PATTERNS OF LOW COST HOUSING

A Study of Attitudes and Values of Coloured Residents in the Heideveld Public Housing Estate, Cape Town.

A Thesis presented to the University of Cape Town for the degree of Master of Urban and Regional Planning.

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October, 1968.

VALUE SYSTEMS IN LOW COST HOUSING.

I N D E X.

SCHEDULE OF TABLES.

The following refer to findings of the Survey and are tabulated by sample group:-

SCHEDULE OF CHARTS AND DIAGRAMS

SECTION I.

INTRODUCTION.

1. Some basic characteristics of Housing.

1.0 Housing represents a form of consumer good with unique qualities. The wellbeing of the community, in terms of physical and mental health, economic welfare and emotional stability, is to a greater or lesser extent dependent upon the quality and quantity of shelter and upon the environment in which it is located.

1.1 Housing is costly and one of the Nation's largest capital investments. Housing is durable - the national stock of dwellings changes but slowly and the process of social change is more rapid, with ensuing conflict of values and attitudes. The current condition of rapid acceleration in the urbanisation of mankind must inevitably bring about a situation where future trends will hinge around solutions to problems related to mass housing.

1.2 It has been estimated that between the present time and the year 2000 it will be necessary to build 25 million dwellings each year if the World's population is to be housed.(1) The greater portion of this development will take place in the urban centres. In the South African context annual population growth between 1951 and 1960 is recorded as 2.62%, whereas the annual increase for cities above 400,000 population is 4.26% - a growth rate approaching double the national growth rate. It is estimated that during the last decade of this century - only 21 years hence - the housing of the increasing Coloured population of metropolitan Cape Town will necessitate the construction of some 15,000 dwelling units annually. At the present popular density rate of 7 houses per gross acre, this development would encompass an area of 35 square miles in that decade alone. Page E.1 shows the probable increase in Coloured population in the metropolitan area of Cape Town up to the year 2000, as compared with the growth of the Coloured population which, at the present time lives within area of jurisdiction of the Cape Town City Council.

1.3 South Africa has a well defined and comprehensive housing policy. The establishment of the National Housing and Planning Commission in terms of the Housing Amendment Act of 1944 paved the way to the evolution of systematic and firm guidance to local authorities and to a fiscal policy which has, over a period of 24 years, provided the capital necessary for mass housing on an unprecedented scale.

1.4 / .....

(1) D.M. CALDERWOOD: Principles of Mass Housing C.S.I.R. 1964. Page 11.

1.4 Working in conjunction with the National Building Research Institute, a pattern of housing standards was evolved(2) and these have virtually controlled the low cost housing scene in South Africa since 1951.

1.5 Adherence to these standards has led to a characteristic development form in most South African cities comprising a rapidly developing urban-rural fringe of low cost housing for the non-White population. This growth usually takes the form of sectoral development.

1.6 Considerable criticism has been heaped up against governmental policies of forced re-location of the non-White population on the fringe of the main urban centres. The attitude is widely held that this policy of forced re-location, coupled with planning of the new residential areas to standards laid down by the Central Government, has led to limited physical conditions and housing choice. It has also been postulated that there is insufficient social stimulation attached to present development forms and that the quality and type of facilities offered to the lower income Coloured category are not in conformity with community desires.

1.7 In this thesis an attempt is made to test these hypotheses by carrying out a detailed study in such a mass housing project in Cape Town.

2. RE-LOCATION FROM THE SLUM - SOME SOCIAL PROBLEMS.

2.1 The social consequences of forced re-location in mass housing projects are complex. The potential social benefits may manifest themselves in various ways. Forced residential shift may lead to increased satisfaction in some spheres to compensate for decreased kinship and friendship contacts, or there may be a decrease in problems such as delinquency, mental illness.(3)

2.2 / .....

(2) "A Guide to the Planning of Non-European Township": National Housing and Planning Commission, Pretoria, 1951. "Minimum Standards of Housing Accommodation for Non-Europeans": National Housing and Planning Commission, Pretoria, 1951.

(3) Marc Fried and Peggy Gleicher: "Some Sources of Residential Satisfaction in an Urban Slum". Journal of the American Institute of Planners Vol. 27 (1961) Page 315.

2.2 Merton[4] refers to the planned community in which the number, size, distribution and organisation of the units comprising the residential community are more or less a matter of plans rather than the casual by-product of uncontrolled acretions. This might be regarded as one of the fundamental differences between the slum and the planned housing project. The slum has emerged from the ecological patterns of the city, from the operation of the market place, from innumerable and unrelated decisions based on job opportunity, economic and social factors. The slum represents the end product of a long and involved social and economic process.

2.3 Professor Gillis[5] has spoken of the security associated with closeness in the densely populated slum, of the fixed association the poor tend to develop to their surroundings and of the depressive illness which can result from mourning the loss of old squalor.

2.4 Most people who move voluntarily, do so in order to get a house. In moving into a new housing project there must be some sort of feeling of misgiving in acquiring a new environment. There must be things about their old environment which they miss to a greater or lesser degree. Some possibly make friends more easily than others in new communities.[6] Some are not disturbed by the move and are quite unaffected.[7] Other social issues arise such as the imbalance in social structure usually found in newly planned communities. The problems encountered as the result of this imbalance are well known to sociologists. It is a problem of design, and more particularly, of management to obtain a better balance in population structure.

2.5 / .....

(4) R.K. Merton: "The Social Psychology of Housing" - edited by Wheaton, Milgram and Meyerson; The Free Press, New York, 1966, Page 28.

(5) Lecture at the Summer School on Urban Planning, University of Cape Town, 1968.

(6) W.H. Whyte: "The Organization Man": Jonathen Cape, London, 1957, Page 289.

(7) H.J. Gans: "The Levittowners", p.p. 225-241 and 255-259.

2.5 If the concept of the planned community is to respect social criteria, policies must be adopted that will enable the physical design to work. Social research on a continuing basis is then necessary so that the response of residents moving into the area can be studied, making possible a feed back to the design phase and to management.(8)

Community Design.

2.6 Accepting, for the moment, that planning for new communities is a valid social and economic community goal, analysis becomes necessary to determine how previous projects were planned, what physical and social relationship exist, to what extent can consumer reaction to the environment and to the amenities be measured and whether there is an emerging pattern from such analysis.(9)

The Physical Environment and its Social Significance.

2.7 The concept of livability is the most significant factor in environmental design. Chapin and Weiss(10) have defined livability as the sum total of the qualities of the urban environment which tend to induce in a citizen a state of wellbeing and satisfaction. In mass housing livability takes on a more restricted meaning. Severe limitations on cost become a necessity and individual preferences cannot but become subjective to the force of standardization in design(11).

2.8 Livability becomes a problem of efficient space utilization - space for privacy, space for the elimination of social friction.

The / .....

(8) Peter Willmott: "Social Research and New Communities", Journal of the American Institute of Planners, Vol. 33, No. 5, Page 396 (November 1967).

(9) David R. Godschalk: "Comparative new Community Design". Journal of the American Institute of Planners Vol. 33, No. 5, November 1967, Page 372.

(10) R.L. Wilson: "Livability in the City : Attitudes and Urban Development" edited by Chapin and Weiss : Wiley : Page 359.

(11) Irwing Rosow: "The Social Effects of the Physical Environment", Journal of the American Institute of Planners, 1961, Page 128.

The lower class groups basically want more space than is available at a price which they can afford. Whilst conceptions of privacy and space sufficiency differ considerably between social strata[12] there is evidence that satisfaction with housing is related to available space and dwelling size.

2.9 The gauging of expressions of opinion from a random sample of the population presents itself as a valid method of research. L.L. Thurstone[13] has shown that attitudes and social values held by a community can be effectively measured provided that the scientist can avoid injecting his own value judgments into what he is describing - he must distinguish between science and propaganda.

3. HISTORICAL BACKGROUND TO LOW COST HOUSING IN CAPE TOWN AND ITS INFLUENCE ON THE FORM OF THE CITY.

3.1 Historically, Cape Town has grown from the time of its establishment until recently in a semi-homogeneous manner. During the early part of the growth process, the Coloured Community appear to have settled in the perimeter areas of the town, and, as concentric (and later sectoral) growth took place, these settlements of Coloured people remained, encircled by the subsequent urban expansion. Evidence of this process has been visible at Mowbray, Newlands, Claremont and Sea Point. There appears to be little evidence of "invasion and succession" characteristics about these settlements - probably because surrounding properties did not change their function in the social filtering process in sufficiently large numbers, before the advent of the Group Areas Act. The process of invasion and succession appears to have taken place to a marked degree in the outer frame of the central business district, extending to Salt River and beyond. Social conflict has ensued and at the time of writing, the sectors radiating outwards from the C.B.D. have been zoned for White occupation as far afield as Kensington, Athlone and Wynberg.

3.2 / ....

(12) Ibid, Page 130

(13) I.L. Thurstone "The Measurement of Attitudes" : Chicargo University Press - 1929.

3.2 Over thirty years ago, the need for housing for the Coloured population was giving rise to concern, and the Cape Town City Council set about the provision of mass housing at Kew Town near Athlone. By 1948, when the National Party came into power, no less than 2,125 dwelling uints had been built by the Cape Town City Council in the predominantly Non-White areas of Athlone, thus setting the pattern of fringe development - a process to which the Group Areas Act later gave considerable impetus.

3.3 Planning of these housing estates has been rigidly controlled by the State. Stereotyped layout patterns, living conditions and physical environment has been the result. Planning standards have been set out in simplistic terms of three categories of land use - space within and around the dwelling unit, space for leisure, recreation and education and space for movement between these elements. Design can be defined as the spatial arrangement of these elements.

3.4 Whilst land use controls affecting the public interest have clearly been uppermost in the minds of those drafting planning standards, no attempt appears to have been made to relate these to social values, behaviour patterns, economic considerations or levels of acceptance and tolerance. Consideration has also not been given to the dynamic or evolutionary aspect of land use. The Western Cape Province stands today at the threshold of greater advances in the provision of mass housing than have taken place at any time in the past, and the need for more intensive research into this field has never been greater or more urgent.

SECTION 2 / .....

SECTION 2.

OBJECTIVES.

4.1 Introduction.

Vast sums of money are being spent annually on public housing. A seventh of the Republic's gross national product is expended in the building industry and something in the order of R20 million is devoted annually to low cost housing. The National Building Research Institute has carried out extensive research into housing, and the country's economy has derived inestimable benefit from this research in the shape of more efficient constructional methods, and in reduced waste from inefficient planning. Limited research has also been carried out to ascertain community desires of Coloureds in housing choice[14].

4.2 Population Movement and Social Change.

During the past four years, implementation of the Group Areas Act has been considerably stepped up in Cape Town. Rates of production of low cost housing by the various local authorities have increased, and movement of the Coloured population has been taking place at an unprecedented scale. Conflicting public statements are frequently made by protagonists and antagonists of Governmental policy in regard to the social and economic effects of these population movements. The reactions by the Coloured people to these matters do not appear to have been tested scientifically and evidence of their response to their new planned communities is lacking.

4.3 This study has been based around important but not necessarily inter-related questions:-

4.3.1 How do the Coloured people of Cape Town react to settling, as new communities, in housing estates?

4.3.2 What is their attitude to their new environment?

4.3.3 / .....

(14) H.L. Watts: "Survey of the Housing Requirements of Coloureds in Towns of the Western Cape Province". Research Report of the National Personnel Research Institute: 1962.

4.3.3 Is there evidence of social change?

4.3.4 How are these related to current planning standards?

4.3.5 Is it possible to achieve greater community satisfaction within the framework of existing cost structures and planning standards?

4.4 These issues are of more than academic interest to makers of community policy, whether they be politicians, public servants or professional planners. The planner is the specialist whose function it is to translate, to the best of his ability with the statistical material available, into reality the end product of the decision making process. It is clear that the Coloured community is being largely shaped by the decision of its governing bodies - at all three levels, the State, the Province and the local authority. This, briefly, resolves into one issue - the degree of adaptation to change possessed by the community.

5. SELECTION OF A STUDY AREA.

5.1 To carry out this study it was necessary to select a housing estate which complied with the following:-

5.1.1 constructed after 1964 - about the time when State pressure on the implementation of the Group Areas Act was stepped up;

5.1.2 reasonably large in size;

5.1.3 having sufficient variety in dwelling types and in environment to make it possible to assess any noticeable preferences.

5.2 The recently built Cape Town City Council housing Estate of Heideveld was selected as the most suitable for the purpose of the study. Designed in the Town Planning Branch of the City Engineer's Department in 1962, it formed a continuation to the programme of intensified building activity which had commenced earlier with the Bonteheuwel Estate.

5.3 Bonteheuwel had been planned in rigid adherence to the standards laid down by the National Housing and Planning Commission for low cost Non-White housing. During the construction of this estate, investigation within the City Engineer's Department were being undertaken with the

possibility / ....

possibility in view of building three-storey high walk-up flats at a cost such that these could be introduced into low cost housing estates without adversely affecting the financial structure of the project and with an increase in environmental choice and, of course, in gross density. These were built for the first time at Heideveld.

5.4 To widen the range still further, a five-roomed[15] detached economic dwelling type was introduced into Heideveld, initially accommodating one family in three rooms (with the bathroom and w.c.) and an additional family in two rooms (with a temporary shower recess and w.c.). The full range of residential accommodation provided in the township is scheduled on page F.1. and shown in plan form on pages E.10 and E.11.

5.5 The National Housing and Planning Commission approval of the Heideveld project was conditional upon 50% of the dwellings being made available for the re-settlement of families displaced in terms of the Group Areas Act. This allowed an opportunity of comparing the values of resettled families with those of families who had moved of their own violition. The project had been planned to cater for three housing categories:-

5.5.1 the sub-economic category, financed from National Housing Funds at an interest rate of ¾% with a 40 year redemption period. This subsidised housing was intended to cater for families where the income of the breadwinner was less than R50 per month.[16]

5.5.2 the economic category in single storey detached or semi-detached dwellings. These dwellings were intended for incomes between R50 and R180 per month and were not subsidised.

5.5.3 the economic category in two and three storey flats for the same income group as in 5.5.2.

Plot sizes were 2800 square feet per house, but many of the houses were occupied by two families on the "dual occupancy" basis. The actual ground available per family was thus in many instances in the order of 1400 square feet, inclusive of the dwelling coverage.

5.6 / ....

(15) The Kitchen is here counted as a room.

(16) The Housing Code of the Department of Community Development, Pretoria - 1964.

5.6 The township layout is shown on page E.12. Its planning can be largely ascribed to an ad hoc attempt in creating wider diversity of choice within the financial constraints. It represents an intuitive assessment by the planner of the pattern of development which the occupants would probably desire in the absence of statistical data of any relevance.

5.7 Heideveld in the Metropolitan context.

The estate lies on the Cape Flats, 10 miles from the central business district of Cape Town, and adjacent to a freeway linking the C.B.D. with Somerset West and the airport. Access to the freeway from Heideveld is available by way of an interchange at the edge of the estate. Excellent road access is also available to the Epping, Elsies River and Bellville South Industrial complexes. It is also served by an electrified railway service to Cape Town. This line was initially built to serve a large adjacent Bantu township and it is consequently used mainly by Bantu at present.

The terrain is flat and sandy. The land was formerly a dairy farm. The climate is cooler in summer than in the centre of Cape Town, and colder in winter.

6. HEIDEVELD AT THE TIME OF THE SURVEY.

6.1 At the time when the survey was undertaken, some three-storey blocks of flats were still under construction, and a group of single storey dwellings was in temporary use for constructional purposes - for the storage of building material and for works offices.

Occupied dwellings comprised:-

6.1.1 Sub-economic single storey

Semi-detached dwellings, two, three and four roomed: (Code numbers 0, 1 & 2)	675	675

6.1.2 / ....

6.1.2 Economic single storey

Detached single family dwellings, five roomed: (Code No. 6)	105	
Detached temporarily composite dwellings:		
two roomed: (Code No. 3)	311	
three roomed: (Code No. 4)	311	
Semi-detached single family dwellings, four roomed: (Code No. 5)	492	1219

6.1.3 Economic three storey flats

14 blocks each comprising 48 flats 3 roomed and 4 roomed: (Code Nos. 9 to 14 inclusive)	672	672

6.1.4 Economic two storey flats

10 blocks each comprising 4 4 roomed flats: (Code Nos. 7 and 8)	40	40
		3606

The code numbers above are shown on page D.1.

SECTION 3. / ....

Aerial view of Heideveld showing the three storey flats in the centre of the picture with the economic single storey section beyond.

Aerial view showing the sub-economic section of Heideveld with the railway station on extreme left.

SECTION 3 - THE SURVEY.

7. INTRODUCTION.

7.1 The primary intention of the survey was, through a process of interviews with samples representative of the three main groups, to:-

(a) explore some of the factors contributary to satisfaction in urban living;

(b) measure the conditions under which they were living in Heideveld; and

(c) to try and arrive at some conclusions as to what sort of environment the people desired.

7.2 The information was gathered from interviews in 105 households. Time duration of interviews varied between thirty minutes to an hour, depending upon the degree of intelligence of the respondents. In some cases the going was heavy, in other cases there was no difficulty in getting respondents to give valid answers and to think over the problems posed in a logical manner.

8. STRATIFICATION OF THE SAMPLE.

8.1 It was considered that differences in the opinions of respondents regarding environmental preferences might be found from the three main groups listed in paragraphs 5.5 and 6.1. The sample was accordingly stratified into these groups, the number of respondents in each being equalised at 35.

8.2 / ....

8.2 The sample, as stratified, was thus:-

	Sample size	Number of families in the universe	Ratio of the sample to the universe
Sample Group A.			
Families in single storey semi-detached dwellings with subsidized rentals	35	675	5.18%
Sample Group B.			
Families in single storey dwellings with fully economic rentals	35	1219	2.88%
Sample Group C.			
Families in three storey flats with fully economic rentals	35	672	5.23%
TOTAL	105	2566	4.08%

Forty families living in double storey blocks of flats were disregarded for the purposes of the survey.

8.3 The random sample is believed to have been reasonably representative of the population. The sample size was small in relation to the population, and this has been viewed with a degree of misgiving. However, taking account of the fact that each respondent required up to an hour of interviewing time, and also that much of the material to be gathered was not expected to follow a normal distribution function, the sample size as shown above was finally adopted. The individual dwelling was used as the sampling unit. Tables of random numbers were used to draw cases.

8.4 Accuracy of the Data.

With such small samples, accuracy is low. The objectives of the survey are of sufficient importance to warrant a more comprehensive survey, covering a wider universe. This has not been possible in the limited context of this thesis, but an attempt may be made at a later date to carry out such a project on a wider scale, using the present study as a pilot survey. Notwithstanding the

small / .....

small sample size, there is evidence of a remarkable degree of uniformity in the results, and their validity cannot be entirely discounted. Percentages are not generally indicated in the data, to avoid misunderstanding about accuracy.

8.5 Non response and bias.

In 5% of the cases, no response could be obtained even after three visits. Repeat visits at weekends in the case of working housewives reduced possibility of bias to a considerable extent. Some bias may be expected in expression of satisfaction with existing environment due to the possibility that some respondents may have wished to "please" the interviewer. Most of the interviewing was carried out by a qualified and experienced interviewer who was able to establish excellent rapport. Bias may consequently be less than anticipated.

9. INTERVIEW TECHNIQUE.

9.1 The questionnaire, reproduced in Section F, consisted of several distinct parts. The first, a series of oral questions, dealt with family structure, income, present and previous living conditions and various factors such as place of work, mode of travel to work and shopping traits.

9.2 The second part commenced with the display of eight perspective sketches, each representing a different suburban environment more or less familiar to respondents. These are shown on annexure F.12. Respondents were requested to grade these eight pictures in order of their preference, completely disregarding their financial ability (or inability) to live in any of the dwellings indicated.

9.3 This was followed by the introduction of a chart showing the monthly "rental" of each environment, as well as the monthly "cost" of living at varying time-distances from the primary and secondary schools, the church, the grocery shop, the shopping centre, the bus stop and railway station and place of work. (Page F.8).

9.4 / ....

9.4 The "costs" were based on the utility which it was anticipated would be derived from the various environments. Thus a block of four storey flats (picture T in annexure F.12) was shown to be somewhat cheaper than low cost single storey dwellings (picture S). The "costs", also had a strong bearing on density, so that, for example, a respondent choosing the "cheapest" environment, i.e. four storey flats, would find that he could afford to have his schools, shops, transport and place of work nearer to him at no higher overall cost.

9.5 Respondents were given cardboard money to the value of R40 to spend on this game. It was thus possible to record respondents' preparedness to settle for an environment ranking lower than that chosen in the first section of the interview in order to buy convenience.

9.6 The last part of this section of the interview took the form of showing the respondent a picture of a busy downtown scene (annexure F.11) with the request that he indicate:-

(a) Whether he preferred this environment to any of the four suburban single dwelling scenes in annexure F.12, regardless of cost.

(b) Whether, if forced to live in a flat, he would prefer the downtown to the suburban environment to any of the four flat scenes in F.12.

9.7 The third and last part of the interview consisted of a further game[17] to estimate the relative importance to respondents of various utilities and services (pages F.9 and F.10).

GENERALISED / ....

17. Based largely on "Livability of the City : Attitudes and Urban Development" by Robert L. Wilson. In Urban Growth Dynamics, Edited by F. Stuart Chapin and Shirley F. Weiss.

Street Scene in the
Sub-Economic Section
of Heideveld -
Sample Group A.

Front view of an Economic dual occupancy dwelling in Heideveld - Sample Group B.

The photograph shows the full extent of garden space available to this household.

Three storey flats
in Heideveld -
Sample Group C.

GENERALISED SUMMARY OF THE STATISTICAL DATA RECORDED FROM THE HOME INTERVIEWS.

10. CHARACTERISTICS OF RESPONDENTS.

10.1 The 105 respondents interviewed ranged in age from 17 up to 74 years. 3 were 65 and over, 15 were in the 45 to 64 range, 28 were from 35 to 44, and 46 were between 25 and 34. The remaining 13 were 24 years of age or less.

10.2 78% of the total sample lived in households made up of a basic family unit consisting of husband and wife and their never married children (own or adopted) - see table 3, page D.2.

9.3 Family income of the respondents varied between the strata, since economic considerations were one basis upon which strata were selected. (See table 7 page D.3).

11. HOUSEHOLD SIZE.

11.1 Group A was found to have the largest mean household size (6.25 persons per household) and Group B the smallest (5.71 persons per household). The high density Group C showed a mean of 5.97 persons per household. Of the 105 families investigated, two comprised 13 persons and 4 comprised 2 persons - these being the largest and smallest families encountered respectively.

Table 2, page D.1, shows the distribution of household size. The whole sample gives a value σ of 1.954 with a standard error of

$$\frac{\sigma}{\sqrt{n}} = \frac{1.954}{10.24} = 0.1908$$

Mean household size is 6.20.

Thus with 95% accuracy the average household size lies between 5.82 and 6.58 persons.

The average number of Coloured persons per house in the Cape Province as reflected in the 1960 census was 6.3 occupants. The occupancy rate measured in the survey compares favourably and appears acceptable in accuracy.

11.2 / .....

11.2 Family structure.

The survey revealed that the majority of families consist of mother, father and children, as might be expected in a housing scheme such as Heideveld. Details of the distribution of family structure are shown on Table 3, page D.2.

11.3 Age Distribution.

The sample embraced 628 persons, their age distribution by sex and group being set out in Table 14, page D.6.

Comparison with the age distribution of the Coloured people in the metropolitan area of Cape Town as recorded in the 1960 census shows marked differences in the distribution by age. Diagram E.2 which makes such a comparison, shows that in Heideveld:-

11.3.1 the number of children below the age of 10 is well above average;

11.3.2 the number of people between 20 and 24 years of age is below average;

11.3.3 the number of people between 25 and 29 years of age is above average;

11.3.4 generally, there is a below average number of persons over the age of 45.

The official explanation for 11.3.2 above has been given that preference is alloted to large families. Parents in the 20 - 24 year age group tend to have smaller families and thus become excluded.

12. COMPARISON OF AGE DISTRIBUTION WITH A MORE SETTLED COMMUNITY.

12.1 The large variations in percentage population distribution between the metropolitan figures and those observed at Heideveld prompted a sample survey to be made of age distribution in a more established community - one which had been in existence for at least 15 years. Kew Town, built between 1941 and 1945, was chosen, and a 10% random sample was extracted from the estate office's records which fortuitously had just been brought up to date by home interviews. The sample comprised 130 families out of a population of 1,280 families. The number of persons in the sample amounted to 441 males and 466 females,

giving / ....

giving a mean household size of 6.05 persons. Whilst this shows a close comparison with the mean household size at Heideveld, the population distribution by age, shown in Diagram E.3, and on table 16, page D.7, indicates that a considerable drop in birth rate has probably taken place over the past 10 years.

12.2 Age distribution in Coloured housing projects appears to follow the trend of new towns in the United Kingdom. Further reference will be made to this aspect later in the thesis.

12.3 Mean household size is remarkably constant in approximately 6 persons. The 1960 census for the 01 census district reflects 6.3 persons per household. H.L. Watts,(18) in his sample survey of Paarl, Wellington, Stellenbosch and Somerset West found that the mean household size to be 6.0, while both Heideveld and Kew Town reflect the same figure.

13. AGE DISTRIBUTION OF MARRIED, WIDOWED AND DIVORCED PERSONS.

13.1 These are set out in Table 15, page D.6 and graphically on page E.4.

Professor Muller, in his research at Bellville South, studied the age distribution of heads of households. Direct comparison with the Heideveld Survey is thus not truly valid, but is, nevertheless, of interest

Age Grouping	Distribution of Heads of households and Spouse (Heideveld)	Distribution of Heads of households only (Bellville South)
	%	%
Under 20	0	0.4
20 - 29	36	19.4
30 - 39	34	29.4
40 - 49	18	20.3
50 - 59	8	16.6
60 - 69	3	9.9
70 and over	1	4.1
TOTALS	100	100.0

13.2 / ....

(18) H.L. Watts: "Survey of the Housing Requirements of the Coloureds in Towns of the Western Cape Province". National Personnel Research Institute, 1962.

13.2 The high ratio of parents of child-productivity age (say from 20 - 49) in a housing scheme (approximately 882 in Heideveld) compared with a settled community such as Bellville South (approximately 69%) is indicative of the abnormally high birth rate which can be expected in Heideveld for at least a decade.

14. PREVIOUS ENVIRONMENT.

14.1 The survey incorporated a section to ascertain in broad outline the type of environment which respondents vacated on moving to Heideveld. It was held that there might be a relationship between previous living conditions and attitude towards the environment. Questions 8, 9 and 10 of the survey were accordingly introduced in order to ascertain where the people had lived before, the type of accommodation they had occupied and the number of families with whom they had shared this accommodation. The findings from these questions are recorded in table 8 on page D.3 and tables 9 and 10 on page D.4.

14.2 After completion of the interviews of sample group A (the sub-economic group) question No. 53 was introduced to gauge respondents' reaction to comparisons in livability between the old and new environments. This question was put in the following way:-

"How do your present living conditions compare with those where you lived before you moved to Heideveld"

Much worse;
Worse;
Equal;
Better; or
Much Better.

These results are tabulated on page D.14, Table 31.

Over a half of the respondents regarded their new living conditions as "Much Better". Only 7 out of the 70 respondents expressed the opinion that the new living conditions were worse or much worse.

14.3 / ....

14.3 Of the 105 respondents, the largest proportion (29) had moved to Heideveld from various parts of the Cape Flats, basically from within a radius of a few miles. These families were voluntary movers who had been unaffected by the Group Areas Act. The second largest proportion (25) had moved from the Observatory to Claremont section of the southern suburbs, followed by 13 families who had moved from the Wynberg - Retreat area. These 38 families had been re-housed in terms of the Group Areas Act, and comparisons were accordingly made between them and the 29 families from the Cape Flats.

15. ANALYSIS OF RESETTLED OR "GROUP AREAS" FAMILIES.

Analysis of the 38 "Group Areas" families which previously lived in the southern suburbs between Observatory and Retreat, showed the following information:-

15.1 Previous accommodation (Questions 9 and 10)

A shack shared with one other family	2
A brick detached house -	
(a) shared with no other family	17
(b) shared with one other family	9
(c) shared with two other families	7
Tenement building	3
	38

15.2 Comparison between livability of present and previous environment. (Question 53)

		Proportional Distribution
Much worse	2	0.08
Worse	3	0.11
Equal	7	0.29
Better	4	0.17
Much better	11	0.45
	24	1.00

(NOTE: This question was not applied to Group A.)

15.3 / .....

15.3 Principal aspects of dissatisfaction (question 30) with the neighbourhood were:-

Inconvenient public transport;
Not enough shopping facilities;
Not enough parks.

Complaints regarding the area as being the wrong place to bring up children, lack of sports fields, noise, too crowded, and lack of job opportunity aroused very little response. No complaints at all were raised against schooling facilities or standard of municipal services.

16. ANALYSIS OF "NON" GROUP AREAS FAMILIES.

A similar analysis of 28 families from the Cape Flats area who had moved to Heideveld of their own accord showed the following:-

16.1 Previous accommodation (Questions 9 and 10).

A shack -	
(a) shared with no other family	6
(b) shared with one other family	1
A brick detached house -	
(a) shared with no other family	6
(b) shared with one other family	8
(c) shared with two other families	5
(d) shared with four other families	1
(e) shared with five other families	1
	28

16.2 / .....

16.2 Comparison between livability of present with previous accommodation. (Question 53).

		Proportional Distribution
Much worse	0	0
Worse	4	0.21
Equal	5	0.26
Better	10	0.53
Much better	0	0
	19	1.00

(NOTE: This question was not applied to sample group A.)

16.3 Principal aspects of dissatisfaction (Question 30) with the neighbourhood were:-

Not enough shopping facilities;

Not enough parks;

Inconvenient public transport;

Too crowded.

No complaints at all were raised against schooling facilities, standard of municipal services or that the area was not a desirable place to bring up children.

17. FURTHER COMPARISONS.

The attitudes expressed by the two groups about room sizes, number of rooms, garden space and their attitude towards a suburban environment are shown in the following tables:-

17.1 / .....

17.1 Attitude to room sizes.

	Re-settled families	Voluntary moving families	Total
Too small	16	18	34
About right	22	10	32
TOTALS	38	28	66

(χ^2 = 2.36) P = 0.15

17.2 Attitude to number of rooms.

	Re-settled families	Voluntary moving families	Total
Too few	21	22	43
Enough	17	6	23
TOTALS	38	28	66

(χ^2 = 2.80) P = 0.1

17.3 Attitude to garden space.

	Re-settled families	Voluntary moving families	Total
Much too small	2	1	3
Too small	4	1	5
Just right	20	14	34
Too much	2	1	3
Far too much	1	0	1
TOTALS	29	17	46
Not applicable (tenants in flats)	9	11	20
TOTALS	38	28	66

(χ^2 = 1.47) P = 0.25)

17.4 / ....

17.4 Attitude to Urbanity.

	Re-settled families	Voluntary moving families	Total
Desire for a central city environment	5	5	10
Desire for a suburban environment	33	23	56
TOTALS	38	28	66

($\chi^2 = .032$)

17.5 The analysis indicates that:-

17.5.1 The families who have moved voluntarily show greater dissatisfaction with room sizes and the number of rooms than do the Group Areas families, notwithstanding the fact that there is no significant difference in mean family size (6.10 and 6.17 persons respectively);

17.5.2 there is no significant difference in attitude towards garden space;

17.5.3 there is no significant difference in overall attitude to livability of present and previous environment. In each case approximately 25% express dissatisfaction, 25% neutrality and 50% satisfaction with the new environment;

17.5.4 there is no significant difference between the two groups in attitude towards urbanity;

17.5.5 the Group Areas families miss the better transport facilities which are available in their former residential areas.

17.6 The foregoing analyses have been carried out on the basis of comparison between two small groups of families, each group having a specific common interest in, or attitude to Heideveld. Tables 8, 9 and 10, pages D.12 - D.14, show similar statistical data separated into the three stratified sample groups. These are dealt with later.

18. / ....

18. ANALYSIS OF PRESENT ACCOMMODATION AND SPACE PROVISION.

18.1 The range of residential accommodation available in Heideveld and the distribution of the sample, by group, within this range, is shown in Table 1, page D.1. The diagrams on pages E.10 and E.11 show the range of accommodation which is in conformity with the minimum standards of residential accommodation laid down by the National Housing and Planning Commission for prescribed family sizes.(19)

18.2 Minimum Spatial Standards.

Minimum net floor areas, including the kitchen but excluding lobbys and bathrooms, have been set out in these standards as follows:-

Family size (persons)	Net floor area (sq.feet)	Ratio of net floor area per person (sq.feet)
2	180	90
2-3	188	62-90
4-5	313	63-78
6-7	422	60-70
8-9	531	59-67
10-11	640	58-64

In these standards a child of less than 1 year of age is not taken into account. The Slums Act(20) lays down a minimum floor area of 40 square feet per person 10 years of age and over, and 20 sq.ft. for each child under the age of 10.

18.3 The net floor area of residential accommodation for each of the three groups forming the survey is compared with the population as follows:-

Sample A / .....

(19) "Minimum Standards of Housing Accommodation for Non-Europeans" published by the National Housing & Planning Commission, Pretoria : 1951.

(20) Slums Act No. 53 of 1934 as amended by Act No. 24 of 1937.

	Total Net floor area (sq.ft.)	Number of persons	Average floor area per person (sq.ft.)
Sample Group A	11,061	218	50.7
Sample Group B	12,454	200	62.2
Sample Group C	12,884	209	61.6
TOTALS	36,399	627	58.0

Babies aged less than one year are included in these figures, as the questionnaire did not take separate account of these. Comparison with the minimum standards is not, therefore, absolute.

19. OVERCROWDING.

19.1 H.L. Watts has shown[21] that overcrowding cannot be defined with simplicity, and that the range of occupancy density, considered as overcrowding, depends on the cut off points chosen. This has varied in space and time. Watts has investigated overcrowding in a number of ways:-

19.1.1 Overcrowding in terms of number of rooms:
44% of his sample had less than the minimum recommended number of bedrooms and living rooms in terms of the National Housing minimum standards.

19.1.2 Overcrowding in terms of persons per bedroom:
61% of the houses in his survey were overcrowded by this standard.

19.1.3 Overcrowding in terms of floor area as defined in the National Housing standards:
53% of his sample was overcrowded by this criterion.

The present study of Heideveld shows, by this yardstick, some 32% of the houses to be overcrowded.

19.1.4 / .....

(21) H.L. Watts: "Survey of the Housing Requirements of the Coloureds in Towns of the Western Cape Province". National Personnel Research Institute, 1962.

19.1.4 Overcrowding in terms of the Slums Act:
Watts found that 46% of the households in his survey failed to comply with this standard. In Heideveld, 19 of the 105 dwellings investigated did not conform to the Slums Act.

19.2 Measurement of the degree of overcrowding in Heideveld has not been investigated in as detailed a fashion as that carried out by Watts. The probable existence of overcrowding at Heideveld was known before the survey was started, and measurement of the exact extent of that overcrowding will serve no specific purpose in this thesis. The important aspect here, perhaps, lies in the basic differences between the surveys. That carried out by Watts embraced all the strata of Coloureds in the Western Cape towns, and included blighted areas, whereas that of Heideveld is confined to a newly developed, planned community - a social group formed out of families who have either applied for dwellings in order to improve their living conditions, or who have been rehoused after displacement by the Group Areas Act.

19.3 Low cost housing schemes are being planned, as far as land use is concerned, in strict conformity with the standard requirements of the Governmental authorities,(22) and planning agencies are subject to considerable pressure in ensuring that these standards are in no way relaxed. It is disturbing to note that the capital land costs of adherence to these spatial standards is being borne by the residents from rentals, on the one hand, whilst on the other hand, rent paying capacity is frequently so low that overcrowding in terms of dwelling floor space apparently becomes unavoidable.

19.4 Overcrowding and dissatisfaction.

The survey attempted to measure the degree of satisfaction and dissatisfaction with residential space, by relating family size with expressions of opinion about the size and number of rooms provided. The degree of satisfaction and dissatisfaction recorded is set out in

Tables / ....

(22) "A Guide to the Planning of Non-European Townships" National Housing & Planning Commission, Pretoria: 1951.
"Manual of Standard Requirements for Master Plans and Township Layouts for Indian and Coloured Communities" Department of Community Development: 1967.

Tables 26 and 27 on Page D.12 and in graphical form on Page E.6. It must be noted that the flat dwellers in Group C show proportionally a greater degree of satisfaction with room sizes than do Groups A and B In Table 25, Page D.11, the maximum, minimum and mean recordings of persons per house, persons per room and net floor area per person are set out, grouped both by dwelling type and by expression of either satisfaction or dissatisfaction. Inspection of column 13 of this Table shows that expression of satisfaction seldom occurs when the ratio of floor area per person is less than the National Housing minimum standards. Relationship between satisfaction and current housing standards of dwelling space appears to warrant further research.

19.5 Summary of satisfaction and space.

The following table briefly analyses the relationship between satisfaction or dissatisfaction with living space and compliance or otherwise with accepted standards of net floor space per capita. This table takes no account of ratios of persons per room.

	Satisfied families	Dissatisfied families	Total
Dwellings which comply with floor space standards of National Housing Commission and the Slums Act	25	27	52
Dwellings which comply with floor space standards of the Slums Act but not with those of the National Housing Commission	11	23	34
Dwellings which do not comply with space standards of either the Slums Act or of the National Housing Commission	1	18	19
TOTALS	37	68	105

19.6 / ....

19.6 Professor H. Muller[23] found that of 1,190 Coloured households investigated in Bellville South, only 300 expressed dissatisfaction with the adequacy of accommodation. Heideveld thus shows a disturbingly high degree of dissatisfaction in this respect.

19.7 The recommendations contained in the Parker Morris Report[24] are not strictly relevant to the pattern of low cost housing in South Africa designed for the lower working class group. These are quoted, however, for comparison, as follows:-

Single storey houses.

Persons	Net floor area (sq.ft.)	Ratio of floor area per person (sq.ft.)
6	900	150
5	810	162
4	720	180
3	610	203
2	480	240
1	320	320

In comparing these figures it should be emphasised that the Parker Morris standards include area taken up by internal walls, lobbys, w.c.'s and bathrooms. The National Housing Standards and provisions under the Slums Act are net.

20. / .....

(23) Professor Helgard Muller: Ondersoek na die Socio-bedryfsekonomiese posisie van die Kleurlinge woonagtig in Bellville-suid: Research Report: University College of the Western Cape: 1968.

(24) "Homes for Today & Tomorrow", Ministry of Housing and Local Government, H.M.S.O. London: 1961.

20. RURAL-URBAN RELATIONSHIPS.

20.1 The survey shows a high degree of urbanization amongst the population of Heideveld and that this is fairly evenly divided between sexes and between the sample groups. Tables 19 and 20 on pages D.8 and D.9 show this breakdown, which is summarised as follows:-

	Heideveld	Bellville South *
Born in Cape Town	70%	62.4%
Born elsewhere in a town	10%	24.8%
Born in rural conditions	20%	12.8%
	100%	100.0%

* Source: Professor Helgard Muller.

Period of residence in urban conditions.

More than 15 years	95.0%
12 to 14 years	1.4%
9 to 11 years	1.4%
6 to 8 years	1.4%
3 to 5 years	0.8%
Less than 3 years	NIL
	100.0%

Only two families in the survey had moved to Heideveld from rural areas (Table 8, page D.3).

20.2 Certain residential qualifications have been in force in the allocation of dwellings in Council housing estates and the above figures do not, therefore, reflect the rural-urban relationship of the Coloured population of Cape Town. These figures are rather significant in regard to the attitude of the sample to "downtown" living, dealt with in Section 29.3 and 29.4.

20.3 No visible distinction was observed in attitude or values between respondents of urban and rural origins.

20.4 / ....

20.4 Elimination of Rural-Urban Distinctions.

Halpern[25] has shown that in the modern political state distinctions between urban and rural life are being eliminated. The traditional pre-industrial village has ceased to exist in our society and we can really no longer think in terms of rural to urban transition. We are required to think in terms of changing rural and urban contexts.[26]

20.5 In this era of mass communication - and mass society - the folk society has given way to a matter of shared common goals, activities, aspirations and satisfactions and the relatively small number of migrants from a truly rural environment appears to be easily assimilated. Urbanism as a way of life is not confined to cities; the villager, today, is probably as urbanised in his behaviour and thinking as is his metropolitan counterpart.

20.6 The process of learning to live collectively has reached an advanced state amongst the Coloured people. Innovations are received with caution and this is understandable.

20.7 The phenomena of mass communication in an urban context is also related to J.M. Halpern's writings. Although Heideveld caters primarily for the low income category of the Coloured population, evidence of social change is apparent in the high proportion of expensive radios, refrigerators, washing machines and other allied housekeeping aids. The effect of mass advertising is clear. As income and level of living rises, a change in living standards can be anticipated. In circumstances such as these the question arises as to thelong term effect of low cost, austere housing on the population. Future generations will acquire skills and educational levels higher than those of their parents; ensuing social change will alter tastes and values such that residential accommodation now being provided may prove unacceptable to the community before the life of the product has expired. A case exists for the design of low cost housing to be based on the premise that its quality will be improved over time.

21. / ....

(25) The Changing Village Community
Joel M. Halpern - Prentice Hall - Page 2.

(26) Ibid, Page 43.

21. OCCUPATION AND LEVEL OF EDUCATION.

21.1 Distribution of occupations is shown in Table 18 and level of education in Table 22. Distribution of level of education by sex and by economic status is shown on page E.5, where differences in level of education between the economic strata is clearly shown. A marked trend is also shown of the tendency for female education to cease at Standard 6. Professor Muller found that 23% of the Coloured people in Bellville South had passed Standard 6. At Heideveld, 41% had reached Standard 6.

21.2 Employment opportunity for the lower economic strata is mainly restricted to unskilled labour, whilst the largest employment group amongst the higher economic strata is that of skilled labour. The community is in general of the labouring class with a very low proportion of white collar and skilled workers.

21.3 Of the 142 women over 15 years of age, 122 or 86% were not economically active. This high figure is explained by the large family sizes and the population imbalance indicated on page E.2. In contrast, H.L. Watts found that only 64% of the Coloured women in Paarl, Wellington, Stellenbosch and Somerset West were not gainfully employed. The figure for Heideveld is probably subject to bias through non-response.

21.4 Peer group formation amongst the female population appeared strong - a sociological factor which appears to receive scant attention from associations.

22. LEISURE AND RECREATION.

22.1 Leisure has been defined by Anderson[27] as time which one may use as he wishes and such time need not yield a product. He adds that this does not necessarily turn out to be true, for although leisure time is not obligated for work, other obligations may be equally exacting. "Weekend activities" of the Heideveld housewives revaled that some 59% spent their weekends on housework. This tends to confirm Mr. Anderson's observations.

22.2 / ....

(27) Nels Anderson: "The Urban Community": Routledge and Kegan Paul - Page 349.

22.2 Observation of the township during weekends revealed that the weekend activities of the men as quoted by respondents was probably correct. The male population seemed to be singularly inactive. Peer group formation was evident in the 3-storey flats, and gambling was possibly a popular weekend activity not reflected in the returns. There was no evidence of the formation of juvenile gangs at this early stage of the estate's development. The pattern of weekend leisure differed between the flatted and the dwelling areas. Special consideration in the physical planning of high density development must clearly be devoted to recreation and leisure activities.

22.3 Standards of open space.

Open space for out-door recreation is a major component of land use. In medium density development it can consume as much as 30% of the gross area. The Department of Community Development requires at least 0.6 morgen (1.3 acres) per 1,000 population for sports fields and a similar extent for playlots, parks and other open space.

22.4 Analysis of the surveys suggests that:-

22.4.1 1,000 persons in Heideveld, at the present time, would reflect approximately 240 children of school-going age and approximately 120 persons beyond school-going age but less than 25 years old.

22.4.2 1,000 persons in Kewtown, at the present time, would reflect approximately 300 children of school-going age and some 200 persons beyond school-going age but less than 25 years old.

Population distribution by age, shows that a large drop in numbers of school children at Kewtown can be expected during the next five years. This phenomenon has not yet manifested itself on the schools.

22.5 Provision of land for sports fields would, therefore, appear to cater for some 200 persons per 1.3 acres, or 155 persons per acre in an established community. At Heideveld, 11 persons over 15 years of age in a sample of 628* persons engaged in active sport, (1.8% of the population). Therefore, within the context of the present socio-economic structure, open space for sports fields would in fact be serving / ...

* See Table 17, page D.7.

serving only 18 persons per acre - a seemingly high price to pay for organised sport. Professor Muller found that 7.2% of the Bellville South population took an active part in sport.

23. STANDARDS FOR SCHOOLS.

Based on a rate of 300 children of school-going age per 1,000 population and on the accepted standard of one primary school to every 3,000 persons, and a secondary school for every 7,500 persons, a community of 15,000 inhabitants would be provided with two secondary and 5 primary schools to cater for 4,500 children - something in the order of 600 children per primary school and 750 children per secondary school. The space standards for schools can accordingly be accepted as realistic if there were compulsory education for Coloureds.

24. COMBINATION OF LAND USE FOR SCHOOLS AND OPEN SPACE.

The present system of complete separation of land use for schools and public open space is extravagant when viewed in the light of the low incomes of the people housed. The use of public fields by the schools on weekdays would be to the benefit of the community.

25. PLACE OF WORK AND MODE OF TRAVEL.

25.1 108 males in the 105 households comprising the sample were economically active. Their places of employment and mode of travel to work are reflected in Tables 22 and 23, pages D.9 and D.10. It is worth noting that 5% were sufficiently close to their place of employment to be able to walk to work, whilst in Bellville South Professor Muller found that 38.7% were within walking distance of their place of employment.

25.2 Sample Group A was situated within 10 minutes' walk from the railway station and 23 of the 33 respondents commuted by train. Sample Groups B and C stretched in distance from the station by from ¼ to 1½ miles and only 13 out of 76 respondents travelled by train. 32 of the 76 used bus transport, the route of which passed through the estate and thence to Athlone. Bus fares are higher than train fares for corresponding journeys.

25.3 / ....

25.3 Heideveld station also served a large part of the Guguletu Bantu Township, and there may be a social stigma amongst the higher income sector to the sharing of the train service with Bantu on an unsegregated basis.

25.4 Traffic generated.

Heideveld generates little motor traffic. Less than 5% travel to work by car and car ownership, shown in Table 5, page D.2 amounts to only 10 cars per 628 persons or 16 cars per 1000 population. The Township, therefore, has a probability of some 255 cars with approximately 155 cars leaving and returning in the morning and evening peaks. Car ownership in Heideveld compares well with the following extract from paper S3/P1 of the National Congress on concrete roads, February 1966, by Professor C. Verburgh:-

Year	Vehicles per 1000 population in South Africa	
	White	Non-White
1960	225 - 325	5 - 17
1980	400	45

26. EMPLOYMENT.

The sample shows a wide range of employment localities. 22% were employed in the central city area, and an unexpectedly high ratio of 18% was found to be employed in the area extending from Mowbray to Claremont. This prompted the following analysis:-

26.1 Employed between Mowbray and Claremont -

1	Policeman
2	Craftsmen
3	Transport workers
3	Administrative
1	Sales Worker
3	Labourers
3	Service workers
1	Factory worker
1	Clerical work
18	

26.2 / .....

26.2 Employed in the central city area -

4	Labourers
4	Service workers
3	Clerks
5	Craftsmen
2	Transport workers
1	Sales worker
2	Administrative worker
1	Quarry worker
22	

There accordingly appears to be no significant difference in the type of job opportunities between the central city and the suburbs as far as the low income group is concerned, notwithstanding the fact that the central city area was the major source of employment in the sample.

THE SECOND SECTION OF THE INTERVIEW.

27. UNQUALIFIED CHOICE OF ENVIRONMENT.

27.1 In paragraph 9.2 on page 14, reference was made to the display of eight pictures with the request that respondents place these in order of preference. This section of the interview consisted of an attempt to gauge attitude to differing environs. It was anticipated that people with a low standard of education, accompanied possibly with low intelligence, would have difficulty in projecting themselves into a different environment and carewas accordingly exercised in choice of scenes with which the respondents would probably be familiar. Each picture, for the interview survey was drawn to foolscap size so that the whole array was about the size of a dining room table. The scenes were shown in a mixed order, to obviate any bias in selection.

27.2 / .....

27.2 The scenes shown in annexure F.12, were as follows:-

"R" Three storey flats, largely situated in off-street positions, with pedestrian access from the nearest street to each flat. The flats shown in the picture are essentially similar to those in Heideveld, occupied by sample group C of the survey.

"S" Single storey, low cost detached and semi-detached dwellings, abutting a fairly wide road reserve which contains a carriageway of medium width. No sidewalks are indicated. Front gardens are small and individually fenced. The general impression of the scene is that of low cost, single storey urban sprawl, in a maze of streets which might be considered monotonous and drab to the upper social strata. The houses were intended to give a clear impression of the type of dwelling built in accordance with National Housing standards. All of sample group A and most of sample group B reside in this type of environment.

"T" Four storey flats in large blocks, abutting hardened roads and paved sidewalks. The type of scene if rather typical of the Council's flats in Constitution Street, District Six, but in a setting of lower density.

"U" Two storey flats in small blocks comprising four flats each. The flats are shown with a street frontage and blocks are individually fenced. This form of construction is in progress in the neighbouring Manenberg housing scheme and most of the residents in Heideveld are familiar with it.

"V" / .....

"V" Two storey flats, similar to those in "U" but fronting on to a pedestrian enclave with vehicular access points nearby. This development form is also in progress at Manenberg, but it was found necessary to explain it to respondents.

"W" & "X" It was decided to include in the examples of the Malay Quarter type of environment. Picture "W" showed dwellings essentially similar to those in Picture "S" but with front stoeps added instead of privately fenced front gardens. Picture "X" also showed a similar dwelling type but incorporated in row development fronting on to a pedestrian court. These pictures were included to test implications of planned physical propinquity.(28)

"Y" Detached, better class suburban home-ownership residences, on plots 5,000 square feet or more in area, are beyond the financial reach of most of the Heideveld community. An example of this type of suburban life, clearly familiar to the respondents, was introduced in Picture "Y".

27.3 Question 31 of the interview was worded in the following manner:-

"Here are eight pictures of different places where you might live". (An explanation of the eight scenes would follow to eliminate any misunderstanding of the environmental types) "Now, imagine that these places are all situated in a part of Cape Town where you would like to live, which would you choose?"

After the first choice had been made, respondents were requested to choose between the remaining seven, and so on, until only one picture remained. This procedure appears to have operated satisfactorily and with little bias. Results show a remarkable

degree / .....

(28) Herbert J. Gans : "Planning and Social Life; Friendship and Neighbour Relations in Suburban Communities". Journal of the American Institute of Planners, Vol. 27, 1961, Page 135.

degree of uniformity in attitude amongst all three sample groups. Two respondents refused to take part in this section of the survey.

27.4 The summation of the results of the whole survey show the most popular order of choice of the eight pictures as follows:-

1.	Picture "Y"	75	votes for	1st choice
2.	Picture "S"	44	" "	2nd "
3.	Picture "W"	27	" "	3rd "
4.	Picture "X"	29	" "	4th "
5.	Picture "U"	34	" "	5th "
6.	Picture "V"	29	" "	6th "
7.	Picture "R"	41	" "	7th "
8.	Picture "T"	50	" "	8th "

With 103 votes available for each choice, a high degree of unanimity existed in the 1st and last choices; opinions were more divided amongst the centre range. Home ownership has a big appeal, as also does low density development even if it has a lower standard than other forms. Court development and propinquity at street level is popular. Dislike for flats seems to increase with their height.

27.5 The results were also sorted into family size to test whether any relationship exists between environmental choice and family size. The following table shows that variations were insignificant:-

Family Size (Persons)	Picture Order of Choice							
	R	S	T	U	V	W	X	Y
Four or less	8	2	7	5	6	3	4	1
Five to seven	7	2	8	5	6	3	4	1
Eight or more	7	2	8	5	6	3	4	1

27.6 / .....

27.6 Inspection of the returns showed that whilst the degree of unanimity of some choices was high, variations did appear to exist. Recognised methods of grading of choice into ranked order were unsuitable for this type of analyses and Table 53, on page D.17 was prepared showing the whole sample of 103 households sorted into the number of respondents who voted for each picture in order of choice. From this, it was possible to compute the degree of unanimity that existed for any particular picture in any particular order of choice. The right hand column in these tables indicates the proportional degree of unanimity for the most popular ranking of order.

For example, picture Y enjoyed a 0.73 degree of unanimity in choice of 1st place, whilst unanimity of choice of picture T in eighth place was 0.49. If complete unanimity existed in every choice (i.e. a 1.0 degree of unanimity over the ranked order for each picture) total degree of unanimity in the eight choices would be 8.0. The ratio between the totals of degrees of unanimity, to the maximum possible total figure of 8 has been expressed, at the bottom of the table as a percentage. The whole sample, analysed in table 53 reflects a 40% degree of unanimity.

Degree of unanimity in choice of places 3 to 6 was low, indicating that opinions were more varied over these choices.

27.7 It was decided also to apply this test degree of unanimity of choice against stratified groups and against family size. Tables 54 to 56, on page D.17, show the sample broken down into the stratified groups, while tables 57 to 59 show the sample broken down into classifications of household size.

27.8 Comparisons in unanimity of choice by stratified sample groups.

Group B was the most unanimous in choice of picture Y for first place (table 55). Unanimity was also high in choice of picture S in second place. In contrast, opinions were very divided over choices of 6th, 7th and 8th places. Pictures V, R and T all appeared to be more or less equally unpopular. Group B shows a tendency to place 4 storey flats (picture T) in a higher ranking than does any other group.

Could / .....

Could this possibly be attributed to a slight rise in the popularity of flats amongst the higher income sector as a status symbol, as long as the flats reflect some feeling or urbanity?

27.8 The flat dwellers - sample group C - (table 56) - show more divided opinions over pictures U, V, W and X than do the other groups. Whilst this group is as unanimous as any other in its selection of pictures Y and S in first and second choices, forms of high density other than the one in which they are at present living, seem to have a definite appeal to them. The inference might be drawn that the flat dwellers show a higher degree of adaptation, but this hypothesis would require further testing.

The sub-economic strata - sample group A - shows greater overall unanimity in attitude (table 54). Aversion to 3 and 4 storey flats is high. The greatest diversion of opinion exists over pictures W and X. 22 of the 35 respondents placed these next, in order of preference, to pictures Y and S.

In fact, more respondents chose these environments to that of picture S. The poor appear to derive satisfaction from conditions of high propinquity but not high density.

27.9 Comparisons in unanimity of choice by household size.

Tables 57 to 59 reflect this comparison. There is a definite relationship between family size and degree of unanimity against multi-storey flats. The smaller households tend to be less definite in dislike for flats and there is a trend towards greater preference by large families (table 59) for single detached dwellings. Small families (table 57) show a tendency to accept pictures W and X as the next best thing to detached dwellings.

In general, these tables reflect little relationship between family size and choice of environment when cost considerations do not enter into the choice.

27.10 / ....

27.10 Deductions.

This section of the interview indicates an inherent dislike for flats amongst the Heideveld community, provided all other factors are equal. It shows that single storey court development would receive a measure of popularity and be in conformity with community values. It would appear that this judgment is based on a certain degree of homogeneity being present within the court: respondents were accustomed to a high degree of homogeneity and, their value judgments, probably project this into the differing situations. No test of attitude to heterorgeneity was carried out, and it is in any event difficult to define homogeneity or heterogeneity operationally.

28. QUALIFIED CHOICE OF ENVIRONMENT.

28.1 Paragraphs 9.3 through 9.5 described briefly the technique used in this part of the survey. Having completed their choice of environment without any qualification being attached, they were then advised that the following rentals were being applied to each:-

Picture	Rental
R	14 Rand
S	22 Rand
T	12 Rand
U	18 Rand
V	16 Rand
W	24 Rand
X	20 Rand
Y	26 Rand

28.2 Respondents were handed a chart (shown on Page F.8) together with cardboard money to the value of R40. It was explained to them that the whole monthly income of R40 had to be spent in buying:-

(a) their dwelling type in accordance with the rentals shown, and

(b) its locality, by paying for its distance from the primary and secondary school, church, grocery shop, shopping centre, bus stop, railway station (for commuting) and place of work, all in accordance with the prices on the chart.

28.3 / .....

28.3 Choice of rentals in this game was based partly on reality and partly on an assessment of the utility which would be derived from the alternatives. Thus, rental of the higher density development of pictures "R" and "T" was priced lower than the medium density development depicted in "U" and "V". Comparison in the rentals of the three low-cost single storey environments of pictures "S", "W" and "X" was based on an intuitive assessment of what rental differences would in fact be, taking into account relative use of land and services and relative building costs. Picture "Y" was obviously the most highly priced, as both cost and utility would be high.

28.4 The prices used in this game have no scientific background, and the value of the tests must be treated with caution. Had different values been placed on the goods in this game, consumption would obviously have followed a different pattern.

29. RESULTS OF THE GAME HAVE BEEN DIVIDED INTO DIFFERENT SECTIONS.

29.1 Attitude of respondents to the eight alternative environments -

Pricing the environments created an immediate change of preference from that when no qualification existed. Votes recorded by each sample group are as follows:-

Sample Group	Environment								Total Votes
	R	S	T	U	V	W	X	Y	
A	0	9	1	1	5	3	16	0	35
B	4	8	1	2	4	2	8	6	35
C	10	6	4	3	7	0	4	1	35
Total votes	14	23	6	6	16	5	28	7	105

29.2 / .....

29.2 This can be summarised:-

	3 & 4 Storey flats (R & T)	2 Storey Flats (U & V)	Single Storey dwellings unfenced (high propinquity) (W & X)	Single Storey dwellings fenced (low propinquity) (S & Y)	Total Votes
		Number of Votes			
Low income house dwellers (Group A)	1	6	19	9	35
Middle income house dwellers (Group B)	5	6	10	14	35
Middle income flat dwellers (Group C)	14	10	4	7	35
Total Votes	20	22	33	30	105

Group C flat dwellers voted heavily for their present environment, followed by two storey flats. The differing single storey forms of development figured last in the choice by Group C. The relationship between low and medium income groups to low and high density is reduced to the following table:-

29.3

	Flats (R,T,U,V)	Houses (S,W,X,Y)	
Low income (Group A)	7	28	35
Medium income (Group B)	11	24	35
	18	52	70

$\chi^2 = 0.64$ P = .01

Association exists at a 99% confidence level.

29.4 / .....

29.4 Analysis was taken further to test whether or not there is association between environmental preference and age. The respondents, grouped by age, as indicated in the following table clearly shows relationships exist.

Age Group	3 & 4 Storey Flats	2 storey Flats	Single storey High Propinquity	Single storey Lower Propinquity	Total
	VOTES CAST				
45 and over	4	1	8	7	20
30 - 44	5	7	17	11	40
Under 29	11	14	8	12	45
	20	22	33	30	105

This indicates an association between age and environmental attitude. The younger folk are less averse to flats, whilst the middle aged prefer single storey development. The older residents show preference for a higher level of propinquity provided that it is at street level.

29.5 A further analysis was made to determine relationship between choice of the eight alternate environments as between respondents who might have a preference for life close to the C.B.D. in a downtown atmosphere (Questions 51 and 52 of the survey). Picture "Z" (Annexure F.11) was, at this stage of the survey, shown to respondents who were asked two questions.

Question 51.

"You have been asked to choose from eight pictures. Now, disregarding rentals would you or would you not prefer to live near the centre of the city in a setting such as is shown in this picture in preference to a house in the suburbs such as in pictures S, W, X or Y? There would be plenty of life around you and a wide range of shops. There would be cinemas available close by."

Question / ....

Question 52.

"Suppose you were given the alternative of:-

(a) flat in Pictures 'R' or 'T';

or

(b) a flat in Picture 'Z'.

Which would you choose?"

29.6 Of the 105 respondents, 12 chose the downtown setting in reply to Question 51, and 16 chose it in reply to Question 52. (See tables 51 and 52, page D.14). Mean family size of the 16 families was 5.33, which exluded a distinctly deviant family of 11 children who appeared to desire city life at any price. The 16 respondents who chose city life in Question 52 have been statistically compared with the remainder of the sample in their choice of environment from the eight pictures, as follows:-

			Single Storey		
	3 & 4 Storey Flats (R & T)	2 Storey Flats (U & V)	High Propinquity (W & X)	Lower Propinquity (S & Y)	
	Votes as cast in the first game (see table paragraph 29.2)				
Families expressing preference for downtown	7	1	6	2	16
Families expressing preference for suburbia	13	21	27	28	89
	20	22	33	30	105

This shows that the residents who prefer a downtown environment clearly do not want to live amongst fenced-off gardens. Paved areas and lots of social contact are for them.

30. PURCHASE OF SITUATION.

Expenditure on all items in the first game are scheduled in Tables 32 to 39, page D.15, and summarised in graphical form on page E.8. This tends to indicate that the flat dwellers (Sample group C) are more oriented towards situation than are Groups A and B. Group C was clearly prepared to curtail expenditure on their environment in order to buy greater convenience in shopping and transport facilities. Groups A and B show a remarkable degree of similarity in their distribution of expenditure.

31. ATTITUDE TOWARDS SERVICES AND AMENITIES.

The third part of the interview consisted of a second game based on that devised by Robert L. Wilson in "Livability of the City : Attitudes and Urban Development"(29) amended to suit local conditions. A sum of R10 had to be expended on the items shown on the chart on pages F.9 and F.10. Items 41 through 44 were compulsory whereas the remainder were optional. Tables 41 to 50, page D.16 analyse the response from Groups A, B and C. These are also shown graphically on page E.9. This survey shows the pressure on dwelling space amongst the sub-economic section and the desire for security in better street lights. Garden space also figures as an important item. Group B tends to place much value on roads, road frontage and garden space. There is a greater trend towards concern for matters external to the house itself. Group C places value on the condition of roads as means of access, but they are not oriented towards the road as an object for frontage. Garden space assumes little importance, but sidewalks and telephones have greater significance.

32. GENERAL.

The foregoing pages have covered most of the data revealed by the survey. Some questions included in the survey were not strictly relevant to the objectives of the study, but were included to obtain a further insight into the community.

32.1 / .....

(29) Urban Growth Dynamics, Edited by F. Stuart Chapin and Shirley F. Weiss. John Wiley and Sons : Page 388.

32.1 Home Language. (Table 4, page D.2)

Afrikaans is predominantly the home language but, as with the Coloured people in general, a high degree of bilingualism is maintained.

32.2 Convenience Goods Shopping. (Table 11, page D.4)

Popularity of the local corner shops is evident, and a demand clearly exists for the provision of more shops in this category. At present there are two butcheries, three general dealers and one fish and chip shop trading in the township - a rate of one shop to every 600 families.

32.3 Durable Goods Shopping (Table 12, page D.5)

Salt River, Central Cape Town and Athlone figure as the most popular shopping centres. A senior official of the Golden Arrow Bus Company recently informed the writer that there was formerly a heavy demand for shopping transport to Mowbray from the Bonteheuwel - Heideveld housing complex, but that this had inexplicably died off. Table 12 confirms this changing trend.

32.4 Fuel (Table 13, page D.5)

Paraffin remains the most popular cooking fuel, although the use of electricity increases with higher income. Few families use any form of heating for general living comfort.

32.5 The final section of this thesis deals with the general conclusions which have been derived from the study.

SECTION 4.

C O N C L U S I O N S.

33. AN EVALUATION OF THE METHODS USED IN THE SURVEY.

33.1 The first section of the questionnaire was similar in form to that of a normal socio-economic survey and no problems were encountered. Extraction of socio-economic data was not the primary objective of the survey and the latter sections of questionnaire, designed to gauge attitudes of the people to their new environment, to test their reactions to alternative forms of environment and the values placed on various community services, have all been treated in greater detail. The survey also sought to test attitude to, and satisfaction with, the standard of housing accommodation and to test the general trend (if any) of community desire for urbanity.

33.2 The technique of pictorial representation achieved a measure of consistency in its success. The pictures were understood without difficulty, and a minimum of explanation was required. The pictorial aspect served also to maintain interest by respondents. In cases where both husband and wife were at home, answers to questions become the subject of animated discussion between them. The survey was fortuitiously carried out during a spell of extremely wet weather which tended to keep wives at home and to cause husbands to be laid off from their work, especially those employed in outdoor occupations. The weather undoubtedly reduced degree of non response.

34. APPLICATION OF THE GAME THEORY.

34.1 The first game (questions 32 - 40, page F.8) was successful in drawing out from respondents the extent to which they were prepared to forego the dwelling type or environment selected earlier in the survey in order to buy situational convenience in the form of proximity to schools, churches, shops and transport facilities.

34.2 The particular prices applied to the game clearly affect results and these consequently do not reflect valid answers to a given situation. The primary purpose of the game was to compare reactions of the different strata which made up the sample. The comparisons have been found to be of value and the use of this technique on a wider scale appears to have possibilities. Many respondents

found / .....

found the game difficult to comprehend and experienced difficulty in arriving at decisions. Men who were interviewed appeared to comprehend the game and to be able to make clearcut decsions with more alacrity than women.

34.3 The range of choice of environment might have been better had picture "Y" - better class single dwellings - been omitted. This environment was clearly beyond the financial reach of many respondents and some felt a little overwhelmed by the contemplation of luxury at that scale.

34.4 The second game failed to indicate any significant difference between the sample strata (see page E.9). In drawing up this game (see pages F.9 and F.10) it was considered that alternatives should be made as simple as possible. Respondents followed the game reasonably well, but appeared to show less interest in it than in the first game which had some visual stimulation attached to it.

34.5 In general, success in application of the game theory in a working class community does not appear too difficult to attain, provided the method of communication with respondents is adequate. The visual method of communication used in this survey of a Coloured community with a low standard of education has been successful.

34.6 Inability of respondents to project themselves into an imaginary situation was shown in value attached to the railway station in the first game. Sample Group A, living within a few minutes' walk from the station spent R75 out of a maximum possible R455 on this facility, Group B, situated a little further from the station were prepared to spend R87, while Group C, all of whom were far from the station, allocated R119 of their limited income to this facility (see page E.8). Another such instance can be observed in paragraph 29.1. Confronted with the financial implications of environmental choice, respondents living in single storey dwellings continued to vote for single storey dwellings, whereas the majority of the flat dwellers voted for flats. There was a definite pattern in attitude towards flats - those who had not lived in them would not have them at any price, whilst dwellers in flats voted them "not too bad".

34.7 / .....

34.7 Tenants interviewed in the flats (Sample Group C) showed a considerable degree of satisfaction with their environment. This applied particularly to the women. Some men expressed a desire for a garden, but in general, the respondents had adapted to flat life to a far greater degree than critics of high density living have held to be the case.

34.8 The survey has produced data concerning a small group of people in Heideveld, and from this, it has been possible to gauge, to a limited extent, their attitudes and values. The knowledge gained bears a certain relevance to the planning of low cost housing and to future policy in provision of housing both in the public and private sectors. Much lies beyond the scope of this thesis, but reference is nevertheless made to aspects which must inevitably arise out of research of this nature.

34.9 It must again be reiterated that accuracy of prediction in this study is low; the sample size was insufficiently large to statistically test much of the data but definite trends are observable in the results and the high degree of consistency of some of the opinions and attitudes expressed by respondents, leads one to the conclusion that the trends have validity.

35. SOME CONCLUSIONS FROM THE SURVEY.

35.1 The people living in Heideveld have adapted themselves to their new environment, and general dissatisfaction is low. A large proportion expressed the opinion that their new living conditions are more acceptable to them than their former conditions. The main source of dissatisfaction centred around overcrowding within the dwellings (see Table 25, page D.11, and Table 27, page D.12).

35.2 Overcrowding outside the dwellings (or high density), was not a source of dissatisfaction. The sample group of 35 families living in three storey flats with a net density of 360 persons per acre voiced only three complaints of noise and three complaints of being too crowded. Lack of parks and shopping facilities was a matter of much greater concern to them.

35.3 / .....

35.3 Satisfaction with plot size was very high notwithstanding that 48 of the 70 dwellings in sample groups A and B were dual occupancy by nature. 70% voted the plot size to be "just right". Observation showed that very few tenants had cultivated the whole plot. An overall reduction in plot size, coupled with the establishment of communal open space in the form of childrens' play lots, would probably represent an increase in community satisfaction. There was a very strong desire for north facing dwellings.

35.4 In discussion with respondents, the view was frequently expressed that Heideveld "was a nice quiet place,* with nice people and no skolly element". A sub-economic pensioner who had been moved from Newlands under the Group Areas Act, said:-

> "I like it better here. In Newlands there was a bad element living near me - a lot of hooligans; it is much quieter here. My wife finds shopping not so easy but it is worth the move".

There was also a noticeable feeling of freedom from bureaucratic authority - this was difficult to define but it is probable that re-settled families find a source of relief in having been re-located after a long period of anxiety over the future. This probably accounts for a lot of the satisfaction expressed by re-settled families analysed in paragraphs 15 to 17 and summarised in 17.5 on page 24.

35.5 The prompt construction of schools was a big source of satisfaction. Considerable value was placed on proximity to primary schools and convenience shops. Distance to secondary schools and a shopping centre was of little concern.

36. COMMUNITY SATISFACTION.

H.L. Watts found that 96% of respondents in towns in the Western Cape, outside the metropolitan area of Cape Town, favoured single, detached houses; 63% expressed a dislike for semi-detached dwellings

and / .....

* This resembles attitudes expressed in -

Young M. and Willmot P.: "Family and Kinship in East London" Routledge and Kegan Paul; London, 1957, page 103.

and 88% expressed a dislike for terraces. He found that these attitudes were probably biased by semi-detached and terraced houses being associated with areas of decay and blight. The Heideveld survey has shown that the fully urbanised Coloured people do not share these attitudes. The lower income strata, when faced with economic alternatives, show a trend towards high propinquity terraced development (see paragraph 29.3) whilst families at present accommodated in flats tend, in these circumstances to choose flats, especially the younger parents aged 30 or less. Preference of high propinquity terraced development has also been shown to increase with age (paragraph 29.4, page 45).

It has also been shown that some 16% of the sample opted for an urban environment in a "downtown" setting - notwithstanding that they had not previously lived in such an environment (paragraph 29.6, page 46). The findings of H.L. Watts do not thus appear to be entirely in accord with those in an urbanised community.

37. NEGATIVE FEATURES OF THE SUB-CULTURE.

37.1 The apparent inability of the working class Coloured sub-culture to organise, deprives them of political representation which is so important in a pleuristic society. There is the tendency to delegate their representation in matters of urban politics to others. Whilst the machinery has been set up within the urban framework for this representation in the form of management committees, there appears to be lack of participation in expression of community goals and desires. Suspicions breed which are frequently inaccurate. One of the planning goals should be the fostering of community activity and participation.

37.2 The problem of rejection of certain types of caretaking services outlined by Gans in his study of Boston Slums[30] applies to the lower class sub-culture in Municipal Housing Schemes and the staff of the Medical Officer of Health are always active in a policy of persuasion in the use of clinics and health services.

38. / .....

(30) H.J. Gans: "The Urban Villagers" Free Press 1962, Page 266.

38. FORMAL ORGANIZATIONS AND COMMUNITY ACTIVITY.

38.1 Although there are two community centres in Heideveld, constructed and administered by the City Council, it is significant that participation in the centre programme was not quoted as a weekend or leisure activity of any member of any of the 105 households surveyed.

38.2 This complete lack of response or even awareness of the centre activities is a matter of concern. Gans has discussed the formation of new group relationships in planned communities, replacing the old contacts lost. Much could be done to foster community participation if the residents of Heideveld were encouraged to more actively organise their own programmes in these community centres; to organise their own social functions, fund raising activities and the like, and to establish, with the assistance of the local authority, creches and nursery schools as an integral part of the community focal point. In this way, elements at present lacking in the process of socialisation of the children and teenages in the community, can be restored.

39. DEVELOPMENT FORM.

39.1 A fundamental difference between the private and public sector of the housing market is the freedom of choice exercised by the consumer in the private sector. This sector is, unfortunately, restricted to the higher income categories. User research by the Wates Group(31) into the type of community desired in the United Kingdom has indicated that "inhabitants tend to live in almost 'tribal groups' separated from one another by subtle differences of income....". Wates is currently attempting to design for this social pattern by means of clusters of from 12 to 30 houses in the same price range, a group of clusters in different price brackets forming the environment. Market research has shown that in advertising, greater attention must be drawn to the quality of the environment as a whole tahn to the appearance of the houses.

39.2 / .....

(31) "Housing - From Estate to Environment" by Norman W. Franklin: Architects' Journal No. 19, Vol. 148, 15th May, 1968, page 1119.

39.2 Research carried out in Heideveld has shown a trend in preference towards better class detached home-ownership dwellings (paragraph 27.4) and, where cost considerations assume importance, to conditions of high propinquity in court development of single storey terraced houses (see paragraph 29.2 page 44). An appreciable section of the community looked upon Heideveld as an area lacking urbanity. Judging by the range of points raised in expression of dissatisfaction with the neighbourhood (Table 30), it would certainly appear that a more compact and coherent development form would find favour with many.

39.3 A closer, or tighter form of development would clearly find favour with the protagonists of better services - street lighting, sidewalks, more frequent shopping facilities and bus stops. A mixture of the Radburn type of superblock coupled with a high proportion of pedestrian courts, well sited to be adjacent to vehicular access points seems to be a type of layout which will find favour with many. This form of development would no doubt be a suitable substitute for the high propinquity of the slum; and a degree of security might be engendered, comparable with the degree which has been held to be of value in the densely populated slum.

40. A CRITIQUE OF STANDARDS.

40.1 Housing has been described by R.U. Ratcliff as being both a situation and a process.(32) As a situation he described housing as a current set of relationships between a social group of given cultural attributes and a certain immediate physical environment. As a process, he refers, inter alia, to the evolutionary development of the community environment as a physical and cultural complex. Housing, considered as a process, relates to social change and variation, over time in the institutions which regulate land use and housing space.

40.2 The creation of housing standards, backed by police power control, are standards of minimum social acceptability. Standards are based on physical definitions and not on considerations of level of living. It has been shown that standards of minimum social acceptability, i.e. the relevant per capita floor space requirements

under / ....

(32) "Housing Standards & Housing Research" : R.U. Ratcliff: Land Economics Vol. 28 (Nov. 1952). Reprinted in "Urban Housing" Page 391 : Free Press New York, 1966.

under the Slums Act, are not met when housing pressure is great. If standards were based, as Ratcliffe suggests, on a criteria of minimum level of living, the economic consequences of low cost housing in relation to State subsidies would preforce follow a different pattern from the present one - a system of assessment of the impact of substandard or inadequate housing on physical and mental wellbeing and on the values of the community.

40.3 The Heideveld survey has clearly shown that family size of that section of the Coloured population for whom housing forms a great need, is such that the dwellings provided are largely inadequate to meet the minimum standards of social acceptability. A reassessment of space provision is needed.

40.4 Reference was made in paragraph 12.2, page 18 to the changing pattern of age distribution. The sample survey of age distribution at Kewtown shows a large drop in the ratio of young children to total population. Although this suggests a decrease in pressure of space in dwellings, mean family size differs insignificantly from Heideveld. Records in the Estate office at Kewtown indicate that a large proportion of households are made up of one basic family plus relatives - usually grandparents. It can accordingly be deduced that demand for floor space does not drop in time - it is more likely to increase with the rising average age of the community and the ensuing increase in demand for more diverse living and a higher degree of privacy to avoid conflict. In the long term, rising levels of living will in any event increase demand for dwelling space. What is, in fact, taking place at Kewtown is that the three generation family is being re-established. Moving into a new housing scheme tends to disturb the kinship system which stresses the tie between mother and daughter.(33) It is apparent that the disturbance is temporary; that the three generation family follows.

40.5 The whole problem of financing of low cost housing and the application of subsidies enters into this field of discussion. There are developing countries in far less favourable positions than South Africa in the maintenance of spatial standards - countries where the stock of older (and more spacious) housing is negligible. South Africa has such / ...

(33) Young, M. and Willmott, P. : Family and Kinship in East London : Routledge and Kegan Paul : London, 1957, page 155.

such a stock, but for the most part this has been isolated from the Coloured community through the application of the Group Areas Act (see paragraph 3.1, page 5). The financial burden on the State is thus enlarged.

40.6 The concept of public housing originates from the Industrial Revolution. The aim, in particular, was to raise standards of health. Disease was known to be propagated by bad sanitation, overcrowding and inadequate facilities for the preparation of food. Byelaw housing set out minimum street widths, health standards and physical separation of indstry from the home in the form of housing estates.

40.7 Housing policies have ever since been based on statistical criteria of space. The English garden city approach has had a strong influence in the formulation of working class housing standards. The realities of society do not fit into pre-conceived notions.

40.8 Social and technological change since the Industrial Revolution and Ebenezer Howard is so vast that the inflexible patterns of living on which our present housing policies are based are becoming irrelevant. The transportation system of the modern city has become a major element in urban growth, and housing has to be considered at city scale and in relation to transportation and job opportunity. Social change is today so rapid that built-in possibilities for the adaptation of housing to this change has become vital. Upward social mobility is but one challenge of the future. The intervening variable in housing standards is time. A wider range of interest groups will have to join in the planning process to achieve the desired results.

41. POLICY CONSIDERATIONS.

41.1 In the long term, much of what has been discussed in this thesis, will become part of a much greater social and economic problem in the city. Planning will have to be sensitive to the needs of the people. Plans will have to be prepared to enable special interest groups to advance their claim for urban space and amenity. The policy of mass public housing is open to question. There are alternative

courses / .....

courses of action in which entrepreneurship and a competitive market place could be substituted for the present system. In the long run the role of the local authority, as the main provider of shelter, is not conducive to the emergence of a competitive private sector. This is but one of the problems of mass housing which must sooner or later be solved.

41.2 Criticism of urban sprawl originates from the land economist's outlook on efficiency of public services. It is not necessarily undesirable from the sociological point of view, and the survey of Heideveld has shown a high degree of community satisfaction in urban sprawl. The survey has also shown an appreciable number of enthusiastic city users. The dichotomy of urban sprawl and high density development close to the core of the city is an unsolved problem - politically and socially.

41.3 Cities in the United States are today facing a decline of the central business district arising from decentralisation, the flight of the wealthy citizens to the periphery and the blighting effect of ever increasing slum formation in the outer frame of the C.B.D. In South Africa, the strangling effect on the C.B.D. of slum formation in the frame is being arrested by the application of the Group Areas Act. Continually increasing mobility is enabling the upper classes to move outwards to the periphery, and decentralisation is making an appearance. It remains to be seen what social group and what level of living will occupy the void left in the frame by slum eradication and what overall effect the whole process of social change will have on the C.B.D.

In a situation where economic development of the Coloured people is proceeding apace, the possibility cannot be excluded of a new C.B.D. establishing itself out of the policy of separate development - a new C.B.D. competing with the historic C.B.D. The situation of a medium sized city (by world standards) having two separate central business districts competing with each other for dominance is rather unique, and the final outcome, in economic terms, is problematic in the extreme.

41.4 / ....

41.4 Housing of the masses is inextricably bound up with the economic growth of the city, and future policy can be viewed in no other context.

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TABLE 1. Residential Structure Types. D.1.

Code No.		Sample Groups		
		A	B	C
0	Semi-detached sub-economic - 2 rooms	11	0	0
1	Semi-detached sub-economic - 3 rooms	17	0	0
2	Semi-detached sub-economic - 4 rooms	7	0	0
3	Economic shared single storey - 2 rooms	0	11	0
4	Economic shared single storey - 3 rooms	0	9	0
5	Economic single storey semi-detached - 4 rooms	0	13	0
6	Economic detached single storey - 5 rooms	0	2	0
7	Economic 4 roomed flat - double storey block (Ground Floor)	0	0	0
8	Economic 4 roomed flat - double storey block (First Floor)	0	0	0
9	Economic 3 roomed flat - 3 storey block, Ground Floor	0	0	13
10	Economic 3 roomed flat - 3 storey block, First Floor	0	0	7
11	Economic 3 roomed flat - 3 storey block, Second Floor	0	0	4
12	Economic 4 roomed flat - 3 storey block, Ground Floor	0	0	3
13	Economic 4 roomed flat - 3 storey block, First Floor	0	0	3
14	Economic 4 roomed flat - 3 storey block, Second Floor	0	0	5
	TOTAL	35	35	35

TABLE 2.

Number of People in Households.

No. of people	No. of households			Total
	A	B	C	
1	0	0	0	0
2	2	1	1	4
3	4	2	2	8
4	2	9	8	19
5	6	4	3	13
6	4	7	8	19
7	6	4	4	14
8	4	5	7	16
9	3	2	0	5
10	3	0	1	4
11	0	0	0	0
12	0	0	1	1
13	1	1	0	2
14	0	0	0	0
TOTAL	35	35	35	105

TABLE 3. Household Composition D.2.

	Sample Groups			
	A	B	C	Total
One basic family unit	29	24	29	82
Two basic family units	0	3	2	5
One basic family unit and relatives or boarders	3	8	2	13
Part basic family unit (1 parent and child/ren and/or other person)	3	0	2	5
TOTALS	35	35	35	105

TABLE 4.

Home Language

	Sample Groups			
	A	B	C	Total
English	5	6	7	18
Afrikaans	21	22	17	60
English and Afrikaans	9	7	10	26
Other	0	0	1	1
TOTALS	35	35	35	105

TABLE 5.

Number of Motor Vehicles Owned.

No. of vehicles	Sample Groups			
	A	B	C	Total
0	33	29	33	95
1	2	6	2	10
2	0	0	0	0
TOTALS	35	35	35	105

TABLE 6.

Rental (Per Week)

	Sample Groups			
	A	B	C	Total
0 - R1	7	0	0	7
R1 - R2	25	12	19	56
R2 - R3	3	20	16	39
R3 - R4	0	0	0	0
R4 - R5	0	0	0	0
R5 - R6	0	3	0	3
TOTALS	35	35	35	105

TABLE 7.

Family Income (Per Annum)

		Groups			
		A	B	C	Total
0.	No response	2	1	0	3
1.	0 - R500	10	3	0	13
2.	R500 - R1000	23	7	19	49
3.	R1000 - R1500	0	12	13	25
4.	R1500 - R2000	0	9	3	12
5.	R2000 - R2500	0	3	0	3
6.	R2500 - R3000	0	0	0	0
7.	More than R3000	0	0	0	0
	TOTALS	35	35	35	105

TABLE 8.

Previous Area of Residence.

		Groups			
		A	B	C	Total
0.	Sea Point	0	0	2	2
1.	Central Cape Town	0	4	1	5
2.	District Six	2	0	1	3
3.	Woodstock/Salt River	5	2	3	10
4.	Observatory/Mowbray/Claremont	10	11	4	25
5.	Wynberg/Retreat	2	5	6	13
6.	Maitland/Bellville	6	4	3	13
7.	Country area	1	1	0	2
8.	Other	1	0	2	3
9.	Cape Flats	8	8	13	29
	TOTALS	35	35	35	105

TABLE 9.

Description of Previous Dwelling Accommodation

Type of Accommodation	Sample Group			Total
	A	B	C	
Shack	6	6	4	16
Brick detached house	26	28	26	80
Tenement	3	1	5	9
TOTALS	35	35	35	105

TABLE 10.

Number of families sharing previous accommodation with respondent

Number of Families	Sample Group			Total
	A	B	C	
0	15	13	15	43
1	11	15	14	40
2	9	5	4	18
3	0	1	1	2
4	0	0	1	1
5	0	1	0	1
TOTALS	35	35	35	105

TABLE 11.

Locality of Purchase of Convenience Goods

	Sample Group			Total
	A	B	C	
Local corner shops	18	10	10	38
Bonteheuwel	0	0	0	0
Welcome Estate	0	0	0	0
Athlone	7	11	18	36
Salt River	5	1	1	7
Mowbray	2	1	0	3
Central Cape Town	2	6	2	10
Claremont	1	4	2	7
Elsewhere	0	2	2	4
TOTALS	35	35	35	105

TABLE 12.

Locality of purchase of Durable Goods

	Sample Group			Total
	A	B	C	
Not applicable	0	1	0	1
Local corner shops	0	1	0	1
Bonteheuwel	0	0	0	0
Welcome Estate	0	0	0	0
Athlone	10	5	8	23
Salt River	18	10	6	34
Mowbray	0	0	0	0
Central Cape Town	6	13	11	30
Claremont	1	2	4	7
Elsewhere	0	3	6	9
TOTALS	35	35	35	105

TABLE 13.

Fuel

	Sample Group			Total
	A	B	C	
Fuel used for cooking.				
Coal	6	8	1	15
Electricity	0	13	11	24
Paraffin	17	12	23	52
Wood	11	2	0	13
Other	1	0	0	1
TOTALS	35	35	35	105
Fuel used for heating.				
Nil	34	22	34	90
Coal	1	4	0	5
Electricity	0	3	1	4
Paraffin	0	5	0	5
Wood	0	1	0	1
Other	0	0	0	0
TOTALS	35	35	35	105

TABLE 14.

Age Distribution in Heideveld.

Age Group	Males					Females						
Years	A	B	C	Total	%	A	B	C	Total	%	Grand Total	%
0 - 4	22	23	29	74	25	28	25	19	72	21	146	24
5 - 9	24	9	19	52	18	23	17	28	68	21	120	20
10 - 14	10	9	10	29	11	17	10	9	36	10	65	10
15 - 19	7	7	5	19	7	12	9	10	31	9	50	8
20 - 24	2	7	6	15	5	2	9	12	23	7	38	6
25 - 29	6	12	14	32	11	12	11	13	36	11	68	11
30 - 34	11	6	4	21	7	9	5	5	19	6	40	6
35 - 39	6	6	4	16	5	5	6	4	15	4	31	5
40 - 44	5	3	4	12	4	7	5	3	15	4	27	4
45 - 49	3	3	2	8	3	2	2	1	5	2	13	2
50 - 54	1	4	1	6	2	1	4	3	8	2	14	2
55 - 59	0	0	1	1	0	1	0	0	1	0	2	0
60 - 64	0	2	0	2	1	0	1	0	1	3	3	0
65 - 69	0	1	1	2	1	1	2	1	5	2	7	1
70 - 74	1	0	0	1	0	0	2	1	3	1	4	1
75 & over	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	98	92	100	290	100	120	108	109	338	100	628	100

TABLE 15.

Age Distribution of Widowed, Married & Divorced persons in Heideveld.

Age Group	Males					Females						
Years	A	B	C	Total	%	A	B	C	Total	%	Grand Total	%
20 - 24	0	2	3	5	5	0	4	5	9	8	14	7
25 - 29	5	9	13	27	28	11	8	12	31	29	58	29
30 - 34	11	6	3	20	20	9	5	5	19	17	39	19
35 - 39	5	6	4	15	15	6	6	4	16	15	31	15
40 - 44	5	3	4	12	12	6	3	3	12	11	24	12
45 - 49	3	3	2	8	8	2	1	1	4	4	12	6
50 - 55	1	3	1	5	5	1	5	3	9	8	14	7
55 - 59	0	1	1	2	2	1	0	0	1	1	3	1
60 - 64	0	2	0	2	2	0	1	0	1	1	3	1
65 - 69	0	1	1	2	2	1	2	1	4	4	6	2
70 - 74	1	0	0	1	1	0	2	0	2	2	3	1
75 & over	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	31	36	32	99	100	37	37	34	108	100	207	100

TABLE 16.

Age Distribution in Kewtown Estate (10% random sample).

Age Group Years	Males	%	Females	%	Total	%
0 - 4	31	7.0	30	6.5	61	6.7
5 - 9	62	14.2	68	14.8	130	14.4
10 - 14	61	13.9	82	17.8	143	15.8
15 - 19	69	15.8	73	15.8	142	15.7
20 - 24	62	14.1	49	10.5	111	12.2
25 - 29	24	5.4	19	4.0	43	4.7
30 - 34	18	4.1	19	4.0	37	4.1
35 - 39	19	4.3	19	4.0	38	4.2
40 - 44	28	6.3	28	6.0	56	6.2
45 - 49	23	5.2	22	4.1	45	5.0
50 - 54	15	3.4	19	4.0	34	3.7
55 - 59	14	3.2	14	3.0	28	3.1
60 - 64	6	1.4	8	1.7	14	1.5
65 - 69	8	1.8	8	1.7	16	1.8
70 - 74	0	0	5	1.1	5	0.5
75 +	1	0	3	1.0	4	0.4
TOTALS	441	100.0	466	100.0	907	100.0

TABLE 17.

Week End Activities - (Persons 15 years & over)

	Males				Females				Grand Total
	A	B	C	Total	A	B	C	Total	
None	13	15	24	52	10	9	15	37	86
Gardening	13	2	0	15	1	0	0	1	16
Active Sport	3	5	3	11	0	0	0	0	11
Passive Sport	0	3	6	9	0	0	0	0	9
Visiting	2	15	1	18	7	13	0	20	38
Reading	7	0	9	16	1	0	2	3	19
Housekeeping	1	0	0	1	29	27	34	90	91
Weekday Work	2	4	0	6	0	2	0	2	8
Other	1	3	1	5	3	0	0	3	8
TOTALS	42	47	44	133	51	51	51	153	286

TABLE 18.

Occupation (15 years and Older)

	Male				Female				Grand Total
	A	B	C	Total	A	B	C	Total	
Professional or technical	0	1	0	1	0	1	0	1	2
Administrative or managerial	0	0	0	0	0	0	0	0	0
Clerical	0	5	3	8	0	4	1	5	13
Sales	0	4	0	4	0	2	1	3	7
Fisherman	0	0	1	1	0	0	0	0	1
Quarry Worker	1	0	0	1	0	0	0	0	1
Transport Worker	3	5	5	13	0	1	0	1	14
Craftsman	2	16	13	31	0	3	0	3	34
Labourer	20	9	10	39	0	0	0	0	39
Service or Recreation	5	1	4	10	4	6	3	13	23
Housewife	0	0	0	0	29	32	31	92	92
Unemployed	8	6	2	16	6	4	7	17	33
Child (not scholar)	1	0	0	1	0	0	1	1	2
Scholar or Student	0	2	3	5	2	2	1	5	10
Factory Worker	0	3	0	3	0	2	0	2	5
TOTALS	40	52	41	133	41	57	45	143	276

TABLE 19.

Birth Place (Head of Household & Spouse)

	Male				Female				Grand Total
	A	B	C	Total	A	B	C	Total	
Cape Town	24	26	22	72	26	29	26	81	153
Western Cape (in a town)	2	3	3	8	3	3	2	8	16
Western Cape (Rural)	4	2	6	12	3	2	7	12	24
Elsewhere (Urban)	2	2	1	5	0	2	0	2	7
Elsewhere (Rural)	1	5	2	8	3	5	2	10	18
TOTALS	33	38	34	105	35	41	37	113	218

TABLE 20.

Period of Residence in Town (Head of Household & Spouse)

Year	Male				Female				Grand Total
	A	B	C	Total	A	B	C	Total	
0 - 2	0	0	0	0	0	0	0	0	0
3 - 5	0	0	0	0	0		0	2	2
6 - 8	1	1	0	2	1	0	0	1	3
9 - 11	0	0	1	1	0	1	1	2	3
12 - 14	0	0	0	0	1	1	1	3	3
15 or more	32	34	33	99	33	34	35	102	201
TOTALS	33	35	34	102	35	38	37	110	212

TABLE 21.

Level of Education (Head of Household & Spouse)

	Male				Female				Grand Total
	A	B	C	Total	A	B	C	Total	
None	3	2	0	5	1	1	1	3	8
Sub A, B	0	1	2	3	4	0	4	8	11
Stds. 1 or 2	3	1	0	4	3	4	3	10	14
Std. 3	8	2	2	12	9	5	2	16	28
Std. 4	8	2	2	12	3	7	4	14	26
Std. 5	3	3	6	12	10	6	9	25	37
Std. 6	3	10	8	21	5	11	8	24	45
Stds. 7 or 8	3	10	8	21	0	3	2	5	26
Stds. 9 or 10	0	5	6	11	0	2	3	5	16
Further than Std. 10	0	0	0	0	0	0	1	1	1
TOTALS	31	36	34	101	35	39	37	111	212

TABLE 22.

Locality of employment

	A	B	C	Total
Not applicable	1	0	2	3
Central City	7	11	4	22
Sea Point/Camps Bay	2	2	3	7
Woodstock/Observatory	3	5	1	9
Mowbray/Claremont	4	7	7	18
Kenilworth/Plumstead	1	4	3	8
Diep River to Simon's Town	0	2	2	4
Cape Flats	1	4	4	9
Ndabeni/Milnerton	5	2	7	14
Epping	0	3	2	5
Heideveld	4	0	0	4
Maitland to Bellville	4	2	2	8
Elsewhere	1	0	1	2
TOTALS	33	42	38	113

TABLE 23.

Method of Travelling to Work.

	A	B	C	Total
Not applicable	1	0	2	3
Walk	4	1	0	5
Cycle	0	4	1	5
Bus	2	22	12	36
Train	22	5	8	35
Car	1	4	1	6
Passenger in Car	0	1	4	5
Bus and Train	3	5	8	16
Car and Train	0	0	2	2
TOTALS	33	42	38	113

TABLE 24.

Travelling Time to Work

	A	B	C	Total
Not applicable	1	0	2	3
0 - 10 mins.	3	1	1	5
11 - 20 mins.	2	3	2	7
21 - 30 mins.	11	11	8	30
31 - 40 mins.	6	8	10	24
41 - 60 mins.	7	12	13	32
1 - 1½ hours	1	4	2	7
1½ - 2 hours	2	3	0	5
More than 2 hours	0	0	0	0
TOTALS	33	42	38	113

	Dwelling Type		Number of Dwellings	Number of Persons	Persons per house			Persons per room			Net floor area per person		
	Code No.	Net Floor Area			Max.	Min.	Mean	Max.	Min.	Mean	Min. sq. ft.	Max.	Mean
DISSATISFIED	0.	217	11	63	8	2	5.7	4.0	1.0	2.9	27	108	38
	1.	334	11	74	10	3	6.7	3.3	1.0	2.2	33	111	50
	2.	428	5	45	13	3	9.0	3.2	0.7	2.2	33	143	48
	3.	238	9	41	6	3	4.5	3.0	1.5	2.3	40	79	52
	4.	336	7	41	8	4	5.9	2.7	1.3	2.0	44	84	57
	5.	430	6	45	13	5	7.5	3.2	1.2	1.9	33	86	57
	9,10, 11	337	14	86	8	4	6.2	2.7	1.3	2.0	42	84	55
	12,13 14	436	4	37	12	7	9.2	3.0	1.7	2.3	36	63	47
SATISFIED	1.	334	6	28	9	2	4.7	3.0	0.7	1.5	37	167	71
	2.	428	2	12	9	3	4.5	3.0	1.0	1.8	48	143	80
	3.	238	2	6	4	2	3.0	1.0	0.5	1.5	59	119	79
	4.	336	2	13	8	5	6.5	2.7	1.7	2.1	42	68	52
	5.	430	7	44	9	4	6.3	2.2	1.0	1.5	48	108	68
	6.	611	2	13	9	4	6.5	1.8	0.8	1.3	68	153	94
	9,10 11	337	10	45	8	2	4.5	2.7	0.7	1.5	42	169	75
	13,14 15	436	7	43	8	4	6.2	2.0	1.0	1.5	55	109	71

TABLE 25.

TABLE 26.

Attitude towards size of rooms.

	Sample Group			
	A	B	C	Total
Too small	20	20	11	51
About right	14	15	24	53
Too large	1	0	0	1
TOTALS	35	35	35	105

TABLE 27.

Attitude towards number of rooms

	Sample Group			
	A	B	C	Total
Too few	25	23	18	66
Sufficient	9	12	16	37
Too many	1	0	1	2
TOTALS	35	35	35	105

TABLE 28.

Attitude towards aspect of dwelling

	Sample Group			
	A	B	C	Total
Does not face as you would like	15	10	9	34
Faces as you would like	20	25	26	71
TOTALS	35	35	35	105

TABLE 29.

Garden Space

	Sample Group			
	A	B	C	Total
Much too small	0	2	0	2
Too small	6	7	0	13
Just right	27	23	3	53
Too much	0	1	0	1
Not applicable	0	0	31	31
TOTALS	35	35	35	105

TABLE 30.

Satisfaction with various aspects of the Neighbourhood

(Respondent to give two aspects of the neighbourhood which he dislikes.)

	A	B	C	Total
No response	29	22	20	71
Too noisy	1	2	3	6
Too crowded	0	4	3	7
Not enough trees	3	0	0	3
No footpaths	7	2	3	12
Roads too wide	0	0	0	0
Roads too narrow	1	1	0	2
Inconvenient public transport	5	8	8	21
Not enough schools	0	0	0	0
Not enough parks	8	12	7	27
Not enough sports fields	3	2	4	9
Not enough shopping facilities	3	10	18	31
Wrong place to bring up children	2	0	0	2
No job opportunities in the immediate area	2	0	0	2
Other	4	7	4	15
TOTALS	68	70	70	208

Table 31.

Living Conditions at Heideveld compared with Previous Living Conditions. (Note: This test was not applied to Sample Group A.

Present Living Conditions	Sample Group		Total
	B	C	
Much worse	1	1	2
Worse	4	1	5
Equal to	10	2	12
Better	4	8	12
Much better	16	23	39
TOTALS	35	35	70

Table 51.

Choice between a downtown environment and a suburban house. Respondents were asked to select between picture Z (page F.11) on the one hand, and between pictures S, W, X and Y (page F.12) on the other hand.

Preference	Sample Group			Total
	A	B	C	
Picture Z	3	4	5	12
Pictures, S, W, X, Y	32	31	30	93
TOTALS	35	35	35	105

Table 52.

Choice between a downtown environment and a suburban flat. Respondents were asked to select between picture Z on the one hand, and between pictures R, T, U and V (Page F.12) on the other hand.

Preference	Sample Group			Total
	A	B	C	
Picture Z	3	6	7	16
Pictures R, T, U, V	32	29	28	89
TOTALS	35	35	35	105

First case.

	Facility	Alternatives	Price	GROUP A		GROUP B		GROUP C	
				Number of Votes	Expenditure	Number of Votes	Expenditure	Number of Votes	Expenditure
32	Proximity to Primary School	5 minute walk	R4	3	12	3	12	8	32
		10 minute walk	R3	19	57	17	51	20	60
		20 minute walk	R2	8	16	8	16	5	10
		30 minute walk	R1	5	5	7	7	2	2
		TOTALS		35	90	35	86	35	104
33	Proximity to Secondary School	5 minute walk	R4	0	0	0	0	0	0
		10 minute walk	R3	6	18	5	15	4	12
		20 minute walk	R2	19	38	13	26	14	28
		30 minute walk	R1	10	10	17	17	17	17
		TOTALS		35	66	35	58	35	57
34	Proximity to Church	5 minute walk	R4	0	0	1	4	1	4
		10 minute walk	R3	7	21	3	9	8	24
		20 minute walk	R2	10	20	13	26	10	20
		30 minute walk	R1	18	18	18	18	16	16
		TOTALS		35	59	35	57	35	64
35	Proximity to Convenience Shopping	5 minute walk	R4	11	44	13	52	21	84
		10 minute walk	R3	14	42	14	42	10	30
		20 minute walk	R2	10	20	6	12	2	4
		30 minute walk	R1	0	0	2	2	2	2
		TOTALS		35	106	35	108	35	120
36	Proximity to Shopping Centre	5 minute walk	R9	0	0	0	0	0	0
		10 minute walk	R7	2	14	1	7	2	14
		20 minute walk	R3	13	39	20	60	19	57
		30 minute walk	R1	20	20	14	14	14	14
		TOTALS		35	73	35	81	35	85
37	Proximity to Bus Stop	5 minute walk	R7	6	42	4	28	19	133
		10 minute walk	R5	18	90	16	80	11	55
		20 minute walk	R3	8	24	12	36	3	9
		30 minute walk	R1	3	3	3	3	2	2
		TOTALS		35	159	35	147	35	199
38	Proximity to Railway Station	5 minute walk	R13	0	0	0	0	0	0
		10 minute walk	R9	2	18	2	18	4	36
		20 minute walk	R5	6	30	9	45	13	65
		30 minute walk	R1	27	27	24	24	18	18
		TOTALS		35	75	35	87	35	119
39	Proximity to Place of Work	5 minute walk	R4	4	16	4	16	1	4
		10 minute walk	R3	7	21	3	9	6	18
		½ hr. travelling time	R2	11	22	15	30	10	20
		1 hr. travelling time	R1	13	13	13	13	18	18
		TOTALS		35	72	35	68	35	60
40	Rent	Environment R	R14	0	0	4	56	10	140
		" S	R22	9	198	8	176	6	132
		" T	R12	1	12	1	12	4	48
		" U	R18	1	18	2	36	3	54
		" V	R16	5	80	4	64	7	112
		" W	R24	3	72	2	48	0	0
		" X	R20	16	320	8	160	4	80
		" Y	R26	0	0	6	156	1	26
		TOTALS		35	700	35	708	35	592
		GRAND TOTALS			R1400		R1400		R1400

D15

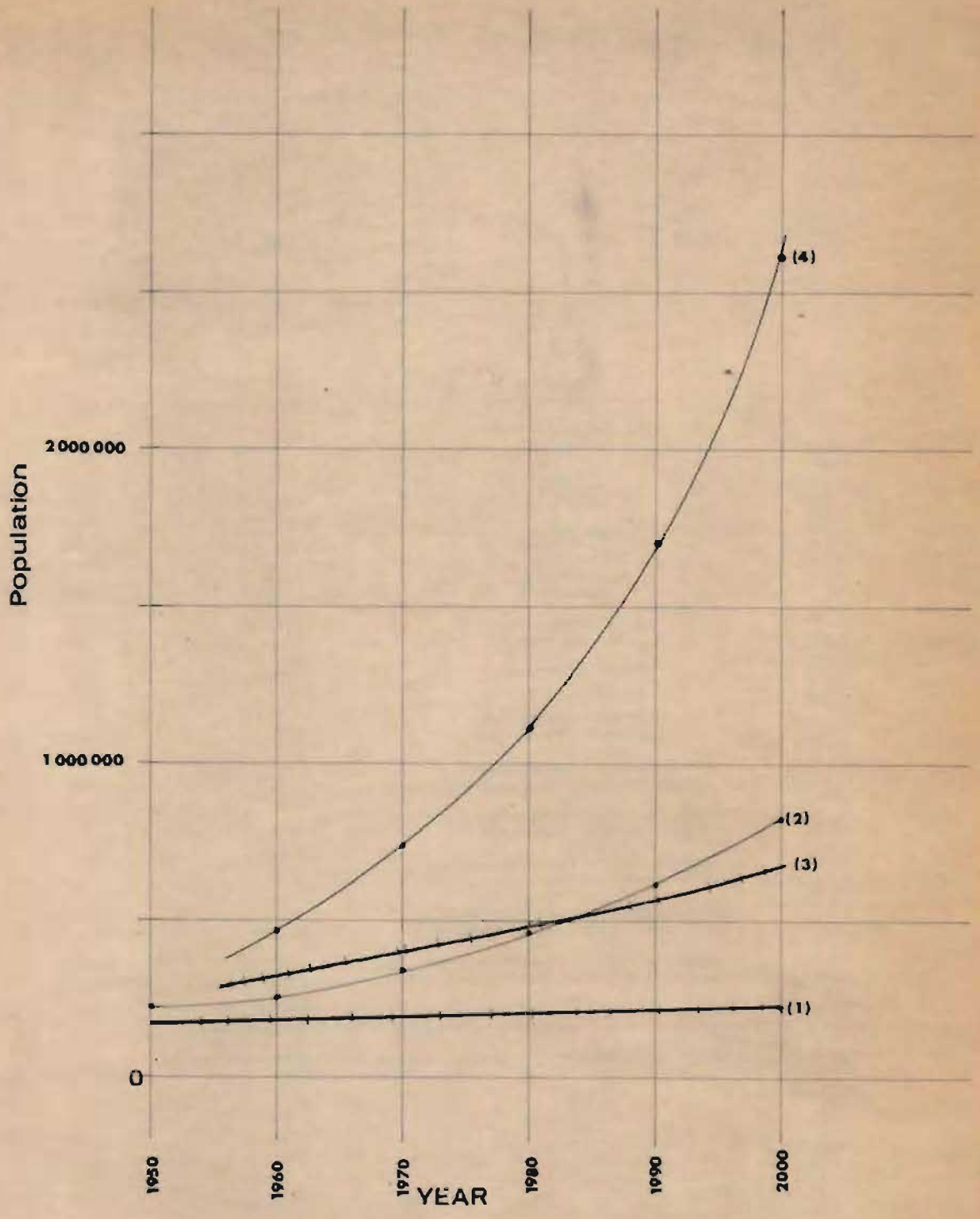
Tables 32-40

SECOND GAME

	Facility	Alternatives	Price	GROUP A		GROUP B		GROUP C	
				Number of votes	Expenditure	Number of votes	Expenditure	Number of votes	Expenditure
41	Roads	Made up roads	R3	20	60	33	99	30	90
		Gravel roads	R2	11	22	2	4	5	10
		Sandy tracks	R0	4	0	0	0	0	0
		TOTALS		35	88	35	103	35	100
42	Dwelling	House (or flat) on street	R2	7	14	25	50	10	20
		House (or flat) on footpaths	R1	28	28	10	10	25	25
		TOTALS		35	42	35	60	35	45
43	Streetlights	Very good street-lighting	R2	13	26	6	12	8	16
		Streetlights like you have now	R1	22	22	29	29	27	27
		TOTALS		35	48	35	41	35	43
44	Garden	Large	R2	4	8	17	34	4	8
		Small	R1	28	28	17	17	21	21
		None	R0	3	0	1	0	10	0
		TOTALS		35	36	35	51	35	29
45	Rooms	No extra room	R0	11	0	19	0	14	0
		One extra room in your home	R3	23	69	16	48	21	63
		Two extra rooms in your home	R6	1	6	0	0	0	0
		TOTALS		35	75	35	48	35	63
46	Made up side walks	Paved	R2	4	8	2	4	6	12
		Not paved	R0	31	0	33	0	29	0
		TOTALS		35	8	35	4	35	12
47	Police Station nearby	Yes	R1	17	17	17	17	16	16
		No	R0	18	0	18	0	19	0
		TOTALS		35	17	35	17	35	16
48	Childrens' playground nearby	Yes	R1	15	15	10	10	15	15
			R0	20	0	25	0	20	0
		TOTALS		35	15	35	10	35	15
49	Trees	Yes	R1	2	2	0	0	4	4
		No	R0	33	0	35	0	31	0
		TOTALS		35	2	35	0	35	4
50	Telephone	Telephone in house	R2	3	6	3	6	3	6
		Call Box at Bus Stop	R1	13	13	10	10	17	17
		No telephone	R0	19	0	22	0	15	0
		TOTALS		35	19	35	16	35	23
		GRAND TOTALS			350		350		350

Preference of Environment in ranked order.

		Environmental Types								Total	Uniformity Factor
		T	S	W	X	U	V	R	T		
		Number of Votes									
Table 53.	The Whole Sample Combined.										
	1st choice	75	9	8	5	3	1	2	0	103	0,73
	2nd choice	12	44	18	12	6	5	1	5	103	0,43
	3rd choice	5	16	27	25	12	11	4	3	102	0,26
	4th choice	5	13	21	29	14	10	8	3	103	0,28
	5th choice	1	8	7	7	34	22	9	15	103	0,33
	6th choice	3	6	9	7	15	29	19	15	103	0,28
	7th choice	0	4	7	8	16	15	41	12	103	0,40
	8th choice	2	3	6	10	3	10	19	30	103	0,49
	TOTALS	103	103	103	103	103	103	103	103	824	3,20
	Average degree of unanimity = 40%										
Table 54.	Sample Group A										
	1st choice	22	6	3	2	2	0	0	0	35	0,43
	2nd choice	7	10	6	6	2	3	0	1	35	0,29
	3rd choice	2	3	11	11	2	4	0	0	35	0,31
	4th choice	1	6	8	9	2	4	2	2	35	0,26
	5th choice	0	4	3	1	14	6	4	3	35	0,40
	6th choice	2	1	1	3	7	12	4	5	35	0,34
	7th choice	0	0	3	1	5	4	20	2	35	0,57
	8th choice	0	5	0	1	5	1	5	18	35	0,63
	TOTALS	35	35	35	35	35	35	35	35		3,43
	Average degree of Unanimity = 43%										
Table 55.	Sample Group B										
	1st choice	26	2	2	1	0	1	1	0	33	0,79
	2nd choice	2	16	6	3	3	0	0	1	33	0,49
	3rd choice	1	4	11	7	3	4	0	1	33	0,33
	4th choice	1	3	6	13	5	0	3	0	33	0,39
	5th choice	0	1	1	2	12	6	3	8	33	0,36
	6th choice	1	2	4	1	1	7	11	6	33	0,21
	7th choice	0	1	0	1	7	9	7	8	33	0,21
	8th choice	2	0	1	5	2	6	8	9	33	0,27
	TOTALS	33	33	33	33	33	33	33	33		3,05
	Average degree of unanimity = 38%										
Table 56.	Sample Group C										
	1st choice	27	1	3	2	1	0	1	0	35	0,77
	2nd choice	3	18	4	3	1	2	1	3	35	0,51
	3rd choice	2	5	5	7	7	3	4	2	35	0,14
	4th choice	2	2	7	2	7	6	3	1	35	0,20
	5th choice	1	3	3	4	8	10	2	4	35	0,23
	6th choice	0	1	4	3	7	10	4	4	35	0,29
	7th choice	0	3	4	4	4	3	14	2	35	0,40
	8th choice	0	0	5	3	0	2	4	19	35	0,54
	TOTALS	35	35	35	35	35	35	35	35		3,04
	Average degree of unanimity = 39%										
	The Whole Sample - by Household Size.										
Table 57.	Household Size 4 or fewer										
	1st choice	19	1	3	1	2	1	0	0	28	0,68
	2nd choice	3	14	4	2	3	1	0	1	28	0,50
	3rd choice	1	2	10	9	3	2	0	1	28	0,36
	4th choice	1	3	5	7	4	4	3	1	28	0,25
	5th choice	1	4	0	1	6	10	2	4	28	0,21
	6th choice	2	3	1	1	4	6	6	5	28	0,43
	7th choice	0	0	3	2	6	1	12	4	28	0,43
	8th choice	1	0	2	5	0	4	5	11	28	0,39
	TOTALS	28	28	28	28	28	28	28	28		3,03
	Average degree of unanimity = 38%										
Table 58.	Household size from 5 to 7 persons.										
	1st choice	34	5	4	3	0	0	2	0	48	0,71
	2nd choice	6	15	9	4	3	2	0	4	48	0,37
	3rd choice	3	9	11	10	3	6	2	2	48	0,23
	4th choice	3	7	10	11	2	4	4	0	48	0,21
	5th choice	0	2	3	4	20	3	3	9	48	0,67
	6th choice	1	3	1	5	3	15	10	9	48	0,33
	7th choice	0	2	3	3	4	10	19	4	48	0,60
	8th choice	1	2	3	4	1	3	4	24	48	0,50
	TOTALS	48	48	48	48	48	48	48	48		3,23
	Average degree of Unanimity = 40%										
Table 59.	Household size 5 persons or more										
	1st choice	22	2	1	1	1	0	0	0	27	0,81
	2nd choice	3	12	5	4	0	2	1	0	27	0,44
	3rd choice	2	5	5	0	4	3	2	0	27	0,22
	4th choice	1	3	6	6	3	2	1	2	27	0,34
	5th choice	0	2	2	2	8	7	4	2	27	0,30
	6th choice	0	0	5	1	3	7	3	6	27	0,26
	7th choice	0	2	1	3	4	5	10	2	27	0,37
	8th choice	0	1	1	1	2	1	0	15	27	0,55
	TOTALS	27	27	27	27	27	27	27	27		3,19
	Average degree of unanimity = 41%										



(a) Predicted increase in present population within Municipal Area (Source) Medical Officer of Health.

(1) Whites

(2) Coloureds

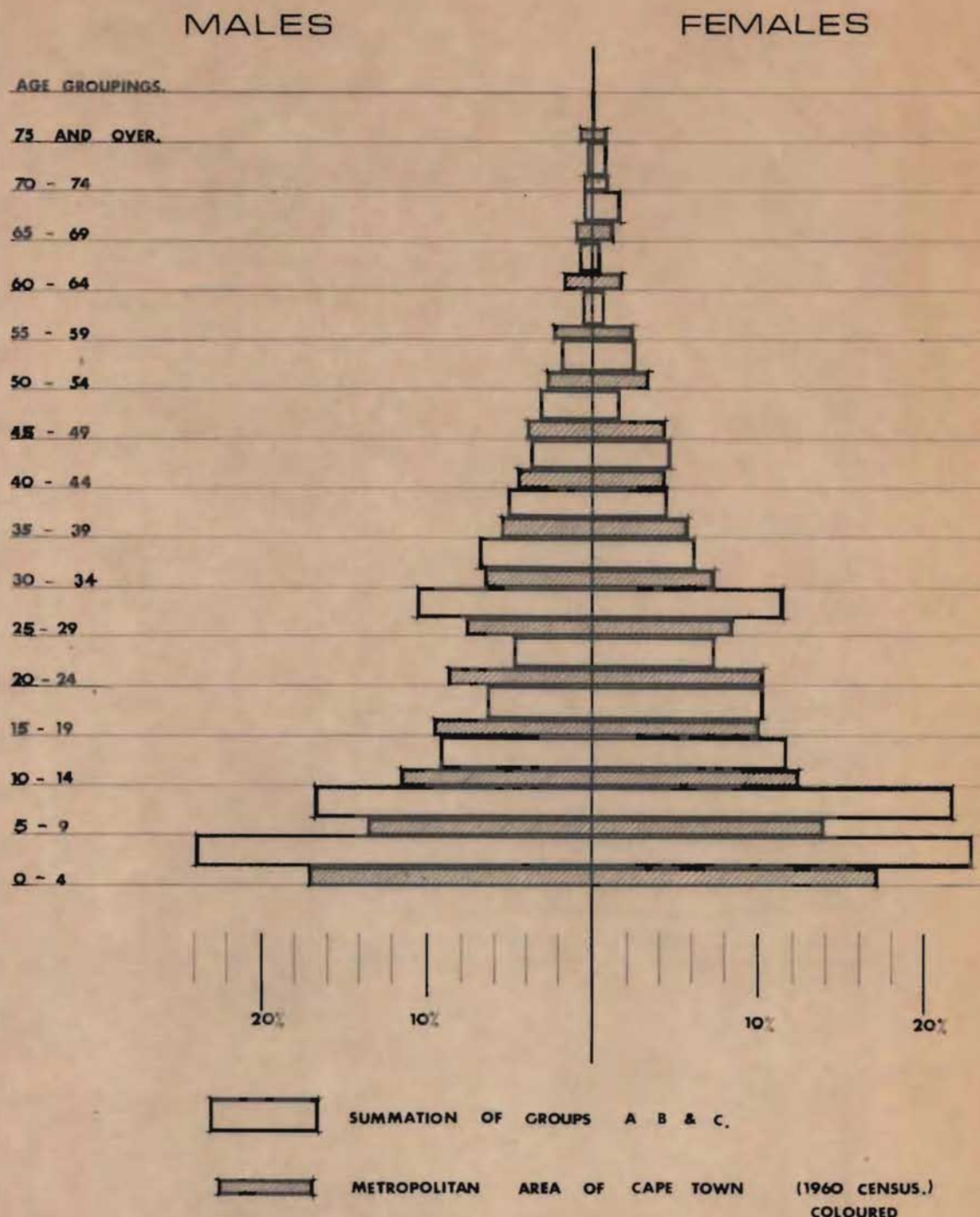
(b) Predicted increase in population in the 01 02 & 03 Census districts (Source) Department of Urban & Regional Planning (UCT)

(3) Whites

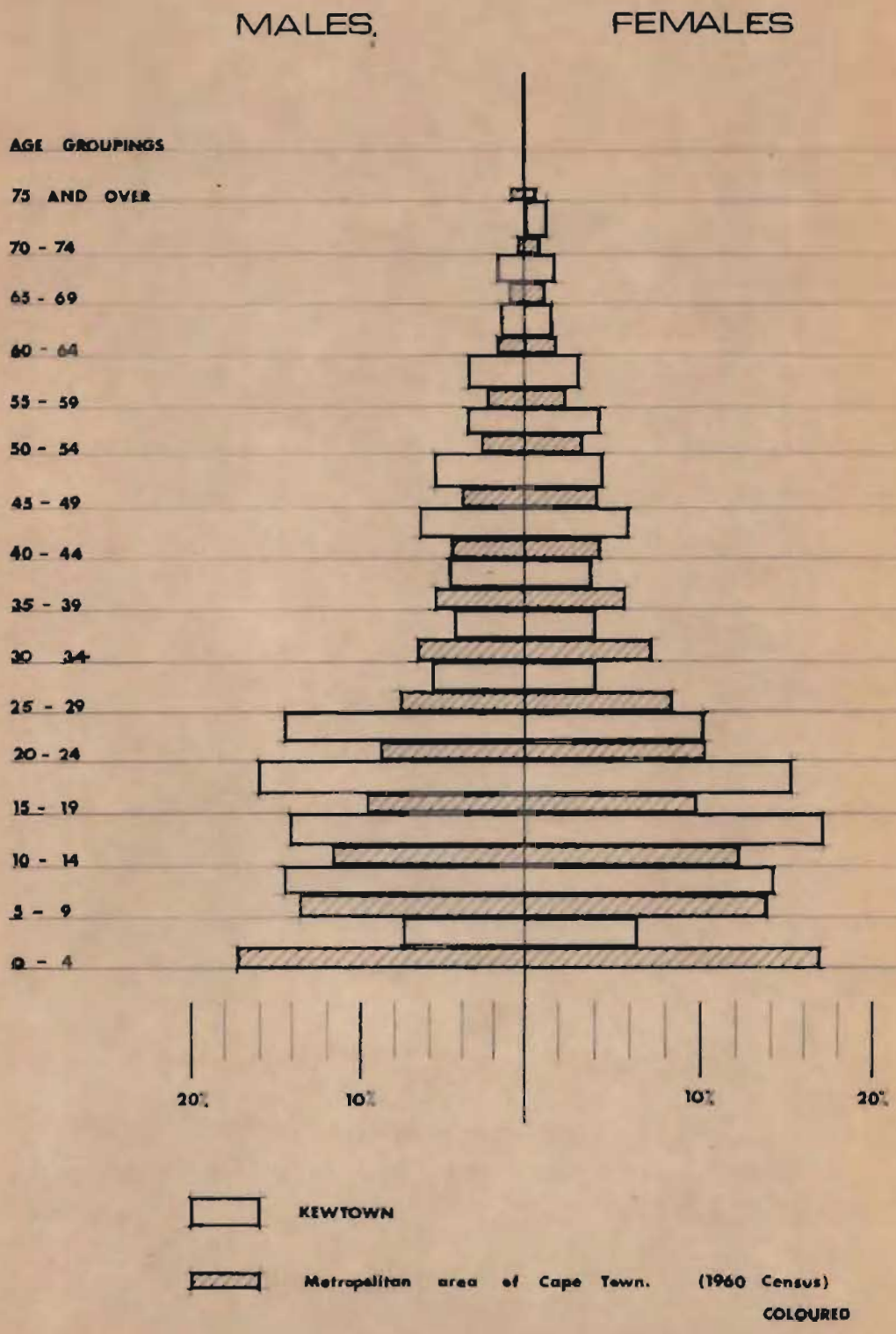
(4) Coloureds

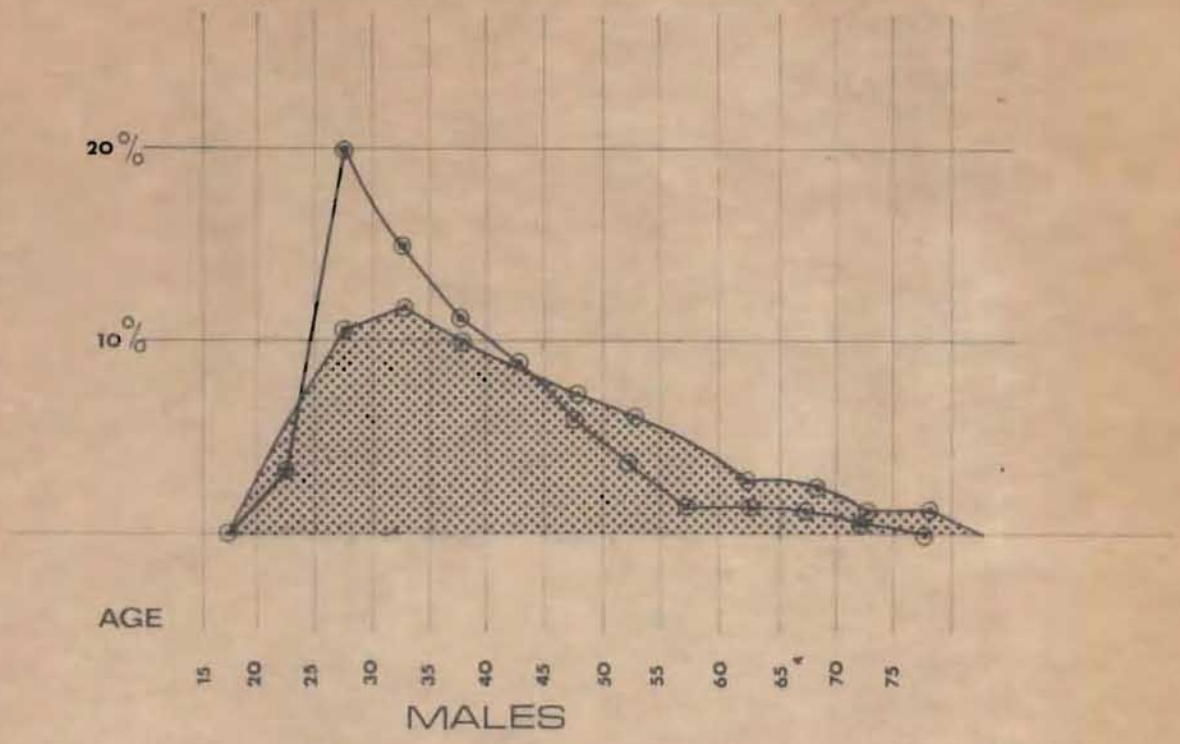
DISTRIBUTION OF POPULATION BY AGE AND SEX.

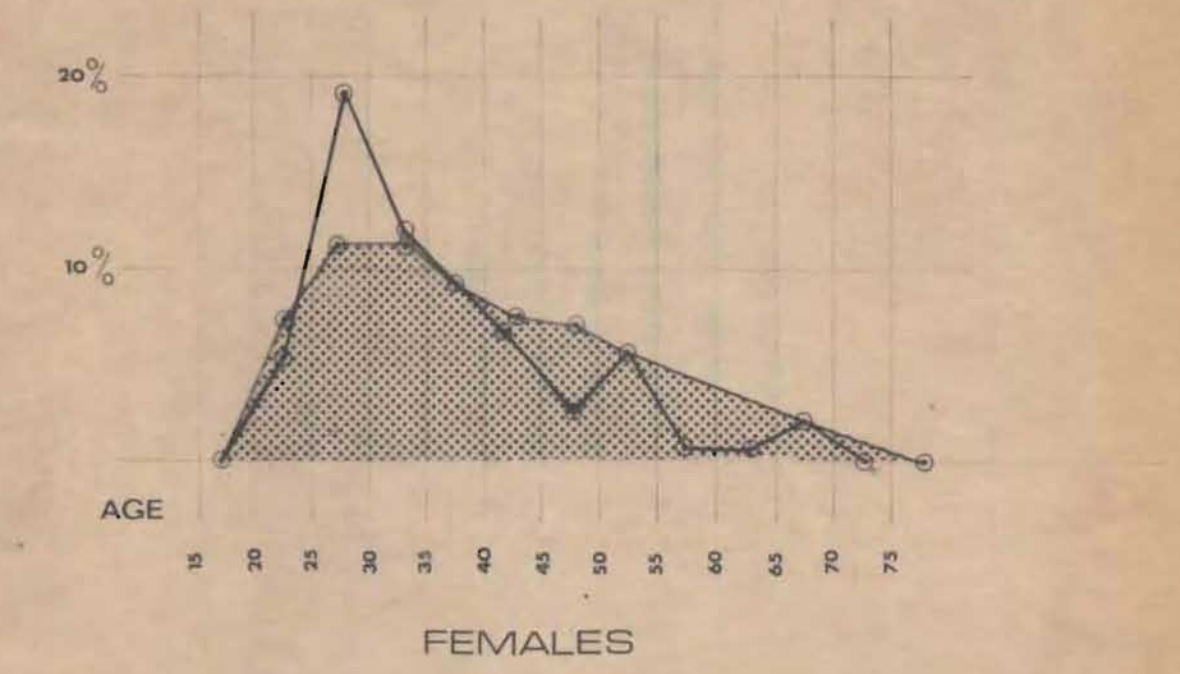
HEIDEVELD



DISTRIBUTION OF POPULATION BY AGE AND SEX. KEWTOWN



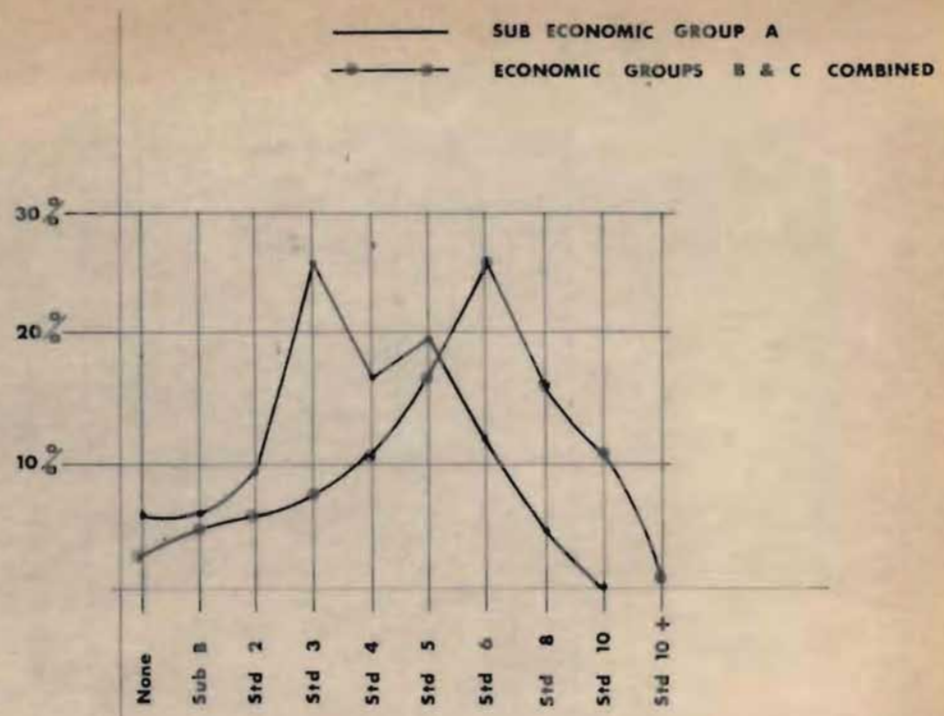


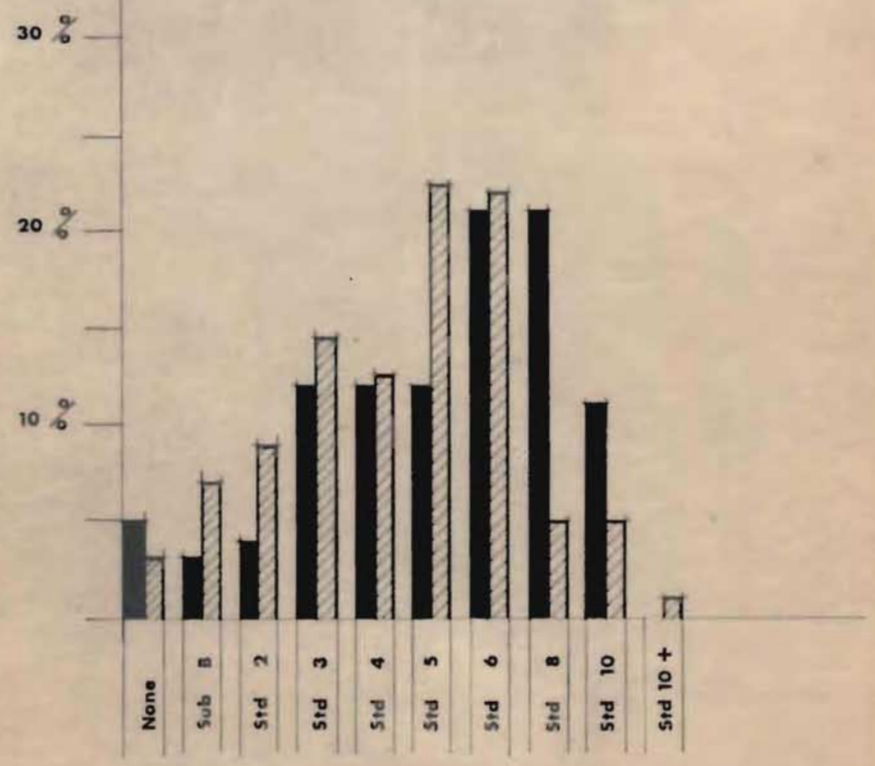


DISTRIBUTION BY AGE OF MARRIED PERSONS TO TOTAL POPULATION OVER 15 YEARS OLD

HEIDEVELD

METROPOLITAN AREA OF CAPE TOWN (1960 census)



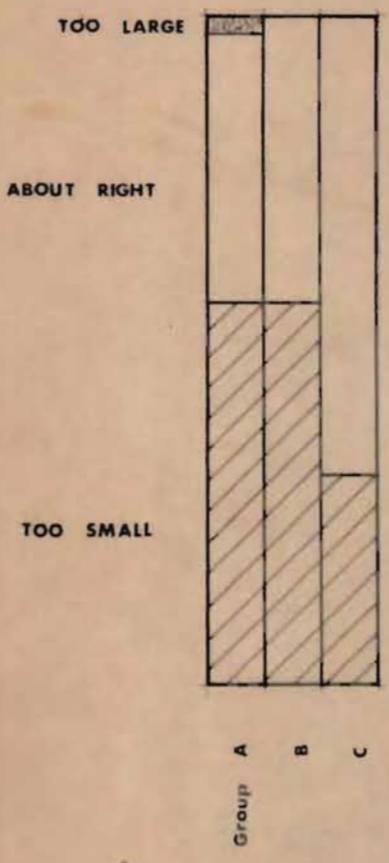


LEVEL OF EDUCATION
BY SEX

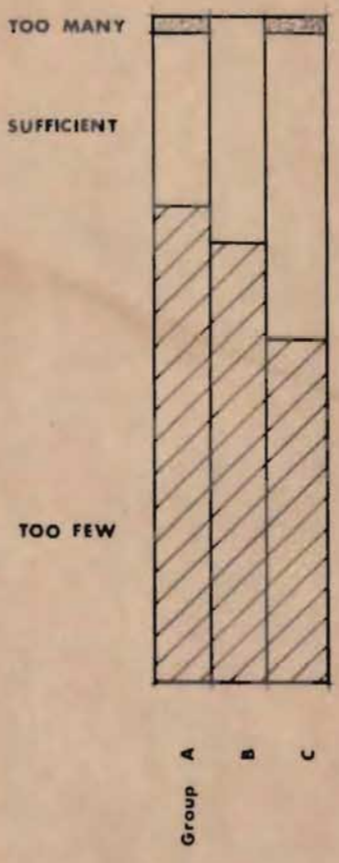
MALES

FEMALES

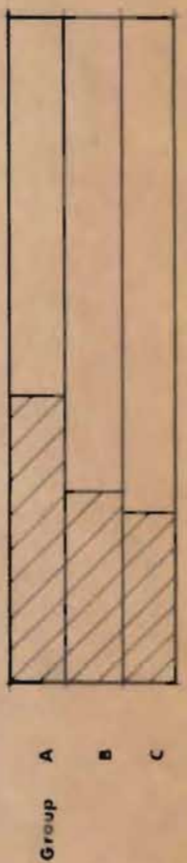
ROOM SIZES

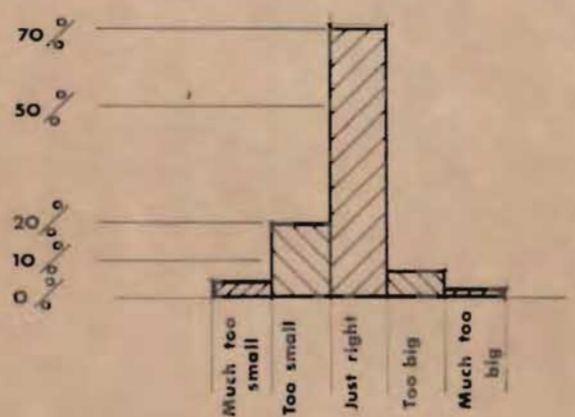


NUMBER of ROOMS



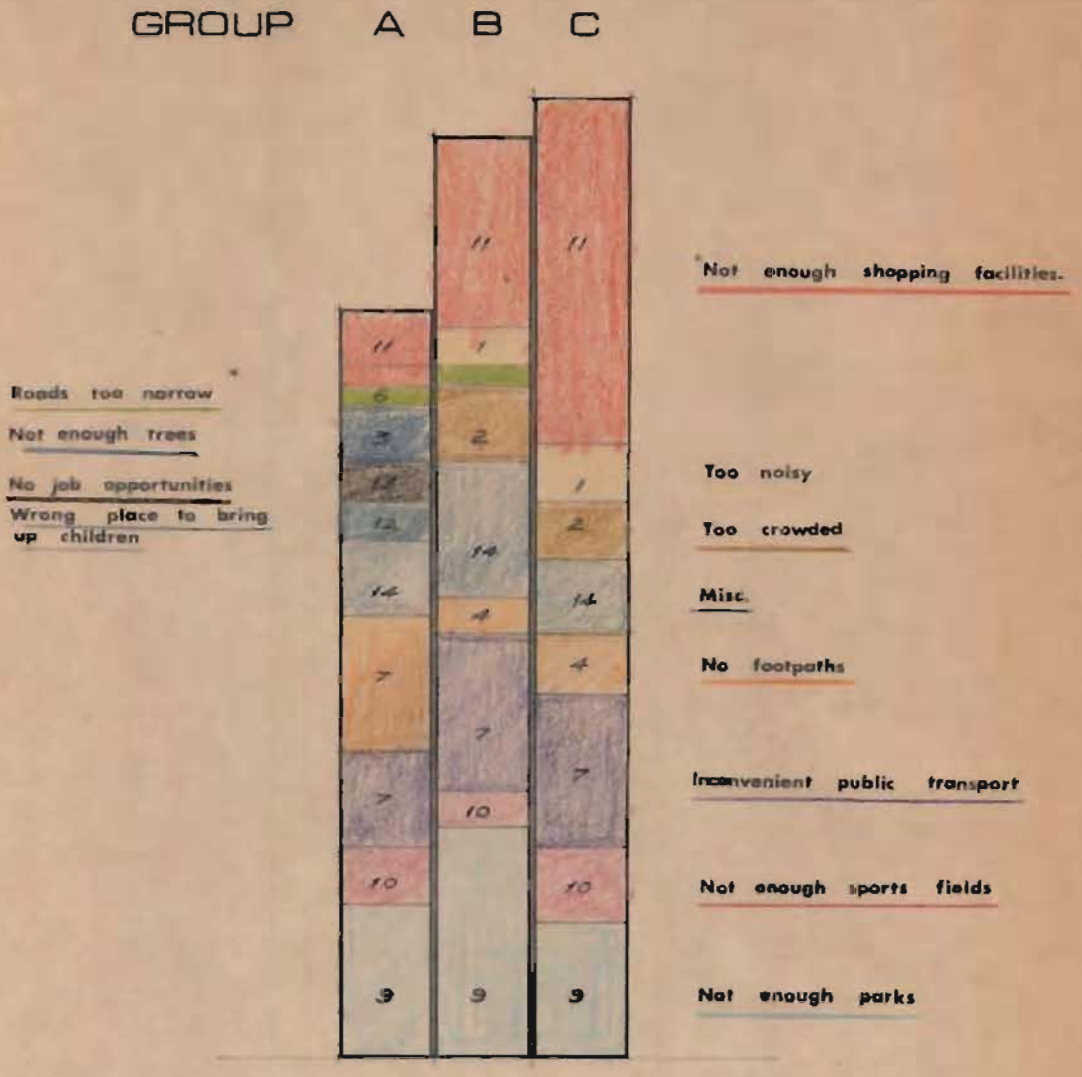
ASPECT of DWELLI





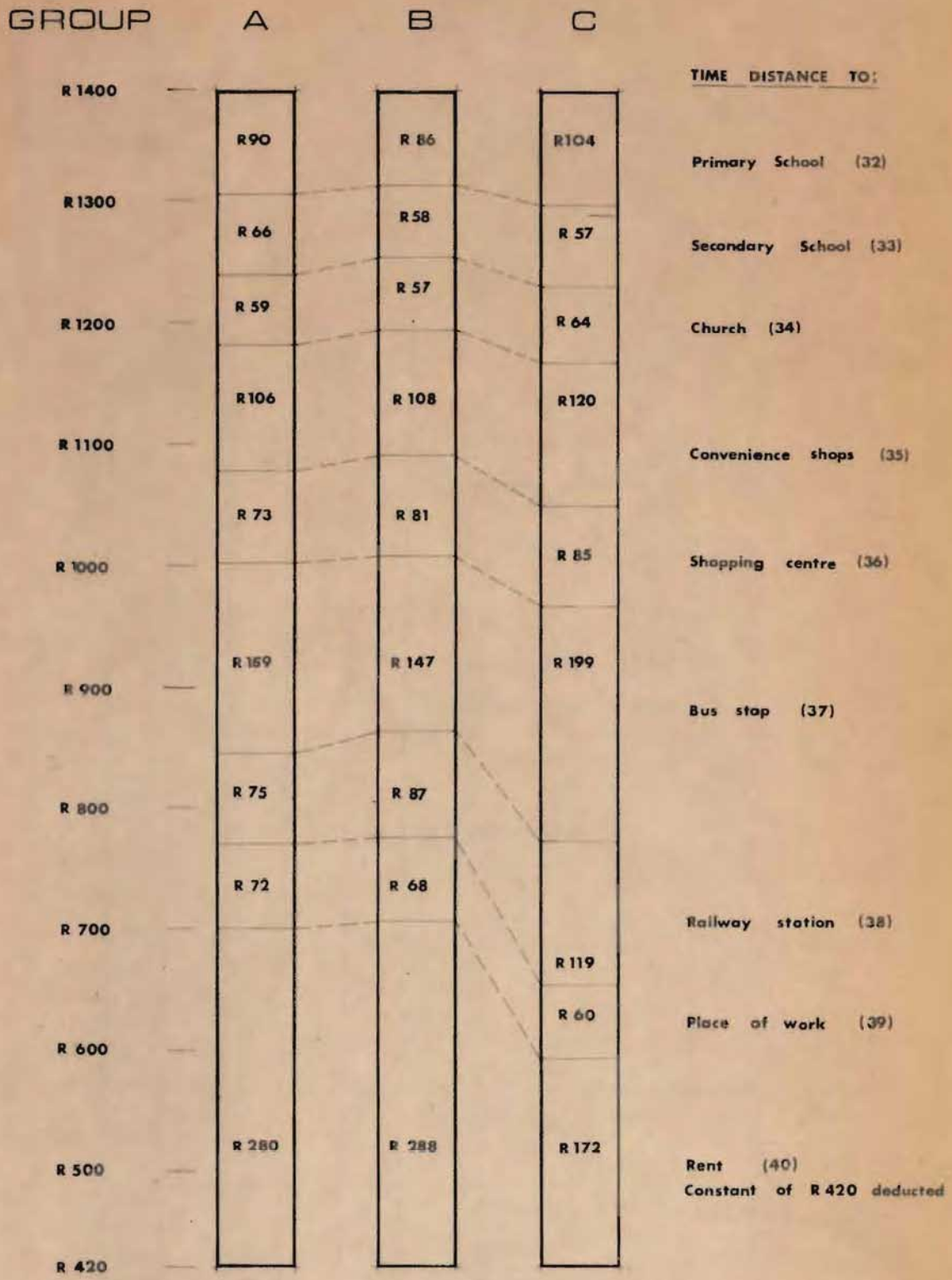
Attitude towards garden space.

ANALYSIS OF QUESTIONS 26, 27, 28 & 29.



DISSATISFACTION WITH THE NEIGHBOURHOOD

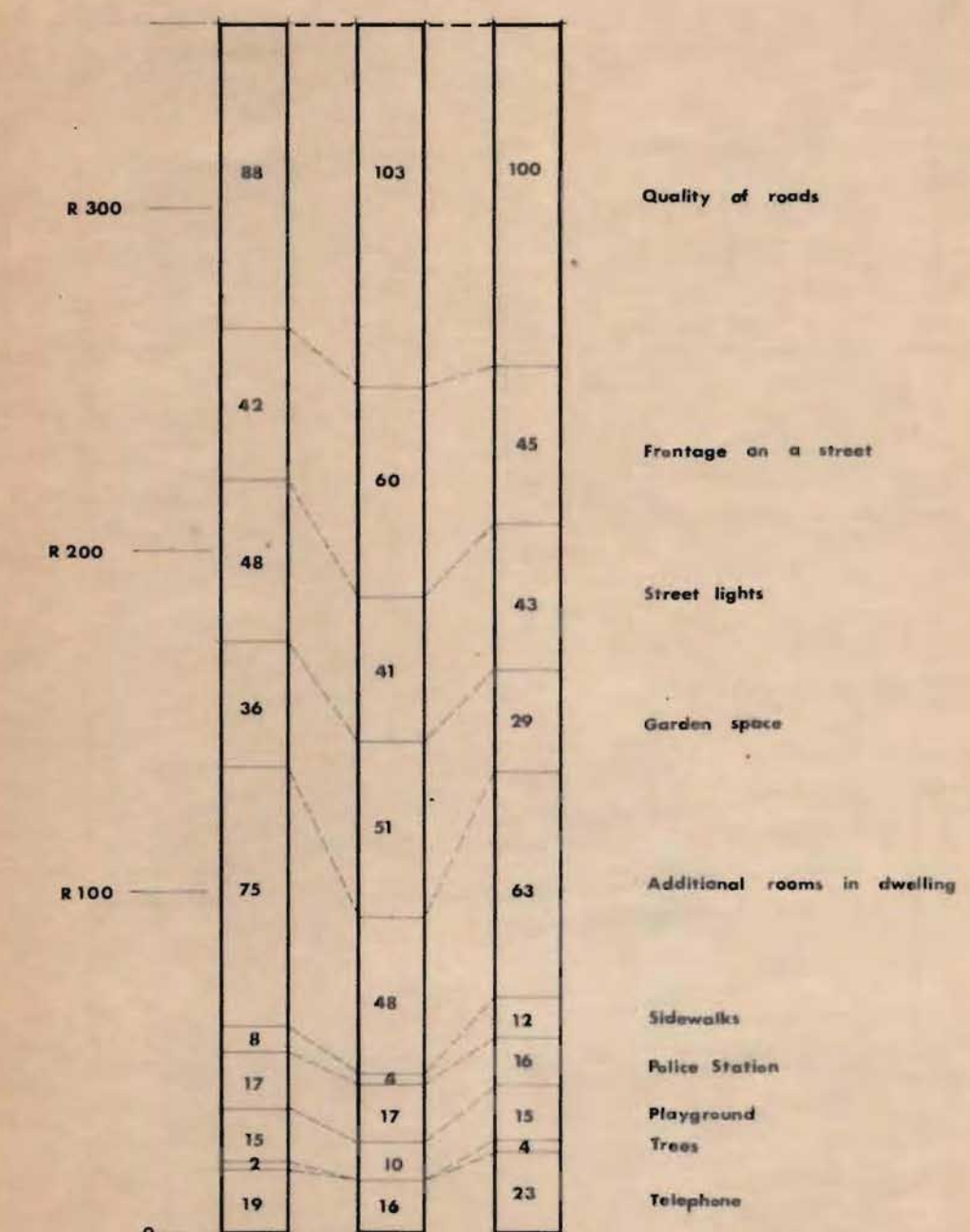
First Game



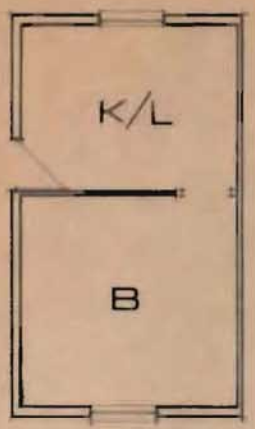
Summation of relative importance of rent in relation to time & distances of various amenities. Each group comprised 35 respondents. Each respondent was permitted to spend R 40 i.e. R 1400 per group.

Second Game

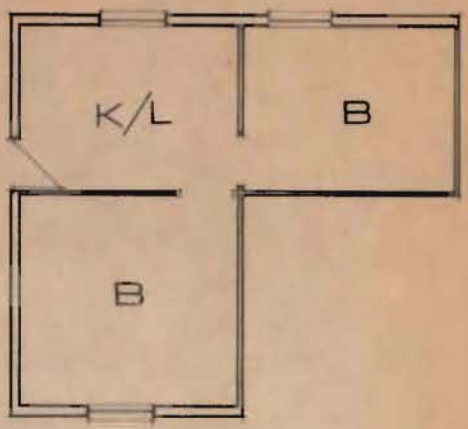
Summation of relative importance of various utilities and services



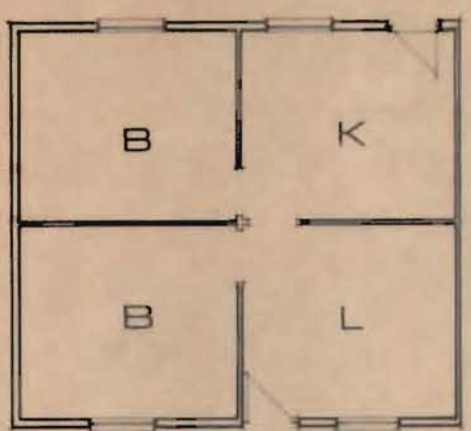
EACH GROUP COMPRISED 35 RESPONDENTS EACH WITH AN AVAILABLE R10 i.e. R350 PER



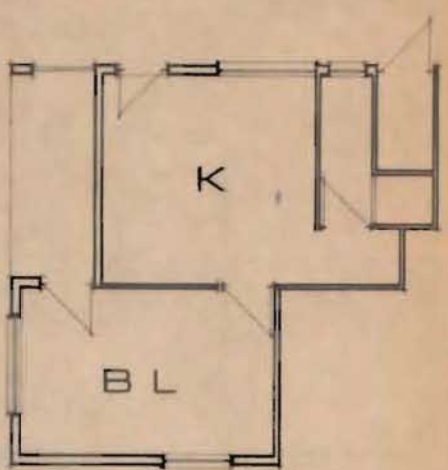
Code **0**



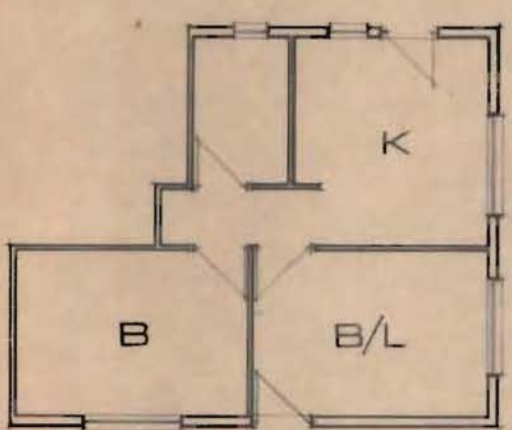
1



2



3



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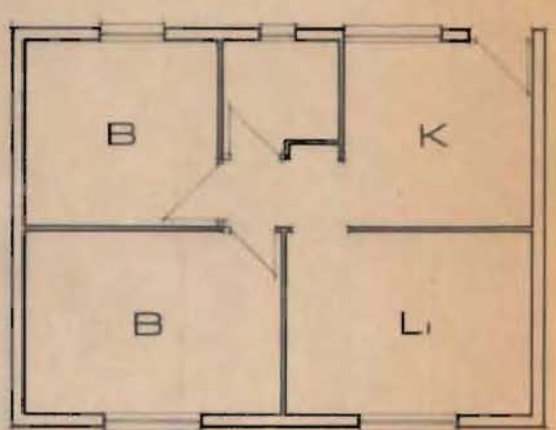


5

K Kitchen

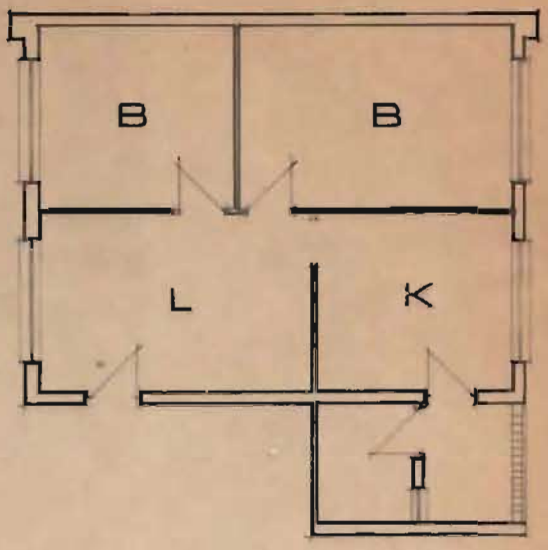
L Livingroom

B Bedroom

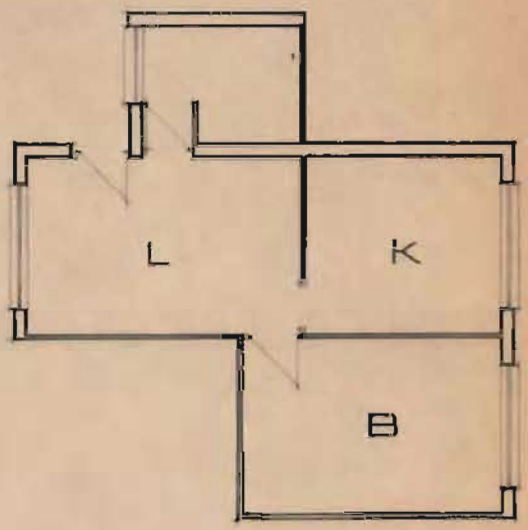
SCALE 10ft = 1 inch

Code

12, 13, 14.

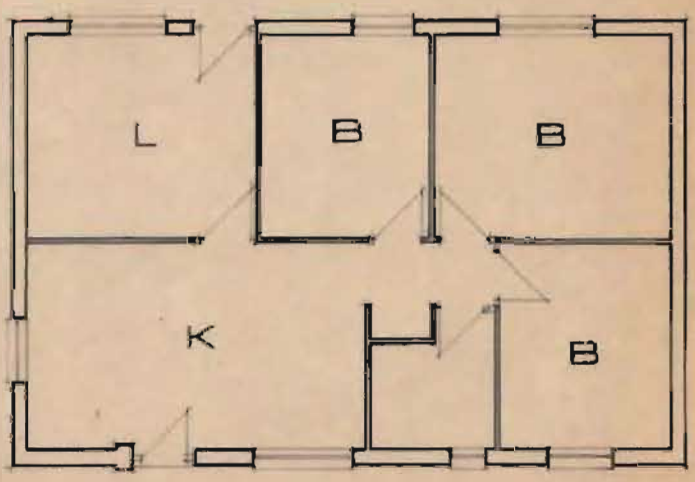


9, 10, 11.



1

6



SCALE 10 ft = 1 inch

E 12

STATE

ESTATE

E13

Locality plan of Heidevald

Scale 1-200,000.

INTERVIEW SURVEY AT HEIDEVELD

CARRIED OUT IN JULY/AUGUST, 1968.

P A R T I.

1. Residential Structure Type.

0. Semi-detached sub-economic - 2 rooms.
1. Semi-detached sub-economic - 3 rooms.
2. Semi-detached sub-economic - 4 rooms.
3. Economic shared single storey - 2 rooms.
4. Economic shared single storey - 3 rooms.
5. Economic single storey semi-detached - 4 rooms.
6. Economic detached single storey - 5 rooms.
7. Economic 4 roomed flat - double storey block (ground floor).
8. Economic 4 roomed flat - double storey block (first floor).
9. Economic 3 roomed flat - 3 storey block, ground floor.
10. Economic 3 roomed flat - 3 storey block, 1st floor.
11. Economic 3 roomed flat - 3 storey block, 2nd floor.
12. Economic 4 roomed flat - 3 storey block, ground floor.
13. Economic 4 roomed flat - 3 storey block, 1st floor.
14. Economic 4 roomed flat - 3 storey block, 2nd floor.

2. How many people in the household?

1, 2, 3, 4, 5, 6, 7 etc.

3. In which of the following ways is the total household made up?

0. One basic family unit.
1. Two basic family units.
2. One basic family unit and relatives or boarders.
3. Part basic family unit (1 parent and child/ren and/or other persons.
4. Other (specify).

4. Home language.

0. English.
1. Afrikaans.
2. English and Afrikaans.
3. Other (specify).

5. Number of Motor Vehicles owned.

0, 1, 2 etc.

6. Rental paid per week.

0. 0 - R1.
1. R1 - R2.
2. R2 - R3.
3. R3 - R4.
4. R4 - R5.
5. R5 - R6.
6. R6 - R7.
7. R7 - R8.
8. Over R8.

7. / .....

7. Total family Income.

	Per annum	Per month	Per week
0.	No response	-	-
1.	0 - R500	0 - R41-66	0 - R9-61
2.	R500 - R1000	R41-67 - R83-33	R9-62 - R19-23
3.	R1000 - R1500	R83-34 - R125-00	R19-24 - R28-84
4.	R1500 - R2000	R125-00 - R166-00	R28-85 - R38-46
5.	R2000 - R2500	R167-00 - R208-00	R38-47 - R48-00
6.	R2500 - R3000	R209-00 - R250-00	R48-00 - R58-00
7.	More than R3000	More than R250	More than R58.

8. Where did you live before you moved to Heideveld?

0. Sea Point.
1. Central Cape Town.
2. District Six.
3. Woodstock/Salt River.
4. Observatory/Mowbray/Claremont.
5. Wynberg/Retreat.
6. Maitland/Bellville.
7. Country area.
8. Other.
9. Cape Flats.

9. What was your previous accommodation?

0. Shack.
1. Brick detached house.
2. Tenement.

10. How many families shared your previous accommodation with you?

0. No other.
1. One.
2. Two, etc.

11. Where do you buy most of your convenience goods (i.e. food, drink, chemists' goods, etc.)

0. Not applicable.
1. Local corner shops.
2. Bonteheuwel.
3. Welcome Estate.
4. Athlone.
5. Salt River.
6. Mowbray.
7. Central Cape Town.
8. Claremont.
9. Elsewhere (specify).

12. / .....

12. Where do you buy most of your durable goods (i.e. clothing, hardware, furniture, etc.)

0. Not applicable.
1. Local corner shops.
2. Bonteheuwel.
3. Welcome Estate.
4. Athlone.
5. Salt River.
6. Mowbray.
7. Central Cape Town.
8. Claremont/Lansdowne.
9. Elsewhere (specify).

13. Fuel used for cooking.

1. Coal.
2. Electricity.
3. Paraffin.
4. Wood.
5. Other.

14. Fuel used for heating.

0. Nil.
1. Coal.
2. Electricity.
3. Paraffin.
4. Wood.
5. Other.

The following questions 15 to 18 inclusive were applied to every member of the household.

15. Sex.

0. Male.
1. Female.

16. Age Group.

0. 0 - 4
1. 5 - 9
2. 10 - 14
3. 15 - 19
4. 20 - 24
5. 25 - 29
6. 30 - 34
7. 35 - 39
8. 40 - 44
9. 44 - 49
10. 50 - 54
11. 55 - 59
12. 60 - 64
13. 65 - 69
14. 70 - 74
15. 75 and over.

17. / ....

17. Marital Status.

0. Never married.
1. Married.
2. Widowed.
3. Divorced.

18. Occupation.

0. Professional or technical.
1. Administrative or managerial.
2. Clerical.
3. Sales.
4. Fisherman.
5. Quarry worker.
6. Transport worker.
7. Craftsman.
8. Labourer.
9. Service or recreation.
10. Housewife.
11. Unemployed.
12. Child (not scholar).
13. Scholar or student.

19. Week end Activities.

(This question was confined to persons 15 years of age and over).

0. None.
1. Gardening.
2. Active sport.
3. Passive sport.
4. Visiting.
5. Reading.
6. Housekeeping.
7. Weekday work.
8. Other.

The following questions 20 through 25 were applied to the head of the household and spouse.

20. Birth Place.

0. D/K.
1. Cape Town.
2. Western Cape (in a town).
3. Western Cape (Rural).
4. Elsewhere (Urban).
5. Elsewhere (Rural).

21. Period of residence in a Town.

0. 0 - 2.
1. 3 - 5.
2. 6 - 8.
3. 9 - 11.
4. 12 - 14.
5. 15 or more.

22. Level of Education.

0. None.
1. Sub A, B.
2. Stds. 1 or 2.
3. Std. 3.
4. Std. 4.
5. Std. 5.
6. Std. 6.
7. Stds. 7 or 8.
8. Stds. 9 or 10.
9. Further than Std. 10.

23. Place of Work.

0. Not applicable.
1. Central City.
2. Sea Point/Camps Bay.
3. Woodstock/Observatory.
4. Mowbray/Claremont.
5. Kenilworth/Plumstead.
6. Diep River to Simon's Town.
7. Cape Flats.
8. Ndabeni/Milnerton.
9. Epping.
10. Heideveld.
11. Maitland to Bellville.
12. Elsewhere.

24. Mode of travel to Work.

0. Not applicable.
1. Walk.
2. Cycle.
3. Bus.
4. Train.
5. Car.
6. Passenger in Car.
7. Bus and Train.
8. Car and Train.
9. Other.

25. Time taken travelling to Work.

0. Not applicable.
1. 0 - 10 mins.
2. 11 - 20 mins.
3. 21 - 30 mins.
4. 31 - 40 mins.
5. 40 - 60 mins.
6. 1 - 1½ hours.
7. 1½ - 2 hours.
8. More than 2 hours.

ATTITUDE TOWARDS ENVIRONMENT.

26. Room Sizes.

1. Too small.
2. About right.
3. Too large.

27. / .....

27. Number of rooms.

1. Too few.
2. Sufficient.
3. Too many.

28. Aspect of dwelling.

1. Does not face as you would like.
2. Faces as you would like.

29. Garden Space.

0. Not applicable.
1. Much too small.
2. Too small.
3. Just right.
4. Too much.
5. Far too much.

30. Satisfaction with various aspects of the neighbourhood.

Respondent to give two aspects of the neighbourhood which he dislikes, such as:-

0. No response.
1. Too noisy.
2. Too crowded.
3. Not enough trees.
4. No footpaths.
5. Roads too wide.
6. Roads too narrow.
7. Inconvenient public transport.
8. Not enough schools.
9. Not enough parks.
10. Not enough sports fields.
11. Not enough shopping facilities.
12. Wrong place to bring up children.
13. No job opportunities in the immediate area.
14. Other.

P A R T 2.

31. Environmental preferences.

Eight pictures (see annexure F.12) to be sorted into order of preference by any one person in the household over 17 years of age (preferably the husband or wife).

32 to 40. First game, played with R40.

51. Choice between urban and suburban environment regardless of financial implications (see picture Z, annexure F.11).

1. Preference for picture Z.
2. Preference for choice under question 31.

52. / .....

52. Choice between flat life in an urban or suburban environment regardless of financial implications.

1. Preference for picture Z.
2. Preference for a flat amongst pictures R, T, U or V.

53. Comparison between your present living conditions and those where you lived before you came to Heideveld.

0. Much worse.
1. Worse.
2. Equal.
3. Better.
4. Much better.

P A R T 3.

Second Game.

Questions 41 through 50 played with R10.

P A R T 2.

FIRST GAME - QUESTIONS 32 - 40.

(Played with forty rand)

	32 Primary School	33 Secondary School	34 Church	35 Grocery Shop	37 Bus Stop	38 Railway Station
5 minutes walk	R4	R4	R4	R4	R4	R13
10 minutes walk	R3	R3	R3	R3	R3	R9
20 minutes walk	R2	R2	R2	R2	R2	R5
30 minutes walk	R1	R1	R1	R1	R1	R1

	36 Shopping Centre	39 Your Place of Work
5 minutes walk	R9	R4
10 minutes walk	R7	R3
30 minutes travelling time	R3	R2
1 hour travelling time	R1	R1

Question 40.

Choice of Environment from pictures.

Type	R	S	T	U	V	W	X	Y
Rent	R14	R22	R12	R18	R16	R24	R20	R26

P A R T 3 (SECOND GAME).

41.

Made up roads	3
Gravel roads	2
Sandy tracks	Free

42.

House (or flat) on street	2
House (or flat) on a footpath	1

43.

Very good streetlights	2
Streetlights like you have now	1

44.

Extra large front garden & small back garden	2
Extra large back garden & small front garden	2
Small front and back garden	1
No garden at all - as with a flat	Free

45.

One extra room in your home	3
Two extra rooms in your home	6

46.

Made up sidewalks	2

47.

A Police Station nearby	1

48.

A children's playground nearby	1

49.

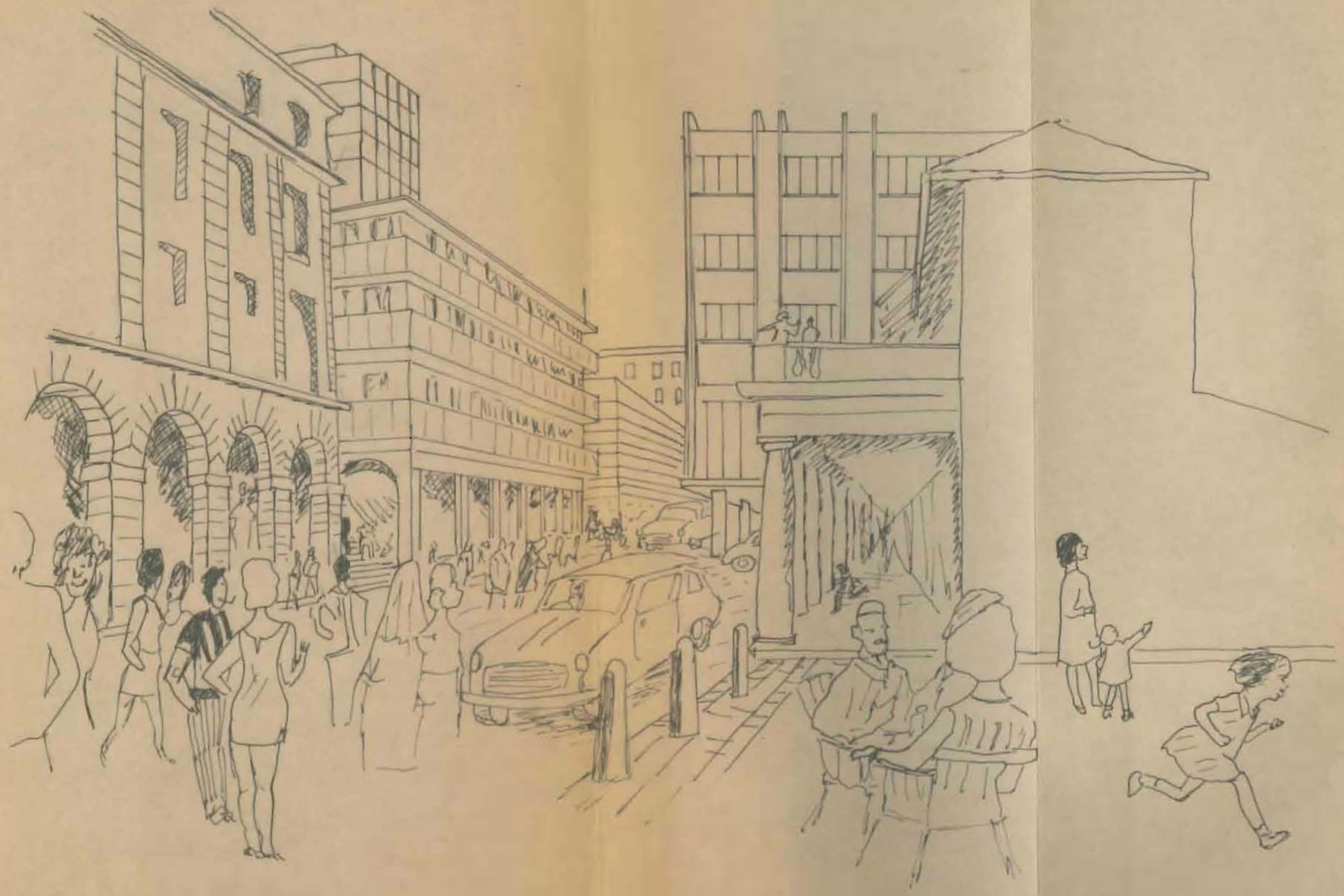
Large trees in your garden	1
Trees along the streets	1
Only an occasional tree in the streets	Free

P A R T 3 (SECOND GAME). (Contd.)

50.

A telephone in your house	2
A call box at the bus stop	1

F II



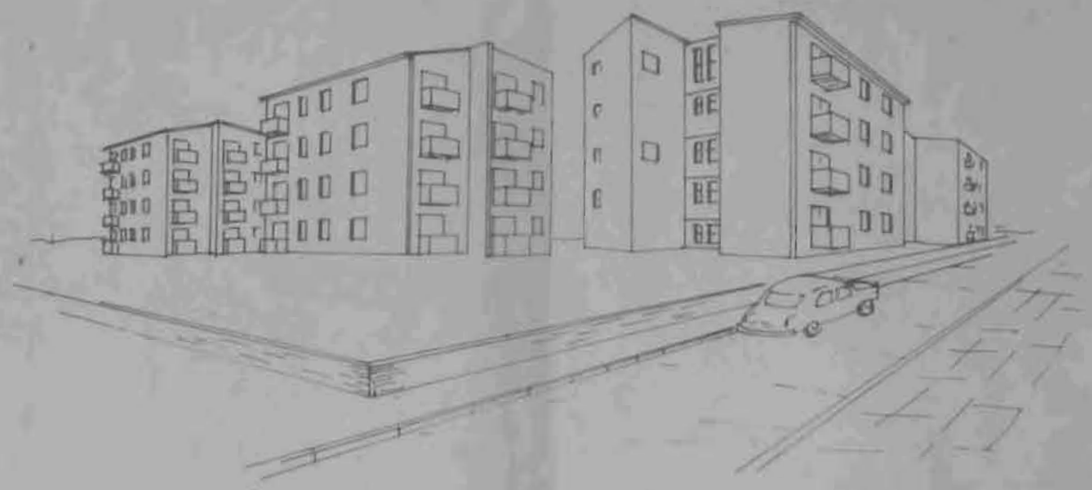
Z

R

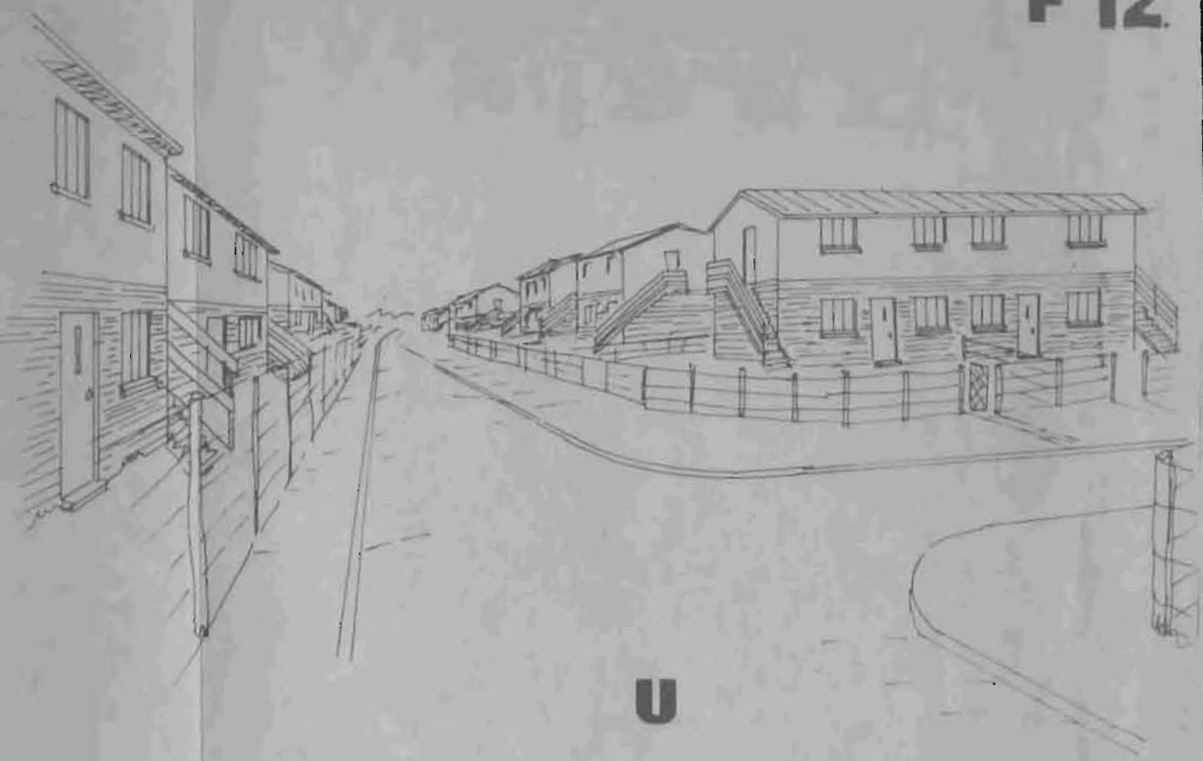
S

V

W



T



U

X

Y