SHARED KNOWLEDGE AND THE FORMAL HOUSING PROCESS IN NAMIBIA

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ABSTRACT

This study investigates issues related to housing in the period immediately preceding Namibia's independence in 1990. A formal housing process was inherited from the colonial era and during the decade before independence, this process became the one that was applied to provide housing for low-income people.

Indigenous Namibians were excluded from decision making and participating in their own housing process in the municipal areas. Policies of apartheid maintained cultural distances and contributed to a condition of lack of shared knowledge concerning the formal housing process. To solve the housing problem, an increased role by low-income people in the housing process is emphasised by international agencies, as well as the new Namibian government through its National Housing Policy and the housing strategy. In the context of policy and strategy proposals based on this emphasis, lack of shared knowledge is identified as the research problem for this thesis. This follows from the argument that shared knowledge is important to enable people to take actions in solving their own housing problems.

This lack of shared knowledge is investigated through aspects of the formal housing process dealing with the commercialisation of housing and the creation of the domestic environment. The research is done by using a combination of qualitative and quantitative methods, which include fieldwork in various urban areas in Nambia. It was determined that a limited awareness concerning certain financial and contractual aspects exists among house buyers. On the other hand, the domestic environment designs are based on principles of 'closed domesticated environments' for nuclear family and 'suburbs' for domestic purposes only, which do not reflect the way of life of the people occupying the houses. This is illustrated by an in-depth comparison of the socio-spatial characteristics of domestic environments designed on these principles, with those inhabited and created by the inhabitants themselves.

To conclude, proposals are made in context of housing developments after independence. It is proposed that increased participation by low-income people can only overcome this lack of shared knowledge, if the housing process is made more accessible to people. An accessible process also has to be developed in partnership with people in need of shelter.

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CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF TABLES IN APPENDICES

LIST OF FIGURES IN APPENDICES

CASS	Centre for Applied Social Sciences
CSIR	Council for Scientific and Industrial Research
CHDG	Community Housing Development Group
NBIC	National Building and Investment Corporation (changed to NHE)
NBRI	National Building and Research Institute
NEPRU	Nambian Economic and Political Research Unit
NHAG	Namibia Housing Action Group
NHE	National Housing Enterprise (NBIC before 1990)
NISER	Namibia Institute for Social and Economic Research
N$	Namibian Dollar (N$1.00 = R1.00 = US$0.35)
MRLGH	Ministry of Regional and Local Government and Housing
OHSIP	Oshakati Human Settlements Improvement Project
PHSL	Primary Household Subsistance Level
R	South African Rand (R1.00 = N$1.00 = US$0.35)
SABS	South African Buro of Standards
UNAM	University of Namibia
UNCHS	United Nations Centre for Human Settlements (Habitat)
UNDP	United Nations Development Programme

I am going to be very unhappy if the municipality gives this land to somebody else. I built my house here first and now they are saying this land is for a kindergarten and I have to move.

This comment was made by a person who settled informally on municipal land after independence. She was one of the numerous people that left overcrowded houses to settle north of the township Okuryangava in Windhoek. This group of people was puzzled that the piece of land they are living on could not be bought by them since it was zoned 'institutional'. The local authority, on the other hand, is merely following the planning principles it has been implementing the best part of the 1900s and is very concerned about keeping land open for future developments.

This expression of frustration is one of the numerous comments indicating a questioning and uncertainty of housing and planning procedures which I have often heard from low-income Namibians since 1987. It was only when the fieldwork for an M. Phil (Muller, 1988) was undertaken that I, as a white Namibian, obtained a view of living conditions on the other side of the 'buffer zone'[1]. People were not only divided physically but there is also a division of knowledge concerning problems, practices and life styles. These "two different worlds", from which the housing process in Namibia is understood, have been emphasised by further involvement with low-income housing. This involvement included experiences (personal contacts, research and community work) as an employee of the implementers of the formal housing process, as well as a voluntary worker with a community based organisation, Saamstaan Housing Co-op.

The 'one world' of local authorities and housing developers, applies principles and practises based on modern and western experiences. A whole process has developed to secure 'home-ownership' in a well-ordered urban environment. The definition and concepts concerning this 'order' form part of cultural developments outside of Namibia - whether one calls it the western, the modern or the global culture. This process that includes extensive, and often complicated, formalities, is referred to as the formal

[1] A piece of open land, road or industrial areas that separated the white, coloured and black townships.

housing process. Those that implement it are referred to as the formal agencies. For these agencies their procedures are based on acceptable housing principles.

The 'other world' of low-income urban Namibians - marginialised because of their colour - had to follow the housing options as offered by the coloniser's agents. This moved through stages. Until the late fifties they were allowed to build their own houses in designated areas, they then had to rent from the local authority, and during the eighties, they had to become home-owners. Apart from the fact that they had little say in the last two processes, they also played no part in it, except as occupiers of the end products. There is no reason why any of these housing processes should be acceptable to them. Rather than seeing home-ownership as recognising people's right to become part of towns, the manner in which it was applied appeared to people as if it were exploitation and was maintaining the status quo. The low-income also could not have access to this process.

These different perceptions between the low-income Namibians and the developers of towns and low-income housing contributed to the identification of the problem as a "lack of shared knowledge". This study was done on a part-time basis while I was working in Namibia in the housing sector. Since the completion of the M Phil study, employment as a National Building Investment Corporation (NBIC) researcher until 1992, created the opportunity to become familiar with the formal housing processes. It was also possible to obtain the necessary data for this thesis. A contrasting experience was the short period as a community worker in a resettlement programme and the continuous involvement with low-income communities. This involvement was initially as a volunteer and later (since February 1993) as a full time coordinator of the support service for the Namibia Housing Action Group (NHAG), an umbrella organisation for low-income housing groups in Namibia. This study therefore emphasises one of the fundamental issues in addressing the complex spectrum of housing related problems which the author has identified through practical experiences.

CHAPTER 1
INTRODUCTION

CHAPTER 1: INTRODUCTION

This study focuses on the formal housing process and the role of low-income people in this process. Low-income housing developments in Namibia are linked to the historical context of the country. This chapter will give a brief introduction to this colonial history to explain how this history links with the research problem. With the focus of the research problem on the low-income people, the consequences from restricting their role in housing are discussed as the core of the problem. A brief summary of the housing problem and the possible changes expected during the period of this study is given to explain the context of the work. The last part of the chapter will explain the structure of the thesis and this is summarised in a table form. The research problem is investigated by using hypotheses, but only their themes are referred to in this chapter.

1.1 HOUSING IN A COUNTRY WITH A COLONIAL HISTORY

The urban housing situation in Namibia is closely linked with the political history of the country. The Namibian people obtained independence from 100 years of colonial occupation only in 1990. It was one of the last countries in Africa to become independent - after being under the rule of two colonial powers. From 1884 to 1914 Namibia was under German colonial rule. After the first World War South Africa took over the administration of South West Africa as it was then called, and was assigned mandatory power over the country. It was administered as part of South Africa until 1978 when a transitional government was established by South Africa. The transitional period lasted up to independence.

Two legacies concerning housing processes were left by the foreign administrations. One was the development of formal urban areas and, as part of this, the development of formal housing processes in accordance with the occupiers own socio-economic needs and values. The other very prominent legacy was the enforced ethnic segregation that reached its height with the well-known apartheid policy implemented by the white South African regime. Politically people were deprived from decision making capacities and were treated as a labour force in the urban areas. This black and coloured labour force were to be housed, schooled, transported and live a life segregated from the white population. Under the South

African regime the majority of the population was also excluded from the housing processes followed by the whites for themselves.

The creation of formal urban areas and the apartheid policies during colonisation influenced the housing process in the country. This thesis investigates issues related to low-income urban Namibians and the formal housing process in the context of the colonial influences. It illustrates housing issues in a country where the majority of the people were excluded from participating in creating their own urban living environments in the former white-only urban areas.

Exclusion from participation first came as a result of the political situation that denied people permanent access to towns. The "bulldozer" approach[1] of the late fifties onwards resulted in the destruction of people's self-created domestic environments. No property rights were given to black people in the new townships and people had to occupy the housing stock provided by local authorities. People were not allowed to create their own urban domestic environments.

As housing approaches changed, emphasising the house as a commodity, they were excluded from access to housing as a result of too low incomes and participation in the process as a result of mass production[2]. Houses are treated as any other commodity and the eventual buyers are not involved in the process until the product is completed.

1.2 THE RESEARCH PROBLEM: CONSEQUENCES OF RESTRICTING PEOPLE'S INVOLVEMENT IN THE HOUSING PROCESS

This thesis focuses on the role of low-income people in a housing process that was developed by the colonial powers in the formal urban areas. The formal urban areas that are referred to, are those towns and villages which had municipal status, or were controlled by the peri-urban board, under the white administration. This administration facilitated one housing process for the white immigrants, and

[1] "Bulldozer" approach refers to policies which result in the removal of people to new locations and the bulldozing of the old ones. This approach featured strongly in the 1950s and 1960s in Namibia and South Africa. The houses that were destroyed in the old locations were built by the people themselves, while the new locations were developed by local authorities.

[2] Mass production refers here to the production of house types that are then sold to buyers.

followed another housing control system for the indigenous black and coloured people. This housing control system formed part of a whole body of legislation to regulate a labour force in urban areas. The process followed by the whites for themselves is the one which was implemented during the transitional period and this is referred to as the formal housing process.

The processes followed by the black people in the rural areas[3], and in informal settlements[4], differ in many ways from the formal housing process that was applied in the transitional period. There are two features of the people's own housing process that are important when looking at the role of people in housing:

- The first one concerns the role they play in their own housing process. This was characterised by participation in decision making and production of their own houses. Although the rural housing process did not remain untouched from other influences, inhabitants are still involved themselves and are still in control of their own housing process.
- The second feature refers to houses being mainly produced for own consumption without individual land ownership, but land tenure rights based on traditional laws. The people do not produce their houses to sell. It is not seen as having a commodity status.

These two features of participation and no commodity status, related to the people's own housing processes are the opposite of the housing process introduced by the colonial powers.

The consequences of restricting people's involvement in the urban housing process form the research theme of this thesis. Some of these consequences are reflected in the problematic nature of a lack of shared knowledge in the formal housing process. This lack of knowledge is between the users and the decision-makers. It is argued that this problem is a result of the non-involvement of the majority of the

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[3] Their own housing processes are still followed in communal rural areas - although not exactly the same as before colonisation. Changes, mainly resulting from participation in a cash economy and migrant patterns, also influenced the way people produce houses. When men started to leave the rural areas to work in towns, the role of constructing and maintenance was shared less by men and women, but became more the responsibility of the women.

[4] Informal settlements refer to those urban areas which became established without any legal proclamation to become municipalities. This 'informality' only relates to aspects of planning and township declaration, regulations and building permits that are legally enforced by written laws. The settlements are not by definition illegal, but form part of traditional systems of achieving access to land. This traditional system where land allocation was mainly done by the headman applied in the communal areas (previous 'homelands').

population in housing, as well as the exclusion of their cultural practices in the process.

This is seen as an issue of importance in the newly independent Namibia, where political exclusion is to be reversed. More involvement in the process is to be expected by those in need of houses. International approaches are also promoting an increase in the role of the household in the housing process. Characteristics of the relationship of the people to the formal housing process, as practiced in Namibia, are seen as important issues to be recognised when following policies of more participation in housing.

1.3 THE CONTEXT AND ASSUMPTIONS

Housing is also one of the most serious problems[5] facing the young independent Namibia. Not only is there a backlog of houses of about 37 000 at the time of independence (the country's population is about 1.4 million of which one third is urban), but about 60% of the urban population cannot afford the already subsidised houses (Namibia National Housing Policy, 1990:3).

Housing approaches were foreseen to change during the duration of this study that took place from October 1989 to October 1994. During this period Namibia received its independence and new housing policies and strategies were developed. As these new policies and strategies unfold, the promotion of an increased role in the housing process by the users became evident. These developments emphasised the importance of issues related to the experience of people in the housing process. It is also expected that some aspects of the formal housing process will not change, for example: the commodity status of houses and land; home-ownership by means of long term financing as the major strategy for shelter; and town planning schemes determining access to land and housing. This will result in a continuation of basic principles of the pre-independence housing process as followed by the formal sector[6].

[5] The government also made it one of its four development priorities.
[6] The formal sector refers to the institutions, agencies and structures that fit in with a modern lifestyle based on industrial western developments.

1.4 THE STRUCTURE OF THE THESIS

This thesis is presented in nine chapters including this introduction. A brief discussion on the structure includes the theoretical background, the research problem, the research process, findings and a conclusion. The structure is also summarised in Table 1.

1.4.1 Theoretical Background

Chapters Two and Three present a theoretical background for the thesis. Housing approaches in developing countries are discussed in Chapter Two, and the history of urban housing in Namibia in Chapter Three. Two aspects of housing in developing countries are highlighted, namely the participation of the people in the housing process and the commercialisation of housing. Housing approaches are discussed from the perspective of the role of low-income people in housing. This discussion includes spontaneous settlements; participation in development, planning and self-help housing; as well as the debate surrounding theories that concentrate on people's role in housing themselves.

Namibia's inhabitants do not have a long tradition of permanent settlements and the history of earlier settlements is discussed briefly in Chapter Three to give a background to this phenomenon. The apartheid township, where housing was controlled by the public sector, formed a prominent feature of colonial urban developments. The development of these townships was in the hands of the local authorities (municipalities) until the transitional period to independence saw the creation of the National Building and Investment Corporation (NBIC). This body developed houses for sale to low-income groups. They followed the formal process, which was until that stage, the housing process of the minority white group in the country. This housing process is summarised in a table form and will be used as a 'housing process guide' for discussions, questions and findings throughout the thesis.

After independence the actors and activities in housing increased. A new Ministry of Local Government and Housing was formed (the name changed in 1993 to the Ministry of Regional and Local Government and Housing - MRLGH). International agencies became involved by assisting programmes, and the activities of

community-based organisations increased. These new movements are discussed, as well as the housing policy and strategies that were developed by the Ministry. Most of the directions given by international, government and local agencies recognise more participatory approaches in the housing sector.

1.4.2 The Research Problem

The research problem is discussed in Chapter Four where it is argued that a shared body of knowledge is required to enable and facilitate involvement in the housing process. This shared knowledge is absent in Namibia. Knowledge is looked at in general terms, as well as its application in the housing process. The type of knowledge of the professional which is prominent in the housing process is compared to that of the people themselves. Professionals apply empirical knowledge based on studying the written word, while people themselves rely on practical knowledge to enable them to obtain their own houses. There are also constraints in obtaining knowledge and these are identified, with specific reference to the Namibian context.

The lack of shared knowledge is explained in the context of cultural distance, and the development of the formal housing process as part of colonial settlement patterns. Cultural distance refers to the different groups of people following different values, norms and technologies in obtaining housing. It is explained how the apartheid policies contributed to the maintenance of this distance and the knowledge gap.

To conclude Chapter Four, two hypotheses are formulated to address the research problem. One covers aspects of the lack of shared knowledge in the formal housing process, while the other addresses the lack of shared knowledge concerning the socio-economic needs in the domestic environment. This will address knowledge issues concerning commercialisation, as well as the end product of the housing process.

1.4.3 The Research Process

Chapter Five explains the research design to test these hypotheses. The research concentrates on the period immediately before independence. It was during this transitional period that the commercialisation of housing was introduced to all population groups in formal urban areas. The fieldwork was done in NBIC houses that were sold to the occupants.

The first hypothesis is tested by means of a quantitative survey among NBIC house owners. The survey covers issues related to contractual aspects of buying houses with long term loans and the role of the different agencies involved in housing. Spatial characteristics are identified to test the second hypothesis on the domestic environment. A qualitative approach is taken to enable an in-depth view into spatial issues in the domestic environments, as designed by the formal sector, as well as those created by owner occupiers. This is done by means of an activity observation and an analysis of the spaces. Space syntax[7] is applied to analyse the domestic environment. This methodology allows for a comparative view on the structure of spatial relations and its socio-economic interpretations.

The results of questions related to the first hypothesis on financial and organisational aspects in the housing process is given in Chapter Six. It is demonstrated that there is a lack of shared knowledge on aspects of basic purchase and loan agreements in the process of buying a house.

The formal sector and owner- occupied domestic environments are described in Chapter Seven, with special emphasis on an activity analysis in the NBIC house. The spatial characteristics are compared in Chapter Eight. Certain socio-economic characteristics and practices are discussed and identified which did not relate to the principles on which town- and house plannning are based.

It is concluded in Chapter Nine that by testing the hypotheses a lack of shared knowledge is illustrated in the formal housing process. This is discussed in terms of

[7] The study of socio-spatial relations in the built environment.

experiences in other countries and societies and how these are to be considered in implementing participatory housing strategies.

Table 1 The Structure of the Thesis

MAIN SECTIONS		TOPICS OF CHAPTERS
INTRODUCTION	1	SHORT BACKGROUND THE SCOPE OF THE THESIS
BACKGROUND TO THESIS	2	HOUSING IN CONTEXT OF DEVELOPING COUNTRIES
	3	HOUSING IN CONTEXT OF NAMIBIA
RESEARCH PROBLEM	4	THE ISSUE OF KNOWLEDGE - CULTURAL DISTANCE - COLONIAL SETTLEMENTS -THE RESEARCH QUESTION: ASPECTS OF KNOWLEDGE IN THE HOUSING PROCESS AND THE THE DOMESTIC ENVIRONMENT
RESEARCH DESIGN	5	APPROACHES FOR TESTING ASPECTS OF THE HOUSING PROCESS APPROACHES FOR INVESTIGATING THE DOMESTIC ENVIRONMENTS
FINDINGS	6	THE FORMAL HOUSING PROCESS: DISCUSSING DATA ON ASPECTS OF THE FORMAL HOUSING PROCESS
	7	THE DOMESTIC ENVIRONMENT: - DESCRIBING THE DOMESTIC ENVIRONMENTS
	8	- CHARACTERISTICS OF THE DOMESTIC ENVIRONMENT
CONCLUSION	9	CONCLUDING DISCUSSION ON FINDINGS IMPLICATION FOR STRATEGIES

1.5 PRESENTATION OF THE STUDY

The nine chapters are followed by the references, that are listed at the end of the document in the bibliography. All references, including books, articles, theses, reports and papers are listed together in alphabetical order. Terms and concepts are explained in the footnotes, while the appendices are used for supportive information and data. Blocks in the text are also used to present additional information or data.

CHAPTER 2
APPROACHES TO HOUSING IN DEVELOPING COUNTRIES

CHAPTER 2: APPROACHES TO HOUSING IN DEVELOPING COUNTRIES

This chapter concentrates on a theoretical background to housing in developing countries, with specific reference to discussions surrounding the role of low-income people in housing. This discussion refers to housing approaches in developing countries in the context of both participation in housing and the commercialisation of housing. Reference will be made to literature, theoretical perspectives and debates on housing in developing countries. The purpose of this chapter is to give a theoretical background to the field of the study, namely housing in developing countries.

The role of low-income and marginalised communities in the housing process has been a topic of discussion and debate in literature concerning housing in developing countries over the past thirty years. During the 1960s the work of John Turner, Charles Abrams and others led to new ideas on how the housing problem in developing countries should be addressed. These ideas concentrate on what people do for themselves versus the role of the formal institutions like the government. Literature has emphasised the role of the poor in housing themselves, and has concentrated especially on the processes followed by the people themselves to obtain shelter in urban areas.

2.1 HOUSING CONCENTRATING ON THE ROLE OF CENTRALISED FORMAL ORGANISATIONS

Before the 1970s the 'conventional approach' to housing in developing countries concentrated on the centralised public sector (Dewar, 1982) as the provider and controller of housing[1]. This approach falls within the provider paradigm (Hamdi, 1991), where a centralised formal organisation takes responsibility for producing housing, and the people in need of houses are usually not involved in the process. Their efforts to house themselves are defined as illegal and they play no role in the decision making procedures concerning housing. This approach is underwritten by the belief that the possibilities of poor people to improve their conditions are hampered by a culture of poverty: *"..... the poor must be provided with housing of acceptable minimum standards by the public authorities and that any attempts by*

[1] This is also referred to by Shakur (1987) as the classical traditional approach. Other approaches that are discussed in this chapter have become so widely accepted since the 1970s that these are referred to as " the 'new orthodoxy'." (UNCHS, 1987:195).

the poor to live in conditions below these standards ... must be resisted" (Dewar, 1982: 4).

It is characterised by a concentration on slum-clearance and new developments. The justification given for slum-clearances include the improvement or 'beautification' reason, the ideas that these areas are centres of crime, health problems and redevelopment needs (Hardoy and Satterthwaite, 1989: 44-48). These were often the official argument, while other reasons, which include political control and vested interest in land speculation[2], also contributed to decisions of slum-clearances. Political control, by means of centrally controlled housing replacing informal or squatter settlements, was a prominent feature of the South African approach as applied in Namibia.

Burgess (1992:76) explains policies of slum and squatter settlement eradication replaced by conventional housing stock against the background of the modernisation theory. The dominant development strategy for Third World countries in the 1950s and 1960s was based on this theory. The common argument behind various versions of the modernisation theory is that the transitions of societies from agricultural and peasant societies to modern urban industrial societies could be achieved by emulating the historical pattern of capitalist development followed by the West.

Although Burgess (1992:77) claims policy-makers actively encouraged rural to urban migration, based on this modernisation theory, other explanations given for the eradication of settlements in developing countries reflect rather an anti-urban approach. Urban migration in Sub-Sahara Africa was seen to be of a temporary nature (Amis, 1990:18). Urban growth was also seen as a negative, undesirable factor (Mabogunje, 1978:38; Amos, 1986:181) and this concern is associated with slum and shanty clearances (Hardoy and Satterthwaite, 1989:41,51). In South Africa this modernisation theory was only applicable to the whites and legal measures were taken to limit black urbanisation to those numbers that were needed as a labour force for industrialisation.

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[2] This refers to situations where the presence of squatters or informal settlements are seen to influence the property value of land in the vicinity and are therefore unacceptable.

2.2 NEW APPROACHES

The housing problems in developing countries could not be solved by this conventional approach. The so-called temporary nature of urban migration was proved not to be the case (Amis, 1990:18), squatter areas became permanent features and urbanisation could not be controlled (Hardoy and Satterthwaite 1989:95). The people's contributions to housing were recognised and were reinterpreted by practitioners and researchers, as well as by international agencies.

New directions in housing were stimulated by ideas propagating a decentralised self-help sector and concentrated on the squatter areas as positive spontaneous developments. These ideas also included identifying aspects of people's autonomy in decision making and the recognition of active participation by the people in the housing process. The development of these ideas was influenced by studies and experiences by academics and practitioners, especially from Latin America. The work of Charles Abrams (1966), William Mangin (1970) and John Turner (1976) emphasised the role of people in housing. These directions later received support from international aid and lending agencies.

The perceptions of the role of the central agencies of the state and the role of the people in housing changed. The encouragement of private investments by owner-occupiers and the maintenance of housing stock by the occupiers are increasingly recognised by governments in market and centrally planned economies as contributions to housing (Hardoy and Satterthwaite, 1989:117). Proponents of this view believe the role of the state is to become that of supporter and no longer of provider. Simultaneously the role of the people in need of housing is recognised as a contribution in solving their own housing problem.

The recognition of the people's role in housing in spontaneous settlements will be discussed, as well as how this recognition influenced perceptions on the role of people in the housing process, and eventually in policy matters.

2.3 FROM SPONTANEOUS SETTLEMENTS TO THE SUPPORT PARADIGM

Spontaneous settlements are generally referred to in literature as those urban areas developed by people without the direct sanction of the authority and without legal rights to the land. Different terms like squatter settlements, shanty towns, informal settlement and irregular settlements are also used to described this form of housing. This explanation above is insufficient to apply in all countries. In parts of Africa, and also Namibia, people in communal areas obtain right of occupation through their traditional leaders. The problems of legal rights only arise if the status of settlements is changed from communal areas under traditional leadership to municipalities under local authorities. It is therefore difficult to make a global definition since the interpretation of what 'legal rights' imply differs. In the Namibian context the term informal settlements is frequently used, since the largest settlements in the country, where people build their own houses out of temporary or traditional materials, are on land that was obtained according to traditional customs[3]. For the purpose of this discussion the term spontaneous settlements will be used, since it is more commonly used in literature to explain the development of new housing approaches.

As mentioned above the study of these spontaneous settlements influenced the new directions.

> *"Whereas formerly spontaneous settlements were almost universally condemned as chaotic and disorganized misery belts, populated by poverty-stricken migrants fresh from the countryside who were ripe for revolution, today considerable discrepancies in their evaluation are evident."* (Dwyer, 1975:199)

Although there are still criticisms against the possibilities of spontaneous settlements offering some solutions to the housing problems of the poor, these settlements continue to offer shelter to great numbers in developing countries (Palmer and Patter, 1988). Hardoy and Satterthwaite (1989) emphasise in their work on life in the urban Third World the role a great proportion of the people play in developing their own living environment which is defined 'illegal'.

The more recognition that was given to the role of the people in developing these settlements during the past 20 years, with the simultaneously limited success of the government's projects, the more it influenced the attitudes of the formal organisations concerning the role people play in housing themselves.

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[3] According to these customs the people have usufruct rights to land, and freehold titles can only become available after proclamation of town and subdivisions.

Considering what people do for themselves in spontaneous settlements certain aspects became highlighted. These include legal rights for those living in spontaneous settlements, recognising rights to basic infrastructure and services and relaxing building standards and codes. To formalise the people's process, land is to be made available through site and service projects. Organisationally it was recognised that:

- local governments were to be strengthened to improve services;
- informal financing organisations and community groups formed by low-income residents were to be supported;
- and that links with Non Governmental Organisations (NGOs) were to be developed.

The process of people's construction and improvement of their own homes is referred to as self-help (Ward, 1982:1) and this aspect became a housing policy guide-line in many developing countries. From a governmental approach this process of self-help is to be realised through site-and-services, core structures and upgrading projects.

Sri Lanka's government became known for applying principles of recognising the people's role in housing with their Million Houses Programme in the 1980s. The country's experience in housing illustrates an example where the government and local communities both became involved in planning housing. The government, through the National Housing and Development Authority (NHDA), took the role of enabling participation by local communities in the housing process (Hamdi, 1991; Robbins, 1989). This was after the realisation that under the Hundred Thousand Housing Programme, where the NHDA designed and built houses, people still built more houses than the government, costs were too high and the target group was not reached . With the Million Houses Programme the decision was taken to have the state taking the role of supporter and to concentrate on affordable standards. The role of the community and family was recognised in the decision making process. Decisions on planning and action were taken through Community Action Planning workshops (Lankatilleke, 1989).

Hamdi (1991) describes this approach of the government taking an enabling role, while the people's role in providing their own houses is recognised as a support paradigm. Within this paradigm, a partnership between the government and people is proposed. The government takes the role of facilitating and enabling households

to become involve in housing. The Million Houses Programme in Sri Lanka illustrated this partnership within a support paradigm.

2.3.1 Participation: Increasing the Role of the Household and the Community in the Housing Process

The recognition of the role people are playing in creating their own settlements, brings the aspect of community participation in housing into discussion. Community or popular participation has become prominent in discussions on development, planning and environmental design since the 1970s to such an extent that it has become a popular catch word. The issue of participation is important in the Namibian context, because the majority of the people did not previously participate in urban housing in the formal urban areas. Participation will therefore be reviewed with reference to development, planning and housing.
According to Lisk (1985:15) popular participation is

" .. *to be understood as the active involvement in the making and implementation of decisions at all levels and forms of political and socio-economic activities*"

and in the formal planning process

"*the involvement of the broad mass of the population in the choice, execution and evaluation of programmes and projects designed to bring about a significant upward movement in levels of living*".

In the field of social development Midgley (1985:14) identified community participation as forming part of the popular participation discussion, specifically focusing on deprived groups within communities.

In the planning field the British Skeffington Report in the late 1960s defined public participation as the act of sharing in the formulation of policies and proposals in planning. It differentiates between involvement and participation. Involvement is regarded as the first step, while participation implies an active role within the decision-making process itself (Potter, 1985:150).

2.3.2 Participation in the Development Field

Ideas on participation, called community participation or popular participation also emerged in development[4] models. The earlier development model of the 1950s and 1960s concentrated on economic measures to indicate development (Wolfe, 1982:81; Fuglesang and Chandler, 1986). Following the modernisation theories, an increase in the incomes per capita was seen as development. This development was to be achieved by following the model of the industrialised countries by changing from a rural and agricultural lifestyle to an urban and industrial lifestyle.

This approach did not improve conditions in developing countries (UNCHS, 1987:11). Inequality and poverty did not diminish. Planning, resulting from this model fell into discredit (Wolfe, 1982:82). Both a social oriented criticism and a realisation of the constraints of certain state interventions lead to different models and paradigms.

Due to the inadequacy of the previous economic paradigms, the Dag Hammerskjold Report proposed Another Development emphasising a new economic paradigm (Development Dialogue, 1975; Fuglesang and Chandler, 1986). The fundamental requirement for participative society is emphasised and went beyond a mere reiteration of democratic principles: "*It pointed towards people's participation as the single most important force in generating socio-economic development*". In addition to participation, there are also notions of human and organisational capacity building, and psychological empowerment, central to the concept of Another Development (Van Vlaenderen and Nkwinti, 1993:212).

This new paradigm is based mostly on practices where

> "*grassroots movements have emerged in a time when existing theories and ideologies have proven themselves incapable of solving our problems. They represent the growing feeling that the state is no longer the obvious vehicle for development*" (Fuglesang and Chandler, 1986:8).

These practices are also present in housing when people started to house themselves in spontaneous settlements, as discussed above, without any state provision.

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[4] Verhelst put the term development as within the context of a Eurocentric concept, where development means to become westernised: "*It grew out of conception that, though dynamic and positive, was founded on the paradigms of one single culture, Western culture.*"(1987:62)

International agencies played an important role in propagating the role of participation in development (Midgley, 1986:23). The United Nations Research Institute for Social Development and the Economic Commission for Latin America emphasised participation as a matter of choice with questions of who, how and with what style participation is taking place. Determined from above, on governmental levels, it becomes mobilisation (Wolfe, 1982:85).

These attempts at community mobilisation by state intervention are discussed by Gilbert and Ward in the context of three Latin American cities and are criticised for co-optation by the state (Gilbert and Ward, 1984a/b).

Support for active participation by the community comes from both the ideological 'right' and 'left' spectrum (Gilbert and Ward, 1984: 769-770). The 'right' reasons that resource deficiencies can be overcome and individual independence can be promoted to achieve the consolidation of traditional values and individual freedom. The 'left' supports ideas of raising awareness of class consciousness as well as improving physical conditions for the poor to enable a transformation of societies. In between the two extremes lies an approach to participation that will achieve improvements in physical conditions and increase people's role in decision-making. Combined with supplementing state budgets this approach will result in a modifying effect on over-centralized state bureaucracies.

2.3.3 Participation in Planning

The participation of the public in planning is often associated with industrial countries, but self-help projects and examples of participation in planning (Canter, 1988) are currently features in developing countries. Self-help projects in developing countries are recognised as contributing to the intellectual stimulation of participation in planning in industrial countries (Wates and Knevitt, 1987: 30).

Various fields in the planning sphere refer to the participation of the people in planning, developed because of particular problems experienced on the urban level or built environment. The Community Architecture Movement in Britain embraces community planning, community design, community development and community technical aid under the umbrella of community architecture (Wates and Knevitt, 1987: 17). In America terms like participatory design or community design (Sanoff, 1990; Ventriss, 1987; Hester, 1987) are used, while a multi-disciplinary design

approach recognising psychological inputs refers to environmental participation (Canter, 1988).

Referring to participatory design, Sanoff (1990: i) derived the origins of the present ideas from action research which provided a model that integrates theory and practice. Comerio contributed the development of community design to be the result of a critique of professionals (1987). It favoured methods recognising and encouraging a multiplicity of values in society and the environment. It is "*based on a recognition that professional technical knowledge is often inadequate in the resolution of societal problems, and it represents the addition of a moral and political content to professional practice*" (Comerio, 1987; 1990: 21). Comerio concluded that in America community design did not demystify professional knowledge, but created a new category of expertise and that empowerment led to extended conflict. On the other hand a significant contribution was done by physical improvement achieved through community design. A certain measure of human development also took place in the development of leadership capacity.

Comerio's discussion relates to experiences from the viewpoint of a critique of professionals in industrial countries. The reason for propagating community involvement in planning in developing countries is not merely because of a critique on professionals, or because professionals identified a new field of interest. It is a result of what the people already did to house themselves, in comparison to the limitation experienced by official structures to deliver housing. The scale of the socio-economic problems is also different. Although community planning often involves the lower-income people in industrial countries, these are minority groups. In developing countries it is mostly a major part of the population that have inadequate shelter.

Successful participation has also been illustrated in developing countries where planning is included in other spheres of collective activity (UNCHS, 1987:199). Specific examples are the Villa El Salvador settlement in Lima and the Million Houses Programme of Sri Lanka. Participation in housing will be discussed further in the following section.

2.3.4 Participation, Self-help and Housing

In housing, participation is reflected in the self-help aspect which is propagated as a policy approach, based on recognising the role of people in spontaneous

settlements. Self-help associations are described by Hughes (1985: 55, 60-63) as participatory institutions.

International interest in participation in housing is reflected by the United Nations Centre for Human Settlements (Habitat). The Habitat Conference on Human Settlements in Vancouver in 1976 recommended that people should participate in the planning of their own settlements (Searle, 1980: 59-65). This was followed by a Training Programme for Community Participation which was launched in 1984 by Habitat to support governmental initiatives. In the Global Report on Human Settlements the role of participation in the managing of human settlements is also emphasised (UNCHS, 1987). It is seen as part of the enabling strategies in housing and includes a perspective that the community, rather than the individual is an actor.

The self-help housing strategies that were adopted by governments and became part of the World Bank policies for assisting governments in developing countries, were based on market principles. According to these strategies user participation would result in cost reduction in housing production. The participation of people in the form of self-help in site-and-services projects and upgrading projects is viewed in terms of economic benefits, where more people can afford the product - especially in the light of scarce resources from both government and people.

Although self-help is viewed mostly in economic terms by the international lending and national governmental agencies, the social benefits are also emphasised. Strong advocacy of the potential social benefits of community participation comes from the Non-governmental Organisations (NGOs)[5]. They concentrate on the building of communities (Shah, 1984: 203; Turner, 1988), and community groups or Community Based Organisations (CBOs) are perceived to play a prominent role in the improvement of the living environment of the low-income people. The Habitat International Coalition, formed by national and international NGOs, as well as CBOs, promotes the right of people to address their own needs, while the government acts as an enabler (Limura Declaration, 1987).

Progressively projects in developing countries started to apply principles of community participation. The Lusaka upgrading project is an example where

[5] Non-governmental Organisations in housing refer to service organisations, often employing professionals, that support people working together to solve their own problems on the local level. The local groups are usually reffered to as community groups or Community Based Organisations (CBOs).

community participation was seen as an integral part of the project design (Shah, 1984: 202; Jere, 1984: 58), while the Million Houses Programme of Sri Lanka adopted and practiced it as their housing strategy.

2.3.5 Roles in the Self-help Process

Concerning the role of the people and the state in the self-help process, two views are identified, namely that of the populist and instrumentalist. The populist view (referred to as such by Hardoy and Satterthwaite, 1989:140 and Rakodi: 1989) concentrates on people's empowerment (Hamdi, 1991:25). The populists emphasise the role of the people in emancipating and community developmental perspectives, while with the instrumentalist the central organisations still play a decisive role.

Self-help, according to the populist view is a way to increase local control and decision making. The approach includes ideas about the emergence of community structure and identity, user control ensuring appropriate housing and developing the ability for self governance. This approach is often associated with the intermediate technology school (Midgley, 1986:14) and concentrates on the social benefits as discussed above.

With the instrumentalist view self-help projects are implemented by the government or its agents. It is an instrument used where incomes are too low and public agencies are unable to build enough houses to meet the housing demand. People themselves have to do certain construction tasks (Rakodi, 1989:6). The international agencies supporting this approach provided finances for self-help projects in various parts of the world. The concentration on the economic benefits of self-help is part of an instrumentalist view.

The populist approach is criticised as "*representing an idealised view of unauthorised settlements*", as well as "*failing to recognise the structural obstacles to the ability of the residents to improve their conditions, both physical and economic*" (Rakodi, 1989: 13). Rakodi also refers to self-help being tied to the concept of community which are often romanticised. She argues that communities are not cohesive and integrated as frequently suggested. References in this regard are made to Midgley (1986) and De Wit's (1985) analysis of relationships between inhabitants, leaders and the government in Madras, as well as Hughes (1985) discussion on competing interests.

Based on the experiences at Lusaka in Zambia and Hyderabad, India, Rakodi (1989, 14) claims that "*Whether referring to housing or economic activity, it is often only the fortunate few who can achieve improved conditions by self-help; for the remainder it is the only means of surviving.*"

Criticism of the instrumentalist view mentioned it as being similar to a centralised public sector approach whereby the same schemes are implemented, but without houses. It is also viewed as being of an exploitative nature.

Communal or collective participation is mentioned as being more beneficial, and offering more economic benefits (Marcuse, 1992:21; Mathéy, 1992:384) than individual participation.

2.3.6 The Self help Housing Debate

The implementation of self-help approaches in housing as policy principles did not go without criticism and debate. The criticism was not only based on populist or instrumentalist views as discussed above, but the 1970s and 1980s were characterised with a debate and discussions about the limits and potential of self-help housing (Ward, 1984; Mathéy 1992). Theoretical criticism debating the self-help approach came from the academic field, as well as from practical experiences (Mathéy, 1992: 382).

- **An academic debate:**

The academic debate concentrates on the self-help policies, rather than the experiences of households and pilot projects (Mathéy, 1992:382). A debate on the pro's and cons of self-help housing began in the 1970s and much of it addressed criticisms against Turner's arguments as put forward in his work published in the 1960s and 1970s. Rod Burgess' criticism of John Turner followed a Marxist approach. According to him Turner's explanation of the housing problem in the context of bureaucracy, technology and scale is inadequate and he emphasised a political economy view to the problem:

"*The housing problem in Third World societies can best be understood as the product of the general conditions of capitalist development rather than the product of particular technological or organizational systems as theories of the Turner type would have us believe*" (Burgess, 1978: 1126).

Mathéy (1992:383) mentions two aspects on which the academic criticisms concentrate. The first aspect includes that Turner fails to take into account the wider economic context, while concentrating on the experience of the individual. The second aspect includes ignorance of the fact that the capitalist commodity relations, dominating the formal sector, are reproduced in the informal sector.

Other criticisms of self-help housing include exploitation of labour and that it might even be more expensive. Low-income people lack real autonomy to decide, since they have not the freedom of choice of rich people (Gilbert and Gugler, 1992:120).

The political economy view, remained that of a theoretical analysis. Even though it is referred to as an approach to housing (Dewar, 1984:6), it does not offer any approach to solving or changing housing conditions. This academic debate

> *"ceased somehow in the beginning of the 1980s after it had become obvious that there were valid arguments for contrasting positions, while at the same time the discussion was little help to the people in slums and squatter settlements in solving their day-to-day problems."* (Mathéy, 1992: 385).

- **Practical experiences:**

Empirical studies by experts in the field formed the second group of critics. They also concentrate on Turner's proposals when he mentioned the findings of various studies on self-help builders and projects. The specifics of cultural and climatic-geographical aspects do not make Turner's proposals viable for all countries; the poor's options are limited; they need technical assistance; engineering and construction failures are experienced; cost-recovery is problematic; cost savings are not that high; and a gentrification process is taking place; are some of the criticism offered by this group. Self-help housing appears to tackle the problems of the poor, but does not represent any real redistribution of resources (Rakodi, 1989:15). Upgrading provides opportunities for the state to increase its legitimacy, without tackling underlying problems of poverty and unemployment.

In spite of the debates and criticisms in progress, the self-help and aided self-help programmes

> *"..... inspired by Charles Abrams and John Turner, crafted as a means to lever affordable housing for the poor by Horacio Caminos and Reinhard Goethert, and progressively legitimized by the World Bank and others, today remain the single most practiced option to new development."* (Hamdi, 1991:24)

2.4 COMMERCIALISATION OF HOUSING

Recent discussions on housing in spontaneous settlement include how the commodification process is taking place (Ramirez, et al, 1992; Amis 1990; Kellet, 1992) in these settlements. The lack of security for capital investment is seen to be of more concern than the illegality of spontaneous settlements and "*it is the factors that determine security and expected rates of return that ultimately are at the heart of the housing issue*" (Amis, 1990: 17-20). Where the government recognises the settlements, for example by providing services, the commodification process begins, as illustrated in Venezuela (Ramirez et al, 1992). The process of housing production, exchange and consumption starts by breaking the rules of capitalism through illegally occupying land.

The reference to commodification in the debate on self-help housing touched on an aspect that is also of importance in housing in Namibia. The relevant aspect for this thesis is not the level of commodification in spontaneous settlements, but the contrasting aspects of the housing processes of the indigenous people and the formal housing process. Similar to other countries in Sub-Sahara Africa, the indigenous housing did not form part of a capitalist economy. The majority of Namibian people is still partially dependent on the ongoing practices of a subsistence economy in which they traditionally obtain their houses, while the formal housing is already operating in a cash economy. Since the 1980s the people faced a 'housing market' in which subsidised rental developments are being replaced with home-ownership developments.

Formal processes for housing have been established in developing countries, often by colonisers. This however, does not indicate that the 'artisan pre-capitalist mode of production' does not exist any more in Namibia. It exists in rural areas and informal urban areas. This commodity status given to houses forms very much part of the formalising of housing in that officially recognised rules and regulations concerning access to land, production of housing and standards have become implemented.

During colonial times in Namibia, the colonial administration attempted to end the occupier-build sector of the blacks that partially functioned within a subsistence economy in urban areas. A centrally controlled production approach was followed, but this approach still prohibited the houses to be a freehold commodity. Ownership remained in the hands of the authority, and the people had to rent from them. This was not as a result of welfare policies, but because of policies based on excluding

people from the formal housing process, and therefore participation in the open market. It was only in the 1980s that blacks were given the right to own land and housing produced for them became available as a formal commodity.

This commercialisation of housing in Namibia forms part of the formal housing system that

> "..... *relates to the societal structure of advanced capitalism. Under the fully developed formal housing system as it is found in Europe, settling, production and redistribution are subsumed under a generalized market system in which the state intervenes with economic and social policies and with spatial planning.*" (Marcussen, 1990:62)

The development of the house as a product on the market to be obtained by households by means of a complicated financial transaction became a common feature in European and American housing during the 20th century. Today it has become an aspect of everyday life in capitalist societies (Agnew, 1981:60). Governments usually play an intervening role in promoting home-ownership, while a residential real estate industry develops with a vested interest in expanding home ownership. These trends have also become common in some developing countries for the middle and upper income groups, but also form part of the countries' housing policies.

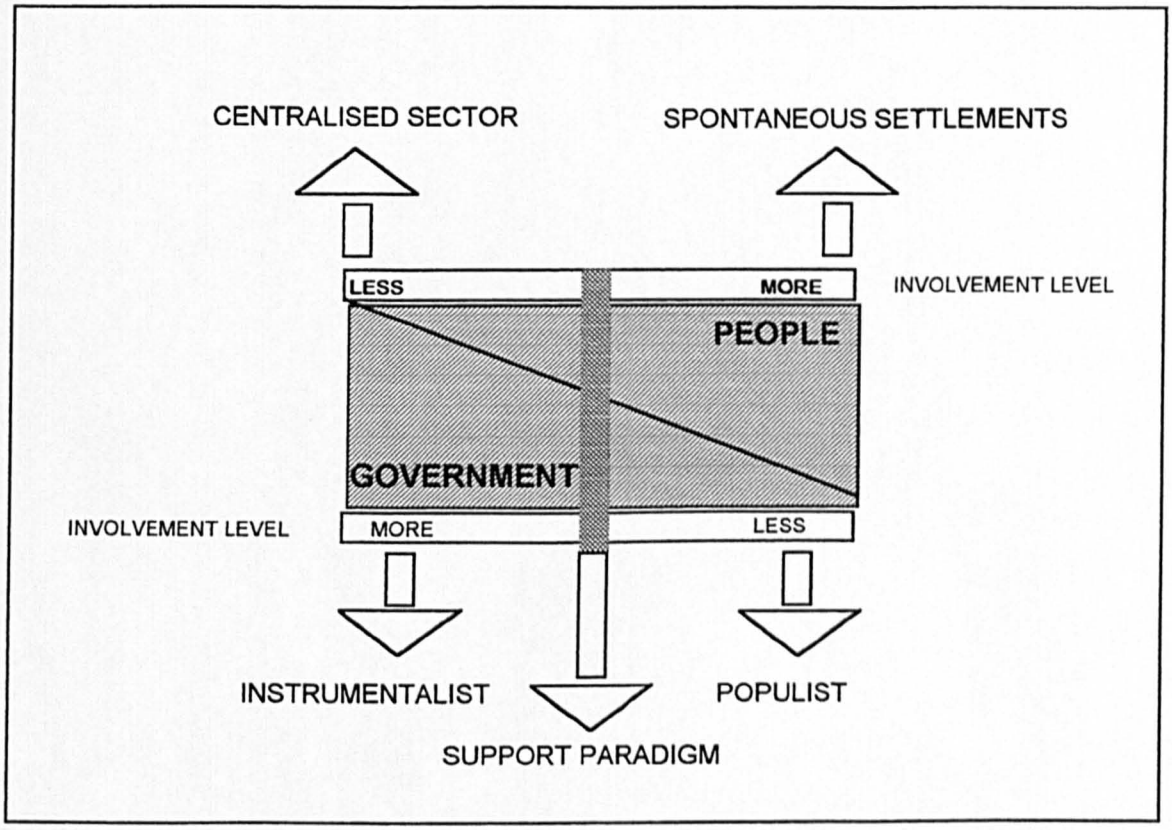
2.5 CONCLUSION

Earlier conventional approaches to housing in the developing countries did not respond to the housing need. At the same time the people continued to build their own houses in spontaneous settlements. Recognition of this phenomenon stimulated new approaches which emphasise self-help, where people participate in producing their own houses.

People's participation has become propagated in development, planning and housing, with different views about its limitations and successes. These views consider the levels of involvement by the government and people in self-help. From the governmental level, self-help is viewed as cost saving and determining self-help from this level is associated with co-option and mobilisation (instrumentalist). From the non-governmental level it is seen as opportunities for social and community development (populist), while concerns about romanticising the community and being over idealistic are contributed to this view. When these views are placed in opposition as illustrated in Figure 2.1 they are seen as incompatible. The support

paradigm can be located in the centre since it recognises the role of both agents, the government and the community, as participating as partners in the housing process.

Figure 2.1 The Level of Involvement in Different Approaches.



The debate on self-help housing introduced political economic aspects which did not directly relate to the role of individuals in the process, but to the structural frameworks outside of their control. These arguments concentrate on the commodity status of housing within the capitalist economy. This commodification of housing is also relevant in the formal housing processes that formed part of the cash economy established by colonising powers in developing countries. Within this framework the aspect of commercialisation is identified as to be of relevance in Namibia when a formal housing process is to become the 'norm' for all sections of the population.

The different approaches to housing in developing countries are also relevant to Namibia, since these influence the country's housing policy. This will be discussed further in Chapter Three. Both key themes of participation and the

commercialisation of housing influence aspects of shared knowledge in Namibia. This will be discussed as part of the research problem in Chapter Four.

CHAPTER 3
URBAN HOUSING IN NAMIBIA

CHAPTER 3: URBAN HOUSING IN NAMIBIA

This chapter gives a background to housing in Namibia with specific reference to the development of formal procedures derived from colonial settlement practices. The aim of this chapter is in the first instance to give a background to the research problem. The practices of the colonisers, especially the implementation of South African Apartheid policies, had a strong influence on the development of formal urban settlements and urban housing in the country. Settlement patterns in pre-colonial times are first discussed and this is followed by the different housing procedures implemented before independence.

It is also aimed in this chapter to explain the latest developments in housing whereby the importance of the research problem for future actions, can be emphasised. A new housing policy and strategy was developed after independence and this is summarised. The background on both pre- and post- independence developments is therefore essential to develop a research problem that will consider both the existing formal housing process and the intentions of the new Namibian government.

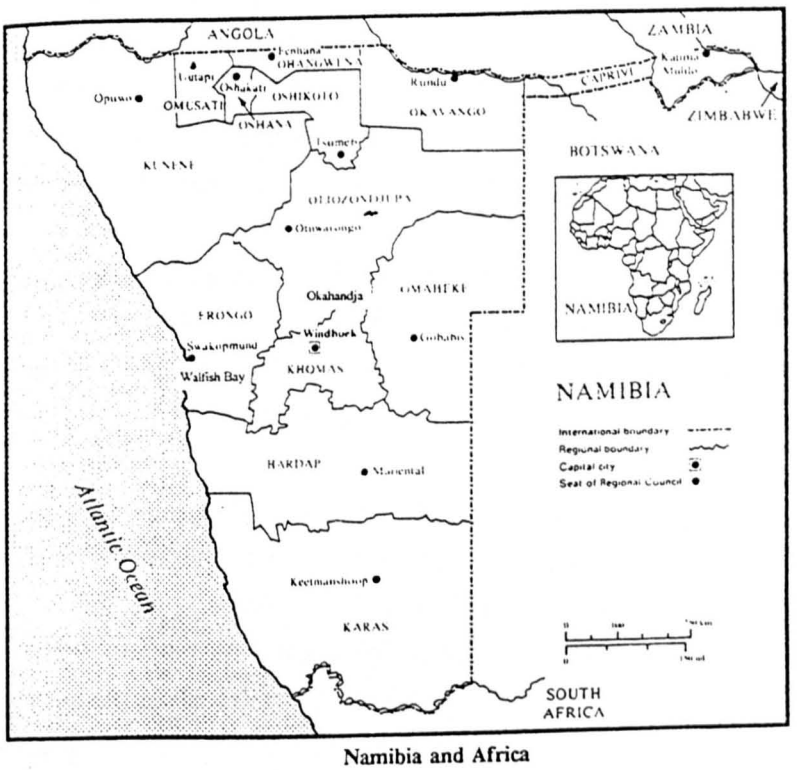
It is further argued that the pre-independence housing provision was mainly based on a provider's paradigm, while the new government is aiming at developing a housing strategy according to a supporter's paradigm.

A summary of Namibia's main geographical and historical features is presented in Figure 3.1 for further background information on the country. The discussions on different historical periods are illustrated with tables summarising the main events related to the discussion.

3.1 SETTLEMENTS IN NAMIBIA BEFORE COLONISATION

It is commonly assumed that the Namibian people had no experience of permanent settlements or towns before independence because of the kin-centred settlement patterns among the northern population and nomadic lifestyle followed by the southern population. This assumption can be questioned in the light of recent literature (Dierks, 1992; Lau, 1987).

FIGURE 3.1 NAMIBIA: INFORMATION SHEET [1]



Namibia and Africa

POPULATION: 1.4 MILLION

GEOGRAPHY: Area: 824 295 km sq, East: Kalahari Desert, West: Namib Desert, Rainy season: January - March.

Perennial rivers: South Border, Orange River; Northern Borders: Cunene, Okavango and Zambesi in the Caprivi

POPULATION GROUPS BEFORE COLONISATION

- ORIGINAL:	San People (Bushmen)
- BY 1800s	North: Ovambos
	Central Parts and North West: Herero
	Central and South: Damaras
	Southern Parts: Namas
	North East and Caprivi: Kavangos and Caprivians
- During 1800s	From Cape Colony: Oorlams and
	Basters (mixed Afrikaners and Namas)
	East: Tswanas
	Small numbers of white settlers:
	Afrikaners, German and Finnish Missionaries

LANGUAGES:

Main indigenous langauges: Oshiwambo (related group of languages), Herero, Kwangaali, Nama/Damara, San languages, Tswana, Afrikaans

Official languages before independence: Afrikaans (mostly used), English, German

Official language after independence: English

CITIES:

Windhoek is the largest with a population of 160 000, followed by Walvis Bay with about 40 000 people

27% of the population live in urban areas

[1] Sources: National Planning Commission (1994), International Defence and Aid Fund (1980). Map from Pendleton (1994).

Although Namibia did not have a strong urban tradition before the German colonisation in 1890, changing settlement patterns were already evident during the 19th century. This happened in the southern and central parts of the country, where the Oorlams, a Khoisan group originally from the Cape, migrated into the area. This migration resulted in stronger trading links with the Cape Colony and influenced the settlement pattern in the southern and central parts of the country.

A remaining evidence of different settlement patterns brought by the Oorlams, is the fortified mountain settlement of ||Khauza!nas[2]. This settlement with its double row of stone walls was re-discovered in 1987 by Klaus Dierks (Dierks, 1992) and is dated to the beginning of the 19th century[3].

Contact between the Oorlam and Nama, living a nomadic lifestyle in these areas, was initially characterised by trading relationships. This was followed by a period of forceful taking of rights to water-holes and pastures (Lau, 1987:23). After an alliance between the Oorlam, Jonker Afrikaner and the Nama chief, ||Oaseb, different settlement patterns became established. Not only were trade links more firmly established with the Cape Colony, people clustered around the leading Nama and Oorlam families. Some settled groups approached missionaries to establish themselves at their settlements.

"*As the notions of private property became established, they carved out territories for themselves, opened regular trade routes and ..... settled at 'headquarters' with a European missionary*" (Lau, 1987:32).

These settlements therefore became associated with missionary stations. The importance of the missionary was both military and trade related. The solid church building often provided protection, while the bells served as a warning system during times of war or conflict.

The settlements contained houses for Europeans, church buildings and school buildings of bricks or stone, while traditional structures were also built. The local production of houses by women, using mats covering timber poles placed in a conical shape frame (Figure 3.2) was not supported by missionaries. Women actually resisted their interference in Rehoboth "*when the missionaries began to*

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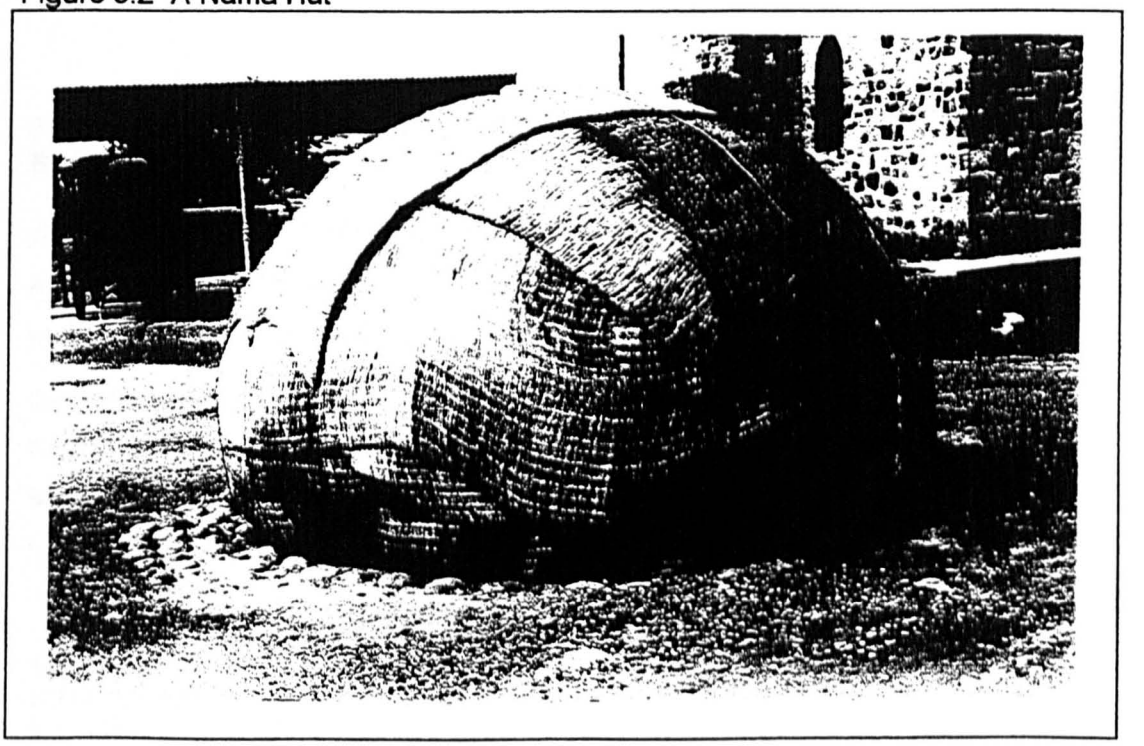
[2] The symbols || and ! are different click sounds in the Khoisan languages

[3] No archaeological research has been done at this stage on the site and the only written historical record of its origins, that of the diary of the missionary Ridsdale (1847), dates it back to the beginning of the 19th century. According to his interpretation the Oorlams fled to this area after shooting a Dutch Boer, and built the fortification for protection against a possible raid from commandoes from the Cape Colony.

insist that mat houses equalled barbarism and stone houses, built and controlled by men, were the only 'civilised' way of living" (Lau, 1987:73), and they refused to move into these new houses. These events reflected that the Namibian people's own housing processes were already in the 1800s not recognised as acceptable options. They started loosing control over their own processes. It was especially the women, previously controlling their own housing process, who were left out of the new way of constructing houses. One can conclude from their reaction that their role in housing was important for them.

Figure 3.2 A Nama Hut [4]



In comparison to the people of the south, the northern people had less contact with Europeans and were less directly influenced (Melber, 1988:9). The Owambo communities settled on a more permanent basis and cultivated land. They lived in fenced-in homesteads, which are not to be confused with villages (Williams, 1991 :48), since all the occupants are blood-related kin. They still construct these homesteads in the north and this will be discussed in further chapters.

[4] A reconstructed hut from the museum at Keetmanshoop.

The formalising of settlements according to the colonial practices increased after colonisation in 1890. Where the earlier Oorlam immigrants from the Cape Colony brought different settlement patterns to the region, the missionaries strengthened the development of 'missionary stations'. After colonisation the settlement patterns of the colonisers were soon determined by formal organisation. Planning according to rules and regulations soon followed and the first plan of Windhoek was drawn in 1892 (Peters, 1981). The colonised people had no role to play in the development of this formalisation process, especially since the first establishments were also very militaristic in character as part of the process to subdue the indigenous groups to German power.

3.2 THE APARTHEID TOWNSHIP: HOUSING CONTROLLED BY THE PUBLIC SECTOR

This part will concentrate on the development of the apartheid town. The major events, as well as some of the laws determining the apartheid town during the colonial period are presented in Table 3.1.

During colonial times the apartheid city was developed. Although the South African National Party became internationally known for its racial urban control through legislation, the foundations for Apartheid in Namibia were already laid during the German Occupation. A law against mixed marriages was made and

" .... *the already existing social separation according to racial categories was legally cemented. Racial differences were to be the foundations for the colonial class antagonisms and were the criteria for strict social segregation.*" (Melber, 1988:29)

Separate areas for different groups were already applied during German times. Although the various South African Groups Areas Acts were not supposed to be applied in Namibia, it was practiced through restrictive clauses in the title deeds of individual properties.

Until the late 1950s indigenous people of Namibia built their own houses in informal settlements on the edges of the white controlled towns. During this period the South African administration in Namibia started to prepare for the removal of the blacks from these settlements to the newly built townships. Housing became based on a centralised public sector approach in common with urban development in other developing countries.

Table 3.1 Major Events During Colonial Times[5]

1886/1890	Boundaries of German South West Africa[6] determined by Germany, Portugal and Britain
1890	Germany occupied Namibia
1892	First town plan of Windhoek drawn
1904	Herero war result in massacre and taking of the land
1907	Ordinance of August 1907 prohibit blacks to acquire land
1910	The system of using beer halls to raise revenues for black locations were established in Durban called the 'Durban System'
1912	Establishment of Windhoek Main Location for blacks where houses were built by the inhabitants
1915	Troops from the Union of South Africa took Namibia from the Germans
1919 MAY	Namibia declared a Class C Mandate and the mandatory power was conferred on the Union of South Africa, on behalf of the British Empire
1920	Mandatory power was ratified in 1920 by the Council of the League of Nations according to Article 22 of the Covenant of the League: Namibia was to be administered under the laws of the mandatory as integral part of South Africa
1922	Pass Laws under the Native Administration Proclamation introduced. Africans working in white areas placed under a curfew
1923	First Natives (Urban Areas) Act introduced in SA that empowered municipalities to have segregated locations, and some systems of influx control
1946-1972	Dispute between United Nations and South Africa about Namibia
1948	National Party gained control over South Africa
1950	Groups Areas Act of 1950 extended racial zones with border strips in-between all over SA. After amendments in 1957 it started to be effectively apply. The application of these resulted in the mass movements of people. Although the Groups Areas Acts were not implemented in Namibia, racial restrictive clauses in the title deeds of individual properties were used to segregate people
1951	The Natives (Urban Areas) Proclamation No 51 introduced in Namibia, consolidating earlier legislation enforcing pass laws and confining Africans to locations
1959 DEC.	Protest against forced removals from the Old Location to new township of Katutura and 11 people were killed
1966 AUGUST	Swapo launched armed struggle
1967	Owamboland becomes the first homeland under the Odendaal Plan
1969	Namibia incorporated as a fifth province of the Republic of South Africa in terms of the Namibia Affairs Act of 1969

As part of this approach informal settlements were demolished. In the case of South Africa and Namibia these settlements were replaced with the newly developed municipal houses (Figure 3.3) which still form a considerable proportion of the housing stock in the central and southern part of the country. These houses were provided by the local authority and access to these depended on a permit to live and work in the town.

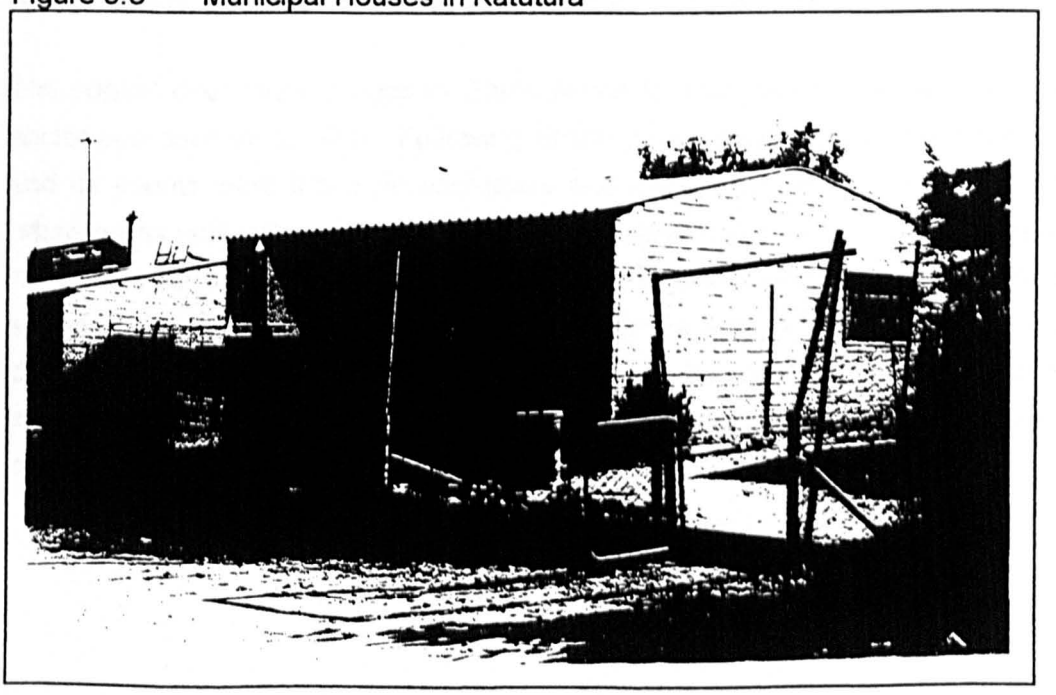
[5] Sources: Lemon (1991), Simon (1991), Fraenkel and Murray (1985); Murray and O'Regan (1990) International Defence and Aid Fund (1980).

[6] The name of the country became later South West Africa, and the name Namibia became common during the independence struggle. Officially Namibia was used with South West Africa during the transitional period. Namibia will be used throughout this document.

The forced removals in the capital Windhoek were resisted by the people of the Old Location, the informal settlement to the west of the city. This resistance resulted in the police moving in and people being killed on 10 December 1959, before the people were forced to move to Katutura. Katutura was a newly developed township to the north west of Windhoek (Ridgeway, 1991). People still referred to the events of that day as the 'war' in the Old Location.

The new townships followed similar patterns to those of the typical Southern African labourer towns. The housing provided in Namibia included family houses of the detached four room and semi-detached two room types (Figure 3.3) and hostels as single quarters for contract labourers. The local authorities were the agents for constructing the houses using plans developed by the National Building Research Institute in Pretoria. Based upon racial policies, urban populations were controlled and the principle was that permanent access to white urban areas was not necessary, therefore these houses were only available for rent. Although the South African government proposed policies for site and service schemes and home ownership, the 30 year leaseholds that were issued instead of freehold rights limited the viability of such approaches.

Figure 3.3 Municipal Houses in Katutura



In the early stages of the centralised approach in Namibia, housing was used as one of the measures to restrict the urbanisation process for black people in white

towns. Family houses were provided on restricted conditions. The houses were available for rent to those who received permits to stay in towns and who had employment.

The South African Government took an anti-urban stance concerning the urbanisation process for blacks and also applied this in Namibia:

> "*The black man was, in terms of government policy, a temporary worker in the white urban areas. All long-term policies were aimed at the eventual return of all blacks to their respective homelands*" (Morris, 1981:69).

The urban blacks were the work force who enabled the industrialisation controlled by whites[7]. This attitude was also taken by the government who did not want to give subsidies for the development of black township in the 1920s since this would mean an indirect subsidy to employers (Morris, 1981:16). During 1951 the employers were forced to contribute taxes for locations when the Native Service Levy Act was established.

Blacks were not even allowed to construct the houses they were to occupy in the 1940s. This was due to job reservations, based on racial groups, that kept black people in unskilled occupations (Morris, 1981:36). These job reservations also restrained the transfer of building skills and technology applied in towns.

The control over racial groups in South Africa formed part of a centralised public sector approach to housing. Following similar patterns in Namibia, the government and its agents were the main controllers and developers of non-white housing in urban areas until independence in 1990. The apartheid towns also segregated the Namibians further away from their own urban housing process. They were only allowed in towns as a work force for the foreigners and permanent residence was difficult to obtain. This segregation from their own housing process extended even to the construction of the houses they were to occupy, which they were not permitted to construct.

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[7] This approach to see black Africans as a labour force is also reffered to as ' Stallardism' as a result of the ideas reflected by the Stallard Commission in 1922 : "*The native should only be allowed to enter the urban areas, which are essentially the White man's creation, when he is willing to enter and minister to the needs of the White man, and should depart therefrom when he ceases so to minister*" (Transvaal, 1922, para. 42 quoted in Lemon 1993).

3.3 A TRANSITIONAL PERIOD: INTRODUCING HOME OWNERSHIP

The transitional period refers to the period from 1978 until independence in 1990 when Namibia was governed by an Administrator General appointed by South Africa and two interim governments[8]. Certain key legal changes concerning urban control took place[9]. Blacks were now allowed to move freely in towns, their freehold rights to property were recognised and could be practiced, and the urban segregation according to race was not enforced any longer. The main research for this thesis was done during the end of this period, shortly before independence. Table 3.2 presents the main events during this period.

Table 3.2 The Transitional Period

1977 OCTOBER	An Administer General (AG) was appointed by South Africa in Namibia with extensive executive and legislative powers
1977	The Immorality Act, Mixed Marriages Act and sections of the pass laws were repealed in Namibia
1978	UN Security Council adopt Resolution 435 to appoint a special representative for free and fair election
1979 MAY	Elections held under SA auspices; declared 'null and void' by United Nations Security Council
1980	Interim government formed with a National Assembly with legislative powers.
SEPTEMBER	Legislative powers limited by AG's veto Ministers Council approved a home ownership scheme to sell to tenants and an emergency housing scheme of 450 units based on home- ownership
1982	National Building and Investment Corporation (NBIC) started to act as an agent of the government to provide low-income housing
1983	Interim government dissolved and AG took over direct administration
1986	First ultra low-cost housing scheme developed by NBIC
1987	International Year of Shelter. Saamstaan Housing Co-op is initiated
1989	Community groups held housing seminar "Shelter for All"

When the legal changes in urban control took place, the black urban population mainly served as labourers for the white areas and industries, as explained above. They never had any significant role to play in the creation of the urban areas, nor in the decision making process. The whole process of finding accommodation according to the formalities of home ownership that was the main option utilised by the white population, was unfamiliar to the majority of the Namibians.

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[8] These were not recognised by the international community. SWAPO, the main political party in the independence struggle, was the only legal representative recognised by the UN (Cooper, 1990).

[9] Not all apartheid laws were abolished. This was the result of the implementation of AG 8, which divided the government into ethnic administrations on a second tier level and certain governmental functions, like schools were given to these ethnic administration. Most petty-apartheid laws were abolished and also those that controlled freedom of movement into towns. The right of ownership to land, without any restrictions according to race was introduced.

For the first time housing as a formalised commodity was introduced to the black population on a significant scale. This process started when a local firm of architects and the local authority became involved in the Katutura Housing Project. The consultants were conscious about participation of and consultation with people in the process, while the local authorities were very apathetic to such ideas (Simon, 1983). This project was the first one to be based on home-ownership. After this one-off experience housing became the responsibility of a para-statal, the National Building and Investment Corporation of South West Africa Limited (NBIC). It was established in terms of Proclamation AG 60 of 1978 and became the official low-income housing agency in 1982.

3.3.1 The formal housing process

The corporation followed, according to its review of operations, internationally accepted principles for shelter development (NBIC, undated). The active promotion of home ownership on a full cost recovery basis was one of the objectives of the NBIC. Their operations developed into the provision of contractor built houses for sale, and financing with subsidised interest rates. The idea of community development (not participation) was recognised, but the community development department was mostly used for motivating people to become house owners and to deal with complaints from house buyers. The NBIC's operated increasingly on the principles of a commercial company focusing on the marketing of products.

The formal housing process refers to the officially sanctioned procedures involved in establishing and obtaining a domestic environment as followed by the whites in obtaining their own housing. These procedures were applied and developed during colonial times by the colonisers and followed Euro-American principles for housing development. Among the white population home ownership is a common way of securing a house. Home ownership also increased when the government changed their employee housing scheme from building houses for rent to subsidies for employees to buy houses.

Some aspects of the formal housing process include the formalising of access to land and services, following formal planning principles, construction done by commercial companies, while financing is secured by bonds. The key-concept in this process is that a nuclear family will buy (or less often rent privately) a house. The different aspects of the housing process will be discussed in more detail.

- **Land**

Access to urban land was formalised soon after the German occupation when towns became regulated (Peters, 1981:66) and town plans were drawn up. Cadastral mapping and registration followed. Institutional control became important and at present the local authorities act as the developers of the urban land. This is done on the basis of cost-recovery. Cost of land includes the initial buying price (where local authorities have not already obtained land through original proclamations), and the costs of planning, surveying and services like roads and electricity. Services of professionals such as town planners, lawyers and land surveyors are legally required before urban land can become available to individuals. The town planning scheme developed by the municipality restricts land usage by means of zoning regulations. This town planning scheme is a legal document and any changes to it can only be done with the approval of the Town Council and Namibia Planning Advisory Board (Nampab)[10]. The zoning also determines the way the price of land is to be calculated: different formulae are used for residential erven[11], business erven and institutional erven.

- **Services**

In urban areas land only becomes available once services are provided. Water reticulation, water borne sewerage, roads with minimum widths enabling service vehicle access and double carriage way in all streets, and also electricity, are developed first. In smaller towns, or newly proclaimed towns and villages all these services might not be developed. Certain urban areas still use a bucket latrine system.

Land is taxed to recover water, sewerage and electrical reticulation and maintenance costs. Engineers, town planners and contracting firms employing artisans became involved in providing services. Erven are obtained from the municipality by buying on a first-come-first-served basis, through written applications and negotiations for land and by public tendering. The NBIC applies for land directly from the municipality and the implementation of any projects often depends on the availability of serviced land.

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[10] Nampab exists currently out of the Premanent Secretaries of the Ministries and is chaired by the Permanent Secretary of Ministry of Regional, Local Government and Housing. It approves the proclamations of towns. A Townships Board, existing out of government officials, approves smaller subdivisions and layouts.

[11] Erf (plural: erven) is the term used for a plot of urban land that is surveyed, pegged and registered at the registrar of deeds.

- **Creating the physical environment**

Planning regulations determine minimum building standards and municipal approval is required for any construction in their areas. Required standards originated from health and safety considerations. Building Regulations in Namibia were written by the South African Buro of Standards (SABS). These regulations also stipulate spatial requirements, as building lines and maximum plot coverage that would be allowed. It is also required, for example, that each residential erf should facilitate the parking of one car within the erf. To obtain building permission plans are to be submitted to the municipality for approval. Higher income people make use of architects, while draughtsmen are often involved in the preparation of municipal drawings. During construction the inspectors inspect the buidlings to ensure that work is done according to the plans.

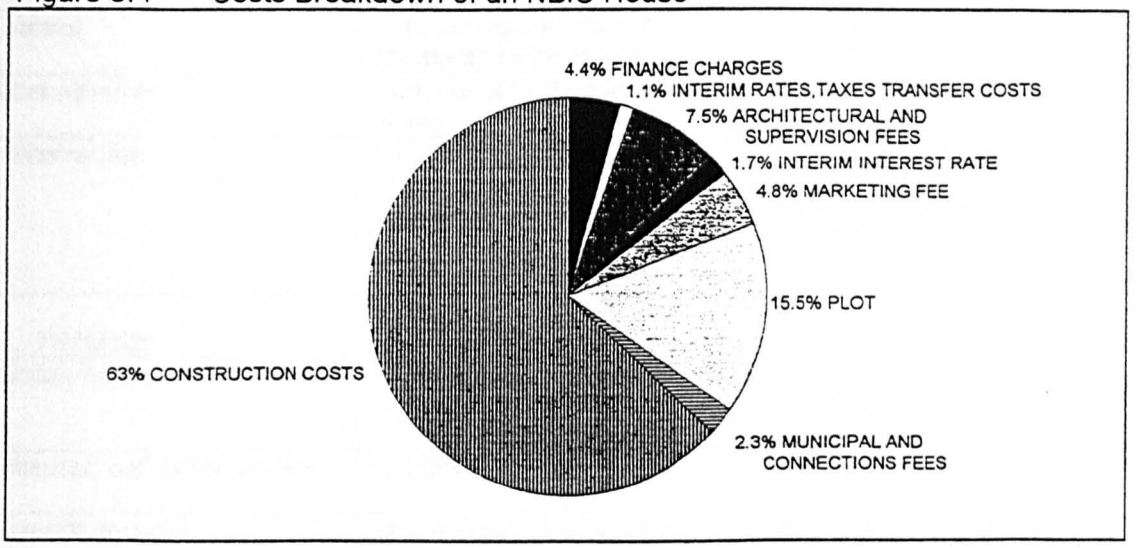
The NBIC has their own technical division which deals with the design and construction contracts. Construction is mostly done by formal contracting firms, using materials predominantly imported from South Africa. Skilled labour and management became essential in the construction procedures.

- **Financing**

Financing follows commercial loan principles with registration of mortgage bonds on the properties and involves long term contractual and insurance requirements. To obtain a loan, insurance covering the building is compulsory in Namibia, while an insurance releasing the bond if the owner should die or should become disable to work is optional. Accountants, loan administrators and the legal professionals play a role in enabling financing. The financial and contract administration is also handled by the NBIC. They have to make use of outside lawyers for registration of bonds and transfers, but the preparation is done by the NBIC's legal advisor.

The housing process applied by the NBIC, follows the officially sanctioned procedures, according to principles of a capitalist economic system. Except for some overheads, research activities and community development activities, all the costs of services are recovered from the buyers. Figure 3.4 illustrates the break down of costs of an NBIC project. These costs are related to those in the private sector. To enable more people to afford houses, subsidies were provided as interest rate subsidies, but these still excluded the largest portion of the population from access to housing.

Figure 3.4 Costs Breakdown of an NBIC House



The main elements of the formal housing process, the activities and the agents involved is summarised in table 3.3

Table 3.3 The Formal Housing Process

KEY ELEMENTS IN HOUSING PROCESS	MAIN PRACTICES	MAIN AGENTS
1. LAND		
as product	acquisition for development	municipality, private landowners, developers (NBIC)
control over development through a town planning scheme (regulation)	planning, land division and surveying, proclamation by law	town planner, land surveyor, Namibia Planning and Advisory Board (NAMPAB)
individual land ownership	selling of land with sales contract registration of title deeds	municipality, private landowner, lawyer, registrar
investment/ speculation	sell or buy on the market	estate agents, landowners
2. SERVICES (water, roads, sewer, storm water, electricity, refuse)		
installing services as part of land development	planning constructing	engineers, municipality, private developers, private contractor
maintenance	maintain and replace cost recovery	municipality, private contractor, property owner
providing services	ensure access to service	municipality and SWAWEK (para-statal -electricity corporation)

3. PHYSICAL ENVIRONMENT

planning	draw up plans for socio-cultural needs	architects with clients or draughtsman
control	draw up regulations and standards building permit	SA Buro of Standards municipality
cost estimate	work out cost of material and labour	quantity surveyor, contractor or owner builder
construction	tenders	small contractor for owner built, or company
	supervision	inspectors or architect
	buy materials	productions and retailing companies

4. FINANCE

obtain financing	applications signing of contracts	financial institutes banks, NBIC, building society
financial and fiscal policies	pay interest rates	government financial institutes
provide security	register bond on property	lawyer registrar of deeds,
	bond insurance, house insurance	Insurance Companies
repayment	manage loan	financial institute

The descriptions and Table 3.3 do not cover the various housing options in detail. The provision of housing is usually initiated by owners or developers. Developers also include individuals who build for speculation purposes, since they have access to financing. A new growing developer phenomenon in Windhoek and Swakopmund is the emergence of property agents acting as housing developers. The target group of these developers are mainly government officials that can obtain subsidies for loans from their employer.

The NBIC functions mainly as a developer, with the difference that the subsidised interest rates are securing a certain section of the market for their products. Although the earlier Katutura Housing Project attempted to move away from the centralised public sector approach, the NBIC did not continue with it. The corporation returned to this approach and acted as a housing provider. As the agent of the government, their main role was seen as producing houses. The main difference to the earlier approaches was that the NBIC houses were for sale, and not rent. Their target groups was also defined as low-income families and not blacks or coloureds. The corporation became, in line with the previous agents (government and municipalities), the decision-maker, manager and eventual provider of housing. The corporation is also a building society that acts as the financier for the houses. The processes followed by the NBIC are geared to mass production, as only a few types of houses are designed and then the types are

located on erven. The higher numbers that can be produced with one contract, the more efficient the production. Although not to the same scale as industrialised countries, this approach shows similarities to mass house production.

With this process followed by the Corporation the buyers of the product were not involved during the stages of creating the 'house product'. Their involvement before occupation was mainly in administrative aspects such as applying, confirming their interest before the construction contract starts and the signing of contracts. Although applicants are asked what type of house they would prefer, choices are limited to the type of house an applicant can afford. Usually only one type is provided within a price bracket, which virtually means that there is no choice, except if the buyer prefers a smaller house to the price that the person can afford. Affordability is determined by the Primary Household Subsistence Level (PHSL)[12].

The formal housing process as described above, only identifies aspects in the process of creating, and obtaining, access to the product. The housing process does not end once the house is occupied, but rather continues actively after occupation. People transform, change and adapt their houses and need a continuous source of sufficient finances to meet their monthly payments.

3.3.2 Problems and Alternatives

The housing need could not be addressed by the NBIC due to insufficient household incomes to afford the loans for the houses produced. By using projections from the census data of 1980, the NBIC realised that 60% of the Namibian urban population (Merrington, 1985) would not be able to afford their minimum standard house. Therefore, the NBIC started implementing self-help schemes.

The first initiative developed by the NBIC as a self-help project was the pole and roof structures. In Windhoek the wall cladding soon followed occupation (Muller, 1988). In other urban centres it was only after special assistance and further loans in 1990 that some of the houses were completed.

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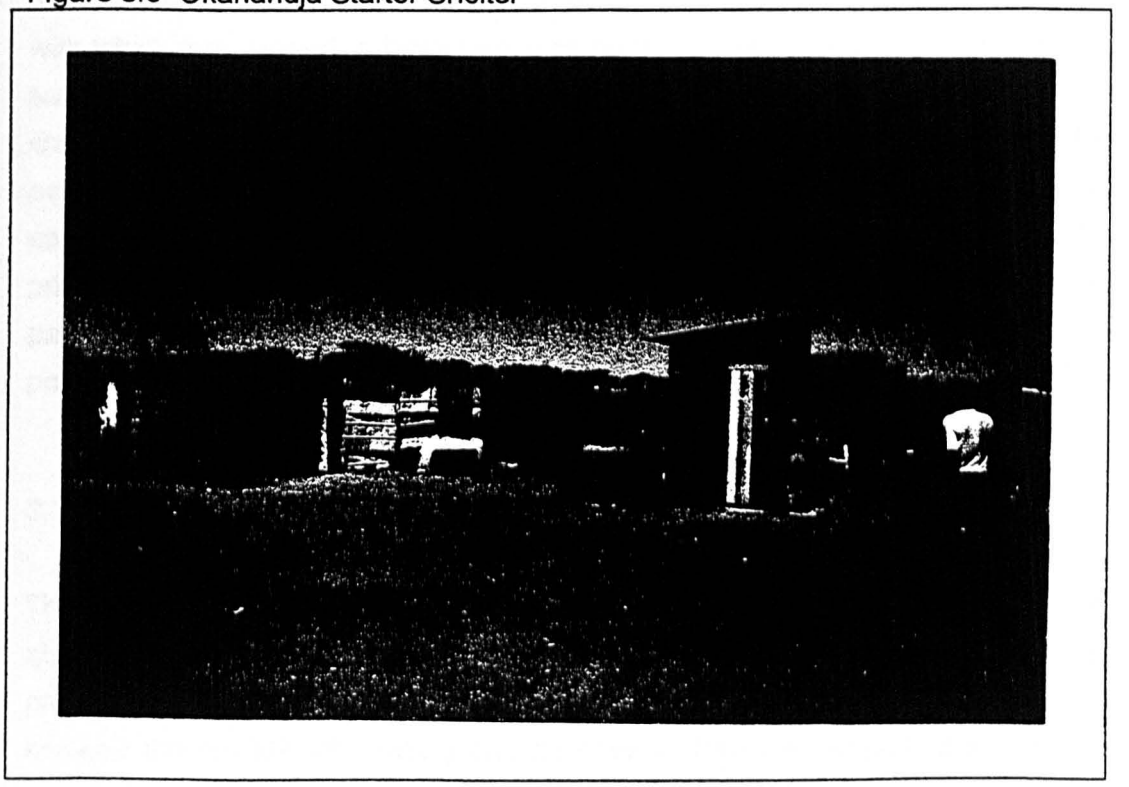
[12] The PHSL levels are determined annually by the University of Port Elizabeth. According to the Namibia Housing Policy it is *"a particular level of household income which, for a specified size of family in a specified area, is sufficient to pay only for the basic needs of the family, including food and clothing, but excluding housing and transport. It is a measure of extreme poverty, below which a family is theoretically incapable of subsisting."* (1990: I) These levels concentrate on how people survived in the formal cash economy and does not recognise contributions of the subsistence economy.

To address the problem of affordability to qualify for loans the NBIC established a Special Projects section to facilitate the site and service projects. With the exception of one, these projects were in peri-urban areas in the south. The peri-urban areas were small villages, which were not controlled by local authorities, but by the Peri-Urban Development Board. The reason why these projects were mainly done in peri-urban areas was that the Peri-Urban Development Board was less strict on standards and cheap land was available. One project in a municipal area, Okahandja to the north of Windhoek, included the provisions of a starter shelter on each erf as a wet core (toilet, shower, wash trough; figure 3.5). This project was the first to implement a group loan. The high costs involved with the administration for the small loan amounts of the special projects resulted in the Corporation developing a group-loan scheme on a co-operative basis. The loans of the self-help projects in the south were also changed into group loan schemes.

Figure 3.5 Okahandja Starter Shelter



The site and service projects could be described as a centralised self-help approach to housing, with involvement of the participants in a pre-determined scheme. The participants were involved in processes already decided and approved by the NBIC. They are building their own houses with the assistance of their families and are

involved in the administration of their loans. These projects remained only in the south and on a small scale. The Okahandja Starter Shelter project did not develop any further when the participants joined a repayment boycott that started in 1989[13].

3.3.3 Non-Governmental Involvement

During 1987, the International Year for Shelter, the Catholic church received money to construct houses for low-income families. Meetings held with the community to introduce this project had such a large turn out that church community leaders[14] began to support the people to form their own housing programme, namely the Saamstaan[15] Housing Co-op. Although called a Housing Co-op there is no precedent for community co-operatives in the country and the organisation functioned mainly as a community development project. Legally it is a voluntary non-profit making association, that is also registered as a welfare organisation.

The members of the organisation became involved in buying land directly from the municipality as individuals, making their own bricks and operating a revolving fund with which they started to build their own houses. The cost of erven increased to such an extent, that a group of Saamstaan members started to negotiate for a cheaper piece of land that they could own collectively. The overheads of their activities are supported by foreign donors. Two housing groups in the south of the country who had contact with Saamstaan, also initiated their own programmes. The principle on which these programmes is based is that people should not only participate in, but also control, their own project and reflects characteristics of a populist approach towards housing.

3.3.4 The Transitional Period: Summary of the Main Trends

The transitional period is the period in the history of housing where the blacks were also recognised as having a right to become urbanised. For the first time they were given the opportunity to obtain access to housing as home-owners. The NBIC became the provider of housing and continue to follow a centralised approach to housing, where they provide houses on a conventional 'mass production' method.

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[13] Just before independence a group of resettled hostel inhabitants (about 800 loans were involved) in the Hakahana area in Windhoek started a mass repayment boycott. They were dissatisfied with the one room shelters that were sold to them. The toilets facing into the rooms without any doors were their main complaint. Other NBIC house owners joined them and also the group of Okahandja. A report on the Okahandja project (Muller, 1990) explains the project in more detail.

[14] The two people initially involved were a social worker from the Catholic Church and a pastor from the Lutheran Church.

[15] Saamstaan means Standing Together.

Although the organisation recognised its limitation to reach the majority of the population, it only managed to reach lower income groups on a limited scale. A new initiative on the group loans schemes, showed potential, but the community preparation involved did not fit into the product orientated administration of the organisation. This initiative was not extended to municipal areas.

During this period community based organisations also made their first attempts to become involved in housing.

3.4 HOUSING IN A POST-INDEPENDENT NAMIBIA

Table 3.4 Main Events after Independence

1990 MARCH	Namibia became independent and the Ministry of Local Government and Housing was formed (incorporating old Peri-Urban Development Board and Sections of the Government Affairs). A Directorate of Housing was established
1990 APRIL	National Housing Seminar was held
1992	Approval of Namibia Housing Policy Build-Together Programme gave first loans to Community Housing Development Groups (CHDGs) for people to construct houses -NBIC restructured with a new name: National Housing Enterprise (NHE)
1992 NOVEMBER	Namibia Housing Action Group formed as the umbrella for low-income housing groups
1993	Build-Together Programme of the Directorate of Housing received Habitat Scroll of Honour

After independence many new developments took place in the low-income housing sector. The government rated housing as one of their top four development priorities in Namibia. International and bi-lateral aid became prominent.

This section will illustrate the main events since independence on the governmental level, as well as the developments on non-governmental level. The main developments of the government were the establishiment of the new ministry, the preparation of the National Housing Policy, the implementation of the Build-Together Programme as a new strategy and the changes of the NBIC to become the executing body of the government's policy.

3.4.1 The Government's New Housing Policy

A new Ministry of Local Government and Housing was formed and shortly after independence the new minister Dr Libertine Amadhila, initiated a National Housing Seminar to prepare for the formulation of a National Housing Policy. The seminar

was attended by UNCHS, local professionals, the NBIC, building society officials, developers, Zimbabwean building society representatives and also representatives of the community groups discussed above. The community groups were also given opportunities to present their views on housing. The Housing Policy was prepared by the Ministry with the assistance of an Advisory Board. This document that was approved by Cabinet during mid-1991 emphasised self-help projects and the role of the household in the housing process.

- **The people's role in housing according to the National Housing Policy**

The National Housing Policy (1991) proposes that the role of the low-income people in the housing process should be increased. The lack of community participation during the previous regime is mentioned as a problem (1991:8). The goals of the National Housing Policy include the formulation of public housing programmes, emphasising upgrading and self-help projects for which criteria are set out (1991:11). A further goal of the policy is to recognise the informal sector (1991:12), by also designating specific settlement areas for squatters. Special priority is to be given for those already squatting in unplanned areas in public housing schemes. References are made to settlement upgrading, self-help schemes and site-and-service projects. The public sector (1991:14) also has to concentrate their activities on starter shelters for self-help projects. The policy emphasises the principle "*that the primary responsibility for providing housing rests clearly with the head of each household*" (1991:17), while the provision of serviced land, secure land tenure and access to finance will be the responsibility of the government. The role of the government is seen as a facilitator rather than a direct provider.

The possible role of the people in financial and administrative aspects is also recognised. Concerning financing, the resources of credit societies or saving clubs are to be co-opted (1991:20) to reduce administrative costs and guarantee repayments. The necessary conditions will be created for these and support would be channelled by the government for individuals and groups who wish to build their own homes.

On both aspects of planning and constructions the policy propagates involvement of the people. Popular sector[16] construction (1991:22) is to be facilitated and the necessary conditions are to be created for individual and groups who wish to build

[16] Popular sector is defined in the Glossary of the Housing Policy (1991:II) as "*that sector of the economy which is dominated by activities and managed by participants who are working for themselves for their personal benefit or consumption. In the National Housing Policy the term refers to those activities related to self-help housing programmes, particularly where participants are owner-builders undertaking construction work directly themselves.*"

their own homes. A section devoted to public participation (1991:24), mentions that community participation will be institutionalised into the planning and implementation process of low-income housing projects. The local authorities have to develop a capacity for facilitating this participation, while the NBIC in its new role will provide support with the Ministry's Community Development Division.

- **Home ownership in the housing policy**

As one of the principles in the housing policy the "*government strongly supports the principle of home ownership as means of providing security, stability and economic power to the family unit and creating a basis for the development of strong motivated communities*" (1991:19). By allocating housing on the basis of freehold ownership or transferable leasehold, the private sector involvement and financing are to be stimulated. A move away from any government rental housing is proposed and the government "*does not wish to develop or hold a stock of rental houses.*" (1991:26)

To enable the buying of houses the para-statal (NBIC) will continue to provide mortgage finance. Subsidies for interest rates are proposed to be phased out and to be replaced by a one-time up-front cash payment towards land or improvements (1991:21).

- **The role of the different institutes**

The policy makes provision for nine agencies and sectors that could be involved in housing, including the above mentioned saving clubs[17] and the popular sector. Other agencies that are applicable to the low-income housing sector include the NBIC and local authorities. The NBIC changed its name to the National Housing Enterprise (NHE) and has to act as the executing agent of the central government, while the local authorities have to become involved in the management of self-help construction. Provision is made for the NHE to continue with the product orientation towards providing houses.

- **Summary**

The National Housing Policy recognises that the community had, under the previous regime, no opportunity to participate in housing and make provision that the people, as households and groups have a role in the housing process. Even though their

[17] The role of savings clubs as community based organisations are not clear in the policy . It is doubtful if savings can be held in trust for future distribution in support of housing needs as proposed in the policy. As a security it might function, but not as contributions to building houses. As a whole the role of NGOs and Community Based Organisations are ambiguous in the policy. From time to time they are recognised as playing a role, for example NGOs role in training in construction and house building (1991:22,33), but then after these references were made no dedicated function is illustrated (1991:35).

roles in the housing process are to be increased, these often concentrate on the construction and obtaining of houses. Reference is made to the institutionalising of community participation into the planning and implementation process of low-income housing projects with local authorities. At the same time the new NHE will continue with their production orientation of housing, which is not conducive for the development of participatory approaches. It is also of interest to note that the policy mainly makes provision for authorities, or the governmental agencies, to facilitate and support the increase of the people's role in the housing process.

The housing policy indicates that new approaches of more participation are to be followed, but at the same time gives room for the NHE to continue with the conventional housing production. The question is whether both these aspects can be facilitated in one agency? Certain aspects of new international approaches to low-income housing are reflected in the policy like the government as enabler, while the others concentrate on the conventional approach of housing production.

3.4.2 Governmental Housing Programmes

After independence the Build-Together Programme of the Directorate of Housing became a national programme. Bilateral aid in the form of project support to other housing programmes is given by the Chinese, Japanese, French, Germans and Danish. The NHE continued with its projects, although they were initially seen as the agent to implement the Build-Together Programme they did not become involved in the programme.

- **The Build-Together Programme**

The Ministry formed their own Housing Directorate and the UNCHS assisted the directorate with a team of advisers to develop a National Shelter Strategy[18]. With this assistance a national shelter strategy was developed and implemented during 1992 as the Build-Together Programme. This programme focuses on the provision of loans to very low-income families[19]. Loans for new houses and upgrading have been allocated to households, ranging from N$1000 to N$22 500. Provision is made for the forming of a Community Housing Development Group (CHDG) in each town. It comprises of government officials, local authority and council representatives and the community. The CHDGs identify the housing need in their towns, prepare 'Programme Identification Forms' and take applications. Provision is also made for the community to form themselves into Community Based

[18] UNDP/UNCHS Project NAM/90/018
[19] Households with incomes under N$1250 per month

Organisations (Ministry of Local Government and Housing, 1992). A grant from the Japanese in the form of steel roof sheets is used to assist very low-income families.

- **Bilateral - and Foreign Aid Programmes**

The first foreign organisation that became involved in a programme was the French organisation CRIAA which assists the Ministry with resettled squatters in Windhoek. Squatters next to a high income suburb and in the vicinity of rubbish dumps were removed to Okuryangava, north of Katutura during 1990. They were provided with toilets and plots and CRIAA became involved in the construction programme. The organisation works as consultants on the provision of contractual services. Later they also became involve in a service upgrading project in the north of the country.

The Danish government is giving support through an NGO, IBIS with an upgrading project in Oshakati - the Oshakati Human Settlement Improvement Programme (OHSIP). This project concentrates on the provision of basic services in four informal settlements.

German support is given through KFW[20] for the services and housing of resettled single quarters' inhabitants in Windhoek. These people were resettled during 1992 by the Ministry of Housing and the restructured NHE. The programme includes the provision of services and loans for houses and the NHE is their local partner.

The NBIC was evaluated by a team from the UNCHS. The restructuring of the NBIC to form a new body, the National Housing Enterprise was completed by the middle of 1992. Although the mission given to the new body concentrated on assisting the poor, the first schemes of the NHE, defined as 'turn-key' projects aimed at the middle income market. They improved the standard of their houses by including more finishes, but continued with their product orientation towards the provision of houses. Applicants are involved in the making of choices on finishes and colour schemes in the projects. Targeting for the middle-income groups were reinforced during 1993 when all interest rate subsidies were abolished.

[20] Kredietbank fur Wiederaufbau

3.4.3 Community Based Organisations after Independence

At the time of independence, community based organisations were not a well-developed phenomenon in Namibia. With the exception of NBIC initiated self help schemes, the only community organisation involved in housing activities, was the Saamstaan Housing Co-op. The other two groups in the south, ||Khara Tsasib in Mariental and the Keetmanshoop Housing Union, were still busy organising themselves. Further groups were interested in this approach and in February 1992, a workshop was held, where interested communities and groups gathered to discuss their problems. They formed the Namibia Housing Action Group (NHAG) with the main aim to strengthen their activities. A support service for the member groups was established in February 1993 and nine other housing groups started to organise themselves.

The involvement of organised groups in the form of community based organisations was not recognised in the National Housing Policy as a contributing sector, but the Build-Together Programme makes provision for the development of this sector. The Directorate of Housing also had an adviser from the American Co-operative Housing Foundation (CHF) to develop a strategy for NGO involvement in housing. A proposal for a strategy was prepared in April 1994.

3.5 CONCLUSION

This chapter explained the development of the formal housing process by referring to the settlements before independence, the development of the apartheid township, the introduction of home ownership and the new policies and programme after independence.

When the Namibians received their independence in March 1990 the formal housing process as explained in this chapter, was well established in the country. The establishment of this process took place without the involvement of the black and coloured people who form the majority of the country's population. A prominent feature of the colonial times was the development of urban areas based on apartheid planning systems. It was only during the last ten years before independence that a right to own property in urban areas for these groups was actually recognised and that they were not merely a temporary labour force in these

areas. People become home owners by buying finished products from the NBIC. The majority of the people still did not participate actively in the process and their choices were limited to what the NBIC had to offer.

After independence the government attempted through its policy and strategy to involve the people more in the housing process - especially the low-income people. Their lack of involvement previously might lead to issues that could constrain participation in the future. How these issues relate to the research problem will be discussed in the next chapter.

CHAPTER 4
THE RESEARCH PROBLEM

CHAPTER 4: THE RESEARCH PROBLEM

The Namibia Housing Policy, as discussed in the previous chapter, emphasises an increase in the role of the low-income people in the housing process. This emphasis includes the 'self-help' principles and recognises the role of low-income households in obtaining their own houses, as promoted internationally. The historical lack of participation may influence a housing process that requires more involvement. The one consequence of this history is a lack of shared knowledge when the formal housing process is being practiced. Shared knowledge is viewed in this chapter as an important and relevant issue when participatory approaches are pursued, and the lack of it is formulated as the research problem of this study.

This research problem is discussed and explained in this chapter. After a general discussion on knowledge and how it is applied in this study, the problem is explained against the background of the colonial city phenomenon and cultural distances. Two hypotheses are formulated to investigate the problem. One concentrates on procedures followed in the formal housing process and another on the product, namely the domestic environment.

4.1 THE RESEARCH PROBLEM AS A LACK OF SHARED KNOWLEDGE.

The research problem addresses the lack of shared knowledge between providers and the low-income people. The lack of shared knowledge results in limitations for both the institutions and the people with a housing need when addressing the housing problem. Issues to be investigated include an absence of shared knowledge on aspects of the formal housing process and the physical environmental needs of the people.

This issue is addressed to create a better understanding of the aspects of the housing process that are not shared as common knowledge. This is seen as important if an increase in the role of the low-income people is to be facilitated in housing. The people in need of housing can no longer be passive recipients in a process determined by a

hegemonous group. To enable them to participate a clear understanding of the process is needed. On the other hand, the role of the formal agents also has to change to facilitate the process. The formal agents will no longer be in the previous power position where the needs of the middle and high income population determine the process and products. They have to take responsibility for facilitating a process which will include those who have been excluded until now. To enable these agents to act as facilitators, they need a clear understanding of people's housing needs and how they perceive the formal housing process. It would be necessary to overcome the colonial character of the housing process. As an important step to achieve this, the limitation, due to what appeared to many Namibians as a 'mystified process' only for the rich, is to be investigated.

User participation will require an increase in the the roles and responsibilities of the low-income people. People are to become part of the process - also as decision-makers. To enable this increased role to take place it is proposed as requirements that not only the constraints, but also the possibilities to obtain a house must be a common knowledge among the low-income people. On the other hand, enabling agencies have to know and act upon the people's environmental and social needs. A mutual understanding that will lead to conditions of shared knowledge would form a stronger basis to enable participation and allow for an appropriate housing process.

For the housing process to develop a Namibian character and not to be seen as a colonial remnant, a shared knowledge needs to be developed. The present formal housing process is a non-indigenous experience based on different cultural developments. The procedures were developed elsewhere and control mechanisms are not based on mutual consent among the indigenous population.

To implement participatory procedures an understanding of problematic issues - of which the lack of shared knowledge is identified for this study - is necessary. These procedures will have to recognise this problem and should be approached in such a way as to address it.

The reason for this study is not to have a sharing of knowledge between an observer (whether as a social scientist, a planner, a financier or a decision maker) merely to enable an understanding and action on behalf of those observed. The study rather aims to emphasise that knowledge should be shared to enable the actors to play a positive role in, as well as establishing, their own housing processes. More user control should be possible.

Participation is a way of overcoming this problematic issue. This study aims to contribute to increase the role of the low-income people in their own housing process. This should occur in such a way that accessibility is increased, needs are met and that participation does not become merely a lip-service. This contribution is made by investigating the lack of shared knowledge qualitatively and quantitatively in the Namibian context.

4.2 KNOWLEDGE IN GENERAL TERMS AND AS APPLIED IN THIS STUDY

Knowledge in the context of this thesis is seen as that part of knowing that enables action in obtaining shelter. This knowledge can also be interpreted as the "feeling of certainty" (Fuglesang, 1982:71) which gives people the confidence to act. This knowledge is obtained by a variety of ways and to enable action it is shared among members of a social group. Before colonisation the different social groups in Namibia created shelter according to their own lifestyles and social requirements. These processes are still occurring in communal rural areas and control over access is not exerted by any hegemonous group.

The contemporary formal urban areas do not reflect a housing process based on knowledge shared among inhabitants. Colonial control led to a type of housing process that is totally different from that of the indigenous housing processes. Housing changed from fulfilling the physical, social and economic needs of the people to a social and political power control measure. Since 1978 housing procedures attempted to change housing for all urban Namibians to the commodity status that it had for the

white minority in the country. Colonial practices segregated people socially and spatially and influenced the availability of knowledge concerning formal housing processes:

> *"... race zoning has kept people from knowing or understanding one another. Blacks, especially Africans, have entered white homes as servants, but many whites have never visited an African township, and remain comfortably ignorant of the conditions in which the majority of people live."* (Lemon, 1991:9)

Keeping knowledge from people was also a way of maintaining a power relation. The Bantu Education system in South Africa was developed to train blacks mainly for manual jobs and junior positions.

As background the concept of knowledge is discussed in a social context, according to types of knowledge, knowledge in the housing process and constraints in the obtaining of knowledge.

4.2.1 Knowledge in Social Context

Knowledge used in obtaining, as well as constraining, access to shelter forms part of the knowledge on which people draw upon in the constituting (producing and reproducing) of social life (Thrift, 1985:367; Giddens, 1984:90). Shelter forms part of the physical products which are supporting and enabling this social life.

The dimensions of time and space are referred to in the context of knowledge (Giddens, 1984:90). This is also illustrated by Thrift (1985) in a case study where he discusses knowledge as being historically as well as geographically specific. These dimensions also explain the differences in knowledge between different groups in Namibia, as will be discussed below.

Giddens refers to mutual knowledge as "*knowledge of convention which actors must possess in common in order to make sense of what both they and other actors do in the course of their day-to-day life*" (1987:65). Giddens discusses this concept from the view point of a sociological observer in an ethnographic research context, who should

have a similar knowledge to those being observed, to generate valid descriptions of social life. This principle is also propagated in the planning and design professions in that the designer should share a common knowledge with the clients to enable appropriate physical environments (Musgrove, 1984). This principle is applied in this thesis whereby it is argued that people in need of shelter, as well as those facilitating housing, would need a common knowledge to increase the role of those in need in the housing process. A basic level of knowledge of different housing processes and needs among social groups has to be shared to enable action.

4.2.2 Types Of Knowledge

The sharing of knowledge and its accessibility in the housing process is influenced by the type of knowledge used to take action and how this knowledge can be obtained. Both these aspects are different between the people's housing process and the institutionalised housing process in Namibia.

Descriptions of types of knowledge by Thrift (1985), Alexander (1964), Hillier and Penn (1989) and Friedman (1987) also apply to the different stocks of knowledge used, and the way these are obtained, by a people controlled housing process and a formal institutionalised housing process[1]. In the housing process where the inhabitants take control, practical and unconscious knowledge, acquired by people's own direct experiences and information networks, is applied. The formal institutional practices are based on empirical knowledge[2], acquired from scientific and technical research added to practical experience.

Actions in the people's own housing process are based on practical knowledge that is defined by Thrift as "*that informal (but not therefore unstructured) type of knowledge that is learnt from the experience of watching and doing in highly particular contexts in direct mutual interaction*" (1985:373). This knowledge is produced and reproduced in mutual interaction and is based upon practices which become naturalised. This is also referred to as a social knowledge (Hillier and Penn, 1989:8).

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[1] As explained in the previous chapter.
[2] This is also referred to as scientific knowledge (Hillier and Penn).

Knowledge used by the providers in the institutionalised housing process is empirical: *"The stock of knowledge built up as a result of the general process of **rationalisation** of knowledge*" (Thrift, 1985:375). It shares many similarities to practical knowledge, but is exercised within a learning process that is cumulated, systematised and co-ordinated over time and space by modern state and economic institutions.

This stock of knowledge is characterised by:
- being heterodynamic since *"it is acquired by virtue of an actor's membership of class and other social groups*";
- distanciated since *"it is removed in both time and space from the experiences and events it describes*";
- people are not essential in acquiring it, since it is transmitted through, and it is - "*crucially depended upon the written word*".

> *"The difference that the invention of printing made both to the stock of available knowledge"* and *"to the type of knowledge can be seen by considering what, historically, has been a transitory form between systems of practical knowledge and systems of empirical knowledge (and between oral and literate cultures), namely systems of practical literacy."* (Thrift, 1985:375-376).

The indigenous people in Namibia, similar to other Sub-Saharan countries, have traditionally an oral culture, sharing mainly oral methods of communication (Williams, 1991; Sow, 1979). Most transactions in their lives concerning their own housing processes are done orally. The 'empirical knowledge' is only a recent introduction into their lives and not a knowledge they have used to acquire housing for themselves.

In a similar way, Alexander (1964) explains the differences between form making (the method of making things and buildings) based on knowledge that is acquired by the people themselves and knowledge acquired through academic means, by referring to selfconscious and unselfconscious cultures. The unselfconscious culture does not rely on written records, and design decisions are made according to custom. He calls "*a culture unselfconscious if its form-making is learned informally, through imitation and*

correction" and "*selfconscious if its form-making is taught academically, according to explicit rules*" (1964:36).

The types of knowledge in a people controlled process and a formal institutionalised process are summarised in Table 4.1.

Table 4.1 Types of Knowledge applied in Housing Processes in Namibia

CONTROL	HOUSEHOLDS	FORMAL INSTITUTIONS
ACTORS	• members of the households	• professionals • institutes • authority
TYPE OF KNOWLEDGE	• practical • unconscious	• practical , but also empirical • conscious
ACQUISITION	• own direct experience, • learn from watching and doing • orally transmitted • learn from humans, spatially confined • knowledge available within the household and kin group • knowledge shared or present within own social network	• based on scientific and technical research , • learning process cumulative and from written records • dependent on written word • removed from time and space • had to be of specific social group • knowledge acquired academically • knowledge specialised in professions and institutes
ROLE OF KNOWLEDGE	• reproducing household subsistence economy and that of social group	• reproduce state and 'global' economy

4.2.3 The Role of the Professional

Professionals play a significant role in the formal housing process as planners, architects, lawyers and accountants. A subset of empirical knowledge explains the phenomenon of the professional as a whole set of practices "*that are directly bent toward reproducing the state and the economy and whose existence is closely tied to the existence of empirical knowledge*" (Thrift, 1985:377). This forms the basis of most of the professions since "*the profession is, historically, one of the first devices used to differentiate a body of knowledge from practical knowledge*" (1985:377).

Planning, which has a major influence on the institutionalised housing process in Namibia, is referred to as an activity that is developed in terms of knowledge and action (Friedman, 1987:24). The knowledge in contemporary planning practices is derived from scientific and technical research - the empirical knowledge - that has been added to the pragmatic experience of the practical knowledge. It is not only the planning profession which plays a role in the housing process, but also the legal and financing professions. This is illustrated in Table 3.1 under the 'main agents' and the professions are summarised in Table 4.2.

Table 4.2 Role of Professionals in the Housing Process

THE FORMAL HOUSING PROCESS

KEY ELEMENTS IN HOUSING PROCESS	MAIN PRACTICES	MAIN AGENTS	
		PROFESSIONALS	OTHERS
1. LAND			
as product	acquisition for development		municipality private landowners developers (NBIC)
control over development through a townplanning scheme (regulation)	planning, land division and surveying, proclamation by law	**town planner** **land surveyor**	township board Nampab
individual land ownership	selling of land with sales contract, registration of title deeds	**lawyer**	municipality private landowner registrar
investment/ speculation	sell or buy on the market		estate agents landowners
2. SERVICES (water, roads, sewer, stormwater electricity, refuse)			
installing services as part of land development	planning constructing	**engineers**	private developers private contractor municipality
maintenance	maintain and replace cost recovery		municipality + private contractor, property owner
providing services	ensure access to service		municipality and SWAWEK (para-statal -electricity corporation)

3. PHYSICAL ENVIRONMENT

planning	draw up plans for socio-cultural needs	**architects**	
control	draw up regulations and standards building permit		SA Buro of Standards municipality
cost estimate	work out cost of material and labour	**quantity surveyor,**	contractor or owner builder
construction	tenders	**architect**	small contractor for owner built, or company
	supervision	**architect or building manager**	inspectors
	buy materials		productions and retailing companies

4. FINANCE

obtain financing	applications signing of contracts		financial institutes banks, NBIC, building society ,
financial and fiscal policies	pay interest rates	**accountant**	government financial institutes
provide security	register bond on property	**lawyer**	registrar of deeds
	bond insurance house insurance		Insurance Companies
repayment	manage loan	**indirectly: auditor**	financial institute

The professional's role emphasises the specialised knowledge of certain cultures. The indigenous cultures have a more diffused knowledge since the knowledge to create domestic environments is shared among the members of the social group.

4.2.4 Constraints In Obtaining Knowledge

The reason why knowledge is not shared is because people experience constraints in drawing and generating knowledge. These constraints as mentioned by Thrift (1985) also explain the absence of shared knowledge between the people and the formal institutions in the housing process in Namibia.

The constraints or limitations include knowledge grounded in the unique experience of a particular social system (for example being a member of a specific family); a habitus (being a member of a social class); and the position in time and space. If these are the same among actors "*then communication will be easier and knowledge more likely to be disseminated than if any one of these factors is different*" (1985:368). Concerning the penetration of knowledge, Giddens (1984:91) refers to the spatial as a vertical

segregation and the social class as a horizontal segregation. These occur often simultaneously and are also very prominent in the racially divided urban areas of Namibia. Planning principles[3] often maintained this segregation. The providers and users in the formal housing process did not share a social system, habitus or space. They belonged to different classes, races and cultures, while the colonial apartheid city enforced the differences by law and directed constraints to draw and generate knowledge.

The stock of knowledge in the Namibian society is therefore differentially distributed amongst various social groups and the degree of penetration will be different between these groups. Five types of 'unknowing', namely the unknown, the not understood, the undiscussed, the hidden and the distorted, identified by Thrift are illustrated in Table 4.3.

Table 4.3 Types Of Unknowing[4]

1. THE UNKNOWN	Not possible for members of a society to have because of their position in history and space.
2. NOT UNDERSTOOD	Not within the frame of meaning of a society or a social group or members of a social group
3. THE UNDISCUSSED	Knowledge that is taken-for-granted
4. HIDDEN	Knowledge being actively and consciously hidden
5. DISTORTION	Distortion as an active process of manipulation by other social groups

These forms of unknowing are present in the housing processes and can be explained by both the colonial experience and cultural distances. The explanation of the role of the colonial city phenomenon in the lack of shared knowledge will illustrate the historic position of the people, resulting in them experiencing the unknown - the knowledge they could not obtain because of their position in history and space. This resulted in a lack of shared understanding concerning housing processes. The knowledge on which the formal housing process is based is derived from outside the country. Culturally the

[3] Town planning in capitalist countries often makes provision for high income/ low-income areas or high density/low density areas which result in economic and class segregation.
[4] From Thrift (1985: 369-371).

indigenous people followed a totally different form of life and their own housing processes are based on practices of their social groups, while the colonisers followed practices based on written traditions and formal institutions from the core colony.

On similar lines, but based on more individual experiences, Giddens (1984:90, 91) refers to the differences between knowledge of rules and tactics of practical conduct in the milieu within which the agent moves, and knowledge about those which applies in contexts remote from his or her experience. This potential lack of knowing and understanding concerns both parties involved in housing processes in Namibia. On the one hand is the knowledge of practices and life styles applied by the previous colonisers that is not known to the indigenous people. On the other hand is the knowledge of practices and life styles of indigenous social groups not known or recognised by the actors in the formal system left by the colonisers. This is described in this thesis as a lack of shared knowledge.

A further aspect of unknowing in the Namibian context relates to power relationships during colonisation. Colonial domination did not allow the people to be included in the housing processes of the colonisers and knowledge was kept hidden as well as distorted.

Knowledge has also become something that can be sold when it becomes specialised and is offered as part of professional services. This is also a part of the housing process that is accepted and maintained by that social group who developed the process. The sharing of this specialised knowledge is not what is referred to in this thesis, but the knowing of what these professionals do that effect the users as far as obtaining their houses in urban areas is relevant. Their work often has financial and spatial implications which directly concern the low-income population.

Knowledge in this study will apply to the knowledge that is culturally 'learned' and can be described as 'common' in the sense that it is shared among the members of a social group. High income people and the white population in Namibia will not grasp the details of the specialised knowledge used by professionals, but understand their role and accept the principles behind the process. An understanding of the main principles

forming the housing process and the main needs for a physical environment are to be shared among users and providers to lead to a condition of shared knowledge.

The lack of shared knowledge is proposed as a link between various problematic issues in the formal housing process. The absence of this shared knowledge can be contributed to the lack of participation and communication which are again explained by the problems due to cultural distances and political exclusion in the colonial city. These aspects are discussed in more detail.

4.3 EXPLAINING THE LACK OF SHARED KNOWLEDGE

The lack of shared knowledge in Namibia's housing process can be explained by two aspects. The one relates to specific groups of people having different cultures, therefore following different values, norms and technologies in obtaining housing. This is discussed as cultural distances. The other aspect is that one group of people, with a different way of life, controlled and dominated the others. This control is manifested in the colonial city phenomenon.

4.3.1 Cultural Distances

"*All nations are characterized by a number of values, life-styles, customs, traditions and institutions - in other words by their culture or cultures. These are specific to themselves.* ***Culture implies knowledge - that is to say, experiences accumulated and refined over long periods.***" (Hardoy and Satterthwaite, 1989:16)[5]

- **Culture**

The term culture in this study refers to non-material as well as material aspects shared among members of a given group. Non-material aspects include the values and beliefs the members of a given group hold, as well as the norms they follow resulting in organisational or institutional structures. Material aspects include the physical objects created by the members of a given group and can also be referred to as a technological component of culture (see Giddens, 1989; Merril, 1969; Hebding, 1975;

[5] Own emphasis.

Hobbs and Blank, 1975). Culture is also seen in an ideological context as "*any component of culture can be ideological*" (Thompson, 1986).

Housing includes both non-material and material aspects of culture. Low and Chambers (1989) arrange themes according to different perspectives on cultural processes in housing. These include culture as

- social structural patterns of human behaviour,
- cognitive structures (set of rules in individual's mind)
- symbolic process (as socially constructed meaning system)
- and as an interpretive process regarding the changing aspect of culture as "*a rapidly changing set of meanings and ideas that are specific to a group of people, in a political and economic context, and a historical period.*" (Low and Chambers, 1989:7).

The source of interpretive culture is to be found in the interaction of culturally distinct groups of people.

The built environment forms part of the material goods created by a social group. The processes involved in creating the domestic built environment reflects cultural components of social groups. These range in Namibia from the local values, norms and technologies of traditional societies experiencing modern influences, to global values, norms and technologies found among modern urban societies.

One might feel tempted to describe the cultural diversity in Namibia with simplistic dichotomous terms of modern-traditional, industrial-peasant, urban-rural or oral-literate. These dichotomous terms have a tendency to reflect a stagnant situation and would not even have been accurate descriptions even at the beginning stages of colonisation.

Although the indigenous inhabitants of Namibia have diverse cultures and generalisations about their types of societies are to be avoided, they have a common characteristic that set them apart from the dominant practices based on western[6] culture and colonial control. The indigenous housing processes are controlled and created by families or family groups, according to their own social values and norms. It

[6] The term western referring to those practices implemented by South Africa and Germany based on developments in Europe and North America

is not based on the principles of home ownership and commodity status (Saegert, 1985:296) reflecting individualism, but forms part of the daily social, economic and political practices of the group. In contrast to this shared characteristic of inhabitant controlled environments produced by means of a local knowledge, an institutional controlled housing process based on empirical knowledge, developed in urban areas since colonisation. This process is not only built on the principle of home ownership, but also depends on the use of specialised knowledge. What is shared about the knowledge in western societies is that it becomes culturally acceptable that the housing process is institutionally controlled and that specialised knowledge is paid for to obtain shelter.

- **Cultural Distances**

The concepts of cultural distance and the colonial city phenomenon are used as explanatory variables, to clarify the context of the research problem. These concepts form part of an explanation of why stocks of knowledge concerning the housing process are not shared in Namibia. Cultural distance is linked with the colonial urban development in the country. The influence of cultural components on the housing process would relate to practices established, shared and followed among social groups in creating domestic environments. These practices follow the specific value-system prevailing among a group of people.

Cultural distances in the housing process are the result of differences between the colonisers (the colonising community) and the colonised (the indigenous community), each with different social organisations. This is also referred to by King (1976) when he explained that "*the colonial settlement is not only a product of cultural interaction but also of cultures with very different forms of technological, social, economic and political organisation and development*"(1976:35). Although this refers to 'a product of cultural interaction', it is difficult to trace the influence of local cultures in Namibian urban development. The exceptions are those urban developments in communal areas which were not wholly controlled by the colonial powers.

The colonial powers dominated the urban process. They were the decision-makers and designers of the contemporary housing process and products in urban areas. Therefore, a similar issue is reflected as in the case of contemporary societies experiencing "*a difference between the cultural values, rules, and perspectives of people who design and build housing and those who occupy housing*" (Low and Chambers, 1989:4). This 'cultural distance' becomes especially apparent when designers work in cultures that are different from their own, or when they design for people who are from a different social class or economic stratum within their own society.

Cultural distances are emphasised in this study to explain the background to the lack of shared knowledge between two social groups in the Namibian context and not as a principle to be pursued or to be maintained in a traditionalist manner. The lack of opportunities for cultural change was due to an emphasis on the maintaining of different cultures as entities. This formed one of the arguments justifying the apartheid policies and contributed to the problematic issues in this study. This forced ethnicity was a common feature during the South African occupation. Towns were not only developed for black and white separation, but the townships were also divided to group the different ethnic groups together.

Kaarsholm (1991) explains societal development with the two notions of culture where one represents the traditional, contrary to development, and the other where culture stands for institutions and genres emerging as a consequence of development. In South Africa a dual situation exists where on the one hand "*economic modernization has been accompanied by the establishment of participatory and democratic political institution and a differentiated system of culture for the ruling white minority, it has at the same time based itself on conditions of enforced cultural traditionalism and non-development for the African majority*" (1991:1). Namibia was ruled by South Africa within the same system.

These conservative cultural theories (Muller and Tomaselli, 1990:304) underpinned apartheid. 'Enforced cultural traditionalism' was reflected in the apartheid towns, while housing was used as a tool to achieve it. The cultural change resulting in syncretism or

synthesis (Rapoport and Hardie, 1991:36-37) between the core elements of traditional cultures and important and highly valued elements of the modern was not to occur.

4.3.2 The Formal Housing Process as Part of the Colonial Settlement

In discussing cultural distance reference has been made to the colonial community and the indigenous community. The previous housing provision was a result of the colonial manipulation of space and people. The colonial context explains the cultural distance leading to lack of knowledge between the colonising and indigenous communities.

- **Urbanisation and the formal housing process as a colonial phenomena**

The initiation of large scale urbanisation and the creation of the pre-independence formal housing process resulted from colonialism. The establishment of the housing process in the urban areas was a result of colonial ideas and practices, and not an indigenous development. German colonisers, followed by South Africans, developed their settlement culture with its own ideological, technological and organisational aspects, mainly influenced by the colonial core.

"Inevitably, the social use of space at both the domestic and urban scales reflected the dominant value system. The layout of the settlement and subsequent town planning code developed to formalize and guide growth in the urban fabric were imbued with German colonial norms and values." (Simon, 1991:175)

The origins of the housing process as part of establishing centrally controlled urban areas, were therefore based on different cultural experiences than those prevailing among the indigenous inhabitants of Namibia.

This has been a dominant phenomenon in Southern Africa where "*European conquest has imposed the idea of the city upon indigenous people lacking an urban tradition* " (Western, 1984:205) and where "*the urban system per se was a creation of settler colonialism*" (Drakakis-Smith, 1986:146).

Although the present day urban areas were often the product of colonial developments, one should be careful not to generalise. These interpretations of non-urban and urban traditions could be ethnocentric and reflecting a "modern" concept of urban life. Nomadic lifestyles of societies are a common explanation of a non-urban tradition among the people inhabiting the southern and central parts of Namibia. As discussed in the previous chapter the recent discoveries of permanent type structures in the south of Namibia question these generalisations about nomadic life and a lack of urban tradition among Namibian groups before colonisation.

To clarify the problem of lack of shared knowledge the main concern is the urban developments during the twentieth century. These developments contribute to the present problem since a colonial community dominated the creation of the housing process, that only benefit affluent people.

- **The colonial town and its institutions**

In the literature about urbanisation, the colonial town and city have been identified as distinctive types (King 1976, Peil, 1984). The low population density of Namibia would not justify the use of the word city, but the development and the "*ideological and cultural process*" of the colonial city (King, 1990:25) could also be applied to the smaller size towns in the country.

Institutions in Namibia like legislative, administrative or judicial instruments, professional practices, language, and bureaucratic procedures were introduced first by Germany and then by South Africa; and the political decision-making was controlled by the colonial metropolis. These institutions and their practices as developed by the colonial power, determined the formal housing process, resulting in the present physical urban environment.

Examining the colonial city in relationship to its metropolitan power King (1990:25) referred to the "*metropolitan institutions lifted out of their social, cultural historical, and not least, environmental context and transplanted to colonized ..... lands*". The colonial origin and early development of Third World cities and the institutions controlling and

administrating them shaped the contemporary city, its institution, legal system and the attitudes of those governing it.

- **The Apartheid City**

Southern African urban developments were dominated by the apartheid urban policies followed by the colonial governments. These were reinforced in South Africa by the 1948 National Party Government and the apartheid policies were also implemented in Namibia. Apartheid, imposing social and cultural segregation, played an important role in excluding people from

- the decision-making and involvement in the housing process, therefore
- from sharing in the knowledge of the process, and
- participating in the creation of the physical environment.

It also applied a stagnant view on cultural aspects. Western (1984:205) refers to the South African city as "*a particular variant of the 'Western' city idea*" and that "*it has to be seen in the context of the White power-holders' perception of the cultural gulf between themselves and local peoples*". Ethnic groups were separated, which led to a maintenance of group cultures and ethnic identities. Cultural differences among groups "*have been used by White rulers as bases upon which to erect bureaucratic structures to canalize urbanization*" (Western, 1984:207). Maintaining these differences have led to a situation where the involvement of the urban population in managing urban life is constrained.

This historical cultural difference was sustained in certain spheres; ethnic, non-white groups had not only to remain on the periphery physically, but also socially, economically and politically. A deliberate exclusion of the population on certain social, political and economical spheres, with limited inclusion in the economic world of the colonial power, did not create a setting for obtaining the knowledge to overcome these differences.

Participation in procedures and decision-making was limited to those in control. This is not only a South African Apartheid phenomenon but Hyden (1983) generalised this to a

colonial experience in that "*neither participation nor accountability to local structures was given priority by the colonial authorities.*"

Aspects of power and control were also important in the development of the apartheid cities. Mills (1989:66) describes the physical development of townships as a specific settlement type which "*...is essentially a site of the intersection of architectural knowledge and political practice*". Control is mentioned as a key principle on the political and economic agenda after 1948 where the first township developments by local authorities are referred to as products of orthodox apartheid, followed by reformed initiatives. This can also apply to Namibia's context.

These aspects influenced the relationship between the low-income groups and the formal housing process, the participation and communication in the housing process, and eventually also the level of shared knowledge in the process. Exclusion from creating procedures and taking part in procedures maintained a lack of shared knowledge concerning the housing process.

4.4 HYPOTHESES

The lack of shared knowledge is researched by means of hypothetical statements. The formal housing process that surrounds the commercialisation of housing is addressed. A comparison is made between the knowledge basis of the occupants and the knowledge on which the actors of the formal institutions base their actions. Two aspects concerning knowledge of the housing process will be addressed. The one aspect concentrates on elements of the housing process that concerns issues related to the commodification process of housing and the other concerns the product itself - namely the physical domestic environment.

4.4.1 The Formal Housing Process

The formal housing process is developed around the concept of home-ownership. The process, as explained in the previous chapter, involves procedures and contractual aspects related to legal systems, with a Roman Dutch origin combined with English law, as well as financial principles followed by the capital market system. For the low-income house buyers in the formal housing process, the costs of servicing plots, paying for land and the various other steps in obtaining housing within the formal framework are a first generation experience of foreign procedures. Not even the formal classification of the target population as low-income people, corresponds with the people's own classifications.

Aspects on knowledge concerning the formal housing process are to be tested by means of the following hypothesis:

> **The people's experience of the formal housing process as applied by formal agencies before independence, is not based on a shared knowledge and therefore a shared understanding between users and providers of the formal housing process.**

For testing this hypothesis the main questions to be addressed, relate to the scope of knowledge concerning aspects of the formal housing process. The aspects to be addressed will be discussed further in the next chapter.

4.4.2 The Physical Environment

The lack of communication and the lack of involvement of the people in the planning stages of the existing formal housing process resulted in a lack of applying a shared knowledge in the creation of the domestic environment. The function and meaning of the house within the urban environment is not recognised when the environment is planned. The following hypothesis is formulated to address this issue:

The lack of applying shared knowledge concerning physical environmental needs, results in the social-economic role of the urban house not being reflected in its design.

To address this hypothesis the specific knowledge or design consideration determining the physical domestic environment and the required role of the domestic environment in the urban situation are considered. A methodology that could investigate elements of knowledge in the domestic environment is applied.

4.5 SUMMARY

The research problem is identified in this chapter as a lack of shared knowledge in the housing process. Knowledge is seen as the 'know-how' that is shared between members of a social group which enables them to obtain houses. Different types of knowledge were discussed and it was argued that households use practical and unconscious knowledge in the housing processes controlled by themselves, while formal institutes ads empirical and conscious knowledge in their housing processes. The practical knowledge is orally obtained, while the empirical knowledge relies on the written word. The professional has a significant role in the formal housing process, and the nature of the professional is that it applies a body of empirical knowledge, deferentiated from practical knowledge. The next chapter will explain more about the knowledge a professional uses in the creation of the domestic environment when a suitable research methodology is to be identified.

Constraints in obtaining knowledge in Namibia were identified and include 'the unknown', 'not understood', 'hidden' and 'distorted'. These constraints were explained in the context of cultural distances and colonial urban developments. The built environment is part of the culture of a social group and the political context in Namibia resulted in a cultural dominance by the colonial power. The majority of the population did not share in the economical and cultural developments of the formal urban areas.

The colonial settlements were developed according to apartheid concepts and reflected the dominant value systems of the colonial powers. The apartheid city had to sustain cultural differences and this separation contributed to the lack of shared knowledge in Namibia.

To conclude were two hypotheses proposed to illustrate this lack of shared knowledge in the formal housing process. The one hypothesis proposes that there is lack of knowledge on key aspects of the formal housing process and the other concentrates on the domestic environment as a product of the process. The research process whereby the hypotheses are to be tested is explained in the next chapter.

CHAPTER 5
THE RESEARCH PROCESS

CHAPTER 5: THE RESEARCH PROCESS

This section describes the processes whereby the two hypotheses as presented in the previous chapter are tested. A brief overview is first given of research approaches in general, research tendencies in South Africa and Namibia and the context of the research for this study. The context explains the opportunities, the exposure and the access the researcher had to obtain the information.

The chapter further includes two parts, each explaining the methodology applied to deal with each hypothesis. The first hypothesis deals with issues that can be dealt with in the traditionally quantitative manner[1]. Questions can be asked whereby answers, opinions or statements made by people can give evidence of the presence or absence of shared knowledge. The housing related items being dealt with, and the manner in which the information concerning these items is obtained, is explained in the first part.

The second part of the chapter deals with the knowledge on which domestic environments are determined. Compared with the first hypothesis, the questions arising need a different approach. The nature of enquiry is made more complicated in that environmental aspects as well as socio-economic aspects are investigated. Satisfactory explanations about the questions could not be obtained by structured interviews. First it was necessary to determine what aspects in the environment could reflect the knowledge aspect and then how to analyse these. In this part it is argued that an in-depth comparative analysis of space in the domestic environment is best done by making use of a combination of methods. Spatial relations within the domestic environment are investigated and their social implications considered. The methodology for achieving this is explained.

[1] Quantitative approach refers to the research approach that use methods enabling an inference to a general population. Structured interviews, conducted with a population, identified by means of a random sample are one of the standard practices derived from this approach.

5.1 BACKGROUND

Research approaches, housing research in Namibia and Southern Africa, as well as the context of this research are briefly discussed as a background to the research process.

5.1.1 Research Approaches

The social sciences, as well as physical sciences, are referred to when identifying research approaches for the studying of housing. In social sciences the positivist and humanistic philosophies frequently formed the basis on which research methodologies are discussed. Previously these two philosophies resulted in a dogmatic discussion of research methodologies. Quantitative research models were the outcome of a positivist philosophy, while qualitative research models were that of a humanistic philosophy. The first research model has been seen as more scientific, concerned with generalisation and making use of surveys and experiments. The qualitative research models, often labelled as not being a rigorous scientific approach, concentrate on particular situations, and use in-depth interviews, observations, analysing real life situations and documentation. Recently, these dogmatic views were questioned, and the role of qualitative methods became more appreciated (Bailey, 1987; Mouton, 1983).

Not one specific approach is applied in this study. From the author's point of view research methods are to be identified based on the type of information required and within the practical limits in executing the research. The process by means of which each hypothesis is tested is different, due to the nature of the subjects. Both qualitative and quantitative methodologies are applied.

5.1.2 Housing Research in Southern Africa and Namibia

Housing and urban research, similar to urban developments in the Namibian context, were previously linked to research patterns of institutions in South Africa.

Before independence, and more specifically before 1978, international organisations and individuals from outside Namibia also conducted research, but not without problems:

> *"Doing fieldwork in Katutura in the 1960s was difficult. Many of the difficulties experienced in conducting fieldwork in South Africa were also present in Namibia, but there were additional problems. ..... Whites were generally suspicious of foreigners, and I was suspected by some of spying for the United Nations. At the same time, some suspected I had connections with the South African Government. "* (Pendleton, 1994:6)

In the housing and design field the tendency was to concentrate on technical issues, especially through the National Building Research Institute (NBRI). The earlier NBRI research concentrated on minimum space standards, technical efficacy, internal circulation studies, cost-effective materials and construction techniques (Mills, 1985, NBRI, 1987). The socio-political context of housing was ignored in the research (Mills, 1985; Somma, 1987).

Concerning the domestic environments and housing, a concentration on physical features, function and appearances, with reference to traditional built forms, often reflected ethnic views[2]. Researchers from the NBRI also moved into different research approaches, concentrating on a statistical technique (facet analysis) to determine group[3] attitudes in housing projects (Finlayson, Schiefer and Meese, 1987). They used these techniques to determine attitudes among potential house owners (Radebe, Schiefer, Meese, 1989). Housing policy research is also conducted by organisations and academics. The Urban Foundation became involved in various research programmes with policy implications[4]. Housing approaches and new implementations have also been studied by various academics (Hardie and Hart, 1989; Dewar, 1982).

Spatial dimensions have been investigated by archaeological and anthropological researchers. They made use of symbolic codes and common structures (Kuper, 1980; Parkington, 1972) in identifying similarities between different communities. A new theoretical approach to research settlements and space, that will move away

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[2] For a completed discussion a critique on built environment research see Mills (1985, 1986)

[3] Groups could be determined by sex, age, education, different agents etc. In a POE study they concentrate on NBRI researchers, financial managers, home-owners and local-authority officials.

[4] The Urban Foundation brought out a "Policies for a new urban future series" which include two documents on housing. No 10: Homes for the Poor and No 9: Housing for All.

from ethnically biased analyses is proposed by Mills (1985, 1986). This approach should view settlements as in depth information on the nature of the group producing it, that settlement layout goes beyond symbolic dimensions and that organising principles become prominent (1985:10).

In Namibia the Department of Socio-Economic Research and Project Identification of the NBIC concentrated on socio-economic profiles (NBIC, 1990) to assist in project identification, as well as doing evaluation studies[5]. With the restructuring of the NBIC the department was dissolved. Individual researchers (Pendleton, 1974; Simon, 1983) include housing as a part of the studies concentrating on the capital Windhoek. With the formation of NISER[6] (Namibia Institute for Social and Economic Research) in the late 1980s various research projects, mainly for, or sponsored by international agencies, were done. Housing conditions are included in some of these studies as part of the socio-economic surveys. New research institutes and organisations were established in Namibia (NEPRU and CASS[7]) looking at policy, economic and legal issues for the government, but they have not concentrated specifically on housing related research.

The domestic environment in rural areas in Namibia is also discussed in anthropological and historical studies (Loeb, 1948; Williams 1991; Bruwer, 1961), but not to the extent in which Glenn Mills (1984) analysed the northern homestead. This study was the most extensive analysis done on domestic environments as created by rural Namibians.

5.1.3 Context of this Study

The research for this study formed part of housing research and community work undertaken during the period of 1989 to 1994. The author worked as a researcher at the NBIC, as well as serving as a voluntary advisor to the community based organisation, Saamstaan Housing Co-op from February 1989 till January 1993. This resulted in exposure to the governmental as well as the upcoming non-governmental low-income housing sector.

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[5] Twenty socio-economic studies in thirteen urban areas and five evaluation studies were done.
[6] As part of the restructuring of the University of Namibia the name was changed to Social Science Division (SSD)
[7] NEPRU: Namibia Economic and Political Research Unit; CASS: Centre for Applied Social Sciences.

As a researcher within the official sector, the author was able to collect information related to the formal aspects of housing. The involvement with Saamstaan Housing Co-op resulted in attending numerous community meetings and workshops. These were opportunities to obtain a feeling for, and experience of, issues related to the low-income urban community in Windhoek. Contact was also established with community workers involved with the non governmental community structures evolving before independence. These contacts emphasise the different housing perspectives between the people experiencing housing problems and the formal agencies.

5.2 INVESTIGATING KNOWLEDGE ON ASPECTS OF THE FORMAL HOUSING PROCESS

5.2.1 The generation of the Issue of Knowledge

The issue of knowledge was already questioned by the author during the research undertaken for the M Phil (Muller 1988). This was further emphasised in 1989 when preparatory discussions were held with key-persons, individually and in meetings. These discussions included personnel of the NBIC, community workers from Katutura and a municipal town planner. During a discussion with a community worker on the issue of interest rates and expensive houses it became clear that the charging of interest rate was equalled to exploitation. A similar concern was raised in a community seminar held in 1989. The repayments with an interest of 5% were seen as too expensive. This was at the stage when the lowest subsidised interest rate offered by the NBIC was about one quarter of the prevailing commercial interest rate. The highest interest rate of the NBIC was about two thirds of the commercial interest rate. These discussions raised questions concerning knowledge and understanding of aspects of the formal housing process followed by the formal sector and as applied by the NBIC.

5.2.2 Practices in the Housing Process

The practice of paying interest on loans taken from banks and building societies is not questioned by middle and high income Namibians who have a western cultural background[8]. This is also true for most of the other practices in the house buying process.

The NBIC presupposed that these practices are understood and acceptable to those taking part in them. These practices are imbedded in regulated capital market principles developed mainly in Europe and America. Some of these as applied in Namibia include[9]:

- local authority designated areas for residential purposes (either high income or low income) according to their town planning scheme;
- land is made available based on the principle that property is an investment and a product on the market, therefore values are to be protected through upset prices; standards are 'maintained' for the neighbourhood class: sub economic, middle income or luxury areas;
- individuals buy land through an agent or from the municipality and have a house designed according to individual family needs, or buy a house through an agent or private sale;
- the buyer obtains a loan from a lending institution (banks or building societies);
- the property is transferred by a lawyer into the buyers own name;
- and the owner registers a bond for the loan.

The ownership of land, indicated by the holding of the title deed to a property in an individual's name, also forms a cornerstone to these practices. Banking institutions require security for a loan, which is usually done by registering a bond on a property to which the borrower holds the title deed. The property must therefore be registered in the name of the loan applicant.

Even the phenomenon of buying land is something unfamiliar to the low-income

[8] This was confirmed by estate agents and building society staff who were interviewed on the matter.
[9] This forms part of the Housing Process which is explained in Table 3.1

Namibians. As one Saamstaan member recalled: *"When we went to live in our pondokke[10] on our plots and the people heard that we are buying land without any houses on, they were laughing and could not believe it."*[11].

The background and origins of all these practices are not necessarily common knowledge to potential home buyers and often are also of little interest to them. What is of interest and is commonly known, is the principle of home ownership and the consequential commitments involved to achieve it. To enable an individual home ownership, the person knows and accepts that a long term loan can be taken and will be aware of the loan amount (house cost), monthly payments, and what will influence the increase or decrease of these payments. This focuses on the issue of prevailing interest rates as a very important one for the loan recipient, especially if financial resources are limited.

Individuals going through the process of buying a house might not in advance be aware of all the details, legalities and costs involved, but once the buying (including loan application and approval) process is completed an awareness of the main steps involved will develop. This forms the basis of the argument that after the buying of a house the owner would know the price of the house, the period of repayment, the interest rate and be aware of bond insurance and house insurance.

When evaluating this argument the difference between individuals initiating their housing process and the individual buying the finished product from a developer must be recognised. Initiating the process of obtaining a house as an individual or household would result in a different scope of knowledge - and a more in depth insight into the steps involved in obtaining a house. NBIC clients were not the initiators of the process whereby their houses were produced as explained previously. These formalities in the housing process did not therefore evolve as part of the socio- economic history of their culture.

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[10] A pondok (plural: pondokke) are self constructed houses. Prefabricated temporary houses are also referred to by Saamstaan members as pondokke.

[11] Interview with a Saamstaan member during March 1993.

5.2.3 The Research Design

- **Scope of the questions**

Key issues have been identified that will address information related to the practices explained above and not complex concepts or background issues. Some concepts and background issues are not necessarily common knowledge among social groups with a longer cultural experience of buying houses. This type of knowledge is often centred in specialised professions and forms part of the empirical knowledge. This empirical knowledge, discussed in Chapter Four, is that body of knowledge derived from scientific and technical research which is added to practical experience. The type of knowledge applying to this research question concerns core aspects of obtaining a house and the house loan. These aspects are common knowledge, since it became the acceptable practices to obtain a house. This knowledge is investigated by means of questioning the home owners. Constraints on the selling of NBIC houses are also taken into account, since these imply a consciousness of the market principles of house buying. The questions cover the following aspects: the price of the house, the loan period, the interest rate, reselling conditions and insurances (the figure, as well as the purposes of these). How these ties in with the housing process is explained in Table 5.1.

Another question testing the knowledge on the housing process concerns the difference between a municipal account and an NBIC account. The NBIC account includes payments to recover the house loan, as well as an administration fee and the registration fees of the bond and title deeds. The registration fees are saved over a period of five years. The loan amount includes the price of the land, all service connections, the construction of the house as well as service fees for drawing of plans, selling the house and supervising the construction (see figure 3.4).

Table 5.1 Questions Addressing the Housing Process (Shaded)

THE FORMAL HOUSING PROCESS

KEY ELEMENTS IN HOUSING PROCESS	MAIN PRACTICES	MAIN AGENTS	ASPECTS AS SHARED KNOWLEDGE	QUESTIONS
1. LAND				
as product	**acquisition for development**	**municipality private landowners developers (NBIC)**	**land is a product to be bought**	**what is included in the payments?**
control over development through a townplanning scheme (regulation)	planning, land division and surveying, proclamation by law	town planner land surveyor township board	can only be used according to town planning scheme	
individual land ownership	**selling of land with sales contract registration of title deeds**	**municipality private landowner lawyer registrar**	**register land in own name , pay lawyer and registration fees**	**what is included in payments?**
investment/ speculation	**sell or buy on the market**	**estate agents landowners**	**NBIC contract restrict reselling**	**what are resale conditions?**
2. SERVICES(water, roads, sewer, storm water, electricity, refuse)				
installing services as part of land development	**planning** **constructing**	**engineers municipality private developers private contractor**	**land price include services**	**what is included in payments?**
maintenance	**maintain and replace cost recovery**	**municipality + private contractor property owner**	**monthly basic fees (taxes) are paid**	**what is included in municipal account?**
providing services	**ensure access to service**	**municipality and SWAWEK (para-statal -electricity corporation)**	**owner pay for consumption**	**what is included in municipal account?**
3. PHYSICAL ENVIRONMENT				
planning	**draw plans for socio-cultural needs**	**architects with clients or draughtsman**	**fees involved**	**what is included in NBIC account?**
control	draw up regulations and standards obtain building permit	SA Buro of Standards municipality	pay plan approval fees	
cost estimate	work out cost of material and labour	quantity surveyor, contractor or owner builder		
construction	**tenders**	**small contractor for owner built, or company**	**cost of house include: *building**	**what is included in NBIC account?**
	supervision	**inspectors or architect**	***supervision**	
	buy materials	**productions and retailing companies**	***materials**	

4. FINANCE

obtain financing	applications signing of contracts	financial institutes banks, NBIC, building society ,	loan to be repaid over an agreed period	what is the period of the loan?
financial and fiscal policies	pay interest rates	government financial institutes	have to pay interest rate on the loan	what is the interest rate?
provide security	register bond on property	lawyer, registrar of deeds,	provide bond security for the loan	what is included in NBIC account?
	bond insurance house insurance	Insurance Companies	pay insurances	what insurances are to be paid?
repayment	manage loan	financial institute	payments include an administration fee	what is included in the NBIC account?

- **The population**

The population to whom the questions were addressed were the buyers of the NBIC houses. It included those that have experienced the process of buying a house and taking a long term loan. Although the NBIC claimed that the organisation is involved in low-income housing, the low-income definition of the population is actually questioned by the people themselves. According to the people living in Katutura, the low-income people in their community did not qualify for NBIC houses. Many accounts were given of how people applied for houses and then had to be told that their incomes were too low (Housing Seminar, 1989; Namibian, 1989). This aspect of people being excluded from buying their houses was also recognised by the public relation officer of NBIC (Namibian, 1989). The principle applied is that a household had to earn more than the primary household subsistence level (PHSL), which is annually calculated by the University of Port Elizabeth in South Africa. This meant that the real low-income people could not obtain NBIC houses. It could be argued that since the NBIC house-buyer population (except for special projects) need to be above a certain minimum income level they would have a better perception of the house-buying experience. Higher income people are often more skilled. They are mainly employed in the more formal sector and would have therefore been more exposed to the formal economy.

Not all NBIC house buyers were included in the investigation. It was decided that the respondents for these questions would be those who experienced the "buying of a house" for at least one year. This would have given them time to question any uncertainties concerning the payments. The population included in the sample frame, were only households that were exposed to the NBIC's own selling procedures[12]. This ensured that the population from which the information was obtained followed the same steps to obtain a house, and received the same information[13] from the NBIC.

The socio-economic characteristics of the sampled population are presented in the next chapter with the findings of the knowledge on key housing aspects. Some of the information was obtained from NBIC loan application files and these are compared with more detailed information obtained from the sample.

This information was obtained as part of a post occupancy evaluation among NBIC clients. A sample of house owners fulfilling above mentioned requirements, was taken. This sample was stratified to cover the major urban areas in which the NBIC had projects. A further consideration was to include people living in different types of houses, thereby a better spread among people with different affordability criteria could also be achieved[14]. Among those were a small percentage of pole and roof structures that was one of the experimental projects of the NBIC. The households buying these structures had to clad the walls themselves and were from a lower income group. The sample was thus further stratified to take into account a representation of the different house types. The sample is explained in Appendix 5.1.

Further references of public opinions, representing voluntary comments from the general public, were obtained from the media and the Namibia National Housing Seminar (1990). Transcripts from a Nama-Damara[15] radio programme on housing (1987), where the public phoned in to ask questions on housing and express their

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[12] During the beginning stages of the NBIC projects, until about 1986, the NBIC was not involved in the selling of the houses, but this task was done by the municipalities.

[13] This information is in the form of a standard lecture, given to applicants in group sessions.

[14] The demand for accommodation is to such an extent, that nobody applied for houses less than what they can afford. It is rather the opposite case: people need more accommodation than they actually can pay for.

[15] Nama-Damara is one of the local languages in Namibia and is spoken by two groups of people, the Nama (from Khoi-origins) and the Damara, who live in the central, western and southern parts of Namibia.

experiences on the radio, were analysed. Reference to these comments are made to further illustrate the data obtained from NBIC clients.

- **The concept of a household**

The definition of household used for the survey is the one frequently used in Namibia as people living and cooking together[16]. If the owner or person in control of the house (a tenant or relative taking care of the house in the absence of the owner) forms part of this group, it is referred to as the primary household. A secondary household would prepare and consume food on their own, and contribute a fix sum of money to the owner or primary household for rent.

The definition of households has been questioned by researchers (Kemeny, 1992; Varley, 1993), but what is important for this part of the research is the experience of the respondents in relation to the aspects of the housing process that are questioned. Differentiation is made between respondents that are house buyers and the others. Certain questions are targeted at a population that bought houses, while other questions are more general in nature. How the answers relate to the type of respondents will be explained in the next chapter. The second hypothesis covers aspects of the domestic environment as part of the housing process, which will also cover an in depth look at the household structure.

- **The question**

A test like question was found to be the best instrument for determining knowledge among the house owners. Although there are many aspects involved in the process of obtaining loans, only certain items mentioned under " The Scope of the Question" and explained in Table 5.1 were included. These are part of the standard presupposed knowledge to be common among people buying houses.

The questions were phrased to enable an evaluation of knowledge on the loan amount, the repayment period of the loan, the interest rate, the constraints on reselling, the non-payment conditions, the amount of insurance to be paid, the difference between the bond- and house-owners insurance. An open ended

[16] The 1991 National Population Census also used the definition of a household "*as a group of persons, related or unrelated, who lived in the same housing unit and who shared and had common catering arrangements*" (1994,xii).

question covered the items included in the NBIC account and the municipal account.

- **The survey**

The information was obtained as part of a post occupancy evaluation of the NBIC projects[17]. Interviews were conducted with the owner or head of household in his or her absence. The fieldwork was done from October 1989 to November 1989[18].

The language in which the survey was conducted was mainly Afrikaans. More than eleven local languages are spoken in Namibia. Before independence Afrikaans and English were the official languages, but most of the official business was conducted in Afrikaans. After independence English became the official language. It also became the lingua-franca between different language groups in the central parts of the country. The using of Afrikaans could be a constraint in obtaining correct information, since it is not the home language of a large part of the population. To control this the respondents were also questioned on language preference.

5.2.4 Summary

This part dealt with the research process that was developed to test aspects of knowledge on the formal housing process surrounding the principles of home-ownership. The aspects to be investigated were determined. This has been determined by identifying some of the main practices involved in the process that are expected to be a common knowledge among home buyers. These include home ownership issues dealing with aspects of the loan, the security of the loan and accounts to be paid. The target population was NBIC house buyers who were classified by the NBIC as low-income. The results of this investigation are presented in Chapter Six.

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[17] The relevancy of this information also for the corporation to test the effectiveness of their selling procedures, enable the author to include the questions.

[18] The fieldwork was done mainly by the author and another NBIC researcher. Students assisted with a few interviews in Windhoek.

5.3 LACK OF SHARED KNOWLEDGE ON PHYSICAL ENVIRONMENTAL NEEDS

This next section covers the methodology for testing the second hypothesis that deals with aspects of the housing process concerning the physical environment. The approach to investigate the lack of shared knowledge in determining the domestic environment is first explained with reference to

- the issue of shared knowledge in the context of the design professions in Namibia;
- the considerations to be taken into account for testing the hypothesis,
- and the methodological requirements.

5.3.1 The issue of shared knowledge on physical environmental needs

- **The role of the professional**

The NBIC employed professionals (townplanners, architects and engineers) to plan and implement their projects. The involvement of professionals in the development of urban environments has become a standard practice in modern city development. The difference in culture and knowledge between designers and users has also become a topic of discussion (Rapoport, 1969:6; 1980:67; Low and Chambers, 1989:4; Gans, 1991). Designers and users do not have the same cultural background, lifestyles and therefore environmental needs:

" ... *a designer's conceptual system is likely to be different from that of people not in that role. There is thus great possibility for a mismatch between creator and user.*" (Canter, 1977:4).

It is also accepted that designers (as professional architects and planners) should understand their 'clients' (Allsopp, 1980:41; Aldington and Craig, 1980:27; Mikellides, 1980:21). This understanding is achieved by determining the behavioural, cultural and psychological requirements of the individual or group (Darbourne and Darke, 1980:35; Rapoport, 1983:250). This need for knowing your clients better was emphasised by criticisms of the modern movement of architecture in the Euro-American contexts (Jacobs, 1961; Wolfe, 1981; Brolin, 1976; Fielding and Halford, 1990:16). These criticisms and debates lead to stronger emphases on social and cultural aspects in the design of urban environments.

- **Knowledge and design in Namibia**

Knowledge in the creation of domestic environments is referring to knowing environmental needs and applying this knowledge in the creation of the domestic environment. If designers should rely on the proposed system of knowing about human needs, understanding these and then translating them into buildings (Mikillides, 1980:24), then the gaps in a) obtaining knowledge and b) applying this knowledge have to be recognised.

The question to be asked in the Namibian context is 'from where would the designer obtain the knowledge to enable an understanding of the socio-cultural needs of the clients?'. The cultural distance within the colonial context of Namibia, as discussed in the previous chapter, would seriously constrain the identification of physical environmental needs.

There are also other constraints that maintain this lack of shared knowledge:

- Communication with the people is not part of the design process.
- Previous housing related research concentrated mainly on the economic capabilities of the target population and not on the needs concerning the domestic environment;
- The designer is not part of the cultural milieu of the users, and if the person from the same milieu is trained, then the training is in the context of a different cultural milieu.
- The product orientation prevents learning through involvement in the process.

These constraints result in the absence of shared knowledge due to three of the types of the 'unknowing' that were identified in the previous chapter. Table 5.2 illustrates the 'unknown' type of not knowing - because of designers and clients having a different position in history and space when they developed their housing and design processes - and the 'not understood' type of not knowing - where it is not within the frame of meaning of a society or a social group. A type of 'hidden knowledge' can be traced when the process is controlled by the dominant social group. Procedures are also actively and consciously implemented that constrain the transfer of knowledge. The housing and planning process has become mystified .

Table 5.2 Summary of types of 'unknowing' in environmental design

UNKNOWN	housing and design process developed by society with a different position in history and space	- practices of 'foreign' societies became implemented - cultural distances were maintained
NOT UNDERSTOOD	the different housing processes are not within the frame and meaning of a social group	- designers and users from different cultural milieu - training based on context of dominant cultural group
HIDDEN	actively and consciously implementing procedures that constrain transfer of knowledge	- communication is not part of the design process - research concentrate on economic aspects - product orientation prevents learning through involvement

The other 'gap' which relates to lack of shared knowledge in creating domestic environments in Namibia is the application of knowledge. This includes existing knowledge not being translated into design; dominant culture planning practices; the idealisation of the dominating economic group; and these will be discussed further.

Knowledge of certain socio-economic practices and relations exists, but cannot be translated into the designs of spatial layouts. The inability of translating known aspects into design might be due to a lack of direct experiences and the reality of the consequences of these practices. The designer is also limited by regulations, when these do not recognise socio-economic practices and relations in the urban environment.

Existing and known euro-american planning practices are determining factors in design. This relates to the practice of architecture and planning by professionals - which is based on empirical or scientific knowledge as discussed in Chapter Four, belonging to a certain group of people. This type of knowledge which is based on rationalisation, resulted in a strong international character in architecture. A selection of writings by prominent architects from the modern movement reflects some of these international characteristics (Benton, Benton and Sharp, 1975). These illustrate the concentration on technical issues, geometry, mass production and deterministic relations. An extreme form of determinism in architecture is reflected by Karel Teige (1928) in an essay on Contemporary International Architecture where it is proposed that the new architecture is to create a 'new social order' and architecture is seen as the creation of organisation. This creation of order, based on functional specialisation, became very much part of design. One of

the results of 'creating order' is the town planning schemes of Namibian towns, where work is separated from the domestic environment by regulations prescribing land use. Further separation was also engineered to maintained the dominant group's interests. This is done on both economic and racial lines and planned urban apartheid became a prominent example. Existing social relationships and structures and their spatial implications did not play a major role in this rationalised knowledge, but rather idealised (creating a new society) and market related (protecting property values) practices.

The socio-economic requirements of the high income population (in the case of Namibia a minority dominant culture) is assumed as ideal and design decisions are based on these; other practices according to standards and planning principles are not 'culturally' acceptable. Planning following 'ideal' principles is often subconscious, but might also be deliberately applied. An example of this is that the single house is designed on a single plot for the nuclear family, which does not necessarily relate to the household structures of the low-income households in Namibia. In a very paternalistic approach to planning, the reasoning is often that this type of planning does what is good for the people and will be to their benefit. These value-judgements often formed the backbone of many planning decisions, and relate to the deterministic expectations of the modern movement in architecture: *"We have to make provision for houses to be occupied by nuclear families - such a lifestyle is actually the ideal."*[19]

Above mentioned considerations raise the issue that knowing about people's needs might be present but it is not seen as important or relevant to planning. The power relations in the society are of such a nature that the choices of which information to apply, are in the hands of the dominant culture.

- **Shared knowledge on spatial layouts**

As far as spatial configurations in the environment are concerned, a link is made by Hillier (1989, 10) to the presence of social knowledge (which has similar characteristics to Thrift's practical knowledge) in the layout of the plan. Space

[19] This quotation is based on a comment made by a town planner to the author. This kind of attitude is often present among professionals in that they believe their 'advanced knowledge' should always result in the best decisions for the people.

reflects knowledge as well as having the possibility of generating it. This knowledge concerns aspects of "*spatial relations (that) represent and reproduce social relations*" (Moore, 1986:xi). Not being part of the cultural milieu, and therefore not sharing in this social and practical knowledge of their clients, designers do not base their designs on a mutual knowledge framework when creating spaces in a domestic environment. Their point of departure is to create new spatial conditions for the low-income population where new relationships, new ideas, products and knowledge based on their own culture's empirical or scientific knowledge are to be generated.

These different sets of environmental knowledge are identified elsewhere as an issue of 'common understanding' (Musgrove, 1984) , and a 'lack of common knowledge' as a result of 'ideological distances' (Mills, 1986:51). In this dissertation the phrase 'shared knowledge' is used, indicating that this condition will be necessary to have a common understanding among people. The scope of this lack of shared knowledge is investigated and questioned. The knowledge referred to, deals with the domestic environment as the physical artefact produced as part of the housing process.

5.3.2 Considerations for Testing the Hypothesis

To test the hypothesis it is necessary to consider the type of domestic environment which the knowledge of the NBIC designers is generating; how this compares with people's use of the environment; and also what environments the people's own knowledge create. When the knowledge can be determined as not being compatible, it will indicate that a lack of shared knowledge is applied in creating the domestic environment. It is important to note, as discussed above, that knowledge might exist, but when the domestic environment is created, it might not be seen as reflecting 'appropriate needs'. Another aspect related to this is that the knowledge is not assimilated into other elements of the housing process, like building regulations. Therefore, there could be two levels to the lack of shared knowledge. On one level the knowledge is absent, and on the other level it is not applied.

The urban NBIC houses are the product of the planning profession and can be studied to reflect their knowledge used in creating the domestic environment. The

use of the house after occupation will reflect how people actually use the house. It is also necessary to determine the people's own knowledge on which they base the creation of their own domestic environments. Domestic environments created by the inhabitants are therefore also included. A comparison of these types of environments is addressed by the research.

The elements in the formal housing process, relating to the domestic environment is emphasised in the Housing Process Table (Table 5.3) with the questions asked.

Table 5.3 Aspects and Questions Concerning the Physical Environment (shaded)

THE FORMAL HOUSING PROCESS

KEY ELEMENTS IN HOUSING PROCESS	MAIN PRACTICES	MAIN AGENTS	ASPECTS AS SHARED KNOWLEDGE	QUESTIONS
1. LAND				
as product	acquisition for development	municipality private landowners developers (NBIC)	land is a product to be bought	what is included in the payments?
control over development through a town planning scheme (regulation)	**planning, land division and surveying, proclamation by law**	**town planner land surveyor township board**	**can only be used according to town planning scheme**	**do the town planning scheme reflect socio-economic practices?**
individual land ownership	selling of land with sales contract registration of title deeds	municipality private landowner lawyer registrar	register land in own name , pay lawyer and registration fees	what is included in payments
investment/ speculation	sell or buy on the market	estate agents landowners	NBIC contract restrict reselling	what are resale conditions
2. SERVICES(water, roads, sewer, storm water, electricity, refuse)				
installing services as part of land development	planning constructing	engineers municipality private developers private contractor	land price include services	what is included in payments
maintenance	maintain and replace cost recovery	municipality + private contractor, property owner	monthly basic fees (taxes) are paid	what is included in municipal accounts
providing services	ensure access to service	municipality and SWAWEK (para-statal -electricity corporation)	owner pay for consumption	what is included in municipal account

TABLE 5.3 (CONT)
3. PHYSICAL ENVIRONMENT

			fees involved	what is included in NBIC account?
planning	**draw plans for socio-cultural needs**	**architects or drafting service with clients**	**plan reflects human needs**	**are socio economic needs reflected?**
control	draw up regulations and standards building permit	SA Buro of Standards municipality	pay plan approval fees	
cost estimate	work out cost of material and labour	quantity surveyor, contractor or owner builder		
construction	tenders	small contractor for owner built, or company	cost of house include: building	what is included in NBIC account?
	supervision	inspectors or architect	supervision	
	buy materials	productions and retailing companies	materials	

4. FINANCE

obtain financing	applications signing of contracts	financial institutes banks, NBIC, building society ,	loan to be repaid over an agreed period	what is the period of the loan?
financial and fiscal policies	pay interest rates	government financial institutes	have to pay interest rate on the loan	what is the interest rate?
provide security	register bond on property	lawyer registrar of deeds,	provide bond security for the loan	what is included in NBIC account?
	bond insurance house insurance	Insurance Companies	-pay insurance (s)	what insurance is to be paid?
repayment	manage loan	financial institute	payments include an administration fee	what is included in the NBIC account?

To address the identified questions research methods and instruments have to be determined. An appropriate unit of environmental analysis will be discussed to determine what in the domestic environment could indicate the different knowledge bases. The options of physical descriptions of the architectural form, or the socio-economic implication of spatial organisation, are considered. The identification of a unit of environmental analysis will be followed by a discussion of the methodology.

5.3.3 An Appropriate Unit of Environmental Analysis

The studying of only physical characteristics of the built environment has been questioned and has led to new approaches. This will be discussed before socio-spatial characteristics as a study subject is proposed.

- **A theoretical movement away from studying only physical characteristics of the built environment**

Aspects of developments in environmental analysis are considered to reply to the question of what in the domestic environment is to be investigated. Traditionally the building as an object of study is given cultural and functional emphasis and is evaluated on appearance. Stylistic characteristics like proportions, technical abilities, climatic influences and aesthetic principles, combined with functional aspects are studied. The role of an individual's senses and feelings in experiencing architecture as a form of art is also emphasised (Bloomer and Moore, 1975). Human needs are mostly interpreted as aesthetic, physical and technical issues. This approach to design and architecture has strong cultural emphases. It is culturally biased in that it belongs to cultures experiencing architecture and the aesthetics of the built environment as important values. Even in these cultures it is questioned whether the functional principles, aesthetic values and technical achievements are appropriate guidelines for the design and evaluation of the built environment. These criticisms are levelled at technical, psychological and social aspects. For example, concerns are raised whether the application of modern technology in buildings is capable of fulfilling human needs (Wells, 1965).

Housing estates are one product of the modern urban environment that were criticised as having negative effects on people. Further, on the urban level the failure of the city to respond to people's way of life are criticised (Jacobs, 1961; Gans, 1991). These critiques contribute to emphasising the relationship between the environment, social structures and human behaviour, rather than concentrating on isolating the individual's environmental experience in relation to the aesthetics of the environmental object. Apart from working as a mechanical system, a building

> *"ought to facilitate, or at least not get in the way of, the important and recurring tasks, and the social, political and economic relationships that go on within it. "* (Gans, 1991:13)

- **New approaches and responses to the criticisms**

Multi-disciplinary approaches for studying the environment are referred to in the United States of America as man-environment research, environment and behaviour studies, environmental psychology or social factors in design (Marcus-Cooper,

1977:146). These studies were from a multi-disciplinary approach and they promoted that researchers as sociologists and psychologists combined forces with physical planners as designers (Zeisel, 1981; Reizenstein, 1975). The study field concentrates on how the characteristics of the physical environment relate to human behaviour and attitudes. Sub areas of environmental behaviour research include environmental assessment, territoriality (personal space, privacy, identity), user needs, psychological impact (perceptions, cognition and image) and ergonomics (Reizenstein, 1975).

These efforts put the theoretical field of environmental studies during the 1970s in experimental stages and new paradigms were required (Rapoport, 1971; Hillier and Leaman, 1974). During the earlier stages these multi-disciplinary approaches brought in a wide range of research possibilities, but also resulted in a segregation of approaching the study of society and environment. This is referred to as the 'cause and effect' situation between 'environment and behaviour' (Hillier, 1989:7).

The role of spatial layouts in the environment became more emphasised by research. The debate continued on whether physical space relates to social relationships or whether physical space serves only as a backdrop to social processes (Fielding and Halford, 1990:16).

One approach argues that the artificial environment is an outcome of social processes, and as a social product it is a "*crucial material dimension of society and not merely its reflection or expression*" (Mills, 1985:1). Earlier environmental behaviour research did not recognise that social structure ties in with the built environment, and questions the difficulty in segregating qualitative data on the social structure from the data related to the built environment (Lindberg and Hellberg, 1975: 12).

- **The socio-spatial characteristics as a study object in the urban environment**

Work by Hillier, Hanson and others (1982,1983, 1984, 1987) at the Bartlett School of Architecture in London, and as applied by Mills (1986) in the Southern African context, emphasised space as the social logic of the built environment. The analysis of buildings as artefacts (their physical and functional characteristics) is described by Hillier and Hanson (1984:1) as the style and the logic of an object.

But, the building as an artefact also creates and orders space into a pattern which forms the reason for its being. The purpose of the building is therefore its spatial order.

Although cross-cultural design attempts to achieve a more appropriate architecture with stylistic efforts, this does not address the purpose of the building, namely the spaces. An example of such an attempt, is the Ongwediva training centre in Namibia, where bold 'African' style decorations were used to give the building an indigenous character (Mills, 1984). Studying symbols, forms like roof shapes and stylistic attributes often coincide in Southern Africa with ethnic classifications and maintain the difference between traditional and modern architecture. What is lacking in these studies[20] which will enable an architect to respond appropriately to place, time and social environment, is that

".... there is no indication in these writing of user attitudes to enclosure, no analysis of social meaning and consequently no adequate understanding of spatial organisation in relation to the people who produce and use it. Thus potentially useful design principles based upon environment-society relationships are not extrapolated. Instead, this literature has the effect of tending to inspire new designs which copy technological and formal features such as plan-shape and wall decoration, in the belief that these are genuinely, or meaningfully suitable for the African setting". (Mills, 1986:48)

It will be of little purpose to merely compare stylistic attributes and technologies of rural domestic environments with that of urban ones. For the purposes of this study spatial organisation is seen to form a fundamental aspect of the physical environment. This is also a comparable item. Not only does the creation of space reflect the underlying social knowledge, it is also fundamental in the creation of even the most basic shelter. If an improved understanding is to be achieved concerning social knowledge that users and non-users (planners and architects) apply in creating domestic environments, technologies and stylistic attributes will limit a study to 'ethnic' or 'tribal' diversity. This will not consider what is occuring within an urbanisation process taking place within dual economic systems (cash economy and subsistence economy).

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[20] Studies being referred to include work of Frescura (1981), Walton (1953), Larsson and Larsson (1984), Beinart (1975), and Denyer (1978), where work is classified according to physical features, functions and the external appearance of built form. Tribal identity plays an important role in these classifications. These studies look at tribes as discrete and socially defined entities with clear boundaries (Mills, 1986).

5.3.4 The Study of Space

Three approaches to study space are shortly referred to, namely: environmental cognition, territoriality and the social logic of space. These approaches are not theoretically mutually exclusive, but result in different research methods.

- **Environmental cognition**

One approach to studying space looks at space from a psychological point of view. It concentrates on the experience or perceptions of the individual (Canter, 1977; Tuan, 1977; Moore, 1974), more than on the socio- economic organisation. With these studies spatial order is identified by what people think 'in the mind' or the image they have of the environment (Lynch, 1960). Research is done by using psychological methods which include interviews, using maps and drawing and other projective techniques (Saarinen, 1973). Doing this kind of study in a cross-cultural situation has its limitations and it is questionable whether the psychological tests of perceptions as applied in the cultural contexts from where it originates will be applicable to the Namibian context[21].

Another aspect of perception studies is that it has developed in a specific cultural context within a framework of architectural aesthetics. It is highly questionable whether semantic scales like inspiring, harmony and friendliness as attributed to buildings (Kameron, 1973) will apply to all cultures.

- **Territoriality**

Another approach to studying the relations between society and its space (in architectural and urban forms) include territoriality. Although Sanders (1990:49) refers to different topics of private space, privacy and territoriality, these all refer to the human tendency to define and occupy space by creating boundaries. The demarcation, whether physical or non-physical, can be for the purpose of individual or group privacy and are therefore not necessarily separate issues. In studying

[21] This matter was discussed with a local psychologist. Using drawing or projection techniques as a method of determining environmental perceptions among the low-income population has limitations. No tests were available at that time which were suitable for people of a non-western background in Namibia. For interpretation a psychological investigation would first be necessary, which will also include in-depth interviews with the people involved. This was not feasible.

territoriality reference is also made to animal behaviour, the maintaining of boundaries and environmental behaviour.

Limits of the theory of territoriality include the fact that it is based on the universality of claiming territory, but cannot then explain the difference in physical configurations (Hillier and Hanson, 1984:6). It also argues that there is a correspondence between spatial zones and social identities, and ignores the fact that societies often have trans-spatial relationships (Hanson and Hillier, 1987:251-273). Social networks are often built up in transpatial groupings - uniting people independently of space. There is also not agreement on its cultural basis (Sanders, 1990:49). As explained by Hillier and Penn the theory of territoriality projects "*normative beliefs and practices which are deeply ingrained in our modern western society*" (1989:9).

- **The social logic of space as a theory of space**

To enable the discussion of buildings as artefacts with a socio-spatial dimension it is argued (Hillier and Hanson, 1986:2) that an analytical discussion needs to take place that does not only look at buildings as objects, but also as "*systems of spatial relations*". This emphasises the need for the skill to analyse plans and not surfaces. Spatial form is not necessarily a by-product of climate, topography, technology or ecology, but has a social implication.

Certain requirements of a theory of space have been identified by Hillier and Hanson, namely :

1. A descriptive autonomy needs to be established "*in the sense that spatial patterns must be described and analysed in their own terms prior to any assumption of a determinative subservience to other variables*"(1986:5)
2. It must account for wide and fundamental variations in morphological type, from close to open patterns, from hierarchical to non-hierarchical and from dispersed to compressed.
3. It must account for basic differences in the ways in which space fits into the rest of the social system - with a greater or smaller degree of order; with a greater or smaller degree of socio-spatial meaning.

To meet these requirements a methodology, referred to as space syntax is developed to investigate and analyse space. This is developed around the idea that "*the ordering of space in buildings is really about the ordering of relations between people*" (Hillier and Hanson, 1986:2), thereby giving spaces a social dimension. Their methodology brings together elements of the social concern within physical environments that developed after the second world war. This approach to study space does not only consider what people do, or how they behave, in space, but also considers the social interaction in combination with spatial systems. People as 'strangers', 'visitors' and 'inhabitants' are related to spatial configuration (Steadman, 1983).

Although the methodologies developed by the Bartlett school of architecture are not widely applied at this stage in time, their theoretical arguments are recognised in studying space (Kent, 1990). The theory also includes an analytical method, which enables comparative studies of the domestic environment. Although territorial theories do address the issue which is also relevant to space, the methodology for studying these is not integrated as part of the theory.

5.3.5 Conclusion

The theoretical movement from studying mainly physical characteristics was discussed to identify an appropriate unit of analysing the environment. The approach of merely studying style, technology, climatic determinants and function was found insufficient and ignored the changing social aspects of people and their environment.

As a reaction to this limitation, multi-disciplinary approaches to research developed. The society is also studied, but still separated from the environment. Work of Hillier and others attempted to integrate it theoretically through the concept of studying space which is the 'reason' for buildings. According to this approach the studying of space concerns the ordering of space as the ordering of relations between people. Other studies concentrate on the perception of individuals and territorial experiences. These approaches are elsewhere criticised as being culturally biased and therefore were found inappropriate for this study.

The ordering of space as integrated into the social ordering of relationships do reflect a knowledge basis which is applied in the creation of the domestic environment, and this will be used as a theoretical base for studying space. The next section will discuss the methods applied to study and compare the socio-spatial characteristics.

5.4 METHODOLOGICAL REQUIREMENTS FOR TESTING THE HYPOTHESIS

A methodology is needed which can illustrate that a lack of shared knowledge, on which socio-spatial design decisions are based, exists or does not exist. A comparison of an NBIC house as designed by the architects of the corporation on the one hand, and an NBIC house as occupied and used by a household on the other hand, is required. To give further meaning to such a comparison, reference will have to be made to occupier designed houses. This will contribute to the discussion of the different sets of knowledge shaping the domestic environment. Not all of this information could be obtained directly by the author's own investigation and secondary sources were used for information on occupier-designed houses. The method should therefore also be able to generate analyses from information based on other studies.

Taking into consideration the comparisons needed and the fact that socio- spatial characteristics, rather than stylistic appearances or technological aspects, are to be studied, space syntax was found to offer a suitable methodology for the study. Spatial studies frequently rely on descriptive methods and activity analyses within the framework of space, time and actions. Analysing plans combined with observations are a common approach, but there is no consistency in how this analysis is done. Lawrence (1990:79) used 'architectural types' as a point of departure and classification according to the means of access from public realm to private realm. This approach studies spaces in isolation and not as they relate to the specific order that has been established. As discussed above, cognitive methods would be difficult to apply in the Namibian context. Territorial theories do not include a consistent method of analysing spatial order and do not recognise the social implication across different cultures. Space syntax offers an apparatus for describing and interpreting observed phenomena in the domestic environment,

while making socio-spatial comparison possible. It is developed on the principle that buildings are not merely physical objects, but 'systems of spatial relations'. The analysis of buildings therefore concentrates on plans and not on surfaces.

The theory is developed to describe space as a system taking into account

" ..... *that through its ordering of space the man-made physical world is already a social behaviour. It constitutes (not merely represents) a form of order in itself: one which is created for social purposes, whether by design or accumulatively, and through which society is both constrained and recognisable*" (Hillier and Hanson, 1984:9).

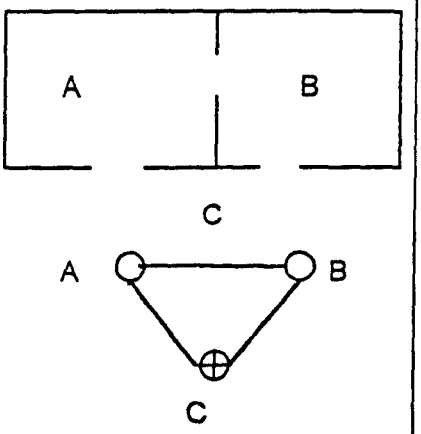
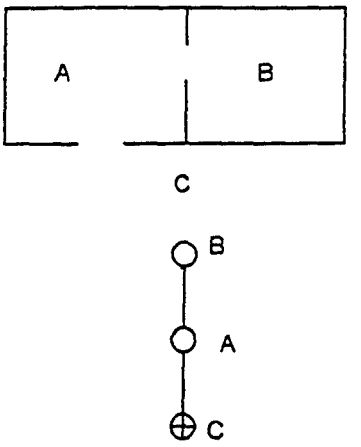
Certain spatial properties are identified which can be measured and through doing comparisons (investigating a range of buildings) certain general principles for the analysis of buildings as spatial patterns were developed. Space should then be understood as determined by the relations among the occupants and relations between occupants and outsiders. The syntactical properties which are used for spatial comparisons, the methods and the interpretations are summarised below, while Appendix 5.2 explains the development of the theory in detail.

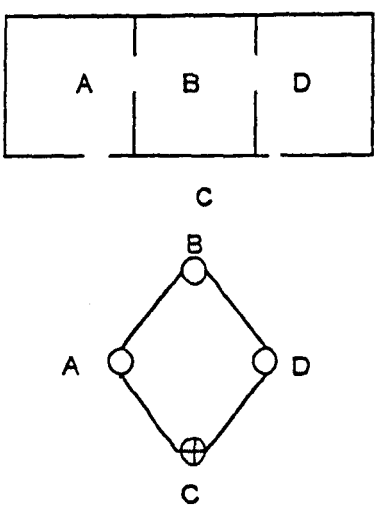
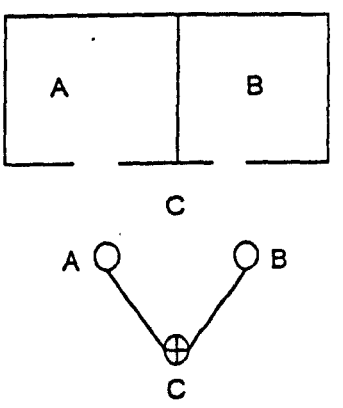
5.4.1 Syntactical Properties

Two syntactical properties are used in this study namely, symmetry/asymmetry, distributedness/nondistributedness. These properties are represented by making graphs of the building plans. Circles indicate spaces and lines the links between spaces. This graph is then justified from the outside space and levels of permeability can be identified[22]. This makes the syntax of the plan (the system of spatial relations) very clear, so that comparisons could be made with other buildings according to the degree which it is symmetrical or distributed. The differences between these two properties could be investigated by analysing the spatial relations: "*Quantitative analysis thus became, in a natural way, a means of investigating some of the fundamental aspects of the social relationships built into spatial form*" (Hillier and Hanson, 1984:15). The syntactical properties used to analyse buildings are illustrated in Table 5.4.

[22] Using graphs to analyse plans is also discussed by Steadman (1983).

Table 5.4 Syntactical Properties [23]

A. PROPERTIES:	SYMMETRY	ASYMMETRY
Numerical description: Relative Asymmetry = RA **Measure:** Level of Depth and shallowness, also referred to as integration and segregation **Notes:** Relative asymmetry takes into account how deep the space is in the whole spatial complex.[24]	A is neighbour of B as B is a neighbour of A. A space is symmetric with respect to other spaces if it has the same relation to the others as they have to it. 	When A has not the same relation to B as B to A . A controls permeability into B. 

B	DISTRIBUTED	NONDISTRIBUTED
Numerical description: Relative Ringyness = RR[25] **Measure:** Level of movement choices and control of access **Notes:** Relative ringyness describes the measure of local control a space has when considering its immediate neighbours. It expresses the extent to which each space is distributed within the spatial complex.	Distributed: There is more than one independent route from A to B, including one passing through a third space C. A space is distributed with respect to other spaces when it has more than one way or entrance into it. 	Nondistributed: There is a space 'C' through which the route to A or B must pass. A nondistributed space has only one way to it. 

[23] Figures and information for the table was taken from Hillier and Hanson, 1984:148-149

[24] See Hillier and Hanson (1984: 108,148) and Mills (1986:154) for further explanations. Steadman (1983) also discussed this method as well as other graphical methods to analyse plans.

[25] The term 'ringyness' is used in Space Syntax, to refer to the rings formed when space are connected in more than one way. A ringy structure in a justified permeability map is the opposite of a tree-like structure.

Asymmetry and symmetry relate to the importance of spatial categories, while distributed and non distributed properties refer to the controls in the system.

5.4.2 The Research Methods

Space is not a pure reflection of society - it provides a potential for a pattern of use and movements. This potential is reflected by the syntactical descriptions of space syntax. This generates hypotheses on the potential of spatial layouts to enable and constrain relationships between household members themselves and between household members and other members of society.

Since this is in a hypothetical form, information obtained through observations or documentations are used to give conclusive evidence about these social possibilities. In this case, following Mill's example, an activity analysis was done in the NBIC house to complement the syntactical descriptions. Further sources of information include activity observations[26], descriptions, documents, and recording physical information on the domestic environment.

- **Selection of the domestic environments to be studied**

As discussed comparisons with owner-designed houses is included and the following will be analysed:

a) an NBIC house as designed

b) an NBIC house after occupation (as adapted and used by the occupants)

c) a house in an informal settlement as designed and constructed by the inhabitants

d) a house in the rural areas as designed and constructed by the occupants.

The third and fourth cases were only selected after the first and second. The first house was selected as a frequently used NBIC design at the stage of the investigation. The house type was selected from the same sample frame that was used for testing the previous hypothesis (Appendix 5.1). Spatial observations on the spatial usage, recording the changes made to houses, as well as questions on

[26] This is also referred to as behaviour-mapping (Oberdorfer, 1985)

spaces, were also included in that fieldwork[27]. The plan of the selected house type (see figure 7.1, p 149) is based on one of the most used typical standard plans of the NBIC[28]. The largest house type based on this plan was used for the study. This house type has two bedrooms towards the street front, a lounge and a kitchen in the middle with the main bedroom and a bathroom at the back[29]. The different types of conventional house types are based on this standard plan and are derived from omitting some of the rooms. The main bedroom, bathroom and kitchen form the smallest core based on this standard layout, while the lounge is added to form another type, and another bedroom is added to form the two bedroom house type.

The activity observations meant that the researcher should be present in the house for a few days. Five households from Wanaheda in Windhoek were randomly selected to identify a house in which a qualitative study could take place. The owners of these houses were interviewed and only one owner did not have problems with observations taking place in her house. The households also formed part of the sample framework identified to test the first hypothesis.

The owner of the observed house is an Oswhiwambo woman from the northern parts of Namibia. The third and fourth cases were selected based on available information on domestic environments occupied by people from the same region and with a similar cultural background as that of the selected NBIC house owner.

The third case is a house in an informal settlement in Okahandja, a town 70 kilometres north of Windhoek. This house was previously studied by the researcher (Muller, 1988). Information on the occupants was obtained by means of an interview, while the spatial information was obtained by recording observations.

Information on the rural house is derived from Mills' study (1984) on northern homesteads in Namibia. This study includes thorough descriptions of the homestead's spaces, based on the study of a selection of Oshiwambo homesteads, and how these relate to the economic and social aspects of the occupants' ideology.

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[27] This information formed part of the Post Occupancy Evaluation (Muller 1990), and will be used to illustrate how representative or how particular certain findings in the study is.

[28] The future usage of this house plan was confirmed by the NBIC architect and all the projects that were initiated during the time of the investigation used this plan.

[29] The layout of this standard plan is illustrated in Chapter 7, while the other types are illustrated in Muller (1990).

Writings of anthropologists and historians like Loeb (1948, 1951) and Williams (1992) are also used as references. Later observations of four more homesteads were also made by the author during visits to the north.

5.4.3 Observation of the Building and Activities

The activity observations aimed to provide a description of socio-spatial behaviour in an NBIC house through observations. The observations covered the recording of activities, actors, time and space. These were done after the adaptations and changes of the house were recorded on the plan. The recording on plan further included any physical objects in, or changes made to, the house and plot. The observations were made by the author and took place over a period of six days from 7h30 to 19h30 during March 1989. The space, actor, environmental conditions and activities were recorded on a form (Appendix 5.3). Since the house was a pre-designed environment and could not reflect the socio-economic aspects of the household's culture, the activity observations played an essential part in the collection of the information. The activity analysis enabled the obtaining of socio-economic information, which would have been problematic to collect by means of interviews. It also enabled the identification of the extent to which the environment actually compliments the socio-economic activities of the occupants.

The activities were analysed by recording the spaces and times for each day and each actor on a Lotus 1.2.3 spreadsheet.

5.4.4 Space Syntax Descriptions

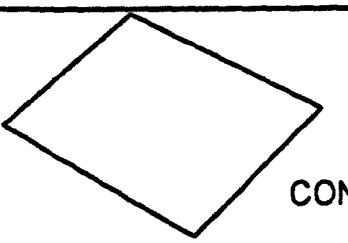
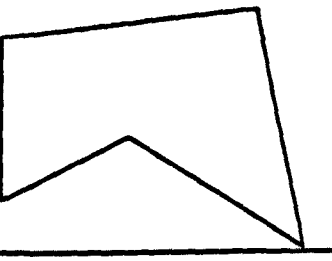
The comparative possibilities offered by describing the syntactic properties of spaces enable the comparisons of the different domestic environments. These descriptions are called syntactic descriptions which offer a numerical side to syntactic analysis. Syntactic descriptions are tools for comparisons, because the relations of spaces within a domestic environment (which is referred to as a spatial complex) can be compared with the relations of spaces in another domestic environment. An analytic tool is therefore available that gives results that can be compared with each other and that can offer a discussion basis about the shared

and different properties of the domestic environments. These can then be related to lack or presence of shared knowledge of socio and economic aspects of the domestic environment.

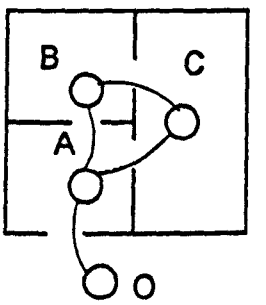
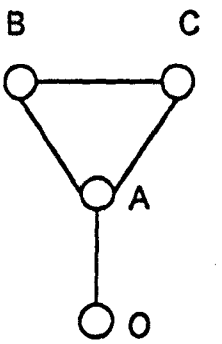
Two characteristics were chosen namely those based on distributedness/ non-distributedness and symmetry/asymmetry as explained above. The steps that are followed to do the analysis are illustrated in Table 5.5.

Table 5.5 Steps to do the Numerical Description

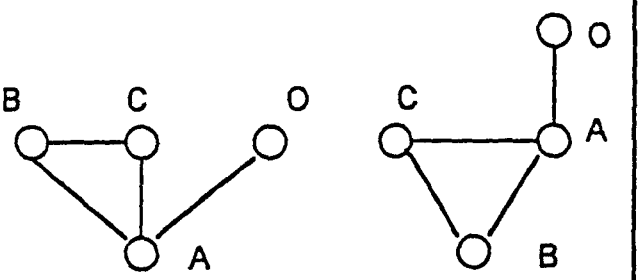
Step 1: Identification of the spaces.

Convex spaces are identified as those covering perceivable space and not containing parts protruding into them (forming concave parts). Not all spaces are always clearly demarcated, especially in the case of a cell superimposed upon another cell.	 CONVEX  CONCAVE

Step 2: The drawing of permeability maps and their justification

Permeability maps are drawn to illustrate the spatial connections. These are graphs where the circles indicate the spaces, and lines the connections between the spaces. To enable the analysis of the space these maps are justified from each space. A permeability map justified from the outside is illustrated.	 PERMEABILITY MAP  JUSTIFIED FROM OUTSIDE (2 STEPS DEEP)

Step 3: Measuring symmetry/asymmetry

3.1 Drawing of justified maps To measure relative asymmetry, a justified map is drawn for each space in the complex. Each space is measured and first a mean depth is calculated, then the relative asymmetry and a further adjusted relative asymmetry (RRA). This adjusted or real relative asymmetry is necessary to enable a comparison between spatial complexes with different numbers of space in it.	 JUSTIFIED FROM A (1 STEP DEEP) JUSTIFIED FROM B (2 STEPS DEEP)
3.2 Measure mean depth a depth value is given to the space by counting how many moves the space is away from the deepest space, which will be the top of the justified map (count the levels in the map).	Mean depth $= \frac{\text{depth value}}{\text{total number of space in the system} - 1}$
3.3 Measure relative asymmetry	$RA = \frac{2 \times (\text{mean depth} - 1)}{\text{total number of space in the system} - 1}$
3.4 Adjust to real relative asymmetry The real relative asymmetry is calculated by first obtaining the D-Value from the table in Hillier and Hanson (1984: 112) for the number of space in the spatial complex and following the formula.	$RRA = \frac{RA}{\text{D value}}$

Step 4. Measuring distributedness/non distributedness

Measure the Relative Ringyness To measure the relative Ringyness the number of connection between spaces (all the lines in the justified permeability map) are counted and the following formula is used	Relative Ringyness for the whole spatial complex $RR = \frac{\text{number of connections} - \text{number of convex space} + 1}{2 \times \text{number of convex spaces} - 5}$ Relative Ringyness for a specific space in the system: $RR = \frac{\text{number of connections from the space}}{\text{total number of spaces in the system} - 1}$

The interpretation of the numerical descriptions is described and also summarised in Table 5.6.

Relative Asymmetry: The numerical calculation of Relative Asymmetry will result in a value of between 0 and 1. Low values indicate a space in the spatial complex that is shallow, symmetric and highly integrated while higher values indicate the opposite. The social implications of these descriptions are formulated as postulates. The more symmetric the description the more will there be a tendency for the social categories among the people within the spatial context (like inhabitant and stranger in a domestic environment) to be integrated. The more asymmetric the description the more there will be a tendency towards the segregation of social categories.

Relative Ringyness: Low values indicate more control (nondistributed) and little choice of movements while high values indicate the opposite and that the space will have more adjacent spaces to it. More distributed descriptions indicate the tendency to the diffusion of spatial control. Access cannot be controlled because of various possibilities of entry. Nondistributed spaces indicate a tendency toward unitary control.

Table 5.6 Interpretation of the Results

Property	**Meaning of the values**	**interpretation**
RA : Relative Asymmetry (use when comparing spaces within one spatial complex)	numerical value between 0 and 1 low value : space is shallow, symmetric and highly integrated	relate to the importance of social categories more integration between social categories
	high value: space is deep, asymmetric and segregated	- potential for more spatial segregation between social categories
RRA: Adjusted Relative Asymmetry (use when comparing different size spatial complexes with each other)	numerical value: - well below 1: strongly integrated - closer to 1 and above: more segregated	as for RA
RR: Relative Ringyness	- low value more non distributed,	-control is possible over access relate to privacy/power relations within society
	high value more distributed	probability of less control because of various access options

5.4.5 Limitation on Interpreting the Results as a Result of the Methods Applied

A single NBIC house was chosen and this limits the potential to generalise the research results derived from the activity observations to the whole population. The syntactical analysis of the house plan on the other hand, will be typical of the standard house plan.[30] Other sources of information will also be consulted in the discussion of the findings. Observations made of physical changes and questions regarding the house among the same population for the first hypothesis will be one source of additional information. Further observations made in four northern homesteads and houses in an informal settlement in Oshakati will be referred to. Only one cultural group, the Owambo, is represented in this study. Although this was not selected on purpose this group forms part of the majority group in the country[31].

The activity observation took place over a six day period which does not represent seasonal changes or a longitudinal study, but the observation resulted in much more in-depth results than merely questioning the household on the utilisation of spaces would have achieved. Even though the presence of the observer could have influenced the behaviour of the inhabitants, it would have been impossible to obtain the richness of information related to activities in space through questioning.

5.4.6 Summary

To test the hypothesis on a lack of shared knowledge concerning physical environmental needs it has been identified to use space syntax to compare different environments created by different agents. The issue of shared knowledge was discussed with reference to the role of professionals, and design practices in Namibia.

An NBIC house type, its usage and the domestic environments created by people themselves are to be included in the investigation. The two aspects of the formal

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[30] The complete house type (the standard plan), forms 34% of the house types of the sample frame of the first hypothesis. The house type with two bedroom will also be analysed syntactically, mainly for a control measure. The results will be included and discussed in the Appendix. Together with the three bedroom house these houses formed 78.7% of the houses of the NBIC projects which were included in this study. Since the standard plan was used until the time of independence it represents a very typical urban NBIC house in Namibia.

[31] About 60% of the Namibian Population.

housing process that are addressed by the research are the control over development through a town planning scheme and the planning of the individual house.

An appropriate unit of environmental analysis was identified after the discussion of the theoretical movement away from studying only physical characteristics and the new approaches that evolved from that. An approach to the study of space integrated with social implication guided the decision to apply it to this study. Further methodological requirements include the use of an activity analysis in an NBIC house and documentation of other studies for owner - designed houses. The inhabitants of these houses share a similar cultural background. Two space syntax properties will be applied as a tool to compare these domestic environments and the main steps to achieve these syntactical descriptions were explained in this section.

5.5 CONCLUDING REMARKS

This chapter covered the research approaches and methods applied to investigate knowledge on both aspects of the housing process and the investigation of the domestic environment as formulated in the hypotheses. Two different approaches are taken to inverstigate these aspects among NBIC clients. Domestic environments, created by non-clients are included for additional information and comparative reasons. Through this investigation many aspects of the housing process will be covered, but the investigation will concentrate more on the physical environment. The results on aspects of the housing process are presented in Chapter Six and that of investigating the domestic environments in Chapters Seven and Eight.

CHAPTER 6
SHARED KNOWLEDGE ON ASPECTS OF THE HOUSING PROCESS

CHAPTER 6: SHARED KNOWLEDE ON ASPECTS OF THE HOUSING PROCESS

The first hypothesis of the thesis proposed that people's experience of the formal housing process is not based on a shared knowledge, and this chapter aims to demonstrate this statement.

The questions raised from this hypothesis include knowledge on aspects of the formal housing process surrounding the concept of home ownership. The scope of knowledge on those aspects of the formal housing process that result in contractual and cost implications was obtained by means of a survey[1] among NBIC clients, as explained in Chapter Five. The socio-economic characteristics of this population is summarised before the data on the key issues that were included in the questions, are presented. These key issues include aspects of borrowing and repaying money to buy the house, and the accounts involved for paying for the house and the municipal services. The results are also compared with other information obtained from the radio and the National Housing Seminar.

The findings are also discussed in the context of concepts related to home and land ownership. References are made to the financial implications, the cultural context of home ownership and the problems related to land. To conclude the relevance of knowledge concerning aspects of home ownership is discussed referring to policy guidelines.

6.1 CHARACTERISTICS OF THE POPULATION

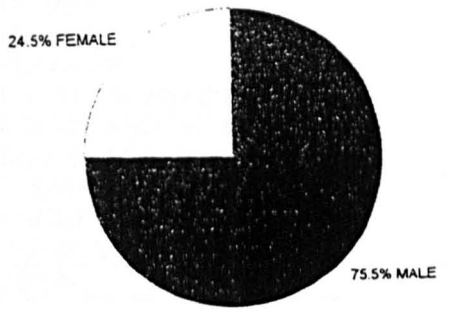
The characteristics of the survey population, including gender, marital status, occupation, income and the period respondents lived in urban areas, are summarised and illustrated with graphs in the following boxes. Information obtained from the NBIC

[1] The fieldwork and method of analysis is discussed in Appendix 6.1.

loan application files is referred to as the NBIC record data, while the information obtained from the fieldwork is referred to as survey data.

- **Gender and marital status**

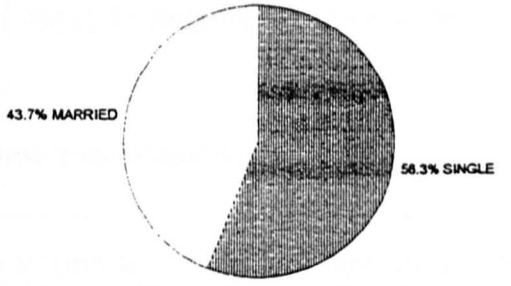
GENDER



About three quarters of the household heads were male. Only two of the households heads in the case of tenants were female.

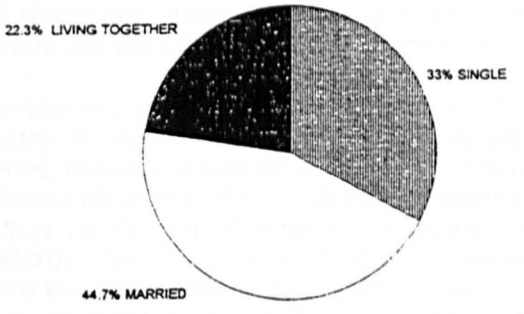
MARITAL STATUS

NBIC RECORD DATA



The NBIC record data refer to single and married status, while the survey data also include the living-together relationship. Only the information of the owner-occupied houses is illustrated under NBIC records in the diagram.

SURVEY DATA



Both sets of data indicate that less than half of the heads of households were married, and according to the survey data one third of the respondents were single.

- **Occupation**

DESCRIPTION	n	%
GENERAL WORKER	37	39.4%
TECHNICAL TRADE	15	15.9%
DRIVER	12	12.8%
NURSE	6	6.4%
TEACHER	4	4.2%
ELECTION WORKERS	5	5.3%
POLICE AND RELATED	5	5.3%
SALESPERSON	4	4.2%
CLERK	3	3.2%
UNEMPLOYED	2	2.1%
DISABLED	1	1.1%
TOTAL	**94**	**100.0%**

'Technical trades' include trades in the building, motor and mining industries. 'General worker' refers to unskilled workers like labourers, cleaners and domestic workers. 'Election workers' were respondents employed in connection with the election, namely by political parties and UNTAG. 'Police and related' include soldiers and those employed by security guard companies. More than half of the respondents were employed in semi-skilled and skilled jobs.

- **Income and Subsistence Levels**

Data on income as well as the Primary Household Subsistence Levels (PHSL)[2] are illustrated. The NBIC record data refer to the total household incomes, as obtained from the applications during 1987. Complete information on incomes was not always obtainable with the survey. Only cases where this information was given for the income of the head of household (information of 90 cases) and the total household incomes (information of 66 cases) are illustrated.

Other sources of income include informal economic activities and contribution from other members of the primary household[3]. Limited information was given on informal economic activities, although it was often observed. Twelve respondents referred to this when they were questioned about activities in the house environment. 36.2% (34) of the respondents mentioned that they received a contribution for house payments from other members of the primary household. The amounts involved were seldom fixed and were not always mentioned. The contributions from second households were clearer and were included in the total household income. Very little information on the incomes of second households was obtained.
34% (32) of the respondents received a housing allowance from their employers, which is included in the head of household's income.

[2] There are questions concerning the suitability of these levels to determine people's capacity to pay for houses, because it is limited to financial income and expenditures in the formal economy and ignores contributions families receive from rural areas and through convivial economic systems. Even so, it does reflect the rising costs of living and are used here to illustrate whether people's financial positions actually improved or worsened since they bought their houses.

[3] The primary household include the inhabitants of the house that eat and cook together. Secondary households eat and cook separately and are usually renting rooms for a fixed amount of money per month.

MONTHLY INCOMES AND PHSL IN RAND

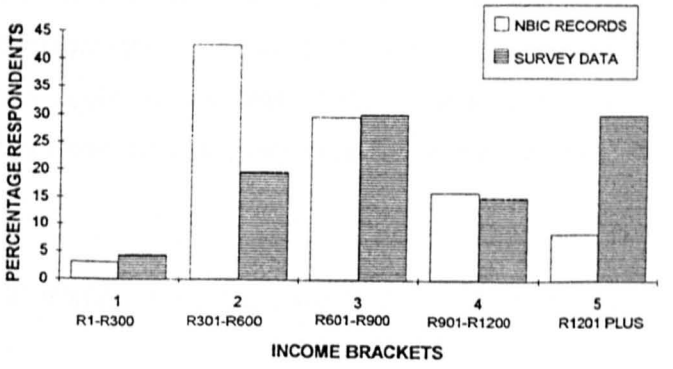
	Incomes			PHSL		
	mean	median	mode	mean	median	mode
A. NBIC RECORD DATA (1987)						
total	717.77	677.50	600.00	283.60	278.00	205.00
B. SURVEY DATA (1989)						
Head/Household	756.11	690.00	600.00			
Total	1 037.93	860.00	800.00	471.69	432.00	248.00

INCREASE IN TOTAL HOUSEHOLD INCOMES FROM 1987 TO 1989
(66 CASES FROM NBIC RECORD DATA AND SURVEY DATA)

	n	%
HOUSEHOLD INCOMES INCREASED	51	77.3%
HOUSEHOLD INCOMES DECREASED	15	22.7%
TOTAL	66	100.0%

Since the time of application the mean income increased by 30.8% while the mean PHSL increased by 39.9%. The income of the households did not increase at a similar rate to their living costs. The increase in living costs (as reflected by the mean PHSL) is not only as a result of inflation, but is also due to the increase in primary household sizes The mean household size increased from 3.8 to 5.1 at the time of the survey (Appendix 6.2).

INCOME BRACKETS

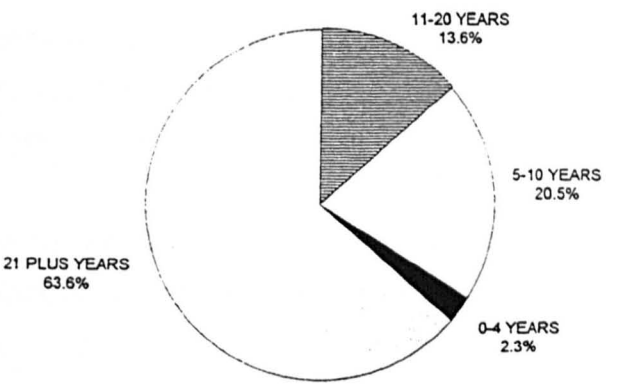


The very small proportion in the R1 to R300 income group illustrated in Graph 5.1 is the result of the small number of existing Ultra Low Cost Houses, aiming at this very low income group.

The highest proportion of the respondents had a monthly income from R301 to R600 on application. The proportions in the income groups gradually decreased with the smallest proportion in the R1 201 - plus group. The survey data does not show a similar pattern of decreasing proportion of respondents from low to high incomes. The highest income group increased to be proportionally higher than the R301 to R600 income group. The other income groups (R601 to R900 and R901 to R1 201) were proportionally slightly less.

- **Urban Experience**

PERIOD THAT RESPONDENTS LIVE IN URBAN AREAS



The majority of the respondents (63.6%) lived in urban areas for longer than 21 years. A very small portion (2.3%) lived for shorter than 5 years in urban areas. Their urban experience stretched therefore to the time when South Africa Apartheid policy's were fully enacted in Namibia and only rented houses were available in the urban areas. They were also exposed for a long time to urban life where they were in contact with the cash economy.

The population among whom aspects of the housing process was tested, included about one quarter (24.5%) of female headed households. More than half of the house-owners were not married, either single or living-together, and the incomes were above the subsistence levels. These NBIC house owners do not belong to the very low-income population, except for a small percentage that bought the pole and roof structures. More than half of them are also employed in skilled and semi-skilled occupations. Although they have been exposed to urban living for quite a long period, this exposure did not include the buying of houses through a formal housing process. Previously, their urban housing option only included rented houses and rooms, while long term loans and home ownership were not available to them.

6.2 KNOWLEDGE ON FINANCIAL ASPECTS OF THE HOUSING PROCESS:

Knowledge questions on financial aspects in the housing process concentrated on two aspects. One covered the commodification of the house, involving the specific payments and agreements involved with the loan and purchasing process, while the other aspect included payments to be made for municipal services.

The results are presented according to the target population for the question[4]. The one group of questions, which covers core aspects of the contract and the loan, were aimed only at the home owners. They went through the process of buying a house and receiving a loan. In the process they were supposed to attend a lecture to receive information on the contractual aspects of buying the house. Findings on respondent's contractual knowledge levels are compared with the attendance of the lectures, as well as gender and income.

The second group of questions, covering the different items in the municipal and NBIC accounts, was more general in nature and all the respondents' replies were analysed and are presented.

6.2.1 Core Aspects of a House Loan and a Purchase Agreement

The commodification of housing as one of the principles of the formal housing process involves long term loans with formal purchase agreements, insurances and bond registrations. The agreements between the NBIC and the buyers are first explained before the findings are presented. The house insurance against damages, and bond registrations are measures taken to secure the loan. Both calculations depend on the loan amount. House insurances are usually below five rand and the bond registration and transfer fees (between R250 and R850) is paid over a period of five years. The buyers can optionally also take out a bond insurance which costs usually less than ten rand per month. The loans are to be repaid over a maximum period of thirty years[5]. The loan amounts ranged from R3 500 to R9 000 for the pole and roof structures and up to about R19 000 for the houses. The interest rates are between 9% and 12.5%. Further measures are also taken to protect the subsidies. The contracts stipulate that within eight years after purchasing, the buyer has first to offer the house back to the NBIC before it can be sold on the open market. In the case of non-payments the buyer receives three notices. If there is no reaction on these notices, the contract is cancelled and a court order for eviction follows.

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[4] Appendix 6.1 explains the population that was considered for this question.
[5] The loan period is less if a person is above 45 years of age.

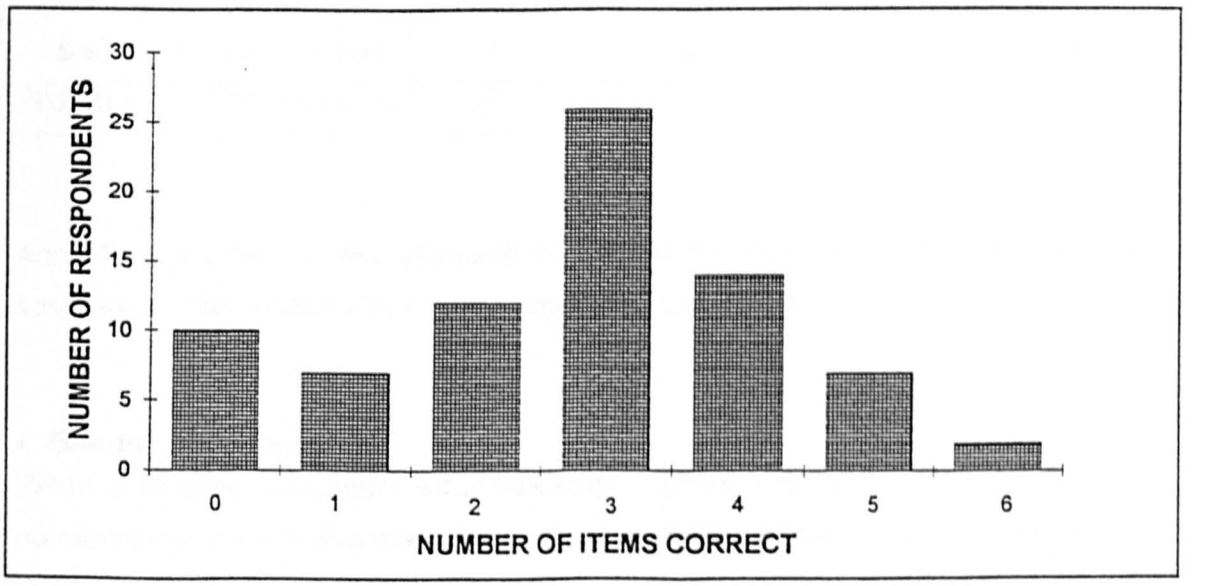
The questions on the purchase and loan agreement include knowledge on the price of the house, the loan period, the interest rate, conditions of reselling the house, the consequences of defaulting and the insurance involved. The results of the knowledge on these aspects are illustrated in Table 6.1.

Table 6.1 Knowledge on Loan and Purchase Agreements

ITEM	CORRECT ANSWERS	
(78 cases[6])	n	%
The house price	63	80.8%
Defaulting	58	74.4%
Repayment Period	53	67.9%
Interest Rate	18	23.1%
Resale Conditions	15	19.2%
Insurance	6	7.7%

The initial price of the house, the consequences of defaulting and the period of repayment were known to more than two thirds of the respondents. Interest rates, resale conditions and insurance were known to less than one quarter. The six items are combined and Figure 6.1 illustrates the correct response to the six items.

Figure 6.1 Total Correct Items on Loan and Purchase Agreements



[6] A higher percentage of females replied to the questions than that of the survey population (females in survey population: 26.6% n= 25; females answering knowledge questions: 30.8% n=24).

Only two respondents had a thorough knowledge of the items included in the questions. One third had three items correct, while 37.1% had less than three correct. The knowledge on the six items are compared with the data of those confirming that they attended information lectures, gender and income.

- **Attending lectures and knowledge**

Lectures were given by NBIC sales personnel as part of the contract signing procedures. Only 47.4% (37) of the owners confirmed that they attended a lecture before the signing of the contract. Although the lecture attendance is a requirement, the practical constraints for people to attend these, results in buyers signing contracts without attendance[7]. Table 6.2 illustrates a comparison of lecture attendance with the knowledge on the six knowledge items.

Table 6.2 Lecture Attendance and Knowledge on 6 Items

CORRECT OUT OF SIX ITEMS			ATTEND LECTURE		DID NOT ATTEND	
			n	%	n	%
0	(10	12.8%)	6	60.0%	4	40.0%
1-2	(19	24.4%)	8	42.1%	11	57.9%
3-4	(40	51.3%)	18	45.0%	22	55.0%
5-6	(9	11.5%)	5	55.6%	4	44.4%
TOTAL	(78	100.00%)	37		41	

According to table 6.2 the attending of lectures did not necessarily result in more knowledge. The relationship is also statistically insignificant[8].

- **Gender and knowledge**

When comparing the gender with knowledge (Appendix 6.3) it is found that a higher percentage of the females than males usually knew the answer. The only exception is

[7] Observations made by author.
[8] Chi Square significance 0.8225

on the item of the interest rate where 25.9% of the males knew the answer while only 16.7% of the females knew the interest rate. There is also a significant relationship between the knowledge on the repayment period and gender[9]. Where 91.7% of the females knew the answer only 57.4% of the males had correct answers. There is also a significant relationship with gender and the total number of correct answers of the combined six items[10].

- **Income and Knowledge**

Except for knowledge on interest rates, there is a significant relationship with income and knowledge on all the items and as well as the combined items. Those with higher household incomes illustrated more knowledge. The table in Appendix 6.4 illustrates the data and significance.

6.2.2 NBIC and Municipal Accounts

Information was obtained on the different payments to the municipality and the NBIC. The majority (85.7%) knew the difference between the municipal service and rates account and the house related payments to the NBIC. All the respondents' answers were analysed since it did not require the specific contractual knowledge of the previous question. Hence the scope of the general knowledge among the population could be determined.

The responses covering the items included in the two accounts is presented in table 6.4. For the municipal account tax (assessment rates), water, electricity, sewerage and refuse removal were considered and for the NBIC account loan repayments on the house and the land, insurance, transfer cost and administration fees. These items are not exhaustive, since the house loan includes planning fees, supervision, water connection fees, as well as the construction costs. The respondents made no reference to these and the items were not included in the analysis.

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[9] Chi Square Pearson: Value 8.95 and Significance .00277

[10] Chi Square Pearson: Value 16.54 and Significance 0.011.

Table 6.3 Knowledge of Items in the Municipal and NBIC Payments

MUNICIPAL PAYMENTS

	3-5 ITEMS	2-3 ITEMS	1 ITEM	NO ANSWER
n	7	17	58	12
%	7.4%	18.1%	61.7%	12.8%

NBIC PAYMENTS

	3-5 ITEMS	2-3 ITEMS	1 ITEM	NO ANSWER
n	1	5	76	12
%	1.1%	5.3%	80.9%	12.8%

Table 6.4 Specific Items included in the Monthly Payments

MUNICIPAL PAYMENTS

	TAX	WATER	ELECTRICITY	SEWERAGE	REFUSE
n	5	69	58	31	18
%	5.3%	73.4%	61.7%	33.0%	19.1%

NBIC PAYMENTS

	HOUSE	LAND	TRANSFER FEES	ADMINISTRATION	INSURANCE
n	71	6	1	1	3
%	75.5%	6.4%	1.1%	1.1%	3.2%

More familiarity with the items included in the municipal account was shown than with those in the NBIC account. The majority (75.5%) referred to the house or loan repayments as items they are paying every month to the NBIC, while six (6.4%) mentioned land as a separate item. Transfer and the administration fees were only mentioned once each and three respondents referred to insurance payments. The item on the municipal account mostly referred to is water (N: 69; 73.4%) while tax was only mentioned by five (5.31%) respondents.

6.2.3 Public References to Home Ownership and Loans

During the author's work with the community, and as a researcher, people often referred to procedures that reflect perceptions of the procedures followed by the NBIC. Two sources that actually recorded some of these references, namely a radio programme and a housing seminar, are used here as references to illustrate these perceptions.

- **Radio programme**

A phone-in radio programme (Nama/Damara service) in 1987 was opened for questions and comments from the general public. A translated transcript of sixteen participants, broadcasted live, as well as thirteen pre-recorded questions asked by the public are referred to. Summaries of these are given in Appendix 6.5.

In both the pre-recorded questions and the comments made by members of the public the issue of interest rate was questioned. One person was concerned that:

" *Why is it that if you buy an NBIC house for example R15 000, and after paying it back over a period of 30 years, that it cost R40 000 or R50 000?* "

and another asked an explanation for:

" ..... *the R3 000 became R9 000 .... The amount did not decrease, even after five years.* "

People were also concerned that the low-cost houses did not cater for low-income groups and one participant in the programme questioned whether home ownership is an answer:

" *the immediate issue is not home-ownership, but accommodation.*"

Another participant was concerned about becoming unemployed or experiencing a decrease in income which will result in homelessness while another requested that rented houses should be provided considering that:

"There are also many single women in Katutura. In the times of pounds and shillings it was very difficult and although there are people that can buy or build houses from R15 000, there are also others that find it difficult to buy a house."

The insurance issue was also raised and house insurance was compared with guarantees of furniture. Insurance was confused with the three months builder's retention[11] period in which builders have to correct any defects. Insurance was seen as a protection against maintenance problems.

Further concerns were raised about the results of defaulting. One compared the technical problems in his house with a situation of defaulting and commented that:

" *If you stop paying, you are told to leave the house, but if you have problems you are told it is your house.*"

These references illustrate not only misunderstandings concerning the formal housing process on specific aspects such as the interest rate and insurance, but a concern is expressed about the exclusion from shelter when people cannot meet the necessary obligations within the context of no other available options. Practices related to obtaining home ownership by obtaining a loan to buy the NBIC products, are questioned. Home ownership offered in this manner is also questioned as a solution for the housing problem of the low-income people.

- **The National Housing Seminar**

During a National Housing Seminar that was held one month after independence (April 1990) the issue of affordability and interest rates featured prominently. Although this seminar was attended mostly by business people, professionals, senior government and local authority personnel, some community groups and members were also given the opportunity to participate and to raise their own issues.

An NBIC client representing NBIC house owners from Khomasdal, the previous coloured township of Windhoek, explained her own case in strong terms. She was concerned about the level of income people needed to qualify for a house.

[11] This is a standard building practice in formal construction tenders in Namibia and also applied by the NBIC.

" ....My house is very small and I would like to know if this is for a lower income group which they are building, why do you need to earn such a high salary before you could obtain an NBIC house?"

She questioned where the people with salaries of R400 - R500 per month will be helped. Her other concern was that she was paying R297 per month over 26 years for a R22 000 house and that she wanted to know about

" .....this one bedroom thing I have there, how much will it cost after 26 years? Over a R100 000."

The issues being addressed by this NBIC client reflect the concerns of interest rates, which were also raised by participants of the radio programme listeners; as well as who is defined as low-income people and that the low-income people are excluded from the housing process.

- **Summary**

The results of the survey illustrate that the investigated population lacks knowledge on aspects of basic purchase and loan agreements in the process of buying a house. The investigated population is from the higher income brackets of the previous black and coloured townships. Their marital status reflects a general tendency in these areas for a significant portion (one third) of single headed households, and also female headed households (one quarter). Pendleton (1991) found similar tendencies with a survey among a larger Katutura population. This population is also not part of the very low-income and also includes people with a longer period of urban experiences.

Most respondents were aware of their house price. On the other hand the indication that one fifth of the people did not know what they paid for their house, still illustrates that there exists a lack of understanding on the most basic item of buying a house: the price of the product and subsequent loan amount.

It was prominent in the findings that little awareness existed concerning the interest rate to be paid on loans. The amount of interest rate was known only to 23.1% of the respondents and this lack of knowledge is prevailing among male, female and all

income groups. The population also openly questioned the high figure eventually to be paid due to interest rates, as reflected by the remarks on the radio programme and the seminar. The house insurance was the least known item.

The women demonstrate more knowledge than the men and one could speculate about a more serious commitment to provide housing for their families, than men. Higher income groups were also more aware of the contractual aspects. Being in a higher income bracket, can be related to expected higher levels of skills and literacy.

An awareness of the role of the different agencies (NBIC and Municipality) exists in that people differentiate between paying the NBIC for the house and paying the municipality for services. The details of what is included in "the house" was not common knowledge, which is hardly surprising since people never experienced the process.

In the light of the comment quoted by a Saamstaan member in the previous section it is also important to note that only six house owners actually identified land as a cost item, while only one person mentioned that transfer fees are included in the monthly payment.

6.3 INTERPRETATION OF THE DATA

The data represents knowledge from respondents living in houses bought from the NBIC during the middle of 1988, and this population does not represent all the NBIC house buyers at that stage. The sample covered about 2% of the units[12] built from 1982 until 1988. The sample represent 28% of a population buying houses already six years after the NBIC has been building houses and giving loans, as well as where the NBIC was dealing with their own sales. There is no indication that this specific group of NBIC clients would know any more or less than any other clients. Remarks made in public confirm that this lack of knowledge is not a limited phenomenon.

[12] Not all these units were loans given out to private individuals. These include houses built for employers.

One of the issues that could be influencing the data is the medium of the interviews - Afrikaans - which would not be the mother-tongue of the majority of the respondents. Afrikaans was used through out except for three cases where translators were used. However an indication of two thirds from the survey population that they would prefer to receive information in Afrikaans (Appendix 6.4), does reflect a comfortable understanding of the language by the majority.

6.4 DISCUSSION AND CONCLUSION

The hypothesis put forward was that there is a lack of shared knowledge between the implementers and decision-makers of the housing process and the occupiers. Knowledge of the financial and contractual aspects identified below (Table 6.4) summarises the key aspects in the housing process that were not common knowledge among the house buyers. This process includes principles of home ownership and housing finance which form part of the commercialisation of housing. A further discussion will follow on the financial implications of the housing process in the context of the perceptions of the developing agencies and the house buyers. Reference is also made to the lack of knowledge in the context of the involvement of the recipients of the houses and their reactions to aspects of the process. The concept of credit and ownership of homes and land in a cultural context will also be discussed. The issue of land is focused upon, due to its growing problematic nature.

Table 6.5 The Formal Housing Process and Lack of Shared Knowledge

KEY ELEMENTS IN HOUSING PROCESS	MAIN PRACTICES	MAIN AGENTS	ASPECTS AS SHARED KNOWLEDGE	QUESTIONS	FINDINGS
1. LAND					
as product	acquisition for development	municipality private landowners developers (NBIC)	land is a product to be bought	what is included in the payments?	**only 6.4% mentioned land**
individual land ownership	selling of land with sales contract registration of title deeds	municipality private landowner lawyer registrar	register land in own name , pay lawyer and registration fees	what is included in payments?	**1.1% mentioned transfer fees**
2. SERVICES(water, roads, sewer, storm water, electricity, refuse)					
installing services as part of land development	planning constructing	engineers municipality private developers private contractor	land price include services	what is included in payments?	**no reference was made to services**
maintenance	maintain and replace cost recovery	municipality + private contractor property owner	monthly basic fees are paid	what is included in municipal account?	**33.0% referred to sewerage**
providing services	ensure access to service pay for services	municipality and para-statal - electricity property owner	pay for consumption	what is included in municipal account?	**recognised by: 73.4%; water 61.7% electricity**
3. PHYSICAL ENVIRONMENT					
planning	draw plans for socio-cultural needs	architects with clients or draughtsman	fees involved	what is included in NBIC account?	**no reference made to plans**
construction	tenders supervision	small contractor for owner built, or company inspectors or architect	cost of building and supervising the house	what is included in NBIC account?	**the house was mentioned by 75.5%**

4. FINANCE

obtain financing	applications signing of contracts	banks, NBIC, building society, lawyers, financial institute applicant	receive loan for a fixed period	what is the period of the loan?	**67.9% knew the period**
financial and fiscal policies	pay interest rates	government financial institutes	have to pay interest rate on the loan	what is the interest rate?	**23.1% knew their interest rate**
provide security	register bond on property -- - bond insurance - house insurance	lawyer registrar of deeds, Insurance Companies	provide bond security for the loan -pay insurances	what is included in NBIC account? what insurance is to be paid?	**-insurance was recognised by 3.2% - known by 7.7%**
repayment	manage loan	financial institute house owner	payments include an admin. fee	what is included in the NBIC account?	**1.1% knew administration fee is paid**

6.4.1 Home Ownership and Financial Implications

A feature of the formal housing process is that the majority of the elements in this process have financial implications. These financial implications start from the early stages of developing the land. Costs are added almost with each step in the housing process. These costs are reflected in the loan amount. This loan also needs to be secured, which has further cost implications. It is these financial implications that are not common knowledge among a population that have actually bound themselves contractually to these.

The other agents involved in the process that commercialise housing, implement this without any questioning and see their procedures as based on "*internationally accepted principles for shelter development*". This is seen as the common approach to obtain houses based on the "*active promotion of home ownership and full cost recovery basis*" (NBIC; undated:4). On the other hand one member from the public stated that they do not need home ownership, but accommodation. Only a few respondents actually recognised that they have to pay the transfer fees which secures their home ownership. This concept of home ownership as applied by the formal agents does not form part of their own experiences of obtaining shelter and this will be discussed further.

Knowing and applying 'international principles' should also be seen in context of involving the people in need of houses in the process as illustrated by the 'agents' in the table above. Their involvement in the whole process to develop a house, is limited to that of an applicant and an individual taking the loan. It is only after occupation that the household has a role to play in the housing process. There is therefore no opportunity to get to know the process, the consequential contractual aspects and costs involved in developing the house.

In the light of awareness concerning financial aspects of the loan, it is not surprising that dissatisfaction is strongly expressed concerning the eventual "high" price of the houses. Not sharing the knowledge of financial aspects of the housing process influence people's perceptions and attitudes towards the elements in the housing process. This is also illustrated with the perception of interest rates. Only a few respondents actually knew their interest rates. At the same time this issue results in complaints and criticism among the larger community as illustrated by comments on the radio and at the National Housing Seminar. People do not accept the fact that the paying of interest, due to financial principles, results in the total payment being much more than the initial price.

The steps that are taken to secure the loan are also not clearly understood. No one actually recognised that bond registration must take place and only a very small portion (3.2%) could explain that they also pay insurance on a monthly basis. A comment made on the radio programme reflects how this issue was misinterpreted by one member of the community, while the majority of the house buyers are not even aware of what the insurance is about.

6.4.2 Home Ownership in a Cultural Context

Both the ownership of land and the implementation of credit schemes reflect cultural aspects of capitalist societies. John Agnew (1981:62) describes how individual identity

is reflected through ownership of objects with an exchange value and how the concept of credit developed in Western culture. On the other hand the ownership of a house is associated with personal independence (1981:75), security, and the status of 'being able to own'. The expression of personal identity and source of security is also linked to home ownership (Saunders, 1984:203; 1990: 290-293). To enable home ownership complicated measures of financing have developed. The house has not only become an 'object with exchange value' but the concept of credit on monetary terms is tied to the process. This concept which has its roots in Western culture, is described within moral terms, in that people repaying debt are seen as becoming moral (Agnew, 1981:62).

The morality tied to financial credibility cannot be taken for granted among cultures with limited experiences of the intricacies of cash economy and printed papers as binding agreements. Verhelst (1990:27) raised the problem of misappropriation of money as related to money in a cultural context:

" Surely it calls for consideration of the cultural aspect of the traditional African attitude to money. Are we not forced to see here a kind of non-cooperation with the monetary system, or, at least, a very different perception of it? Otherwise, how are we to explain that the values of honesty and responsibility, so deeply rooted in tradition, become blunted or disappear altogether? Money, like other printed matter (contracts, newspapers, the law, etc.), exists as though in a moral vacuum, ..."

Financial aspects and the principles attached to it are introduced by 'another culture' among a local population which has not been exposed to the values attached to paper work and financial credibility. This unfamiliarity with printed matter in an orally oriented culture focuses again on the different ways that knowledge is transferred and agreements are reached. The answer to most of the questions in the survey are explained in the sales agreement and a summary of payments is given to the house buyers. However, writing and reading only recently became part of the lives of Namibians, and a large portion among the very low-income people still cannot read and write[13].

[13] Although 77% of the Katutura population can read and write (Pendleton, 1994:124) more than half a sample of Saamstaan members mentioned that they cannot read and write, when an internal evaluation was conducted among the members.

The payment of interest[14] on loans forms an integral part of the commercialisation of housing and a lack of awareness on this issue has been established among the NBIC house buyer.

Ownership is a common option for housing among the white population in Namibia[15]. Other options that are available on an increasingly declining scale, include private flats for rent and employees' housing (like the government, municipality and big mining companies). As described earlier in Chapter Three, the experience among the indigenous population of "notions of private property" as connected with land started with settlements surrounding missionary stations in the previous century. But, the later occupation by Germany and South Africa excluded any further possibilities of developing individual land ownership among local people in urban areas.

6.4.3 Land Ownership and the Problem of Land

Home ownership not only has implications relating to owning a house and having a loan, but the land on which the house is standing has also become a commodity that is owned. It is therefore important to take note of the lack of awareness of commercialisation of urban land. This concern is just one element in a large set of problems relating to land as an essential resource for housing. The aspect of knowledge is important as a constraint in addressing other problems which include issues such as cost of land, availability of serviced land, providing land for squatters and consolidating informal settlements in newly formed municipalities. These are becoming increasingly problematic in Namibia. In Windhoek housing groups[16] had no

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[14] No housing loans in Namibia are given by agencies without interest rates. The Build Together Programme of the Ministry of Regional and Local Government and Housing prescribed a minimum interest rate of 9%; Saamstaan Housing Co-op charged a minimum of 5 % on their first loans and the NBIC in its new capacity as the National Housing Enterprise (NHE) is not subsidising their interest rates since the middle of 1993 and therefore are charging the same as the commercial banks and building societies (17%). This was officially announced by the Minister of Regional and Local Government and Housing in May 1994, but the NHE already stop giving subsidised interest rates in June 1993.

[15] The 1985 Windhoek census found that 57.23% of the whites were home owners (Windhoek Municipality, 1987:184). Since then no more government housing was built and various agencies (Railway company, Rossing mine, Government) started to sell their housing stock.

[16] Housing groups in this sense refer to people constituting themselves in voluntary associations to become involved in building their own houses. Among the squatters, pressure groups - mainly to obtain

success to obtain affordable land for self help projects from 1992 to 1994. The cost of land is tied to specific financial policies, which are not conducive for low-income housing development. Developments based on economic segregation, combined with a financial policy of cost recovery of basic services from the buyers in a new extension, load all the costs of development onto one specific economic group.

The individual households that can afford to, and want to build their own houses, experience difficulty in obtaining land. Families resorting to squatting have increased rapidly in Windhoek. In some areas groups have started to organise themselves and demand water. The families not only originate from rural areas, but often prefer the temporary shelters to rented rooms. The Windhoek municipality is developing reception areas, where informal settlers can only rent land for R50, to construct their shelters on.

In the north of the country, densely populated informal settlements form part of the undeveloped urban areas. Oshakati town include six of these settlements and an upgrading programme in four of these settlements is part of bilateral aid given by the Government of Denmark. The upgrading is implemented by Ibis (previously Wus-Denmark). Access to land in the northern informal settlements was acquired through usufruct rights obtained from traditional leaders. As these settlements become part of towns the tenure becomes insecure. Alternative forms of tenure[17] are being investigated to reduce cost on surveying and planning. The understanding and acceptance of these alternatives as far as the inhabitants are concerned is problematic, especially in the light of the identified lack of shared knowledge on commercialisation.

The issue of knowledge becomes very important in addressing these problems if an approach of involving the people is adopted. Negotiations, alternatives and solutions can only be fruitfully negotiated and discussed if a shared understanding of the issues at stake exists.

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water and to be resettled- have been growing. These pressure groups do not aim to obtain houses collectively and are therefore not seen as 'housing groups'.

[17] The CHF (being present in the country drew up a model set of bylaws based on Land Trust principles.

6.4.4 Concluding Remarks

The research problem referred to knowledge as enabling action in obtaining shelter in the context of cultural distances. The discussion above identifies aspects of knowledge within the cultural contexts that could constrain action by households in obtaining shelter. Households are not knowledgeable or aware of the consequences of home ownership and aspects of long term financial commitments. This issue is relevant because of the emphasis on home ownership in the housing policy and strategies of Namibia. The financial implications of the formal housing process that have developed to secure home ownership is placing the formal process out of reach of the low income people of Namibia. The cost of the motions of obtaining land and houses in the existing planning and legal system is a constraining factor for low-income people to obtain shelter. A question about addressing this problem will be discussed further under Future Considerations in the concluding chapter.

CHAPTER 7
THE DOMESTIC ENVIRONMENTS: A DESCRIPTION

CHAPTER 7: THE DOMESTIC ENVIRONMENTS: A DESCRIPTION

Where the previous chapter covered lack of shared knowledge on aspects of the housing process that relates to home ownership, the following two chapters concentrate on the product, namely the domestic environment. To indicate the lack of shared knowledge on physical environmental needs it was proposed in the second part of Chapter Five to compare the house type designed by NBIC with an occupied NBIC house, a self-built urban house and a self-built rural house. The aim of this chapter is to describe the domestic environments that will be used for comparisons and discussions in the following chapter.

The focus of the study is the occupied NBIC house in Wanaheda in which activity observations took place for six days. The activity analysis resulted in an in depth view of the household and people's activities in spaces. The major part of this chapter concentrates on the description of this house and the findings of the activity analysis[1]. The descriptions include the socio-economic characteristics of the inhabitants, the physical environment and the activities in the environment. This house forms the key study and other domestic environments, namely the NBIC house design, a rural homestead and an informal house in Okahandja, are included for comparative purposes. The NBIC house design will be discussed first, followed by the Wanaheda house, the informal house and then the rural homestead.

7.1 THE NBIC HOUSE DESIGN

The NBIC house types are designed by the in-house architect(s) from the technical services division of the organisation. The design of the selected house type is based on the maximum use of covered space, with the minimum of circulation spaces. Spaces are designed to make provision for the basic activities of a modern house accommodating a nuclear family. A central lounge and kitchen are provided with two bedrooms on one side and the bathroom and another bedroom on the other side (Figure 7.1). The design makes provision for extensions to the back of the house. The house

[1] The data was also presented and discussed in a draft report (Muller, 1990) and discussed in a paper (Muller 1992).

is designed separately from the plot and the placing of the house on the plot is determined by the shape of the plot, access to services and the building line restrictions. This design formed the basis of the NBIC house types until independence in 1990.

Standards are minimised to cut costs, and the 110 mm thick cement brick walls are lower than what is allowed by the municipality for the general public, or are acceptable by commercial banks and building societies. The walls are finished with rough plaster internally and externally and are unpainted without finishes on the cement screed floors. The houses are fully serviced with electricity, water inside and water-borne sewerage. Diamond mesh fencing is provided between houses, but not on the boundary facing the street.

This house type was one design of a large tender. This production of houses was done as part of a centralised approach to housing as described in Chapters Two and Three. The layout is based on standards required for a modern urban life style reflected by the dominant culture in the formal urban areas. This layout, as well as the level of standards, is also constrained by the cost factor, to make the houses more affordable, and ensure cost recovery.

Figure 7.1 The NBIC House Type: Plan and Photos

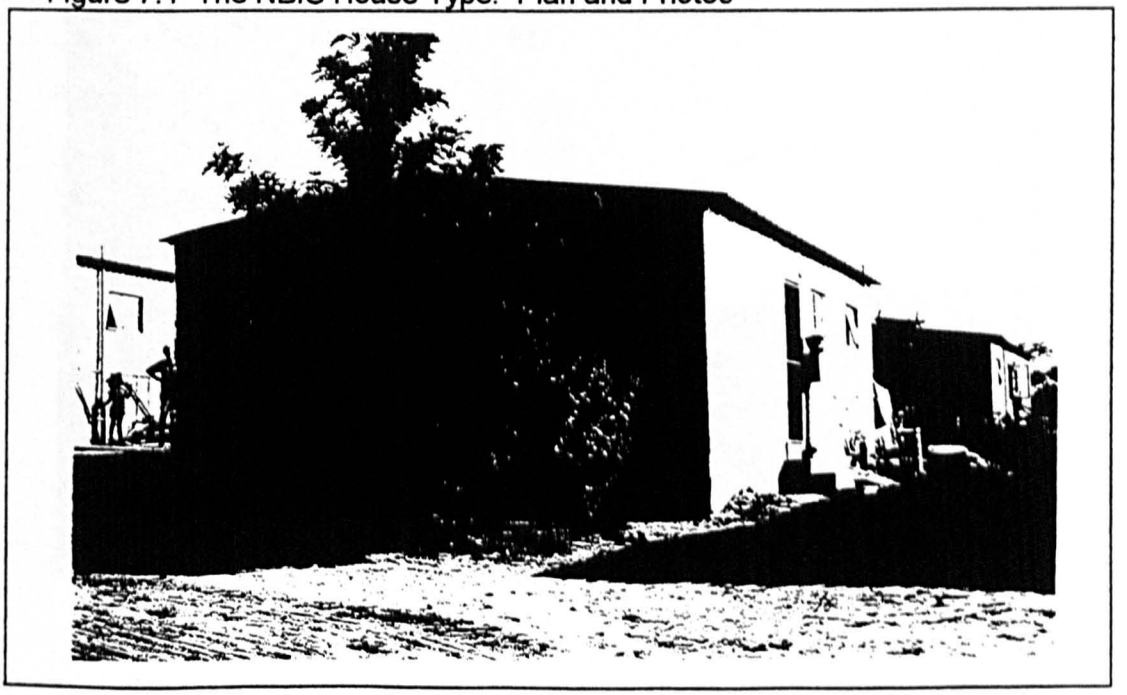
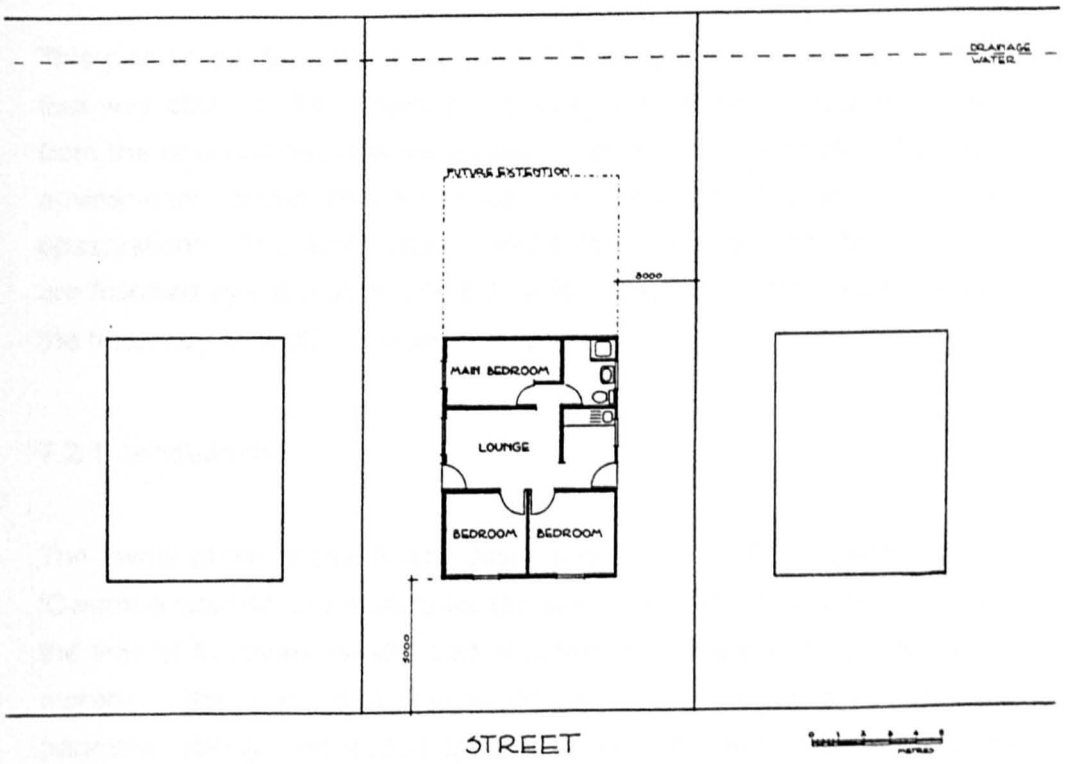
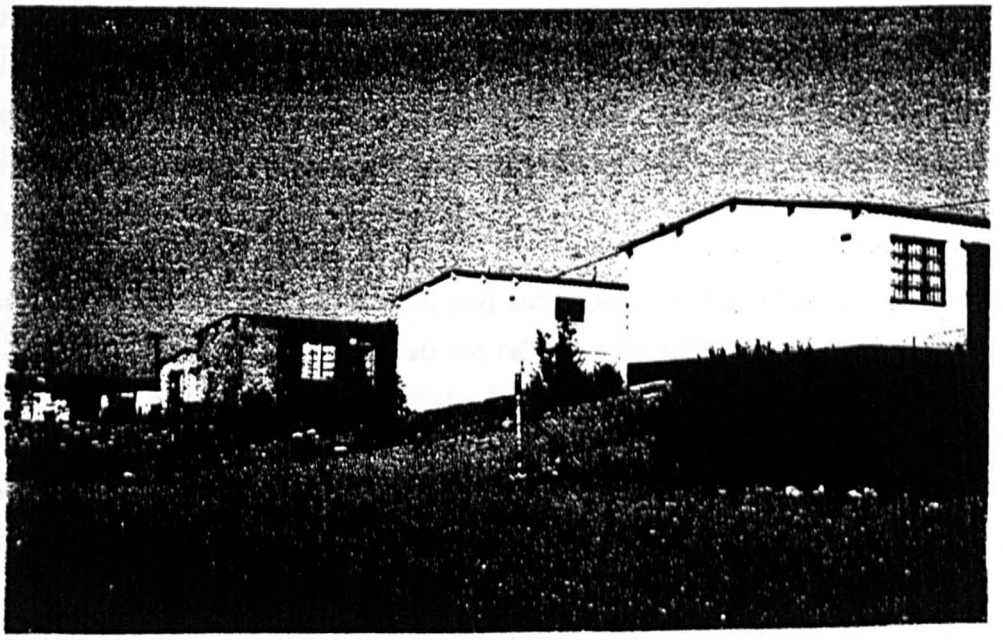


Figure 7.1 (cont)





7.2 THE WANAHEDA HOUSE

This part on the Wanaheda house includes the socio-economic information that was obtained from interviewing members of the household as well as from the observations that were made. Information concerning the physical environment derived from observation's made before and during the activity observations. The summarised results of the six day activity observations are followed by a discussion on the social categories in the house, as well as the tendency for multi-activities in spaces.

7.2.1 Inhabitants

The owner of the house, Meme Josephine, lived in a municipal house in the 'Owambo location' in Katutura for ten years, prior to her buying a house. At the time of the interview she had occupied the house for one year and four months. She was on a waiting list for three years and her cohabiting partner's[2] salary was added to hers to enable her to qualify for a three bedroom house. At that stage she had an income of R400[3] per month, working as a domestic worker for three families. Since then she lost two of these jobs, leaving her with a formal income of only R120 per month. Extra income was generated from selling soft drinks, beer, barbecued meat, fried fish and clothes which Meme Josephine made. She was not able to say how much she earned from these informal activities. The house cost R157-50 per month to repay a loan of R12 418. At the time of the fieldwork she was up to date with her payments. She paid a deposit of R500.

In total eight people, six females and two males, lived in the house (Table 7.1). Meme Josephine described the relationship with the four females aged 22, 20, 16 and 9 as her daughters. During the activity observation period it was discovered that they were not her own, but the children of her cohabiting partner. They were from his household in Northern Namibia. One room of the house was rented out to a nephew of Meme Josephine, and the 20 year old daughter had a baby girl living with her in the house. The two elder daughters were part-time employees, while her partner (a car test driver) and the nephew of the owner (a government employee), were

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2. The term cohabiting refers to living together as man and wife.
3 R= South African Rand and R1=£0.20 in March 1994.

formally employed. When questioned, these employed members of the household were not prepared to give information on incomes. The 16 year old daughter was not attending school and during the activity observations her economic role in the house became clear.

Table 7.1 The Inhabitants

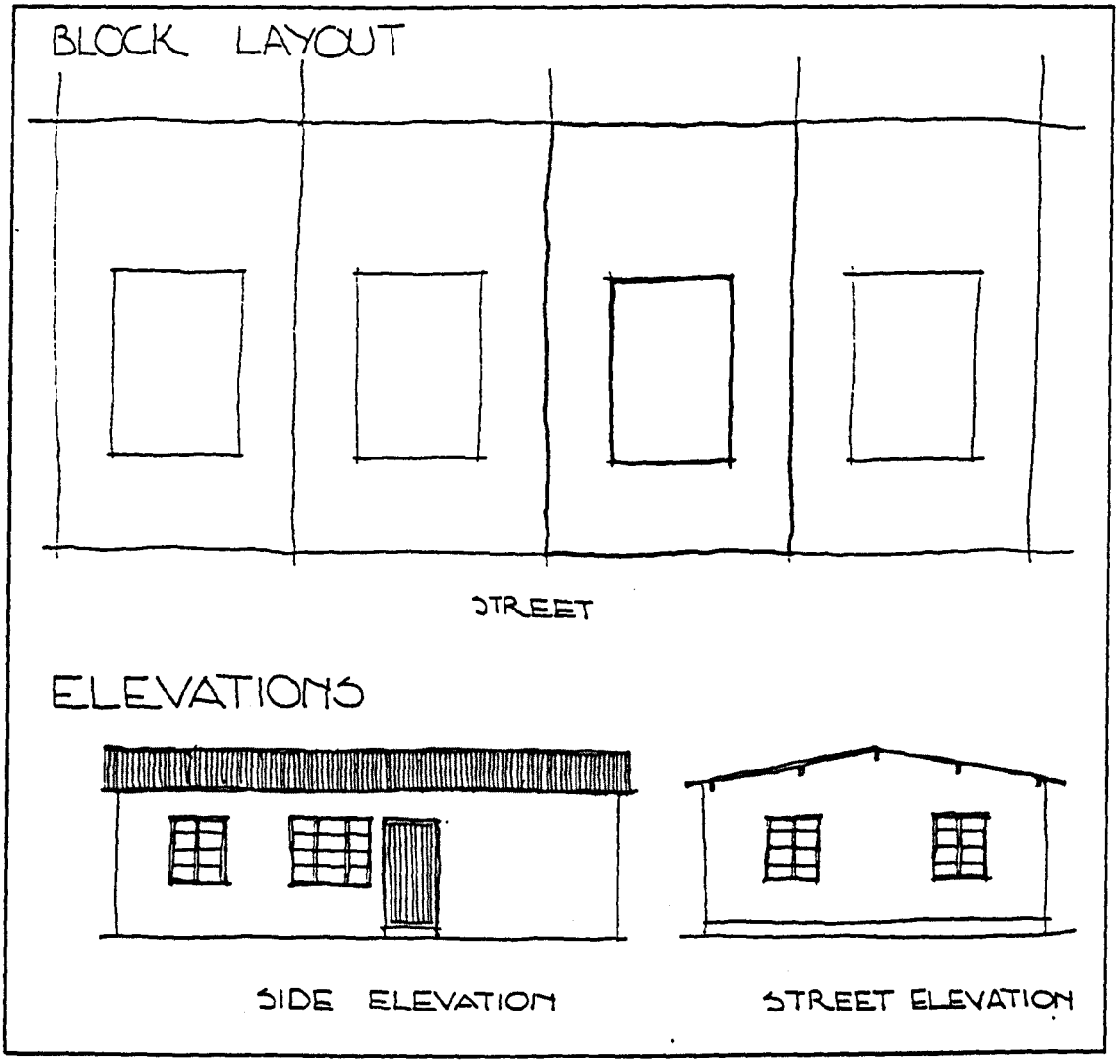
INHABITANTS	AGE	RELATION TO H/H	ECONOMIC ACTIVITY
A. OWNER: FEMALE MEME JOSEPHINE	46		DOMESTIC WORKER 1 day/week INFORMAL TRADING
B. FEMALE	22	'DAUGHTER'	CAFE WORK 2 days/week
C. FEMALE	20	'DAUGHTER'	DOMESTIC WORKER 3 days/week
D. FEMALE	16	'DAUGHTER'	INFORMAL TRADING
E. FEMALE	9	'DAUGHTER'	
F. FEMALE	0.25	'GRANDCHILD'	
G. LODGER, MALE	29	NEPHEW	WATER AFFAIRS EMPLOYEE
I. MALE		PARTNER	CAR TEST DRIVER

7.2.2 The Physical Environment

The house is the NBIC type as illustrated earlier in Figure 7.1. It is situated on a gentle slope and forms part of a block urban layout, with all the houses in similar positions on the plots. The bedroom windows of this house face the street, while all the front and back doors in this block face each other as well as the neighbouring houses. The description of the physical environment will include the improvements done to the house, the furnishing of the house and the outside spaces.

Various improvements and changes were made by the inhabitants. The wall between the lounge and kitchen was removed and rebuilt in line with the wall separating the bedrooms (Figure 7.3). This resulted in a larger kitchen, the one bedroom opening into the kitchen, and an interruption of the visual contact between the two outside doors. According to Meme Josephine the wall was demolished by herself. A builder, as well as an electrical assistant

Figure 7.2 Block Layout and Elevations of the Wanaheda House



was involved in the improvements and it took three days to do the alterations. The new wall was finished off with smooth plaster then the inhabitants painted the house inside and outside, as well as the bathroom floor. They tiled the shower wall with ceramic tiles and the kitchen floor with vinyl tiles. A contractor installed burglar bars to all the windows with the exception of those facing the street. The improvements cost approximately R1 100.

The lounge was furnished with a suite, which consisted of a three-seat settee and two chairs, a table in the centre and an armchair not forming part of the suite. A long wooden bench was used both in the lounge and in the kitchen. A loose carpet covered the whole lounge floor. The original walls were painted blue and the new one yellow. Photographs of the owner and

the owner's friend, political posters, calendars, a wall clock and a vase with artificial flowers, decorated the walls.

The kitchen furnishings included a low table with a two plate stove on it, a refrigerator, a table, a kitchen cupboard, and a built-in cupboard (done after occupation) below the sink. Soft drinks and beer containers were stored against one wall.

The daughters' bedroom had three beds and a chest of drawers. Clothes were hung against the walls. All the beds were raised, using empty paint containers. This was done to provide more storage space underneath the beds. The lodger's bedroom contained only one bed and a box for the storage of clothes. The main bedroom was furnished with a double bed, a dressing table, two kitchen-type chairs, a dressing table chair and a wardrobe. A table lamp and radio-tape were next to the bed on a low table. Above this a small bookshelf hung against the wall. A large loose carpet was on the floor and the bed was also raised. The room was well decorated and included knitted dolls, a plastic doll, plastic flowers, a cross and calendars which hung on the walls or were exhibited on horizontal surfaces.

Outside spaces are identifiable as front, back and side spaces, although the spaces are not clearly demarcated. The space at the back of the house, referred to as the backyard, contained a washing line and the vegetable garden. Cooking also took place on an open fire in the space facing the kitchen. There was no fence in front of the house, leaving the front part open to the street.

Figure 7.3 Furniture and Garden Layout in the Wanaheda House

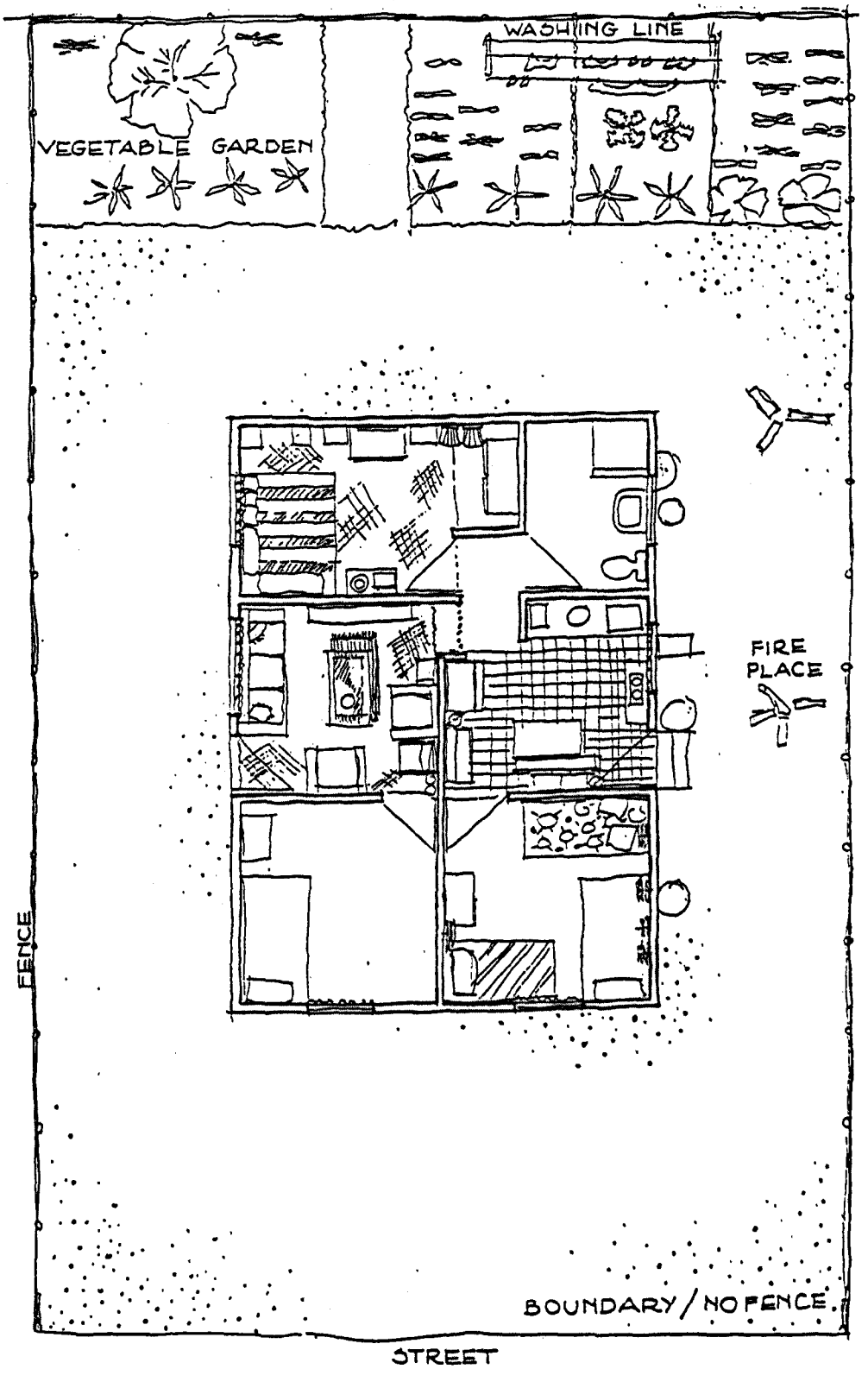
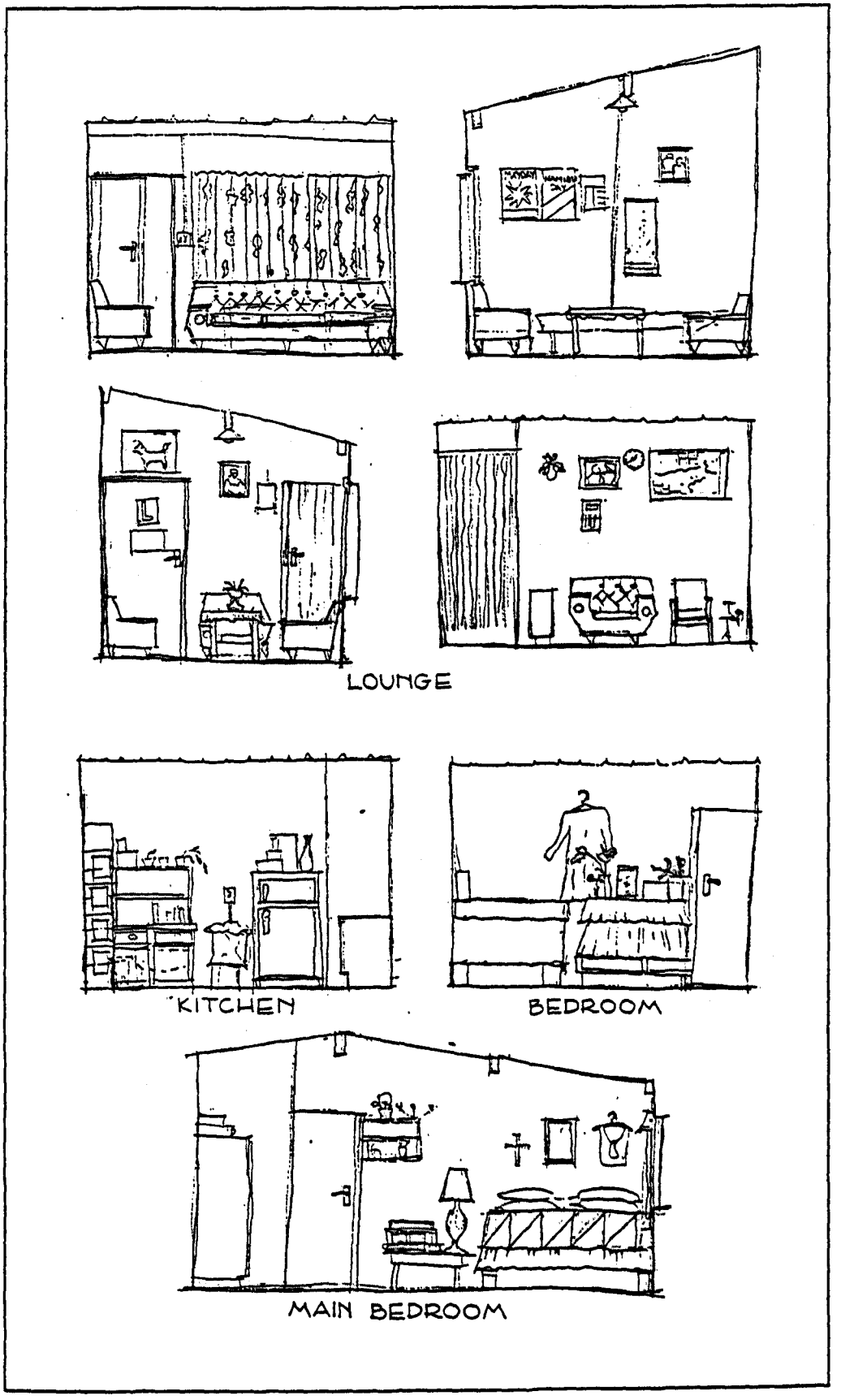


Figure 7.4 Interior Sketches



7.2.3 ACTIVITIES

Twenty-seven activity categories were identified during the activity observations[4], of which nineteen were in the domestic environment, and the remainder beyond the house environment. The activities in the domestic environment included household oriented activities like personal and household maintenance (reproductive) activities, social activities as well as economic (productive) activities that are listed below.

ACTIVITY CATEGORIES: HOUSE AND PLOT

00 SLEEP	11 FETCHING AND PUTTING AWAY (RUNNING ERRANDS)
01 EAT AND DRINK STANDING	12 CHILD CARE
02 EAT AND DRINK SITTING	13 NEEDLEWORK WITH MACHINE
03 COOKING AND FOOD PREPARATION	14 NEEDLE AND REPARE WORK BY HAND
04 PERSONAL HYGIENE	15 SELLING, FETCHING ECONOMIC
05 DRESSING AND UNDRESSING	16 LEAVING HOME
06 CLEANING FLOOR	17 PLAY
07 WASHING DISHES AND CLEANING UP	18 LEISURE: PAGING MAGAZINE, SITTING, FILLING IN COMPETITIONS
08 DOING WASHING AND IRONING	19 PUT RADIO AND TAPE ON AND OFF
09 SOCIALISING (TALKING WITH FRIENDS, FAMILY ETC.)	
10 ECONOMIC AND SOCIALISING	

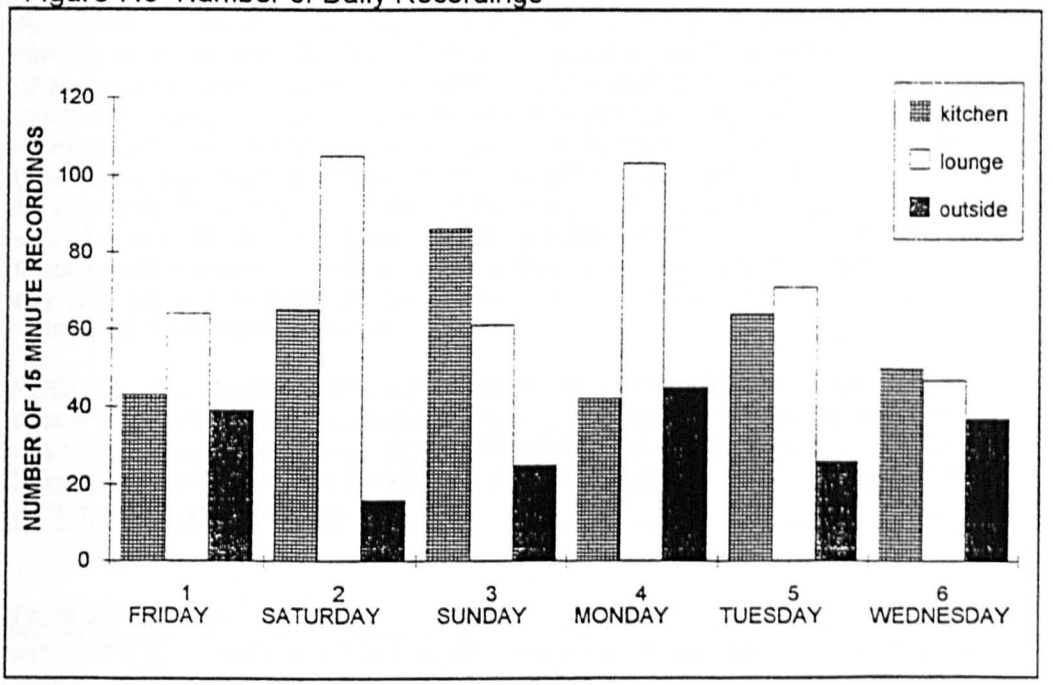
ACTIVITIES IN OTHER PLACES

20 SCHOOL	24 VISITING
21 WORK	25 SHOPPING IN TOWN
22 SHOPPING:	26 RETURNING
23 CHURCH	27 MEETINGS

The three most used (daytime) spaces were the lounge, the kitchen and the outside space facing the kitchen. Figure 7.5, illustrating the number of daily recordings for these three spaces, indicates that the lounge was the most frequently used. The daughters' bedroom was the most used as far as daytime activities in the bedrooms were concerned.

[4] The method is described in Chapter 4 and the analysis and data are presented in the appendix 7.1

Figure 7.5 Number of Daily Recordings



Activities and people concentrated more in the inside spaces, but a number of activities also took place outside. The intensity of usage in the three main spaces varied. On the Saturday the lounge was used intensively, and the outside space very little, while on Sunday the kitchen was the most-used space. A detailed description of the activities and people in each space is included in the boxes below.

The Lounge

ACTIVITIES: The lounge was mostly used for socialising and machine sewing - a certain amount of leisure activities also occurred in it. The socialising included customers visiting to buy drinks and consuming them, as well as friends of the owner and her friend. Meme Josephine spent most of her time at home making shirts and skirts for the inhabitants, as well as for sale. Eating and drinking often occurred in the lounge. The lounge was used more intensively during the early evening, from 18:00 onwards. During the weekend it was also used more regularly during the daytime.

PEOPLE: Of all the inhabitants the owner made use of the lounge most frequently. She also spent most of her day time at home there. The eldest daughter used it frequently and it was also the space mostly used by her when at home. Mem Josephine's friend also spent most of his time at home in the lounge, but was less frequently in the house environment. Of the other daughters the youngest used the space the most, but mainly when there was nobody else using it. She slept in the lounge on two occasions. A high number of visitors - mostly male - used the lounge.

The Kitchen:

ACTIVITIES: The changes made to the kitchen enabled the inhabitants to use the kitchen for more activities than merely cooking and washing dishes. Meals were often taken in the kitchen. Eating during the period of observation took place informally - people often stood while eating or drinking. No formal meals with the household members sitting together and sharing food took place. Soft drinks and beer crates were stored in the kitchen, therefore a high frequency of fetching and serving took place from the kitchen to the lounge and the outside space. The kitchen was also used for socialising and leisure activities. On the first day of observations, machine sewing was done in the kitchen. The kitchen was occupied right through the day with about four peak periods - around 10:00, 14:00, 17:00 and 20:00 - when more people occupied the space.

PEOPLE: The 16-year old daughter used the kitchen the most, followed by the second eldest daughter, the oldest daughter and then the youngest daughter. Meme Josephine did not spend much time in the kitchen, while the owner's partner and the lodger were very seldom in the kitchen. Visitors did spend time in the kitchen, but not as frequently as in the lounge.

Outside spaces

ACTIVITIES: Activities outside usually took place in the space facing the kitchen. Cooking, for the purposes of selling the food took place on two of the observed days. The 16 year old daughter was the most involved in this activity. Leisure activities, mostly involving the daughters, often occurred outside. They often sat on the steps in front of the kitchen door. Washing was done each day on the corner of the space facing the kitchen and the back. Consuming food also occurred outside and socialising often took place in combination with other activities. The washing and curling of hair also took place once, involving a household friend. On one occasion machine sewing was done in front of the lounge, since the light condition was better outside.

PEOPLE: The outside was more intensively occupied during the afternoons. The youngest daughter was the most outside, followed by the 16 year old and then the second daughter. Visitors also spent some time in the space facing the kitchen, having conversations, doing deliveries and buying drinks to take away. More male than female visitors frequented the space.

The Bedrooms

THE DAUGHTERS' BEDROOM: The daughters' bedroom was used regularly during the daytime, mainly for child care, sleeping and personal body care. Socialising and leisure activities also occurred in this space. The number of people using it at one time did not exceed three. Close friends, relatives and the father of the child (living elsewhere), did enter the daughters' bedroom, but not frequently. The 16 year old daughter spent the most time in this space, and next to the kitchen it was the space most often frequented by her. After her the second daughter used the space the most frequently, followed by the eldest daughter. The youngest daughter did not spend much time there while Meme Josephine only entered the space twice and Meme Josephine's friend and the lodger only once for short periods.

THE MAIN BEDROOM: Valuables were stored in the main bedroom. Except for occasional short conversations, the space was only visited during daytime to fetch and store money (and strong alcohol) as well as to operate the radio. Meme Josephine and her friend occupied the space the most, followed by the eldest daughter and the 16 year old daughter. Close female friends of Meme Josephine were in the space on occasions with Meme Josephine. A male and Meme Josephine's friend entered the space once. These occurrences appeared to be for private discussions.

THE LODGER'S BEDROOM: The lodger's bedroom was never used during daytime and very seldom during the early evenings. The lodger only spent time there to dress himself.

The Bathroom and Toilet

The bathroom was only used for ablution activities, or entered when it was to be cleaned. No storage, except for washing buckets, took place in the bathroom. It was mostly used before 9:00 and after 17:00.

The activities and people in the spaces indicate a much more complex range of activities, as well as different categories of visitors, than for which the house is designed. These will be discussed as social categories in the house and multi-activities in spaces.

- **Social categories in the house**

The table of visitors during one weekday below illustrates categories that include passers-by, customers only coming to buy, customers that stay to socialise, and family friends. One friend of Meme Josephine was also very much at home and behaved as part of the family. She cooked, shared food with the family and relaxed in the bedrooms, even if nobody else was in the room. The passers-by and customers, on the other hand, formed part of the 'general public', that might, or might not, know the inhabitants.

Table 7.2 Visitors in the House Environment on the Fifth Day of Observations

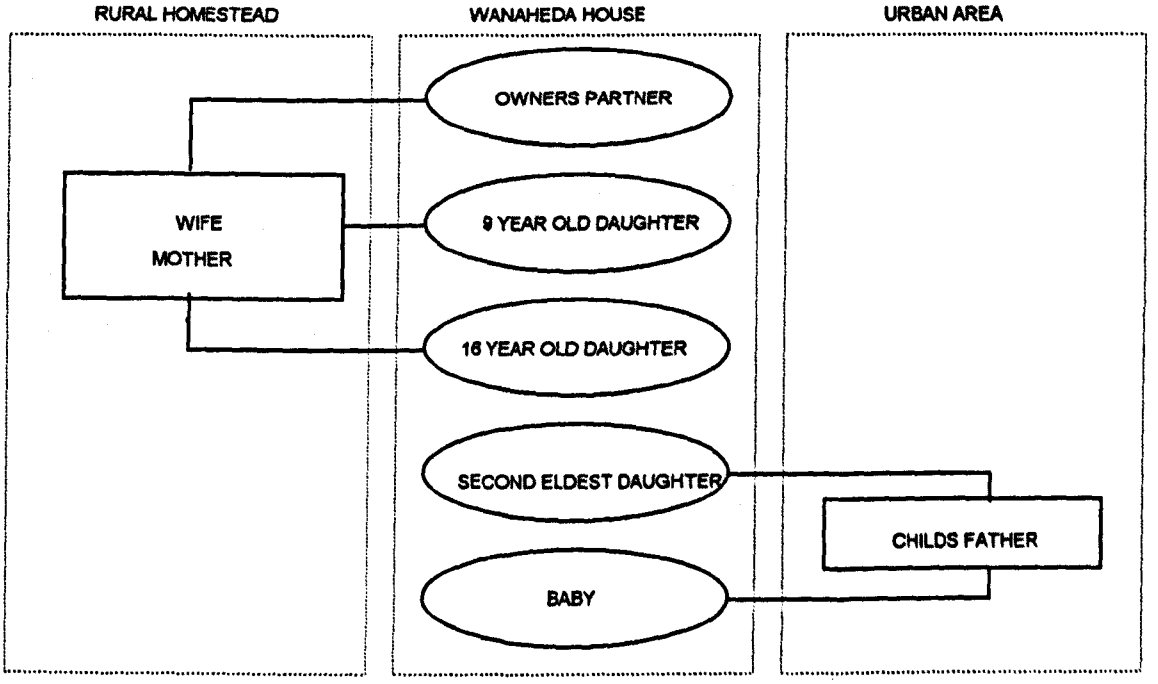
TIME	SPACE	ACTIVITY	CATEGORY
9:30	OUTSIDE KITCHEN	a male visitor greeted the women in the kitchen and left	passer-by
9:45	OUTSIDE KITCHEN	a female customer arrived to pay for beer bought the previous evening and left	customer
10:00	KITCHEN LOUNGE	two female family friends visited, spent some time in the kitchen preparing food and lounge	friends of the family
11:00	MAIN BEDROOM DAUGHTERS ROOM	Meme Josephine's friend remained, had conversations, and fetched articles from the main bedroom, relaxed in the daughters' bedroom.	friend of the family
10:30	OUTSIDE SPACE	two women entered, drank some water and left	passers-by
13:00	KITCHEN	Meme Josephine's friend spent over an hour in the kitchen with Meme Josephine and two daughters while they were eating and drinking tea- she left 14:15	friend of the family
16:00	OUTSIDE SPACE	one female and three male customers bought drinks and socialised	customer also socialising
17:30	LOUNGE	male and female visitors consumed drinks, while socialising. The men remained till 17:00, while the women left sooner.	customer also socialising

Customers used the lounge, kitchen and outside spaces and these spaces took on an economic role. This economic role means that a large part of the domestic environment is not entirely the domain of the household members.

The bedrooms were the only spaces in the house that were mainly the domain of the inhabitants. Family friends did enter these spaces, mostly with other members of the family, with an exception in the case of Meme Josephine's friend. She used the house with the same familiarity as other household members.

The composition of the household had nothing in common with a nuclear family, which is the dominant pattern of the white suburbs. This is illustrated below with those inhabitants that have 'nuclear relations' outside of the domestic environment. The spatial links of man, woman and children of a nuclear family are drawn for the inhabitants of the Wanaheda house. A wife and mother lives in the rural areas, while a father lives in the urban area.

Figure 7.6 Nuclear Family Relations of inhabitants of the Wanaheda House



Female-headed households are not an unknown phenomenon in Namibia. One quarter of the households interviewed for knowledge on the housing process in Chapter Six had female owners, while the census results indicate 39.28% of the Namibian households are headed by females. Female

headed-households[5] are usually seen as single, but this is not the case in the Wanaheda household. The relationship of this cohabiting couple was already established before the house was bought and it was recognised when the loan was allocated.

The extra income generated from lodging explains the presence of the lodger in the house. According to the definition commonly used in Namibia for defining households, the lodger would qualify as a member of the household. A household is seen as the inhabitants of the house, cooking and eating together and in this case the lodger shared meals and drinks with the other members of the household. However, he spent little time in the house and his bedroom was the only one which was always locked. The 16 year old daughter was also supportive in generating income and was very active in household tasks. She was responsible for most of the household chores, took care of the baby and prepared food to be sold at the bus stop. Although she was not employed for wages it was observed that she had an important economic role in the family, which could be one of the reasons for her presence in the house.

- **Multi-activities in spaces**

The recorded activities in the Wanaheda domestic environment can be divided into income generating activities and domestic related activities. Domestic-related activities are again divided into social reproductive activities and biological reproductive activities[6]. The spaces where these activities are taking place are listed in Table 7.3. From these two groups social activities are identified with reference to the people and spaces involved.

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[5] The familiar female-headed households according to research, are headed by the mother, without the father of the children being present, or supporting the family. This issue is also dealt with in case studies in Muller (1988: 136) and Muller (1985:75-80).

[6] Reproduction according to Momsen (1991:28) "*not only refers to biological reproduction but also includes the social reproduction of the family.*" She refers to biological reproduction as those activities related to childbearing and nurturing of infants and social reproduction referring to the care and maintenance of the household.

Table 7.3 Different Types of Activities in the Wanaheda House

INCOME GENERATING ACTIVITIES		
PRODUCTION AND MARKETING	make and sell clothes	mostly lounge also kitchen and outside
	make and sell food	outside
	serve beverages	lounge, outside, kitchen
	make beverage[7]	kitchen
	store beverages	kitchen
	socialise while consuming products	mainly lounge, also kitchen and outside
DOMESTIC RELATED ACTIVITIES		
SOCIAL REPRODUCTION	personal care: dressing,	bedrooms
	personal care: ablution	bathroom
	personal care: hair	bedrooms, lounge, outside
	leisure	lounge, kitchen, outside, daughters' and main bedroom
	washing clothes	outside
	prepare food	kitchen, outside
	consume food	lounge, kitchen, outside
	socialise: talking to family and friends	lounge, kitchen, outside, main bedroom and daughter's bedroom
BIOLOGICAL REPRODUCTION	take care of the baby	daughters' bedroom, main bedroom
	feed the baby	daughters' bedroom

SOCIAL ACTIVITIES		
ECONOMIC RELATED	customers and inhabitants talking and drinking. Inhabitants might continue with other economic activities simultaneously	lounge, kitchen, outside
FAMILY RELATED	family friends and inhabitants	lounge, kitchen, outside, daughters' bedroom and main bedroom

All the spaces were used for a variety of activities, except for the bathroom and the lodger's bedroom which had limited functions. Income-generating activities, of which the main activity was the selling of beer and soft drinks took place in the lounge, kitchen and outside space. These articles were stored in the kitchen. Customers often consumed the drinks on the premises and this activity was combined with socialising mainly in the lounge, but also in the kitchen and outside space facing the kitchen.

[7] During the observation no home made beer was being produced, but a later visit confirmed this activity.

The spaces used for income generating activities were also used for domestic related activities. The inhabitants used the lounge, kitchen and outside spaces for their own consumption of food and drinks, leisure and socialising. Food preparation took place mainly in the kitchen, as well as outside. Storage of articles used for food preparation and house cleaning was done in the kitchen. The outside space was also used for washing clothes and on one occasion for sewing.

Except as a sleeping space, the main bedroom was also used to store valuables, and for private conversations. The daughter's bedroom also included activities like socialising (only between the daughters and close relatives), child care, and leisure. Hair care took place outside the bedrooms on two occasions. The outside space was used for washing and doing hair, and the youngest daughter's hair was once plaited in the lounge.

A tendency for specific activities taking place in a variety of spaces and a variety of activities occurring in one space is identified. This explains why changing patterns in the use of space occurred as illustrated above in graph 7.1. It indicates a tendency of flexibility in usage among the three main spaces. It also resulted in the flexible usage of furniture. The bench, used in the kitchen and lounge, was moved to where it was needed. When the sewing work was done outside, the coffee table and chair were also moved outside. A similar pattern of moving furniture is also referred to by Larsson (1988) in Botswana mentioning specifically furniture being moved from the inside for use outside.

These multi-activities and different social categories within the domestic environment resulted in specific socio-spatial implications that are due to the combination of income-generating activities and domestic related activities. As explained above the lounge, kitchen and outside space facing the kitchen were not only used by inhabitants, but customers from the general public used these spaces frequently.

Concerning entry by the general public, spaces can be divided into 'open', 'selectively open' and 'closed' for explanation purposes. The 'open' spaces are the outside ones, where the passers-by entered to exchange greetings or ask for water and customers waited to be served. The outside space

facing the kitchen was mainly used for this purpose. The 'selectively open' are those spaces where the customers entered to consume their drinks and socialise, like the kitchen and lounge. 'Closed' ones are the bedrooms, which are only the domain of the inhabitants and their close friends.

7.2.4 CONCLUSION

This household composition is neither a modern nuclear family, nor the more familiar female-headed household in the formal urban areas. The nuclear relations of this household extended into other urban as well as rural domestic environments. In this case the female head, as the owner, is in control of the house, but the often absent male appeared to have an important position in the household. His daughters lived in the house as daughters of the owner, photographs of the couple were displayed on the lounge walls and his income was also added to enable the owner to qualify for the house.

The role of the Wanaheda house is not only to accommodate a household, but it also has an income generating role. This income-generating role influenced the household composition as well as spatial usage. The transformation of the house enhanced this role.

The activity observations enabled a view into how different categories of activities and people became integrated in spaces. Spaces were no longer used according to the intentions of the original design. The kitchen is not only for food preparation, the lounge has become much more than a gathering place for the family and their friends and the bedrooms are not only for sleeping and dressing. The house is not a closed domesticated environment, and the only family oriented spaces are the bedrooms.

7.3 THE INFORMAL HOUSE

Information concerning the spaces of the informal house in a spontaneous settlement in Okahandja was obtained by means of observations and an interview (Muller, 1988). The socio-economic and physical information is not to the same in-depth level as the Wanaheda house, but the information on

the layout and main function of the spaces enables a comparison with a self-designed domestic environment in an urban environment created by the inhabitants of an informal settlement.

This house is in an informal settlement called the Five Rand Camp at Okahandja, a town about 70 kilometres north of Windhoek. The settlement developed during the early 1980s when a private landowner gave permission to evicted people to erect shelters on his farm. The name referred to the monthly fee the owner collected for water supply and refuse removal.

- **The inhabitants**

The inhabitants included the house owner, a male working for SWAWEK (electricity corporation), his cohabiting partner and four children. Two other couples, without any children, also lived in the house. In both cases the men were working in the formal sector, while the women were unemployed. The owner built the house.

- **Physical description**

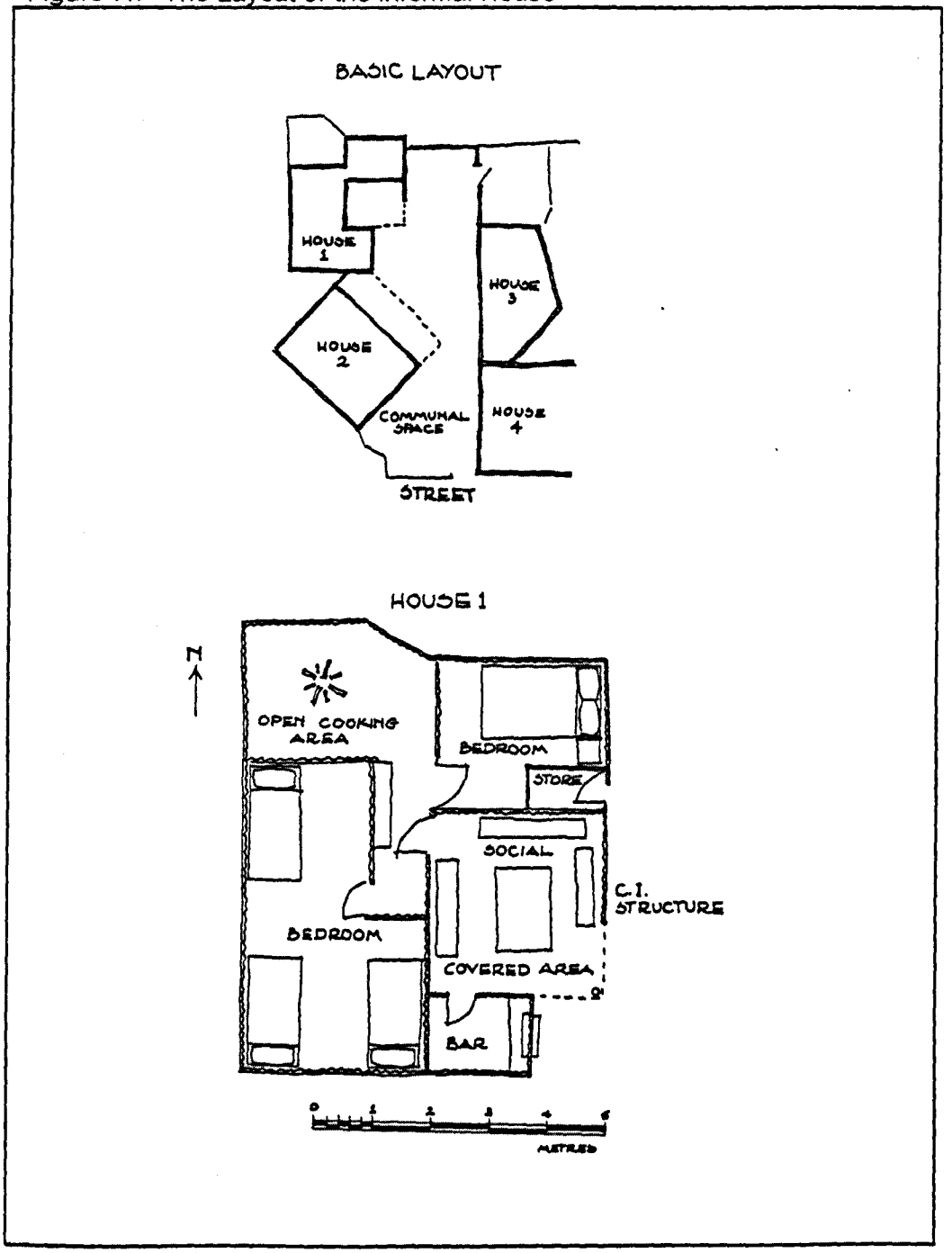
Figure 7.7 illustrates the layout and furnishing of the house. The house is built with corrugated iron sheets on a timber frame. It contains a meeting place, two sleeping places, a store, a cooking place and a kiosk with a service counter facing the meeting place. The entrance space of the informal house forms a courtyard that also serves as an entrance space to other shelters. Big drums with water are stored in this space.

The covered, but not completely enclosed, meeting place in the informal house forms part of a more public zone. It also has an economic role in that visitors buying tombo (the locally brewed beer) use this space to consume it. The meeting place is furnished with low wooden benches surrounding a low table.

The cooking place of the informal house is enclosed but not covered. It contains the fire place. One bedroom has a double bed, which is behind curtains. The other bedroom is furnished with three beds and two tables. The storage space is reached from the entrance space.

Similar to the Wanaheda house, this domestic environment also facilitates income generating activities. The differences in the spatial layout concerning the facilitation of income generating activities and domestic activities will be discussed in the next chapter.

Figure 7.7 The Layout of the Informal House



7.4 THE NORTHERN HOMESTEAD

Information for the northern homestead is obtained from literature, and during a visit to the North. The homestead plan is from a study by Mills (1984), which includes a selection of homesteads in Owamboland. The best described one is used to compare with the urban domestic environments. A typical form that is produced as the result of economic and social aspects of the ideology of the people producing the environment is identified and described in this study (Mills, 1984:12). The descriptions therefore do not concentrate on specifics of each homestead and their inhabitants, but identifies typical issues related to northern homesteads. This makes the information more appropriate, because the 'typical form' is derived from a broad selection of homesteads and not only one case.

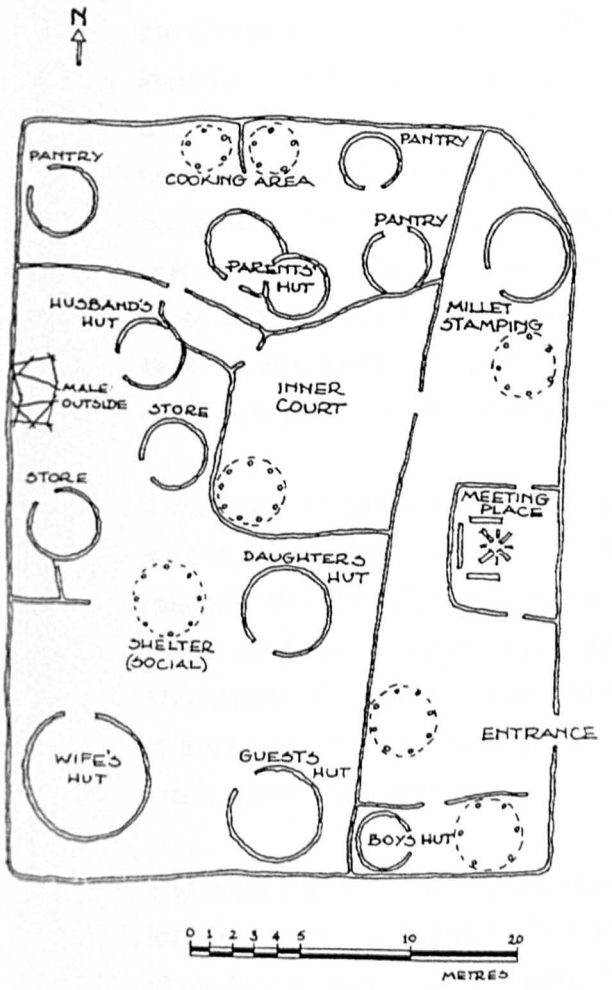
7.4.1 The Inhabitants

The composition of the households in these homesteads is described as neo-local. Owamboland farmers are agriculturalists, producing crops only for subsistence purposes. Since the colonial period, men have worked in the central and southern parts of Namibia, leaving their wives and children to look after the homestead. It is also quite common for these families to have a shop, referred to as a cuca shop in the vicinity of their homestead. These shops operate within the cash economy.

7.4.2 The Physical Environment

The northern homesteads are known for their fenced-in spaces. Timber poles are used to create the fencing. Headmen and kings had very complicated layouts with labyrinth like passages. The huts and shelters are built with timber poles or clay bricks and roofs are from grass. (Figure 7.8)

Figure 7.8 The Northern Homestead



- **Meeting places**

Two meeting places are identified namely the main meeting chamber and the shelter in the female zone. The main meeting chamber is a well-defined important space with symbolic and practical significance and forms the centre of the homestead (Mills, 1984:136). Traditionally the northern homestead's main meeting chamber had a religious and historical meaning, containing the 'sacred' fire. Symbolically the sacred fire represents the community, the Supreme Being and the king or chief (Mills, 1984:32). Three sides of the fire are surrounded by log seats with the middle section facing east. Cattle horns are placed in this space, thereby reflecting the socio-economic status of the household (1984:136).

It was also the space where important meetings were conducted and served as the educational centre of the family where traditions and history were related (Williams, 1991:48). It was traditionally the focus of male authority where meetings discussing important matters with neighbours took place. The traditional leaders also heard community disputes in the meeting place of their homesteads. Currently it is also used for family gatherings, cooking, major ceremonies and events.

The other meeting place is a space or shelter within the female zone, "*solely for the use of the husband for informal entertaining and beer drinking with close friends and relatives*" (Mills, 1984:110). This indicates a differentiation between different categories of visitors.

- **The cooking places**

Preparing and cooking food takes place in a courtyard in the female zone of the homestead. The storage huts, or pantries are in the same enclosure. Two shelters are used for cooking. The hearth is made of three cooking stones or broken pots (Mills, 1986:125) and one main meal is prepared each day. Eating takes place in the kitchen courtyard, or in the main meeting chamber. Women are responsible for preparing meals: the mother takes care of the cooking and is assisted by her daughters, while men only become involved in food preparation when meat is roasted.

- **Outside spaces**

All the covered and enclosed spaces are within a fenced-in court. The cooking places and meeting places are also outside. Other spaces that can be identified are the entrance space, the millet stamping place and the outside spaces associated with the female huts, the parents' hut as well as the boys' hut.

The entrance is placed in relation to the sun and faces east, based on traditional religious principles. It gives orientation in a flat landscape. The entrance courtyard forms part of the eastern part of the homestead, which is associated with the public or front part of the homestead.

The millet stamping space forms part of the public zone of the homestead, and the women use millet stamping "as opportunities and occasions for social interaction" (Mills, 1984:121). It is situated close to the entrance and is visible from the outside. A shelter is provided for shade.

The spaces in front of the sleeping huts form part of the " *'outside' world of the family*" (1984:146). These are defined and divided by the palisade into the more specific family unit's zone. The space in front of the parents' hut is clearly defined as an outside space, while the other spaces include more than one hut or shelter.

- **Sleeping places**

Except for the boys' hut, the sleeping huts are within the private zone of the homestead. The wife's hut is the largest, and huts for the husband, the daughters and the guests are within her zone. The original honeymoon hut became quarters of the parents of the owners.

- **Storage and hygienic spaces**

Storage huts are provided in the areas of the sleeping huts and pantries are nearby the cooking areas. In the traditional homesteads the bathrooms usually occupy left over spaces. This has not been identified on the plan. Urinals might be included in the homestead, but the fields are used for defecation.

- **Concluding remarks**

The homestead layout makes spatial provision for the various social categories and includes private and public, gender and age zones. There are zones in the homestead and farm that relate to male and female roles and consist of sub-zones accommodating adults and youths respectively. The female zone is not exclusively for the wife and daughters, but is shared with other members of the family.

7.5 SUMMARY

This chapter described the four different domestic environments. Where the informal house and northern homestead are the products of the occupants catering for their known socio-economic needs, the Wanaheda house is partially adapted and otherwise used as a given environment. This given environment was not designed for many of the activities which take place in and around the house. An income generating activity is included and various categories of visitors frequented the house. The NBIC house is designed for the domestic activities of a nuclear family, while the descriptions of the Wanaheda house showed different trends. Income-generating and economic activities are also prominent in domestic environments created by the owners themselves. Not one of the household compositions is based on a nuclear pattern. Where the Wanaheda and informal houses accommodate a number of people within a very small space, the rural homestead has clear defined spaces for different activities and social categories.

Further comparisons will be made in the next chapter referring to the descriptions in this chapter. This information together with the syntactical characteristics will be used to compare the four domestic environments.

CHAPTER 8
SPATIAL CHARACTERISTICS OF THE DOMESTIC ENVIRONMENTS

CHAPTER 8 SPATIAL CHARACTERISTICS OF THE DOMESTIC ENVIRONMENTS

The aim of this chapter is to identify the lack of shared knowledge between the designers and the buyers of the houses by referring to the main socio-spatial characteristics of the domestic environments.

In the first part of the chapter spatial characteristics are described comparatively, referring to the descriptions of the previous chapter and the syntactical characteristics. The spatial complexes and their characteristics will first be discussed as a whole, followed by a discussion on the main spaces of the four spatial complexes. Syntactical differences are identified between the rural and urban environments, as well as between the NBIC house design and the self-created environments.

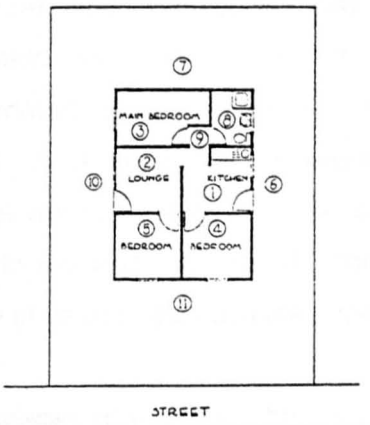
These comparisons are followed by discussing the spatial characteristics in the second part of the chapter. The economic and social role of the domestic environments and the spatial implications of these are discussed with reference to the findings of the first part. It will be possible to identify an incompatibility between the town and domestic environment and the socio-economic needs required by the people for an urban domestic environment.

8.1 A COMPARATIVE DESCRIPTION OF THE FOUR SPATIAL COMPLEXES

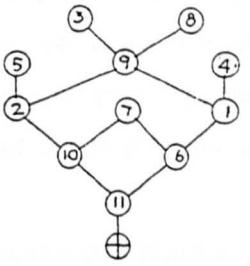
The space syntax methodology to determine syntactical characteristics, as presented in the last part of Chapter Five is applied to enable the comparisons. The layouts of the domestic environment described in the previous chapter, their permeability maps, justified permeability maps and mean syntactical characteristics are illustrated in figure 8.1. The adjusted permeability maps are drawn from the outside (street or farm) of the spatial complex. A sketch of the two bedroom house type, its syntactical characteristics and a brief discussion are presented in Appendix 8.1.

Figure 8.1 The Four Spatial Complexes

WANAHEDA HOUSE

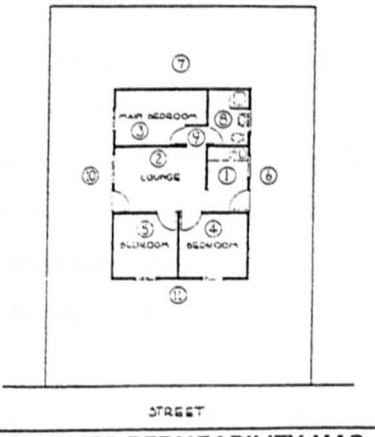


JUSTIFIED PERMEABILITY MAP

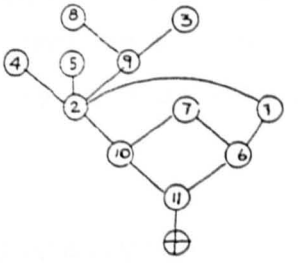


	RA	RRA		RR
MEAN	0.30	1.06	SYSTEM	0.11

THE NBIC HOUSE TYPE

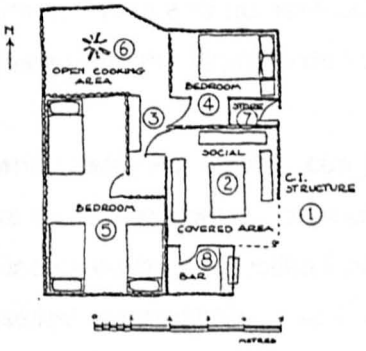


JUSTIFIED PERMEABILITY MAP

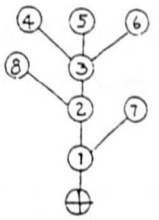


	RA	RRA		RR
	0.29	1.03	SYSTEM	0.11

INFORMAL HOUSE

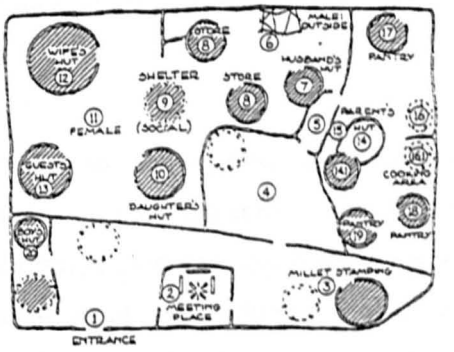


JUSTIFIED PERMEABILITY MAP

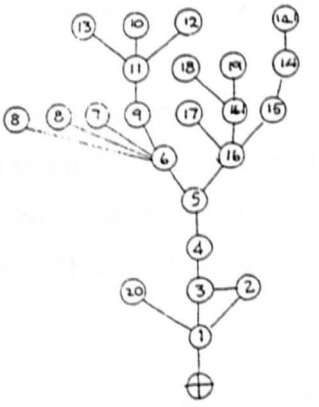


	RA	RRA		RR
MEAN	0.40	1.25	SYSTEM	

HOMESTEAD



JUSTIFIED PERMEABILITY MAP



	RA	RRA		RR
MEAN	0.29	1.44	SYSTEM	0.02

The numerical syntactical characteristics of the complexes as a whole is illustrated with the means[1] of RA (relative asymmetry), RRA (real relative asymmetry), as well as the RR (relative ringyness) of the spatial system as a whole. RRA measures the segregation and integration of spaces and RR the control over spaces[2]. The terms segregation, integration and control will be used in the text. Tables with the numerical syntactical characteristics of each space in each spatial complex are presented in Appendix 8.1.

The spaces of the NBIC house type will be used as categories to discuss the different spaces, where applicable. The terms lounge, kitchen, bathroom and bedrooms are used, although the terms for describing the spaces in the homestead and informal house are not referring to rooms, and in the case of the homestead are also social related.

The syntactical characteristics of the owner-designed and formal urban domestic environments are illustrating differences in both the applied measurements. Both the integration/segregation (RRA) and the control characteristics (RR) of the informal house and homestead are different when comparing these with the NBIC design and the Wanaheda house.

The owner-designed spatial complexes are more segregated, indicating the potential for a segregation of social categories in the domestic environments. This is indicated by the justified permeability maps and the mean RRA values. The justified permeability maps of the homestead and informal house are treelike, with limited rings, indicating deep and asymmetrical structures. On the other hand, the NBIC house type and Wanaheda house have more rings, and are more distributed and symmetrical. The mean RRA, measuring asymmetry that indicates the depth or segregation of the different spatial complexes, confirms this graphic indication. The homestead is the most segregated spatial complex, followed by the informal house with a mean RRA that is equally placed between the homestead and Wanaheda house. The changes made to the

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[1] The means are calculated by adding up the values of each space and dividing by the number of spaces.

[2] The RR and RRA in this chapter's tables are those measured from each space. The RR values in Figure 8.1 reflect those of the spatial system as a whole.

NBIC house type resulted in the Wanaheda house becoming slightly more segregated[3].

The rural homestead as the most segregated spatial complex, also has a clear spatial differentiation according to social categories in its layout. Different zones according to gender, age, public and private are identifiable. The informal house also has different spaces for different social categories, although having fewer spaces. It was clear in the Wanaheda house that a large portion of the house is "open" for visitors and its more integrated characteristics coincide with this phenomenon and facilitate an integration.

The formal urban spatial complexes are less controlled with more movement choices - the relative ringyness (RR) of the total system of the NBIC design and Wanaheda house is five times more than that of the rural homestead. The informal house has no rings at all in its system and similar to the homestead, it is very controlled and offers few movement choices. Combined with the segregation the spaces are also controlled to maintain this segregation.

This syntactical difference between the owner-designed and other domestic environments implies different characteristics in the socio-spatial relationships. This applies to both characteristics of segregation - the formal urban environments being more integrated - and control where these are less controlled. The spatial complexes are also accommodating different social structures and functions within different economic systems, having different values attached to them. The implications of these spatial characteristics for social relations will be discussed further under the "Characteristics of the Spatial Complexes".

8.1.1 The Lounge and Meeting Places

The lounge, planned as the living space for family and social gathering in the NBIC house type, is the most integrated space in the four spatial complexes. This space has also the least control over access in comparison with the other spaces. With the changes the lounge of the Wanaheda house has become less integrated and has obtained the same RRA (integration) value as the kitchen.

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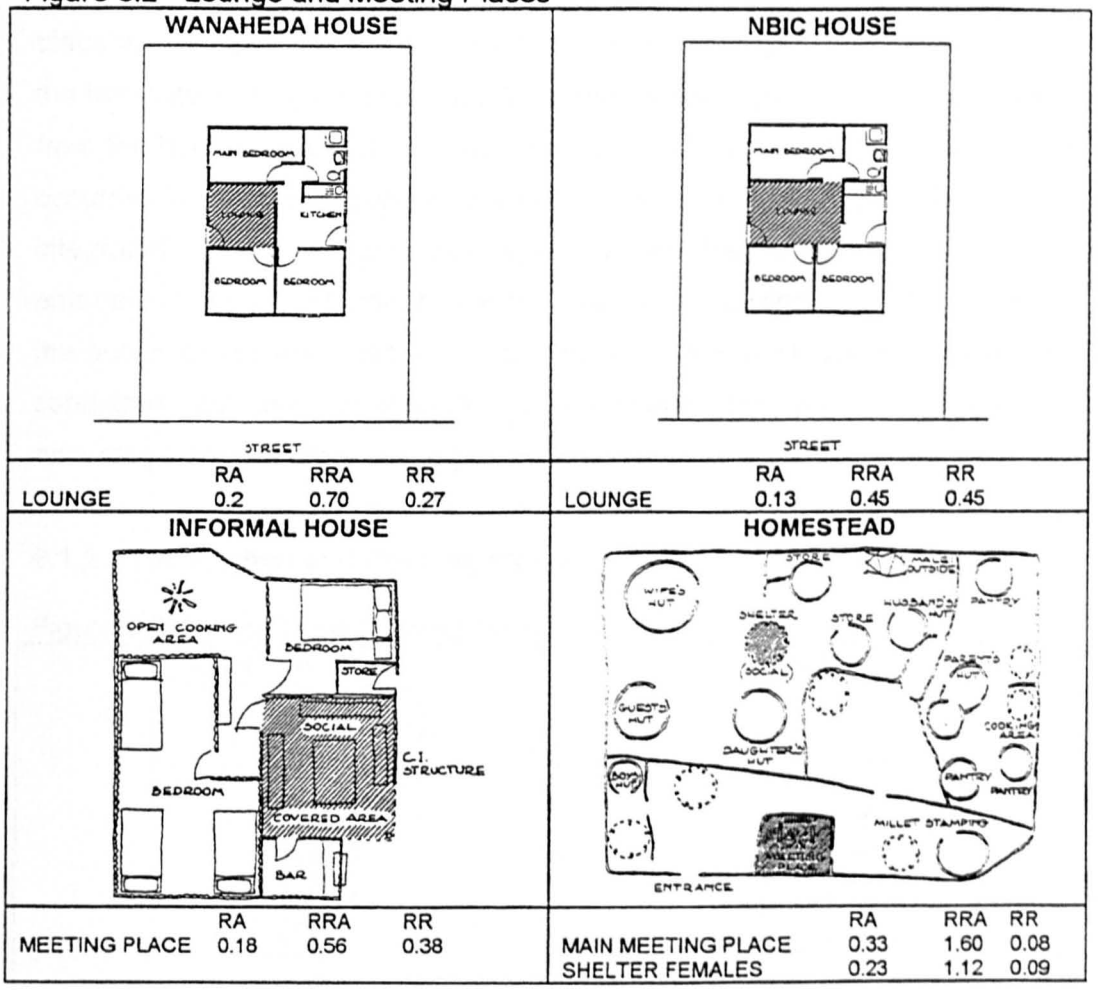
[3] It is not more segregated than the two bedroom type, as illustrated in Appendix 8.1.

Figure 8.2 Lounge and Meeting Places



	RA	RRA	RR
LOUNGE	0.2	0.70	0.27

	RA	RRA	RR
LOUNGE	0.13	0.45	0.45

	RA	RRA	RR
MEETING PLACE	0.18	0.56	0.38

	RA	RRA	RR
MAIN MEETING PLACE	0.33	1.60	0.08
SHELTER FEMALES	0.23	1.12	0.09

The control value also became similar to that of the kitchen and the outside spaces linked to the kitchen and lounge. This integration coincides with the integration of various social categories like household members, relatives, family friends as well as customers that drink and socialise. Not only is there an integration of different social categories, but also of different activities, ranging from the socialising, eating to the production of clothes.

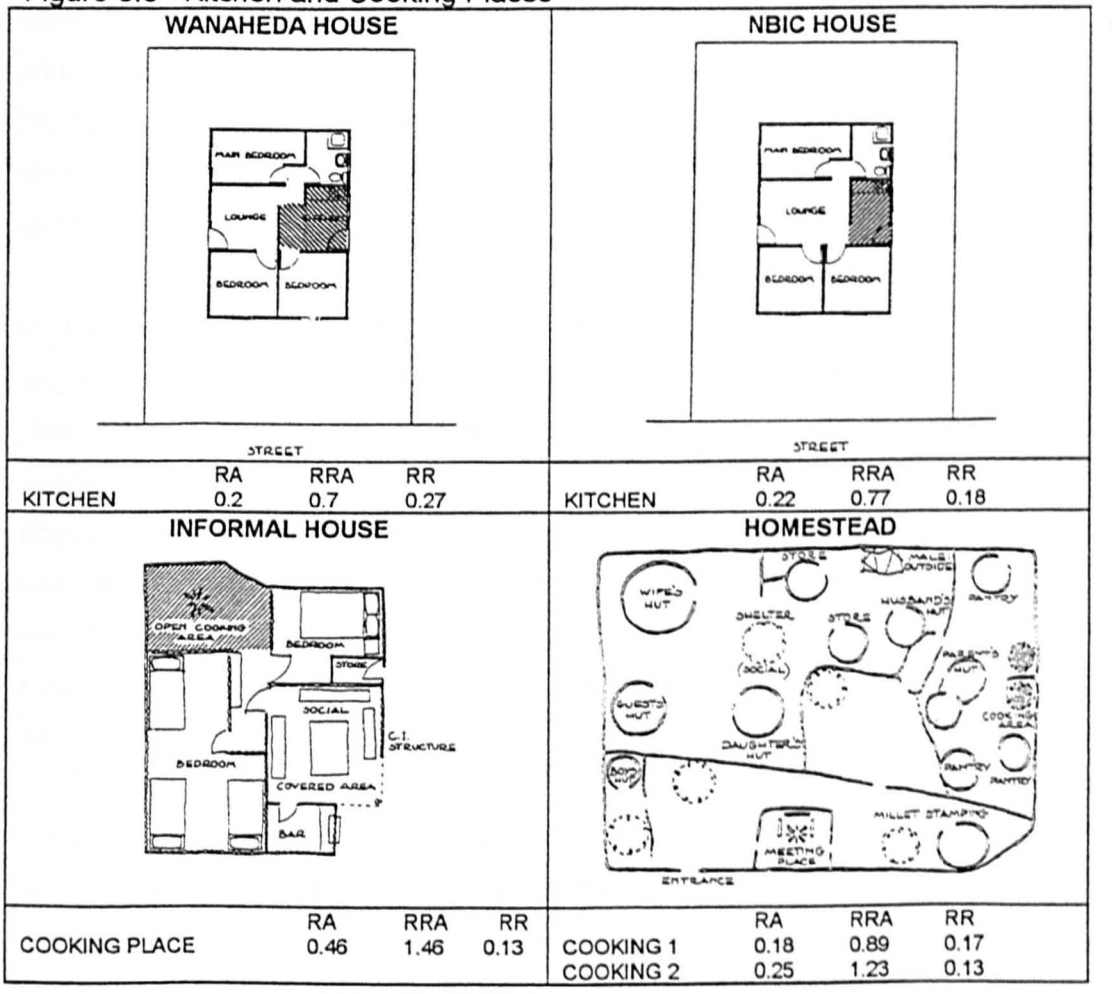
The meeting place in the informal house, created and furnished to receive customers, is also the most integrated space in its spatial complex, exerting little control over access to other spaces.

Meeting places in the rural homestead are differentiated according to social categories of visitors and this is reflected in the syntactical characteristics. The main meeting chamber with its traditional symbolic and formal role is segregated

and controlled. This uncovered space in the public zone serves as a meeting place for members within the larger community. Its segregation from the rest of the homestead is significant in that it enables the reception of visitors separated from the household private domain. Informal socialising with family and friends occurred in the private zone of the homestead. This takes place in the more integrated shelter in the female space where friends of the husband are entertained. In the informal house the integrated meeting place that relates to the public sphere illustrates a different pattern. The public zone is not spatially separated, but more integrated into the spatial complex. This pattern is occurring within an urban setting.

8.1.2 The Kitchen and Cooking Places

Figure 8.3 Kitchen and Cooking Places



	RA	RRA	RR
KITCHEN	0.2	0.7	0.27

	RA	RRA	RR
KITCHEN	0.22	0.77	0.18

	RA	RRA	RR
COOKING PLACE	0.46	1.46	0.13

	RA	RRA	RR
COOKING 1	0.18	0.89	0.17
COOKING 2	0.25	1.23	0.13

The NBIC design made provision for a small kitchen to cater for the essential activities involved in preparation of food and allow for limited storage space.

The size of this space limited the potential for using it socially and for extensive storage. Although its syntactical characteristics only change fractionally with the changes, the order changed. In the NBIC design the kitchen is the third most integrated and controlled space[4] and after the changes to the Wanaheda it became the most integrated space together with the lounge and passage. The changes made to the Wanaheda house enabled the multi-activities in the kitchen as described in the previous chapter. The space was mainly used by the daughters who cleaned, prepared food and socialised, but visitors also spent time in the kitchen drinking and talking. The male household members spent very little time in the kitchen, indicating that in terms of the household it was seen as a female space.

The outside cooking places in the informal house and homestead are more segregated and more controlled. The cooking places are in enclosed spaces and are to be reached through passages. Storage, in the case of the informal house, was in a little store separated from the cooking space. The homestead, on the other hand, has very segregated storage huts within the same enclosure as the two cooking places.

In the informal house the outside cooking space is very controlled and segregated. This controlled space is potentially more household dominated. The one cooking space in the traditional homestead is shallower, less segregated and with less control than other spaces, while the other cooking space is more segregated with more control. The one space might allow for more differentiation within the female zone, while the other can integrate more social categories[5]. It has the potential to be the area where the household members, relatives and the women's friends can be together while cooking is taking place.

Where the owner-designed cooking places are more segregated and within the private zones, the kitchen of the Wanaheda house is another integrated social space facilitating a combination of activities and social categories. The

[4] See Appendix 8.1 for complete tables
[5] No descriptions are available to explain this conclusively

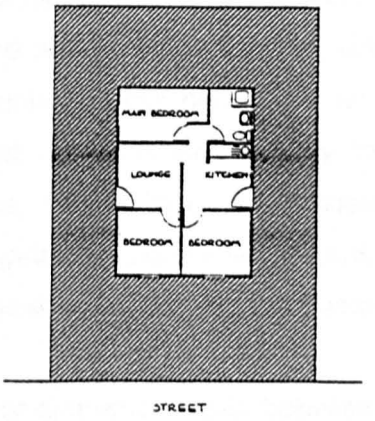
Wanaheda house does not include a segregated main use space like the informal house.

The lack of differentiation between social categories is facilitated by the spatial configuration of the three main use spaces (lounge, kitchen and outside space facing the kitchen) in the Wanaheda house. These spaces have all become open for different categories of visitors. The informal house on the other hand has a more segregated main use space, namely the cooking place.

8.1.3 Outside spaces

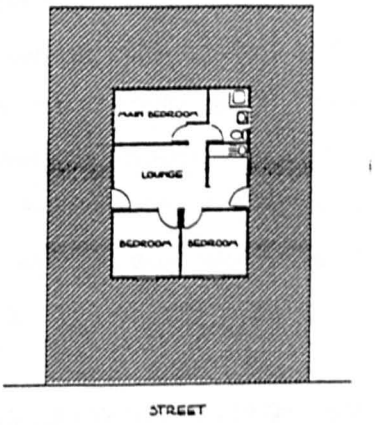
Figure 8.4 Outside Space

WANAHEDA HOUSE



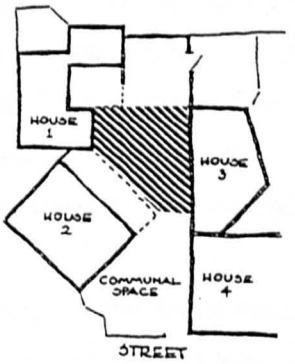
	RA	RRA	RR
OUTSIDE/KITCHEN	0.24	0.83	0.27
BACKYARD	0.39	1.08	0.18
OUTSIDE/LOUNGE	0.24	0.83	0.27
OUTSIDE/FRONT	0.27	0.96	0.27
STREET	0.45	1.59	0.09

NBIC HOUSE



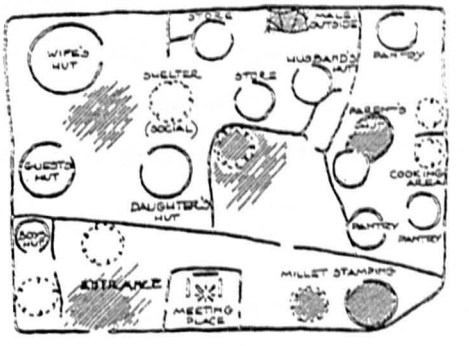
	RA	RRA	RR
OUTSIDE KITCHEN	0.27	0.96	0.27
BACKYARD	0.31	1.08	0.18
OUTSIDE/LOUNGE	0.18	0.64	0.27
OUTSIDE/KITCHEN	0.27	0.96	0.27
STREET	0.45	1.59	0.09

INFORMAL HOUSE



	RA	RRA	RR
ENTRANCE	0.29	0.90	0.38

HOMESTEAD



	RA	RRA	RR
ENTRANCE SPACE	0.32	1.56	0.17
MILLET STAMPING	0.25	1.23	0.13
INNER COURT	0.20	0.96	0.09
OUTSIDE/MALE HUT	0.17	0.85	0.22
OUTSIDE/FEMALES	0.29	1.43	0.17
OUTSIDE PARENTS	0.33	1.62	0.09

The outside space facing the kitchen of the Wanaheda house is the third most used space in the spatial complex. Like the lounge and kitchen it is characterised by an integration of different social categories and activities. The syntactical properties reflect this integration. This space has also become more integrated when the house was changed, but the RR (control) value remained at the same level as the least controlled of the main spaces. Very little control is also maintained over access. These spatial characteristics enable the 'open' space that allows even passers-by to enter. Although the absence of a fence could contribute to the open situation, people entering the premises did not do it as an extension to street activities. The boundary, although not physical, appeared to be recognised. For example, passers-by will not enter or linger in the front space of the house.

The outside spaces of the informal house and homestead are more clearly defined and fenced-off. They are associated with specific activities and social categories. Most household activities and economic activities in these two domestic environments mainly take place outside in covered and uncovered spaces. Especially the homestead's spaces for the different activities are segregated with controlled boundaries. The spaces are also divided into public and private zones within the domestic complexes.

A major difference exists between the syntactical characteristics of the entrance spaces of the informal house and the homestead. The entrance spaces have also different roles. The entrance space of the informal house is shared with other houses and is more integrated while it also links to the income generating meeting place. The entrance space of the homestead is more segregated and forms part of the public zone of the house, where most of the spaces are above the mean RRA value. The importance of segregating social categories is maintained within the area, while the urban entrance space integrates the public and the private areas are more segregated for household members.

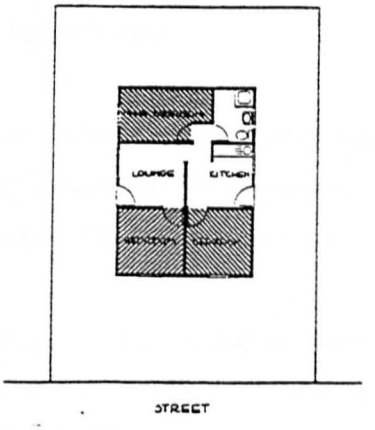
The placing of the millet stamping area in the public area of the homestead allows for social contact that can be established from there with non-household members. Social contact was also frequently made from the Wanaheda domestic environment with people in the street. Greetings and short conversations were exchanged from the spaces facing the two outside doors.

The combination of production and socialising was done in the Wanaheda house where both the household and income generating activities were combined with socialising.

8.1.4 Bedrooms and Sleeping Places:

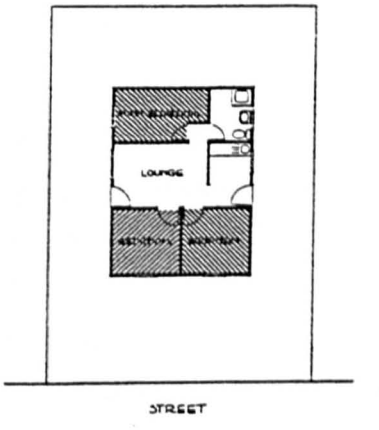
FIGURE 8.5 BEDROOMS AND SLEEPING PLACES

WANAHEDA HOUSE



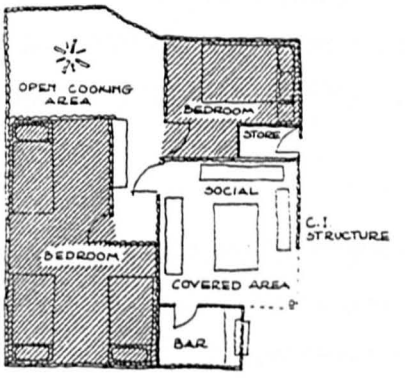
	RA	RRA	RR
MAIN BEDROOM	0.38	1.34	0.09
BEDROOM 1	0.38	1.34	0.09
BEDROOM 2	0.38	1.34	0.09

NBIC HOUSE



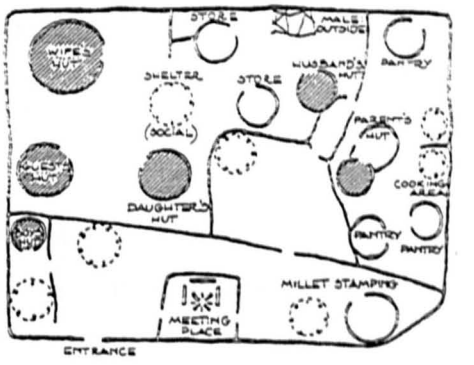
	RA	RRA	RR
MAIN BEDROOM	0.42	1.47	0.09
BEDROOM 1	0.31	1.08	0.09
BEDROOM 2	0.31	1.08	0.09

INFORMAL HOUSE



	RA	RRA	RR
SLEEPING PLACE 1	0.46	1.46	0.13
SLEEPING PLACE 2	0.46	1.46	0.13

HOMESTEAD



	RA	RRA	RR
MALE HUT	0.26	1.27	0.04
GIRLS' HUT	0.38	1.85	0.04
WIFE'S HUT	0.38	1.85	0.04
GUEST'S HUT	0.38	1.85	0.04
PARENTS HUT	0.42	2.04	0.04
BOY'S HUT	0.41	1.96	0.04

All the sleeping spaces of the four domestic environments are segregated and deep with little movement choices. The main bedroom of the NBIC house type is deeper than the other two bedrooms but with the changes to the house all the bedrooms in the Wanaheda house obtained similar properties, becoming less segregated. Bedrooms were the only spaces in the house that were mainly the domain of the household members. The spaces were not used with the same intensity. The daughter's bedroom was the most used, while the lodger's room was seldom occupied. The bedrooms were also used for private conversation with relatives and close friends while the main bedroom also served as a storage space for valuables.

The two bedrooms in the informal house have similar properties to that of the cooking space; all being very controlled and segregated spaces. The RRA of these were also equal to the main bedroom of the original NBIC design.

The sleeping huts in the homestead complex are also segregated but with a variety of RRA values. The husband's hut is the least segregated of all the sleeping places in the four spatial complexes. This emphasises the husband's focus of authority that is not within the female zone and his sleeping hut, but is reflected in the meeting chamber. The daughters', wife's and guests' huts are more segregated than the husband's, followed by the boy's hut. The boy's hut, close to the entrance, serves as a symbol to the outside world that there are boys in the family (Mills, 1986:112). This symbol is 'displayed' within the public zone.

The most segregated space of all the complexes is the original honeymoon hut, which is also used by the wife's and husband's parents, as well as the wife's brothers. This reflects symbolically the respect that is given to the elders which "*have physical or spatial manifestations*" (Mills, 1986:159). A further special meaning is given to this hut as the ceremonial "honeymoon" hut, where the new wife stayed for a period before becoming economically active. This hut is still of symbolic importance today. Members of the household will leave their luggage in front of the hut before they leave on a journey to ensure a safe journey[6]. The

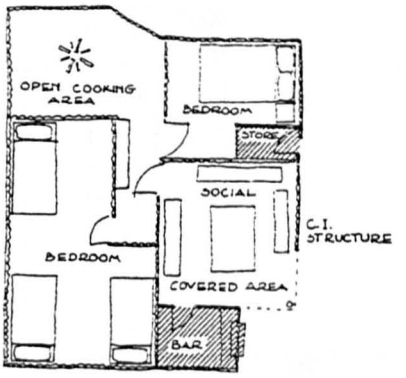
[6] Own observation during a visit to a homestead in the Ombalantu region (June 1992).

segregated spaces are characterised by containing sacred and special objects as well as reflecting a special status of the occupants in the household.

8.1.5 Storage and Shop

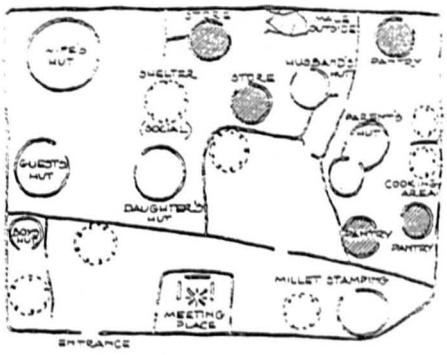
Figure 8.6 Storage Space and Shop

INFORMAL HOUSE



	RA	RRA	RR
STORAGE	0.53	1.69	0.13
SHOP	0.43	1.35	0.13

HOMESTEAD



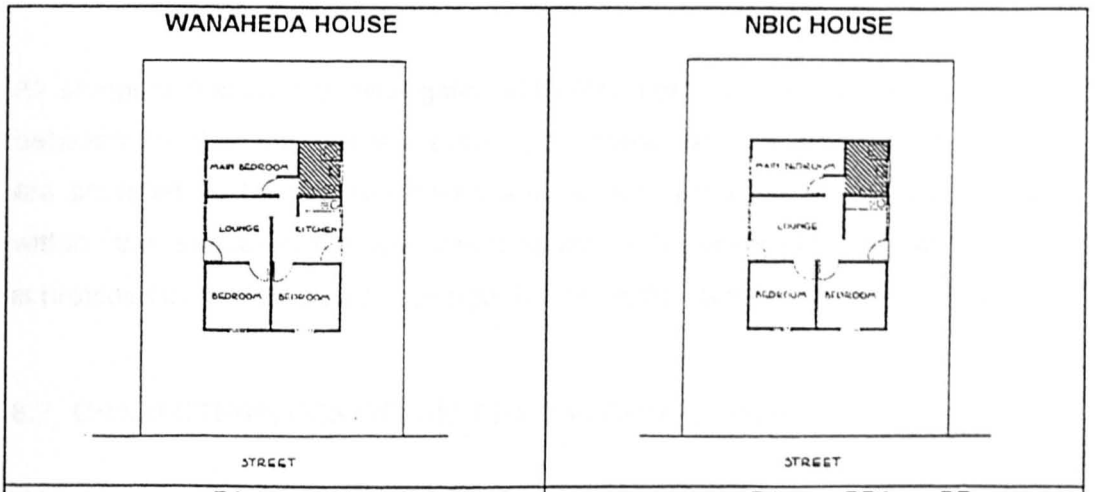
	RA	RRA	RR
STORAGE HUT	0.26	1.27	0.04
PANTRY 1	0.28	1.31	0.04
PANTRY 2	0.34	1.66	0.04
PANTRY 3	0.34	1.66	0.04

Storage in the Wanaheda house took place within the already provided kitchen and bedrooms. In the homestead and informal house special storage spaces were provided. Storage huts in the homestead are more integrated where they occur nearby the sleeping huts and more segregated where they serve as food storage (pantries).

In the informal house a deep segregated space (not as deep as the store and sleeping/cooking space) are provided within the housing complex for the shop, which contained the drums of tombo beer. The shop in the homestead is outside the boundaries of the homestead complex, forming part of the larger farm area.

8.1.6 Bathrooms and Hygienic Spaces

Figure 8.7 Bathrooms



	RA	RRA	RR
BATHROOM	0.38	1.34	0.09

	RA	RRA	RR
BATHROOM	0.42	1.47	0.09

The bathroom, including the bath and toilet, in the Wanaheda house was used only for the designed purpose, and no articles were stored in it. It is a deep segregated space, while the one in the NBIC house type is even deeper and more segregated. Both the informal house and the homestead contained no special washing spaces and the bush and fields are used in both instances for toilet purposes.

8.1.7 Summary

This section described the spatial characteristics of the four domestic environments and it was found that the formal urban houses are more integrated with less control over access to spaces. Differences also exist between specific spaces. Where the NBIC house, the Wanaheda house and the informal house have lounges that are more integrated, there was a marked differentiation between the meeting places of the homestead. A segregated meeting place for the general public and a more integrated one for the husband and his friends are provided.

The characteristics of the kitchen and cooking spaces are also different between the owner-designed and NBIC houses. The cooking places of the informal

house and homestead are segregated and are provided within private zones, while this in not the case with the NBIC houses. The kitchen in both the NBIC house design and the Wanaheda house is more integrated into the spatial complex.

All sleeping places are segregated with little control, but more differentiation between the sleeping huts is present in the homestead. Special storage spaces are provided in the informal house and homestead while this function occurs within other spaces in the Wanaheda house. A separate bathroom with a toilet is provided in the NBIC house design, but not in the owner-designed houses[7].

8.2 CHARACTERISTICS OF THE SPATIAL COMPLEXES

One feature that is prominent in the domestic environments occupied and created by the people is the combination of a social domestic role as well as an economic role of the spatial complexes. This part will discuss aspects of these roles. The economic role of the domestic environments refers to how the spatial complex accommodates income generating practices, while the domestic role refers to the household structure as well as social interaction with other social categories. Including both these roles within the house has spatial implications that are discussed. These implications are discussed in comparison with the formal design and planning practices, which are reflected by the NBIC house type.

8.2.1 The Economic Role of the Domestic Environments

A prominent feature of the Wanaheda house and informal house was the income generating activities that took place in the domestic environment. The women were mainly involved in these activities. The productive and income-generating roles have spatial implications, namely that the integrated lounge, kitchen and outside spaces, have not only the expected domestic role, but also an additional economic function. These integrated spaces accommodated various income generating activities, which did not only involve members of the

[7] Although the absence of toilets is common in informal settlements and the northern homesteads, it was observed that toilets and washing places are also to be found. Tvedten (1994:64) found toilets in 18% of the houses in his study on four Oshakati settlements.

household, but also customers. In the informal house the small segregated kiosk shop formed part of the domestic environment and an integrated meeting place provided space for serving customers and socialising.

The economic activities in the homestead include those productive roles of a subsistence economy where products are only for the use of the family and family friends, and not for selling. These activities in the homestead are also female dominated. Outside the homestead enclosure the cuca-shop functions within a cash-economy. In the homestead women combine the production of flour from millet with social interaction in the public zone. Similarly the activities observed in the lounge and outside spaces illustrated a combination of production and social activities within these spaces.

The NBIC house, in a residential suburb, was not designed to include income-generating activities, but was intended for residential purposes only. The use of the house is also limited to residential according to the zoning of the area. The town planning scheme follows the principle of separating work from homes, and does not recognise production and selling as activities that take place from a house.

8.2.2 The Social Domestic Role

- **The household structures**

The relations between the inhabitants for the three spatial complexes reflect different patterns to that for which the NBIC house was designed, namely the housing of a nuclear family in the context of a modern suburban home. The difference in syntactical characteristics identified when comparing the different spatial complexes as a whole also indicate the possibility of different social structures and relations between social categories.

The Wanaheda household, as discussed in the previous chapter, does not reflect any of the common household patterns. The female head, as owner, is in control while the male still holds an important position. This control over the domestic environment is similar to that of the homestead, where the women are in control of their own areas. In a polygamous household the different wives will each have their own enclosed area, which they control and maintain

independently (Hishongwa,1991:40; Mills, 1984:116). The urban household could be explained by the possibility that this is reflecting a polygamous trend[8]. The traditional characteristic of the wife in a polygamous household controlling her own hut and the area surrounding it, is still evident in the urban setting, without any marriage ties. The female zone of the domestic environment is not territorially bound to the homestead enclosure, but extends into the urban setting, complete with sleeping places, a cooking place and a space for the man to socialise with his friends.

Polygamy decreased since the introduction of Christianity[9], and the households in the northern homestead consist predominantly out of a husband, wife and their own as well as relative's children. With the contract labour system the husband used to be absent for long periods from the home. This pattern continues, since a dependency on cash income developed and the agricultural products remained for own consumption. This family structure cannot be described as a closed domesticated nuclear family. The presence of relative's children and the absence of the father resulted in a situation where members of the nuclear family are not spatially contained in one domestic environment. The informal house also does not house one nuclear family, but includes other relatives.

The illustrated man-woman-children (nuclear) relations in the Wanaheda house (figure 7.5), showed how these are distributed between the urban and rural areas. This distribution plus the potential for repeating old structures in new forms - the extension of the woman's independent household to the urban area - which was proposed above, suggests a more integrated link between rural and urban. Certain general features of the urbanisation process as experienced by the northern people must be considered when discussing this issue, since the family groupings of the various households cannot be viewed in spatial isolation.

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[8] This explanation of the continuing polygamous tradition is also given by Otto (1981: 127) and is discussed in Muller (1988:137).

[9] There are still polygamous families in the north. This observation was made during the visit to the Ombulantu region. In this case a headman of the district had had more than one wife, each one with their own enclosure as described.

The northern homesteads remain the core house of the family for the people from the north. It is seen as 'home'[10], while the house in the urban areas is needed to allow participation in the cash economy. Women from the north were not previously formally accommodated in the urban labour market[11] and no living quarters were provided for contract labourer's wives and families. Since 1978 they also began to move increasingly to towns, for work, to join their husbands and as cohabiting partners. Depending on houses and space available, parts of families are grouped together, such as in the case of the informal house where more than one couple lived within limited spaces. The other aspect that influences social relations in urban areas is the breaking down of traditional strictures on extra marital relations and the obtaining of a partner, and often children too, in the urban area.

Although it appears as if two types of social systems are operating - one in the homestead and one in the urban area, the patterns explained above have elements of a social system spread over rural and urban areas[12]. By maintaining links with the rural area or 'home' the rural homesteads still function as the premises for reproducing social relationships and subsistence economic practices within families. In the urban areas new economic practices are included in the domestic environments, resulting in the presence of social categories not closely related to the inhabitants. This rural-urban system might not be maintained or reproduce like those in the traditional homesteads, but forms part of an ongoing change. It was common practice until 1970s and early 1980s that a new homestead would be established in the rural areas when a couple marries - following the neo-local[13] pattern, but now the opportunities for establishing a household in the urban area are increasing for those who can obtain secure employment and can afford a house loan. A prestige value is still attached to the ownership of a homestead[14]. Informal settlements are also

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[10] People from the north still say that they are going home when they visit their northern homesteads.

[11] With the contract labour system under the South African government men from the north were housed in single quarters and hostels. They were not allowed to bring their wives and children into towns. The women in towns were limited to those families that qualified to live in urban areas, and were mainly from the central parts of Namibia.

[12] This is elsewhere described as an extended household, comprising both the rural and urban household unit (Tvedten, 1994:5).

[13] "*neo-local*: married couples set up house on their own." (Popenoe, 1974:245).

[14] The information was obtained from discussions on the patterns followed by families, with people from the north working in Windhoek

increasing in the towns, where people cannot get access to the formal housing market or accommodation in the existing housing.

8.2.3 Spatial Implications: Inhabitants, Activities, and Space

- **Bedrooms, segregation and privacy**

The private areas that are only for the household, relatives and close friends are limited in the Wanaheda house to the segregated and controlled bedrooms. The bedrooms were not exclusively the domain of their occupants, but relatives and close friends also entered. In the homestead the private areas of the household are formed by a large part of the homestead area and include enclosures with cooking places, a meeting place and the sleeping huts. The informal house also has a private area that includes bedrooms and a cooking place.

The homestead's sleeping huts and NBIC house type's bedrooms have different syntactical characteristics reflecting different social categories and levels of symbolic importance in the household. On the other hand there is no syntactical differentiation between the bedrooms of the informal and Wanaheda houses. In the case of the homestead the most segregated space (the parent's or honeymoon hut) reflects the importance of the elderly in the society and have symbolic meanings, while the characteristics of the main bedroom in the NBIC house type is for the domain of the parents as the centre of authority in the nuclear family. In the Wanaheda house the owner's bedroom reflects a level of importance as storage space for valuables, being well decorated, and containing religious symbols. This is not reflected in the syntactical descriptions of this space. The control and segregation values are the same as those of the other bedrooms.

Specific spaces according to age and gender were not clearly distinguishable in the Wanaheda house, especially since visitors frequented the house. There was however a tendency for the older household members, both men, the owner and the eldest daughter to spend most of the time that they were in the house in the lounge. The second daughter and the 16 year old spent more time in the kitchen serving the visitors, running errands, preparing food and cleaning the

dishes. These were the exclusive tasks of the females, and the kitchen was not often visited by the men of the household.

A female zone is identified in the homestead, where production and domestic related activities occur. This area is not exclusively female - orientated. Members of the family, as well as close friends and relatives, were using the spaces within this zone - mainly for socialising and eating.

- **The public zones of the domestic environments**

The public zone of the Wanaheda house includes the integrated lounge, kitchen and outside space facing the kitchen. These spaces were not only frequented by family members, but included also different categories of visitors. This integration of the social categories is reflected by the syntactical characteristics of integrated values. Activities include those related to social, economic, and domestic functions. In the case of the informal house the public zone is formed by the meeting place, entrance court and shop, while the entrance space, the main meeting place and the millet stamping place form part of the public zone of the homestead.

Social categories with socio-spatial configurations in the occupied urban houses are different from the rural homestead. The Wanaheda house and informal house include spaces for social interactions based on economic relations with outsiders. These spaces are more integrated than the spaces in the public zone of the homestead, which have more segregated properties. The segregated meeting place in the public zone caters for the more public category of visitors, while customers of the cuca shop do not have to enter the homestead at all. The space also traditionally contains spiritual and status symbols such as the sacred fire and the cattle horns. The characteristic of more segregated spaces containing sacred objects is also proposed by Steadman (1983). The houses designed by the NBIC facilitate the accommodation of a household as a nuclear family, where only limited social categories outside the nuclear family are spatially provided for. The lounge is the space where interaction with these categories takes place and less segregation or control are necessary for spaces.

The segregated and controlled homestead, and in a lesser degree the informal house, contain segregated spaces that are controlled according to social

categories and symbolic meanings. This confirmed the postulates offered by Hillier (1984:97) where it is suggested that the more asymmetric a spatial description "*the more there will be a tendency to the segregation of social categories*".

8.2.4 Space Articulation: Activities and Social Categories

Space articulation refers to the phenomenon of having spaces exclusively for specific functions or activities or specific social categories.

Provision is made in the NBIC design for the main domestic functions associated with modern domestic life. The kitchen is created specifically to serve as a food preparation area with limited storage possibilities. The lounge is the general living space of the household. The activity analysis in the Wanaheda house indicates that all the functions and social interactions in the outside spaces, the lounge and kitchen were not strongly spatially differentiated. Activities in these spaces included sewing, leisure activities, eating and drinking and socialising. Cooking occurred both outside and in the kitchen. Socialising involved the household, customers as well as relatives and family friends. The three main used spaces were therefore accommodating multi-activities as well as a variety of social categories.

In comparison with the Wanaheda house, more space articulation occurred in the informal house, where a separate store and shop formed part of the domestic environment[15]. Spaces in the homestead were even more articulated, both according to social categories and activities. The articulation of spaces relates to the specific economic and social role of the different social categories (females: wife and girls; males: boys and husband; visitors: husband's friends, community, customers). Spaces for specific functions, for example a millet stamping area and various storage huts are provided.

This spatial articulation also coincides with the syntactical characteristics. Where more articulation occurs, the spatial complex is more segregated and

[15] This separate shop is common in the more established informal settlements in the north, where the shop and public meeting place face the street (public area) and a separate entrance leads to the household area.

controlled, as in the case of the homestead where the segregated and controlled domestic environment coincide with articulated zones.

8.2.5 Similarities and Differences between Complexes: Private and Public Zones

Not only is there a difference between the syntactical characteristics of the spatial complexes but different socio-economic characteristics can be distinguished. These include how the public and private zone[16] of the house operates and the inclusion of the economic or shop activity within the domestic environment.

The consequences of these two characteristics on household activities in private zones, as well as socio-economic activities involving other social categories in public zones are discussed.

- **Household activities in private and public zones**

A similarity between the spatial complexes is illustrated in that all the spaces that are the domain of specific genders and individuals, such as bedrooms and huts. are very segregated and deep. There is however a difference between the level of segregation and control that coincide with social categories and symbolic meanings. The homestead and NBIC house type illustrate differentiations between the sleeping spaces, but not the Wanaheda house and informal house.

Table 8.1 illustrates where the household activities occur in the different domestic environments and the zones of the spaces are identified. A major difference exists between the spaces of the spatial complexes concerning activities involving members of the household and the category of visitors that include their relatives and friends.

In the homestead provision is made for these activities in the private zones. In the case of the self-designed informal house the private zone includes a segregated cooking space. The Wanaheda house does not contain a private

[16] The terms 'public' and 'private' are only used to explain zones according to usage by different social groups (private: household members, friends and relatives only; public: include members of the public).

zone for household oriented activities, except for the bedrooms hence these activities take place in spaces which also form part of the integrated public zone.

Table 8.1 Household Activities in Private and Public Zones

SPATIAL COMPLEX	ACTIVITY	SPACES	ZONE
HOMESTEAD	prepare and store food,	cooking places, segregated	PRIVATE
	socialise with friends, inhabitants and relatives	meeting place, more integrated and less controlled, also cooking places	PRIVATE
	sleeping	sleeping huts that are segregated and controlled spaces according to gender, age	PRIVATE
INFORMAL HOUSE	prepare food	segregated cooking place	PRIVATE
	socialise with friends, relatives and inhabitants	cooking place	PRIVATE
	sleeping	segregated bedrooms	PRIVATE
WANAHEDA HOUSE	prepare food	kitchen, outside space	PUBLIC
	socialise with friends, relatives and inhabitants	lounge, kitchen and outside space	PUBLIC
		sometimes bedrooms	PRIVATE
	sleeping	bedrooms	PRIVATE

Not all the spaces in the private zone of the homestead have characteristics of segregation and control. Some of the spaces in the homestead are more integrated and shallow, namely the outside male area and one cooking area, which indicate a further socio-economic hierarchy of spaces.

- **Social and Economic Activities in the Public Zone**

Economic activities are also opportunities for socialising, as illustrated in the traditional as well as the urban domestic environments. These activities involve a category of visitors who were not relatives, close family friends or special guests. This category of visitors could also be in the house for other reasons, like special meetings in the homestead. Spaces where interactions occur with customers or other visitor categories (more formal visitors) are illustrated in Table 8.2.

Table 8.2 Spaces: Social Interaction between Customers and Special Visitors

SPATIAL COMPLEX	SPACE	DESCRIPTION
HOMESTEAD	Cuca Shop:	-outside the homestead boundaries, and immediate domestic environment
	Meeting Place	- a segregated, deep space, within the public zone, also reflecting a symbolic meaning
	Millet Stamping	- in the public zones also segregated, but less than meeting chamber
INFORMAL HOUSE	Shop	- part of domestic environment, but is segregated and deep
	Meeting Place	- a shallow and integrated space as part of the public zone
WANAHEDA HOUSE	Shop Activity	- from kitchen which is very integrated and shallow
	Meeting Places	- include kitchen, lounge and outside-kitchen areas: all integrated and shallow, with outside-kitchen most and kitchen and lounge similar

These social and economic activities that involve customers or visitor categories other than friends and relatives are facilitated in the urban informal house by means of the shop and the meeting space. The cooking place is part of the private zone, thereby maintaining a household orientated space for socio-economic activities.

In the Wanaheda house the social and economic activities are included in all the frequently used spaces, namely: lounge, kitchen and outside-kitchen space. All these are integrated spaces with little control; illustrate no extreme difference in syntactical characteristics; and form part of the public zone. A lack of differentiation between social categories is enabled by the spatial configuration of these three main use spaces.

In the homestead social interactions between the household members and this specific category of visitors takes place in the public zone of the homestead and farm. As far as the rest of the homestead is concerned, these spaces are actually more segregated. The shop is not included in the homestead enclosure, but forms part of the farm, while the meeting place is as segregated as the street in the urban environments.

Where both the homestead and informal house have spatial 'opportunities', which are also reflected in the syntactical characteristics, for both activities and social interactions closely related to the household members, the Wanaheda

house lacks this opportunity. The economic activities are included in the integrated part of the house, and the household has only bedrooms left for private spaces. Since the NBIC house type was not designed for economic purposes at all, this was not considered. On the other hand, treating the front and back entrances the same by having both from the sides, also led to a confusing status of 'front' which is usually more public and 'back', which is more private. This very conventional design principle was not followed with the NBIC house type.

8.3 SUMMARY

The main socio-spatial characteristics as discussed are summarised referring to the household structures, syntactical descriptions and social interactions.

One of the major differences between the household structures is that the NBIC house type is designed as a suburban home for a nuclear family, while the other domestic environments do not accommodate a specific identifiable household structure in one spatial complex. The rural-urban links in these households are still strong and the household compositions are not 'closed' and permanent. It is foreseen that these patterns will be changing.

A major syntactical difference between the rural and urban domestic environments, is the difference in depth (RRA), referring to integration and segregation. Compared with the urban spatial complexes, the rural homestead is very segregated. A large number of spaces are articulated in the homestead, with social and economic implications. Spaces are provided within clear private and public zones and clear spatial differentiation is made between space for close relatives or friends and other visitors. The 'other' visitors are received in the segregated meeting place in the public zone that has syntactical properties equal to the outside of the other spatial complexes.

In comparison with these articulated spaces of the homestead, the more integrated Wanaheda house illustrated that the most-used and also integrated spaces are used multi-functionally. These multi-functions include social interactions between the inhabitants and different categories of visitors, as well

as different categories of activities or roles in one space. An example of this phenomenon is in the kitchen where storage; shopping activity; socialising including household members and friends, as well as customers; food-preparation; and eating all occur in the same space. Where the homestead has a meeting place for certain visitors that is very segregated from the rest of the house, visitors are received in the integrated spaces of the Wanaheda house.

In the informal house, spaces tend to be more articulated with a separate shop and store and a segregated cooking space in a private zone. The mean RRA of this spatial complex is higher than that of the Wanaheda house, therefore it is more segregated, but not as much as the homestead. Visitors are received in the integrated meeting place that is also more integrated in the public zone. The public space is more integrated than that of the homestead and closer in characteristics to the public zones of the Wanaheda house. The tendency in the urban houses is more that of an "embracing of public" in the domestic environment, while the homestead it is more a segregation from the household oriented areas. In the informal house this is actually enhanced by the sharing of the entrance space with other households.

The NBIC house was designed with more mono-functional activities as a basis, for example the small kitchen. The house was not intended for any income-generating activities. As a typical suburban house, customers were not provided for, and the household is seen as a nuclear family. Not catering for different categories of visitors, spaces are integrated. Although front-back as public-private spatial relations are usually recognised in suburban houses, this has not been applied in this design.

8.4 CONCLUSION

Aspects in the housing process influencing design considerations as reflected in the NBIC house design and the urban environment of the Wanaheda house, are highlighted in Table 5.3: "Questions concerning the Physical Environment" in Chapter Five and include:

- Control over development of land through the town planning scheme where this scheme orders social and economic practices spatially in the urban environment

- Planning of the physical environment as based on socio-economic needs, where the domestic environment caters for nuclear families and their social needs.

- Control over the more immediate physical environment through regulations based on standards set by the South African Buro of Standards and, guided by the zoning of town planning scheme.

The control over land development and usage regulates what social and economic activities will be permitted on individual plots. This control developed according to western cultural practices, which is reflected in the urban developments. One of the corner stones of modern urban development is the planning of suburbs (or townships as they are referred to in Namibia). The development of suburbs is associated with the segregation of workplace from the domestic environments and the formation of a close domesticated nuclear family (Fishman, 1987). These practices have become so ingrained in city development and town planning that they are seldom questioned.

The findings of this in-depth study comparing the four domestic environments found issues of lack of applying shared knowledge on both development control and socio-economic aspects. The study results concerning these aspects are discussed with reference to the social role of the domestic environment, spatial characteristics and the economic role of the house. A summary of these is given in Table 8.3.

Table 8.3 Planning Practices and Findings

	FORMAL PRACTICES	AS USED BY PEOPLE
TOWN PLANNING SCHEME	Segregate work place from home in planning according to zones. Houses purely for domestic purposes	Domestic environments of urban areas serve as place for both household productive activities and also economic productive activities
SOCIAL ROLE	The domestic environment is designed for a close domesticated nuclear household	The inhabitants are not a spatially contained nuclear family, but an extension of the rural household
HOUSE PLAN	The plan is the result of above-mentioned factors and does not cater for an economic role. It allows for little spatial control and segregation	The house became open to customers and spatially lack the segregation and control needed for ensuring private spaces for the household
	A functional design for specific activities	Multi- activities occur in spaces, for example the kitchen became a social space, is used for storage and for leisure; bedrooms also became spaces for private conversations with non household members. These multi activities need more space
	The house is designed isolated from the street, with no direct relation with the street	Social contact with people in the street is frequently established and the design does not recognise this

8.4.1 The Town Planning Scheme and the Economic Role of the House

The principle of the house mainly as a domain of the (nuclear) family on which the municipal town planning scheme is based, is not exercised by the households in this study, as well as numerous other households in Namibian settlements. The inclusion of economic activities within the domestic environment is a widespread practice[17]. This practice is not allowed for in the formal urban environment on the macro (town planning schemes) and micro (immediate domestic environment) - levels.

8.4.2 The Social Role of the Domestic Environment

The household structures of the spatial complexes vary but they cannot be described as a nuclear family for which the houses and suburbs are planned.

[17] In Tvedten (1994:36) study of the four settlements in Oshakati it was found that 60% of the urban dwellings use space for economic activities.

The household patterns that are evident from this study and the historical perspective on the urban development of the people from the north illustrate a more complicated pattern and link between urban and rural spaces. Planning based on the assumption of domestic environments for the modern nuclear family, establishing themselves in a closed, purely domestic environment, appears contradictory to the household structures or the urban socio-economic activities of people from the north.

8.4.3 The House Plan and Spatial Characteristics

Some practical planning limitations restricting the economic role in the NBIC house became evident. The study illustrated in the Wanaheda house that an economic role is included in the domestic environment. This means that customers, a social category not designed for in the NBIC house, enters the domestic premises. The lack of control and segregation in the NBIC illustrates a house that is intended for a 'close' family where spatial control is not provided.

This economic role of the house has the following planning implications:
- the relationship of the house to the public space, or street in the case of the Wanaheda house, is important,
- the possibility of extending the house to include a shop activity relating directly to the public area (street)[18],
- the need for a social space within the private area of the house for the inhabitants and a social category closely related to them, for example as created by the cooking place of the informal house .

This relationship of the house to the street with a shop directly on the street is constrained by zoning as well as building line regulations. The zoning prohibits the activity and the building lines of 3-5 meters limits a more direct relation to the public domain (street) as for example in the informal house, where the shop and meeting place relate directly to a public place.

The placing of the front door to the side also does not recognise the link household members have with people in the street. This link, established by watching and talking to people in the street, was also identified among other

[18]. This implication is drawn from the way of life of the inhabitants of the studied NBIC house - as well as many other households, and address a contentious issue in urban planning in Namibia. It will not be possible within the scope of this thesis to address the pros and cons of certain commercial activities conducted from domestic environments.

NBIC house owners[19]. The position of the door also makes it difficult to establish a private zone in the domestic environment.

The mean syntactical descriptions of the total environments indicate more segregation in the user designed domestic environments. This segregation is even more prominent in the rural homestead and coincides with the presence of space articulation (defined spaces identified only for specific functions and meanings). In the homestead this space articulation is related to both social and economic activities.

An integration of different categories of social interactions, activities and functions occurs in spaces in the Wanaheda house, thus becoming multi-functional and containing multi-activities. These multi-activity spaces have specific design implications in that spaces need to be big enough to facilitate this role. A small space such as the NBIC house's kitchen can only be used for the activity of food preparation, and it barely accommodates the function of basic food and utensil storage. The multi-functional role of this space is size related[20]. Although this enlargement of the kitchen did not occur among other NBIC house owners, the majority (84.8%) preferred a larger kitchen (Muller, 1990).

The formal housing process as reflected by the NBIC house type has been refined and guided by the socio-economic development of modern western culture. The knowledge of these cultural practices and economic benefits gained from controlling developments do not only influence the design of the domestic environment, but also the principles on which the town planning schemes are based. It is in the town planning scheme that economic and social practices are already segregated. This economic role of the domestic environment as a space for income generation will be discussed further in the following concluding chapter.

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[19]. The same population questioned on knowledge concerning their loans was questioned on the activity of watching and talking to people in the street and 60% indicated that they are involved in this on a regular basis (Muller, 1990).

[20]. Later NBIC designs changed to allow for a larger kitchen.

- **Concluding Remarks**

Four domestic environments in Namibia were described and analysed in Chapters Seven and Eight to determine their socio-spatial characteristics. The houses studied include a common house type[21] designed by the formal agency in an urban area planned according to western concepts of town planning. These planning practices did not recognise the economic activities and household characteristics of the household they were intended for, but reflect the values and socio-economic practises of a modern western culture.

[21] The main characteristics of the studied three bedroom house are shared by the two bedroom house type, thereby these conclusions could be attributed to the majority of the NBIC houses built between 1986 and independence.

CHAPTER 9
CONCLUSION

CHAPTER 9: CONCLUSION

The research problem for this thesis was identified as a lack of shared knowledge between households and the implementers of the formal housing process. The last three chapters identified the presence, as well as the scope, of a lack of shared knowledge on both aspects of the commercialisation of the housing process and the socio-economic requirement of the domestic environment.

The main discussion points leading to this conclusion will be summarised in this concluding chapter, followed by a further discussion on the findings of the thesis. The summary includes the theoretical background on the role of the household in the housing process in developing countries; low-income housing in Namibia; the development of the research problem as a lack of shared knowledge and the research process designed to test the hypotheses.

The evidence supporting the hypotheses are briefly discussed and in the case of the domestic environment references are made to experiences of other cultures. Possible limitations to the interpretation of the data are placed in context to other available data. Considerations for the future are discussed with reference to how the housing process is to become appropriate to facilitate a sharing of knowledge. This discussion takes into account housing developments after independence on both governmental and non-governmental levels.

9.1 SUMMARY: THE BACKGROUND AND ARGUMENT

In discussing the debates and the literature on the role of the household in the housing process it was found that academics, professionals and international agencies are involved in an ongoing debate and discussions about aspects of households' involvement in the housing process. State self-help housing projects were implemented as the first move away from a centralised provision of housing, where governments or their agents constructed houses. This self-help approach concentrated on the role of the people in building their own houses, i.e. in producing a house, and not on other aspects of participation in the process (for example in the decision making). During the 1980s the experiences in developing countries, and specifically in Sri Lanka's Million Houses Programme led to a renewed emphasis on

the implication of people's role in providing their own houses. Based on these experiences a support paradigm (Hamdi, 1992) is defined, which indicates a governmental approach of enabling households to improve their housing conditions. This approach became accepted and propagated by the UNCHS (1991:4).

Another aspect of housing, frequently addressed in connection with informal settlements, is the commodification or commercialisation of housing where housing becomes part of the free market system and the 'capitalists mode of production'. The formal housing process in Namibia, that was the process under discussion in this thesis, is based on this system.

In Namibia the urbanisation process and the housing processes within the formal urban areas were a result of colonisation, and therefore the product of foreign regimes. As background to housing in Namibia it was emphasised that the indigenous people had no role to play in the development of these processes - they were actually legally excluded from the system. During the decade before independence, houses as commodities based on the concept of home-ownership were provided by the para-statal NBIC.

After independence a new housing policy was formulated that recognised the role of individual households and groups in the housing process. The commercialisation of housing is to be continued and home-ownership is promoted through the National Housing Policy. Although promoting an increased role for households, the conventional production of houses by the NBIC is foreseen to continue. Provision is therefore made for a continuation of a centralised process parallel with a participatory approach, with the government in an enabling role.

As the research problem of this thesis, it was argued that there is a lack of shared knowledge between households and formal agencies. This issue will be one of the constraining factors for solving housing problems in an independent Namibia in the light of the existing commercial housing process. Even though the National Housing Policy concentrates on the participation of people and the housing strategy follows a support paradigm, the commercial housing process is developed for and maintained by high-income people. Cultural distances and the development of the formal housing process as part of colonial settlements contributed to this absence of

shared knowledge in the housing process. Knowledge was described as enabling action to take place in obtaining shelter. In the modern industrial cultures empirical (built on rationalisation) knowledge of literate cultures is used to produce houses, while the indigenous people of Namibia use a practical knowledge, acquired through their own experiences and traditions.

The absence of shared knowledge in the housing process was identified as the key thesis issue and was illustrated in 1) financial and other aspects of the commercialisation of housing and 2) the creation of the domestic environment. Two hypotheses were formulated to test the lack of shared knowledge on these. This issue was argued as an important consideration when participatory strategies were to be implemented.

9.2 COMMERCIALISATION OF HOUSING

The research included an investigation on house prices, interest rates, insurance money and land as a commodity. All these aspects are part of the steps enabling home-ownership and the commercialisation of housing. A lack of shared knowledge between the implementers (in the housing process) and the buyers has been identified.

This issue is relevant because of the emphasis on home ownership in the housing policy and strategies of Namibia. Home ownership in urban developments includes many aspects with numerous financial implications. Except for knowing that the house is paid for, little awareness was illustrated about other aspects when people were asked about what was included in their payments.

The one issue that was emphasised was the concept of credit in a cultural context. Home ownership is closely associated with long term credit schemes, often working within the financial interest rate policies of the country. It was found that even house owners were not aware of the consequences of long term financial commitments. Knowledge concerning their interest rates was lacking among a large portion of the respondents, while the general public questioned the high figure they

will eventually have to pay back. One can argue that this is not important whether people know and accept the credit system and paying of interest, as long as people pay and housing provision can be sustained. But, to give people with limited financial resources, the responsibility of providing their own housing without an awareness of what the credit systems entail, will only be problematic in the long term. The political and emotional nature of housing can also complicate issues, as was illustrated by the payment boycotts[1] in Namibia around independence.

Home ownership is also tied with land ownership, and the apparent lack of awareness of this issue has been discussed in the context of the general problems connected with land. Urban land is no longer merely an issue of a right to stay and use the land. It has become a product that has been improved with services that need maintenance. Again long term financial commitments are involved. The fact that it is a product gives it a value on the market and enables speculation. Social investments in the provision of land is therefore avoided by local authorities.

The financial constraints for large portions of the population to obtain shelter are a recognised problem in developing countries. The cost involved in all the motions to obtain land and houses in the existing planning and legal system is also contributing to this. It was concluded in this study that knowledge is important since it enables action in obtaining shelter. Apart from financial constraints being experienced by a large portion of Namibians to obtain shelter in urban areas, their actions may further be hampered by not sharing knowledge on the formal housing process. For example, decisions concerning alternative affordable options cannot be taken by people themselves, because of the 'mystified' housing process controlled by formal agencies.

9.3 THE DOMESTIC ENVIRONMENT

A qualitative investigation was carried out to compare the characteristics of four domestic environments, created with and without the involvement of the inhabitants. The study included the most common house design of the formal housing agency

[1] Before independence a group of NBIC clients, which was resettled during 1987 from hostels in Katutura, refused to pay any house loans and municipal accounts, because they felt that their one room houses were of a bad quality. This 'refusal to pay' action became country wide.

NBIC, an occupied house transformed by the household and two houses built by the households, to illustrate the different approaches between planners and those using the environment concerning socio- economic concepts related to the domestic environment.

It was possible to identify the different knowledge bases of domestic environmental needs influencing the designs and layouts. Specific issues such as the composition of the household, the multi-activities occurring in spaces, the economic role of the house and the spatial needs to cater for this role, are not reflected in the planning of the domestic environment and formal urban areas in Namibia.

Town planning in Namibia provides for the development of suburbs as the urban space of "*a residential community beyond the core of a large city*" (Fishman, 1987:5). The invention of "*suburbia was indeed a cultural creation, a conscious choice based on the economic structure and cultural values of the Anglo-American bourgeoisie*" (1987:8-9). A description by Lewis Mumford and Robert Fishman of the development of the suburbs illustrates a striking difference to the description of the domestic environments presented in this study.

The suburb is described as a retreat from the city with advantages for health and family life. It is seen as a utopia where the individuals could withdraw themselves and they could "*overcome the chronic defects of civilization while still commanding at will the privileges and benefits of urban society*" (Mumford, 1961:552-553). The suburb, as a cornerstone of modern city planning, is catering for a nuclear family centring their lives in designated parts of the city on the family, home and children. Nuclear families with children (Savage, 1993:76) are the typical new residents and house designs must make provision for domestic activities that involve the family. The emergence of the "*closed domesticated nuclear family*" in the context of the rise of the suburb development is described by Fishman (1987, 33-38) as part of the Evangelical ideology during the eighteenth century. This development is also associated with segregating the home from work and the forming of closer ties among the "*nucleus of father, mother and children*"[2]. The domestic environments associated with the nuclear family are also family oriented and only selected friends

[2] Fishman (1987) relies on the descriptions of Lawrence Stone in his book: Family, Sex and Marriage in England, 1500-1800, to explain the changes in bourgeois families in connection with the suburbia movements in London. London is described as the birthplace of suburbia.

and family members have entry to these isolated domestic environments. The planning makes provision furthermore for detached houses as the ideal house type. Three and five meter building lines restrict the building of houses up to the boundaries of the plots.

The planning of a suburb for family living forms part of the activity segregated[3] as well as class or social segregated cities[4], but are also based on the social and economic practices of the dominant group. Households are mainly made up of parents and children and individualistic characteristics within the household are promoted. Further references to individualistic characteristics are illustrated in the box below.

Although household patterns in these suburbs have changed in western cities, the assumption of a male household head and owner of the house is still prevailing. This is often also attributed to households in the developing world (Momsen, 1991:42). In Namibia this is even reflected in the legal system where a woman married without a pre-marital contract cannot own a house without her husband's consent and signatures[5].

INDIVIDUALISM AND THE SUBURB

Duncan (1981) compared characteristics of individualism with that of collectivism. Collectivism is identified with the "*ideology of the incorporated individual*" , where individuals are subordinated to the interest of the group, kinship social organisation and a shared stable value system. Individualism on the other hand is associated with "*ideology of the free and unique individual*" , value systems that change with fashions and the social organisation based on impersonal institutions. The house in the individualistic society is privatised and there is more privacy within the family, even though the public is allowed in, and the house is affirmed through objects, of which the house is one. Looking at it in the context of the development of capitalism and class structures Harvey (1985:122) described that this phenomenon of " ..... *the changing division of labor in capitalist society has created a distinctive group of white collar workers who, largely by virtue of their literacy and their work conditions, are imbued with the ideology of competitive and possessive individualism, all of which appears uniquely appropriate for the production of a mode of consumption which we typically dub "suburban".*" He referred to suburban living as a "*created myth, arising out of possessive individualism, nurtured by the ad-man and forced by the logic of capitalist accumulation.*"

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[3] Harvey (1985: 122) criticises the suburb development as "*a deep irrationality*" that emerges "*in the geography of the capitalist production system*" and gives as an example the spatially separated residential and job opportunities.

[4] Not all modern planning follows this scenario of class segregation. Some principles of class integration are followed for example in Canada, and are also applied in Gaberone in Botswana. The principles of planning and urban development in Namibia are still highly capitalist oriented and suburbs are planned according to potential income of the inhabitants.

[5] These laws are being reviewed.

In comparison to this picture of the domesticated nuclear family of the suburb, the Wanaheda and informal house presents a different scenario. A woman owned the Wanaheda house - which could be described as a female-headed household. She has a cohabiting partner with a household in the north - which could be described as a polygamous trend. Her partner's daughters are living in the house. Without any children of her own, the owner accepts the daughters as her own, while her nephew also lives in the house. This household pattern has not been widely studied or identified before. A further characteristic of economic activities which involves public visitors in the domestic environment, leaves little in common with the domesticated nuclear family described above.

It was postulated that the Wanaheda house could be an urban extension of a traditional rural homestead following a traditional polygamous trend. Women in rural households where polygamy is still practised have their own separated sleeping huts and cooking places[6]. They are in control of their own areas. In the Wanaheda case, the woman is in control of the urban house and is maintaining and keeping it with the assistance of the man, his children and a relative.

In the informal house the presence of so many people in the very limited space, can be seen in the light of the limited accommodation available before independence. The informal settlement nearby Okahandja was one of the few areas in central Namibia where people obtained their own shelter before independence. Men that wanted to bring their wives from the north had very limited options for accommodation in the formal urban areas.

The economic role of the house became also clear with this study. The inhabitants were involved in income generating activities. The presence of members in the Wanaheda household to fulfil economic needs to survive urban life became clear. The lodger contributed financially by renting a room, while the one daughter in the Wanaheda house had a prominent role in the reproductive and productive activities of the household.

Economic activities are combined with domestic activities, resulting in parts of the domestic environment operating in the public sphere. Customers, from the general

[6] A homestead of a headman practising polygamy was visited and observed by the author during 1992.

public are allowed to enter the property to buy goods. Where the people created their own layout as in the informal house, they also created a more household-oriented area, where they can enjoy more privacy. The Wanaheda house, although adapted, lacked this possibility.

The town planning schemes constrain economic activities to erven and areas allocated and zoned as business. Quite a number of regulatory constraints are put on business activities. Although these are not strictly adhered to at present, they do constrain proper planning. Regulations prohibiting the exercise of certain economic activities are also contradictory to the economic needs of the households. This problem with regulations is widespread. For example in Puerto Rico where the raising of animals for food was prohibited in public designed housing projects (Cooper-Marcus, 1977:142).

The link between housing and income generation is also now generating interest on an international level. Not only is the construction of housing seen in the light of creating employment and income in the production sector but also in the context of the opportunities it creates for commercial activities as part of home-based enterprises (UNCHS, 1993; Tipple, 1993). In Chile income is also generated in the domestic environment by building and renting out extra rooms, transforming spaces into workshops or shops (Kellett et al, 1993:6). The inhabitants of the Wanaheda house transformed their house to allow for income generating activities within the house. The relationship between the changes and these activities was only possible to identify after the activities in the house were observed over several days. Storage for the selling of beer and soft drinks was only possible after the kitchen was enlarged.

The spatial implications of the economic activities in a domestic environment were identified. The implication of the category that is referred to as "*own residence with an encroaching business space*" as identified in Hyderabad, India (Seschachalam and Rao, 1987) could be identified in the Wanaheda house, while the informal house kept economic and domestic activities separated, but within one structure.

In the northern homestead, activities within the cash economy are segregated from the homestead. In the Wanaheda case it leads to multi-activities in spaces.

The study enabled an in-depth understanding of the socio- spatial implication of the layouts by using syntax analysis to compare the different environments. The combination of social and economic activities is taking place in the social areas of the house and there is not a specific area for household-oriented social and production activities. This implies a lack of privacy for inhabitants of the house. The way the house is placed on the plot actually restricts the development of public oriented spaces. The possibilities of the household to exert more control over their own spaces are constrained. The homestead, on the other hand, had well controlled spaces and spaces with symbolic importance, such as the original honeymoon hut, that are segregated in relation to other spaces.

The research indicated the differences in knowledge used in planning for domestic environments and how people actually occupied and used this environment. The planning itself did not cater for their socio-economic needs, but concentrated on requirements laid down by the dominant Anglo-American ideology which is elsewhere described as the " ..... *externally-imposed familist ideology ..... to ensure a neat match between domestic architecture and nuclear family*" (Varley, 1993). This difference was indicated in the Wanaheda case, by the absence of a nuclear family structure and the presence of income generating activities in the domestic environment. The house layout did not cater for this activity and ignored the relationship to the street, which could potentially be the zone where the interaction with 'economic visitors' could take place. Little spatial control could be asserted by the inhabitants. The planning regulations also prohibits this economic activity. These discrepancies between planning and needs indicate the lack of shared knowledge applied in the housing process concerning the physical environment.

9.4 APPLICATION OF THE FINDINGS AND CONTRIBUTION

A certain portion of NBIC house buyers illustrated that they did not share the knowledge of aspects related to the commercialisation of housing. As discussed previously the remarks made in public confirm that this is not a limited phenomenon. An important concern related to these findings is that it was not the real low-income population that illustrated the lack of shared knowledge, but mainly people who actually could afford according to their incomes, to buy a house. No governmental housing programmes for the very low-income people, following the formal housing process, were in place at the time when the research was conducted. Considering this lack of shared knowledge among the more affluent people, already buying a house, the scope of this issue will be much larger amongst the lowest income groups and new urban migrants.

Regarding the socio-economic characteristics of the domestic environment, the specific household structure in the Wanaheda house has not been investigated among a wider population, although it has been recognised elsewhere[7]. What is known is that a large proportion of Namibian households are female headed (39.28%[8]). The characteristics of these households and length of period of relationships with the father of the children have not been investigated in depth previously in Namibia. The presence of other family members and lodgers are a common phenomenon, which emphasises the current lack of planning for different family structures than those based on nuclear families.

The economic activities found and discussed in this thesis are common among people from the north. The northern people form the largest proportion of the Namibian population (about 60%). With the recent resettlement of squatters, about 700 households, surrounding the single quarters, a wide scope of business activities were transferred to the new sites. It is of interest to note that during the community meetings with these people, little interest was shown by the people in designated

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[7] Tvedten (1994:22) differentiates between a *de jure* and a *de facto* female household. The *de facto* is described as where *"there is a male partner, but i) the woman has the main social and economic responsibility and ii) the man is present only on a part-time basis."* The second condition describes the female headed household found in the Wanaheda study, but Tvedten does not differentiate his data acccording to these different types of female headed households.

[8] From the 1991 Population and Housing Census (National Planning Commission:1994).

markets, especially if any costs were to be involved[9]. In the northern town of Oshakati the development in the informal areas are characterised with shops combined with accommodation. It has been observed that the shops are often the first to become a solid brick building, forming the first permanent urban developments created by Namibian people without town planners involvement (figure 9.1) while the sleeping place at the back are still a temporary shelter[10].

There is no doubt about the combination of economic and domestic activities in urban areas as a practice of the people from the north (Tvedten 1994:54), but income generating activities among other groups are not so well established.

Figure 9.1 Shops in Oneshila Settlement in Oshakati

The enlargement of the kitchen of the Wanaheda house, contributed to the economic role of the environment, but was not a common phenomenon among the NBIC house owners. On the other hand, a larger kitchen was preferred by almost all the respondents participating in the testing of the first hypothesis.

[9] Meetings held with resettled single quarter's people during August 1992.
[10] These observations were made during visits to Oshakati during 1993. One shop owner mentioned that he still wanted to improve his living spaces at the back of the shop.

- **Contribution**

The implication of applying a formal housing process among a population with the political history of the Namibians, indicated how the process is not based on a shared knowledge between the house buyers and the agencies applying the process. An awareness exists that the formal housing process is not "accepted" by the population, but issues related to the process were not previously investigated in Namibia. Research concentrated mainly on the capacities of people to pay for the products, but not on the implications of applying the formal housing process.

9.5 FUTURE CONSIDERATIONS

Future considerations are discussed with reference to approaches to overcome the lack of shared knowledge based on an accessible housing process. The changes and constraints in the housing process since independence are illustrated with case studies of both governmental and non governmental experiences.

9.5.1 An Accessible Housing Process

This thesis has highlighted how cultural differences and the exclusion from participation resulted in a lack of shared knowledge concerning the formal housing process. The Namibian Housing Policy emphasises at the same time the obtaining of a house as the responsibility of the individual household. A major role is therefore allocated to the households and if the status quo at the time of independence is not going to change, this role has to take place within a housing process that recognises a body of knowledge belonging to an economy and lifestyle of a non indigenous cultural group. This housing process did not develop within the country, but has its roots in Europe and South Africa.

The questions to be answered are 'how do households become involved in a process not known to them, which does not form part of their way for obtaining shelter and if the legal framework does not recognise their way of life?' Facilitating more participation in the housing process and improving communication and information sharing appear like obvious strategies to address this question. But, if the process does not become accessible to low-income people, they will not be able to take decisions and actions to improve their living conditions, neither will they be

able to obtain the body of knowledge to enable the actions. Without making the process accessible for people's participation, information sharing programmes and propaganda on home ownership, will not address the lack of shared knowledge.

As discussed earlier, each step in the formal housing process as applied by the NBIC has a cost implication. These cost aspects contribute to making the present housing process inaccessible to the low-income people in Namibia. On the other hand an 'empirical knowledge' is used by the agencies to enable action and if this continues to form the body of knowledge needed to obtain houses, people will not be able to become involved in the process, since their actions are based on practical knowledge. Certain requirements are needed to facilitate an accessible housing process. The elements, practices and agents in the housing process are discussed and illustrated with a diagram in Figure 9.2.

- **Elements of the housing process**

Instead of a product combining the main elements (land, services, house and financing) of the housing process, these **elements should become 'open' for people's choices**. By delivering a finished house or serviced plot which low-income families cannot afford, they do not have the choice to share resources or use their own resources to improve their domestic environment. If land is provided and a further incremental process is facilitated that allow for a flexibility between options, low-income people can decide themselves how to improve their living conditions.

- **Practices in the housing process**

The practices involved in the housing process are to be simplified and the legal environment has to facilitate people's own processes. It should be possible for people not to be restricted by practices that are well-controlled, but suitable only for high income people following a housing process based on an empirical body of knowledge from a western cultural context. The main practices in the housing process should become known as part of a practical body of knowledge. The absence of simple and accessible practices are already resulting in people forming their own ad-hoc informal settlements at an increasing scale in the capital, Windhoek. Alternatively where local authorities have simplified practices,

like in the case of Otjiwarongo[10], orderly developments, appropriate for incremental improvements are taking place.

It has been illustrated how the planning and legal framework does not recognise people's socio-economic needs and town planning schemes are legally prohibiting economic activities. Although legal actions are limited, the owners cannot effectively facilitate the activities, due to restrictive planning regulations. According to the law, any building for business purposes has to comply to strict regulations, needs a business licence and can only operate on business plots. These plots are also much more expensive than residential ones.

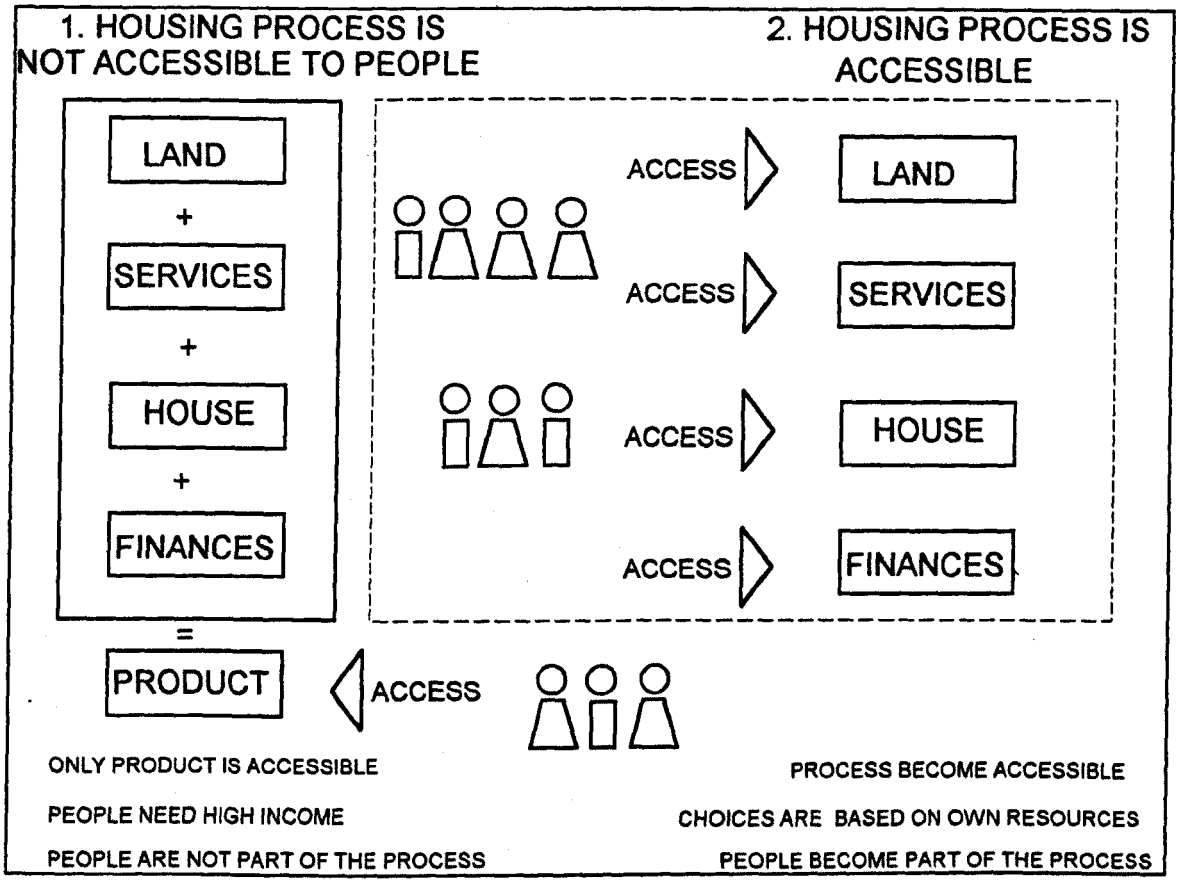
Planning is guided by vested interest in the property market. Social development and integration of marginalised communities by a facilitating town planning scheme are absent from planning practices. On the other hand, higher income groups in suburbs are influential in maintaining the current income-status of developments in their vicinity. Opportunities for cross subsidies by selling plots against a profit in newly developed areas are not possible if the whole development is targeted for a low-income group. These prices are still inaccessible and these town planning practices result in extreme differences in living standards and level of services between the different income areas.

- **Agents in the housing process**

An enabling and supportive organisational environment with direct links with low-income people and their organisations will be essential to make the housing process accessible. Organisations have to facilitate a process where people can participate and can make their own decisions. The professional agents in the formal housing process, lawyers, estate agents, land surveyors, engineers, contractors, architects, insurance companies and the financial institutes all have cost implication. With the costs included in a house product, low-income people are not able to select which services are essential to their needs and are restricted in using their own and collective resource to obtain shelter.

[10] Otjiwarongo municipality provides land to households to construct their temporary shelters. Communal services are available, costing R15 per month per household.

Figure 9.2 Models of Accessibility in the Housing Process



An accessible process has also to be developed with the people experiencing a need for shelter, to result in people obtaining a practical body of knowledge that will enable them to obtain housing. Once this has been achieved, a vertical sharing of knowledge among communities, instead of the historical top-down information link, can strengthen housing knowledge among the low-income Namibians. This does not mean that only the people in need of housing should share knowledge, but one of the key factors in making the process accessible, is that the 'agents' in the process should know and act on the socio-economic needs of the low-income people. Communication between the agents and people has to be part of the housing process.

Post-independence developments will be useful for this discussion on future developments, since progress has been made with the implementation of the housing strategy and community organisations are beginning to control their own housing programmes. These developments are illustrated with case studies and references are made to the problems and constraints still being experienced in making housing more accessible and overcoming the lack of shared knowledge.

The requirements to make the process more accessible as well as progress made since independence is summarised in Table 9.1 at the end of this section. The table summarises requirements to make the process more accessible.

9.5.2 Organisations and structures since independence

After independence more opportunities developed for people to become involved in their own housing processes. Both governmental and non-governmental organisational developments concentrated on more involvement of the people in housing.

- **Government: directorate of housing**

On a governmental level the Build-Together Programme is implemented by the Directorate of Housing in co-operation with locally based Community Housing Development Groups (CHDGs). With this programme the government took a progressive step in addressing housing problems in Namibia by decentralising their loan schemes to the various towns where the CHDGs as local structures deal with their own housing programmes. The case study of Otjiwarongo in the block below describes the implementation of the programme in one town.

Otjiwarongo CHDG: Build-Together Programme

The Build-Together Programme in Otjiwarongo was initiated in October 1992 with a two day workshop, attended by 23 people from the community and governmental officials. This workshop was facilitated by the staff from the Directorate of Housing (Ministry of Regional and Local Government and Housing) and the programme was explained to the community. A strategy was developed by looking at the problems experienced from the viewpoints of different groups. A Community Housing Development Group was formed by 12 members of the community, a municipal official and a representative of the MRLGH. The CHDG is responsible for the taking and prioritising of applications, and has to sign the Project Identification Report. These applications are also screened by the Directorate of Housing. After completion of the houses the CHDG has the responsibility to control the repayments, which is done directly into the government's account and return to the Ministry of Finance.

During 1992/1993, 106 applications were approved for a total of R1.1 million. About 80% of these loans were for R10 000 and below and 56% of the participants were women. Individual households obtained land from the Otjiwarongo Municipality and participants paid between R 1 000 and R1 300 for plots. They were responsible for the construction of their own houses and 89 of these houses are completed. The municipality made plans available according to people's loan amounts, or they could also submit their own plans. Progress payments are transferred into the individual beneficiaries' accounts. These payments are approved as the work is completed during four construction stages. The municipal health inspector and CHDG do inspections and sign the site recommendation sheets. The technical report on which the payments calculated, is prepared by officials of the Directorate of Housing. The beneficiaries either built the houses themselves, or employed small contractors to do the construction work. A women's group, the Graus Brick-making Project started to make bricks which the beneficiaries bought from them. They are also supported by the municipality to experiment with clay construction.

During 1993/1994 the second phase of the Build-Together Programme was approved when a further 102 loans were allocated. Thirty three of these started with their construction, of whom ten completed their houses. All participants have not bought plots yet, since R5 000 per plot is too expensive for the participants. They are negotiating with the municipality to lower the prices. About 63% of the beneficiaries borrowed between R3 000 and R10 000, and 35% of the participants are women.

Otjiwarongo hosted a Learning-Together workshop during November 1993 with other CHDGs and Community Based Organisations from the central regions. The participants shared their housing experiences.

The main practice the government is involved with in the Build-Together programme is the provision of financing that low-income people would otherwise not have been able to secure. The local authorities have an option to become involved and in the case of the Otjiwarongo an active support of the programme is contributing to the success. The community is involved with the initial workshops where problems are identified and an action plan is developed, as well as in the control of the programme through their local CHDGs. Initially it was proposed that households should organise themselves into Community Based Organisations (CBOs) which would also participate in the CHDGs. The proposed community based organisation, except for the housing groups that are members of NHAG, did not develop. The community's participation in the decision making process and programme, will therefore depend on how frequently the CHDGs establish contact with other members of the community. Communication between CHDGs was facilitated by Learning-Together Workshops in the different regions, where groups learned from each other how they solved their problems and facilitated their programmes.

The individual households receiving the loans are controlling their own construction process. The programme allows therefore choices concerning plans, construction inputs and material acquisition. Households can use their own labour as a resource

or employ their own builders. The housing process has become more accessible in terms of financing and building the house, but constraints are still being experienced in terms of expensive land and the availability of serviced land in urban areas. There are also possibilities for different methods of repayment - which could be monthly, quarterly, or annually. Seasonal workers can therefore also participate in the programme.

The constraints that will need attention in the future,include the lack of involvement of local authorities, the problems relating to land and loan repayments that will not be available for further housing developments. The success of the programme depends very much on the co-operation of the local authorities in both facilitating the community involvement and providing affordable land and services. The government's financial acts prohibit voluntary associations and CHDGs to receive money for loans and rotate the repayments within the community for further loans. Voluntary groups have to apply as individuals and will not be able to keep the money for a rotating fund. A Build-Together Act is in draft stages and the intention is that this Act will facilitate this process. To make the repayments locally available can act as an incentive for regular repayments.

The Build-Together Programme facilitates the organisational structure and makes the housing process more accessible, but it will be important that the communication links through action plan workshops and Learning-Together workshops are sustained. The programme can change very easily into a bureaucratic structure without allowing communities to strengthen their capabilities to control their programme.

- **The role of the new National Housing Enterprise (NHE)**

The continuation of producing completed houses in large contract by the NHE concentrated on the middle income sector as a client group. This organisation attempted to address information by means of home-owners manuals (NBIC, 1987; NBIC, 1991), lectures and before independence a community complaint handling service. Some of their group loan projects[11] for the very low-income people were enlarged, but until now finances have only be provided for those groups organised by the agency. Their latest projects in this category moved away from people

[11] The group loan schemes were also discussed in Chapter 3: Section 3.3.2.

constructing their own houses, and a builder constructed the basic structure. Their recent increase of interest rates to that of the commercial banks made it also impossible for very low-income groups to borrow from them. Participation of potential clients is limited to choices between finishes and no further communication between clients are facilitated. The organisation still concentrates on the access to the product and has not made attempts to make the process accessible. People are therefore not taking part in the housing process.

- **Non-governmental programmes.**

The participation of community groups as voluntary associations in housing have increased since the formation of the Namibia Housing Action Group. These groups first have to familiarise themselves with the basic principles of working in voluntary associations. Working collectively, three groups managed to negotiate for land and save for loan securities together. Saamstaan Housing Co-op is presented as case a study to illustrate their participation in the housing process.

Saamstaan Housing Co-op in Windhoek:

Saamstaan Housing Co-op, from Windhoek, is the oldest and largest housing group in Namibia. They began their activities in 1987 with the International Year of Shelter. Members, with monthly incomes between R200 and R400, became initially involved in brick making and bought individual plots from the municipality. They had to pay a deposit and had five years to repay the municipality. A construction team was employed, first existing out of builders and then only existing out of members that were trained. This team included two women. The initial 29 houses were constructed by the teams. This could not be sustained and the construction is now done by the members themselves with the assistance of trained bricklayers, or training institutes.

Saamstaan is divided into four groups. The first group exists out of members that built houses on plots bought before 1990 from the municipality. The second group (People Square) occupying a block of land belonging to Saamstaan, and the third and fourth groups (United People and People Force) are busy negotiating for land.

The first group constructed two room houses with a bathroom (toilet, shower and wash basin) on individual plots. The plan was developed by the members themselves and drawn by a draftsman. Some problems were experienced when members were not able to repay both the land and the houses, while no legal security for the organisation's own revolving loans was provided. This is in the process of being resolved in that the organisation will assist with the transfer of land and the registration of bonds.

As a result of the increasing cost of land, the People Square group started to negotiate for a block of land, that they would service themselves. After about three years of negotiations land for 44 households (40 of them women) was obtained in 1992, against a reduced price. A welfare registration was required before this could be done. The members drew up their own contract for determining land rights during a workshop. Sewerage and water reticulation was installed by the members themselves with the assistance of a paid plumber. These costs are included in the loan they received from the Build-Together programme in 1992. They completed 21 houses and are preparing for the application of a loan to build the other houses. The land costs R800 per member and the house loan was for R7500. Before members could occupy their houses they had to save 10% of the loan in the saving scheme or the Credit Union.

Due to the rising cost and the fact that the programme has to become more sustainable only one room with bathroom is constructed for each member of People Square. The members participated in the excavations, made the bricks and provide labour for the builders. The block of land is bought in the name of Saamstaan and each member has a contract with the organisation that entitles her/him to a plot on the land. The subdivision of the block into individual plots is done by the builder of the organisation. The block layout was developed during various workshop sessions and support for the drawing of plans came from both volunteers and the government.

The last two groups are busy negotiating for land from the municipality. The first group started with meetings during the end of 1992 and another group was formed during the middle of 1993.

Initially the group employed four staff members, which include two administration clerks, a bookkeeper and a builder. An evaluation was done during the end of 1993 and as a result of that a restructuring occurred. The co-ordinating committee was re-elected and to enable an intensive training process, a temporary co-ordinator and community worker were also employed. A planning committee from people previously forming a support committee is supervising the training process.

The experience of Saamstaan, and especially those of the group on the communal plot, is a source of information for other groups in the country, and exposure visits to Saamstaan occur on a regular basis. As a member of NHAG they also visit other groups to share information.

Saamstaan members have managed to formulate through their own negative and positive experiences their own housing process that resulted in more affordable land and housing. The involvement of members and their family members in the construction resulted in cost savings. Members are not only involved in the construction, but also in the control of their organisation. Emphasis in the programmes of the community groups that are NHAG members, are both on participation and vertical communication between groups. This communication is facilitated by their support service.

For community efforts to be successful, affordable land and financing must be available. Since land is not an accessible element of the housing process, negotiations through group pressures become a time consuming activity and slow

down the progress of their programmes. Their involvement is also complicated by social conditions like high levels of illiteracy as well as the triple role of women as employed or semi-employed workers, domestic reproducers and community managers (Moser, Peake: 1987: 17).

- **Foreign aid programmes**

Donor funded programmes are also facilitating more involvement of the communities. The Oshakati Human Settlement Improvement Programme (OHSIP) which is managed by Ibis (Denmark) allows for participation through Community Development Committees. These committees represent the various informal settlements. Inhabitants of the settlements have become involved in demarcating plots and roads and the construction of community centres as paid labour. A further upgrading of roads and other infrastructure is planned, which will also involve labour gangs in the execution of the work. These steps to involve communities in the provision of services could contribute to making the housing process more accessible to the lower income people. Extra sources of income are generated within the community which could contribute to the financing of housing. At this stage the labour costs is a donation and the cost is not to be recovered from the community.

- **Summary**

Programmes that facilitate people's participation that could assist to overcome the lack of shared knowledge are being implemented on both governmental and non-governmental levels. The strategy of the Build-Together Programme opened the element of financing in the housing process by facilitating access to money for constructing houses. Planning the programmes in workshops and sharing experiences result in vertical and horizontal communications between the concerned parties and are making practices in the housing process more accessible to the people themselves. A supportive organisational environment has been created, potentially involving the community and local authorities. The participation of local authorities have not been secured successfully in all the towns.

Another problematic practice facing low-income people is the lack of access to affordable land and this will need attention in the future. The way land is priced, planned and regularised does not cater for the social and economic requirements of the majority of the Namibians, but only for a minority cultural group.

Low-income people are not only facing a backlog in experiences of a capitalist economy, as well as an exposure to the formal housing process from which they were excluded previously, but if further steps are not taken to make the housing process more accessible, the housing problems will increase. An accessible housing process will result in housing being developed at incremental stages, according to people's own and collective available resources.

An incremental process needs to be developed with the participation of the concerned people, if a practical knowledge on housing is to be established. People's participation needs to be integrated into the housing process. A further discussion on an accessible and incremental housing process will follow in the next section.

9.5.3 Progress and Outstanding Items: An Accessible and Incremental Housing Process in Namibia

This section will look briefly at proposals for an accessible housing process that allows for incremental development. The key elements in the housing process; the main practices and agents involved; references to the progress since independence; and outstanding items to be addressed, are discussed. Proposals for overcoming a lack of shared knowledge are also made. Table 9.1 summarises these proposals in a table format.

- **Land**

To enable an accessible and incremental housing process the access to land, the controls over development and the security of land are aspects that will need attention in the future. Access to land needs to be recognised as a basic need and not just as a 'product' as part of the formal housing process. Local authorities have

to make land available for community groups to develop themselves according to their own resources. At this stage land in most towns is too expensive, even if not fully serviced, and therefore it is inaccessible to a major part of the Namibian population.

The control over development through town planning schemes should rather change to a strategy for development that include a consultative process. The principle of integrating planning that also cater for low-income people to become part of the fabric of urban areas, rather than segregating them further from income opportunities, should be recognised. The socio-economic needs of the people have to be facilitated in such a development strategy. Approval for the development of townships or changing land use rights is still a long process, which results in shortages in the larger towns.

One of the constraints in the development of land is the fact that land ownership is tied to a rigid process of planning and surveying which results in expenses to be paid by the buyer. An alternative form of secure access to land has been developed by Saamstaan Housing Co-op whereby they are buying blocks of land and are doing the internal subdivisions themselves. Technical assistance has to be available to enable this, and in the case of Saamstaan this was given by both the government and NHAG. The sharing of this practice among the members resulted in the acceptance of this practice as a secure access to land. This might not have been acceptable if an outside body, in stead of the community themselves, offered this solution to access to land. This practice can only continue if these blocks of land is affordable. The formal sector (land surveyors, town planners, Ministry of Land and Rehabilitation) is also working on more affordable forms of surveying to secure access to land, but this is not finalised yet.

- **Services**

The provision of service reticulations to individual plots results in the high cost of these plots. Alternative forms of planning that include access to bulk services to blocks of lands are proposed to enable incremental development. Blocks of land for incremental housing projects are to be developed in combination with other land use types that can be commercially sold. The present planning and financing practices result in segregating income groups leaving low-income groups to be responsible for

paying their own bulk services. The present practice is that all the direct costs involved in developing a new township is to be recovered from the future buyers in that area.

It is proposed that communal contracts should be supported in installing the services, while maintenance and the provision of services can also become income generating opportunities. The community, like in the case of Saamstaan, already illustrated how they installed water and sewerage from bulk sources on the periphery of the block. Concerning the provision of services the Windhoek Municipality initiated a scheme in Katutura whereby unemployed people can collect refuse and are paid per bag. To enable community involvement in servicing the planning and contracting practices have to be reviewed and changed. The larger local authorities mainly use tenders from big companies to install services and community contract systems are to be developed, to facilitate an income basis for the more marginalised groups.

- **Domestic Environment**

It is proposed that families should have more control over the planning and construction of their houses. It would also be necessary to allow for the use of appropriate construction and the incremental building of houses. Practices should facilitate this by simplifying approval systems (like the standard of drawings to be submitted) and for making the building standards more appropriate. In the case of the Build-Together Programme and community groups, people began to control their own construction process. In certain towns local authorities started to support the building with local building materials. The legal framework has not changed yet to allow people to plan and build according to affordable standards and according to their own spatial needs.

- **Finance**

Since independence a housing finance programme has been developed to cater for the low-income people, with local control as part of a National Housing Strategy. This programme is still hampered by the lack of a conducive legal environment. More responsibilities are given to the community and local committees to enable allocations and control repayments. These local controls are still to be

strengthened. More information sharing and support as well as the local revolving of funds will be essential to support this process. In the long term it will be necessary to look at other sources of funding for low-income housing from banks and building societies.

- **Overcoming lack of shared knowledge**

As individual households succeed in solving their own housing problems the knowledge would become a practical knowledge for the members of the household. On the other hand a product orientated housing provision does not allow for this to occur and elements of the housing process will remain obscure, as illustrated in this thesis. The Build-Together programme has facilitated this process, but the NHE is still following a product oriented process. The housing problem would also be addressed positively if the NHE could develop their programme for owner-builders to meet the increasing demand for such a programme.

The main practices involved in making housing accessible to low income people need to be developed with community structures (existing and those formed for the purpose of obtaining houses). Exposure and strengthening programmes of NHAG did give communities opportunities to develop their own housing programmes. Experiences are shared on a regular basis as a source of information.

Another issue that needs serious attention is the way communication with the target groups is to be integrated in the housing process. This communication cannot only rely on the written word, and if using pamphlets, it needs to be clear and simple. As part of the Build-Together programme the sharing of experiences among communities was facilitated by a Learning Together programme. Action planning workshops were used during the development of the strategy, and should be continued. More involvement of the Local Authorities is essential to enable the transfer of knowledge as well as giving the necessary support for the program locally. It is also important that the Learning Together Programme and Action Planning workshops should become part of the implementation of the programme.

Table 9.1 An Accessible and Incremental Housing Process overcoming Lack of Shared Knowledge: Progress and Outstanding Items

KEY ELEMENTS IN THE HOUSING PROCESS	MAIN PRACTICES	MAIN AGENTS	PROGRESS SINCE INDEPENDENCE	OUTSTANDING ITEMS
1. LAND				
recognise land also as a basic need, not merely a product	-make land available for people to develop themselves	-municipality and low-income families		-Land is expensive and inaccessible to low-income people
control over development to change to a strategy for development that includes consultation	-make provision for integrating low-income people into urban area - planning scheme provide for socio-economic needs in domestic environments	-Town planner in consultation with communities		-Development is without consultations -The process is slow -Town planning schemes segregate activities, income groups
alternative forms of land ownership	-provide blocks of land internal subdivisions locally controlled -ensure secure access with alternative methods	-land surveyors for blocks -community groups with technical assistance (local, NGO, or government)	-Community ownership did occur -Information is shared between communities	-Affordable land is not available -Alternative forms of secure access not available
2. SERVICES				
provide access to bulk services	-plan for integrated areas where blocks of land have access to services, while some land is sold on profit -allow for community contracting	municipality community		Planning to segregate income groups and not sharing service provision need attention
facilitate incremental service development	-plan for upgrading of services	community	Internal services were provided by Saamstaan with technical support	Contracts given to construction companies
maintenance	-maintain and replace	municipality and community		Need to develop community contract systems
provide services	-ensure access	community contracts and municipality	refuse collection done by community	
3. DOMESTIC ENVIRONMENT				
-planning and construction controlled by families	-simple drawings according to households own needs and financial means	households small contractors	-In BT programme and housing groups own construction/small builders are involved on an increasing scale	-legal requirements not based on people's own socio-economic requirements
-controls facilitate appropriate and incremental construction	-standards allow appropriate and incremental construction	municipality	-local building materials permitted in some towns	-standards and building regulation still to be adapted

KEY ELEMENTS IN THE HOUSING PROCESS	MAIN PRACTICES	MAIN AGENTS	PROGRESS SINCE INDEPENDENCE	OUTSTANDING ITEMS
4. FINANCE				
-financial programme for low-income people	-application, and allocation locally based	-community groups and committees -government agency	-Government Housing Strategy:	-Legal environment for local control not in place
financial policies	-facilitate programme accessible to low - income households	-government and private sector	-Build-Together Programme facilitate financing	-Private sector not supporting low-income housing finance
obtain security	- community groups to provide security	-community groups -family members		
repayments	-loans are managed through local structures	-community groups -committees		-needs to strengthen local controls - money to be rotated locally

OVERCOMING LACK OF SHARED KNOWLEDGE

KEY ELEMENTS, MAIN PRACTICES AND AGENTS IN AN INCREMENTAL AND ACCESSIBLE HOUSING PROCESS	PROGRESS SINCE INDEPENDENCE	OUTSTANDING ITEMS
Individual household's involvement in the process result in the obtaining of information on elements of the housing process and knowledge become practical.	-Through community programmes and the Build-Together programme households became involve in obtaining their own houses	- NHE concentrate mainly on producing houses as products - to develop the owner-builder programme
Key elements and Main Practices to be developed with existing community structures (existing and new ones)	-Exposure Programme and Strengthening Programme of NHAG members	- Sharing experiences to be facilitated on a regular basis
Communication between agents and communities to become integrated into the housing process	-Vertical Sharing: "Learning Together" of Build-Together programme and Action Plan Workshops with communities	- More involvement and commitment of the Local Authorities essential

9.6 CONCLUDING REMARKS

This thesis has illustrated how the formal housing process, applied by cultural hegemony has resulted in a lack of shared knowledge between those in control of the process and the recipients. Although the larger part of the thesis concentrates on how the knowledge applied to create the domestic environment is not shared,

lack of knowledge on housing aspects resulting in financial commitments were also identified.

The functioning of the formal housing process in the very controlled capitalist market together with a process largely depending on applying empirical knowledge, restrict access to housing for the low-income people. It was argued that the housing process should be changed with the involvement of those in need of shelter, to become more accessible and to be based on a practical shared knowledge, rather than having a programme of information sharing and propaganda on home ownership, to address the problem.

Independence brought more opportunities to low-income households to become involved in their own housing, but certain serious constraints remain. Land remains an issue of serious concern. The status-quo also remained, where certain areas are developed to high standards for high income groups and segregated areas are developed for low-income groups. The racial segregation has been replaced by economic segregation and town planning caters for the needs of the high income groups. This does not reflect the requirements of the people as the need for income generation opportunity in domestic environments is explained by a resolution taken recently at an urban land workshop:

"Cuca shops and open markets are part of the way of life in informal settlements. We do not want our way of life planned out of existence."[13]

[13] Cuca shops are the terms used for the shops operated by the families selling food and beverages. The quote is from the issue paper of preparatory Northern Workshop on Urban Land (Rundu, 18-19 June 1994) presented at the National Peoples Land Conference in Mariental (4-7 September 1994).

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APPENDICES

APPENDIX 5.1. SAMPLING AND THE FIELDWORK

The Sample Frame

The population for the fieldwork to investigate knowledge on key aspects of the housing process, was determined by means of a stratified sample survey among NBIC clients. This survey did not cover the very low-income population excluded from the formal process, but 80% of the population could obtain conventional houses because their incomes were higher than the primary household subsistence level. They were in higher income brackets, proceeded through the formalities of buying a house and were therefore more exposed to formal procedure.

Six urban areas were covered, namely Grootfontein in the north, Gobabis in the east, Mariental in the south, Swakopmund in the west and Windhoek and Okahandja in the central part of Namibia. These towns were all proclaimed towns where formal procedures of housing applied. The proclamation of areas to be a town played an important role in identifying the target areas for NBIC projects, since land-ownership for bond registration would only be possible in properly proclaimed areas, and is a prerequisite for financing.

The sampling method :

A stratified random sampling method was used for selecting the sample (Smit, 1987: 65[1]). This ensured that the types of houses and towns were to be adequately represented. The sampling frame was selected by identifying all the latest projects of the NBIC with an occupation period of at least one year. The least frequently used house types were not included. This resulted in a total population of 353 units. An indication for the sample size was obtained by using Smit's formula (1987:86) resulting in a sample size of 84 houses (24%). It was then decided to increase it to a sample size of 100 houses (28%). The sampling frame was stratified according to town, as well as type, and a sample was taken from each stratum. The erf numbers for the random sample was obtained from the NBIC project master list. The tables illustrate the towns and house types included in the sample.

[1] References in the appendices are also listed in the Bibliography

TOWNS AND HOUSE TYPES INCLUDED IN THE SURVEY

Table 5A The Population

TOWN	SAMPLE SIZE	NUMBER RESPONSE	PERCENTAGE
GOBABIS	(12)	11	7
GROOTFONTEIN-UMULUNGA	(15)	14	14.9
GROOTFONTEIN-LUIPERDSVALEI	(6)	6	6.4
MARIENTAL	(7)	7	7.4
OKAHANDJA	(10)	9	9.6
SWAKOPMUND	(10)	10	10.6
WINDHOEK WANAHEDA	(32)	30	31.9
WINDHOEK KHOMASDAL	(8)	7	7.4
TOTAL	(100)	94	100.0

Table 5B House Types In The Study

	n	%
CONVENTIONAL HOUSES:	(89)	(94.6)
1 ROOM/KITCHEN	11	11.7
1 BEDROOM/KITCHEN	2	2.1
1 BEDROOM/LIVING/KITCHEN	2	2.1
2 BEDROOMS/LIVING/KITCHEN	42	44.7
3 BEDROOMS/LIVING/KITCHEN	32	34.0
NON-CONVENTIONAL HOUSING: POLE AND ROOF STRUCTURES	(5)	(5.4)
1 ROOM ROOF	1	1.1
3 ROOMS ROOF	4	4.3
TOTAL:	94	100.0

The fieldwork

The preparation for the fieldwork included the collection of biographical and financial information from the NBIC application files and account records, and the testing of a draft interview schedule. Fieldwork was done from October to November 1989. Although two students from the University of Namibia (Academy) were involved, the majority of the interviews were done by the author and another NBIC researcher.

APPENDIX 5.2 NOTES ON SPACE SYNTAX

More details on the development of the space syntax theory are given by summarising some of the settlement characteristics that generated the concepts of space syntax. Based on observations and analyses of settlements, the characteristics, described in Chapter Five, were identified that could also be applied to buildings.

The work of Hillier and others was inspired by the settlement patterns identified in hamlets in the Vaucluse Region of France (Hillier and Hanson, 1984). These patterns illustrate certain characteristics which lead to conclusions about fundamental similarities and differences of spaces. A short description of the analytical process of space syntax follows in this sub-section before the methods used to analyse the environment is described. This description is derived mostly from Hillier and Hanson's introduction to their book "The Social Logic of Space" (1984: 1- 25).

The aggregation process in settlements

An arrangement of space, similar to that of houses in a settlement is first described as the aggregation of elementary cells, with the rule that at least one side should not face another cell. This is described as a beady ring type aggregation. Streets could be generated by following the rule of attaching a piece of open space to each entrance of each cell and then aggregating further cells that join open spaces. All other relations are randomnised. Variations in the layout are the result of various joining rules. Figure 5A. illustrates a random aggregation of cells.

Settlement forms develop from restrictions on this random process. The nature of these restrictions can be worked out as local rules of a global form by determining how much order is in the system when compared with an underlying random process (1984:11).

Figure 5A A Random Aggregation of Cells (From: Hillier and Hanson, 1984: 35),

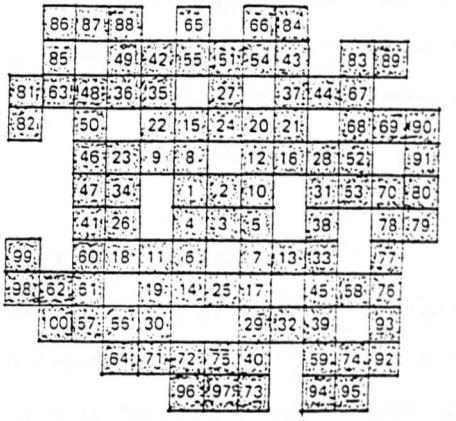
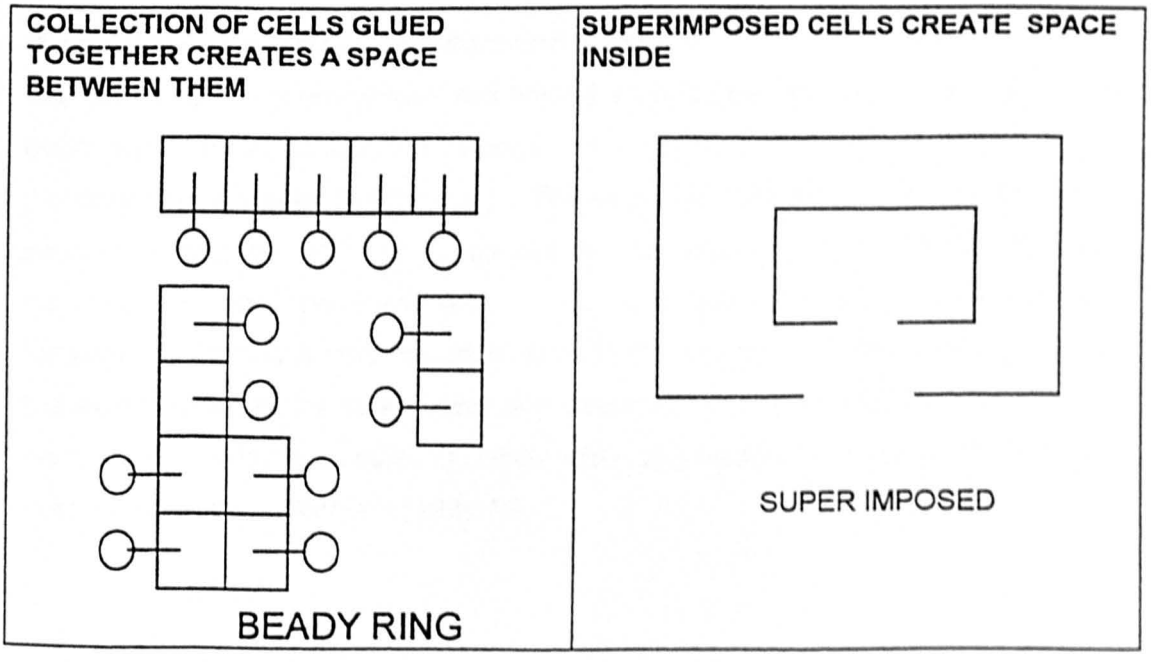


Figure 5B illustrates that not all cases reflect restrictions on a random process. When cells are put over further cells, and those underneath are still visible, a case of superimposition arise. More boundaries are created with cells within cells. The difference between a cell containing other cells and space created by aggregation of cells is that in the first case the inside of one cell creates space by one single cell defining space- or 'inside' , while in the other cases the outside of cells create space 'between' , in that cells are being glued together like in a string of beads.

This argument leads to the identification of properties in the form of two relational ideas namely distributedness and non distributedness which are also explained in the main text.

Figure 5B Cells creating Space



Through this process morphological types can be recognised by identifying the combination of the elementary generators (the way cells are combined) that lead to a particular form. These are abstract rules (genotypes) underlying spatial forms and not the forms (phenotypes) themselves (1984:12).

Random process and restrictions on it

The deal of order in which space fits into the rest of the social system, and the manner in which societies invest order in space, is restated in terms of the restriction of a random process to achieve a form. If the relationship of each cell to every other one has to be specified the opposite case to that of the random process is occurring (1984:13). This model of restriction on the random process of spatial relations re-describe the problem of space. The analytical tools are developed by analysing spatial patterns quantitatively in terms of this model.

Based on the reasoning of the settlement patterns, permeability in buildings is quantified.

"*The distinction between distributed and nondistributed relations became simply the distinction between spatial relations with more than one, or only one locus of control with respect to some other space; while the distinction between symmetry and asymmetry became the distinction between spaces that had direct access to other spaces without having to pass through one or more intermediary spaces, and spaces whose relations were only indirect.*" (Hillier and Hanson, 1984:14).

A sociological reference: interiors and exteriors

The elements of an elementary cell have a sociological reference. The cell with a boundary forms a space which belongs to a category associated with an inhabitant; the boundary controls the category. The world outside the cell, is the domain of potential strangers, with the space outside the entrance as an interface between the stranger and the inhabitant. This distinction between insideness and outsideness formed a very important part of the argument. The inside growth of the elementary cell by subdividing and accumulating, while maintaining internally permeability, forms the 'building', while their aggregation with permeability to the outside forms the settlement (1984:19).

This reference by Hillier and Hanson to 'building interiors' may be confusing and reflect a euro-centric perspective, since in warmer climates a cell would not necessarily include all the associations of 'building'. But, the theoretical argument is still valid, as long as both uncovered and covered spaces are seen to be part of this interior. This is also how the authors apply this description in the work when the containing cells in a superimposed cell is illustrated with a compound-system. The containing cell is just a boundary with the contained cells as covered structures. This was also applied in this thesis.

The difference between interior and exterior: The interior has different characteristics than the exterior in that it contains more categories of different spaces, well defined relations of spaces, more definitions of what happens where, and who relates to whom: "*...interior space organisation might, in short, have a rather well-defined relation to social categories and roles.*" (Hillier and Hanson, 1984:19). Exteriors, on the other hand, have far fewer categorical differences, more equality of access and less control. With more people having access to it, less control exists. This is more probabilistic than interiors which are more deterministic (1984:20). The differences between outside and inside are the differences on how societies generate and control encounters.

The larger system of the interior/buildings: The interiors/buildings participate in a larger system. They are spatially related to other buildings; by using spatial separation to define and control systems of social categories. They define relations to others by conceptual analogy, rather than spatial relation. For example, the inhabitants of a house relate to their neighbours spatially in that they occupy a location in relation to them, but conceptually they relate to their neighbours in that their interior system of spatial categories is similar to, or different from, those of the neighbours. This is then referred to as relating spatially or trans-spatially.

Socio-spatial interpretations

Hillier and Hanson then compare the spatial relationships with mechanical and organic solidarity as presented in the general sociology of Durkheim (Hillier and Hanson, 1984:18). Organic solidarity or cohesion is based, according to his sociology, on interdependence through differences, like those resulting from the division of labour. Mechanical solidarity, on the other hand, refers to integration through similarities of belief and group structure. Mills (1986) uses Giddens theory

of structuration in relating the socio-spatial characteristics to space syntax (Mills, 1986).

According to the socio-spatial reasoning by Hillier and Hanson, interiors define an ideological space in that a fixed system of categories and relations is continually re-affirmed by use and serves the milieu for the reproduction of society. Exteriors are defined as a transactional or political space in that encounters and avoidances are constantly renegotiated by use and produce therefore societies.

Concluding remarks

This background to the theory of the space syntax, illustrates the social content of space. Space syntax provides a means to evaluating and comparing domestic environments, which could also be related to the concept of knowledge. It is from socio-spatial knowing, whether this is influenced by technical knowledge or based on social (expressed or hidden) knowledge that space is created by the designer - whether the agency of an institute, the architect or town-planner or the inhabitants.

It is important to note that spaces and how they relate to each other are not deterministic in character but "*create a field of probable - though not all possible - encounter and co-presence within which we live and move*" (Hillier, 1989:13).

APPENDIX 5.3 THE FORM USED TO RECORD ACTIVITIES

DATE ....

TIME DURATIONS	ACTIVITY	P/CODE	SPACE	ACT.SURFACE	APPARATUS	LIGHT	DOOR	CURTAIN

APPENDIX 6.1 ANALYSING THE DATA

A realisation of 88% (88 cases) of the survey sample, explained in Appendix 5.1, was achieved. Six replacements were done in cases where there was nobody available for interviews after two visits. The choice of replacement was based on the availability of a respondent in a house type similar to the sampled one. The percentage of replacement cases (5.64%) was low and would not have a significant influence on the randomness of the sample or on the data[2]. The SPSS PC programme was used to analyse the 94 interview schedules. Certain aspects of the data as presented in the main text of the study are illustrated in the Post Occupancy Evaluation Report (Muller, 1990).

There were no refusals for taking part in the survey, but refusals to answer specific questions were experienced. Interviews were conducted with the head of household (owner or tenant), the spouse or the family member taking care of the house during the owner's absence. The majority (86.17 %, n:81) of the houses were still occupied by the owners. The absence of the owner influenced the responses on questions concerning specific knowledge on the loans. Rent agreements between tenants and owners differ from purchase and loan agreements between owners and the NBIC. It is last-mentioned agreements, forming part of a formal housing process that have been questioned in the investigation. The tenants (13) and non-owners (3) stated their lack of knowledge right in the beginning stages of the fieldwork and in the cases of tenants and non-owners the questions were omitted and not included in the data presented.

[2] This has been discussed with and confirmed by Prof. D J Stoker, a sample design - and data analysis specialist, from the Human Science Research Council (Interview: June 1990, Pretoria).

APPENDIX 6.2 HOUSEHOLD SIZES

Table 6A Household Sizes according to NBIC Record Data and the Fieldwork

HOUSE HOLD SIZE	NBIC RECORD DATA		FIELDWORK					
			PRIMARY		SECONDARY		TOTAL	
	N	%	N	%	N	%	N	%
1	3	3.2%	2	2.1%	3	25.0%	1	1.1%
2	14	14.9%	13	13.8%	1	8.3%	13	13.8%
3	26	26.7%	15	16.0%	2	16.7%	12	12.8%
4	28	29.8%	15	16.0%	2	16.7%	14	14.9%
5	12	12.8%	13	13.8%	3	25.0%	11	11.7%
6	7	7.4%	14	14.9%			17	18.1%
7	3	3.2%	6	6.4%			6	6.4%
8			5	5.3%	1	8.3%	7	7.4%
9	1	1.1%	4	4.3%			3	3.2%
10			3	3.2%			4	4.3%
11			3	3.2%			3	3.2%
14							1	1.1%
17			1	1.1%			2	2.1%
TOTAL	94	100.0%	94	100.0%	12	100.0%	94	100.0%
MEAN	3.75		5.1		3.5		5.5	

APPENDIX 6.3 KNOWLEDGE ON ASPECTS OF THE HOUSING PROCESS ACCORDING TO GENDER

Table 6B. Gender and Knowledge on the Price of the House

		YES	NO	row total
MALE	(row%)	75.9	24.1	54
	(column%)	65.1	86.7	69.2%
	(total %)	52.6	16.7	
FEMALE		91.7	8.3	24
		34.9	13.3	30.8%
		28.2	2.6	
column total		63	15	78
		80.8%	19.2%	100%

CHI SQUARE	VALUE	DF	SIGNIFICANCE
PEARSON	2.65044	1	.10352
CONTINUITY CORRECTION	1.73391	1	.18791
LIKELIHOOD RATION	2.99329	1	.08361
MANTEL-HAENZEL TEST FOR LINEAR ASSOCIATION	2.61646	1	.10576

Table 6C Gender and Knowledge on the Repayment Period

		YES	NO	row total
MALE	(row%)	57.4	42.6	54
	(column%)	58.5	92.0	69.2%
	(total %)	39.7	29.5	
FEMALE		91.7	8.3	24
		41.5	8.0	30.8%
		28.2	2.6	
column total		53	25	78
		67.9%	32.1%	100.0%

CHI SQUARE	VALUE	DF	SIGNIFICANCE
PEARSON	8.95447	1	.00277
CONTINUITY CORRECTION	7.45047	1	.00634
LIKELIHOOD RATION	10.41339	1	.00125
MANTEL-HAENZEL TEST FOR LINEAR ASSOCIATION	8.83966	1	.00295

Table 6D Gender and Knowing the Interest Rate

		YES	NO	row total
MALE	(row%)	25.9	74.1	54
	(column%)	77.8	66.7	69.2%
	(total %)	17.9	51.3	
FEMALE		16.7	83.3	24
		22.2	33.3	30.8%
		5.1	25.6	
column total		18	60	78
		23.1%	76.9%	100.0%

CHI SQUARE	VALUE	DF	SIGNIFICANCE
PEARSON	.80247	1	.37036
CONTINUITY CORRECTION	.36563	1	.54540
LIKELIHOOD RATION	.83860	1	.35980
MANTEL-HAENZEL TEST FOR LINEAR ASSOCIATION	.79218	1	.37344

Table 6E. Gender and Knowing Defaulting Conditions

		YES	NO	row total
MALE	(row%)	68.5	31.5	54
	(column%)	63.8	85.0	69.2%
	(total %)	47.4	21.8	
FEMALE		87.5	12.5	24
		36.2	15.0	30.8%
		26.9	3.8	
column total		58	20	78
		74.4%	25.6	100.0%

CHI SQUARE	VALUE	DF	SIGNIFICANCE
PEARSON	3.13980	1	.07640
CONTINUITY CORRECTION	2.22317	1	.13595
LIKELIHOOD RATION	3.44783	1	.06334
MANTEL-HAENZEL TEST FOR LINEAR ASSOCIATION	3.09955	1	.07831

Table 6F Gender and Knowing Insurance

		YES	NO	row total
MALE	(row%)	9.3	90.7	54
	(column%)	83.3	68.1	69.2%
	(total %)	6.4	62.8	
FEMALE		4.2	95.8	24
		16.7	31.9	30.8%
		1.3	29.5	
column total		6	72	78
		7.7%	92.3%	100.0%

CHI SQUARE	VALUE	DF	SIGNIFICANCE
PEARSON	.60687	1	.43597
CONTINUITY CORRECTION	.10156	1	.74996
LIKELIHOOD RATION	.67418	1	.41160
MANTEL-HAENZEL TEST FOR LINEAR ASSOCIATION	.59909	1	.43893

Table 6G Gender and Know Resale Conditions

		YES	NO	row total
MALE	(row%)	22.2	77.8	54
	(column%)	80.0	66.7	69.2%
	(total %)	15.4	53.8	
FEMALE		12.5	87.5	24
		20.0	33.3	30.8%
		3.8	26.9	
column total		15	63	78
		19.2%	80.8%	100.0%

CHI SQUARE	VALUE	DF	SIGNIFICANCE
PEARSON	1.01111	1	.31464
CONTINUITY CORRECTION	.48205	1	.48749
LIKELIHOOD RATION	1.07686	1	.29940
MANTEL-HAENZEL TEST FOR LINEAR ASSOCIATION	.99815	1	.31776

Table 6H. Gender and Total Correct out of Six Items

		0	1	2	3	4	5	6	row total
MALE	(row%)	16.7	11.1	20.4	20.4	16.7	11.1	3.7	54
	(column%)	90.0	85.7	91.7	42.3	64.3	85.7	100.0	69.2%
	(total %)	11.5	7.7	14.1	14.1	11.5	7.7	2.6	
FEMALE		4.2	4.2	4.2	62.5	20.8	4.2		24
		10.0	14.3	8.3	57.7	35.7	14.3		30.8%
		1.3	1.3	1.3	19.2	6.4	1.3		
column total		10	7	12	26	14	7	2	78
		12.8%	9.0%	15.4%	33.3%	17.9%	9.0%	2.6%	100.0%

CHI SQUARE	VALUE	DF	SIGNIFICANCE
PEARSON	16.54319	6	.01112
CONTINUITY CORRECTION	17.74573	6	.00690
LIKELIHOOD RATION	1.52196	1	.21732
MANTEL-HAENZEL TEST FOR LINEAR ASSOCIATION			

APPENDIX 6.4 INCOME AND KNOWLEDGE

Table 6I. Income and Knowledge on the Price of the House

	YES	NO	row total
R1-R600 (row%)	58.3	41.7	24
(column%)	22.2	66.7	30.8%
(total %)	17.9	12.8	
R601-R1 200	88.6	11.4	35
	49.2	26.7	44.9%
	39.7	5.1	
yR1201 and above	94.7	5.3	19
	28.6	6.7	24.4%
	23.1	1.3	
column total	63	15	78
	80.8%	19.2%	100.0%

CHI SQUARE	VALUE	DF	SIGNIFICANCE
PEARSON	11.53594	2	.00313
CONTINUITY CORRECTION	11.05672	2	.00397
MANTEL-HAENZEL TEST FOR LINEAR ASSOCIATION	9.62233	1	.00192

Table 6J Income and Knowledge on the Repayment Period

	YES	NO	row total
R1-R600 (row%)	50.0	50.0	24
(column%)	22.6	48.0	30.8%
(total %)	15.4	15.4	
R601-R1 200	68.6	31.4	35
	45.3	44.0	44.9%
	30.8	14.1	
R1201 and above	89.5	10.5	19
	32.1	8.0	24.4%
	21.8	2.6	
column total	53	25	78
	67.9%	32.1%	100.0%

CHI SQUARE	VALUE	DF	SIGNIFICANCE
PEARSON	7.59857	2	.02239
LIKELIHOOD RATION	8.21986	2	.01641
MANTEL-HAENZEL TEST FOR LINEAR ASSOCIATION	7.48934	1	.00621

Table 6K. Income and Knowing the Interest Rate

	YES	NO	row total
R1-R600 (row%)	12.5	87.5	24
(column%)	16.7	35.0	30.8%
(total %)	3.8	26.9	
R601-R1 200	20.0	80.0	35
	38.9	46.7	44.9%
	9.0	35.9	
R1201 and above	42.1	57.9	19
	44.4	18.3	24.4%
	10.3	14.1	
column total	18	60	78
	23.1%	76.9%	100.0%

CHI SQUARE	VALUE	DF	SIGNIFICANCE
PEARSON	5.57461	2	.06159
LIKELIHOOD RATION	5.29479	2	.07084
MANTEL-HAENZEL TEST FOR LINEAR ASSOCIATION	4.93441	1	.02633

Table 6L. Income And Resale Conditions

	YES	NO	row total
R1-R600 (row%)	4.2	95.8	24
(column%)	6.7	36.5	30.8%
(total %)	1.3	29.5	
R601-R1 200	17.1	82.9	35
	40.0	46.0	44.9%
	7.7	37.2	
R1201 and above	42.1	57.9	19
	53.3	17.5	24.4%
	10.3	14.1	
column total	15	63	78
	19.2%	80.8%	100.0%

CHI SQUARE	VALUE	DF	SIGNIFICANCE
PEARSON	10.00508	2	.00672
LIKELIHOOD RATION	10.12224	2	.00634
MANTEL-HAENZEL TEST FOR LINEAR ASSOCIATION	9.43905	1	.00212

Table 6M. Income and Knowledge on Defaulting

	YES	NO	row total
R1-R600 (row%)	54.2	45.8	24
(column%)	22.4	55.0	30.8%
(total %)	16.7	14.1	
R601-R1 200	80.0	20.0	35
	48.3	35.0	44.9%
	35.9	9.0	
R1201 and above	89.5	10.5	19
	29.3	10.0	24.4%
	21.8	2.6	
column total	58	20	78
	74.4%	25.6%	100.0%

CHI SQUARE	VALUE	DF	SIGNIFICANCE
PEARSON	7.99305	2	.01838
LIKELIHOOD RATION	7.88668	2	.01938
MANTEL-HAENZEL TEST FOR LINEAR ASSOCIATION	7.22623	1	.00718

Table 6L. Income and Knowledge on Insurance

	YES	NO	row total
R1-R600 (row%)	4.2	95.8	24
(column%)	16.7	31.9	30.8%
(total %)	1.3	29.5	
R601-R1 200	2.9	97.1	35
	16.7	47.2	44.9%
	1.3	43.6	
R1201 and above	21.1	78.9	19
	66.7	20.8	24.4%
	5.1	19.2	
column total	6	72	78
	7.7%	92.3%	100.0%

CHI SQUARE	VALUE	DF	SIGNIFICANCE
PEARSON	6.34884	2	.04182
LIKELIHOOD RATIO	5.35302	2	.06880
MANTEL-HAENZEL TEST FOR LINEAR ASSOCIATION	3.73165	1	.05339

Table 6O. Income and Total Correct of The Six Aspects

	0	1	2	3	4	5	6	row total
R1-R600 (row%)	33.3	8.3	16.7	25.0	16.7			24
(column%)	80.0	28.6	33.3	23.1	28.6			30.8%
(total %)	10.3	2.6	5.1	7.7	5.1			
R601-R1 200	5.7	14.3	14.3	42.9	14.3	5.7	2.9	35
	20.0	71.4	41.7	57.7	35.7	28.6	50.0	44.9%
	2.6	6.4	6.4	19.2	6.4	2.6	1.3	
R1201 and above			15.8	26.3	26.3	26.3	5.3	19
			25.0	19.2	35.7	71.4	50.0	24.4%
			3.8	6.4	6.4	6.4	1.3	
column total	10	7	12	26	14	7	2	78
	12.8 %	9.0%	15.4%	33.3%	17.9	9.0%	2.6%	100.0%

CHI SQUARE	VALUE	DF	SIGNIFICANCE
PEARSON	27.42272	12	.00671
LIKELIHOOD RATIO	29.74490	12	.00305
MANTEL-HAENZEL TEST FOR LINEAR ASSOCIATION	16.97894	1	.00004

APPENDIX 6.5 RADIO PROGRAMME ON THE NAMA/DAMARA SERVICE (1987)

Part A is a summary of issues mentioned by Nama/Damara radio listeners who phoned in to give their comments on housing. The original programme was in Nama/Damara and the Afrikaans translation was used to compile the summary. Due to the length of the discussions in the original transcript the issues are shortened and summarised.

Part B contains questions which people adressed to NBIC personnel. These were recorded in advance to enable preparation for an NBIC information programme on the radio.

A. The following issues were mentioned directly on the radio :

1. The low-cost houses being built were expensive, especially for house workers, and rented houses were requested. A feeling was expressed that *"our immediate problem is not home ownership but accommodation."*

2. A preference for rented houses was expressed. The low-cost houses being built were not experienced as low-cost. House prices of different areas are not the same, and the more expensive houses were not really better; reference was made to the absence of fencing in the one area where the houses were more expensive. Insurances increased and therefore payments increased. If rented houses were built, then the NBIC owner would also apply for one and rent out the NBIC house.

3. Applications were taken every year and the names were placed on a waiting list. The application was torn up and the applicant was told that it was rejected. The person mentioned that she stayed on the waiting list, while she had to live in outside rooms of employers.

4. The information been given when applying was queried. After being asked about income and the type of house one wanted, the question was put what amount was available for a deposit. To enable deposit payment, assistance from somebody else had to be obtained. After waiting and finding out that no house had been

allocated to the applicant when houses were handed over, enquiries were made and the applicant was told the deposit was not high enough. The query of the participant was why the information was not given that the deposit was not enough when applying, why waited until after the hand-over of houses.

5. The insurance of houses were compared with the buying of furniture, where furniture had a six months guarantee, there was only three months time to identify mistakes to be rectified by the NBIC. Problems after the three months were the home owners responsibility, while the house had not be transferred legally to the home owner. These questions were answered by the NBIC personnel by explaining that there was a difference between the three months and transfer costs. A year had transpired since the complaint and people came to write down the problems without having an explanation of what was going to happen. After moving in nobody enquired about satisfaction - you just had to pay.

6. When the house was bought, there were no problems, but after moving in, the roof leaked and the toilet pot was broken. One was told that since you're a home owner, you were yourself responsible for correcting it. *"If you stopped paying, you were told to leave, but if you had problems you were told it was your house"*.
An explanation for the following was requested: *"In the beginning the amount is R76 and after 4 months it becomes R75.25. The house costs now R3000 and later it becomes R9000 with interest. The amount increased and you pay annually. This amount stay the same, even after you stay for five years in the house."* When buying furniture the deposit is deducted and the price declines dramatically, but with the house the amount remained high and did not change.
Some houses looked like a hall without divisions. You had to paint your house, divided it and put fencing around.
When you received your order to leave, they did it without listening to your problems and if you went yourself you were sent from one person to another, ending with a lawyer's letter and then you had to pay a lawyer, the payment plus the arrears.

7. If somebody lost his employment and become employed for less income, what would happended to his house? *"There are also many single women in Katutura. In the times of pounds and shillings it was very difficult and although there are people that can buy or build houses from R15 000, there are also others that find it difficult to buy a house."*

The older rented houses were a great help and should be built again and purchase houses should only be for those that can afford it. Many people were assisted by living in the cheaper rented houses to afford purchase houses.

B. QUESTIONS RECORDED IN ADVANCE (directly translated)

1. How did it happened that the municipalities are not building any more rental houses and that only the NBIC are erecting houses now?

2. Why is it that if you buy an NBIC house for example R15 000, and after paying it back over a period of twenty or thirty years, that it costs about R40 000 or R50 000?

3. Were the inhabitants consulted in the type of houses built by NBIC? Because the people complained that the houses were too small and the payment too high?

4. Who qualifies for NBIC houses?

5. What would happen if you were not able to pay for your house, after you had paid for three years?

6. Could you explain about the 195 houses the NBIC will be building in Katutura? Where will they be and who will qualify for them?

7. In which towns will the NBIC build houses?

8. In a way the NBIC met the housing need of the community, but the general feeling among the community was that the NBIC was exploiting the need of the people.

9. Why were the NBIC not building neat, completed houses? The houses being built were not neat, and it was claimed that they were low cost houses but high amounts were to be paid.

10. NBIC knew about the housing need and did not care what types of houses were built, because the corporation knew that if you did not take the house, the next person would. The comments of NBIC employees gave this impressions.

11. Why did the NBIC not asked the applicants what house types they wanted? They had to pay eventually in the end.

12. Another problem with the NBIC was that people that can pay deposits had advantage above others and if things continued like that the people earning less money would never obtained houses.

13. Why did the NBIC built houses with a roof only, when the NBIC claimed that houses for low-income people were being built? Where would people with a small income obtain the money to complete the house and how long would they have to live under the roof, until the house would be completed?

APPENDIX 6.6 LANGUAGE PREFERENCES FOR THE LECTURE

This table gives information on the language that the respondents preferred to receive information. The question was asked to the same population from which the information on knowledge concerning items of the contract was obtained.

Table 6P Preferred Language

LANGUAGE	n	%
Herero	4	6.7%
Nama	5	8.3%
Oshiwambo	10	16.7%
Afrikaans	40	66.6%
Other	1	1.7%
Total	**60**	**100.0%**

APPENDIX 7.1 ACTIVITY ANALYSIS: METHOD AND DATA

The analysis of the activities was done on spreadsheets that trace the "path" of each person in the house. Table 7A illustrate a one day spreadsheet and an explanation of the sheet follows below.

Time: For the analysis, time slots of 0- 15 minutes were decided upon. These are the columns in the spreadsheets. Activities of a duration shorter than 15 minutes are also included.

Activities: The final list of activities (illustrated in Chapter Seven: 7.3.3.) was drawn up after the observation. During the observation period descriptions, as compiled in the form in Appendix 5.3 were used. These were summarised in 26 major categories of activities. Activities outside the study environment (house and erf) were also recorded. The activity code corresponds with the time and person's code on the spreadsheet.

The people involved: Each member of the household is listed in the rows. These include A - I as illustrated below (Also Table 7.1) as well as X for male visitors and Y for female visitors. Visitors were indicated with the number of visitor followed with a decimal point and the activity code. The baby was not included in the people's list, and the activities surrounding the baby are referred to as child care.

ACTIVITY CATEGORIES: HOUSE AND PLOT

00 SLEEP	11 FETCHING AND PUTTING AWAY (RUNNING ERRANDS)
01 EAT AND DRINK STANDING	12 CHILD CARE
02 EAT AND DRINK SITTING	13 NEEDLEWORK WITH MACHINE
03 COOKING AND FOOD PREPARATION	14 NEEDLEWORK AND REPARATION WORK WITH THE HAND
04 PERSONAL HYGIENE	15 SELLING, FETCHING ECONOMIC
05 DRESSING AND UNDRESSING	16 LEAVING HOME
06 CLEANING FLOOR	17 PLAY
07 WASHING DISHES AND CLEANING UP	18 LEISURE: PAGING MAGAZINE, SITTING, FILLING IN COMPETITIONS
08 DOING WASHING AND IRONING	19 PUT RADIO AND TAPE ON AND OFF
09 SOCIALISING (TALKING WITH FRIENDS, FAMILY ETC.)	
10 ECONOMIC AND SOCIALISING	

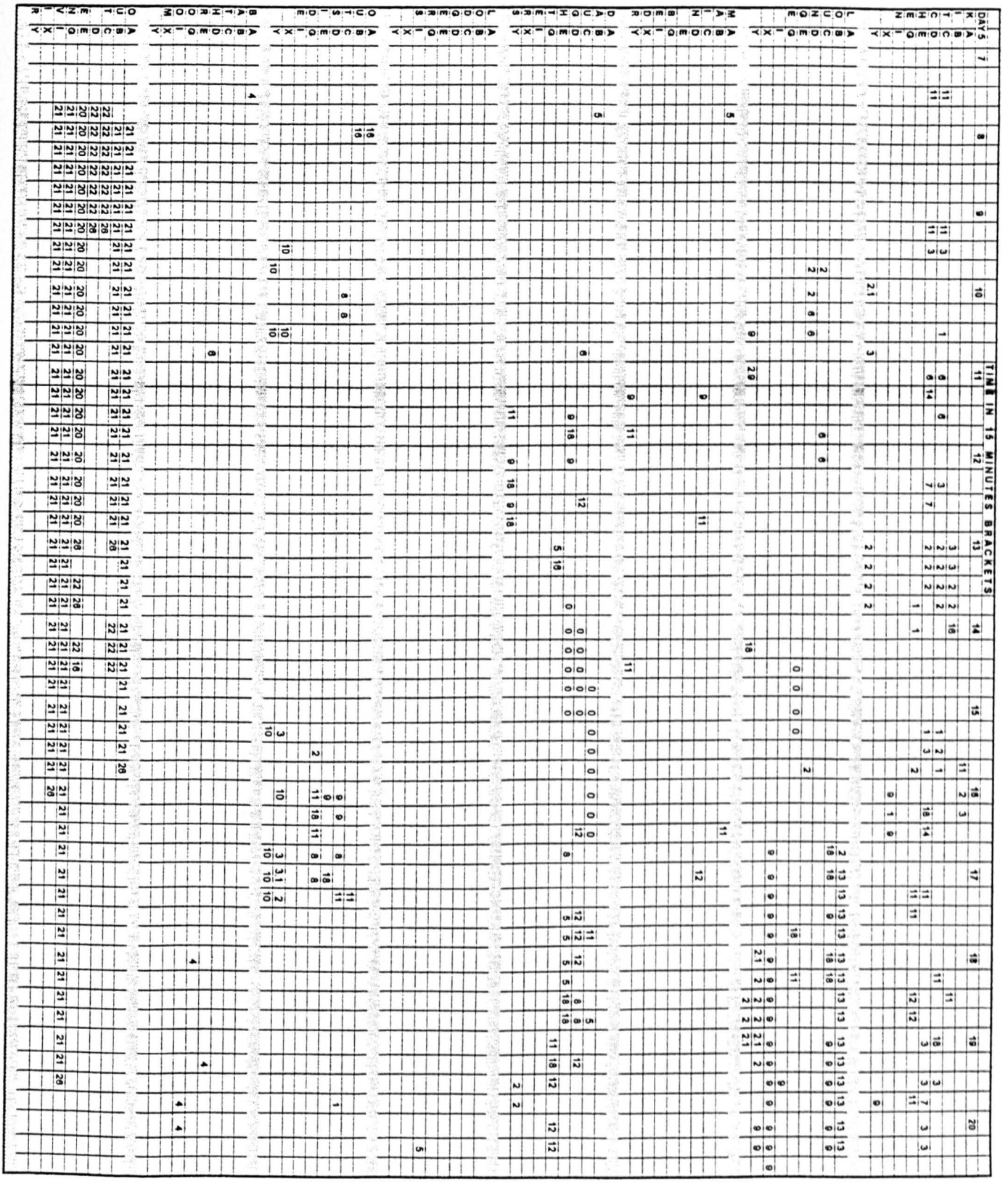
ACTIVITIES IN OTHER PLACES

20 SCHOOL	24 VISITING
21 WORK	25 SHOPPING IN TOWN
22 SHOPPING:	26 RETURNING
23 CHURCH	27 MEETINGS

PEOPLE

A. OWNER: FEMALE MEME JOSEPHINE	F. FEMALE
B. FEMALE	G. LODGER, MALE
C. FEMALE	I. MALE
D. FEMALE	X MALE VISITORS
E. FEMALE	Y FEMALE VISITORS

Table 7A Day Five: Activity Spreadsheet



APPENDIX 8.1 SYNTACTICAL CHARACTERISTICS OF THE DOMESTIC ENVIRONMENTS

The following tables list the values Relative Asymmetry (RA) , Real Relative Asymmetry (RRA) and the Relative Ringyness of all the spaces four domestic environments discussed in Chapter 8, as well as the two bedroom house type of the NBIC.

Table 8A Syntactical Characteristics: Wanaheda House And NBIC House Types

	WANAHEDA HOUSE			NBIC HOUSE TYPES[3]					
SPACE	RA	RRA	RR FROM	RA 3BED	*2BED*	RRA 3BED	*2BED*	RR FROM 3BED	*2BED*
1. KITCHEN	0.2	0.7	0.27	0.22	*0.24*	0.77	*0.83*	0.18	*0.20*
2. LOUNGE	0.2	0.70	0.27	0.13	*0.16*	0.45	*0.53*	0.45	*0.40*
3. MAIN BEDROOM	0.38	1.34	0.09	0.42	*0.47*	1.47	*1.58*	0.09	*0.10*
4. BEDROOM 1	0.38	1.34	0.09	0.31	*0.36*	1.08	*1.21*	0.09	*0.10*
5. BEDROOM 2	0.38	1.34	0.09	0.31		1.08		0.09	
6. OUTSIDE/KITCHEN	0.24	0.83	0.27	0.27	*0.29*	0.96	*0.98*	0.27	*0.30*
7. BACKYARD	0.39	1.08	0.18	0.31	*0.33*	1.08	*1.13*	0.18	*0.20*
8. BATHROOM	0.38	1.34	0.09	0.42	*0.47*	1.47	*1.58*	0.09	*0.10*
9. PASSAGE	0.2	0.70	0.36	0.24	*0.27*	0.83	*0.90*	0.27	*0.30*
1.OUTSIDE/LOUNGE	0.24	0.83	0.27	0.18	*0.20*	0.64	*0.68*	0.27	*0.30*
11.OUTSIDE/FRONT	0.27	0.96	0.27	0.27	*0.29*	0.96	*0.98*	0.27	*0.30*
12.STREET	0.45	1.59	0.09	0.45	*0.49*	1.59	*1.66*	0.09	*0.10*
MEAN	**0.30**	**1.06**	**0.20**	**0.29**	***0.32***	**1.03**	***1.09***	**0.20**	***0.21***
RELATIVE RINGYNESS OF THE WHOLE SYSTEM			**0.11**					**0.11**	***0.12***

Table 8B Syntactical Characteristics: Informal Urban House

	RA	RRA	RR
1. ENTRANCE	0.29	0.90	0.38
2. MEETING SPACE	0.18	0.56	0.38
3. PASSAGE	0.21	0.68	0.50
4. SLEEPING PLACE 1	0.46	1.46	0.13
5. SLEEPING PLACE 2	0.46	1.46	0.13
6. COOKING PLACE	0.46	1.46	0.13
7. STORAGE	0.53	1.69	0.13
8. SHOP	0.43	1.35	0.13
9. STREET	0.54	1.69	0.13
MEAN	**0.40**	**1.25**	**0.22**
RELATIVE RINGYNESS OF THE WHOLE SYSTEM			

[3] Values of the syntactical characteristics of the house type discussed in the main text are listed under 3bed and the two bedroom type's values are listed undert 2bed.

Table 8C Syntactical Characteristics: Northern Homestead

SPACE	RA	RRA	RR
1. ENTRANCE SPACE	0.32	1.56	0.17
2. MAIN MEETING PLACE	0.33	1.60	0.08
3. MILLET STAMPING	0.25	1.23	0.13
4. INNER COURT	0.20	0.96	0.09
5. PASSAGE	0.15	0.73	0.13
6. OUTSIDE/MALE HUT	0.17	0.85	0.22
7. MALE HUT	0.26	1.27	0.04
8. STORAGE HUT	0.26	1.27	0.04
8. STORAGE HUT	0.26	1.27	0.04
9. SHELTER FEMALES	0.23	1.12	0.09
10.GIRLS' HUT	0.38	1.85	0.04
11.OUTSIDE/FEMALES	0.29	1.43	0.17
12.WIFE'S HUT	0.38	1.85	0.04
13.GUEST'S HUT	0.38	1.85	0.04
14.OUTSIDE PARENTS	0.33	1.62	0.09
14.1 PARENTS HUT	0.42	2.04	0.04
15. PASSAGE	0.25	1.23	0.09
16. COOKING 1	0.18	0.89	0.17
16.1 COOKING 2	0.25	1.23	0.13
17. PANTRY	0.28	1.31	0.04
18. PANTRY	0.34	1.66	0.04
19. PANTRY	0.34	1.66	0.04
20. BOY'S HUT	0.41	1.96	0.04
21. OUTSIDE	0.41	1.96	0.04
MEAN	**0.29**	**1.44**	**0.09**
RELATIVE RINGYNESS OF THE WHOLE SYSTEM			**0.02**

The next table lists the spaces according to the RRA from lowest to highest. The lowest space is the shallowest or most integrated spaces, while the highest one is the deepest or most segregated spaces.

Table 8D Spaces Arranged from Lowest to Highest RRA

WANAHEDA HOUSE		**NBIC HOUSE TYPE** *(2BED IN BRACKETS)*		**INFORMAL HOUSE**		**HOMESTEAD**	
1. KITCHEN	0.70	LOUNGE	0.45	MEET/SPACE	0.56	PASSAGE	0.73
LOUNGE	0.70		*(0.53)*				
PASSAGE	0.70						
2.OUT/LOUNGE	0.83	OUT/LOUNGE	0.64	PASSAGE	0.68	OUT/MALE	0.85
OUT/KITCHEN	0.83		*(0.68)*				
3.OUT/FRONT	0.96	KITCHEN	0.77	ENTRANCE	0.90	COOKING	0.89
			(0.83)				
4.BACKYARD	1.08	PASSAGE	0.83	SHOP	1.35	INNER COURT	0.96
			(0.90)				
5.BEDROOMS	1.34	OUT/KITCHEN	0.96	SLEEP	1.46	FEM/SHELTER	1.12
BATHROOM	1.34		*(0.98)*	COOKING	1.46		
6.STREET	1.59	BACKYARD	*(1.13)*	STREET	1.69	MILLET	1.23
						STAMP	
			1.08	STORAGE	1.69	PASSAGE	1.23
		BEDROOMS(1	1.08			COOKING 2	1.23
		,2)	*(1.21)*				
7.		BEDROOM	1.47			MALE HUT	1.27
		MAIN	*(1.58)*				
		BATHROOM	1.47			STORAGE	1.27
			(1.58)			HUTs	
8.		STREET	1.59			PANTRY	1.66
			(1.66)				
9.						OUT/FEMALE	1.43
						ENTRANCE	1.56
10.						MEET/SPACE	1.60
11						OUT/PARENT	1.62
						S	
12.						PANTRIES	1.66
13.						GIRLS HUT	1.85
						WIFE HUT	1.85
						GUEST HUT	1.85
14.						BOY'S HUT	1.96
						OUTSIDE	1.96
15.						PARENT/HUT	2.04

Spatial Characteristics of the two bedroom NBIC house

The syntactical values of the two bedroom house type follow the same pattern than that of the three bedroom house, but with the segregation (RA, RRA) and the control values (RR) slightly higher than those of the three bedroom house. This indicates slightly more segregation and less control in the two bedroom type than in the larger type. The only exception is the lounge that illustrated less control that of the three bedroom house.

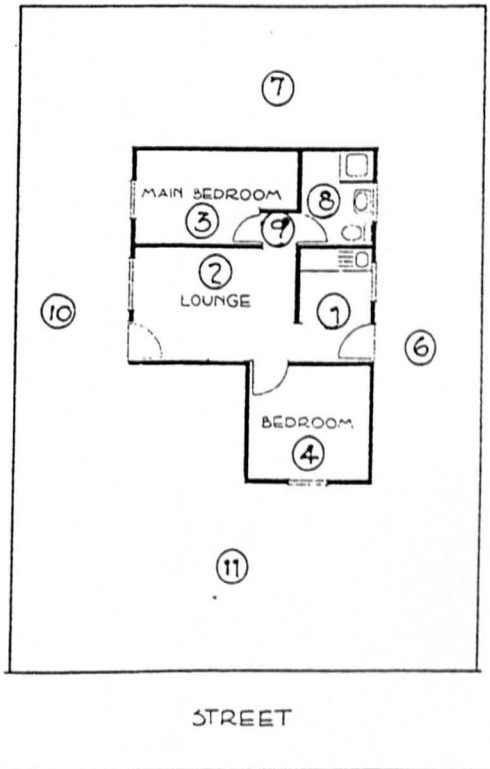
Comparing the mean values with the other domestic environments, the relations are similar to that of the three bedroom type, with the exception of the segregation value (RRA) of the Wanaheda house which is less than that of the two bedroom type, but more than the three bedroom type. The complex as a whole is therefore slightly more segregation and controlled than the three bedroom type and Wanaheda house. The order of segregation is the same, with the exception of the backyard and the second bedroom. Those have the same RRA values in the three bedroom type, while the bedroom is more segregated than the backyard in the other type.

The two bedroom type shares the discussed characteristics with the three bedroom type. It is also less segregated and less controlled with more movement choices, than the owner-designed domestic environments.

The lounge of the two bedroom type has become less integrated, but is still the most integrated space it its own complex, similar to the three bedroom type. The main bedroom is also the deepest and most segregated of the two bedrooms, although its value is also higher and it actually does not share the same RRA value with the informal house.

Although there are small variations, the main characteristics as discussed and concluded in the spatial characteristics of the NBIC house type used in the main study, also apply to the two bedroom type, thereby reflecting a similar socio-spatial design implication in the NBIC house types. The similar placing of the houses on the plot also replicate the same problems concerning the street frontage. This also applies to problem of the small kitchen.

PLAN



JUSTIFIED PERMEABILITY MAP