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MOBILITY ON THE URBAN FRINGE SOME OBSERVATIONS BASED ON SEVENTY-TWO AFRICAN HOUSEHOLDS IN THE INANDA PERI-URBAN AREA

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PREFACE

The report which follows results from one of the few projects undertaken by the Centre for Applied Social Sciences which has been sponsored and funded from within the Centre itself. As such, this project was designed to provide information which would relate to specific theoretical interests of staff in the Centre. In this particular case, a study of the changing family composition and mobility patterns in a specific peri-urban settlement outside Durban has been made. (Findings concerning the first topic will be published elsewhere, so this report covers only the latter topic.)

Due to problems of financing research which is internally conceived, this project is necessarily very limited in scope, but by providing an opportunity to further explore hypotheses generated in the Centre's externally sponsored projects, it performs an essential role in linking theoretical interests with applied research, and thus provides for continuity in the Centre's research programme.

The setting for this research project is the rural-urban fringe of Durban, which has in more recent years become one of the focal points in the Centre's research activities. It is hoped that the data collected in these areas may in time form the basis for a longitudinal study of comparative change in the fringe areas. In the light of Durban's current pattern of development, access to this type of information may become increasingly important in the future. Durban is unique among South African cities, in that it is bordered by 'homeland' areas, which allows for greater freedom of settlement by Africans living and working in the city. As a consequence, Durban's peri-urban settlers may be exposed to a greater number of alternatives than their counterparts elsewhere and are likely to become residentially more mobile. Therefore, knowledge of the mobility behaviour of peri-urban dwellers in the past

and some indication of their preferences for the future may be of some value in projecting the likely pattern of Durban's urbanization process in the years to come.

I should like to take this opportunity to extend warm thanks to several members of the Centre's staff for their contributions and assistance in producing this research report, namely: Peter Stopforth, who initially planned and supervised the research project and made provision for the inclusion of the mobility topic in the survey, which was of particular interest to the author; Nokwazi Khumalo and Dumisani Ncala, who conducted the interviews; Ulla Bulteel, who processed the data on the university's computer, and Sue Burrows, who typed the report.

Professor Lawrence Schlemmer
Director
Centre for Applied Social Sciences

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CHAPTER 1

INTRODUCTION

In more recent years, we have been urged to view the urban centre and the periphery holistically. The intricate mesh of economic and social interdependencies between the heart of the city and the decentralized areas, in which residential, commercial, industrial and recreational development is taking place, calls for a re-examination of the role of peripheral areas in the 'functional' metropolitan area. In this brief report we shall focus our attention on one such area on the Durban periphery: on an informal settlement in the Inanda district known as the Dube Farm.

Informal settlements in the urban fringe areas, particularly where they are conspicuous from the roadside, tend to evoke a peculiar mixture of surprise and alarm in the casual observer. This reaction may stem in part from an uneasy feeling that a development is taking place right at one's doorstep, yet at the same time appears to have escaped one's notice and is now beyond control. It may also appear that informal settlements provide visible proof of the ever increasing rate of urban growth and of the constant influx of people from the countryside to the urban centre. The 'shanty' structures also seem to manifest the inability of public housing to keep pace with the demand for housing made by a fast growing urban population. Informally built settlements are therefore frequently seen as an infectious blight which threatens to slowly strangle the encompassed city by overtaxing its limited facilities and resources.

If it is true that observations often tell us more about the observer than the observed, then this may well apply here. People concerned with urban reorganization may tend to overstate the problem of spontaneous and 'unregulated' development, and thus base their

recommendations for regional planning on assumptions which do not necessarily always match reality. One might, however, suggest that upon closer examination, the varied assortment of shacks found on the urban fringe avoids other problems associated with planned housing: mass scale, tedium and inflexibility. Informal housing may be on a more human scale, and its problems ultimately more limited than the unintended problems of mass public housing. In our field experience at the Dube Farm, we certainly found that by progressing from the superficial view of the informally built structures from the *outside* to the people living *within*, we were given a different story to tell. We discovered some of the ways in which informal housing surpasses the performance of planned housing. We also discovered that these marginal homes shelter people who are very much involved in the urban pattern. They are participating actively in the city economy, and in return for their efforts, they expect to lead peaceful, meaningful and dignified lives on the outskirts of the city.

By referring to the 'human' aspect of a peri-urban settlement, we do not intend to lull the concerned observer of the 'shanty' scene into complacency. On the contrary, it is hoped that our research conducted at the Dube Farm may assist in ordering priorities for action when seeking to find an adequate solution to the runaway housing problem around Durban. It is thought that this short report may give a more balanced assessment of the kind of role that peri-urban settlers can - and indeed already are playing - in providing their own *solution* to what is so frequently considered merely as a *problem* in the organization of the city (van Velsen 1975).

1.1 Background to the Study

The opportunity to study the role of peri-urban development in the migration and urbanization process presented itself, when a more comprehensive study of comparative family structure in the peri-urban

areas surrounding Durban could accommodate a subsection dealing exclusively with migration, residential mobility and housing topics. The following report on the results of this inquiry into household mobility adds some substance to what would otherwise amount to mere speculation based on the accumulated knowledge of similar phenomena encountered elsewhere. With due consideration to the limitations posed by the nature of the sample and the incomplete coverage of the district under inquiry, only limited conclusions can be drawn. Nevertheless, it is hoped that the insight gained from these few observations will provide some stimulus for more systematic research into an area of particular concern today.

1.2 The Study Context

The area selected for the observation of a peri-urban settlement covers approximately 1,5 square kilometres of land in Inanda District, which is some 30 kilometres by road from Durban. The study area borders on the tarred road coming from the African Townships of KwaMashu and Ntuzuma, and has access to the bus service operating on this road. A convenient point of reference is Shembe's Village (marked on the official South Africa 1:50 000 map), which is immediately south of our area. The survey area is commonly known as the 'Dube Farm' after the late educationist, the Rev. Dr. John L. Dube, who acquired the land at the end of the last century and established the Ohlange Institution for African pupils in 1900. According to local informants, tenants have been given rights to build their homes on Dube's land since the beginning of this century. In the early fifties the northern section of the Dube Farm was presented to the Ohlange Institution and is today referred to as the 'School Farm'. The School Farm area currently falls under the auspices of the Bantu Affairs Commission, which prohibits further development on the area and has ruled out subletting practices among tenants who reside there.

In the early seventies, the African Township of Ntuzuma was

established to the south of the Dube Farm and today consists of some 1 800 housing units. At the same time an official survey was conducted in the Inanda area proposed for eventual Township development, in order to determine the number of shelters already erected on the site and to record their current inhabitants. It is possible that some of our survey respondents were included in this official count and this may have affected the housing attitudes observed in our study.

1.3 Field Notes

For present survey purposes, time and finances limited the number of units included in the sample to 72 households, which are distributed over both the Dube Farm and the School Farm areas. A team consisting of one man and one woman, both with previous field experience, conducted all the interviews in the period from October to mid-December 1976. After the community leaders had been approached and they had approved the survey being conducted on the Dube Farm, co-operation on the part of the respondents was very satisfactory. All information collected relates to the household unit. In the frequent case of the household head's absence, the information was obtained from another adult member of the household, who was capable and willing to disclose the required information.

1.4 The Survey Report

The reporting on survey findings is ordered under three major headings:

1. Characteristics of people dwelling in the peri-urban settlement,
2. Migration history and potential mobility of the peri-urban settlers,
3. Peri-urban housing and related aspects.

In the first section the households included in the sample are described in terms of socio-economic background variables. An

attempt is made to outline the characteristics which may be peculiar to families residing in the peri-urban areas.

In the next section the migratory background of household heads and their families is examined and the possibility of mobility patterning is explored.

In a last section the housing and amenities afforded by the peri-urban situation are studied in connection with perceived possibilities for improvement. The emphasis is placed on housing performance, which relates the dwelling situation to other aspects of a person's status in a continuous process.

CHAPTER 2

A SOCIO-ECONOMIC PROFILE OF A PERI-URBAN SETTLEMENT

Before discussing the effect of migration and residential mobility in our study area, it is essential to have some prior knowledge of the migratory unit. For survey purposes, we have selected the coresident household group and its exponent, the head of household, as our unit of analysis. In the following section the household units in our sample will be briefly described in terms of structure and socio-economic status. The observant reader will notice that the choice of descriptive dimensions has been significantly influenced by the major focus of inquiry into family structure, but these dimensions appear to serve our subordinate purpose of studying mobility in the peri-urban areas equally well.

A total of 72 interviews was conducted with 62 tenants on the Dube Farm and 10 tenants on the School Farm (for convenience sake we shall in future simply refer to the Dube Farm). In 15 per cent of the sample households the household head is a female. A total of 447 persons are coresident household members, of which a small proportion of approximately 5 per cent reside elsewhere during the week.

The majority of the sample households are simple families, that is, they consist of one or both spouses with children.[1] The extension of this simple family unit by additional closely related kinsmen accounts for one-quarter of cases. Two or more subfamilies share a household in a further quarter of cases. Very few solitaries are included in our sample. This does not mean that single men do not

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1) For a thorough discussion of family structures in the Durban peri-urban areas cf. Stopforth (1976:5ff.; in press) and Stopforth and Mack (forthcoming: Chap. 2). I am indebted to my colleague, Peter Stopforth, for undertaking to demarcate and classify the households included in the present survey as shown in Table 1.

reside in the area, but such persons are very likely to have been absent during the day time when the interviews were conducted and may therefore be under-represented in our sample (cf. Table 1).

Table 1
Household Composition Type

	%
solitaries	2,8
simple family households	50,0
extended family households	25,0
multiple family households	22,2
	100,0
	N=72

Classification according to Hammel and Laslett (1974:96).

Table 2
Age of Household Heads and Coresidents

age in years	household heads	household total
	%	%
- 4	-	15,5
5 - 9	-	16,4
10 - 14	-	10,5
15 - 19	-	8,5
20 - 24	2,8	9,4
25 - 29	8,3	7,4
30 - 34	11,1	6,3
35 - 39	18,1	6,7
40 - 44	11,1	4,9
45 - 49	18,1	4,3
50 - 54	13,9	3,6
55 - 59	6,9	2,5
60 - 64	-	0,7
65 - 69	2,8	0,9
70 +	6,9	2,5
	100,0	100,1
	N=72	N=446
median (computed by intrapolation)	43 years	18 years

Half of the members of the sample households are under 19 years of age as shown in Table 2. The median age of household heads is 43 years and female heads tend to be slightly more advanced in years than their male counterparts (insignificant trend). The age-sex structure in the sample households appears to be relatively well balanced as can be seen in Table 3.

Table 3
Household Composition by Age and Sex

	percentage of household enumeration	
male adults	23,3	
male juveniles*	25,3	
total males		48,5
female adults	25,7	
female juveniles*	25,7	
total females		51,5
	100,0	100,0
		N=447
adults of both sexes		49,0
juveniles* of both sexes		51,0
total		100,0
		N=447

*juveniles include persons under 20 years of age.

A closer examination of the kinship relationships pertaining in the sample households (cf. Table 4), reveals that the child population is somewhat inflated by daughters' offspring, which may partially originate from illegitimate unions. Approximately 70 per cent of the household clusters are members of the simple nuclear family. Roughly one in ten sons of household heads are only coresident over weekends. Grandchildren of household heads account for about 11 per cent, and siblings with their offspring for a further 10 per cent of coresidents. The small minority of coresident parents are predominantly female.

Approximately every tenth household head has his or her mother residing in the home.

Table 4

Coresidents' Kinship Relationships with Household Head

	%
children	54,4
wives (3,4% of wives are second wives)	15,5
daughter's children	9,6
siblings	5,9
sister's children	3,2
parents (predominantly mothers)	2,4
son's children	1,9
wife's siblings	1,6
brother's children	1,1
wife's parents	0,8
sister's spouses	0,5
children's spouses	0,5
other affines (related through marriage)	1,3
other agnates (related through male lineage)	0,3
unrelated	1,1
	100,1
	N=375

About 6 per cent of household heads are party to a polygamous union. The marital status of household heads and members of their households is shown on Table 5. It will be noted that a sizable proportion of the sample is living in marriage unions which have not yet been sanctioned according to custom or law, although several persons in this group are in their fifties. Widowed household heads are almost exclusively women.

An attempt to assess the developmental stage reached by sample families is made by applying two closely related measures: the generational composition of the household (cf. Table 6), and the stage reached in the family life-cycle (cf. Table 7). The slight discrepancies between the figures given in Tables 6 and 7 are probably due

to the varying emphases in the operationalization of the two concepts.

Table 5

Marital Status of Household Heads and Coresidents

marital status	household heads	coresidents	household total
	%	%	%
single	2,8	74,1	62,6
negotiating marriage	12,5	6,4	7,4
married	66,7	15,7	23,9
widowed	16,7	3,2	5,4
divorced/ separated	1,4	0,5	0,7
	100,1	99,9	100,0
	N=72	N=375	N=447

Table 6

Generational Composition of Sample Households

		%
one generation household		15,3
two generation household		61,1
first generation household head ...	54,2	
second generation household head ...	6,9	
three generation household		22,2
first generation household head ...	18,1	
second generation household head ...	4,2	
four generation household		1,4
second generation household head ...	1,4	
		100,0
		N=72

Generational composition, on the one hand, refers to the structure of the household per se and generations can be represented by distant kin in some cases. On the other hand, the family life-cycle measure relates

more closely to the household head's productive cycle regardless of progeny actually being resident in the household. In our survey the first measure of generational composition is simpler to assess than the second measure of family life-cycle and the first measure therefore tends to be somewhat more accurate. As both variables are very closely and significantly related they can be substituted for each other if necessary.

Table 7
Family Life-cycle Stage Reached by Household Head

	%
contraction or pre-expansion phase	16,7
expansion phase	65,3
secondary expansion phase	18,1
	100,1
	N=72

'Pre-expanding or contracting' families refer to solitaries, or married couples with no children/children who are independent.
'Expanding' families refer to parents with children.
'Secondary expanding' families refer to parents with children's children.

The number of two generation households and expanding families in our sample are in the majority (cf. Table 6). Of major importance is the fact that three or more generation households account for roughly one-fourth of the peri-urban households interviewed. This means that the expansion phase of the sample families is very much prolonged. In contrast to families in modern industrial societies which tend to contract during two periods of a man's life (namely, after marriage and after children have grown up), traditional households continue to shelter the children's growing families in what might be called a secondary phase of expansion. It would therefore appear that the contraction phase may even be skipped over completely in the case of adult children delaying departure from their families of orientation

until their families of procreation are already well developed. The figures contained in the cross-tabulations between age on the one hand and the two measures of family development on the other confirm this postulated trend (cf. Table 8). Older persons tend to head second or third generation families rather than fend for themselves after their own children have grown up. Analogously, contracted households tend to be headed by younger persons in the pre-expansionist phase of the family life-cycle (cf. Table 8). This tendency for multiple generation families to remain intact as far as location is concerned, is of major importance for residential mobility, a point we shall return to in a later section of this report.

Table 8
Family Development by Age of Household Head

	age		
	young	old	total
generations living in household			
one	6	5	11
two	28	16	44
three	3	14	17
	37	35	72
chi sq. = 10,4, 2d.f., p<0,01			
family life-cycle			
contraction	9	3	12
expansion	28	19	47
secondary expansion	-	13	13
	37	35	72
chi sq. = 17,7, 2d.f., p<0,001			

The size of sample households reflects the multiple generation structure of a substantial proportion of the sample households (cf. Table 9). Roughly one-quarter of the households consist of 9 or more persons. However, the preponderance of the two-generation single

families in the sample brings the median household size down to 6 persons. If part-time weekend residents are excluded, the median is further reduced to 5 persons per household.

Table 9
Size of Sample Households

number persons in household	on weekdays	on weekends
1	3	2
2	8	8
3	5	5
4	7	5
5	15	11
6	11	15
7	6	8
8	5	3
9	5	4
10	1	5
11	-	-
12	3	-
13	2	4
14	-	1
15	-	-
16	-	-
17	1	1
	72	72
mean	5,82	6,20
median	5	6

An argument frequently raised in connection with peripheral settlements, especially of the autonomous type, is that they consist largely of rural-urban in-migrants who contribute little to the city's economy by way of production or consumption. It is thought that peri-urban dwellers lead a precarious hand-to-mouth existence and are likely to fall victims to individual crises from one day to the next. In view of the well-known fact that urban life is difficult for the majority of African in-migrants populating South African cities, it might be argued that peri-urban dwellers are no more marginal than some of their

counterparts residing within the metropolitan limits or in official African townships serving the urban centre. For example, Table 10 depicts that a sizable proportion of the sample households, an estimated 40 per cent, have resided in their present home for over 10 and even over 15 years.

Table 10
Residential Stability of Sample Households on the Dube Farm (estimate)

	%
recent arrivals (approximately 1 year's residence)	23,6
newcomers (approximately 5 years' residence)	33,3
established (approximately 10 years' residence)	15,3
well-established (approximately 15 years' residence)	25,0
uncertain	2,8
	100,0
	N=72

It can also be demonstrated that occupational links with the city are relatively strong and that the majority of households can rely on a firm economic base. This does not of course mean that the financial resources available to households are sufficient to guarantee an adequate standard of living. The assessment of household incomes unfortunately lay beyond the scope of the survey, but Table 11 does show that 65 of 72, or 90 per cent of sample households are supported by at least one person in formal employment. (It is assumed that these persons are legally employed.) Weekly commuters contribute to household incomes in roughly one in ten households. If persons involved in the informal sector are added to those in formal employment, we calculate a mean of 1,7 formal and informal workers per sample household.

It would appear that households consisting largely of women are at some disadvantage from an economic viewpoint, for it is overwhelmingly the women in our sample who rely on informal sector activities

to augment household incomes.

Table 11
Persons Employed in Sample Households

number employed persons	households with *formally* employed members	households with *formally and informally* employed members
	%	%
0	9,7	4,2
1	55,6	45,8
2	26,4	36,1
3	4,2	4,2
4	2,8	6,9
5	-	1,4
6	1,4	1,4
	100,1	100,0
	N=72	N=72
mean number employed per household	1,4	1,7

Table 12 demonstrates that it is indeed the female household heads who are significantly un- or under-employed when compared with their male counterparts.

Table 12
Employment by Sex (household heads)

	men	women	
unemployed or informally employed	11	8	19
formally employed	50	3	53
	61	11	72

chi sq. = 14,4, 1d.f., p<0,001

Nevertheless, it is possibly characteristic for the peri-urban fringe

that approximately one-third of the principal females in the sample households (that is, women who are wives of household heads or household heads in their own right) make direct financial contributions to the household income (cf. Table 13). This might be regarded as an indication of the active involvement of peri-urban women in the urban economy and of the general urban commitment of peri-urban families.

Table 13

Urban Status of Principal Female in Sample Households

(female household head or wife of household head)

	%
urban visitor	1,5
urban resident unemployed	64,7
urban resident informally employed	17,6
urban resident formally employed	16,2
	100,0
	N=68

not applicable: 4 households

Returning to the figures in Table 11, it is evident that only 3 of the 72 sample households (4%) generate no income of their own. In support of the above argument concerning the economic disability of women, all 3 of these households are headed by women. However, the figures are slightly misleading, as one of these women, who has recently been obliged to stop working for health reasons, now takes in lodgers for a livelihood. The other 2 women are widows who are supported by the deceased husband's brother and a professionally employed daughter, respectively.

Taking the entire cluster population in the sample households and breaking it down by age and sex in Table 14, we find that 'underemployment' is not as high as might be expected according to the myth of hand-to-mouth existence in spontaneous settlements.

Table 14

Occupational Status of Household Heads and Coresidents

occupational status	adult males* %	adult females* %	juveniles males** %	juveniles females** %	total %
pre-school child	-		49,6	46,1	24,4
scholar	1,9		43,4	43,5	22,6
not attending school	-		0,9	3,5	1,1
unemployed	18,3	64,3	5,3	7,0	23,9
informally employed	7,7	13,9	-	-	5,4
formally employed	72,1	21,7	0,9	-	22,6
	100,0	99,9	100,1	100,1	100,0
N =	104	115	113	115	447

* 20 years and over
** under 20 years

Approximately 72 per cent of adult men and 22 per cent of adult women in the sample are formally employed. A further 8 and 14 per cent of adult men and women respectively are active in the informal sector. Three-quarters of the weekend commuters are gainfully employed. About one-fourth of household members are unemployed, whereby women account for approximately 70 per cent of the unemployed. As housework is officially recognised as a legitimate occupation for adult females, one might consider the unemployment figures for our sample to be over-estimated. Almost all of the school-age children attend school. On the other hand, juveniles in our sample do not enter the cash economy before the age of twenty.

The majority of those gainfully employed in the sample households are labourers (cf. Table 15). Smaller percentages are engaged in routine non-manual and semi-skilled manual work. Domestic work is the domain of female coresidents. Information on the informal sector is recorded in some detail, because it is supposedly of major importance for the economy of peri-urban settlements. In our enquiry just under

one-fifth of those employed are informal workers. Men are in the minority in the informal sector and may well receive higher remuneration for their activities than women, judging from the type of work done.

Table 15

Occupations of Household Heads and Coresidents

occupation	household heads %		coresidents %		total employed %	
professional	1,6		10,8		6,3	
clerical	1,6		-		0,8	
routine non-manual	17,5		3,1		10,2	
semi-skilled non-manual	12,7		3,1		7,8	
labourer	47,6		36,9		42,2	
domestic	3,2		20,0		11,7	
pensioner	4,8		1,5		3,1	
informal sector	11,1		24,6		18,0	
homecrafts		3,2		10,8		7,0
retail		4,8		9,2		7,0
services		3,2		3,1		3,1
agriculture		-		1,5		0,8
	100,1		100,0		100,1	
N =	63		65		128	
N as percentage of adult total	87,5		44,2		58,4	

Although some overlap is unavoidable, the informal sector may conveniently be subdivided into four sectors: homecrafts, retail, services, and agriculture, in order of frequency of occurrence in our survey. The homecrafts engaged in by sample members include sewing and beadwork. Retail activities are restricted to the hawking of a wide variety of wares such as fruit, vegetables, offal, poultry, packaged beer and clothing. It will be noted that the articles for sale in the retail category are not home products but goods purchased on a wholesale basis. Services offered by sample members are extended to local

and city population groups and range from laundry and shoe repairs to those of a herbalist. The one agricultural worker is employed on a part-time basis by a farmer in the vicinity.

Table 16

Reasons for Adults not being Employed in Sample Households

	total adults*		adult males*		adult females*	
reasons	male %	female %	household heads	coresidents	household heads	coresidents
social status		59,2				
housework, child care					2	30
employment undesirable for women						16
infirmity	25,0	19,8				
health				1	3	5
old age			3	1	3	5
out of employment	25,0	4,9	3	2	3	1
temporarily unemployed	20,0	6,2				
intends to resume working				1		1
sick/maternity leave				1		1
active job seeker				2		1
work permit applicant					1	1
other	10,0	1,2				
rural agriculture						1
laziness, casual work				2		
unknown	20,0	8,6	1	3	1	6
	100,0	99,9				
	N=20	N=81	7	13	13	68

* 20 years and over

Sewing is the most popular type of informal occupation for women, followed by the hawking of clothes and foodstuffs. Seamstresses may also sell their finished products themselves. It is interesting to note that the informal sector frequently operates right into the

hinterland, especially where the sale of clothing is concerned. Men tend to engage in homecrafts, repair work and retail.

Those adults who are at present not formally or informally employed were asked to give some reason for not being productive in the economic sector. The reasons are listed in detail in Table 16. Notable is that with few exceptions unemployment can plausibly be accounted for. As might be expected, unemployed women are predominantly preoccupied with household duties.

Table 17

Places where Household Heads and Adult Coresidents Work by Occupation

occupation	Inanda & hinterland %	Durban %	elsewhere %
professional	3,2	5,5	33,3
clerical		1,1	
routine non-manual	3,2	13,2	
semi-skilled non-manual		9,9	16,7
labourer	9,7	52,7	50,0
domestic		16,5	
pensioner	12,9		
informal sector worker	71,0	1,1	
	100,0	100,0	100,0
	N=31	N=91	N=6

The fact, that employment for women is in part unacceptable in African society, is reflected in the large sample proportion stating that the household head does not wish for his wife or grown daughter to work. A small number of unemployed women are prevented from working for reasons of health or old age and an even smaller number of women have lost their jobs or are temporarily unemployed. Reasons for males not being employed refer chiefly to old age, redundancy and temporary unemployment.

The majority of employed persons work in Durban as shown in

Table 17. Local workers, on the other hand, are almost exclusively employed in the informal sector.

Extracting all household heads in our sample we find a similar trend (cf. Table 18). Two-thirds of the household heads in our sample are gainfully employed in Durban.

Table 18
Place where Household Heads are Active by Sex

	Inanda & hinterland		Durban		total
	males %	females %	males %	females %	%
unemployed	8,3	8,3	-	-	16,7
informally employed	6,9	2,8	-	-	9,7
formally employed	6,9	-	62,5	4,2	73,6
total	33,3		66,7		100,0
					N=72

2.1 Conclusions

Our Dube Farm sample consists by and large of a family population which is economically oriented toward the neighbouring urban centre. The majority of sample households tends to be of an average urban size[1], and can be classified as 'simple' families. The peri-urban area studied also offers shelter to types of households, which presumably cannot easily be accommodated in standard African township housing for space and/or policy reasons. Such households include the large extended or multiple family groups, and the households headed by women. All sample households can name at least one relatively reliable

1) Compare Schlemmer and Stopforth's (1974:16) compilation of average African family sizes in Southern African urban areas.

source of income. Considering the stable economic base and the residential stability of many of the sample households, one might propose that our peri-urban settlement has potential for 'self-improvement' (Turner 1969:508). In the following two sections we shall investigate how this potential is related to past and future residential mobility and housing performance.

CHAPTER 3

MIGRATION HISTORY AND RESIDENTIAL MOBILITY OF THE PERI-URBAN SETTLERS

Ever since metropolitan areas have started growing rapidly and the distinction between rural and urban settlements has tended to become blurred, social scientists have been fascinated by the varied assortment of people occupying the interstitial area between town and country. Owing to the continuous metropolitan expansion into the rural hinterland, fringe areas are caught up on the crest of a development wave slowly moving over rural settlements, and country people may suddenly find themselves part of the ongoing urbanization process.

It is, however, thought that the larger proportion of the fringe population in the third world is made up of rural-urban migrants who settle there in the hopes of urban employment or other side benefits to be derived from the proximity of the city. All the while these peri-urban settlers are subject to fewer regulations than the in-migrants, who proceed farther and actually step over the metropolitan border into the city. Paradoxically, the very fact that peri-urban settlers do not fall under the jurisdiction of local authorities tends to create an additional administrative burden for the city fathers in that they feel obliged to devise some means to curb the uncontrolled growth on the metropolitan border.

When studying a peri-urban settlement it therefore lies close at hand to investigate whether the myth of a rural-urban 'invasion' holds some truth for the local situation. Accordingly, we shall inquire whence our sample households come from and where they intend to go, in order to gain an adequate conception of the probable role of the peri-urban fringe in the development of the Greater Durban area.

As the collection of a complete migration history for sample households was not feasible in this pilot study, a selection of the pertinent events, which might provide some useful mobility parameters, was made in the hope of developing a more precise instrument for future use. Informants were also asked to indicate which persons were linked to the Inanda households in a dependent or contributary manner and to provide standard background information for them. This data was then processed together with the data pertaining to coresidents. Although it would surpass the scope of this paper to present the data on household dependents and contributors living elsewhere in full, the material proved invaluable for piecing together the social and economic ties of sample households. Moreover, the migration history of household heads and coresidents could be traced more easily by observing family links extending beyond the Dube Farm home.

3.1 Step-migration

The first in a series of suppositions on the role of the urban fringe settlement in the local urbanization process concerns 'step-migration'. The peri-urban area is frequently regarded as a mobile area which serves as a point of entry for persons moving toward the metropolitan areas. The fringe settlement is thought to offer a last pied-a-terre or stepping stone for the 'step-migrant' who chooses to work in smaller centres on his way from the rural home to the major centre. We might further distinguish between two types of step-migration: 'intergenerational' and 'intra-generational step migration'.

Intergenerational step-migration occurs when rural-urban migration is slow. Under such circumstances a family may shift their home base townwards in the course of several decades or generations.

Intra-generational step-migration is more likely to occur when migration flows are better established. The distance between the

rural origin and the urban centre is then covered in stages in the course of an individual lifetime, that is, in a single generation.

It is evident from Table 19 that only a minute proportion of our household heads on the Dube Farm might be classified as *inter*-generational step-migrants, in the sense that they were born closer to town than their fathers.[1)]

Table 19
Comparative Origin of Household Heads

household head's origin is	%
rural, and identical with father's *rural* origin	80,3
rural, but *closer to town* than father's origin	5,6
urban or peri-urban, compared to father's rural origin	7,0
peri-urban, identical with father's origin	7,0
	99,9
no information 1	N=71

Pinpointing the *intra*-generational step-migrants in our sample is even more difficult without the aid of a complete migration history. It is conceivable that an intra-generational step-migrant may settle and work in Inanda for an initial period before gaining access to the city. As reviewed in the preceding section, there is also little evidence of this type of step-migration in our sample. Approximately 80 per cent of the formally and informally employed household heads work in the superordinate centre and we must more correctly speak of 'direct migration' when peri-urban residents are daily or weekly commuters.

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1) A further complicating factor in the highly mobile South African Black population noted for its circular migration, is that origin may refer *either* to the actural place of birth *or* to the place entered in the official records of the individual. It is therefore very difficult to obtain consistent and accurate information on origin throughout the sample.

Looking more specifically at another aspect of step-migration, we might classify as 'residential' step-migrants , those transient settlers who come directly from the rural areas and plan to graduate to township residence regardless of their place of work. Inclusion in this group of step-migrants is, of course, contingent on the realization of this plan for future mobility. In our sample about one-third of the rural-urban in-migrants wish to move on to live in an official township and they comprise about 40 per cent of township aspirants (cf. figures presented in Table 25 which will be discussed below). Numerically speaking, this group of 'residential' step-migrants is fairly small. On the other hand, the 'residential' type of step-migration appears to be more commonplace in our sample than the conventional type of migration in stages determined by occupational shifts.

At this point one might stop to ask why progressive migration is reputedly relatively unpopular in Africa in general (cf. Epstein 1969:254). Consider three factors which may account for the low incidence of step-migration in our study.[1)]

1) There is a possibility that the advent of improved communication facilities has rendered step-migration obsolete in more recent times.

2) One might also argue that the 'rank-size' rule of cities (cf. Linsky 1969:285) does not apply in many parts of Africa and the 'primate' city constitutes the only attractive urban centre in a country. In Natal, where there are a considerable number of smaller centres, the job opportunities and higher wages offered in Durban tend to override

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1) In contrast to our Dube Farm findings the incidence of step-migration among renters and home-owners in two Salisbury African townships is much higher with an estimated 16,0 and 18,7 per cent respectively (Møller 1978:Chap. 10). The conclusion drawn from the Salisbury study was that step-migration played an important role in the African urbanization process.

any disadvantages posed by the greater distance to be covered from the rural home to town (Møller, Schlemmer 1977:6).

3) Another deterrent to step-migration may be the manner in which rural labour is recruited. Where labour is directly recruited on a large-scale formal basis, such as through labour bureaux or the Chamber of Mines, step-migration may be of minor importance to work-seekers. There is also evidence (Møller, Schlemmer 1977:5) which suggests that the majority of workseekers can rely on contacts to secure a job in the dominant centre and need not try their luck in minor centres before graduating to town. Step-migration might therefore only constitute a last resort to a few migrants, who wish to avoid exploitation by formal recruitment, yet lack the necessary urban contacts.

To *sum* up, we conclude that our findings lend little support to the supposition of step-migrants constituting a large proportion of the peri-urban population. With even greater certainty we can propose that the peri-urban area under study does not function as a last pre-urban stepping-stone in the progressive migration process.

3.2 Chain Migration

Our second supposition concerns *chain migration* (Price 1964). This type of migration refers to the reaction of those left behind in the home area upon receipt of visits and communications from successful migrants who have left the home area earlier (Albrecht 1972:118). One might expect that once household heads have initiated in-migration and established themselves on the urban perimeter they would attract more following from the rural home area in the form of chain migration. The peri-urban base might also serve as a launching board from which step-migrants might take off to superordinate centres.

Looking at the recent movements of household coresidents and household associates and dependents in Table 20, it becomes apparent

that the majority of coresidents have accompanied the household head on his recent migratory shift.

Table 20

Recent Mobility of Coresidents; Associated and Dependent Persons Living Elsewhere

	coresidents		associates		dependents	
	%	N	%	N	%	N
in-migration:	96,6	(368)	18,2	(4)	7,5	(6)
followers:.....	90,0%	**				
nuclear family		264				2
peer generation		12				1
parent generation		6				
other		61				
partial followers				3		3
innovators:.....	6,6%					
marriage (prospects)		8				
employment (prospects)		3				
infirmity		3				
housing (prospects)		5				
other		6		1		
out-migration:	3,1	(12)	27,3	(6)	41,3	(33)
out-migration: schooling		1				24
employment		7		4		
marriage				2		
residence with kin						4
other		3				1
other migration (school, employment)		1				2
return migration						2
kinship ties:	0,3	(1)	54,5	(12)	51,3	(41)
stem family ties:						
household head's lineage		1*		9		33
wife's lineage				1		7
other links (rural & urban)				2		1
	100,0	381**	100,0	22	100,0	80

* peri-urban borner who is coresident over weekends.
** 6 widowed household heads are included as 'followers' of their late spouses.

This large group will be referred to as 'followers' indicating that their movements are a function of the decision act of another person. Migration is frequently regarded as the movement of a family unit, and in our sample, members of the immediate family do account for the largest proportion of following. Peers, notably siblings, and a few parents of household heads have accompanied the household to Inanda as well. 'Other followers' are for the most part children of peers. 'Nuclear family followers' are predominantly women and children, 'parent followers' are almost exclusively female. 'Partial followers' are those persons who have only trekked part of the way to the Dube Farm, because they found satisfactory employment or living conditions halfway. In our sample, 'partial followers' retain links with the family from which they have split off and figure as associates or dependents in our listing.

A second group of in-migrants in our survey have joined the Dube Farm household at a later date. Members of this group are referred to as 'innovators' (cf. Petersen 1970), as distinct from 'followers', because their decision to migrate is largely their own. Important in this connection is that 'innovators' choose the Dube Farm as their specific destination, because they have family contact persons established there. In this instance, one might like to speak of 'chain migration' in the classical sense of migrant families attracting further migration from the 'stem-family' (Brown et al. 1963) left behind at the rural home. It will be noted that the 'innovators' listed in our table tend to move as single persons and very few cases of larger migratory groups are observed. 'Innovation' among men usually occurs in connection with marital status change, and more seldom urban employment prospects. Women 'innovate' for reasons of infirmity, marriage and employment prospects. In our survey those 'innovating' migration for housing reasons form one family group, who are using the Dube Farm as a base from which to negotiate for township housing.

In contrast to the 'inflow' to the Dube Farm settlement, the

'outflow' is numerically small, but it does indicate that the Inanda base is used as a stepping stone for a few household members. Men move from the Dube Farm chiefly for employment reasons, usually to become labourers or sailors. However, the majority of out-migrants are juveniles who leave the Dube Farm to attend school. It will be noted that these children have been classified as 'dependents' for survey purposes and do not figure in the coresident household. Marriage prospects determine the out-migration of women. Juveniles may also be sent back to the rural home to live with kinsfolk.

The designation 'out-migration' may be a misnomer in some cases because the out-migrants in our survey do not necessarily move very far distance-wise. Seven of the 11 out-migrant workers have found employment in Durban and are weekend commuters. The remainder are employed in urban centres in Natal and beyond. Quite a number of out-migrant scholars attend local boarding schools, the Ohlange High School is a case in point. However, half of the out-migrant scholars and a sizable proportion of the other out-migrants have rural Natal and more remote destinations. The point we wish to make here is simply that outflow from the Inanda base is possibly very thin because employment and schooling opportunities are almost 'around the corner'. In which case the Inanda base may provide a more permanent recess instead of a mere stepping stone.

A residual category of'stem-family' members (cf. Brown et al. 1963) consists largely of associated and dependent persons, who represent the Dube Farm households' links with the rural place of origin.

Before proceeding further, a comment on the low incidence of 'chain migration' is possibly apposite here. One might expect that 'chain migration' would ideally occur in a peri-urban setting with lower population control than in the closely regulated official African townships. The Dube Farm would accordingly provide a temporary ante-urban

recess and attract a considerable chain migration stream. Now, chain migration very often involves the migration of entire family units. It is possible that our inquiry may have overlooked the gradual in-migration of several related families to the Dube Farm over a prolonged period of time, because these families would be classified as independent units for survey purposes. Judging by the wide range of rural origins of sample households, extensive chain migration of whole families is not in evidence. Moreover, the few mentions of kin living on the Dube Farm in separate households tends to come from the more established peri-urbanites rather than from the rural-urban in-migrants.

An alternative explanation for the low incidence of chain migration might be found in the urban networks of in-migrants. Consider, that in the case of extensive urban networks, the burden of receiving rural job-seekers will certainly be more evenly distributed over all the various branches of one particular kinship group based in town.

A further, possibly more plausible explanation might lie in the household composition and household links of our sample respondents. It would appear that the Dube Farm settlement with its many extended and multiple households constitutes quite a substantial urban base. This may result in there being very few potential migrants left behind in the rural areas who wish to make use of the chain migration mechanism. For instance, only one household head in our sample expressed the desire to extend his household membership and then only by juveniles under working age.

3.3 Migration History of the Peri-urban Settlers

Our third supposition concerns the migration history of our peri-urban sample. Without the benefit of a complete occupational and residential history of the respondents, the origin of our peri-urban community is assessed by reviewing recent residential mobility.

In a preliminary analysis, mobility was described according to direction relative to the location of the Dube Farm. This type of classification tended to confuse the issue, because it was soon discovered that mobility streams flowed in several directions. Finally, a three-fold empirical categorization schema was adopted, which covers recent household mobility fairly accurately (cf. Table 21).

Table 21
Typology of Household Head's Recent Mobility History

	%
rural-urban in-migrant	31,8
former township-dweller	34,8
peri-urban mobile	25,8
peri-urban born	7,6
	100,0
	N=66

Six female household heads are classified as 'followers' and not included in this table (cf. Table 20).

The first numerically substantial group has migrated directly from the rural home to settle in Inanda and will be referred to as 'rural-urban in-migrants'. A second group consists of 'former township dwellers', whereby no attempt at distinguishing between first or later generation townsmen is made. A third group labelled 'peri-urban mobiles' comprises all those household heads who have moved several times, chiefly in the peri-urban areas, and who hold no apparent record of township residence. A further analytic distinction is made between the 'peri-urban mobiles' and the 'peri-urban born', the latter have been born and bred in Inanda or even on the Dube Farm itself.

The motivational analysis of recent mobility as summarized in Table 22 supports the contention of these three distinct types. The stable 'peri-urban born' are excluded, because their migration history

is self-evident and unqualified.

Table 22
Qualifications for Recent Migration History (household heads)

references* to	rural-urban in-migrant	former township dweller	peri-urban mobile
	%	%	%
residential status gain	3,6	37,5	29,6
more space/own home	3,6	18,8	22,2
urban employment	39,3	-	-
residential/urban status loss	-	6,3	29,6
location	28,6	18,8	3,7
family crisis	10,7	9,4	7,4
family reunion	7,1	6,3	-
other	7,1	3,1	7,4
	100,0	100,2	99,9
N =	28	32	27

* multiple responses
chi square computed for single responses = 51,7, 14d.f., $p < 0,001$

The rural-urban in-migrant comes to live on the outskirts of town chiefly because he has found urban employment. The peri-urban residence is conveniently close to his place of work and his family can live with him. The rural-urban transfer may have been prompted by a family crisis - in the sense of a 'last straw factor' (Gulliver 1957; Mitchell 1969a), such as the death of his father.

The former township dweller is chiefly out to improve his residential status by occupying more residential space in a home of his own with his newly established family. Residential status gain applies here predominantly to the younger mobiles such as hostel dwellers, lodgers and sons of 'townees', who wish to move out of cramped township quarters in order to live together with their families of procreation in a more spacious setting with a higher degree of security of tenure.

Urban status loss is chiefly the lot of widows and other persons evicted from official township houses who have found a new home on the outskirts of the urban areas. Family crises at the beginning or the end of the life-cycle (marriage or similar unions in the case of status gainers; and divorce, separation or death of the spouse in the case of status losers) may determine the timing of residential mobility.

The 'location'[1] of the peri-urban settlement is important for its inherent residential qualities rather than for its proximity to town and the workplace. A preference for the freedom of rural residence as against the regulated township life is frequently expressed. Although not explicitly mentioned by the respondents, this preference most likely includes an economic aspect as well, such as freedom from regular payments of rentals and rates in town.

The peri-urban mobiles share the preoccupation of 'former township dwellers' with residential status and desire to gain access to more spacious housing with relatively secure tenure. Again, mobility may be triggered by a family crisis of some kind, but more likely than not, peri-urban residential mobility has been instigated by removal and resettlement programmes. One might speculate whether 'peri-urban mobiles' are not predestined 'peri-urban borners'. That is, had external forces not prevented 'peri-urban mobiles' from leading a stable peri-urban existence in the past, they might today be assessed as 'peri-urban borners' according to our survey classification. This proposition is given some confirmation by the fact that 'location' is of no importance to 'peri-urban mobiles', which might be interpreted that a peri-urban existence - for reasons of choice or necessity - is taken as self-evident or given by this group.

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1) The term 'location' is used in the sense given to it by Turner (1969:509) as one of the three functions of settlements along with 'tenure' and 'shelter'.

One last comment on our typology of mobility might be apposite here. Specifically local content is only manifest in the factors underlying residential and urban status loss. It would appear that only external administrative regulations such as resettlement and eviction seriously affect the range of choice open to the rational migrant decision maker. In line with one of the classical migration dimensions (Heberle cited in Hoffman-Nowotny 1970:59; Petersen 1970; Rossi 1955:134-6), an attempt is made to assess which household heads have been free from such external interventions when making their most recent residential move and the results are given in Table 23.

Table 23
Mobility Type by Voluntariness of Move (household heads)

mobility type	mobility is voluntary	involuntary	
rural-urban in-migrant	20	1	21
former township dweller	20	3	23
peri-urban mobile	11	5	16
	51	9	60

chi sq. = 5,1, 2d.f., $p < 0,10$

Although the trend is statistically insignificant, numerically seen the 'peri-urban mobile' in our sample is affected to the greatest extent. Almost one-third of peri-urban moves are involuntary. Naturally one is bound to sympathize with the in-migrant affected by resettlement programmes, but from a theoretical viewpoint one might consider his plight to be no different from that of the victim of urban renewal or slum clearance projects in developing and developed contexts elsewhere. It is a common observation that those dispossessed of their homes tend to resettle in similar areas either because they cannot afford alternative choices offered and/or are not willing to change their lifestyle (Madge 1968).

3.4 Integration of Survey Findings into Migration and Urbanization Theory

The diagram in Figure 1 summarizes the migratory flows passing through our peri-urban area. Generalizing from our empirical findings we can draw the following conclusions and at the same time touch upon several analytical problems peculiar to the study of urbanization and migration.

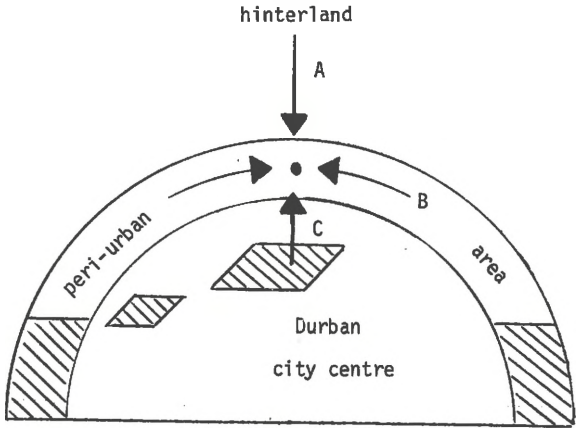
Situated in an interstitial zone between the rural hinterland and the urban centre, our peri-urban settlement is affected by three major migratory flows:

A Rural influx
B Local turnover
C City overspill

The most important point to be registered here is that despite the unique marginal conditions holding in the South African context, explanatory models developed elsewhere may serve equally well in the local situation (cf. McGee 1971 as an exponent of Third World uniqueness). It is particularly remarkable that the 'overspill' phenomenon which is characteristic of developed countries (cf. Pahl 1964) is also encountered in our study area. In other words, the peri-urban fringe is a mixing ground where rural in-migrants live next door to 'ex-townees' and local inhabitants.

It should however be noted that the essentially agricultural or rural character of the area has long been lost. For instance, in our sample the peri-urban born are formally employed Durban workers to the same extent as the mobile types.

As for comparable trends found in developing countries, the empirically observed types of 'rural-urban in-migrants' and 'former township dwellers' have much in common with what Turner (1968) refers to as 'bridgeheaders' and 'consolidators' in the South American context.



African townships located within city limits and adjacent Bantu homelands.

A Rural influx
B Local turnover
C City overspill

Figure 1: Migratory flows affecting a peri-urban settlement

The 'bridgeheader' is seeking a toehold in the urban system and 'location' in terms of proximity to the place of work is a very high priority. The 'consolidator' has achieved a relatively firm foothold and now seeks to consolidate his socio-economic status in terms of more permanent home-ownership.

It is further proposed that the rural inflow A may be analytically subsumed under the migration process. This flow represents out-migration from the rural areas. At the same time it is hypothesized that the turnover flow B and the city overspill flow C are analytically subordinate to the superordinate migration movement of the individual. These proposals are analogous to a distinction frequently made between migration on the one hand and intra-city, local or residential mobility on the other hand (cf. Albrecht 1972:22ff.)[1]. One might generally distinguish between the kind of social change involved in the two types of movement: Migration usually involves occupational change (except in the case of the 'spiralist' type of migrant (Watson 1964)), whereas intra-city mobility does not. In other words once a person has migrated to the city, he can shift residences without changing his in-migrant status. This is particularly valid for the South African context, where occupational mobility is severely curtailed for in-migrants.

A schematic conception of this analytic distinction between mobility levels using an 'elliptical' version of the circular migration model (cf. Wilson 1972a:123; 1972b:145) is given in Figure 2. The 'elliptical' version of the circular migration model is particularly pertinent to the South African situation (Møller, Schlemmer 1977:38). By assigning a time dimension and a spatial orientation to outwardly identical movements, an analytic distinction between migration and residential mobility can be made.

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1) For a fuller discussion of analytic distinctions in the study of migration see Møller (1978:Chapter 2).

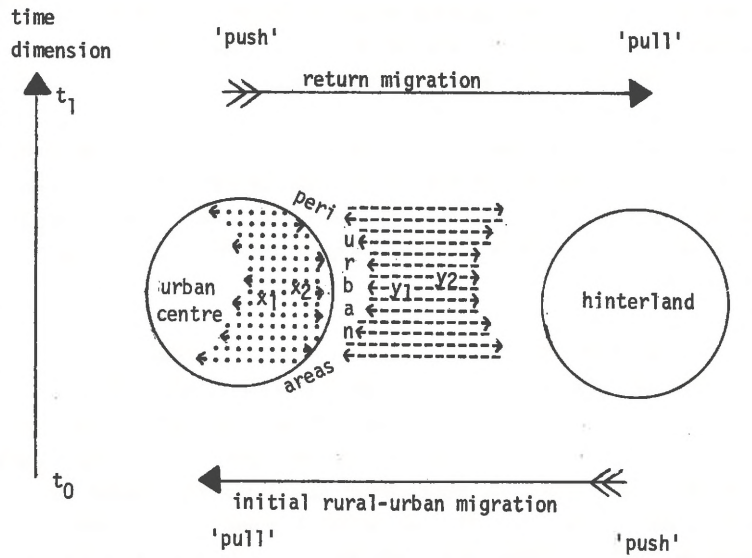

Figure 2: Migrant labour paradigm: hierarchically defined movements

For instance, the solid arrow marked 'initial rural-urban migration' is a spatial movement from the hinterland to town made at the beginning of a migrant career. Intermediate return movements y (broken arrows) are urban-rural oriented and take place at mid-career. Due to the timing of y-movements they are ordered on a subordinate level in relation to the solidly drawn 'return migration' movement. Similarly, residential mobility movements x (dotted arrows) are subordinate to the major migration movements 'initial rural-urban migration' and 'return migration', and analytically distinct from subordinate migration movements of the type y which might more aptly be referred to as 'home visits'.

Apart from the time and spatial orientation dimensions entered into the diagram on Figure 2, an attitudinal dimension is implicitly considered in the analytic distinction drawn between mobility levels. The perpetual re-orientation from the rural to the urban sphere in time, has significance for attitudinal re-orientation towards an urban or a rural lifestyle. This attitudinal dimension would most probably be labelled 'urban-rural commitment' and be represented by a horizontal plane in our diagram. This might suggest that rural-urban orientation or commitment measures could simply be read from the direction of the arrows marking residential mobility or intermediate migratory movements, a procedure which is reminiscent of Gluckman's (1961) alternation model of orientation. This equation is, however, empirically and analytically not tenable. Firstly, it is difficult to order residential areas open to Africans in terms of urban commitment. Secondly, if the application of an 'urban commitment' scale to residential areas were indeed possible, it would not necessarily coincide with a spatial dimension. That is, the most 'urbane' African residential area would not necessarily be situated within the metropolitan area, the lesser 'urbane' areas on the urban periphery etc.[1].

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1) The integration of a re-orientation concept into a migration model is discussed by Hoffmann-Nowotny (1973:252ff.). The theoretical value of the 'urban commitment' concept in the African context is outlined by Mitchell (1973), Møller (1978) and problems related to its measurement are investigated by Mitchell (1969b), Reader (1963), Mitchell and Shaul (1965) and Grant (1969).

In the paragraphs below an attempt to reconcile motivation with movement, and social with spatial mobility is made by systematically integrating residential mobility into the migration process described in terms of structural migration theory.

Following Hoffmann-Nowotny's migration theory (1970, 1973) based on Heintz's (1972) theory of societal systems, a migration paradigm is briefly outlined, which makes light of the academic distinction between rural-urban migration and residential mobility, simply by incorporating the latter into the former.

If migration is conceived as a means of improving an actor's status constellation outside of the conventional channels offered to him in his context of origin, then intra-city migration can likewise achieve a substantial improvement in the actor's status constellation in the receiving context. Generally speaking, intra-city mobility involves only the improvement of the one residential status position, but it may also provide the means of increasing a more central status position, such as income. In this case, the residential status is instrumental, because it secures the necessary platform from which the employment status may be boosted.

In line with this type of reasoning, it is possible to assign roles to the residential status which will vary throughout a migrant career. Let us look at a minimally defined urban status constellation which might include the following status dimensions: age, education, employment, income, residence and family (life-cycle). Consistent with the societal value system relevant to the individual, some status dimensions are more central and some are more instrumental in achieving the basic values held in a particular society. For example, wealth may be a central value in both traditional and modern society. The means of achieving wealth may, however, differ considerably in the two types of society. Whereas age status is instrumental in obtaining wealth in traditional environments, wealth is more likely to be a function of

educational status in an industrial setting. It is furthermore proposed that an actor will attempt to achieve a balanced status constellation by bringing all his status positions to an equal level.

Now we can proceed to apply these general concepts of instrumentality, centrality and balancing to the particular case of the migrant's status constellation. Upon entering town the most central status for the recent in-migrant is employment. This is his only means of achieving a livelihood or satisfactory income status. Securing an adequate employment and income status may also be a requisite to improving the family status, for marriage negotiations are tied up with lobola payments in the local context. In accordance with the western-industrialized value system, it is proposed that income will remain a central status dimension throughout a migrant lifetime.

Very often the family status will merely reflect the age status of an individual and it is therefore anticipated that the family status of migrants will change from single to married in due time. The appearance of progeny will further increase the migrant's position on the family dimension. In the migrant situation where the range of educational status positions is very limited, the age dimension may be regarded as a substitute, which acts as an instrumental dimension for income status (Møller 1978:Chapters 15,17) among others.[1)]

Let us now consider the residential status dimension. In the first few years after arrival, residential status is likely to be very low, in keeping with the other status positions of the marginal urbanite. Of major importance is that residential status should not detract from

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1) Educational goods are by and large inaccessible to adult migrants, but one might consider replacing the migrant's *own* educational status by investment in children's education, in the sense of a deferred status improvement. Educational status of children might be regarded as instrumental to future income status in terms of an old age insurance.

chances of improving more central status positions. Cheap, conveniently located accommodation is adequate at this stage of the migrant career, and also ensures that earnings are only minimally consumed by travel expenses. With the later improvement of the income status, a higher residential designation will be required to balance the more senior migrant's status constellation. Moreover, family status increase will simultaneously increase housing needs and press in the same direction.

The tension arising from family status surpassing residential status can theoretically be solved in the following manner:

1) Devaluation of urban residential status: The devaluation mechanism is characterized by a rationalization of the migrant system and a partial re-orientation towards rural values, in the sense that the *urban* residential status is seen as a vehicle to improve *rural* residential status. In concrete terms this entails continuing to live in single accommodation despite the fact that one is a family man. Typical is the emphasis placed on the savings accruing by residing in a hostel for single men, which can be remitted to the family left behind in the rural area or be invested in the building of a rural home (Møller, Schlemmer 1977:39). This reaction to status disequilibrium is structurally inadequate, because it does not affect the low residential status causing the underlying tension in the first place.

2) Devaluation of urban family status: A similarly inadequate solution involves resorting to extra-marital relationships of shorter and longer duration in order to help 'forget' that residential and family status are glaringly incompatible. Theoretically this might be interpreted as the negation of one's true family status.

3) Balancing urban residential status with family status: Theoretically this represents the only genuine and lasting solution to tension caused by status disequilibrium. In former days a local migrant could qualify for family accommodation by virtue of faithful service or continuous urban residence. For more recent arrivals this is no longer

possible, so inofficial channels must be used to improve residential status, such as shifting one's residence to the peri-urban areas where there is access to family housing on easy terms.

A 'pseudo' solution may be sought in the case of migrants illegally bringing their wives and sometimes their families to live with them in town for longer periods of time. This solution is again structurally inadequate because the low residential status is only temporarily altered, if at all.

It would thus appear that the senior migrant can only hope to balance his urban status constellation by increasing his residential status designation. Let us take a closer look at the steps involved in moving up the residential hierarchy.

The relevant literature demonstrates that residential status improvement in the sense of *social* mobility is very frequently associated with *spatial* mobility. It might therefore be expected that residential status increase in terms of social mobility would conform to a standard pattern of residential spatial mobility depending upon the particular society in which the mobility takes place.

For developed urban contexts such patterns have been explored by Rossi (1955) and Abu-Lughod and Foley (in Foote et al:1960:96-118,362), who found that the family life-cycle acts as the key determinant of a sequential order of residence.

For uncontrolled urbanizing contexts Turner's (1969) postulated sequence of social situations related to settlement patterns is highly relevant. Turner (1969:509ff.) stresses the relationship between the inhabitant and his habitat and demonstrates how changing priorities of the habitat functions, 'location', 'tenure' and 'shelter',[1] vary

1) Referred to as 'amenity' in an earlier article (Turner 1968:358).

systematically according to the social situation in which the actor finds himself. For a more controlled urbanizing context a residential mobility pattern has been discovered for stabilizing urban migrants (Møller, 1978:Chapter 9). Basic to all these proposed mobility patterns is that the actor attempts to reconcile housing needs in terms of space and security of tenure with other leading status dimensions. According to Rossi's main thesis, residential mobility is the mechanism whereby family needs and housing are brought into adjustment with each other.

As the marginal conditions holding for the controlled urbanizing context come closest to local conditions, it might be instructive to spell out the last sequence in greater detail. The following standard pattern of mobility is postulated for the typical migrant to Salisbury, Rhodesia, who desires to increase his residential status in terms of dwelling space and security of tenure[1]:

1) accommodation on work premises in compound or servants' quarters,
2) hostel or other official bachelor accommodation,
3) lodger accommodation (legal or illegal) inclusive accommodation with relatives of family,
4) rented family accommodation in African township,
5) home-ownership family accommodation in African township.

Pattern adherence involves completion of steps in the above

---

1) It will be noted that these dimensions closely parallel the ones Turner (1969:514) uses in his typology of settlements. Though not considered explicitly, the 'locational' priority decreases in the course of the sequence which is consistent with Turner's thesis. In the Salisbury setting at the time of the survey conducted in 1975, the single men's hostels are located adjacent to the industrial site and lodgers can officially be accommodated in the more central African townships. Family housing tends to be available in a wider range of African townships located at varying distances from the city centre. More recently home-ownership schemes have been decentralized to surrounding designated African areas within commuting distance from the city.

order, whereby omission of certain steps is permissible, provided the pattern order is maintained. In comparative samples of renters and home-owners in two Salisbury African townships, 88,7 per cent of the renters and 94,7 per cent of the home-owners followed the proposed pattern, although the majority had not completed all steps prior to the one currently occupied (Møller 1978:Chapter 9).

The residential sequence above is certainly life-cycle-determined. It also reflects increasing 'urban commitment' as a concomitant of the overall improved position brought about by balancing the urban status constellation. With reference to the diagram in Figure 2, results of the Salisbury study cited above suggest that high residential status acts as a deterrent to return migration (solid arrow) and is associated with a decrease in intermediate migratory movements (broken arrows). These findings demonstrate how the introduction of the intervening variable of 'urban commitment', enables us to relate dual-level migratory movements to residential mobility via an attitudinal linkage.

Returning to our peri-urban sample, there is no evidence to the contrary, that household heads do not aspire to a pattern of residential mobility along similar lines to the pattern outlined for South American cities or Salisbury above. Hence, we expect the local migrant's need for living space and home-ownership to increase consistently with his progression through the family life-cycle and with the consolidation of his urban status. In the case of the overspill flow into the peri-urban area from the city, it is probable that residential status increase cannot be achieved along more official channels. The severe shortage of township accommodation presses for alternative solutions to housing such as found in the peri-urban settlement. For the victims of slum clearance, eviction and resettlement, the peri-urban settlement cushions what might otherwise amount to quite a substantial residential status loss. Moreover, the peri-urban settlement offers a relatively high residential status without draining the opportunities

for improving other status positions in an individual's status constellation.

3.5 Change in the Peri-urban Population Composition

Our last supposition in this section concerns the relative stability of the population groups making up our peri-urban sample. Returning to the diagram in Figure 1, it will be noted that the peri-urban population is replenished from all directions. We must now inquire whether this inflow is *real* or *spurious*. 'Real' inflows will continuously be fed into our area, whereas 'spurious' inflows may be a mere projection of the particular moment of observation and be subject to redirection in the next moment. As Table 24 shows, residential stability in the past is more pronounced for the peri-urban born and the rural-urban in-migrants, but it remains to be seen if these better established groups will remain stable in the future as well.

Table 24
Mobility Type by Residential Stability on the Dube Farm (household heads)

	residential stability		
mobility type	low	high	
rural-urban in-migrant	9	12	21
former township dweller	19	4	23
peri-urban mobile	12	5	17
peri-urban born	1	4	5
	41	25	66

chi sq. = 11,7, 3d.f., $p<0,01$

We have not ruled out the probability that the peri-urban area is used as a stepping-stone or last stage in rural-urban migration, at least for 'residential' if not for 'job' purposes. A further possibility exists that the peri-urban settlement might provide an interim home

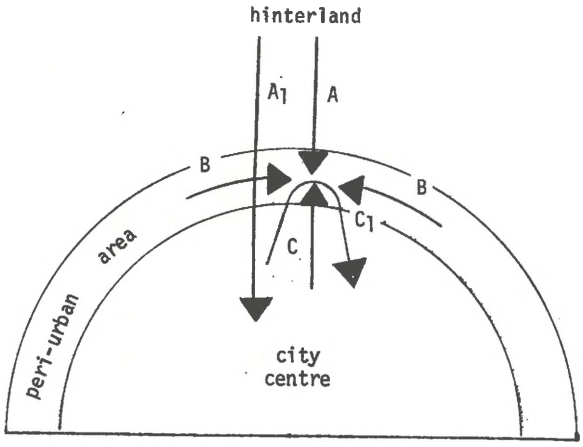
either for ex-townees who intend to take up township residence again or for return migrants on their way back to the rural areas. On Table 25 the cross-tabulation of potential residential mobility with past mobility behaviour shows that some of the inflow is indeed spurious and might more precisely be called 'through-flow' and 'circular flow'.

Table 25
Past Mobility by Mobility Intentions (household heads)

	future mobility type			
past mobility type	remainer	township aspirant	return migrant	
rural-urban in-migrant	12	7	2	21
former township dweller	14	8	1	23
peri-urban mobile	14	2	1	17
peri-urban born	5	-	-	5
	45	17	4	66
incomplete information 6				

The strongest potential outflow is oriented towards the urban centre, and the potential outflow towards the hinterland is minimal. It is also evident that the peri-urban born and the peri-urban mobiles, who have proved very stable in the past, intend to remain so in the future. Larger proportions of former township dwellers and rural-urban in-migrants anticipate moving into townships. These spurious inflows are corrected on Figure 1 by entering the potential 'through-flow' A1 and the 'circular flow' C1 of rural-urban in-migrants and former township dwellers into Figure 3.

The reasons given for eventual residence shift in the future are listed in Table 26. The majority of 'remainers' express satisfaction with their housing situation or indicate that they can achieve satisfaction by altering or extending their present dwelling. Generally speaking, 'remainers' are committed to the peri-urban settlement.



A Rural influx
A_1 Through-flow (to urban areas)
B Local turnover
C City overspill
C_1 Circular flow (back to city)

Figure 3: 'Real' and 'spurious' migratory flows affecting a peri-urban settlement

Table 26
Qualifications for Mobility Intentions (household heads)

future mobility type	reasons for future mobility*
remainer N=50	extension/alteration intentions (15) satisfaction with present residence (8) established, desire to establish home (2) other (ill health, township house size) (2)
township aspirant N=18	amenities: water (7), transport (2) housing features: size (3), standard (1) security (of tenure, physical) (3) desire to establish home (2)
return migrant N=4	temporary urban work (2) desire to establish rural home (1) farming prospects (1)

N=72

* references to encroaching township not listed.

Township aspirants are by and large attracted by the amenities offered on official housing estates such as the reliable water supply, convenient transport facilities etc. Housing features and security aspects are named as incentives for a residential shift to an African township by some persons. The few return migrants tend to emphasize their temporary urban commitment.

In our study context, we are confronted with a specific marginal condition which affects housing attitudes. The adjacent Ntuzuma Township development is slowly encroaching on the Dube

Farm[1]. Over 10 per cent of qualifications on residential mobility prospects refer to the Ntuzuma encroachment and it is thought that the looming township development has shaped mobility intentions considerably. For instance, the majority of township aspirants (16 of 18) specify Ntuzuma as their chosen destination. Although respondents were not required to comment on the encroachment of Ntuzuma Township, roughly one-third of the sample did so voluntarily in the course of the interview. Our attempt at classifying attitudes toward the development is considered feasible with this substantial number of comments. A distinction between two groups is made: *Positive reactionists* intend to move into Ntuzuma Township in the near or distant future, and *negative reactionists* will resist uprooting. In the latter category passive resistance takes on the form of a 'wait-and-see' attitude, whereas active resistance involves moving further into the hinterland to escape township regimentation (cf. Table 27).

At the present moment outflow in the form of *return migration* (cf. Tables 20, 25 above) is not a viable proposition, but then the majority of household heads are several decades away from retirement age and this might be a consideration for the future. In order to obtain some idea of the prospects for return migration in the distant future, details of the rural ties maintained by the household heads in our sample were recorded (cf. Table 28). Slightly less than two-thirds of the household heads visit their place of origin, which is usually the rural home. In a few cases the wife's home or a peri-urban area of origin is the visiting destination. Annual visits are most frequent, but equal proportions of respondents visit twice per year, every second month or monthly. In approximately three-quarters of the visiting households the household head is personally involved in visiting - either

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1) According to an official information source the Dube Farm, being privately owned, should not be affected by the development. Our local informants do, however, assure us that houses on the Dube Farm were included in the surveys of the areas considered for prospective township development.

alone or with the spouse and children. Other family members assume visiting duties in some few cases.

Table 27

Reaction to Ntuzuma Township Encroachment (household heads) (case study)

reaction		%	
positive			73,9
	intends to move to Ntuzuma	43,5	
	may eventually move to Ntuzuma	30,4	
negative			26,1
	will wait to be resettled	13,0	
	will move further into hinterland	4,3	
	other	8,7	
		99,9	100,0
		N=23	
no information 49			

Communications with the stem-family are maintained in 57 per cent of the sample households. Communications include the sending of letters, parcels, messages and remittances. Only one-fourth of the sample households claim to have land rights in the rural areas and less than 5 per cent have access to larger plots consisting of at least six acres. Cattle ownership is limited to 14 per cent of the sample, and most cattle owners have relatively large herds of over ten and frequently over twenty head of cattle.

The four indicators used to measure rural ties tend to follow a consistent pattern as shown below in the gradation of positive scores for the sample as a whole:

Percentage of sample households maintaining rural ties in the form of:

visiting — communications — land rights — cattle

65% ----------▶ 57% ----------▶ 25% ----------▶ 14%

Table 28

Details of Rural Ties Maintained by Household Heads

A. Incidence of visiting

	%	
yes	65,3	
own home		59,7
peri-urban home		2,8
wife's home		1,4
other home		1,4
receives rural visitors	1,4	
no	33,3	
	100,0	
	N=72	

B. Frequency of visiting (visitors only)

	%
no qualification	8,3
infrequent	4,2
annual	31,3
twice per year	14,6
on holidays	4,2
every second month	14,6
monthly	14,6
fortnightly	4,2
weekly	4,2
	100,2
	N=48

C. Types of visitors

	%	
no qualification	12,5	
household head	72,9	
alone		33,3
with family		18,8
with spouse		12,5
or spouse		8,3
other family member	12,5	
spouse	2,1	
	100,0	
	N=48	

continued/...

Table 28 (continued)

D. Communications with kin

	%
yes	56,9
no	43,1
	100,0
	N=72

E. Land rights in rural areas

	%	
yes	25,0	
1 acre		4,2
2 acres		5,6
3 acres		8,3
4 acres		1,4
5 acres		1,4
6 and more acres		4,2
uncertain	4,2	
no	68,1	
peri-urban land	1,4	
no information	1,4	
	100,1	
	N=72	

F. Cattle

	%	
cattle	13,9	
1 - 2		1,4
⋮		
5 - 9		2,8
10 - 14		2,8
⋮		
20+		6,9
no cattle	86,1	
	100,0	
	N=72	

Indicators for rural ties tend to form a Guttman type scale in the above order, in the sense that respondents scoring positively on the one item also score positively on the preceding items. For example, household heads who possess cattle, also have land rights, and communicate and visit with rural kin.

This scale property is utilized when summarizing information on rural ties for the sample households. Virtually all cases conform to the scale pattern. Table 29 indicates that approximately 39 per cent of the sample households have no rural connections at all. Ties are either severed or the stem-family has shifted its base to town. A further third of the sample households maintain only token ties with their rural home through visits and communications. One-fourth of the sample households may have access to land and of this group only 14 per cent have livestock.

Table 29
Summary of Rural Ties Maintained by Household Heads

	%
no ties	33,3
peri-urban ties	5,6
visits	8,3
visits, communications	26,4
visits, communications, land	12,5
visits, communications, land, cattle	13,9
	100,0
	N=72

On the basis of our findings on rural ties, it is unlikely that the outflow from the peri-urban areas to the hinterland will take on noteworthy proportions. This is especially so in the case of households headed by females who have tendentially fewer rural contacts than other households, especially ties involving land and livestock.

One might also argue, that if the majority of dependents in the household are 'followers', then the fact that the household head has few ties with the rural area has a multiplier effect and all persons in the household head's following will likewise be estranged from their rural background. This also implies that if peri-urban existence on the urban fringe is denied to settlers such as our sample members, then the 'homeless' *urban* Africans, the 'men of no world' (Schlemmer 1976), will soon find their equivalents in the equally 'homeless' *peri-urban* Africans.

In this connection it is interesting to note that *all* the wives of the admittedly small number of rural committed household heads are either formally or informally employed in contrast to approximately 30 per cent of those committed to urban residence in the foreseeable future (difference significant, $p<0,05$). This may at first glance appear to contradict the fairly well-established finding for the African context that the residence of the wife - let alone her urban employment - are highly predictive of urban (residential) commitment (cf. Mitchell, Shaul 1965; Mitchell 1969b; Møller 1968). This may well be the case in a controlled urban setting where township dwellers' wives are officially required to reside in the urban area, whereas migrants' wives must stay behind in the rural areas. In the peri-urban areas the lack of regulations restricting movements may, however, predispose rural-committed men to bringing their wives to town for individual reasons. Provided there is someone to act as a caretaker for the rural property, it is not essential that the wife stay in the rural area, and it may well be considered more economically viable for a wife to supplement the household's urban income. In other words there is little point for the wife of a rural-oriented person to reside in town unless the wife is effectively contributing to the accumulation of capital which can be invested into the rural property upon returning home.

This argument would merely emphasize the importance of the distribution of kin between town and country for urban commitment. It

has, for example, been shown that urban-committed persons are more likely to have a greater number of urban kinship ties than rural-committed persons living in town (Møller 1978, Chapter 18). In our present sample it is remarkable how rapidly peri-urban families may become urban or at least peri-urban based. In the parent generation some 22 per cent of those sample households, for which information is available, have parents living in the urban areas (cf. Table 30). In the third generation some 90 per cent of the household heads' children are urban or semi-urban residents (cf. Table 31).

Table 30

Residence of Household Head's Parents

	%
not applicable: deceased	30,6
urban	22,4
potential urban	2,0
urban/rural	2,0
rural	42,9
	99,9
	N=49
insufficient information 23	

Table 31

Residence of Household Head's Children

	%	
urban	90,2	
Dube Farm		42,6
local		11,5
other urban		36,1
urban/rural	8,2	
rural	1,6	
	100,0	
	N=61	
not applicable, no information 11		

In a similar vein our survey findings suggest that persons with fewer parental ties which link them to a rural origin are at the same time more urban-committed than others (cf. Table 32).

Table 32

Cross-tabulations Depicting Linkage Between Urban Commitment and Rural Ties (household heads)

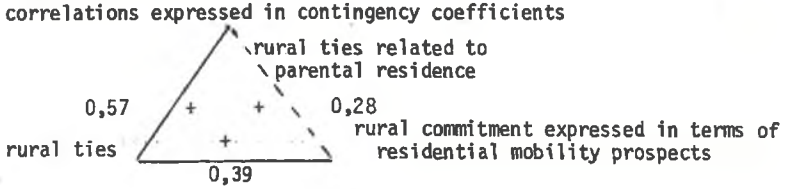
rural ties	parents' residence indicates no rural ties*	rural ties		rural ties none	loose	strong	
none	15	-	15				
loose	9	9	18				
strong	2	14	16				
	26	23	49				
chi sq. = 23,9, 2d.f., p<0,001							
mobility prospects							
remainer	15	16	31	19	20	11	50
township aspirant	11	5	16	9	5	4	18
rural area aspirant	-	2	2	-	-	4	4
	26	23	49	28	25	19	72
chi sq. = 4,1, 2d.f., p<0,20				chi sq. = 12,9, 4d.f., p<0,02			

* includes deceased parents

This linkage is illustrated in the diagram below.

linkage between rural ties and rural commitment

correlations expressed in contingency coefficients



Although the numbers supporting this argument are very small, the trend is nevertheless of significant importance for the theoretical consideration of peri-urban development. If the kinship system based in the peri-urban area were to become strong enough to act as a substitute for the one at the rural home base, peri-urban settlements might stabilize and permanently contribute to the extension of the greater metropolitan area.[1)]

3.6 Final Comments

To conclude our inquiry into the function fulfilled by the peri-urban area for its current residents, it might be useful to sum up findings in two profiles of the typical *Durban* and *Inanda worker* respectively.[2)]

In comparison to Durban workers, *Inanda workers* are exclusively informally employed and tend to congregate in multiple generation families, who wish to remain on the Dube Farm and are satisfied with their present home. Moreover, Inanda workers have fewer parental ties with the rural areas. It will be remembered that multiple generation families tend to rely on multiple earners, which means that wives will frequently be active in the economic sector. Multiple generation household members also tend to be more stable peri-urban residents.

By contrast, *Durban workers* tend to be younger, more mobile and financially independent. For instance, all renters in our sample are found among the Durban workers. Thanks to their higher occupational

1) Stopforth's (in press, Table VIII) longitudinal study of peri-urban family structures supports this contention of stabilization in time.

2) Using the chi square test as a criterion, the Inanda workplace is closely associated to lower occupational status ($p<0,001$), lower mobility prospects ($p<0,10$), involuntary future migration ($p<0,02$), multiple generation household ($p<0,05$), more advanced family life-cycle ($p<0,10$), urban residence of parents (or deceased) ($p<0,05$), home-ownership tenure ($p<0,05$), and satisfaction with peri-urban home ($p<0,10$).

status, Durban workers can afford greater choice in residential mobility, including township residence.

In short, informal Inanda workers tend to be peri-urban established and regard the urban fringe as a permanent dwelling place, whereas Durban workers will more likely use the Dube Farm as a temporary pied-a-terre. Thus the fringe area affords a variety of opportunities to different types of people: it offers permanent settlement for the stable population, a point of entry for the straight through-flow population and a temporary recess for the circular through-flow population.

CHAPTER 4

HOUSING ON THE URBAN FRINGE

In outward appearance and function the Dube Farm settlement has much in common with what are frequently referred to as "marginal" (Morse 1969) or "uncontrolled" settlements (Turner 1969, Peil 1976). Similarity exists in the lack of amenities and infrastructure such as water, sanitation, street lighting, roads etc., and the fact that the structures erected by owner-occupiers are not subject to building regulations. On the other hand the Dube Farm tenants are legally occupying the land on which their dwellings have been built by paying a small annual rental of approximately three Rand. In short, Dube Farm residents have a certain marginality in common with autonomous settlers found elsewhere as regards access to urban amenities and resources; at the same time they enjoy greater security of tenure than their counterparts in other parts of the world. But as Turner (1969:528) points out, the value of an environment cannot be judged by material standards alone. In the last section, we saw that the marginal peri-urban settlement indeed fulfills useful functions for different mobility types.

In this section we shall dwell on the housing aspects of the peri-urban settlement and try to assess in which respects home-ownership on the periphery caters for the specific needs of our peri-urban families and functions as a "'vehicle' for social and economic improvement" (Turner 1969:510).

4.1 Housing

The majority of tenants on the Dube Farm are owner-occupiers. The Bantu Affairs Commission has recently restricted further development

on the School section of the Farm and stopped subletting practices there, and this is clearly reflected in our survey findings (cf. Table 33). Subtenants and renters are only found on the original section of the Dube Farm. In all other respects respondents on the two different sections of the Dube Farm are statistically speaking, equal.

Table 33
Tenure of Sample Dwellings

	Dube Farm		School Farm		total
	%		%		%
owner-occupied	82,3	51	90,0	9	83,3
owner-occupied with subtenants	6,5	4	10,0	1	6,9
rented	11,3	7	-	-	9,7
	100,1		100,0		99,9
	N=62		N=10		N=72

The size of plots on which sample dwellings are built varies considerably (cf. Table 34). Approximately two-thirds of dwellings have less than one acre of land attached. Nevertheless, all Dube Farm tenants are allotted with a generous portion of land by urban standards and even the smallest plots of slightly less than one-half acre compare favourably with the stands on which township houses are built. According to a local informant, the increasing demand for peri-urban homes over the years has reduced the size of plots allocated to tenants today, and this is evident in our survey results. Long-term residents on the Dube Farm are significantly more likely to occupy the larger plots in the settlement and vice versa.

For survey purposes, dwellings are defined as the shelter occupied by one household. The majority of Dube Farm dwellings consist of single structures (cf. Table 35). Just under one-fifth of the sample dwellings are clusters of two to four buildings. Although 'modern'

square-shaped dwellings prevail, two multiple structures include rondavels.

Table 34

Relative Size of Plots on which Sample Dwellings are Built

in standard units*	in acres(estimate)**	%
1/4	0,44	21,1
1/3	0,58	16,9
1/2	0,88	28,2
3/4	1,31	2,8
1 - 2	1,75 - 3,50	26,8
3 - 5	5,25 - 8,75	1,4
5 +	8,75 +	2,8
		100,0
		N=71

no information 1

* The standard unit used in the survey for comparative purposes is the football field which officially measures: 90 - 120m x 45 - 90m or 100 - 130yd x 50 - 100yd.

** The survey standard unit is converted into acres using a medium-sized football field measure of 1,75 acres (105m x 67,5m, 1 acre = 4048,6m^2).

Table 35

Structure of Sample Dwellings

	%
single structure	81,9
multiple structure	18,1
	100,0
	N=72

The sizes of sample dwellings range from one to seven rooms (cf. Table 36). The modal dwelling is four-roomed, but approximately

44 per cent of the sample households occupy less than four rooms. The average number of rooms occupied by sample households is 3,57 rooms. The average size of dwellings included in the sample regardless of the actual occupation by sample households is slightly higher at 3,90 rooms.

Table 36

Dwelling Size: Number Rooms Occupied by Total Rooms in Sample Dwelling Structure(s)

number rooms	percentage of sample households occupying number rooms	percentage of sample dwellings with total number rooms
1 room	11,1	4,2
2 rooms	20,8	20,8
3 rooms	12,5	13,9
4 rooms	26,4	26,4
5 rooms	18,1	18,1
6 rooms	6,9	11,1
7 rooms	4,2	4,2
8 rooms	-	1,4
	100,0	100,1
	N=72	N=72
mean number rooms	3,57	3,90

The number of bedrooms occupied by sample households ranges from one to six and the mean is 2,4 bedrooms (cf. Table 37). Table 38 demonstrates that a dwelling must reach a certain size before dwelling space can be diverted from sleeping functions. A valid criterion for space adequacy in family housing is the separation of juveniles by sex for sleeping purposes (cf. Watts 1974:18ff.). In order to meet this requirement, sample households frequently resort to assigning multiple purposes to rooms. The figures in Table 38 show that only a six-roomed house in our survey can spare two rooms, say a kitchen and a living-cum-dining room, for exclusively non-sleeping functions.

Table 37

Number Bedrooms Occupied by Sample Households

number bedrooms	percentage of sample households occupying number bedrooms
1 bedroom	26,8
2 bedrooms	32,4
3 bedrooms	25,4
4 bedrooms	11,3
5 bedrooms	2,8
6 bedrooms	1,4
	100,1
	N=71

mean 2,4
no information 1

Table 38

Functions of Rooms in Relation to Size of Sample Dwellings

number rooms	average number bedrooms*	average number rooms with non-sleeping function*
1 room	1,00	0,00
2 rooms	1,43	0,57
3 rooms	1,78	1,22
4 rooms	2,42	1,58
5 rooms	3,38	1,62
6 rooms	4,00	2,00
7 rooms	4,33	2,67

* refers only to rooms occupied by sample households

Sample dwellings include some interesting features which might be considered above-standard in an uncontrolled settlement. For example Table 39 illustrates that almost two-thirds of sample households have a choice of two or more entrances to their homes. One might

argue that multiple entrances are simply concomitants of multiple-structuring or cellular extension which is very popular with builders of few means.[1)]

Table 39

Number Outside Entrances to Dwellings Accessible to Sample Households

number entrances	%
one	35,2
two	35,2
three	16,9
four	12,7
	100,0
	N=71
no information 1	

It is true that in our survey the incidence of multiple entrances increases very significantly with multiple structuring and dwelling size as measured by number of rooms and bedrooms. At the same time one might point out that from a bird's eye view of the Dube Farm, the majority of single-structured homes are compact square buildings and the 'line'-house, consisting of a string of rooms, is virtually not in evidence. Multiple entrances may therefore be interpreted not as a mere dictate of design, but also as an improvement in living conditions. This is a point we shall return to later.

1) Romanos (1969:147) reports that unauthorized structures in Greece assume two forms which comply with the need to complete the shelter, i.e. the roof, as soon as possible in order to avoid demolishment by the authorities. The more substantial *pavilion*-type house is constructed by first erecting a slab of concrete supported by columns to cover the total area of the house. The area below the roof is then walled off as the available resources will allow at any one time. On the other hand, the *cellular* type of house arranged in an L or U shape with no communication between the rooms except through the courtyard, requires little initial capital outlay.

It is interesting to note that the second 'luxury' feature in Dube Farm housing is significantly associated with the first one of multiple access points to the home ($p<0,01$). Homes with verandahs (cf. Table 40) tend to have more entrances than other homes. In many cases two doors will lead off the verandah into two separate rooms of the house. Approximately 17 per cent of the sample houses boast verandahs. According to our local informant, verandahs are slowly becoming a thing of the past because of the prohibitive costs involved. This is reflected in our survey results, for residential stability is significantly positively correlated ($p<0,01$) with a verandahed home.

Table 40
Sample Dwellings with Verandahs

	%
verandah	16,7
no verandah	83,3
	100,0
	N=72

Over 90 per cent of sample households have gardens (cf. Table 41). The produce grown is almost certainly intended for home consumption. Maize is found in virtually every garden, and pumpkins and beans are very popular. Apart from vegetables, some fruit is grown. Although the categories in Table 41 are not quite exclusive, the list gives a good impression of what produce is typically found in Dube Farm gardens.

Planting a garden may indicate a certain commitment to the Dube Farm residence. All but one of the sample households with no access to a garden are renting their homes, and the sole home-owner in the no-garden group is busy building a township house.

Table 41

Sample Households with Gardens

	%
garden	91,7
no garden	8,3
	100,0
	N=72
percentage of sample gardens in which produce is grown	
mealies	90,9
pumpkins	65,2
beans	42,4
amadumbe	19,7
tomatoes	10,6
bananas	10,6
peaches	9,1
sweet potatoes	6,1
vegetables	6,1
cabbages	6,1
potatoes	6,1
peas	6,1
spinach	3,0
green leafy vegetables	3,0
pineapples	1,5
	N=64
no information 2	

The building materials used in the construction of the walls of sample dwellings are listed in Table 42. Mud and wood are the two most popular building materials; corrugated iron, bricks, cement blocks and stone are also employed. Cement is frequently used as a binder or as a plaster in conjunction with mud, planks and stones. Approximately 42 per cent of the sample dwellings are built in mud - either in its simplest form or in the form of mud bricks or mud blocks. Dwellings constructed solely with planks account for a further 22 per cent of housing units in our sample. Some few sample structures are built entirely with corrugated iron, bricks or cement blocks respectively.

Table 42

Combination of Building Materials Used in the Construction of Sample Dwellings

materials	combinations of materials employed (vertical reading)															frequency of materials employed	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	N	%
mud*	X	X	X	X	X	X		X								43	46,7
wood (planks)				X	X		X	X	X			X				26	28,3
cement (plastering)						X		X	X						X	13	14,1
corrugated iron										X				X		3	3,3
bricks											X	X				3	3,3
cement block													X	X		3	3,3
stone															X	1	1,1
frequency of combinations																	
N	5	21	4	3	2	8	16	1	3	2	2	1	2	1	1	72	92	100,1
%	6,9	29,2	5,6	4,2	2,8	11,1	22,2	1,4	4,2	2,8	2,8	1,4	2,8	1,4	1,4	100,2		

* Mud, used in the combinations 1/4/8, 2/5/6, 3 is referred to as mud, mud bricks, mud blocks respectively.

About three of every four sample homes have corrugated iron roofs. Just under one-fifth of the sample structures are covered with planks (cf. Table 43).

Table 43
Roof Materials Used in the Construction of Sample Dwellings

	%
corrugated iron	73,6
wood (planks)	19,4
wood and corrugated iron	4,2
asbestos and corrugated iron	1,4
wood and thatch	1,4
	100,0
	N=72

4.2 Amenities

Over 90 per cent of the sample households have to rely on only one source of water. River-water is used in approximately nine-tenths of the sample households. The detailed list given in Table 44 demonstrates that river-water must very often be carried for some distance. According to local informants, many of the more conveniently located smaller streams run dry during the winter months and only two main rivers at a greater distance still retain sufficient water for domestic use. It is obvious that the use of river-water presents a health problem for the Dube Farm community.

A small number of households obtain water from townships or the local shops and the school nearby. Water from shops is purchased, or obtained free of charge on the understanding that the household is a bona fide customer. Some few sample homes have water tanks installed and collect rain-water during the summer months for domestic use.

Table 44

Water Sources Used by Sample Households

Number of sources used		%
one source		92,9
two sources		7,1
		100,0
		N=70
no information 2		
Type of water* used		**%**
river-water		82,7
unqualified	45,3	
½ - 1 hour walking distance	13,3	
¼ hour or less walking distance, nearby	24,0	
piped water		12,0
nearest townships (KwaMashu, Ntuzuma)	4,0	
nearest village (Shembe's Village)	6,7	
purchase (2,7)		
gratis (4,0)		
nearest institution (Ohlange High School)	1,3	
rain-water tank		5,3
		100,0
		N = 75 responses
* multiple responses		70 respondents

There are no sanitary or refuse services on the Dube Farm. Pit latrines are commonly used. With few exceptions latrines are entered as detached outbuildings on the sketch plans of the sample dwellings drawn by our fieldworkers. The one indoor toilet encountered in our survey is not water borne. According to our local informant, refuse is dealt with on an individual household basis.

The majority of sample households use paraffin as fuel (cf. Table 45). Some households supplement the use of paraffin with other fuels such as coal, wood and gas. Two households in the survey use coal and wood exclusively.

Table 45
Fuel Used by Sample Households

combinations	%
paraffin	80,3
paraffin/coal	7,0
paraffin/wood	4,2
paraffin/gas	4,2
paraffin/coal/gas	1,4
coal/wood	2,8
	99,9
	N=71
no information 1	

Just over 50 per cent of the sample households light their homes with candles (cf. Table 46). Paraffin lamps are used in approximately 30 per cent of sample households and the remainder use both candles and paraffin lamps or other combinations of illumination including gas lamps.

Table 46
Lighting Used by Sample Households

combinations	%
candle	53,5
paraffin	29,6
candle/paraffin	12,7
candle/paraffin/gas	2,8
candle/gas	1,4
	100,0
	N=71
no information 1	

4.3 Self-improvement in Housing

Apart from the lack of amenities, the peri-urban settlement

obviously fulfills the needs of various types of settlers. The flexibility of uncontrolled building most probably accounts for the adequate performance of peri-urban housing. Survey results clearly indicate that the housing situation improves with the duration of residence and tends to adapt to the increasing spatial demands made by the family in the course of its life-cycle.

The tendency for self-improvement in housing can best be illustrated by examining significant items in the correlation matrix pertaining to survey variables. Increasing residential stability goes hand in hand with dwelling space and permanency of the dwelling structure. As mentioned above, to date the peri-urban born and the numerically stronger group of rural-urban in-migrants are best represented in the more established settler group. These long-term residents tendentially live in larger, more permanent structures. At the same time better standard homes also incorporate design features which render them more comfortable, such as verandahs and multiple entrances. It is also possible that more established households may attempt to combat the lack of amenities in time. In this connection it is perhaps significant that multiple lighting is more frequently used in the more established homes.

To *sum up*, better housing standards tend to consistently generate a range of improvements in various dimensions of housing.

It can also be shown that not only do housing standards improve with time, they also tend to adapt to the changing needs of the peri-urban family. A linear relationship between the size of the dwelling and the household size exists. That is, small families are accommodated in smaller homes and larger families in larger homes. The flexibility of uncontrolled housing is possibly best demonstrated in the case of composite households containing several generations. In this connection the strong relationship between such factors as household

composition and certain housing features such as size, sleeping space, access and dimensions are very telling (Table 47).

Table 47

Housing Features in Sample Dwellings by Generational Composition of Sample Households

generations in household	number rooms occupied by sample households -3 rooms	4+ rooms	total
one	7	4	11
two	22	22	44
three	3	14	17
	32	40	72

chi sq. = 7,1, 2d.f., $p<0,05$

	number bedrooms occupied by sample households -2 bedrooms	3+ bedrooms	total
one	11	-	11
two	28	15	43
three	3	14	17
	42	29	71

chi sq. = 20,4, 2d.f., $p<0,001$

	number outside entrances to dwellings accessible to sample households 1	2	3+	total
one	6	4	1	11
two	17	17	9	43
three	2	4	11	17
	25	25	21	71

chi sq. = 14,7, 4d.f., $p<0,01$

	structure of sample dwellings single	multiple	total
one	11	-	11
two	38	6	44
three	10	7	17
	59	13	72

chi sq. = 9,1, 2d.f., $p<0,02$

One might argue that multiple structures and the accompanying multiple entrances increase the privacy which can be afforded to a household consisting of several subunits.

In fact, peri-urban households may find their housing to be so well suited to their needs that residential mobility is contained. Consider that the family life-cycle is one of the chief determinants of residential shifts. Universally seen, young couples move out of their parents' homes to a home of their own soon after marriage. This is not necessarily the case in our sample. When inquiring about the intentions of the household to split up, we find a certain consistency which is related to the household composition but not to the family life-cycle.

In our survey we observe that the influx of young couples to the Dube Farm settlement is largely due to city overspill and to some peri-urban mobility. The established peri-urban household on the other hand, with its flexible housing situation, will accommodate its younger generations and incorporate them into the composite household.

On the upper half of Table 48 we see that the prospects of splitting a household are inversely related to the number of generations sharing the household. However, the solutions adopted by households of varying generational composition to meet their housing needs vary substantially. *One* generation households tend to be products of a recent split and are still in the process of consolidation. *Two* generation households may also have recently emerged from a household split and are still keen to stay intact. Ideally, the *two* generation household envisages a residential shift to satisfy the housing needs of an expanding family. It is predominantly the *three* generation household which is predestined to split.

It would appear that there are several solutions which apply

to the accommodation of the multiple generation household. Higher occupational status and its concomitant higher income certainly afford a greater choice range in this respect.[1)]

Table 48

Proposed Household Split by Generational Composition and Family Life-cycle (household heads)

	attitudes* toward a household split									
generations in household	no split		recent split		household shift		split		total	
one	72,7	8	18,2	2	9,1	1	-	-	100,0	N=11
two	65,9	29	9,1	4	20,5	9	4,5	2	100,0	N=44
three	58,8	10	-	-	5,9	1	35,3	6	100,0	N=17
	65,3	47	8,3	6	15,3	11	11,1	8	100,0	N=72
chi sq. = 16,8, 6d.f., p<0,01										
family life-cycle phase										
contraction/ pre-expansion	41,7	5	25,0	3	16,7	2	16,7	2	100,1	N=12
expansion	68,1	32	6,4	3	17,0	8	8,5	4	100,0	N=47
secondary expansion	76,9	10	-	-	7,7	1	15,4	2	100,0	N=13
	65,3	47	8,3	6	15,3	11	11,1	8	100,0	N=72
chi sq. = 8,1, 6d.f., p<0,30										

1) It is also interesting to note that access to a second water source denoting the use of purer piped or rain-water, is significantly related to higher occupation status. It was also discovered that the renters in our survey who tendentially occupy relatively high occupational positions are married to wives in employment. Hence, we conclude that at least two factors, time and money, are associated with differential access to water resources. In households where no one is available to carry river-water, and income permits, more elaborate and expensive means of obtaining water can be employed. Moreover, the water consumption of the smaller renter household in our sample will result in a modest water bill. An educational factor, which dominates or supports the occupationally determined trend, may well be involved in water consumption, but this factor was unfortunately not included in the survey observations.

For instance, persons in the higher occupational group in our survey are over-represented among those who opt to split or move their households even if their family life-cycle status does not warrant it. This would imply that the large peri-urban household is dictated by financial necessity. However, this may represent but a half-truth. The complex household structure may be regarded as desirable in itself. Suggestive of this interpretation is the fact that the wish for household division does not coincide with the family life-cycle but tends to overplay the normal expansion-contraction pattern (cf. Table 48). Furthermore, as we have mentioned above, peri-urban housing is marvellously flexible and can easily accommodate the needs of a multiple generation household. The increasing privacy demands are met progressively by an increase in rooms, especially bedrooms, structural divisions and separate entrances. When voluntarily accepting the complex household structure, housing standards in the peri-urban areas need never exceed financial means (cf. Mangin, Turner 1969). Multiple earners ensure a steady income even when construction expenses have to be met. In an uncontrolled housing situation improvements can be made at an individually adjustable pace. Given this ideal solution, we are confronted with a household in our survey which never contracts but successively enters into a secondary phase of expansion in the family life-cycle. We must therefore conclude that even if the complex peri-urban household structure is a forced choice, the housing solution is optimal, under the given circumstances.

Next we must ask how the stable peri-urban family has managed to reconcile its relatively high demands for housing with its higher housing standard and what are the chances of the newer arrivals following in their footsteps.

If you will recollect the profile of the Inanda worker and his tendency to belong to the large composite family, we now find that the more established, larger multi-generation household tends to shelter a

to the accommodation of the multiple generation household. Higher occupational status and its concomitant higher income certainly afford a greater choice range in this respect.[1)]

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two	65,9	29	9,1	4	20,5	9	4,5	2	100,0	N=44
three	58,8	10	-	-	5,9	1	35,3	6	100,0	N=17
	65,3	47	8,3	6	15,3	11	11,1	8	100,0	N=72
chi sq. = 16,8, 6d.f., p<0,01										
family life-cycle phase										
contraction/ pre-expansion	41,7	5	25,0	3	16,7	2	16,7	2	100,1	N=12
expansion	68,1	32	6,4	3	17,0	8	8,5	4	100,0	N=47
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	65,3	47	8,3	6	15,3	11	11,1	8	100,0	N=72
chi sq. = 8,1, 6d.f., p<0,30										

1) It is also interesting to note that access to a second water source denoting the use of purer piped or rain-water, is significantly related to higher occupation status. It was also discovered that the renters in our survey who tendentially occupy relatively high occupational positions are married to wives in employment. Hence, we conclude that at least two factors, time and money, are associated with differential access to water resources. In households where no one is available to carry river-water, and income permits, more elaborate and expensive means of obtaining water can be employed. Moreover, the water consumption of the smaller renter household in our sample will result in a modest water bill. An educational factor, which dominates or supports the occupationally determined trend, may well be involved in water consumption, but this factor was unfortunately not included in the survey observations.

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Next we must ask how the stable peri-urban family has managed to reconcile its relatively high demands for housing with its higher housing standard and what are the chances of the newer arrivals following in their footsteps.

If you will recollect the profile of the Inanda worker and his tendency to belong to the large composite family, we now find that the more established, larger multi-generation household tends to shelter a

higher number of employed persons. At the same time, multiple-earner households live in larger homes on the Dube Farm. One might hypothesize that with multiple earnings coming in, the stable peri-urban household can in time manage to increase its dwelling space. Moreover, consistent with Mangin and Turner's (1969) cost-benefit analysis of progressive development (Turner 1970), the multiple-earner family can do so in their own time and without running the risk of ever having to cut their means of livelihood. In other words, the peri-urban household can improve its standard of housing within its economic means at its own pace and multiple earnings might spur this individually set pace. It is also more likely that the composite family is in a better position to supply the necessary skills and manpower for building its shelter than the prototype nuclear family with only one able-bodied male.

Seeing that the stable peri-urbanites have managed to improve their housing situation and adapt it to their needs, what are the prospects of home improvement for the more recent arrivals. Table 49 shows that the desire for improvement of the peri-urban home is very commonplace in our sample. Approximately 47 per cent of our household heads desire to extend their homes and a small proportion of this percentage is already in the process of doing so. About one-third of the sample are satisfied with their homes and wish no extension and the remainder have alternative plans which obviate the extension of their Dube Farm homes.

The qualifications offered for extension can conveniently be divided into four groups: 'structure size', 'structure quality', 'alternatives to extension' and 'uncertainty regarding extension' (cf. Table 50).

Sixty per cent of qualifications refer to housing standards. The size and the function, which additional space will serve, is of

major importance. Obviously the needs of a maturing family for privacy increases in time. Additional space will also be used to accommodate visitors and possessions. Although structure quality is frequently implicitly included in the desire for a 'new home', explicit reference to more permanent structures are seldom made and tend to be a second consideration.

Table 49
Home Extension Desires of Household Heads

	%
already extended, extending	5,6
desires extension	41,7
no extension, satisfied	31,9
no extension, other	20,8
	100,0
	N=72

Qualifications regarding alternative means of meeting housing needs frequently refer to township residence. Some few intentions of building or extending in townships are stated. The desire to keep clear of township development or to build in the hinterland is also expressed.

Uncertainty regarding extension plans or obstacles in meeting housing needs constitutes a residual category. Some potential builders are reluctant to improve their homes as long as they are not sure of the dimensions which the Ntuzuma Township development will assume. A number of household heads foresee financial difficulties in extending their homes. Clearly economic limitations do not invalidate the need for home improvement, for financial qualifications are usually given second mention. The cross-tabulation of home extension and qualification clearly demonstrates this strong desire for home improvement despite any

obstacles in realising this goal (cf. Table 51). It will be noted that the group which is 'satisfied' with the Dube Farm home find any further qualification superfluous.

Table 50
Qualifications* for Home Extension Desires of Household Heads

	%	
structure size		52,1
need for more space, bigger home	30,1	
accommodation for children needed	6,8	
children have grown up	2,7	
need for privacy	2,7	
accommodation for visitors, kin needed	2,7	
need for new home for subfamily	1,4	
new kitchen needed	2,7	
accommodation for furniture needed	2,7	
structure quality		8,2
better, decent building materials	8,2	
alternatives to extension		26,0
desire to move to Ntuzuma	12,3	
desire to eventually move to Ntuzuma	4,1	
building township house	1,4	
intend to extend township house after eventual move	1,4	
eventual move to bigger plot	1,4	
desire to escape from townships	2,7	
built/building rural house	2,7	
uncertainty regarding extension		13,7
financial restrictions	6,8	
extension dependent on Ntuzuma development	4,1	
cites reasons for not having extended	1,4	
possible renovation of old structure	1,4	
		100,0
	N=73 responses	

* multiple responses

Table 51

Home Extension Desires by Qualification Type (household heads)

home extension desires	qualifications* concern: housing standard	alternative housing	uncertainty and obstacles	
extension plans	44	1	9	54
satisfied with home	-	1	1	2
alternative plans	-	15	-	15
	44	17	10	71

chi sq. computed for single response = 50,2, 4d.f., $p<0,001$

* multiple responses excluding 2 qualifications concerning 'desire to escape from townships'

Table 52 shows that extenders are preoccupied with housing standards. The size of the dwelling is of major importance for them. This may be a legitimate claim, for according to our multivariate analysis, the extension desire tends to be somewhat more pronounced in larger households ($p<0,10$). Moreover, those household heads desiring extension are space-wise less privileged than their satisfied counterparts on the Dube Farm (the variables 'rooms' and 'home extension desire' are significantly related, $p<0,01$).

Satisfaction with one's dwelling may be closely associated with identification and commitment to the place of residence. This notion is supported by our survey findings: those persons most satisfied with their homes do not intend to split their households in the near future ($p<0,02$) and are over-represented in the group of 'remainers' ($p<0,001$). Possibly satisfaction with one's dwelling is a pre-condition for residential stability, for Inanda workers are slightly over-represented in the group satisfied with their Dube Farm homes ($p<0,10$). The persons least committed to the peri-urban areas are most certainly those who have alternative plans for future residence, that is, the transients who use the urban fringe as a stop-over on their

way to the townships. The person with 'alternative plans' for residence may be epitomized by the 'renter' on the Dube Farm (variables 'tenure' and 'home extension desire' are significantly related, $p<0,05$). The renter has few commitments to the Dube Farm and occupies a low residential status there: for instance, he maintains no garden ($p<0,001$) and occupies fewer rooms than home-owners ($p<0,05$). On the other hand, it is possibly his superior occupational status which opens up alternative opportunities for accommodation for him (see above).

Table 52
Qualifications for Home Extension Desires by Mobility Intentions
(household heads)

qualifications* for home extension desires	future mobility type: remainer	township aspirant	return migrant	
structure standard	39	5	-	44
alternative means	3	12	2	17
uncertainty	7	3	-	10
	49	20	2	71

* multiple responses

chi sq. computed for single responses = 19,4, 4d.f., $p<0,001$

The potentially committed are most certainly to be found among those Dube Farm residents desiring to extend their peri-urban homes in order to achieve a balance between their housing requirements and their housing facilities. In our survey, those opting to remain in the peri-urban area are precisely those persons who wish to improve the quality of their dwellings (cf. Table 52).

4.4 Conclusions

On the basis of this chapter's findings we conclude that the

peri-urban settlement may rightly be considered a 'self-improving' area. Obviously a certain degree of residential commitment is a pre-requisite for self-improvement. The opportunity of home-ownership offered on the Dube Farm is surely beneficial in this respect. Equally certain is that rumours concerning adjacent township developments undermine the security of tenure perceived by Dube Farm tenants.

Some might argue that financial constraints may well necessitate residential commitment to the urban fringe. Even if this were the case, it has been illustrated above how the peri-urban family, even in its tight financial position, is well able to improve its dwelling situation without jeopardizing its economic base during the effort. Our survey also indicates that whilst the peri-urban household may well be able to cope with raising the standard of its housing, the introduction of infrastructure and amenities are well beyond its means and organizational capacity. And this may constitute the very area where external assistance would be most beneficial. One might also envisage that the *combination* of housing improvements stemming from within the community, and improvement of amenities and infrastructure from outside, would promote healthy peri-urban standards which are attractive to a stable community and would also contain the residential flow through the peripheral fringe towards the city, where the housing shortage is so acute. In this manner, the peri-urban areas would alleviate the current shortage of housing most efficiently and at the same time would provide adequate homes for Durban workers.

CHAPTER 5

SUMMARY AND CONCLUSIONS

A pilot survey conducted in late 1976 among residents of the Dube Farm in the Inanda District north of Durban provides an opportunity to observe the role of peri-urban development in the migration and urbanization process.

One of the major discoveries made in the course of the study is that survey findings tend to dispel several of the popular myths associated with the emergence of spontaneous settlements on the peri-urban fringe of cities in developing countries. It is commonly thought that spontaneous settlements result from a sudden insurge of country-folk and can draw upon an endless reserve of potential in-migrants to the city. Peri-urban settlements are said to attract the shiftless, the vagrants, the chronically unemployed and all those outcasts of society, who are not capable of finding a niche in the urban social structure. If peri-urban settlements do in actual fact shelter such elements, it is no wonder that they are frequently considered a threat to the orderly existence of the regular urban work force, which is 'properly' housed in formal urban accommodation.

By contrast, the results of our survey show the peri-urban settlement in another light. The cross-section of the peri-urban settlement studied provides evidence which is contrary to these popular beliefs outlined. We find that the majority of the 72 households included in the survey are average sized families which are headed by owner-occupiers of informally built houses erected on rented land. The heads of our sample households are by and large city workers and rely on some kind of regular income. In most cases, informal employment is used merely to supplement the regular source of income and thereby raises

the general standard of living in the settlement. A large number of our women on the urban fringe are economically active, predominantly in the informal, but also in the formal sector. Noteworthy is the sizable proportion of stable residents included in our survey. There is a tendency for the structure of the more established sample households to become more complex in time; indeed this can be taken as an indicator of their stability in the area. At the same time, it is certainly true that the peri-urban settlement is better able to accommodate certain types of urban families, whose members constitute a large proportion of the city's labour force but cannot be catered for by the city's formal housing estates. Multiple family households, families headed by single and widowed women, and young couples in the process of getting married, are cases in point.

The survey data collected on the urban fringe also contributes toward the formulation of a more rigorously defined conception of the urbanization process evolving from the circulatory type of migration which is predominant in sub-Saharan Africa. A conceptual model is developed which incorporates the spatially more restricted residential shift and the long distance rural-urban migratory movement into a single theoretical framework. Although slight variations in residential mobility patterns have been observed in different contexts, it is demonstrated that the basic determinants of residential shifts tend to be universally valid. According to this conception, residential mobility patterns and life-cycle patterns tend to follow suit, whereby the former aids in equilibrating individual status constellations. In urbanizing contexts, residential shifts also contribute toward the balancing of the force constellations operating between the urban and the rural context which largely determine the migratory movements of the circulating population. It is proposed that both residential and migratory movements follow typical sequential patterns which are dependent on the opportunities for upward mobility perceived by those involved. In this manner, typical urban status constellations tend to be modified

according to the stage reached in the life-cycle and bring about variations in the individual response to urbanization.

In this connection it is noted that residential areas representing various stages of the residential mobility sequence may overlap in the local context due to restrictive marginal conditions. In South Africa, rights for Africans to work in the city are legally controlled. Thus, whereas Turner's 'bridgeheader' will find his first home in the city centre adjacent to his place of work and the 'consolidator' will move to the periphery when he can afford higher transport costs, local constraints will force Durban 'bridgeheaders' and 'consolidators' to rub shoulders in the few areas accessible to Blacks in which to house themselves when working in the city.

It is therefore chiefly due to the peculiarity of the local marginal constraints that the peri-urban fringe is assigned multiple roles in the local urbanization process. This is most apparent when a distinction is made between the types of population streams occupying the fringe settlement during various stages of their life-cycle and for disparate reasons.

The local fringe area under observation affords a variety of opportunities to different categories of people: it offers permanent settlement for the stable population, a point of entry for those intending to live in the city's formal housing projects at a later date, and a temporary recess for those stopping over on their way to other places of work or returning to the rural home. Thus one might suggest that three major *migratory flows* pass through our peri-urban area: *rural influx*, *local turnover* and *city overspill*.

Contrary to popular belief, it is observed that the first category of *rural influx* is numerically weak. It consists chiefly of rural-urban in-migrants who have come to town for employment purposes.

As far as rural influx is concerned, it is concluded that *step-migration* plays a minor role in populating the urban fringe areas most probably due to the expansion of the communication system in more recent times, which has enlarged the networks of contacts on which the potential migrant can rely. Moreover, direct transport to the city of their destination is available to most migrants. There is, however, an indication that 'residential' step-migration, whereby a person migrates directly to the city of his choice but initially waits on the urban fringe until he obtains residence in the city, is practised in some cases.

Likewise, *chain migration* in the classical sense of migrant families attracting further migration from those left behind in the rural areas is not in particular evidence in our study. Single dependents, rather than larger family groups, may join the sample family in the peri-urban area in old age. This does not lend much substance to the popular notion that the peri-urban areas attract continuously expanding streams of rural emigrants. Indeed, it is pointed out that the very existence of a nucleus of well-established settlers in the peri-urban area may obviate the necessity of chain migration in order to achieve family cohesion in town.

Urban expansion appears to be equally influential to rural-urban influx in populating the urban fringe. The *city overspill* comprises former township dwellers who have left the formal housing estates in the city and those who for various reasons cannot be accommodated in regular urban housing. The numerical strength of the city overspill cases in our survey sample underscores the fact that the provision of formal housing cannot keep pace with the increasing needs of a growing urban population. In our sample the city overspill group is by and large made up of young couples of urban origin and evicted widows. There is little evidence of the married man who chooses to share a peri-urban home with a town wife whilst his regular wife stays

behind at the rural home, which proves yet another popular belief to be untrue in the case of our study.

At this point it is perhaps necessary to stress that the local 'city overspill' is not entirely identical with the phenomenon encountered elsewhere. It has been observed that young parents everywhere desire to raise their families in a positive environment, and this often calls for a home of their own. Moreover, as Pahl (1964:76) points out, the economic factor tends to be equally important in residential choice. Home-ownership is often more attractive in the fringe areas for financial reasons. Lifestyle and economic considerations such as these have certainly prompted some of our survey respondents to come to the Dube Farm. However, it has been noted that more often than not, the move to the urban periphery is a 'forced choice'. Outward bound residential shifts are frequently a function of the legally controlled residential allocation in the South African city. Thus, the local 'city overspill' flow is a good indicator of the shortage in public housing. Overcrowding, lack of privacy and the inability to accommodate one's family in public housing forces some urban Africans to make do with the peri-urban housing alternative, even though the superior facilities and amenities available in the official housing estates would suit their families' residential needs to a greater degree.

Peri-urban mobiles are defined as those persons whose residential shifts occur only in the fringe areas. They exhibit a history of continuous uprooting and have therefore only been able to achieve low standards of housing in the past. Peri-urban mobiles account for about one-fourth of our sample respondents.

It is important to note that all three groups of mobiles described include *voluntary* and *non-voluntary* movers: voluntary movers are those who come to the peri-urban area to live because they will predominantly improve their urban status position whilst those moving

under a greater or lesser degree of constraint will not find any betterment in their urban situation. On the other hand, it must be stressed that the shift to the peri-urban settlement may actually minimize a status decline for the individual in some cases. In terms of the push-pull theory of migration one might therefore contend that in the case of urban status loss, the social security function of the rural areas has been shifted townwards to the peri-urban areas. It is frequently asserted that the perpetuation of the circulatory migration system is dependent on the adequate interplay between forces emanating from both the urban and the rural areas. Assuming that this interplay is necessary, one might suggest that if the peri-urban areas are not permitted to accommodate the urban overspill and the peri-urban resettled in the place of the rural areas as in former days, the circulatory migration system and the urbanization process in its current form might break down. This would occur because alternative solutions such as full stabilization or forced return migration are not considered feasible solutions under present economic and political circumstances.

Having enumerated three major types of mobiles occupying the peri-urban settlement in our study, there remains a residual category of *stable peri-urban residents*, which consists of those families who have established themselves in the fringe area. These residents legitimate their rights to claim the land on which they are residing because they and their forefathers have lived there for several generations.

Having made this limited number of observations in one particular informal settlement on the Durban periphery, let us now consider carefully whether our findings apply to other peri-urban settlements around Durban, and if the conclusions drawn are more generally valid.

It is proposed that the four types of peri-urban dwellers outlined will be found in any fringe settlement in the Greater Durban

area, but that the *relative* proportions with which the four types are represented will differ according to the particular setting of the informal housing cluster, its historical background, its location, system of tenure and so forth. In our typology, typical newcomers to the informal peri-urban settlement include rural-urban influx which occurs despite the government legislation designed to regulate it. Newcomers also include the city population spilling over into the adjacent peri-urban areas, and the persons whose peri-urban homes have been demolished.

The case of the Dube Farm may well be exceptional in that it contains a very large proportion of stable residents. Even if our study is unique in this respect, it provides us with an excellent opportunity to explore the potential stabilizing effect of a permanent core population which considers peri-urban housing to be a permanent rather than a temporary solution and thus forms the basis for the formation of a healthy and balanced community on the urban fringe.

It is proposed that the inclusion of extremely well-established elements in the peri-urban population may have a stabilizing effect on the rest of the mixed fringe community if only this type of influence is allowed to develop properly. The in-depth analysis of our survey data reveals that there is great potential for self-improvement in the peri-urban area as regards social status and housing standards, if sufficient opportunity is given for this type of change to materialize gradually. Our findings show that the housing situation of settlers improves with the duration of their residence in the settlement, and dwelling units tend to adapt to the increasing spatial needs of the family in the course of its life-cycle. There are signs that satisfaction with one's dwelling may be closely associated with identification and commitment to the place of residence, which is in turn commonly considered to be conducive to residential stability. It is also noted that those survey respondents opting to remain in the peri-urban areas in future are precisely those persons who wish to improve the quality

of their built environment.

The greater flexibility of the informal housing sector, when it comes to timing the individual phases in the construction of a new dwelling unit and alterations and additions to it, allows for maximum improvement with a minimum of initial capital outlay. It is also observed that many recent arrivals to the peri-urban settlement perceive an instant betterment in their residential status which tends to instil fresh enthusiasm to cope with their future housing needs.

One of the major findings in our study concerns the fact that a sizable proportion of our peri-urban sample residents *themselves* consider informal housing a viable solution to their housing problems. Given a certain degree of security of tenure - and the majority of our sample are owner-occupiers of their homes - housing standards, especially in terms of spatial requirements, tend to improve in time. This is most evident among the well-established peri-urban settlers.

On the other hand, the provision of infrastructure and facilities goes beyond the technical and organizational skills of the peri-urban dwellers. Despite their pride in self-reliance in many day to day matters of urban living, uncertainty about the future of the informal settlement areas surrounding Durban may well undermine the development of community action groups and efforts toward organizing self-help co-operatives. According to our survey findings, many peri-urbanites must still look to the formal housing projects for some guarantee of security of tenure and acceptable standards in the provision of amenities and facilities. It is therefore suggested that a judicious mix of self-help in housing, and external aid in the provision of infrastructure and amenities would promote a healthy stabilized peri-urban community and simultaneously reduce the current strain placed on the provision of formal housing in the city.

REFERENCES

Albrecht, Günther, 1972, *Soziologie der geographischen Mobilität*, Stuttgart: Ferdinand Enke.

Brown, James S.; Schwarzweller, Harry K.; Mangalam, Joseph J., 1963, Kentucky Mountain Migration and the Stem Family: An American Variation on a Theme by Le Play, *Rural Sociology*, 28, pp. 48-69.

in Jansen, C.J. (ed.), 1970, *Readings in the Sociology of Migration*, Oxford: Pergamom Press, pp. 93-120.

Epstein, A.L., 1969, 'Urbanization and Social Change in Africa', in Breese, Gerald (ed.), *The City in Newly Developing Countries: Readings on Urbanism and Urbanization*, Englewood Cliffs, N.J.: Prentice-Hall, pp. 246-284.

Foote, Nelson N.; Abu-Lughod, Janet; Foley, Mary Mix; Winnick, Louis, 1960, *Housing Choices and Housing Constraints*, New York/ Toronto/London: McGraw Hill.

Gluckman, M., 1961, 'Anthropological Problems arising from the African Industrial Revolution' in Southall, A. (ed.), *Social Change in Modern Africa*, London: Oxford University Press, pp. 67-82.

Grant, G.V., 1969, 'The Urban-Rural Scale: A Socio-Cultural Measure of Individual Urbanization', *National Institute for Personnel Research*, Council for Scientific and Industrial Research, Johannesburg, South Africa.

Gulliver, P.H., 1957, 'Nyakusa Labour Migration', *Rhodes-Livingstone Journal*, 11, pp. 32-63.

Hammel, E.A.; Laslett, Peter, 1974, 'Comparing Household Structures Over Time and Between Cultures', *Comparative Studies in Society and History*, Vol.16, pp. 73-103.

Heintz, Peter, (ed.), 1972, *A Macrosociological Theory of Societal Systems, 1 and 2*, Bern/Stuttgart/Wien: Hans Huber.

Hoffmann-Nowotny, Hans-Joachim, 1970, *Migration, ein Beitrag zu einer soziologischen Erklärung*, Stuttgart: Ferdinand Enke.

Hoffmann-Nowotny, Hans-Joachim, 1973, *Soziologie des Fremdarbeiter-problems*, Stuttgart: Ferdinand Enke.

Linsky, Arnold S., 1969, 'Some Generalizations Concerning Primate Cities', in Breese, Gerald (ed.), *The City in Newly Developing Countries: Readings on Urbanism and Urbanisation*, Englewood Cliffs, N.J.: Prentice-Hall, pp. 285-294.

Madge, John, 1968, 'Social Aspects of Housing', in Sills, David L. (ed.), *International Encyclopedia of the Social Sciences*, The Macmillan Co. and Free Press, Vol.6, pp. 516-521.

Mangin, William P.; Turner, John C., 1969, 'Benavides and the Barriada Movement', in Oliver, Paul (ed.), *Shelter and Society*, London: Cresset Press, pp. 127-136.

McGee, T.G., 1971, *The Urbanization Process in the Third World*, London: Bell.

Mitchell, J. Clyde, 1969a, 'Structural Plurality, Urbanization and Labour Circulation in Southern Rhodesia' in Jackson, J.A. (ed.), *Migration*, Cambridge: University Press, pp. 156-180.

Mitchell, J. Clyde, 1969b, 'Urbanization, Detribalization, Stabilization and Urban Commitment in Southern Africa, A Problem of Definition and Measurement: 1968', in Meadows, P.; Mizruchi, E. (eds.), *Urbanism, Urbanization and Change*, Reading, Mass.: Addison-Wesley, pp. 470-493.

Mitchell, J. Clyde, 1973, 'Distance, Transportation and Urban Involvement in Zambia', in Southall, A. (ed.), *Urban Anthropology*, London: Oxford University Press, pp. 287-314.

Mitchell, J.C.; Shaul, J.R.H., 1965, 'An Approach to the Measurement of Commitment to Urban Residence' in Snowball, G.J. (ed.), *Science and Medicine in Central Africa: Proceedings of the Central African Scientific and Medical Congress held at Lusaka 26-30 August 1963*, pp. 625-633.

Møller, Valerie, 1978, *Urban Commitment and Involvement among Black Rhodesians*, Centre for Applied Social Sciences, University of Natal, Durban.

Møller, Valerie; Schlemmer, Lawrence, 1977, *The Situation of African Migrant Workers in Durban, Brief Report on a Preliminary Survey Analysis*, Centre for Applied Social Sciences, University of Natal, Durban.

Morse, Richard M., 1969, 'Recent Research on Latin American Urbanization: A Selective Survey with Commentary', in Breese, G. (ed.), *The City in Newly Developing Countries: Readings on Urbanism and Urbanization*, Englewood Cliffs N.J.: Prentice-Hall, pp. 474-506.

Pahl, R.E., 1964, *Urbs in rure, the Metropolitan Fringe in Hertfordshire*, London School of Economics and Political Science, Geographic Papers No. 2.

Peil, Margaret, 1976, 'African Squatter Settlements: A Comparative Study', *Urban Studies*, Vol. 13, No.2, pp. 155-166.

Petersen, W., 1970, 'A General Typology of Migration', in Jansen C.J. (ed.), *Readings in the Sociology of Migration*, Oxford: Pergamom, pp. 49-68.

Price, Charles, 1964, 'Chain Migration and Immigrant Groups', *The Jewish Journal of Sociology*, 6, pp. 157-171.

Reader, D.H., 1963, 'Demographic Stabilization in the East London Locations, Cape Province', *South African Journal of Science*, 59, pp. 269-272.

Romanos, Aristidis G., 1969, 'Illegal Settlements in Athens', in Oliver, Paul (ed.), *Shelter and Society*, London: Cresset Press, pp. 137-155.

Rossi, Peter H., 1955, *Why Families Move, A Study in the Social Psychology of Urban Residential Mobility*, Glencoe, Ill.: The Free Press.

Schlemmer, Lawrence, 1976, 'Sociological and Cultural Perspectives on Migratory Labour' in *South Africa Today: A Good Host Country for Migrant Workers*, Agency for Industrial Mission, Horison, Transvaal.

Schlemmer, Lawrence; Stopforth, Peter, 1974, *Poverty, Family Patterns and Material Aspirations among Africans in a Border Industry Township*, Institute for Social Research, University of Natal, Durban.

Stopforth, P., 1976, *The Feasibility of a Black Community Health Centre Proposed for a Site at Macayama: An Interim Research Report from the Ongoing Study*, Centre for Applied Social Sciences, University of Natal, Durban.

Stopforth, P., in press, 'Changes in Household Structure from 1958 to 1972 in an African Peri-urban Area near Durban', in *ASSA Sociology Southern Africa 1975*.

Stopforth, Peter; Mack, Kathleen, forthcoming, *Socio-cultural Background and Household Nutrition among Africans in the Vicinity of 'The Valley Trust', Natal*, Centre for Applied Social Sciences, University of Natal, Durban.

Turner, John C., 1968, 'Housing Priorities, Settlement Patterns, and Urban Development in Modernizing Countries', *Journal of the American Institute of Planners*, 34, pp. 354-363.

Turner, John F.C., 1969, 'Uncontrolled Urban Settlement: Problems and Policies' in Breese, G. (ed.), *The City in Newly Developing Countries: Readings on Urbanism and Urbanization*, Englewood Cliffs, N.J.: Prentice-Hall, pp. 507-534.

Turner, John C., 1970, 'Barriers and Channels for Housing Development in Modernizing Countries' in Mangin, William (ed.), *Peasants in Cities*, Boston: Houghton Mifflin Co., pp. 1-19.

van Velsen, J., 1975, 'Urban Squatters: Problem or Solution' in Parkin, David (ed.), *Town and Country in Central and Eastern Africa*, London: Oxford University Press, pp. 294-307.

Watson, W., 1964, 'Social Mobility and Social Class in Industrial Communities' in Gluckman, M. (ed.), *Closed Systems and Open Minds*, Edinburgh/London: Oliver & Boyd, pp. 129-157.

Watts, H.L., 1974, *A Brief Housing Survey of the Township of Isipingo*, Institute for Social Research, University of Natal, Durban.

Wilson, Francis, 1972a, *Labour in the South African Gold Mines 1911-1969*, London: Cambridge University Press.

Wilson, Francis, 1972b, *Migrant Labour in South Africa*, Johannesburg: South African Council of Churches and SPRO-CAS.