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Abstract

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Keywords

Kenya, Nairobi, Africa, housing low-income, urban policies, urban development, colinization, British Colonial government, survey, residential patterns, settlement, intra-urban mobility, urban migration, migration, population growth, residential mobility, squatter mobility

Comments

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Patterns of Low-Income Settlement and Mobility
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POPULATION STUDIES CENTER
UNIVERSITY OF PENNSYLVANIA

PATTERNS OF LOW-INCOME SETTLEMENT AND MOBILITY
IN NAIROBI, KENYA

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ABSTRACT

The author traces the development of low-incoming housing zones in the city of Nairobi (Kenya), which were initially shaped by the exclusive urban policies of the British Colonial Government, and further influenced by minimum standards codes established after Independence. Using a random sample of 1,480 heads of households, the author examines zones of entry into the city, with a view to identifying the residential patterns which low-income migrants establish in the process of becoming securely settled in the city. Three distinctive zones are identified, namely, the central, the intermediate, and the peripheral zones. The author offers several demographic and sociological explanations for the pattern of intra-urban mobility.

Introduction

In several countries of Africa rural to urban migration, together with natural increase, is leading to an unprecedented rate of population growth within the major cities. Caught unprepared and lacking both financial and technical resources, several urban authorities are witnessing a gigantic stream of migrants who, in the absence of legally acceptable accommodation, resort to living in slums and squatter settlements both within the city and at its periphery, often in areas prone to all forms of hazards.

Initial responses to these problems were control-oriented and centered on preserving a healthy environment for those already in the city.¹ These took the form of denying services to squatter areas, enforcing on them expensive building codes and periodically demolishing structures that contravened these codes. In a few instances, repatriations of squatter residents to the rural areas were embarked upon and agricultural programs were given new steam with the sole objective of keeping people out of the city. Contrary to these measures, however, squatter settlements have not only prevailed but have greatly expanded in size. A recent survey by the United Nations Economic Commission for Africa estimates that such settlements now accommodate upward of 40 percent of the entire urban population in Africa.² Whereas these settlements had been viewed as a temporary phenomenon, they have become a permanent feature of the urban landscape and are now accepted as a manifestation of normal urban growth in the Third World (Abrams, 1964; Turner, 1966; Dwyer, 1975).

Faced with this unusual situation, many scholars and policy makers have now shifted position and are advocating policies of accommodation. Rather than continuing to exercise policies of control with a view to forcing squatters out of the city, emphasis has now shifted in favor of devising strategies that would lead to the upgrading of squatter settlements from within and in integrating the squatter resident into the overall urban economy (Abrams, 1964; Turner, 1966, 1968; Mangin, 1967; Dwyer, 1975; Laquain, 1977). The success of such policies, however, requires that the intra-metropolitan residential process be understood since it affects in a major way the shape of the evolving urban residential landscape.

Accordingly, it is the purpose of this study to analyze one aspect of the intra-metropolitan residential process as it is exhibited within the low-income zone of the city of Nairobi. The objective is to identify the residential patterns which low-income migrants have established in their process of becoming securely settled in the city. Given that such patterns are the outcome of the residential preferences of many migrants, it is also the objective of this study to document the constraints within which such choices are made. Nairobi is currently pursuing a huge program to upgrade housing for low-income residents. Consequently, an attempt will be made to examine the relationship between intra-urban residential mobility and the improvement of low-income housing.

The Low-Income Zone in Nairobi

(a) Evolution and Main Characteristics

Except for the emergence recently of small pockets forming a ring around the city, the low-income zone in Nairobi has traditionally formed one contiguous area. This stretches immediately to the east of the Central Business District and industrial area and continues all the way to the urban fringe. It includes the old city council and other institutional African housing areas close to the Central Business District, the belt of spontaneous settlements in the Mathare Valley, as well as the sites and services scheme

areas toward the urban fringe. Within this area live upward of one-third (mostly poor) of the entire population of the city. The zone has existed as an entity basically as a result of policies of residential segregation which were in force during the colonial period, when the main outline scheme for the city evolved.

The area so defined has over the years evolved a number of distinctive characteristics, many of these reflecting the successive policy organs under which growth was accommodated. During much of the colonial period, an anomalous situation was allowed to prevail whereby a balance existed between housing, employment and in-migration. Working under the premise that Africans who sought employment had come to the city for a temporary period, colonial policy evolved to a situation whereby only the actual labor force was permitted to reside in town. All other persons were under the provisions of the "Pass Laws," were supposed to remain in the rural areas, and could be prosecuted if found in town.

This set-up created a unique situation within the low-income zone. First of all, the exclusion of dependents meant that the African urban population remained small and was, furthermore, dominated by adult males. Because they were considered transients, no provisions were made to encourage them to own property within the city, nor could they participate in urban affairs in general. Consequently, the task of housing them fell on those who employed them together with the Nairobi City Council.

Actual housing provided was quite simple. It consisted of blocks of dormitories within which individuals were allocated bed-space accommodation. Sometimes two renters shared a room, although groupings of more residents were common. Other utilities--kitchen, toilet and shower--were used on a communal basis. Although rents were low, as indeed were the wages of the occupants, these units were quite unpopular. At the heart of the matter was the exclusion of the possibility of an urban low-income African worker to be joined by members of his family. Throughout the colonial era, the administration of the "Pass Laws" figured as perhaps the most oppressive imprint of colonialism in urban Kenya and was a major rallying point for the independence movement.

Independence was granted to Kenya in 1963, and with it came radical changes in urban policy that further changed the character of the low-income zone. The general policy became one whereby Africans were to be allowed to evolve into a permanent citizenry of urbanities and not just transient workers. To this end, urban authorities became committed to putting up self-contained units that would permit a worker to bring his family into town. Perhaps, as a result of the psychological feeling that the lengthy period of oppressive rule had come to an end, there is a lot of evidence to suggest that social needs were allowed to prevail over economic realities in laying out housing policy. Whereas the minimum acceptable standard during the colonial period was bed-space accommodation in a unit that was built with permanent materials, under the new order this became a two-room unit using permanent materials together with kitchen, toilet and shower. The new city council implemented this directive by setting off to build partitions within the colonial dormitories and to group some rooms into single units. This measure eventually created more socially acceptable housing within the low-income zone, but was also instrumental in decreasing the existing housing stock.

The new era of independence brought about other changes as well. Population growth started to be dramatic following the repeal of the restrictive rural-to-urban migration laws. The inflow of people was given added momentum by changes that were taking place in the rural areas. Particularly in the districts of Muranga, Kiambu and Nyeri, where a land reform program was reaching maturity, thousands who lacked the minimum accepted land

holding found their way to Nairobi. This growth was further augmented by natural increase, which followed the normalization of the sex ratio following the repeal of the in-migration restrictions. The annual growth rate of 6 percent that characterized the period between 1948 and 1962 rose to 9.3 percent between 1962 and 1969 in the city of Nairobi. The actual population increase was 120,000 in 1948, 350,000 in 1962, 510,000 in 1969, and 835,000 according to the provisional returns of the 1979 census.² Most of the growth was experienced among the African population which, between 1962 and 1969, registered a net population increase of 195,000 (Silberman, 1972) and increased their share of the population from 59.5 percent in 1962 to 83 percent in 1969.

The impact of this growth on housing was such that the traditional area of African housing in eastern Nairobi quickly filled up as residential densities of fifty persons per hectare in 1962 rose to 200-300 persons per hectare by 1969 (Ominde, 1971). Because the private sector had channelled funds in higher income housing and the city council was absorbed in remodelling colonial dormitories, a serious shortage of rental accommodations began to be felt. Initial adjustment to this shortage was for migrants to erect shelters in vacant areas within the central city and close to the traditional area of African housing. But this pattern did not hold for long. Because the land belonged to the city council which, moreover, carried out regular surveillance in its estates, periodic demolitions of squatter settlements were very often the rule. In search of a more secure area, the people soon discovered a relatively remote area in the valley of the Mathare River whose population quickly jumped from less than 5,000 in 1965 (Bloomberg and Abrams, 1965) to 90,000 in 1970 (Buttersby, 1970) and over 150,000 in 1979 (Nairobi City Council, 1979). All of these people are housed in spontaneously erected settlements.

The growth rate that characterized the period soon after independence has not yet abated. The relative political stability of Kenya within the East African region has resulted in considerable industrial and commercial growth, both of which have attracted sizeable in-migration. Furthermore, there is growing evidence to suggest that growth is now not just the result of the centripetal forces of the city. The high growth rate of population in the rural areas, the very slow progress of the program to create alternative growth poles in the rural areas, and the real land pressure existing in many of the high potential districts are contributing much to Nairobi's swelling population. People are now not just coming to the city in search of opportunity. Some are coming as a matter of necessity. A considerable portion now no longer time their arrivals to fill a known job opening. They simply migrate in the hope that, somehow, something will work out in Nairobi. Such people are prepared to spend some period in waiting before a job is acquired. This trend makes squatter residence a necessary aspect of the urban landscape.

(b) Current Situation

The situation just portrayed is impressive in its own right. Nevertheless, available figures further illustrate the magnitude of the problem which the city is striving to solve. The Research Unit of the Nairobi City Council estimates that between 1971 and 1985 roughly 14,700 additional households have to be expected in the city every year (Table 1).

This is clearly a population growth that cannot be matched by corresponding growth in employment, let alone housing. Furthermore, the declining household sizes and higher-than-expected proportion of female in-migrants suggest even higher household numbers, the majority of whom will need low-cost accommodation (Njau, 1979).

TABLE 1. ESTIMATED INCREASE IN THE NUMBER OF HOUSEHOLDS IN
NAIROBI, 1971-1985

<u>Year</u>	<u>Number of Households</u>
1971	136,000
1975	177,400
1979	229,300
1983	290,000
1985	324,700 ⁽³⁾

According to the growth in households, the annual need for new housing ranges between 9,000 units in 1972 and 17,000 units in 1985. This does not take into account the accumulated backlog from past years. The city, according to Abrams and Bloomberg (1965), was expected to construct approximately 5,000 units a year as of 1965 in order to adequately house the population at the prevailing growth rate. In the past this target has not been achieved. The higher number of authorized houses completed in any one year has averaged under 3,000 units (Njau, 1979).

The impact of this situation on the low income zone is very clear in the data obtained by the author during the course of this research. Residential environmental conditions have deteriorated to the extent of being hazardous. For instance, in all ten communities studied, the common dwelling unit per household is simply a room. The proportion of units that compares just a room varies from a low of 74 percent in Pumwani to a high of 94 percent in Mathare (Table 7). Within each of these rooms live families that range from an average size of three in Pumwani to five in Shauri Moyo. With the exception of the central city estates of Shauri Moyo and Pumwani, very few of the other dwellings possess such standard amenities as toilets and kitchens. The spontaneous nature with which developments are carried out is such that fire is a constant hazard.

The hazardous environment in eastern Nairobi is now of the kind whereby serious questions arise regarding the necessity of maintaining a "minimum standards" code. Most of the residences are illegal and have been built with this fact in mind. They are, nevertheless, assured of a continued existence because evicting so many people causes a lot of misery and, above all, has serious political connotations. The crux of the matter is that given the present cost of housing, which is a function of the required standards, the prevailing income distribution and finance mechanisms, the great majority of urban population simply cannot afford a home. Estimates made in 1977 (Housing Research Unit, 1977) indicate that some 70 percent of the population earn less than 500 Shs. a month (U.S. \$1 = 8 Ksh.). The official minimum standard of a two-room house with kitchen, toilet and shower costs 35,000 Shs. and requires a loan repayment of 400 Shs. per month. If all housing has to be put up by public funds, then roughly 10,000 units are needed each year, a figure that would consume over 7 percent of the city's GNP instead of the current 3 percent.⁴ That this goal is difficult to attain is illustrated by recent trends whereby even with all the aid programs that Nairobi has been receiving, the annual output of legal housing has not been able to exceed 3,000 units.

Recognizing the realities of this situation, the Nairobi City Council recently agreed to drop its stringent building codes and adopted a strategy whereby urban

residents themselves would play a key role in the construction of their own houses. Instead of the construction of complete low-cost units, which the city council had failed to provide in sufficient numbers, the policy now is for the construction of schemes providing plots and services and for which intending builders may apply.⁵

The essential feature of sites and services schemes in Nairobi is that those who apply and succeed in being allocated a plot are also offered a materials loan. The loan is generally sufficient to construct at least two rooms of a new house which can be used while the owner collects more money to complete the rest of the house. The recipient is also granted a long lease for the land, up to thirty-three years, which is sufficient to ensure security of his property. From the government viewpoint, sites and services schemes have a number of advantages, chief of which is the fact that more houses can be constructed with limited funds. In addition, families are given greater control over the design of their dwellings. Furthermore, homeowners are supposed to take more pride in their residences; hence, sites and services schemes would create more attractive and stable neighborhoods.

Within the area of study, the first sites and services schemes were tried out at Kariobangi and later on at Ngei, Huruma and Thayu. Extensions of the original core units are now being implemented and a major scheme at Dandora is well under way. The earlier schemes created only about 2,000 plots. But the more recent ones have been more ambitious. Dandora, for instance, will first create 1,000 plots and then be developed to a total of about 6,000 plots. This scheme has benefited from an \$11 million loan from the World Bank, and negotiations have been concluded for a further \$56 million. The efforts of the World Bank in the field of low-cost housing have been joined by those of the Commonwealth Development Corporation, the World Council of Churches, USAID, and the European Economic Community. Together these agencies have created quite a lot of building activity at the periphery of Nairobi.

Most of the schemes have clearly not yet matured. But those at Kariobangi, Huruma, Thayu and Ngei have been in existence for more than a decade. They can consequently be used to evaluate the relationship between intra-urban mobility and housing in Nairobi. Their existence has added further variety to the low-income zone which was previously characterized by a central section of institutional housing and then a peripheral one composed of spontaneous settlements.

The Data

The data in this study were obtained by a direct survey that was carried out in 1978. The area of the survey was the belt of low-income settlements which stretches from the Central Business District (CBD) eastwards to the urban fringe at Kariobangi. Ten representative communities were identified, on the basis of a pilot survey, for detailed analysis. These included the old central city communities of Shauri Mayo and Pumwani, the more recent peripheral communities of Thayu, Huruma, Ngei and Kariobangi, and then the spontaneous growth communities of Mathare 2, Mathare 3, Mathare 4, and Mathare 10 in the intermediate zone. Within each of these a random sample of approximately 0.1 percent of the population was taken. In all a total of 1,480 household heads was interviewed.

The sampling is slightly biased, especially at the periphery. The census data base for the area is for 1969, or roughly ten years prior to the study. Population projections that use this base are roughly correct in the central areas which were thoroughly settled

even in 1969. But at the periphery, population growth has been quite dramatic. In such cases the base used was the city council projected figures of 1977. These, however, give an indication of the population the council planned for the area rather than what is already in the area. Given that room occupancy rates are already in excess of the city council guidelines, it is also fair to assume that even the population has long passed the recommended figures.

The questions used in the interview related to migration history and housing characteristics (Appendix I). The information obtained made it possible not only to obtain a fair picture of the path followed by each resident, but also a composite picture of all the residential moves made and their relationship to housing throughout the ten communities. The results of this survey are presented in the subsequent sections.

Migration Reception Areas and Squatter Mobility

The results of the questions on length of stay in Nairobi as well as place of origin are presented in Tables 2 and 3. As can be seen in Table 2, each of the communities contains a fair proportion of recent migrants (those who have been residents in Nairobi for five years or less). There is, nevertheless, a trend for recent migrants to be concentrated in the intermediate-zone communities of Mathare 2, Mathare 4, and Mathare 10 where they form over 43 percent of the resident population.

The converse of this trend is also observable with respect to the central city communities of Shauri Moyo and Pumwani where long-term residents (i.e., those who have resided in Nairobi for eleven years or more) comprise over 66 percent of the resident population. A similar trend, though of less magnitude, is also observable at the periphery with the communities of Thayu and Huruma containing at least 52 percent of the resident population and, elsewhere, at least 41 percent. This observation is further supported by Table 3 in which those who came to Nairobi directly from rural areas are shown as being concentrated in the intermediate zone. The conclusion from this is that in Nairobi migrants enter the city in all areas, although there is a tendency for them to be concentrated in the intermediate zone. As we indicated earlier, the intermediate zone is also the main area of spontaneous settlement in the city.

Further inquiry indicated some of the reasons why the intermediate zone is the preferred zone for new migrants. Although housing in the city council estates is preferred on account of its proximity to employment and the more stable rents, such housing is generally unavailable to many would-be renters. Demand for the city council units has now reached a level whereby the computerized waiting list for the 1,000 city council units topped 30,000 names in 1977, and on the average a waiting period of at least three years is necessary before an application can be successfully processed. Because of the very high demand, the selection procedure has become quite stringent. In order for one to obtain a city council rental unit proof of a period of residence in Nairobi of at least a year, together with proof of income and sometimes a letter of recommendation from the employer, is necessary. To a recent migrant who is yet to obtain his first employment in the city, such requirements simply disqualify him from even being considered. Furthermore, within the central city area, where the council is the main landlord, regular official surveillance of the area is maintained so that illegal developments are considerably kept in check. The same practice, though in diminished form, takes place at the urban periphery where the city council is involved in the task of establishing sites and services schemes.

TABLE 2. CURRENT LENGTH OF CONTINUOUS STAY IN NAIROBI

	Shauri Moyo	Pumwani	Mathare 2	Mathare 3	Mathare 4	Mathare 10	Thayu	Ngei	Huruma	Kariobangi
N =	135	99	45	272	150	196	182	120	180	115
	Central city		Intermediate zone				Peripheral zone			
5 years or less	20	18	44.5	35.5	48.4	43	20.7	21.5	20	27.4
6-10 years	10	16	24.4	30.4	16.6	26	26.4	36.9	11	30.8
11 and over	<u>70</u>	<u>66</u>	<u>31.1</u>	<u>34.1</u>	<u>35</u>	<u>31</u>	<u>52.9</u>	<u>41.6</u>	<u>69</u>	<u>41.8</u>
Total	100	100	100	100	100	100	100	100	100	100

TABLE 3. PLACE OF PREVIOUS RESIDENCE BY PLACE OF PRESENT RESIDENTIAL AREA

	Shauri Moyo	Pumwani	Mathare 2	Mathare 3	Mathare 4	Mathare 10	Thayu	Ngei	Huruma	Kariobangi
N =	135	99	45	272	150	196	182	120	180	115
	Central city		Intermediate zone				Peripheral zone			
City centre	31.8	41.2	8	12.7	8	10	4.4	12.5	22.5	12.2
Intermediate	26.1	25.2	33	29.6	22	23.4	17.6	32	40.3	32.2
Periphery	18.2	10.1	25	13.5	21	14.6	19.1	16	31	18.3
Upcountry	<u>23.8</u>	<u>23.4</u>	<u>33</u>	<u>44.2</u>	<u>49</u>	<u>52</u>	<u>59</u>	<u>39</u>	<u>6.2</u>	<u>39.1</u>
Total	100	100	100	100	100	100	100	100	100	100

In the intermediate zone, on the other hand, very little surveillance is evident even though the area is under legal jurisdiction of the city council. Almost all the developments are spontaneous and illegal. Whenever intentions of demolishing such structures are voiced, the community has often reacted by exhibiting vocal opposition, at times even obtaining an audience with the highest authority in the land. Most of the housing here is, strictly speaking, not inhabited by squatters but rather by tenants. The landlords are a powerful group, some of them even being influential members of government. The net effect of this is that the Mathare community enjoys a considerable measure of freedom from urban authorities. Most activities and developments go on unabated, without fear that they will fall victim to the city council bulldozer. Mathare Valley is, as a result, able to quickly adjust to a sudden rise in demand for housing by simply building more, a situation that is out of the question in other areas. Informal sector activities are also free to spring up whenever there is a demand for their products. To a new migrant who has yet to obtain his first job, residing in Mathare is thus considered ideal. Employment is so hard to come by in Nairobi that most people within this income group have to spend a period of waiting before a regular job is obtained. Under such circumstances, the spontaneous zone in the intermediate zone becomes ideal, as here cheap accommodation can be obtained together with casual employment.

This absence of surveillance explains the tendency for recent migrants to concentrate within the intermediate zone as opposed to the central and peripheral zones. For the latter zones, explanations made earlier by scholars of African rural-urban migration are applicable. As Leslie (1963) observed for Dar es Salaam:

Almost every African who decides to come to Dar-es-Salaam comes to a known address where lives a known relation; this relation will meet him, take him in, feed him, and show him the ropes, help him seek a job, for months if necessary until he considers himself able to launch out for himself and take a room of his own.

In a survey of rural to urban migration in Ghana, Caldwell (1969) also estimated that:

Over half of the potential migrants in rural areas expected to stay at first with relatives or fellow villagers.⁶

With respect to the low-income zone in Nairobi, this thesis was evaluated by asking residents how they were housed on first becoming continuous residents of Nairobi. Answers to this question (Table 4) indicate a large majority have rented outright with only 30 percent who lived with relatives or friends. Although this finding is a major departure from the observations of Leslie and Caldwell, it nevertheless explains why there should be significant proportions of recent migrants in both central and peripheral zones. The reduced proportions, however, should not be interpreted to mean the weakness of the role of kinship ties in rural to urban migration in Nairobi. Quite a significant proportion of migrants is helped initially by relatives and friends. But within this area, where residential space is very limited, such help seldom takes the form of accommodation. Arriving migrants are encouraged to get their own shelter even though this may mean prolonged dependence on a relative or friend for food.

TABLE 4. INITIAL ACCOMMODATION OF RESIDENTS ON FIRST BECOMING CONTINUOUS RESIDENTS OF NAIROBI

	<u>N = 1350</u>
Rented	51.7%
Stayed with relative or friend	33.8%
Built own shelter	9.3%
Other	5.2%
	<u>100%</u>

Table 5, on place of previous residence, shows inter-zonal mobility to be dominated by those moving from the intermediate zone to the central and peripheral zones. Since, however, the objective of this study is to relate intra-urban mobility with house improvement by the resident, attention will be focused on mobility from the intermediate zone to the periphery and not to the center where most of the housing has been built by the Nairobi City Council and other institutional bodies.

TABLE 5. DISTRIBUTION OF PERSONS BY PLACE OF PREVIOUS RESIDENCE

	<u>Place of present residence</u>		
	Centre N = 234	Intermediate 663	Periphery 597
<u>Place of previous residence</u>			
Center	26.2	10.8	19.4
Intermediate	26.5	26.2	26.8
Periphery	13.9	16.1	21.5
Outside	34.2	46.9	32.3
	<u>100</u>	<u>100</u>	<u>100</u>

Intra-Urban Mobility and the Improvement of Housing

As we indicated earlier, considerable effort has been made to encourage residents in the central city slums and intermediate zone to migrate to the periphery. This has been done by allocating to them serviced plots of land to which they are eventually granted a lease title. In the remainder of this paper, we shall examine whether intra-urban mobility leads to the improvement of housing where security of tenure exists. If this should be the case, it should be reflected in the existing housing stock. Newly developed housing at the periphery of Nairobi, where residents of more central locations have settled, should in total be of better quality than that in the intermediate zone.

Quality of housing is an aspect that often requires several variables to measure. In the simplified scheme used in this study, housing is said to have improved if (1) the occupancy ratio improves, (2) the proportion of houses built with permanent materials increases, and (3) the amenities identified with each dwelling unit increase. The number of quality indicators is small. But such are the items that figure among the aspirations of the residents. They are, moreover, consistent with the stipulations of the building code.

Tables 7-9 first indicate the hazardous environment that people in the low income zone must cope with. Table 7 compares housing occupancy ratios at the time each head of household first occupied his own unit and at present. What is evident is that households were smaller in the initial period than they are now. This in itself is consistent with normal practice whereby migrants first send out a few members after which other members of the family follow. Nevertheless, the fact that this change is occurring while the physical state of the dwelling remains static indicates a decline in the dwelling environment. Actual numbers per room are high (Table 7), especially in the center and periphery. They are slightly lower in the intermediate zone as this area is dominated by recent migrants. The official yardstick for the city considers occupancy ratios of more than two persons per room to be an indication of overcrowding.

A comparison of conditions in the intermediate zone and on the periphery indicates some improvement in the materials used, with peripheral housing having a greater portion of units that are built with permanent materials (Table 9). Most of the units at the periphery consist of just a room and lack both toilets and kitchens. In both areas (Table 9) a large proportion of the residents are tenants although the peripheral settlements were started as sites and services schemes where each migrant was given a serviced plot upon which to build his own residence. A marked reduction in the number of owner occupiers could occur if the beneficiaries of the sites and services plots became successful and then moved out of the area. But such a possibility is not the explanation here. What has happened is that a number of the recipients have let their right to the land go to someone else who has then built a rental unit and rented to the original recipients together with several other in-migrants. The existence of significant proportions of residents who are sharing accommodation or subrenting is, in part, depicting this situation where those who were allocated plots are in the process of transferring them to someone else.

Clearly then, whereas mobility to the periphery is helping to increase the city's housing stock, it is leading to the upgrading of housing only in a minimal sense. With the exception of an increase in housing built with permanent materials, other aspects linked with improvement have shown very little change. What is happening at the periphery of the city is the very same process where house development in the intermediate zone is being carried out. This is basically by a group of speculators who are taking advantage of the serious housing shortage to put up and successfully rent housing that lacks some of the very basic amenities. Initially some of these one-room rentals may possess amenities; but as time passes and, especially after an occupancy permit has been granted, several other subsidiary units and partitions of the original unit begin to appear. Some of these may be utilizing the amenities of the original unit but others are often quite independent. And so a question which does invariably arise regards the lack of interest by several low-income people to become meaningfully involved in house development and improvement.

TABLE 6. DISTRIBUTION OF PERSONS BY PROVINCE OF RESIDENCE IMMEDIATELY BEFORE MOST RECENT MOVE TO NAIROBI

	Place of present residence									
	Shauri Moyo	Pumwani	Mathare 2	Mathare 3	Mathare 4	Mathare 10	Thayu	Ngei	Huruma	Kariobangi
N =	135	99	45	272	150	196	182	120	180	115
	Central city		Intermediate zone				Peripheral zone			
% from Central (Kikuyu)	20.4	15.5	69	32.5	14	23	54	31	61	36
% from Nairobi (mainly Kikuyu)	12.4	24.4	2	3	7	3	4	6	10	1
% from Eastern (Akamba)	10.6	17.7	20	21.4	24	4	12	13	5	14
% from Western (Luhia)	17.7	12.2	-	8	7	18	4	18	2	24
% from Nyanza (Luo)	23	17.7	-	27	38	49	9	18	3	20
% from all other	<u>15.9</u>	<u>12.5</u>	<u>19</u>	<u>8.1</u>	<u>10</u>	<u>3</u>	<u>17</u>	<u>14</u>	<u>19</u>	<u>5</u>
Total	100	100	100	100	100	100	100	100	100	100

TABLE 7. OCCUPANCY CHARACTERISTICS OF PRESENT RESIDENCE

	Shauri Moyo	Pumwani	Mathare 2	Mathare 3	Mathare 4	Mathare 10	Thayu	Ngei	Huruma	Kariobangi
N =	135	99	45	272	150	196	182	180	120	115
	Central city		Intermediate zone				Peripheral zone			
<u>Household size</u>										
Initial household size*	4.4	4.8	2.6	2.9	2.3	1.9	2.8	2.7	4.0	2.9
Current household size	5.6	4.7	3.8	4.2	4.1	4.2	3.8	4.3	4.4	4.8
<u>Number of rooms in house</u>										
Number of rooms in initial house*	1.35	1.4	1.2	1.1	1.1	1.0	1.0	1.4	1.2	1.3
Number of rooms in current house	1.15	1.4	1.3	1.2	1.2	1.1	1.2	1.2	1.2	1.2
<u>Number of occupants per room</u>										
Initial number of occupants per room*	3.3	1.9	2.2	2.8	1.8	1.8	2.8	1.9	3.3	2.2
Current number of occupants per room	4.9	3.0	2.9	3.2	3.2	3.6	2.9	3.7	3.7	4.2

*

Initial residence refers to the first independent residence established in Nairobi.

TABLE 8. OWNERSHIP CHARACTERISTICS OF PRESENT DWELLING

	Shauri Moyo	Pumwani	Mathare 2	Mathare 3	Mathare 4	Mathare 10	Thayu	Ngei	Huruma	Kariobangi
N =	135	99	45	272	150	196	182	180	120	115
	Central city		Intermediate zone				Peripheral zone			
% owner occupiers	1.8	7	6.6	16.2	16	8.3	7.3	13.5	72.2	4.3
% tenants	98.2	93	93.4	71.5	70.6	79	88.2	73	25	86.9
% sharing	0	0	0	12.3	12	9.5	4.5	13.5	1.6	8.8
% sub renting	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1.4</u>	<u>2.2</u>	<u>0</u>	<u>0</u>	<u>1.2</u>	<u>0</u>
Total	100	100	100	100	100	100	100	100	100	100

TABLE 9. AMENITIES OF PRESENT DWELLING

	Shauri Moyo	Pumwani	Mathare 2	Mathare 3	Mathare 4	Mathare 10	Thayu	Ngei	Huruma	Kariobangi
N =	135	99	45	272	150	196	182	180	120	115
	Central city	Intermediate zone				Peripheral zone				
<u>Toilets</u>										
% with indiv. toilet	5.3	32	0	0	2.6	2.8	0.5	1.7	0.5	2.6
% sharing toilet	94.7	68	100	99	78.6	77.3	60	81.5	70	93.9
% without toilet	0	0	0	1	18.8	19.9	39.5	16.8	29.5	3.5
Total	100	100	100	100	100	100	100	100	100	100
<u>Kitchens</u>										
% with indiv. kitchen	15.7	23	2	2.6	2	1.5	2.2	7.5	1.5	0.8
% sharing kitchen	84.3	7.7	0	0	0	0	0	0	0	0
% without kitchen	0	69.3	98	97.4	98	98.5	97.8	92.5	98.5	99.2
Total	100	100	100	100	100	100	100	100	100	100
<u>Materials of house</u>										
% built with permanent materials	100	58	0	0	1	12.5	0	46	30	13
% built with temporary materials	0	42	98	100	99	80.5	87	55	69	39.1
% built with semi-permanent materials	0	0	2	0	0	7	13	9	1	47.9
Total	100	100	100	100	100	100	100	100	100	100
% houses with just one room	88.4	74.5	81.0	85.2	82.6	94.6	82.1	85.2	85.5	86.1

This aspect of the study will lack quantitative proof as the pattern became clear after the survey had been conducted. Nevertheless, interviews with some informed officials together with evidence from other studies, help to shed light as to which factors are most dominant. One of the reasons for the low rate of effective participation in housing relates to peoples' perceptions of urban tenure and divided loyalty between urban and rural living. Although security of tenure is indeed a necessary condition for people to invest in house improvement, the concept of tenure varies from community to community. In the low-income zone of Nairobi, there is a strong feeling that the real secure ground where one's house should be built is the one within his district of origin. Much as authorities have come up with schemes to grant legal tenure to an urban plot, many urban residents, especially from the distant upcountry areas, still continue to regard rural area as their real home. It is here that the bulk of their savings are channelled. Whitelow (1973), for instance, found that as much as 20 percent of the earnings of low-income workers in Nairobi were being remitted back to the rural area. A survey carried out by the National Christian Council of Kenya (1971) also found that most of the savings made by these people were invested in the acquisition of rural land. In almost every case a person's major house will be built in the rural area, even in those cases where migration to Nairobi was the result of strong push factors. The enthusiasm shown in sites and services schemes has come from those who live close to Nairobi and consider it to be their home (Huruma, where 70 percent are Kikuyu). Most of the others are willing to continue to live in rental accommodation and to get by in very low quality housing. Where such people have been given plots of land, many have used the opportunity to exchange the plots for extra income and spent the materials loan on something else.

Much as there is vigorous activity in house development at the periphery of Nairobi, the financial stipulations demanded of those joining the schemes still exclude a lot of the very low income people. Most plots have been targeted for a population earning much above the average income of 280 Kshs. a month. For each plot a loan of up to 14,000 Kshs. can be applied for, with 45 percent of this going directly to the issuing authority for the cost of the infra-structure, 50 percent granted to the owner to purchase building materials, and the balance for insurance and administration (van Straaten, 1979). However, the loan has to be repaid in a twenty-year period and carries an interest charge of 6 percent. On the basis of this capital cost, the monthly repayment is about 150 Kshs. (including loan charges, maintenance, insurance, land rent and administrative costs). Such a repayment necessitates a minimum monthly income of 750 Kshs. (20 percent of income for housing). City council estimates (1979) indicate that such income falls around the median for the city as a whole.

Perhaps more important than the actual amount needed are the qualifications that the lending institutions insist upon. For these twenty-year loans for which the house is used as collateral, the lending institutions insist that the house be built of sufficiently high standard. To most who choose to abide by the agreement, the construction becomes expensive as the standards stipulated require the use of materials which the owner may never have handled, thus making the services of a hired artisan essential. Although the government has managed to convince the lending institutions to grant loans to those earning 300 Kshs. a month, regularity of income is still a cardinal criterion before a loan is granted. To those employed in the informal sector whose income is irregular, participation in the schemes is thus ruled out.

To most people in this income category, the decision to build a house involves savings for over fifteen years and is made after serious consideration. Yet in some of the sites and services schemes, notably those at Ngei and Kariobangi, grants of land were

made as an individual's residence and place of work were being bulldozed. In order to ensure that speculation in land was kept to a minimum these same people were required to complete the construction of a new house within a six-week period or else lose their rights to the land. Although this unrealistic requirement has now been modified so that those getting plots have up to eighteen months to build a new house, this has not yet resulted in a massive appeal by the very low income population. What needs to be realized is that within any community people will have a variety of objectives and commitments. That this is so within the low-income zone of Nairobi was well illustrated by a survey carried out in the area (1971) by the National Christian Council of Kenya. Asked about their objectives to which they sought to put their income, their answers were listed in the following order:

1. food
2. rental accommodation
3. school fees
4. clothes
5. save money to buy land
6. contribute to extended family
7. extend business
8. build another room
9. rent or buy a better house
10. get improved transportation.

Better housing did not rank as top priority by residents who often felt that other needs were more important. This suggests that to many people living in the slums is not simply because housing elsewhere cannot be found. To be able to save money and, say, send a child or relative to school are some of the reasons why some people opt to live in a substandard environment.

Conclusion

Within the low-income zone in Nairobi, a distinctive pattern of intra-urban residential mobility is evident. This is characterized by upcountry migrants joining the city in all the areas but most especially by way of the intermediate zone from which their next move is towards the city center and peripheral zone. In the choice of a place for initial residence, proximity to place of employment is crucial although in this case the uncertainty of obtaining employment in the formal sector together with the unavailability of rental accommodation in the central area make proximity to the city center and industrial zone less significant to the new migrant.

Although mobility from intermediate zone to the periphery is leading to an increase in the existing housing stock, it is leading to the improvement of housing in only a minimal sense. This is so because most low-income residents have not yet become involved in house development and still prefer to rent. Consequently, whereas security of tenure is a cardinal criterion before consolidators will invest in house improvement, it does not necessarily follow that where such security has been granted better houses will be built.

In Nairobi, it would appear that some of the factors affecting people's participation in sites and services schemes include people's perception of urban tenure and divided loyalty between urban and rural living as well as the manner whereby some of the schemes are being administered. Before these obstacles are removed, it would appear that the bulk of the low income residents of Nairobi will continue to live as tenants rather than as owner occupiers. This situation will apply whether their residence is located in the city center, intermediate zone or periphery.

FOOTNOTES

¹In United Nations Economic Commission for Africa, "Report on Housing in Africa," presented at the U.N. Habitat Conference, Vancouver, British Columbia, Canada, June 1976, p. 3.

²These were obtained from the Nairobi City Council Planning Department, as well as the published provisional statement of the 1979 Kenya Population Census.

³These were prepared by the Research Unit of the Nairobi City Council and were based on projected growth of population for each year of the major income groups, as well as the housing deficit that was already in existence in each of these income groups.

⁴A statement by the mayor of Nairobi, Mr. Andrew Ngumba, and quoted in Roger Mann, "Solving Africa's Housing Problem," Build Kenya, March 1968, p. 55.

⁵Statement by Mr. Gilbert Njau, Chief Planning Officer, Nairobi City Council, and contained in his paper, "Housing for the Lower Income Groups--Challenge for the City," presented at the Seminar on Housing held at the Housing Research Development Unit, University of Nairobi, May 9, 1977, p. 6. Reprinted in Kenya National Development Plan: 1970-1974 (Nairobi: Government Printer, 1979), p. 519.

QUESTIONNAIRE

Name of Locality

A) Migration history

1. What is the district of your birth?
 2. How long have you been resident in Nairobi?
 - less than 5 years
 - 6 - 10 years
 - over 11 years?
 3. How many times have you changed residences within Nairobi, within the last
 - 5 years
 - 10 years?
 4. Which are the places that you lived in within the last 5 years (i.e. latest up to first)
 - 1.
 - 2.
 - 3.
 - 4.
 - 5.
 5. Which place did you live in when you first came to Nairobi?
 6. Did you get accommodation with a friend, relative or you rented or built your own residence?
- B) Housing characteristics
7. Are you a tenant or you occupy your own dwelling?
 8. How many rooms are there in your dwelling unit? (i.e. sitting room included)
 9. Do you have a toilet?
 10. Is the toilet facility individually owned or shared?
 11. Do you have a kitchen? (i.e. in a built premise)
 12. Is the kitchen facility individually owned or shared?
 13. What is the size of your household (i.e. all that live in the house)?
 14. Is the house built in permanent
semi-permanent or
temporary materials?

15. Is your dwelling unit used for any other cash earning activities?
If yes, elaborate:

workshop

bar

lodging, farming

*For those that rented or occupied their own dwelling when they first came to Nairobi.

16. How many rooms were there in your first dwelling unit?
17. Did you have a toilet?
18. Was the toilet facility individually owned or shared?
19. Did you have a kitchen?
20. Was the kitchen individually owned or shared?
21. What was the size of your household?
22. Was the house built in permanent
semi-permanent or
temporary materials?
23. Was your dwelling unit used for any other cash earning activities?
If yes, elaborate:

workshop

bar

lodging

farming

C) For those that migrated from other areas of the city to the present location:

24. Why did you move to the present location?
Is it because:
- a) it is closer to your place of work
 - b) cheaper than previous dwelling
 - c) offers more living space than previous one
 - d) offers opportunities for other commercial activity to be carried on
 - e) any other - elaborate.

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