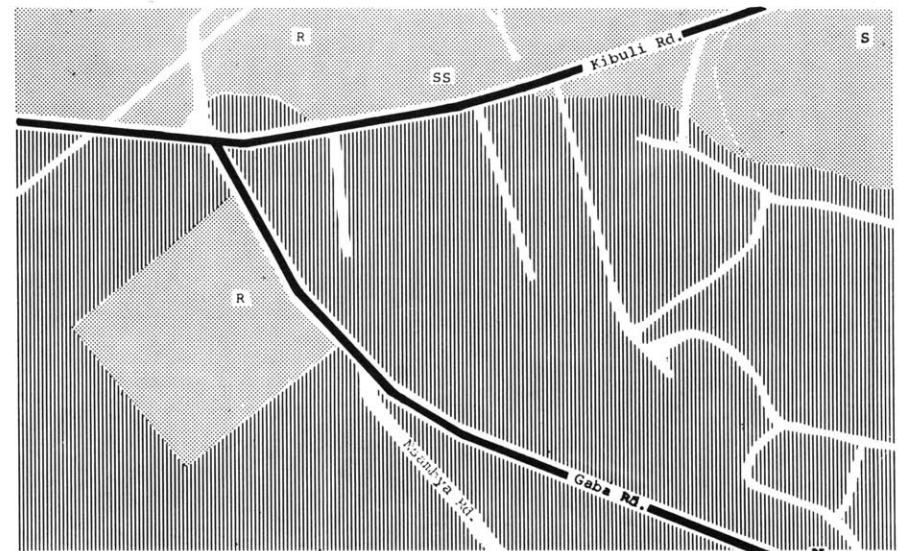
SERVICES



Vehicular: Express-way District Road Minor Road Pedestrian: Heavy Light Railway

LOCALITY CIRCULATION PATTERN

1:10000



Pk Parking Ch Church
P Police R Recreation
F Fire Department L Library
S School U University
PO Post Office Bus (solid Line)
SS Social Services Rapid Transit (broken line)

RESIDENTIAL
COMMERCIAL
INDUSTRIAL



LOCALITY LAND USE PATTERN

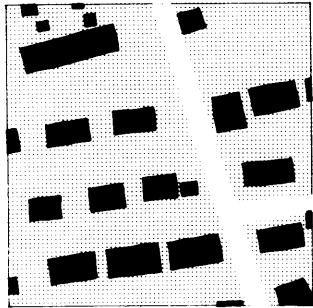


groups of the company. It is now occupied by Africans in the lowest income groups of the Corporation.

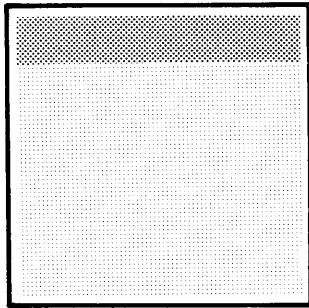
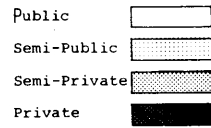
LAND USE: The locality is predominantly residential. The large green area containing sports clubs and sports grounds is also considered part of the locality. There are no industries within the locality but immediately to the north of the green belt lies the major light industrial centre of the city.

INCOMES: The estate is for people in the low income groups earning less than \$70 (500/=) a month. The dwellings were formerly provided free to the employees but they are now rented out to them at very heavily subsidized rents of about \$12 a month for the kind of dwelling shown in this study i.e. Grade 5. The lowest dwelling group is Group 8.

LOCALITY SEGMENT AERIAL PHOTOGRAPH

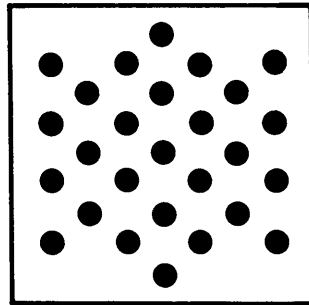


LAND USE PATTERN



LAND USE PERCENTAGES

	Area (Ha)	%
Public	0.07	7
Semi-Publ.	0.75	75
Semi-Priv.	--	--
Private	0.18	18
Total	1.00	100



DENSITIES

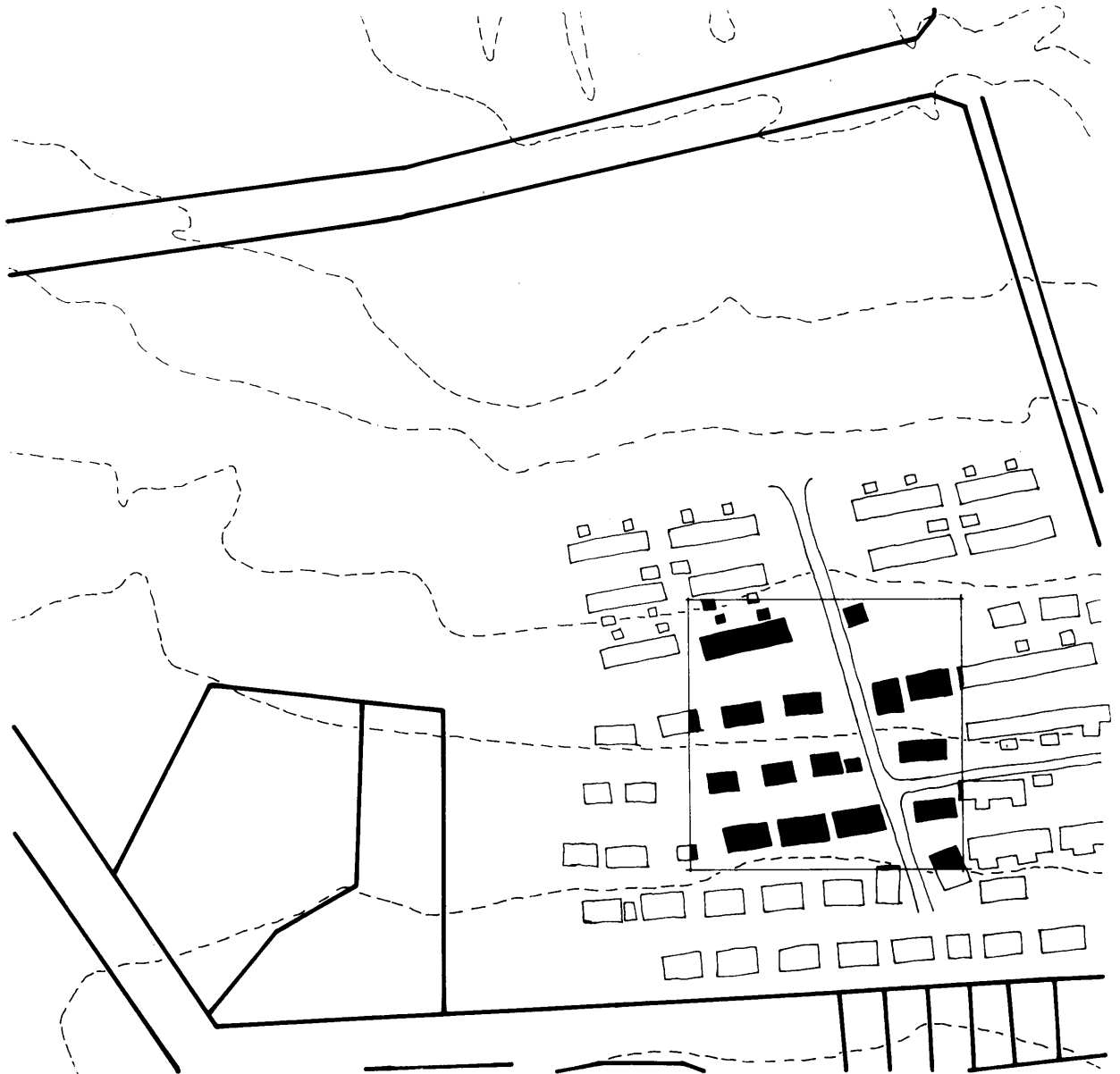
	No/Ha.
Lots	N/A
Dwelling Units	90
People/Ha.	540
20 people	●

NETWORK EFFICIENCY

N = network length (circulation) = 130
 A = area(s) served (circulation, lots)
 = block area (10,000 m²) = 1 Hectare
 $R = \frac{N}{A} = \frac{130}{1} = 130$

Locality block studied is 100 meters by 100 meters (1 Hectare).

LOCALITY BLOCK STUDY



LOCALITY SEGMENT PLOT STUDY

1:2500





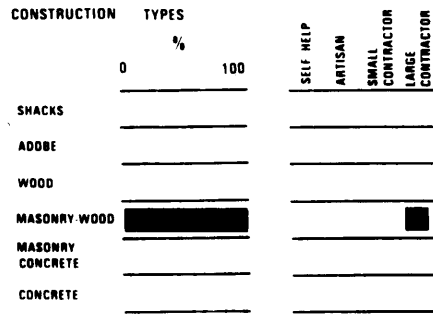
TOP, LEFT: Bukoto rental housing project. A walk-up apartment project by the National Housing Corporation for government civil servants.

*BOTTOM LEFT: Nsambya Railwas
BOTTOM LEFT: Nsambya Railways group 7 housing. Group 7 is the lowest income group of the corporation.*

BOTTOM RIGHT: Concrete block single storey row housing .

CIRCULATION: Internal circulation is nearly all pedestrian. Very little vehicular access has been provided. There is a bus connection to the city but most people prefer to walk the short distance across the green grounds.





The chart shows (1) approximate percentage of each construction type within the total number of dwellings; and (2) building group that generally produces each type.

TYPICAL DWELLING

PHYSICAL DATA

SOURCES: CHIEF ENGINEER
 QUALITY OF INFORMATION: ACCURATE/APPROXIMATE

DWELLING UNIT
 Type: APARTMENT
 Area (m²): 60.95m² (655ft²)
 Tenure: SUBSIDISED RENTAL

LOT/LAND
 Utilization: SEMI-PUBLIC
 Area: UNDEFINED
 Tenure: LEASE

DWELLING
 Location: CITY CENTER
 Type: WALK-UP
 Number of Floors: 3
 Utilization: SINGLE FAMILY
 Physical State: OLD

DWELLING DEVELOPMENT
 Mode: INSTANT
 Developer: INSTITUTION
 Builder: LARGE CONTRACTOR
 Construction Type: MASONRY/CONCRETE
 Year of construction: 1961

MATERIALS
 Foundations: CONC. STRIP
 Floor: CEMENT/SCREED
 Walls: 6" CONC. BLOCK
 Roof: ASBESTOS CEMENT

SOCIO - ECONOMIC DATA

SOURCES: STANLEY
 QUALITY OF INFORMATION: ESTIMATE

GENERAL: SOCIAL
 User's Ethnic Origin: EAST AFRICA
 Place of Birth: VARRIES
 Education Level: PRIMARY

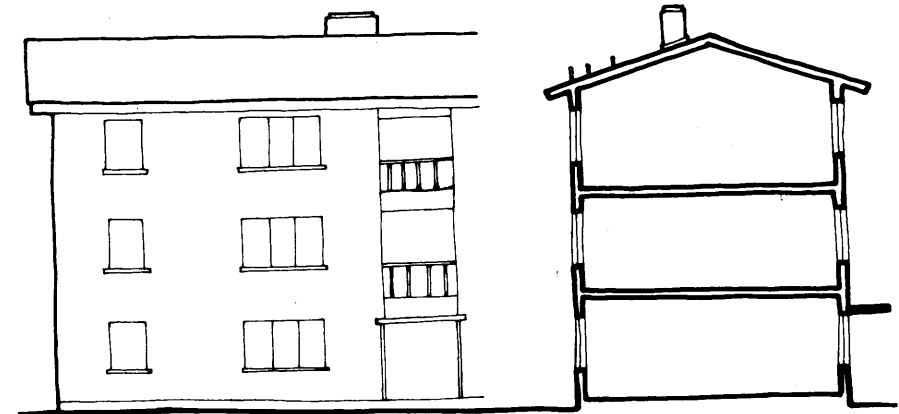
NUMBER OF USERS
 Married: YES
 Single:
 Children:
 Total: -

MIGRATION PATTERN
 Number of Moves:
 Rural - Urban:
 Urban - Urban:
 Urban - Rural:
 Why Came To Kampala: WORK.

GENERAL: ECONOMIC
 User's Income Group: LOW
 Employment: RAILWAYS
 Distance To Work: 1/2 MILE
 Mode of Travel: WALKING

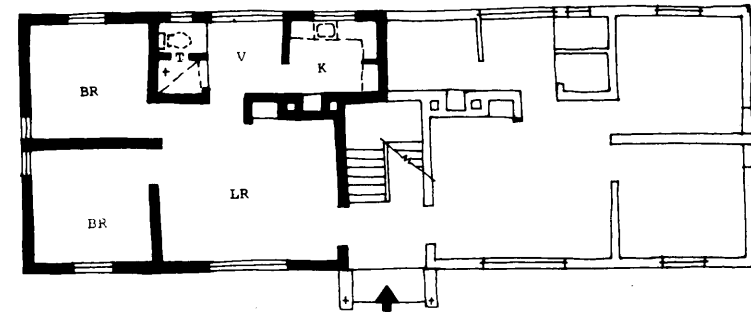
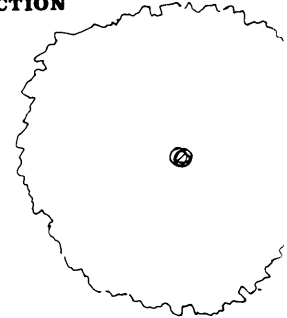
COSTS
 Dwelling Unit: -
 Land - Market Value:

DWELLING UNIT PAYMENTS
 Financing:
 Rent/Mortgage: \$12 per month.
 % Income For Rent/Mortgage:



ELEVATION

SECTION



PLAN

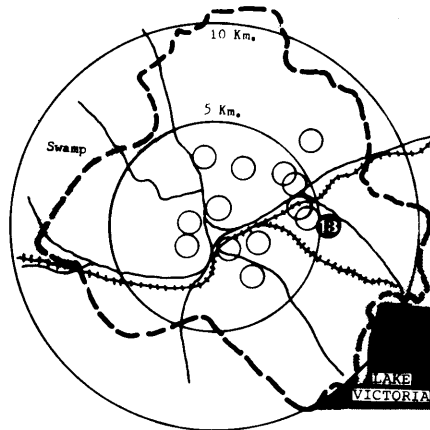
- LR Living Room
- DR Dining Room
- D Dining
- BR Bedroom
- V Verandah
- K Kitchen
- L Laundry
- T Toilet-Bathroom
- C Closet

DWELLING

1:200



14. BUGOLOBI PREFABRICATED



The National Housing Corporation has built a number of estates in Kampala, some of which include Bukoto Medium-High estate; Kiwafu High Income estate; Nakasero High Income estate; Bugolobi High Income estate; Wandegaya High Income estate; Mulago Low-High Income estate; and Kireka Low Income estate.

LOCATION: Bugolobi Hill is located about 5.5 Km. (3.5 miles) east of the city center and about 1.6 Km. (1 mile) south of Kampala-Jinja Road.

ORIGINS: The project was started in 1970 by three joint investors; The National Housing Corporation; The Department of Water and Natural Resources; and Solel Boneh Contractors (representing the government of Israel). It was started as an experimental project hoping it would lead to increased use of prefabricated component systems in solving the ever increasing housing problems

in the urban centers.

This project illustrates the kind of problems which go with financial and technical aid from developed to developing countries. The Israel Government and the Solel Boneh Contractors were asked to withdraw from the project in 1972 when it was only two-thirds completed. It was possible to continue with construction, however, because the program had allowed for training of African technicians who later assumed management of the project.

LAYOUT: Long apartment blocks are arranged along a central spine ring road.

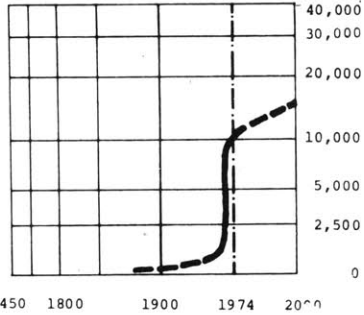
POPULATION: The project contains 1,400 dwelling units each designed for about 6 people. Total population will eventually be about 8,500 to 10,000. The project is mostly occupied by young families.

LAND USE: The locality is primarily residential with large open spaces. Two schools, super-market and the radio transmitter station occupy about 10% of the land.

INCOMES: The estate was designed for middle income workers but is currently occupied by army personnel with average income of 600/= (\$95) per month.

CIRCULATION: There is a lot of vehicular traffic especially in the older section of the locality which is mostly occupied by high income managerial civil servants. Pedestrian circulation is limited and generated mostly by domestic labourers.

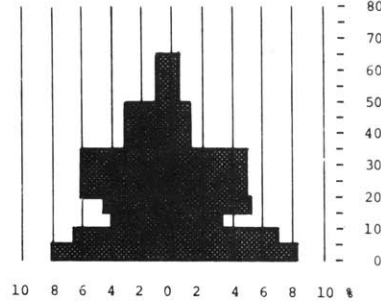
LOCALITY POPULATION GROWTH



Horizontal: dates Vertical: populatio.

1974 Pop. Estimate; 10,000

LOCALITY AGE DISTRIBUTION

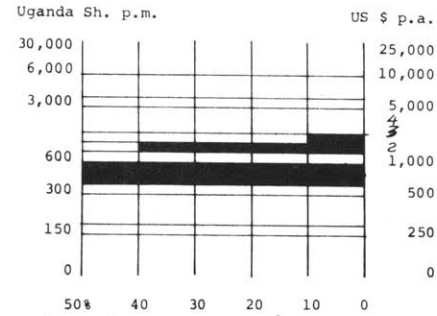


MALE: 53% FEMALE: 47%

Horizontal: percentages Vertical: ages

1974 Estimate

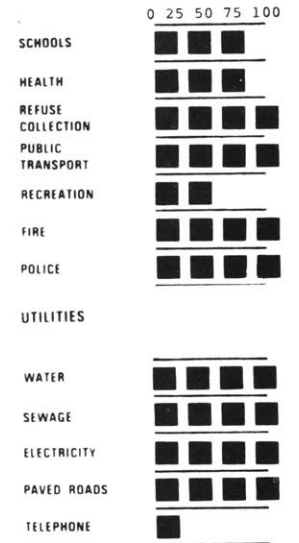
LOCALITY INCOME DISTRIBUTION



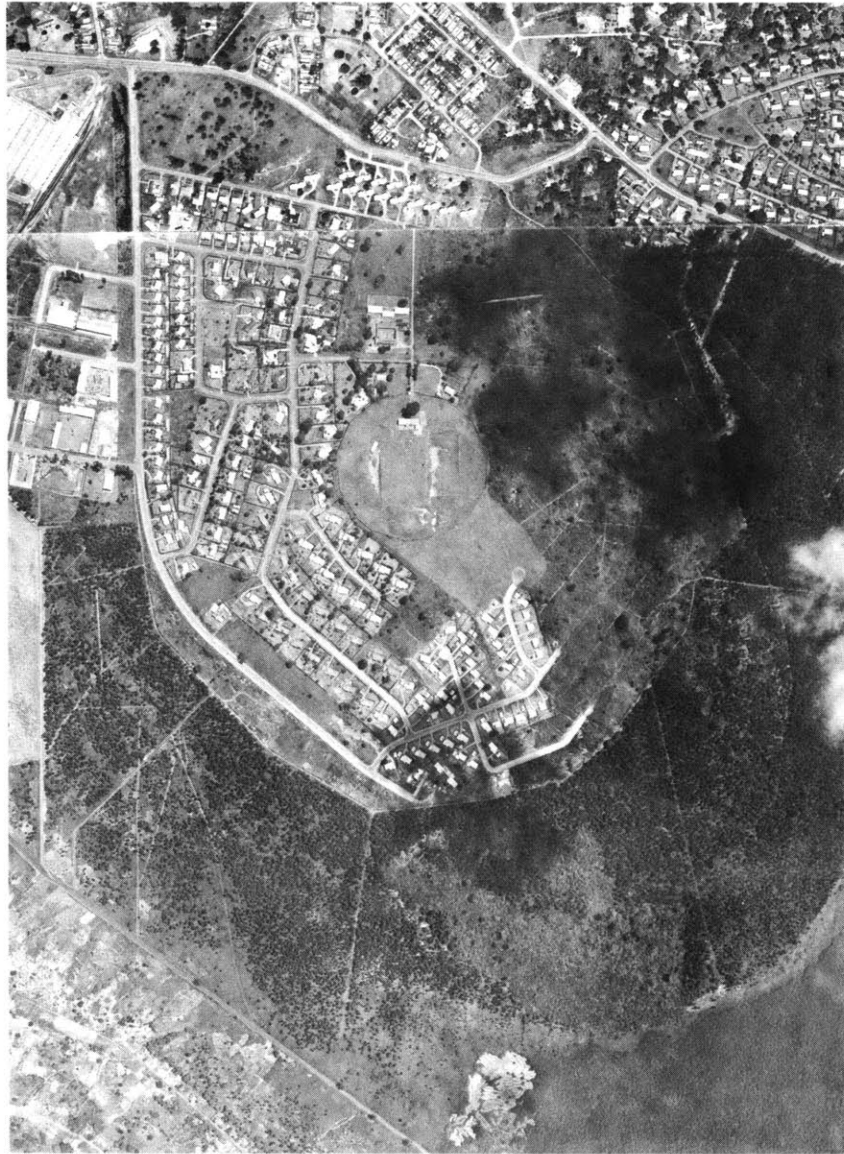
Horizontal: percentages Vertical: income

1974 Estimate

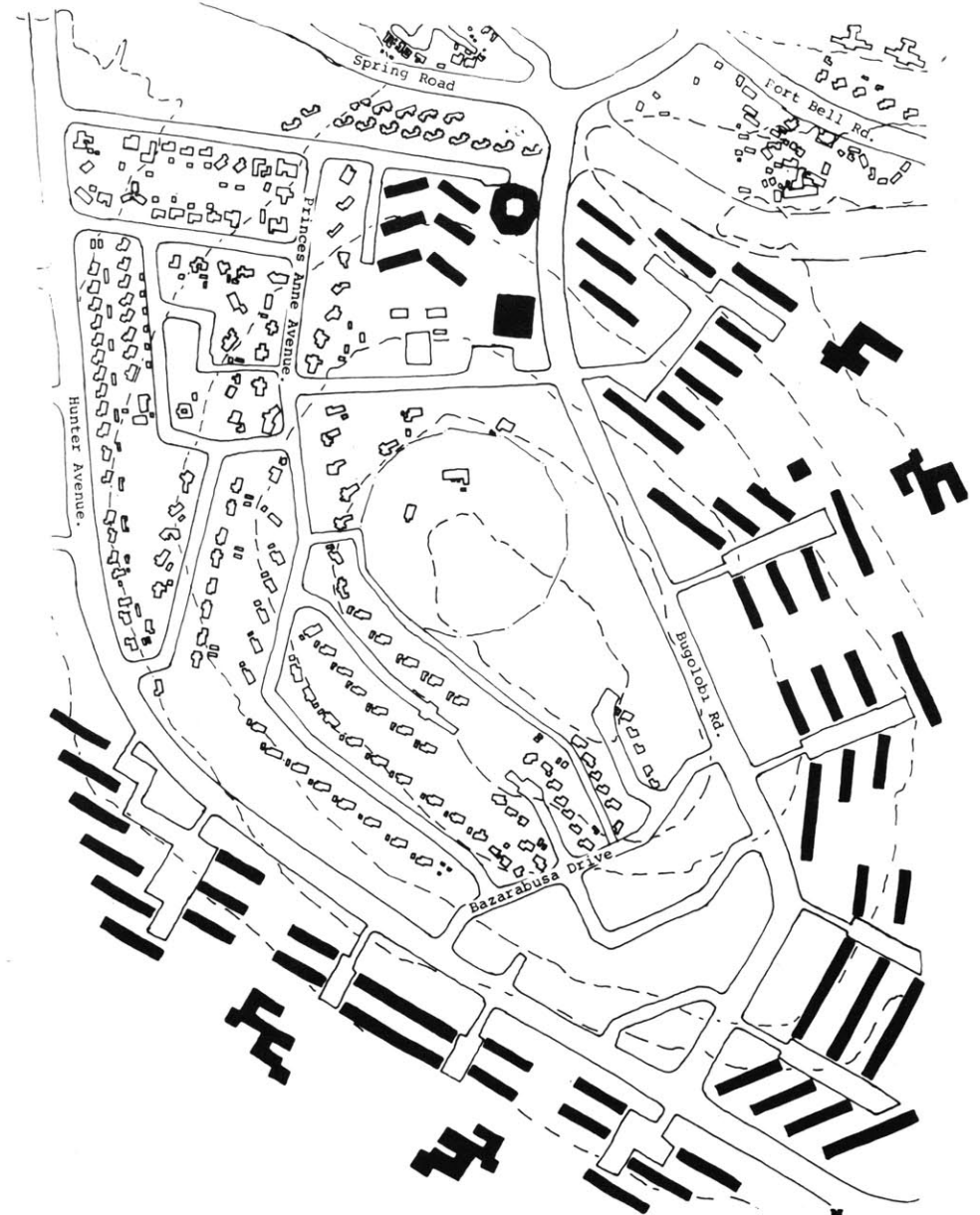
SERVICES



Completed stage one of Bugolobi Prefabricated Scheme; a concrete pannel experimental project. Mbuya and Kireka Hills - high income localities - in the background.

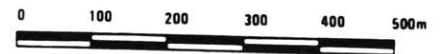


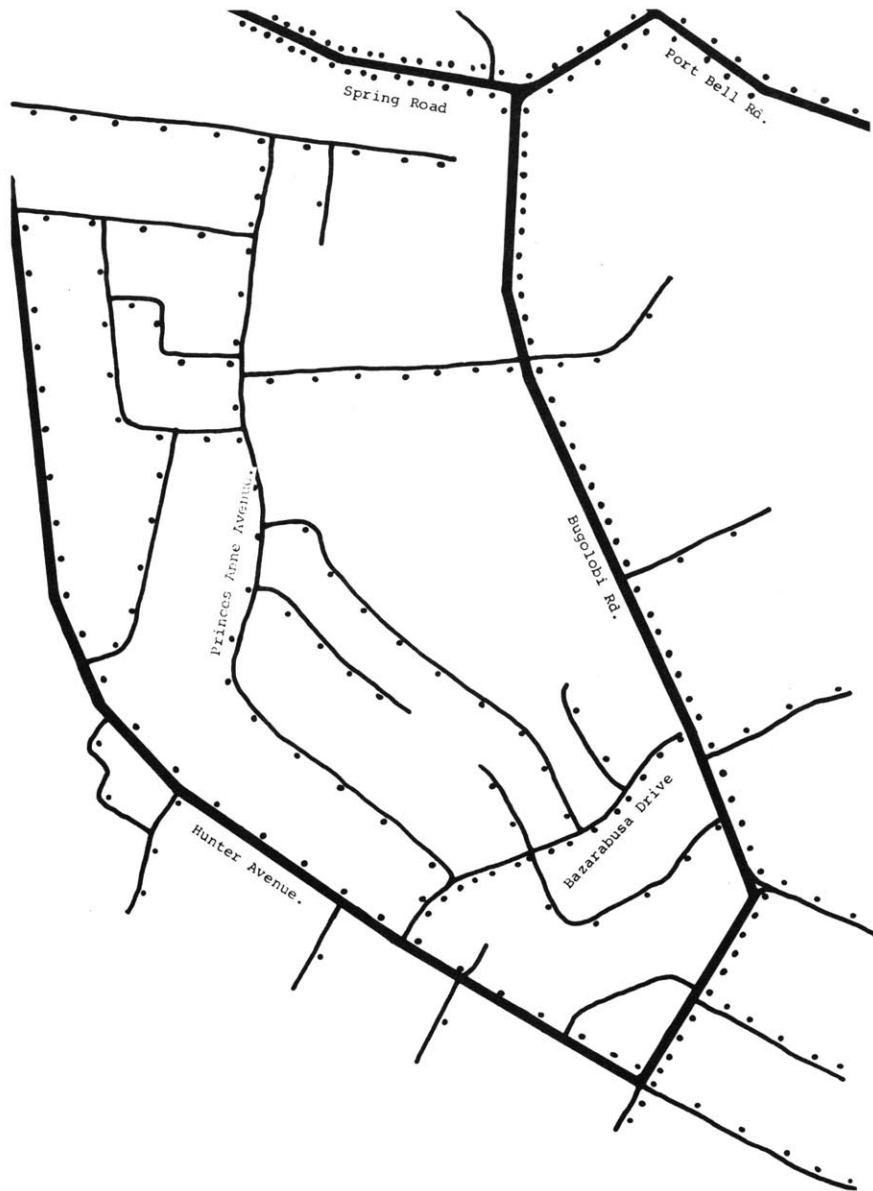
LOCALITY AERIAL PHOTOGRAPH



LOCALITY PLAN

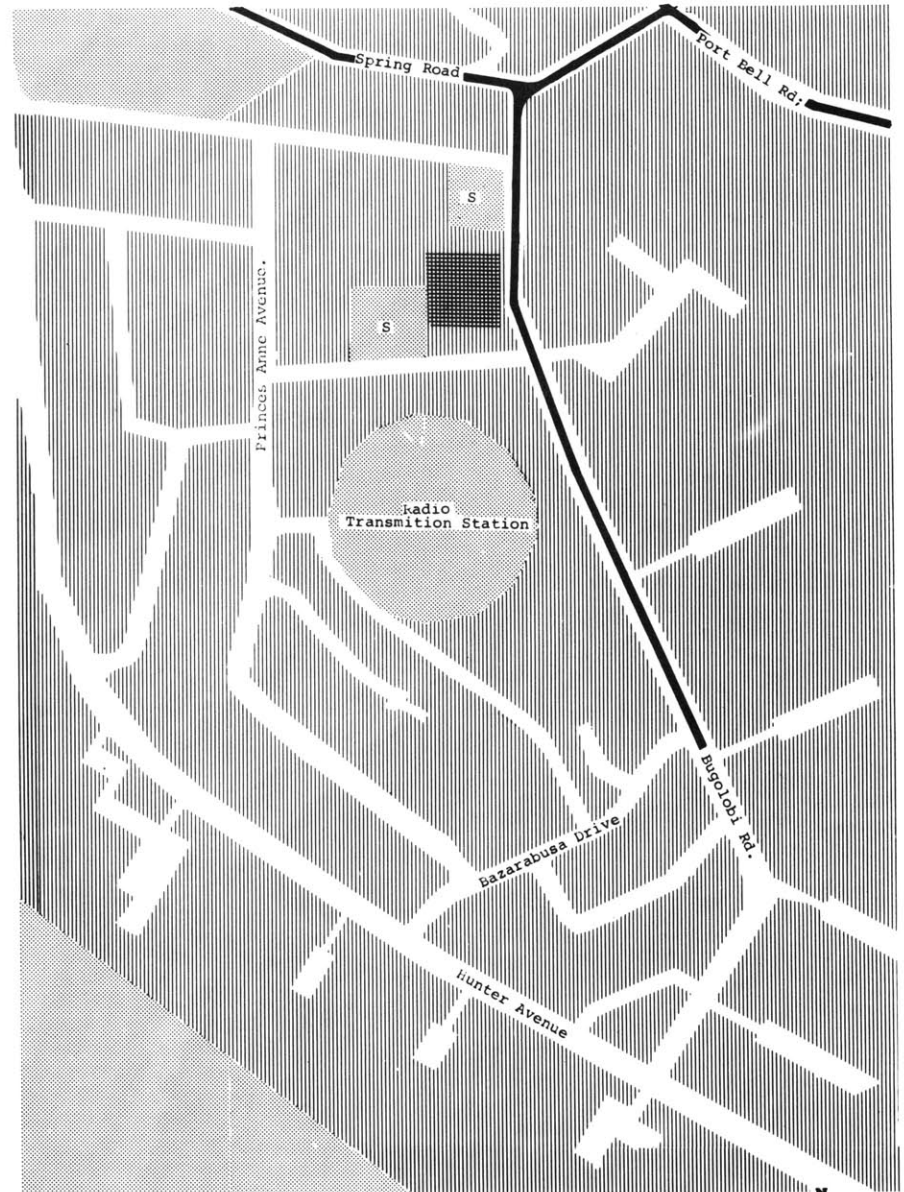
1:10000





Vehicular: Express-way		Pedestrian: Heavy	
District Road		Light	
Minor Road		Railway	

LOCALITY CIRCULATION PATTERN



Pk	Parking	Ch	Church
P	Police	R	Recreation
F	Fire Department	L	Library
S	School	U	University
PO	Post Office	Bus	(solid line)
SS	Social Services	Rapid Transit	(broken line)

RESIDENTIAL	
COMMERCIAL	
INDUSTRIAL	

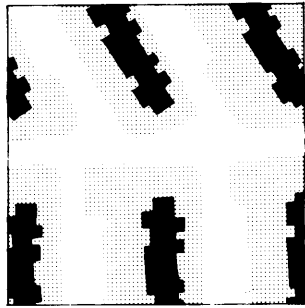


LOCALITY LAND USE PATTERN

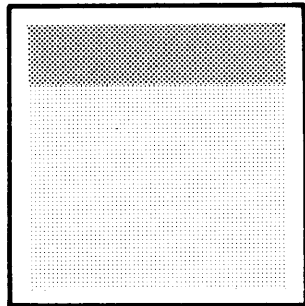
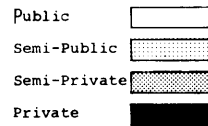


LOCALITY CIRCULATION PATTERN

1:10000

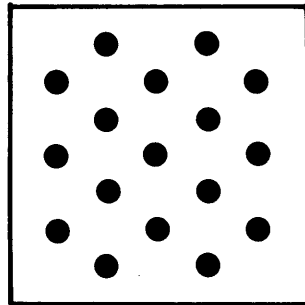


LAND USE PATTERN



LAND USE PERCENTAGES

	Area (Ha)	%
Public	0.20	20
Semi-Publ.	0.62	62
Semi-Priv.	--	--
Private	0.18	18
Total	1.00	100



DENSITIES

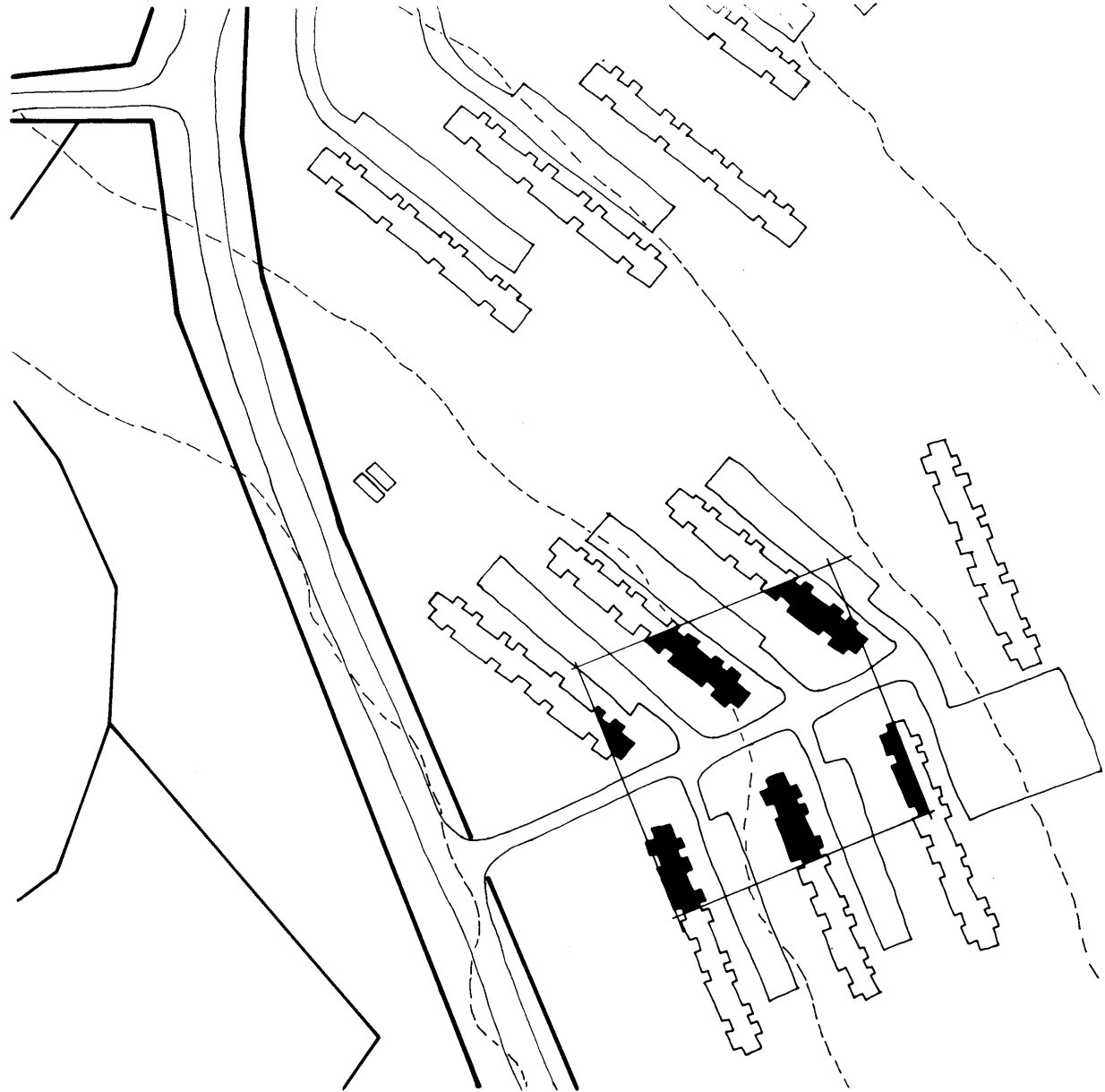
	No./Ha.
Lots	--
Dwelling Units	56
People/Ha.	340
20 people	

NETWORK EFFICIENCY

N = network length (circulation) = 280
 A = area(s) served (circulation, lots)
 = block area (10,000 m²) = 1 Hectare
 $R = \frac{N}{A} = \frac{280}{1} = 280$

Locality block studied is 100 meters by 100 meters (1 Hectare).

LOCALITY BLOCK STUDY



LOCALITY SEGMENT PLOT STUDY

1:2500



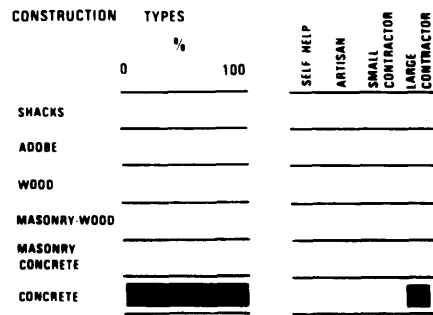


TOP LEFT: New nursery school by the National Housing Corporation. Mbuya hill in the background.

BOTTOM LEFT: Apartments still under construction.

BOTTOM RIGHT: Precast concrete panels in stock.





The chart shows (1) approximate percentage of each construction type within the total number of dwellings; and (2) building group that generally produces each type.

TYPICAL DWELLING

PHYSICAL DATA

SOURCES: CITY COUNCIL
 QUALITY OF INFORMATION: ACCURATE/APPROXIMATE

DWELLING UNIT

Type: APARTMENT
 Area (m²): 107.5 (1160ft²)
 Tenure: RENTAL

LOT/LAND

Utilization: SEMI-PUBLIC
 Area: UNDEFINED
 Tenure: PUBLIC

DWELLING

Location: PERIPHERY
 Type: WALK-UP
 Number of Floors: 4
 Utilization: FAMILY
 Physical State: NEW/MODERN

DWELLING DEVELOPMENT

Mode: INSTANT
 Developer: PUBLIC
 Builder: LARGE CONTRACTOR
 Construction Type: PRECAST CONCRETE
 Year of construction: 1972

MATERIALS

Foundations: R.C. CONC.
 Floor: GRANOLITHIC
 Walls: P.C. CONCRETE
 Roof: CONCRETE

SOCIO - ECONOMIC DATA

SOURCES: STANLEY
 QUALITY OF INFORMATION: ESTIMATE

GENERAL: SOCIAL

User's Ethnic Origin: UGANDAN
 Place of Birth: MBALE
 *Education Level:

NUMBER OF USERS

Married: YES
 Single:
 Children: 6
 Total: 10+ DEPEND.

MIGRATION PATTERN

Number of Moves: 3
 Rural - Urban: 1
 Urban - Urban: 2
 Urban - Rural:
 Why Came To Kampala: WORK

GENERAL: ECONOMIC

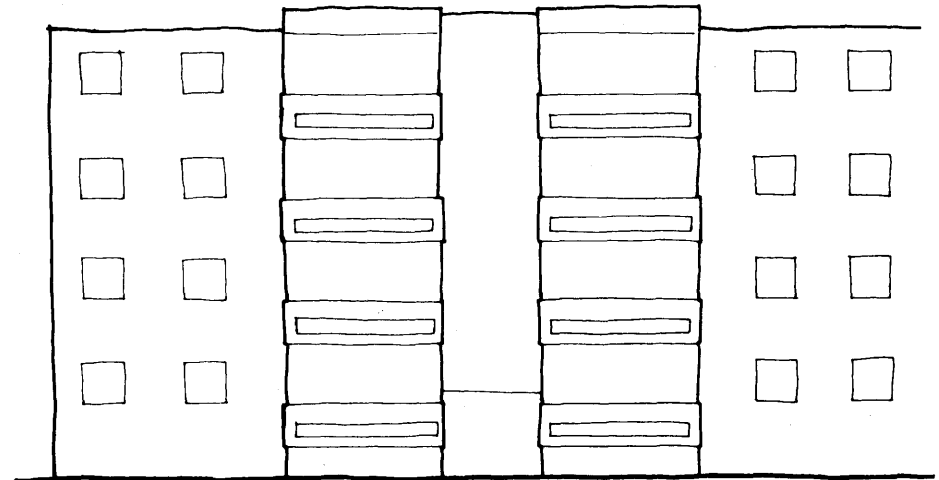
User's Income Group: MIDDLE
 Employment: MILITARY
 Distance To Work: 5 MILES
 Mode of Travel: CAR

COSTS

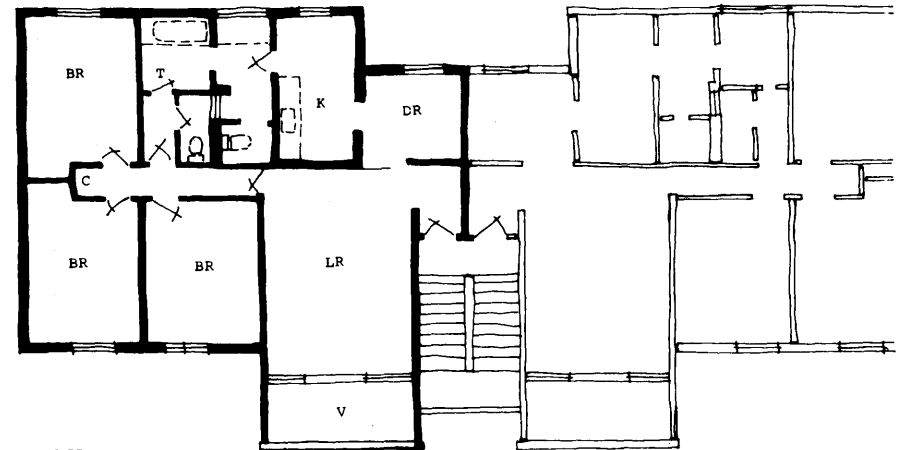
Dwelling Unit:
 Land - Market Value:

DWELLING UNIT PAYMENTS

Financing:
 Rent/Mortgage:
 * Income For Rent/Mortgage:



ELEVATION



PLAN

LR Living Room K Kitchen
 DR Dining Room L Laundry
 D Dining T Toilet-Bathroom
 BR Bedroom C Closet

DWELLING

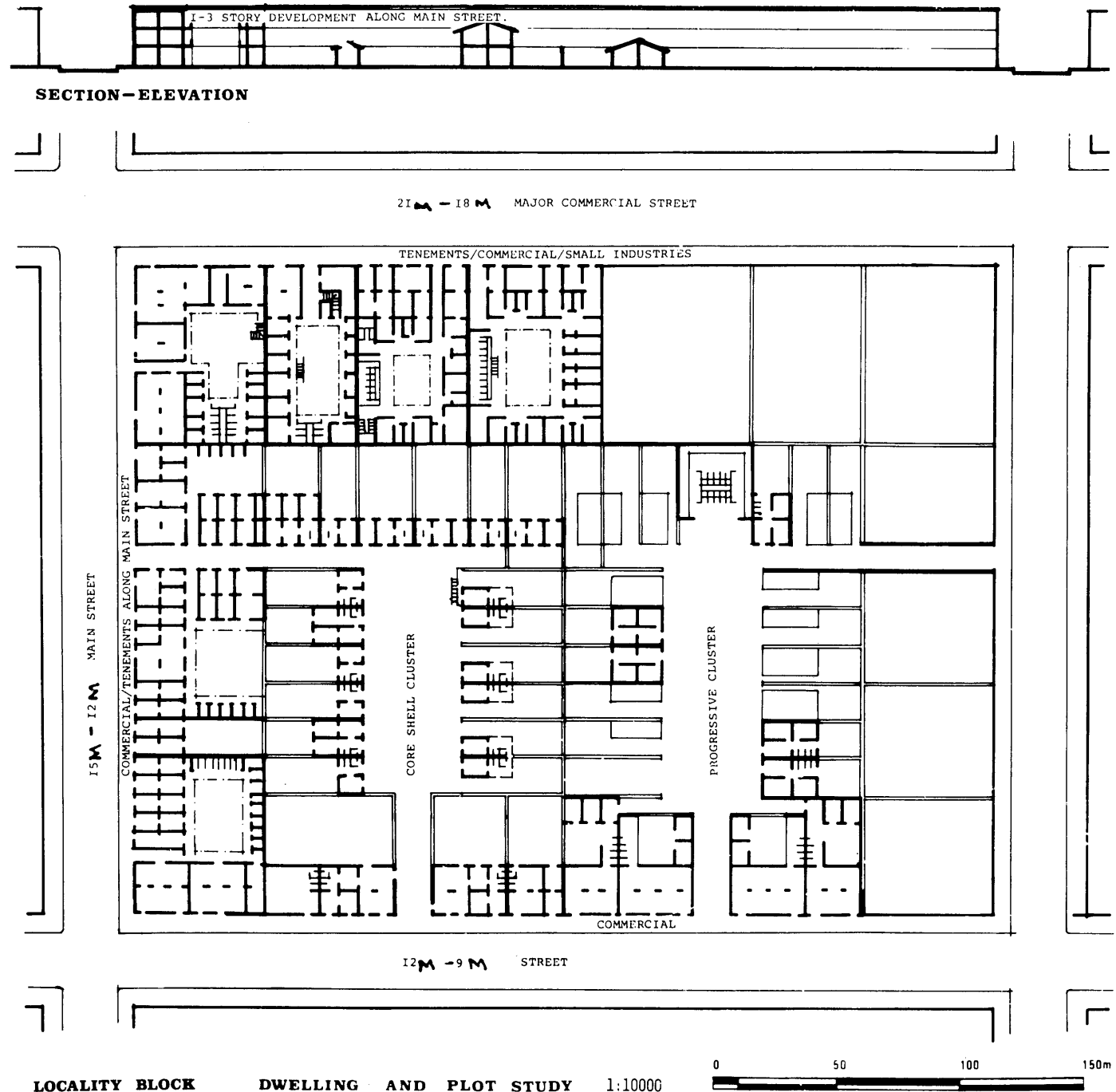
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PROPOSED MODEL

The following proposals suggest possible strategies to be used in tackling the housing problem of low income people. They are based on recognition and acceptance of the following factors:

1. Most people would like to own their houses on their own pieces of land.
2. The involvement of the people in providing their own dwelling - whether monetary or physically - should be encouraged.
3. As the city spreads over rural areas it becomes more and more urgent to carry out immediate land subdivision reform which will facilitate easier provision of infrastructure service and utility lines. The present generation of local independent professionals and planners has the moral responsibility of creating an orderly city development so that future generations do not inherit from us square miles of unplanned settlements of the magnitude of Kisenyi, Mulago, Kibuli etc.
4. Urban settlements should promote a sense of group-responsibility, and social interaction.
5. Some people are not interested in owning a dwelling or have no necessary economic support to develop a site and dwelling and should therefore be provided with renting facilities.



I. PROGRESSIVE DEVELOPMENT:

SERVICED PLOTS in 6m.x16m. modules will be grouped in plot cluster units. Services will include water, sewer, electricity, and gas mains delivered to cluster courtyard.

INITIAL DEVELOPMENT and administration will be done by the City Council.

CLUSTER COURT responsibility is shared by all the plot owners served. It provides communal parking and recreational space.

COMMUNAL FACILITIES will be provided to cluster initially to serve those who may not be able to provide them in their private plot.

PLOTS WILL BE SOLD or mortgaged to users who will develop/build the dwellings for owner-occupation, rental or lease.

COMBINATION OWNERSHIP of more than one adjacent plots within a cluster is acceptable.

BOUNDARY WALLS will be in permanent masonry materials. The dwellings may be constructed in any materials the user can afford.

DWELLING USE anticipated will be complete family occupation; family occupation with subletting for residential and/or commercial/small home industry; or multifamily dwelling with shared facilities.

II. CORE SHELL:

SERVICED AND CORE SHELL dwelling units in 6m.x16 plot modules to be grouped in lot clusters. Units will include plot with toilet, shower, cooking area and one room minimum.

INITIAL DEVELOPMENT and administration will be done by the City Council.

CLUSTER COURT responsibility is shared by all plot owners served and will provide car parking and recreational space.

COMMUNAL SERVICES will not be provided.

PLOTS WILL BE SOLD or mortgaged who may expand and improve the minimum dwelling core provided.

COMBINATION OWNERSHIP of more than one plot within the same cluster should be discouraged.

BOUNDARY WALLS and all other dwelling materials will be permanent.

DWELLING USE anticipated are similar to those in the Serviced Plot Cluster in Progressive Development.

III. TENEMENTS:

TENEMENT UNIT PLOTS will be provided along major circulation routes in big sizes. They may be part of other system clusters.

INITIAL DEVELOPMENT and administration will be done by the private developer.

CLUSTER COURT: not applicable except where the tenement block is part of a cluster.

COMMUNAL SERVICES are an integral part of the tenement and will be provided by the owner developer.

PLOTS WILL BELONG to the City Council or may be sold to private developers. Individual dwelling units will be rented.

COMBINATION OWNERSHIP of more than one plot by a developer will be acceptable.

BOUNDARY WALLS and all materials will be permanent.

DWELLING USE anticipated are similar to those in Progressive Development.

IV. COMMERCIAL/SMALL INDUSTRIES:

SHOP/STALL DWELLING UNITS will be located along major circulation routes in big size plots. They may share cluster courts with other systems.

INITIAL DEVELOPMENT will be done by the private owner developer.

CLUSTER COURT: not applicable except where the plot is part of a cluster.

COMMUNAL SERVICES if needed will be the responsibility of the private developer.

PLOTS WILL BE SOLD to private developers or may be rented from the City Council. Individual units will be rented.

COMBINATION OWNERSHIP of more than one plot is acceptable.

ALL MATERIAL in the dwelling/shop/etc. to be permanent.

DWELLING USES ANTICIPATED will include family unit with commercial/small industry/transit lodging; multi-family units; markets.

PLOTS: A plot in this study is defined as a piece of land with fixed boundaries and having direct access to public circulation routes.

A module of 6m.x16m. is suggested. More than one adjacent plots may be owned by an individual.

PLOT CLUSTERS: A plot-cluster is a group of plots grouped around a semi-private common court and owned by individuals in condominiums. The cluster used in this proposal is 48m.x 75m.

CONDOMINIUMS: A condominium is a system of direct ownership of a single unit a multi-unit structure. The individual owns the dwelling unit and holds direct legal title to the unit and a proportionate interest in the common areas and the underlying grounds. A condominium structure is similar to a tenement.

LOCALITY BLOCK: A locality block is defined in this study as a combination of plot-clusters bounded by vehicular circulation routes. The block suggested in this study is 120m. x 150m. The typical block is planned to minimise public ownership and public responsibilities on land and infra-structure serv-

ices and to maximise private ownership and maintenance responsibilities.

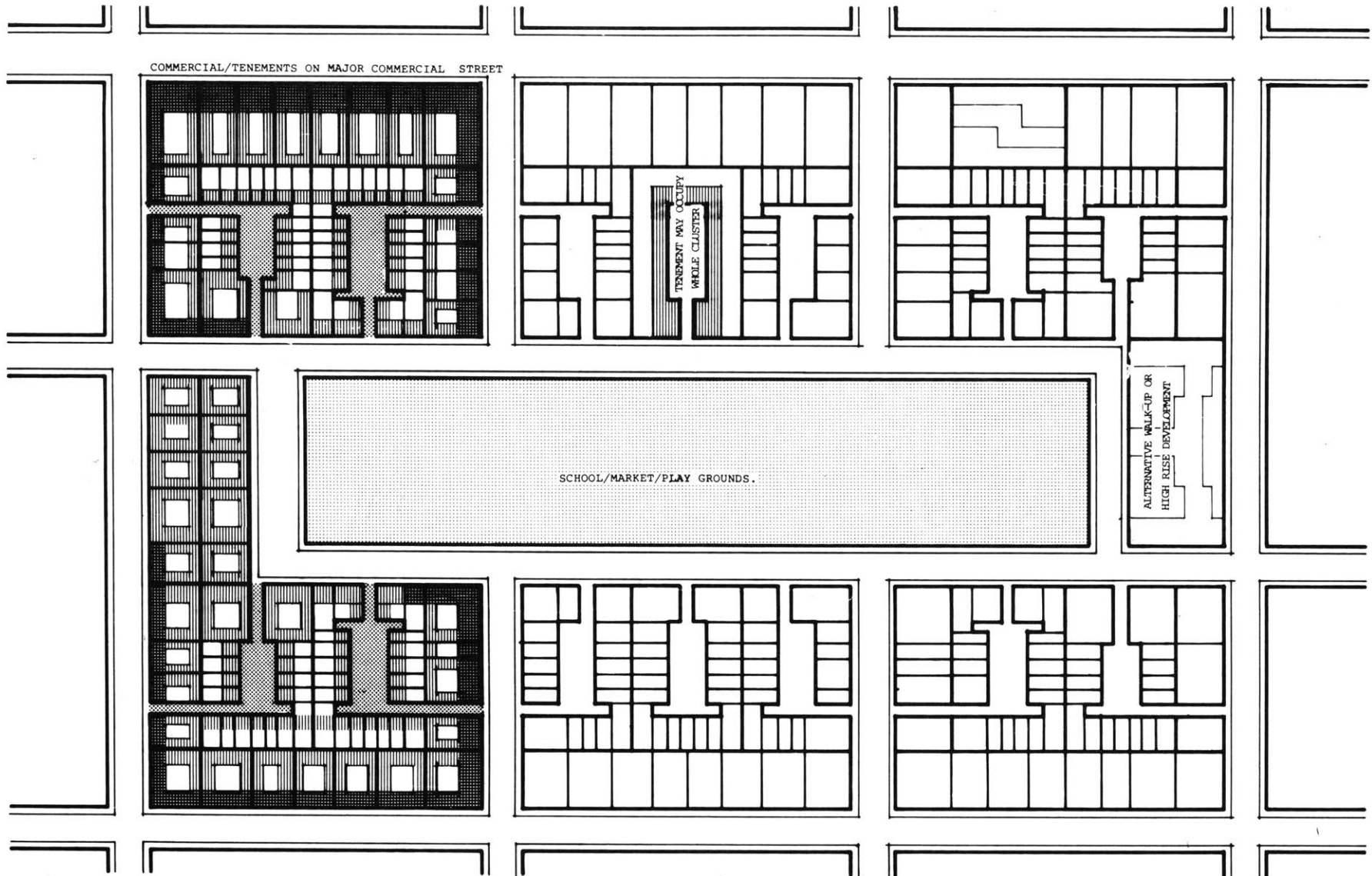
URBAN UNIT: The urban unit is defined as a combination of locality blocks bounded by major vehicular routes and large enough to support a primary school. It contains at least one main commercial street and has a range of 3000-6000 population.

As illustrated in the urban unit drawing the unit is designed to encourage 2-3 storey developments along the main boundary streets where land values are high and one story dwellings in the interior of the unit where land values are considerably less.

NSAMBYA HILL MODEL:

The urban unit can be modified to suite specific site conditions as illustrated in the proposed development.

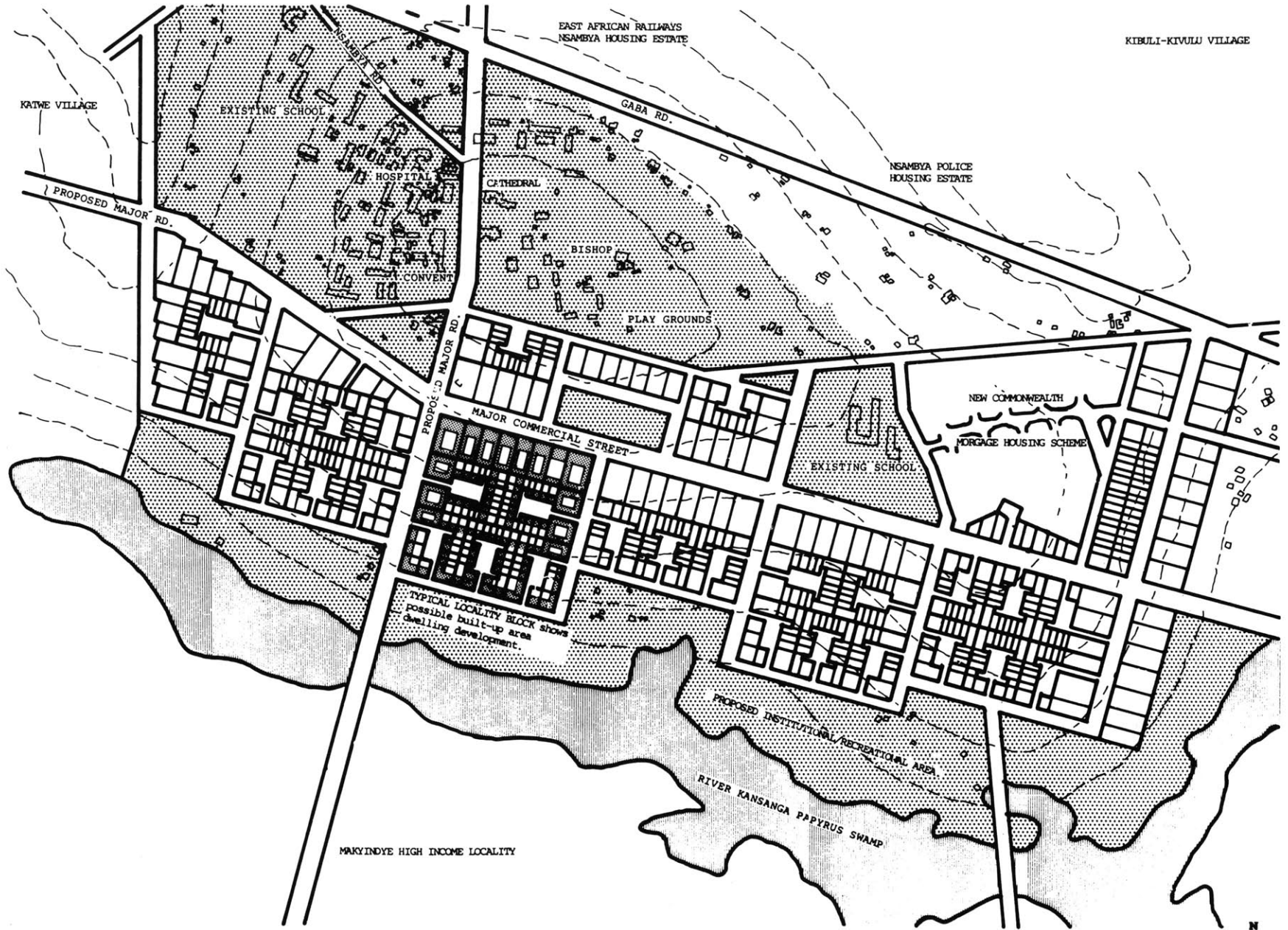
Nsambya hill was selected to illustrate this development principle because the land is owned by one organisation - the Catholic Church - and has possibilities of actual implementation.

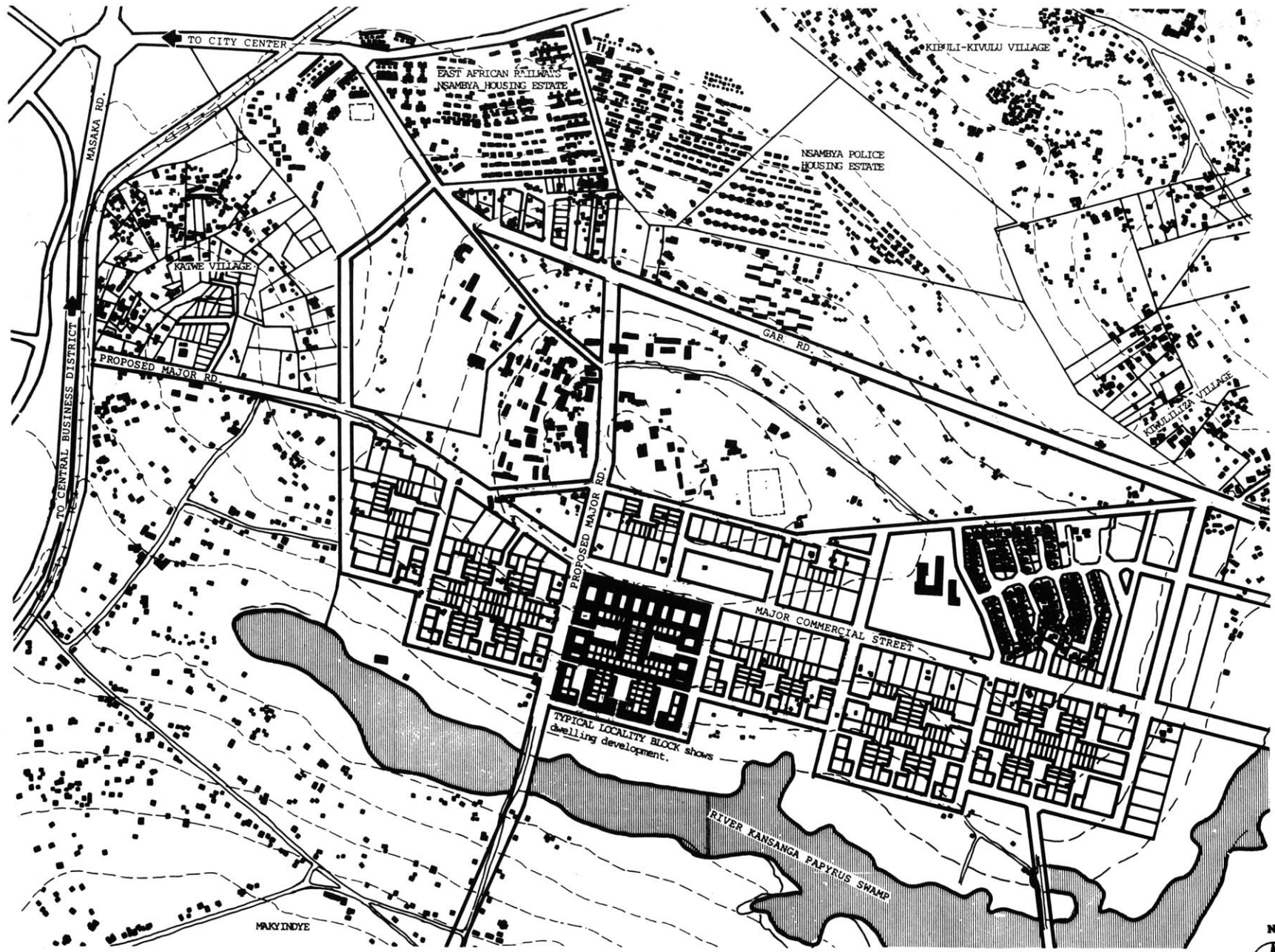


RESIDENTIAL COMMERCIAL INDUSTRIAL SEMI-PRIVATE COMMUNAL COURTYARD OPEN SPACES INSTITUTIONAL/RECREATIONAL

PROPOSED MODEL URBAN UNIT







GLOSSARY

Definitions of terms which are generally understood/accepted and not essential to the presentation/understanding of the text are included in the glossary.

The criteria for the preparation of the definitions have been as follows:

First Preference: definitions from "Webster's Third New International Dictionary", Merriam-Webster, 1971.

Second Preference: definitions from technical dictionaries.

Third Preference: definitions from the authors, used when existing definitions did not satisfactorily make clear with what meaning, extent and limits, terms were used.

COMMUNITY: the people living in a particular place or region and usually linked by common interests; the region itself, any population cluster.

DEVELOPMENT: gradual advance or growth through progressive changes; a developed tract of land.

DWELLING: The general, global designation of a building/shelter in which people live. A dwelling contains one or more 'dwelling units'.

DWELLING CONSTRUCTION TYPES: Primary dwelling construction types and materials are grouped in the following categories:

Shack	Roof: structure - rods, branches. infill - thatch, mats, flattened tin cans, plastic or canvas sheets, cardboard, scrap wood, and/or mud. Walls: structure - rods, branches, poles. infill - thatch, mats, flattened tin cans, plastic or canvas sheets, cardboard, scrap wood, and/or mud. Floor: structure/infill - compacted earth.
Mud and Wattle	Roof: structure - wattle. infill - thatch, flattened tin cans, or corrugated iron sheets. Walls: structure - wattle. infill - mud. Floor: structure/infill - compacted earth.
Wood	Roof: structure - wood rafters. infill - thatch, flattened tin cans or corrugated iron sheets. Walls: structure - wood frame. infill - rough hewn wood planks. Floor: structure/infill - compacted earth, wood joists, flooring.
Masonry/Wood	Roof: structure - wood rafters. infill - corrugated iron or asbestos sheets, or terracotta tiles. Walls: structure/infill - murrum, stone, brick, block or tile masonry without columns. Floor: structure/infill - poured concrete slab on/off grade, wood joists, flooring.
Masonry/Concrete	Roof: structure/infill - poured reinforced concrete with tar and gravel, or terracotta tiles. Walls: structure/infill - murrum, stone, brick, block or tile masonry without columns, or with columns for multi-story dwellings. Floor: structure/infill - poured concrete slab on/off grade.
Concrete	Roof: structure/infill - poured or precast reinforced concrete with tar and gravel, or terracotta tiles. Walls: structure - poured or precast walls or frame. infill - metal, wood, masonry, plastic. Floor: structure/infill - poured or precast concrete slab.

DWELLING BUILDER: Four groups are considered:
Self-Help Built: where the dwelling unit is directly built by the user or occupant.
Artisan Built: where the dwelling unit is totally or partially built by a skilled craftsman hired by the user or occupant; payments can be monetary or an exchange of services.

Small Contractor Built: where the dwelling unit is totally built by a small organization hired by the user, occupant, or developer; 'small' contractor is defined by the scale of operations, financially and materially; the scale being limited to the construction of single dwelling units or single complexes.

Large Contractor Built: where the dwelling unit is totally built by a large organization hired by a developer; 'large' contractor is defined by the scale of operations, financially and materially; the scale reflects a more comprehensive and larger size of operations encompassing the building of large quantities of similar units, or a singularly large complex.

DWELLING DENSITY: The number of dwellings, dwelling units, people or families per unit hectare. Gross density is the density of an overall area (ex. including lots, streets). NET density is the density of selected, discrete portions of an area (ex. including only lots).

DWELLING DEVELOPER: Three sectors are considered in the supply of dwellings:

Popular sector: The marginal sector with limited or no access to the formal financial, administrative, legal, technical, institutions involved in the provision of dwellings. The housing process (promotion, financing, construction, operation) is carried out by the Popular sector generally for 'self use' and sometimes for profit.

Public sector: The government or non-profit organizations involved in the provision of dwellings. The housing process (promotion, financing, construction, operation) is carried out by the Public sector for service (non-profit or subsidized housing).

Private sector: The individuals, groups or societies who have access to the formal financial, administrative, legal, technical institutions in the provision of dwellings. The housing process (promotion, financing, construction, operation) is carried out by the Private sector generally for profit.

DWELLING FLOORS: The following number are considered:

One: single story; generally associated with detached, semi-detached and row/group dwelling types.
Two: double story; generally associated with detached, semi-detached and row/group dwelling types.
Three or More: generally associated with walk-up and high-rise dwelling types.

DWELLING GROUP: The context of the dwelling in its immediate surroundings.

DWELLING LOCATION: Three sectors of the urban area considered:

City center: the area located within a walking distance (2.5 km radius) of the commercial center of a city; relatively high residential densities.

Inner ring: the area located between the urban periphery and the city center (2.5 to 5 km radius); relatively lower residential densities.

Periphery: the area located between the rural areas and urban inner ring (5 or more km radius); relatively low residential densities.

DWELLING PHYSICAL STATE: A qualitative evaluation of the physical condition of the dwelling types: room, apartment, house; (the shanty unit is not evaluated).

Bad: generally poor state of structural stability, weather protection and maintenance.

Fair: generally acceptable state of structural stability, weather protection and maintenance with some deviation.

Good: generally acceptable state of structural stability, weather protection and maintenance without deviation.

DWELLING UNIT: A self-contained unit in a dwelling for an individual, a family, or a group.

DWELLING UNIT AREA: The dwelling unit area (m²) is the built-up, covered area of a dwelling unit.

DWELLING UNIT COST: The initial amount of money paid for the dwelling unit or the present monetary equivalent for replacing the dwelling unit.

DWELLING TYPE: The physical arrangement of the dwelling unit:

Detached: individual dwelling unit, separated from others.

Semi-Detached: two dwelling units sharing a common wall (duplex).

Row/Grouped: dwelling units grouped together linearly or in clusters.

Walk-Up: dwelling units grouped in two to five stories with stairs for vertical circulation.

High-Rise: dwelling units grouped in five or more stories with stairs and lifts for vertical circulation.

DWELLING UTILIZATION: The utilization indicates the type of use with respect to the number of inhabitants/families.

Single: an individual or a family inhabiting a dwelling.

Multiple: a group of individuals or families inhabiting a dwelling.

DWELLING UNIT TYPE: Four types of dwelling units are considered:

Room: A SINGLE SPACE usually bounded by partitions and specifically used for living; for example, a living room, a dining room, a bedroom, but not a bath/toilet, kitchen, laundry, or storage room. SEVERAL ROOM UNITS are contained in a building/shelter and share the use of the parcel of land on which they are built (open spaces) as well as common facilities (circulation, toilets, kitchens).

Apartment: A MULTIPLE SPACE (room/set of rooms with bath, kitchen, etc.). SEVERAL APARTMENT UNITS are contained in a building and share the use of the parcel of land on which they are built (open spaces) as well as some common facilities (circulation).

House: A MULTIPLE SPACE (room/set of rooms with or without bath, kitchen, etc.). ONE HOUSE UNIT is contained in a building/shelter and has the private use of the parcel of land on which it is built (open spaces) as well as the facilities available.

Shanty: A SINGLE OR MULTIPLE SPACE (small, crudely built). ONE SHANTY UNIT is contained in a shelter and shares with other shanties the use of the parcel of land on which they are built (open spaces).

DWELLING DEVELOPMENT MODE: Two modes are considered:

Incremental: The construction of the dwelling and the development of the local infrastructure to modern standards by stages, often starting with provisional structures and underdeveloped land. This essentially traditional procedure is generally practiced by squatters with de facto security of tenure and an adequate building site.

Instant: The formal development procedure in which all structures and services are completed before occupation.

FINANCING: The process of raising or providing funds.

Self Financed: provided by own funds.

Private/Public Financed: provided by loan.

Public Subsidized: provided by grant or aid.

LAND TENURE: The act, right, manner or term of holding land property. Types are categorized by how land is held and for what period of time. Legal definitions are established to determine the division of property among various owners, or the relationship between owner or occupier, or between creditor and owner; and between private owners and the public, and includes the assessment of taxes on private land rights and the regulation of land use through government control. There are TWO BASIC FORMS of land tenure:

Land Ownership: where the exclusive right of control and possession of a parcel of land is held in freehold.

Land Tenancy: where the temporary holding of mode or holding a parcel of land is of another.

LAND UTILIZATION: A qualification of the land around a dwelling in relation to user, physical controls, and responsibility.

Public: User: anyone/unlimited (streets, walkways, open spaces)
Physical controls: minimum
Responsibility: public sector

Semi-Public: User: limited group of people (open spaces, playgrounds, schools)
Physical controls: partial or complete
Responsibility: public sector and user

Private: User: owner or tenant or squatter (dwellings, lots)
Physical controls: complete
Responsibility: user

Semi-Private: User: group of owners and/or tenants (cluster courts)
Physical controls: partial or complete
Responsibility: users

LAND UTILIZATION: PHYSICAL CONTROLS: The physical/legal means or methods of directing, regulating and coordinating the use and maintenance of land by the owners/users.

LAND UTILIZATION: RESPONSIBILITY: The quality/state of being morally/legally responsible for the use and maintenance of land by the owners/users.

METROPOLITAN AREA: "an area in which economic and social life is predominantly influenced by a central city, to which it is linked by common interests though not often by common policies. The metropolitan area may have one city or more as well as outlying districts or satellite communities. No physical or legal boundaries mark its borders, but roughly speaking, these are the outer limits of commuting to or from the central city" (Abrams, 1971).

PERCENT RENT/MORTGAGE: The fraction of income allocated for dwelling rental or dwelling mortgage payments; expressed as a percentage of total family income.

INFRASTRUCTURE: The underlying foundation or basic framework for utilities and services: streets, sewage, water, network, storm drainage, electrical network, gas network, telephone network, public transportation, police and fire protection, refuse collection, health, schools, playgrounds, parks, open spaces.

LAND - MARKET VALUE: Refers to: 1) the present monetary equivalent to replace the land; 2) the present tax based value of the land; or 3) the present commercial market value of the land.

USUFRUCT: The right to profit from a parcel of land or control of a parcel of land without becoming the owner or formal lessee; legal possession by decree without charge.

SETTLEMENT: occupation by settlers to establish a residence or colony.

SUBSISTENCE INCOME: Average amount of money required for the purchase of food and fuel for an average family of 5 people to survive (\$325/year in Nairobi, 1972).

TENURE: Two situations of tenure of the dwelling units and/or the lot/land are considered: Legal: having formal status derived from law. Extralegal: not regulated or sanctioned by law.

Four types of tenure are considered:

Rental: where the users pay a fee (daily, weekly, monthly) for the use of the dwelling unit and/or the lot/land.

Lease: where the users pay a fee for long-term use (generally for a year) for a dwelling unit and/or the lot/land from the owner (an individual, a public agency, or a private organization). No cases of lease are shown in Typology.

Ownership: where the users hold in freehold the dwelling unit and/or the lot/land which the unit occupies.

Employer-Provided: where the users are provided a dwelling unit by an employer in exchange for services; i.e., domestic live-in servant. (Only one case is shown in the case studies.)

URBAN AREA: All developed land lying within the urban fringe (politically undefined development lying between the city and the country) including a central city and any of its satellite communities; it is not a political/governmental unit (Bartholomew, 1955).

URBANIZATION: the quality of state of being or becoming urbanized: to cause or take on urban characteristics.

USER INCOME GROUPS: Based upon the subsistence (minimum wage) income per year, five income groups are distinguished. (The subsistence income per year in Nairobi is approximately \$325.)

Very Low (below subsistence level) less than \$325/year:

The income group with no household income available for housing, services, or transportation.

Low (1 x subsistence level) \$325/year: The income group that can afford limited subsidized housing.

Moderate Low (4 x subsistence level) \$1,300/year:

The income group that has access to public/private commercial housing (rental).

Middle (15 x subsistence level) \$4,875/year:

The income group that has access to private commercial housing (ownership).

High (above 15 x subsistence level) above \$4,875:

The income group that represents the more economically mobile sector of the population.

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EQUIVALENTS

METRIC SYSTEM EQUIVALENTS:

Linear Measures

I Centimeter	= 0.3937 inches
I Meter	= 39.37 inches 3.28 feet
I Kilometer	= 3,280.83 feet 0.62137 miles
I inch	= 2.54 centimeters
I foot	= 0.3048 meters
I mile	= 1.60935 Kilometers

Square Measures:

I square meter	= 1,550 square inches 10.7639 square feet
I hectare = 10.000m ²	= 2.4711 acres
I square foot	= 0.0929 square meters
I acre	= 0.4087 hectares.

DOLLAR EQUIVALENTS

All income, cost and rent/morgage data have been expressed in terms of the USA dollar. US\$ = 7 Ugandan Shillings.