
Core housing, enablement and urban poverty

The consolidation paths of households living
in two South African settlements

Mark Napier

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Abstract

The objective of this thesis was to enhance the understanding of both the formation of core housing settlements in South Africa and the consolidation processes which take place after residents have occupied the housing. Whilst the usually unassisted, consolidation efforts of residents of informal settlements and mass built government housing have been well studied, there were relatively few studies which gave a comprehensive understanding of longer term physical consolidation in settlements which had been designed and built with a view to extension. The central research question was whether core housing should be accepted as a sufficiently supportive institutional and physical framework for allowing or enabling households to counter situations of urban poverty, achieve adequate housing, and integrate themselves into the city.

Two case studies were chosen which represented the delivery of core housing at scale, one being Inanda Newtown in Durban (about 4000 houses occupied from 1981), and the other being Khayelitsha in Cape Town (about 5000 houses occupied in 1985). Some 444 respondent households were interviewed in 1996 using a mainly quantitative method, as were stakeholders involved in the initial production and ongoing support of the areas. The study was retrospective and comparative of the two settlements. Inanda Newtown represented the delivery of larger, shell houses and lower levels of service, where an NGO had supported the process for a protracted period and established a local authority also supportive of consolidation. Khayelitsha represented the delivery of smaller core houses with higher levels of service and an unsupportive institutional context. A critical realist framework was adopted to enhance the understanding of the power relations between the various urban actors involved in the production, support and consolidation of core housing, and thus the causal mechanisms which shaped the personal projects of households as they attempted to achieve their own housing consolidation projects. In the conclusion the relevance of the findings to the current South African policy context and to global development thinking was discussed.

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List of abbreviations

ANC	African National Congress
BESG	Built Environment Support Group
CSIR	Council for Scientific and Industrial Research
CBO	community-based organisation
DoH.....	(South African national) Department of Housing
IDT	Independent Development Trust
nd.....	no date (for a reference)
NBRI	National Building Research Institute
NGO.....	non-government organisation
MLL	Minimum Living Level
PNAB	Port Natal Administration Board
SANCO	South African National Civics Organisation
SLL	Supplementary Living Level
UF	Urban Foundation
UN.....	United Nations
UNCED	United Nations Conference on Environment and Development
UNCHS	United Nations Centre for Human Settlements (Habitat)
USAID.....	United States Agency for International Development
VKE	Van Niekerk, Klein and Edwards
WCED	World Commission on Environment and Development

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1 Introduction

The basic components of assisted self-help were: *home ownership and security of tenure in land and housing; the need for self-help contributions; the incorporation of progressive development procedures; the reduction in standards; access to financial resources; and access to and development of appropriate technologies and materials. Policies were thus based on sites-and-services and self-help housing projects; core housing, slum and squatter upgrading; the stimulation of informal sector activities and small-scale enterprises in project areas; access to financial, managerial and technical assistance; regularisation of tenure and the expanded provision of public services.* (Burgess, 1992:82)

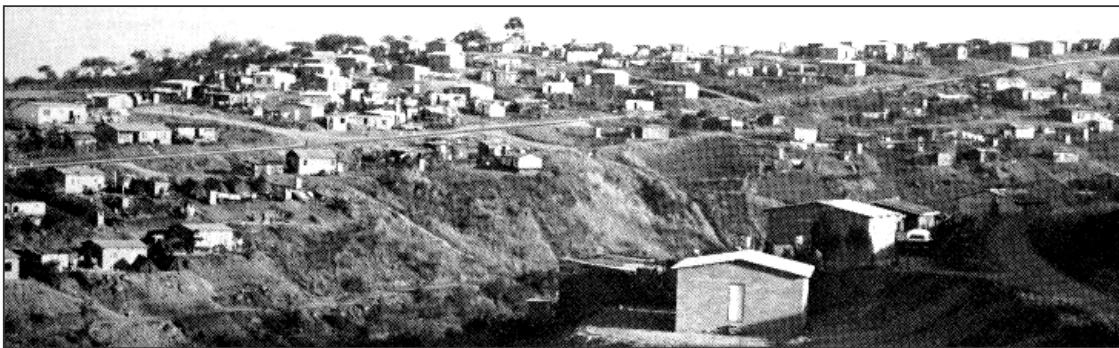


Photo 1-1: Inanda Newtown in the 1980s during construction (source: UF, 1983)

1.1 Motivation for the research

The construction of core houses within serviced settlements has for many years been one of a number of partial provision approaches advocated as ways for governments to assist urban citizens living in poverty in their quest for more formal forms of shelter (e.g. Abrams, 1964:175ff; Burgess, 1992:82). Typically core houses were structures which were built with the intention that they subsequently be extended and improved by residents or their direct agents. Such structures were designed to be minimal in size, level of finish and/ or level of service but in their construction, layout and siting specific provision was made for the upgrading of one or more of these aspects¹. An investigation of the roots of the core housing concept reveal that it was essentially a compromise which allowed governments to pull back from the provision of completed mass housing while at the same time, ironically by providing less, giving an opportunity for residents to add to, and thus participate in the production of, their own housing. The incremental or gradual housing construction approach in the form that was co-opted by the formal sector had as one of its possible origins the recognition of informal housing processes through, amongst other dynamics, the publication by Abrams (1964; 1966) and Turner (1965; 1976) of their respective seminal works. These served to

¹ Definition originally used in Napier (1995:4).

heighten the knowledge and awareness of the dynamics of housing processes initiated by people living in urban poverty and led to the proposition of the core housing approach, as well as other 'elemental' approaches (Ward, 1982:6) such as sites and service schemes, and informal settlement upgrading.

Despite many critiques of the positions of Abrams and Turner (e.g. Burgess, 1982, Marcuse, 1992), intervening agents and housing theorists have continued to attempt to use the observation of informal systems to learn from the survivalist mechanisms of people living in poverty. Rather than trying to learn from observing largely informal processes, this investigation intends, by viewing core housing case studies some time after their occupation by residents, to learn from previous, intentionally enabling, interventions. While drawing lessons from enablement experiments, it at the same time questions the assumptions on which they are based. So, in this case, the core housing approach assumes that the provision of formal services and minimal shelter will place beneficiaries on the path towards the production of adequate housing and settlements through their own investments after occupation of that housing. The nature of the responses of residents to core housing environments in the form of building extensions and socio-economic status after a decade of occupation are used as indicators of the appropriateness of core housing as an enablement strategy.

1.2 Demand for the research

It should be stated at the outset that the direction of the research was initially influenced by the need to look at these issues within the South African early post-apartheid era (i.e. 1994-1998). With the adoption of a housing policy based on the production of rudimentary houses using a State grant (referred to as a housing subsidy) targeted at the poorest sectors, the assumption that residents would then be able to successfully add space and utility to that initial provision stood behind the policy but remained largely unexplored. The reason for the initiation of this investigation was to answer the question of whether this was a justifiable assumption. Empirical data collected as part of the initial research proved robust enough to form the basis for this study.

Another motivation to study core housing was that examinations of consolidation processes had tended either to look at resident designed and constructed housing in informal settlements (e.g. Van Lindert, 1992; Ramirez et al, 1992; Gough, 1996) or at formal mass built housing professionally designed without the eventuality of extension in mind (e.g. Tipple, 2000). Other than project or programme evaluations undertaken by funding agents shortly after completion, it seemed to be a fairly rare occurrence for researchers to return to settlements which were explicitly designed to enable the participation of residents (i.e. assisted self-help projects) and to assess whether this participation had taken place in ways that the original designers had envisaged.

1.3 Object of the research

So with core housing settlements likely to emerge as the most common product of contemporary South African policy, and a more general need to re-assess the housing forms most commonly advocated in early development literature, it was proposed that the experiences of households living in core housing settlements should be investigated. Hence the title: *Core housing, enablement and urban poverty: the consolidation paths of households living in two South African settlements*.

The reference to "consolidation paths" implies that the primary focus of the study remains on the activities of residents during the years that they have occupied core housing. More specifically, the emphasis is on changes that they have effected on their home environments, and whether these changes in environment and lifestyle can be seen as a reasonable improvement (or indeed deterioration) in quality of life. A view of how people consolidate their homes in situations of poverty is then taken as a reflection of whether core housing settlements are an appropriate settlement form to enable improvements in conditions of living. Given that core housing projects typically begin with a formal intervention, the word "enablement" brings in the intentional, interventionist role that governments and international agencies set out to play by supporting the production of incomplete housing.

Thus the central research question is whether core housing should be accepted as a sufficiently supportive institutional and physical framework for allowing or enabling households to counter situations of urban poverty, achieve adequate housing, and integrate themselves socially, economically and spatially into the city. On the one hand we are looking at the core housing approach from the point of view of donor and other funding agencies, the State, non-government organisations (NGOs) and professional agents who plan and implement housing projects in order to understand what they stand to benefit. On the other hand, and more importantly, we are looking at core housing from the inside, from the point of view of the resident, with most evidence coming from the household. Therefore learning about how households have mobilised resources for consolidation projects so as to best engage with core housing environments also emerges from the study.

The empirical evidence was collected from stakeholder and household interviews in 1996 in two core housing settlements in South Africa, namely Khayelitsha in Cape Town (see photo 1-2) and Inanda Newtown in Durban (see photo 1-1). The empirical data is interpreted in the light of the theoretical and methodological departure points established through the review of literature.

To summarise then, the core elements of the study are as follows:

1. The *object*: core housing and settlements;
2. The *subjects* primarily households who live in core housing, and secondarily other stakeholders involved in the creation and

- management of urban settlements;
3. The *processes*:
 - a) the creation of core housing settlements;
 - b) the modification of housing by residents;
 - c) improvements in well-being
 4. The *context*: urban poverty and apartheid rule in 1980s South Africa, working through to the situation in 1996 when the data was collected.
 5. The *evaluation criteria*: the common aim of the production of core housing which is taken to be enablement towards the alleviation of poverty, the attainment of well-being and integration into the wider city.
 6. The *research question*: are core housing settlements a supportive environment in which households can counter poverty and attain adequate housing?

Behind much of this investigation is an overarching question: can governments, local authorities, community-based organisations (CBOs), non-government organisations (NGOs) and international agencies justifiably continue to promote core housing in its current form to enable residents to achieve the alleviation of urban poverty and attain a broad sense of well-being particularly in the South African context, or are there fundamental flaws in the approach which will continue to hamper success irrespective of how carefully the processes and products are designed? Should the core housing approach be modified in certain ways to improve the chances for better outcomes for residents in particular situations, or should there be a questioning of the way in which formal urban stakeholders confront housing and shelter issues?

1.4 Layout of the thesis

Chapter 2 looks at the context out of which the idea of core housing emerged and then spread to many countries. The lessons from the early application of the core housing approach are discussed, along with how core housing learning was located in the broader assisted self-help housing critique. The roles and agendas of the agents of the production and consumption of core housing are analysed from within global housing and development thinking. Chapter 3 then focuses on the way that post-occupancy housing adjustment processes have been studied in order to construct a theoretical basis on which to view core housing consolidation. The means and ends of consolidation activity are placed within a critical realist framework in order to generate evaluative measures for the study. Chapter 4 describes the historical development of the physical and non-physical aspects of the two study localities in South Africa. It includes the shaping of the political, civil and spatial structures in which the residents of Inanda Newtown and Khayelitsha were to end up living. How both settlements were established is described. The subsequent two chapters present the primary findings in a chronological manner, with Chapter 5 looking at issues when residents first occupied the housing, and Chapter 6 analysing the post-occupancy phase including views of the households, the houses and the settlements, as well as the nature of the consolidation process itself. Chapter 7 seeks to draw together the information into a set of explanations of what was driving consolidation processes in the

two study localities, and to describe the impacts of over a decade of consolidation on resident households. Chapter 8 outlines the conclusions by summarising the report (and can be read as an 'executive summary'), and by discussing some of the debates arising. It reflects on the significance of the findings for South African and global core housing practice, as well as on directions for further study.



Photo 1-2: Khayelitsha panorama, 1996

2 The origins and spread of core housing

Core housing is a major variant of the self-help technique. Introduced into the underdeveloped areas by United Nations missions, it has now become part of the housing vocabulary. It aims to provide an organised, cheap, and practical scheme for the urban and urbanising areas of poorer countries. Since the UN missions, the idea has spread and is on its way to becoming an important building device in the less developed areas. (Abrams, 1964:175)

2.1 A brief history of core housing

The emergence of a set of philosophical debates around self-help in the 1950s and 1960s, and the recognition of the problems experienced by governments attempting to continue to meet housing needs through full provision, prepared the ground for the proposal and growing acceptance of the core housing approach, along with other forms of partial housing provision.

As colonial powers gradually relinquished control of developing countries throughout the world, a trend that affected African countries mainly during the 1960s (UNCHS, 1996a: 86), the sustainability of inherited housing practices began to be questioned. One issue was a general recognition of the limitations of the mass provision of low cost housing by the State (Turner, 1976:35-50). The provision of completed houses for people with low incomes often in locations distant from city centres through direct State action was commonplace in many African countries from the 1920s until the 1960s (Swanson, 1968, Tipple, 2000:13). As national budgets shrank, and as governments devoted smaller proportions of their budgets to housing provision, it became evident that the demand for housing was growing despite efforts to supply that demand (Hamdi, 1991). In developing countries, the movement of households from rural to urban areas, and high population growth rates in urban areas (Gilbert and Gugler, 1992:7) meant that demand continued to outstrip supply, and governments quickly realised that full provision was not sustainable. As a result, government housing programmes in most parts of the world "ran out of steam" (Koenigsberger, 1987, and Ward, 1982:2).

An indication of the failure of government housing provision was the increase in the spontaneous settlement of people on land which they did not own, or the construction of initially impermanent forms of housing on land illegally sub-divided by the owners. As a result larger and larger proportions of urban residents lived in rudimentary shelter with few or no municipal services (Gilbert and Gugler, 1992:114, and UNCHS, 1996a).

The emergence of this situation was observed firstly by anthropologists working in squatter settlements and slums in different parts of the world (Mathéy, 1992b:379ff) and then by several housing specialists who were working in developing countries or moving around the world supported

by funding from donor agencies. This allowed a comparison of the forces that were shaping cities in much of the Third World¹.

It is difficult to establish the exact origins of ideas at the time, but the key self-help housing theorists who are most often quoted are John Turner (1965) and Charles Abrams (1964). From the mid-1950s, John Turner, an architect, worked with William Mangin, an anthropologist, on USAID funded upgrading projects in the urban *barriadas* of Peru². Later, Turner began to publish his observations and did more empirical research work in the USA and Mexico. In his seminal work on the subject, "Housing by People", Turner spent much of his time comparing the fundamental qualities of unassisted self-help housing to those of formal State attempts to house low income households (1976). Unlike Charles Abrams, in much of his earlier published work he seems to have stopped short of describing the physical manifestations of assisted self-help, such as sites and service or core housing approaches, preferring rather to expound on the fundamental principles of unassisted and assisted self-help.

Explicit in much of Turner's work is the assertion that the State and other interested parties (i.e. the private sector) should relinquish control of the housing process and that this should be achieved through the "resorption of government back into the body of the community" (Turner, 1972:110, quoting Patrick Geddes). Turner was urging that as much choice and freedom be granted to the occupants of urban housing (formal and informal) as was possible within the prevailing system of government, a suggestion that was, at a later stage, viewed with some scepticism by theorists such as Rod Burgess, who commented that "...Turner is naïve if he thinks that these groups are going to forsake their economic interests in a fit of charity!" (1977:51).

Despite the recognised limits to devolved decision making and autonomy by people producing their own housing (Burgess, 1982), Turner's written work can be seen as largely responsible for persuading academics, donor agencies, government officials and professionals that the creative activities of people in housing themselves (in informal settlements) should be seen as part of the 'solution' rather than as the major urban problem that it was perceived to be by many city officials.

At the same time that Turner was working in Peru, the urban planner Charles Abrams (1964) was working as a consultant to the United Nations Housing, Building and Planning Branch and took part in

¹ The terminology used in this thesis to refer to different parts of the world favours the use of the 'First World' as a shorthand to refer to North America and Western Europe, and the Third World to refer to Asia, Africa and Latin America. Where the terms 'developed' and 'developing' countries are used, there is an awareness of the value judgements inherent in these descriptions, and the views of the agencies who portray some countries as inherently more advanced than others are consistently challenged.

² Based on Turner's 1976 foreword, he started work in Peru in 1956. One of his earliest papers was written in 1963 ('Dwelling Resources in Latin America, Architectural Design, August 1963). Turner mentions meeting Abrams after writing his 1963 article (Turner, 1976:1-3).

a large number of UN housing missions³. This allowed him to compare situations across countries and make observations about the impacts of urbanisation on human settlements. While he also added to the growing body of knowledge about the dynamics of 'squatting' and the nature of 'slums', Abrams was more direct in his description of ways that agencies such as the UN might intervene.

Abrams discussed the method of house construction by people who did not have access to finance, referring to it as "instalment construction", or building "serially" (1964:174)⁴. After the acquisition of land (legally or illegally), he had observed households who built sections of their houses as they could afford building materials. This process of construction was not confined to developing countries.

Simple shelters have been built in all parts of the world and then expanded room by room or floor by floor until the house met the families' ultimate needs. Squatters have also put up rude shells and later extended them. (1964:175)

There were often long lapses of time between more concentrated bursts of construction activity. Abrams interpreted this mode of construction as being the result of lack of access to sufficient amounts of money to sponsor the building of whole houses, because of the absence of personal savings or the lack of access to appropriate financial packages.

Turner also observed what he called "progressive development" in Lima, Peru (1965 and 1976:24), in which individual household members (whom he referred to as 'bridgeheaders') would move to an urban area ahead of their families to secure land, and then once they moved to the city would begin to consolidate that land through the incremental investment in boundary walls and then other elements of the house (these people being referred to as 'consolidators')(Turner, 1965; 1972). He also observed a correlation between this social process and the gradual improvement and expansion of the shelters (i.e. 'consolidation') which people built for themselves. This structuring of urbanisation patterns and settlement formation processes formed the basis for some of his earliest writing (Turner, 1965). Because Turner held that housing should be seen for what it *does* for people (i.e. housing as a 'verb') rather than as merely an object or product (i.e. housing as a 'noun'), the construction, or consolidation, process suddenly became more visible both to policy makers and to formal designers who had until then invariably designed impervious processes and completed structures with little consideration of how households would participate in the process of modifying the houses and plots.

³ Abrams initially specialised in American land problems (work published in 1939), and he traces his involvement in developing countries from 1952 onwards when he embarked on a world study of urban land problems and policies. During the next ten years, many UN missions followed on which Abrams served as a consultant. Fourteen reports came out of these missions, and culminated in the 1964 book. Abrams acknowledges the ideas of Otto Koenigsberger who accompanied him on a number of the UN missions (Abrams, 1964:ix-xii). Unlike Turner, Abrams does not mention meeting Turner in 1963.

⁴ Other adjectives used in literature to describe such housing processes include 'embryonic' (Fiori and Ramirez, 1992, Ward, 1982:202), 'gradual', 'evolutionary' (Skinner and Rodell, 1983:3), and 'incremental' (Harms, 1992).

The next step in the process was an interesting one. One group of people, the self-help proponents, sought to take the positive aspects of unassisted housing production and to incorporate them into the formal system, either in terms of the ways that decisions should be made, or in the way that residents should participate in some or all stages of the settlement formation process. Sometime later, when assisted self-help projects had been attempted, there was a second group of (increasingly vociferous) self-help detractors who highlighted the fundamental contradictions in some of what was being promoted. We shall return to the opinions of the second group, but for now, how did the proponents proceed?

The advent of core housing

Abrams and Koenigsberger took the next step by moving from a recognition of the advantages (and limitations) of informal housing processes, to suggesting concrete ways in which these processes could be harnessed by the public and private sectors and, very importantly, by the international donor community. It was from within this frame of reference that he described the potential benefits of core housing. Essentially what they were suggesting was a direct translation (rather than an interpretation)(Rapoport, 1990:100) of their observations of unassisted gradual construction into a set of formal alternatives that intervening agencies could employ to exploit the perceived strengths of the informal process (and indeed the energies of the "...vigorous, capable, and organised working-class people" whom Turner had come across in his work (1972:137)) .

As documented by Skinner and Rodell (1983:7) and evident from Abrams' words quoted at the head of this chapter, the reports that emerged from the UN missions between 1955 and 1963 laid the foundation for the now well known sites and service approach (originally called "land-and-utilities schemes"). Abrams described the core housing approach in detail (1964:174-181). In assisted self-help projects (essentially sites and service schemes), Abrams and his co-workers were seeing that participation in construction was limited by the householders' location, distant from the building site. The households then either had to invest their limited funds in building a shack on site or commute from some way away to make their labour contributions. So Abrams proposed the provision of a room where the family could live while they extended the house as resources became available (176).

In the form that Abrams' conveyed it, the core would be mass produced at scale, and then user contributions would take place from that point forwards. Abrams described a series of different kinds of core houses which should be designed to match the local conditions including the particularities of climate and affordability:

...the one room core for small families in very poor countries; the two room core to be expanded horizontally for the growing family; the core that can be added to vertically; the row house core, the front and rear of which is expandable; and the core built as part of a compound. (Abrams, 1964:177)

A number of principles were outlined which suggested the spirit in which the core housing approach was originally framed. They are revealing of what Abrams and the United Nations missions had in mind to achieve when proposing this form of housing. Abrams stated that core housing:

- should be of a size to accommodate the typical family from the outset,
- should be designed to be extended by the household (with training available if requested) or more likely by locally settled small contractors,
- should be owned by the resident household with loans being made available in instalments to finance *both* the original core *and* the extensions,
- should be on a plot of sufficient size to accommodate expansion according to several alternative plans, show houses being built to demonstrate the alternatives,
- should be constructed from materials that allow expansion and which could be supplied through local material suppliers and producers who should also be assisted to develop in the area,
- should be designed to be comfortable given local climatic conditions, and
- must have access to water and sanitation from the time of occupation (176-177).

Core housing, as framed in this early description, was little different to the staged delivery of complete mass housing. The core was to be built by formal contractors. Both the core and the extensions were to be financed. The extensions were to be built according to plans supplied by the project developer. The main innovation in practice for its time was the enablement of a limited self-help contribution by the occupying household, supported by the stimulation of the materials supplier and small contractor sectors. The financial innovation was that the form of core provided would somehow relate to levels of affordability by the household to be accommodated. There was therefore an acknowledgement not only that governments could not afford full provision but also that most households could also not afford it. Whether affordability and cost recovery were achievable by applying the core housing approach in projects remained to be seen. The institutional innovation was possibly that local authorities needed to be convinced to lower standards for a time while the houses reached completion, but that basic housing standards were ensured when compared to the sites and service approach (Ward, 1982:202-203). *Core housing was thus a highly managed and limited form of assisted self-help.* The housing areas that resulted, if they conformed to Abrams' and Koenigsberger's vision, would eventually look much like other government built mass housing areas.

Abrams went on to describe "roof loans" which were suggested to developing countries (Ghana, Bolivia and Nigeria) by UN missions to sponsor the capital intensive components of house building (i.e. mainly roofs, doors and windows), while at the same time building on traditional skills such as block making and block laying. In some



Photo 2-1: South African version of a roof house, Durban

cases the roof was not sponsored because thatching skills existed and were not to be supplanted by formal provision. The savings that were to be gained by government and aid agencies from not having to build whole houses for people were quantified in these exercises (1964:187, 192). From the way that roof loans were described, it is clear that they were another variation of the partial house provision approach, and that the financing mechanisms that were made possible by core and other housing approaches were as important as the physical form of the product.

Therefore, the case for core housing was originally put forward as a logical argument. That is, it was portrayed as self evident that giving a household a place to stay from the outset was reasonable. However, the building of a builder's shack as the starting point for an informal consolidation process is also common practice in many Latin American countries (Kellett and Napier, 1995:17), and so core housing, although not described in this way by Abrams, could well have been a direct imitation of the informal process, as well as co-opting the 'instalment construction' method, rather than simply a logical extension of the need for the residents to be based on site. As Ward observes, "Many of the empirical descriptions about the way in which squatters behaved, their needs and priorities, were directly transposed into new housing policies..." (1982: 6). Ward went on to describe the sites and service approach as taking "...a leaf from the illegal sub-divider's book" (202).



Photo 2-2: Experimental roof house subsuming original shack, CSIR (see Bolton, 1987)

It should also be stressed that core housing as a suggestion by Abrams and Koenigsberger, came out of a new focus on formal and informal housing delivery *processes*. Thus core housing was not primarily suggested by the theorists and practitioners as a new kind of product, but rather as a result of the application of a whole self-help package. Burgess makes this clear when he lists the basic characteristics of, and locates core housing within, the self-help package proffered by Turner and Abrams and subsequently taken up by bodies such as the World Bank. The typical components were:

home ownership and security of tenure in land and housing; the need for self-help contributions; the incorporation of progressive development procedures; the reduction in standards; access to financial resources; and access to and development of appropriate technologies and materials. Policies were thus based on sites-and-services and self-help housing projects; core housing, slum and squatter upgrading; the stimulation of informal sector activities and small-scale enterprises in project areas; access to financial, managerial and technical assistance; regularisation of tenure and the expanded provision of public services. (Burgess, 1992:82)

So core housing, in the eyes at least of the original proponents of the approach, was part of a much wider set of initiatives, and should have been a by-product of a housing process where residents from the informal sector were to be invited by the State or their agents to take control of (or at least make more significant contributions to) the housing process.

The *original intentions* of core housing, were thus motivated by a vision of the marriage of the formal and informal processes, making the best use of what the theorists perceived that the people living in urban poverty could contribute (e.g. Wegelin 1983:110) while at the same time using the strengths of the formal sector in mass building. For its time, core housing was also essentially a technical solution to this conceptual problem of how to combine the formal and the informal. It was part of an era in which development problems were believed to be solved through the application of capital, science and technology (Escobar, 1995:4) and in the case of housing, appropriate materials and technologies (Schumacher, 1973). As De Senarclens comments, "The notion of technical assistance was based on the assumption of a universal paradigm, or an economic, social, cultural and institutional norm applicable to all peoples on earth" (1997:195). Given this thinking, core housing could be applied in any part of the world, irrespective of context.

It is also important to note that in the way that Abrams proposed core housing, it can only be described as enabling "horizontal" participation⁵ because residents were only to be brought into the process after a certain point in the development process. Because of the stratified development process (i.e. clearly defined horizontal stages), the roles of various actors could be clearly defined. There was a clear point after which the formal sector was to withdraw, leaving the settlements to be developed by the residents. There was also a clear point before which the households were not to be involved.

Because Abram's description of core housing portrayed it as a controllable and manageable process, with a clear end point in mind, it was likely to be attractive both to governments, at all levels, and to donor agencies which wanted to be involved in interventions with clear time spans, while at the same time being seen to be accommodating participation by residents⁶. Obviously there were many different ways to implement this kind of staged delivery and many real projects did not conform to the original format suggested by the UN missions. Similarly, as will be shown with the South African case studies, and many others, the ways that core housing settlements developed after occupation did not necessarily follow the pathways of development that the original designers mapped out for them, often to the consternation of city officials.

By extending Turner's thinking, one would be able to place core housing in the middle of a continuum. At one end would be the heteronymous dweller in a mass built formal house, and at the other end would be the autonomous occupant of a shack dwelling in an unregularised informal settlement (Napier, 1993c). By servicing the settlement and building a core house ahead of occupation, the design professionals and State officials had pulled back the point of participation slightly, to allow residents to build on to the house after occupation. As we shall see this cannot be seen in most cases as true autonomy (and indeed, many would challenge the possibility that autonomy could ever be achieved within a Capitalist system, e.g. Marcuse, 1992). What core housing must then be seen

⁵ This builds on Ward's idea of "vertically integrated" community involvement (1982:7).

⁶ A point discussed in detail in the section on 'The entrenchment of self-help housing'.

as is one of the elemental approaches (Ward, 1982), in that certain elements necessary for habitation are provided whilst others are omitted. In this sense then, Turner's advocacy for full, vertically integrated participation by residents in all stages of the development process was unlikely to be fully met in the core housing approach, even in its idealised form.

The definition of core housing

In practice, many different types of partial housing emerged (see for example Figure 2-1). They can be grouped into three main categories:

1. houses which included all the main built components such as foundations, walls and roofs, and therefore were habitable from the outset;
2. houses which had one or more of the major built components missing, and therefore usually required some input by residents before being habitable; and
3. service cores, which housed the wet services such as water supply, sanitation and drainage, and sometimes energy supply.

Table 2-1: Terms used to refer to various core house types

Houses		Services
Habitable core houses	Non-habitable core houses	Service cores
<ul style="list-style-type: none"> • Single room core houses • Shell houses (sub-dividable) • Multi-room core houses • Multi-storey core houses 	<ul style="list-style-type: none"> • Floor or slab houses • Wall houses • Roof houses 	<ul style="list-style-type: none"> • Wet cores • Service cores • Utility walls • Service points

Combinations of these types of cores were also built. A common form was the provision of a single habitable room or a bathroom under a larger roof structure which could then be filled in by residents (see Photo's 2-1 to 2-3). Service cores were also often provided on site, attached or detached from the main core house.

As stated in the introduction, a core house is, historically by definition and for the purposes of this study, a structure that is somehow incomplete, and most importantly that it is minimal in its size or level of completion, and professionally designed with the intention that

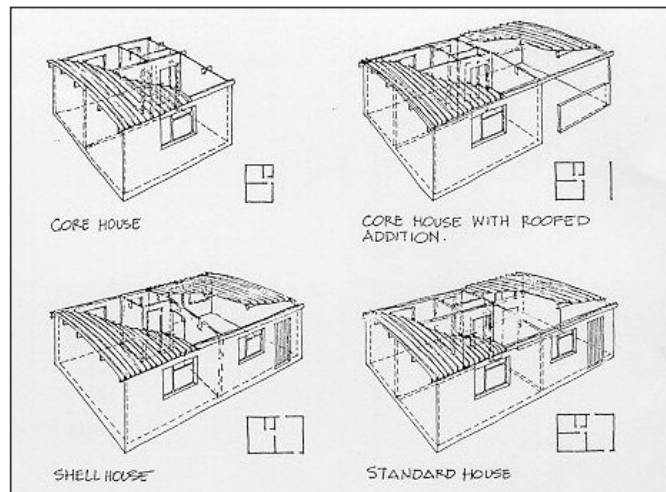


Figure 2-1: Starter house types according to NBRI (source: NBRI, 1987)

residents or their direct agents add space to it, or sub-divide it, after occupation. The house can also have minimal levels of finish or service which are designed to be upgraded over time.

Whilst a core house is defined here for its main product characteristics, there are a number of process characteristics which, as has been demonstrated, the nature of the product was designed to accommodate. However, there is much variety in the process and product characteristics (Rapoport, 1988:54) that emerged in the application of core housing, and therefore these should be stated as variables rather than as defining descriptors of the core housing approach.



Photo 2-3: Half roof house, half core house, Giyani (source: DoH)

Project-specific process characteristics of core house schemes include, amongst others, the mix of self-help and contractor inputs during the different design and construction phases; the degree of freedom and choice granted to residents, and the point at which residents become involved; the types of financing packages available to residents, formally and informally; whether core housing is being built as part of a greenfields development or as part of an informal settlement upgrading or sites and service project; and the nature of support for the improvement of the house after occupation.

Other product characteristics which vary between projects would include: the size of settlements; the location of settlements; the construction technologies and materials used; the size and layout design of sites; the size and design of houses; the levels of service; and the levels of finish.

So far the definition of concepts in this study has been confined to the initial production of core units prior to occupation by the residents. Issues around the consolidation processes that take place when residents move in are discussed in Chapter 3.

The application of core housing

The broader idea of assisted self-help, and its more specific manifestation in the form of core housing, gradually spread and was implemented in projects around the world for a number of different reasons. In addition to many examples of sites and service approaches throughout the world, core houses specifically were built in large numbers in Colombia through the ICT in the late 1970s and early 1980s (Strassmann, 1982; Gilbert, 1997), in El Salvador (Harth Deneke and Silva, 1982), in Chile through many eras, but particularly through the '*vivienda progresiva*' programme from 1990 to 1994 (Kellett et al, 1993; Gilbert, 2000) and in South Africa during the 1980s and under the current government (Napier, 1998).

As projects began to be built according to the principles espoused by the visionaries who had first suggested the approach, a body of experience began to emerge⁷ which had the possibly unintended effect of raising questions about many of the fundamental tenets behind what had become the conventional self-help wisdom.

Such collections of what would contemporarily be called "best practice" case studies tended to review new projects for the success of their implementation in terms of the criteria set up by the self-help advocacy school (as listed above by Burgess, 1992:82). Some examples of self-help projects included the construction of core houses. For example:

- there was the case of El Molino in Mexico City (Meffert, 1992) where cores were built through a mutual aid programme and were designed to be extended vertically;
- the case of the NGO, FUNDASAL, in El Salvador (Harth Deneke and Silva, 1982, and Bamberger and Harth Deneke, 1984; Ward, 1982:238ff) where a variety of core sizes was produced to match need and affordability;
- the case of Tanzanian core houses which were to be built by housing co-operatives (Siebolds and Steinberg, 1982 (see Figure 2-3), and Rodell, 1983);
- the case of Guadalajara, Mexico, where architects provided a house design to future residents who, with technical assistance, material and prefabricated components, were meant to construct the cores over weekends (Ward, 1982);
- the case of Lusaka where the existence of squatter settlements was recognised and people displaced by the subsequent upgrading programme were housed in core houses (Jere, 1984);
- and similarly the case of Tondo, Manila in the Philippines, where displaced households were offered a choice of sanitary cores and roof houses (Laquian, 1983:22).

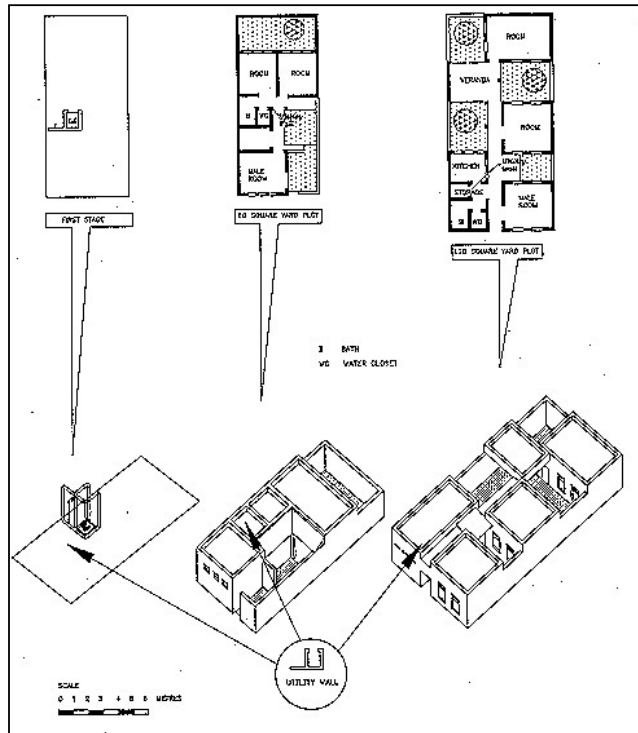


Figure 2-2: Example of service core design for Pakistan (source: UNCHS, 1991)

⁷ The idea of collecting together case study evidence was suggested by Turner at the end of his 1976 book, where he proposed a programme for "...thought, research, action and development...". The second of his four proposals that made up the programme was "...to set up a number of centres where case materials will be collected, indexed, and made available to those needing access to the precedents set" (157). It is possible that earlier forms of the United Nations Best Practice Database emerged out of this kind of thinking, but the more critical bodies of knowledge tended to be

There was also no lack of conceptual designs for extendable housing (e.g. Seelig, 1978 and Figure 2-2) or indeed support for the whole, more worldwide movement on "open building" (Habraken, 1976).

Even though the evaluation of projects in developing countries was done in most cases from within the advocacy school itself, many failures were identified. Many of the criticisms applied to self-help projects in general, and not only to core housing projects.

In cases where the quality of core houses was lacking and the houses had, as most often was the case, been built by external contractors, such projects were still subject to the criticisms that Turner levelled at mass house building in general (1976) in that complaints about faults in the house could be blamed on an external agent and did not become the responsibility of the resident.

The reductions in standards which were effected in order to increase affordability were sometimes taken too far. As Burgess

(1992:83) observed, "In reality the move to lower standards resulted in a reduction in the quantity of goods and services which the resident could receive for a fixed proportion of his income". This certainly applied to core housing. It was therefore not surprising that even though houses were cheaper, recovery of the costs of the houses from the residents was often not successful (Jere, 1984:66 and Laquian, 1983:20 - Lusaka). Passing on the real cost of the core to residents also meant that many could not immediately afford to extend. In some cases, high standards in the form of very stringent regulations by authorities about how residents could extend (using specified materials and extending within short time spans) meant that residents were afforded little opportunity for cost savings or employing the survivalist strategies related to gradual building (Rodell, 1983:25 - Tanzania).

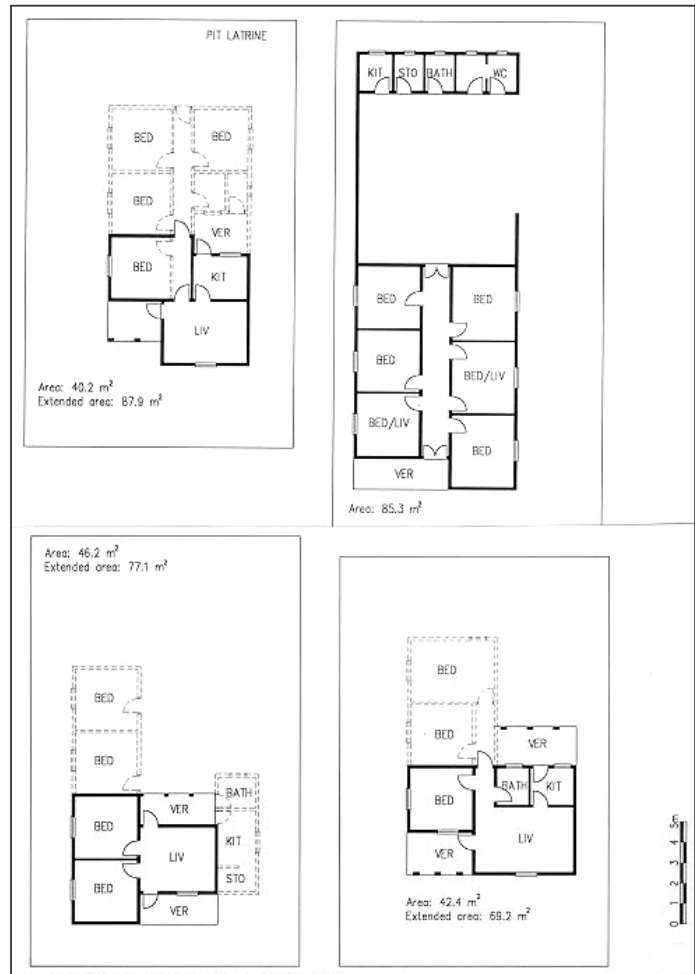


Figure 2-3: Tanzanian extendable house designs (source: Siebolds and Steinberg, 1982)

concentrated in sections of edited, academic books devoted to documenting case material (e.g. Ward, 1982; Skinner and Rodell, 1983; Payne, 1984; Turner, 1988; Math y, 1992a).

An extra time burden was placed on families participating in mutual and self-help projects (Meffert, 1992:335 - Mexico City) which led to the observation that the real costs of self-help were higher than expected, particularly to residents (Math  y, 1992b:385; Harth Deneke and Silva, 1982:241 - El Salvador). The ill-considered use of labour contributions in projects led to the common criticism of the double exploitation and co-optation of the poor (Ward, 1982), and many were forced to employ labour (Ward, 1982:203 - Guadalajara). Self-help housing was rarely allocated to woman-headed households (Hardoy and Satterthwaite, 1995:71), and where the participation of women in construction was urged by funding agencies, it set up a local barrier that needed to be overcome as the project proceeded (Meffert, 1992:335 - Mexico City).

High land costs attendant on better location tended to reverse the cost savings realised through partial provision. If costs were to be recovered from residents, then either standards had to drop considerably (in this case smaller and smaller core houses were produced, or lower levels of service), or purchase and service charges had to reflect the costs. The more common tendency was for projects to be located far from urban centres on cheaper land where public authorities were able to make projects affordable (Hardoy and Satterthwaite, 1995:71). Math  y (1992b) makes the point that residents dealt with increased costs through strategies such as increasing the density of people occupying the land available thus increasing rental income and resulting in overcrowding with its attendant problems.

Security of tenure was not always granted (Jere, 1984 - Lusaka) meaning that resident investments could be lost if governments changed their level of support for self-help⁸. Even where security of tenure was granted, the motivation to invest time or other resources to the long term improvement of housing was often absent. Early studies identified security of tenure as the key factor in ensuring the ongoing participation of residents, but later studies revealed a more complex picture and a series of possible factors including the differing investment habits of people (Angel, 1983), and structural factors such as political incentives or disincentives to improve housing (Boaden, 1990).

Projects often did not succeed in reaching the people for whom they were designed. The insistence on full cost recovery may have been partially to blame (Math  y, 1992b:385) as was the initial affordability of what was delivered, the effects of increased taxation that relocation or upgrading might have caused, and the increased rental for tenant groups (Burgess, 1992:83). The whole issue of ineffectual 'targeting' (Harth Deneke and Silva, 1982 - El Salvador) and of the 'downward raiding' of low income projects by higher income groups was also observed in many projects (Gilbert, 1999:1075). The converse of downward raiding, which was a situation in which the residents of self-help housing found after a number of years that they were unable to realise the market value of their homes by selling them was also observed (Gough, 1998; Gilbert, 1999).

⁸ This was also the case in the Cape Town case study reviewed in detail below.

Many of these project level problems cannot be seen as the direct failure of self-help itself, as proposed by the original proponents, but rather hint at the fact that the public and private sector interests were not giving over as much control of the process to residents as the proponents expected, supporting the assertions made by Burgess (1977:51) that these sectors were unlikely to abandon their own interests.

At a global level such projects failed to deliver housing at scale. A number of possible explanations were given, but one that was clearly identified was that special dispensations which were established to accommodate pilot projects meant that projects were not replicable in the wider country contexts. The UN estimated in the 1970s that 8.7 million housing units would be required to address the housing deficit in less developed countries. In fact only 9 million people were reached through self-help projects between 1972 and 1981 (Burgess, 1992:83). Bamberger and Harth Deneke suggest that the problem of replication at scale could be overcome with an improvement in the quality of urban management "... to plan and execute land, services, and housing schemes for the huge numbers of low-income households who are currently excluded from urban housing programmes" (1984:52).

One of the reasons given for the limited success of self-help projects is levelled back at the very concept of the sharing of knowledge between projects, when it was stated that self-help projects had often been based on experience acquired in other countries which was only partially appropriate and transferable to the country where it was being applied because of differences in at least culture, climate and geography (Mathéy, 1992b:385).

Despite some of the more fundamental problems with self-help and core housing, which are addressed in the section immediately below, there were nevertheless many positive outcomes, in some cases in the same projects which demonstrated the limitations of self-help. For example, there were projects where cost recovery was relatively successful and repayments not as burdensome on household budgets as in other project types (Harth Deneke and Silva, 1982:240, Ward, 1982:245 - El Salvador), where overall costs were reduced, where participating groups were drawn together into consolidated communities by the process (Meffert, 1992:335 - Mexico City), where the institutional capacity was established to reach large numbers of poor households within a country or city (Jere, 1984 - Lusaka), where the skills and capacity of participating communities were enhanced (Meffert, 1992), and where high levels of household investment were observed (Laquian, 1983 - Manila).

There is, however, a fundamental limitation in most of the collections of case study material and the resultant commentaries on the strengths and weaknesses of self-help housing. One of the basic assumptions behind partial housing provision approaches is that they are designed to give residents the opportunity to invest and improve such sites and core houses (Laquian, 1983:25), and thereby to consolidate their positions in the urban economy. This is bound to be a long process in many cases. Despite this, most observations about self-help housing, whether by its proponents or detractors, were based on project evaluations done immediately after the completion of projects, or some years

afterwards, but with very little view of the dynamics of the consolidation processes that residents have followed. Certainly most World Bank assessments were done on completion, or at most one year after the completion, of projects (Van de Laar, 1980:4).

The criteria applied were therefore mostly related to the production of core housing and not to its consolidation. Observations were made about the success of initial recovery of capital costs from residents, the performance of materials supply markets which had not yet become established, the peripheral location of settlements because new land had been developed, and the lack of diversity of the core housing product which had not yet been formally extended and altered. As a result much of the work ignored the development of self-help projects during the decades after occupation, meaning that while methods to study the consolidation of informal and formal settlements were well established (e.g. Schlyter, 1991; Preisner *et al*, 1989; Meese, 1990; Kaitilla, 1994), the long term reassessment of self-help projects, and particularly core housing projects, were relatively rare. There were some exceptions to this, such as Laquian's (1983) work on consolidation of core housing in Manila, and passing reference to levels of consolidation by Harth Deneke and Silva (1982) and Ward (1982:243ff)⁹

In this sense then, many of the observations that were made about self-help housing were premature, and longer term views, which are only now emerging, twenty to thirty years after the initial implementation of these principles, are needed. This is particularly the case seeing that many countries still continue to apply these various forms of partial housing but with little view of how they might be made to work, or indeed, whether deeper structural problems are likely to limit or frustrate their ultimate success.

If the criticisms of self-help housing did not emerge from sound empirical evidence in the form of longer term post-occupancy evaluations, why did such a sheer mass of negative criticism emerge so quickly from attempts to apply core housing and other assisted self-help approaches? And given that there were so many detractors, why did partial housing provision approaches spread so widely, and why do they continue to be implemented in many countries (see section on "The application of core housing")? There must be other more fundamental tensions within the whole conceptualisation of the self-help housing idea for there to have been such a level of debate over the last 20 years. But there must also have been reason for the various actors in the housing field to continue to support self-help housing. The answers can, I believe, be found by examining the diverse motivations of the various actors in the core housing process.

⁹ Chapter 3 looks in more detail at investigations of the consolidation of core housing and other housing types after occupation by the residents.

2.2 The entrenchment of self-help housing: the vested interests of the actors

This study will not attempt to redraw the history of self-help, as done by a number of commentators (e.g. Burgess, 1992; Math  y, 1992a; Pugh, 1997; Hamdi, 1991), nor to review the many critiques of the self-help movement (Lea, 1979; Ward, 1982; Gilbert and Van der Linden, 1987; Fiori and Ramirez, 1992, Marcuse, 1992). However, it does seek to understand the context out of which core housing emerged as a concept and the subsequent spread of the idea (or 'innovation diffusion'¹⁰) through the ministrations of its various producers and recipients. The concept of core housing and sites and services as popularised mainly by Abrams during the 1960s came out of a particular period in history and its more comprehensive implementation during the next decade took place against a moving backdrop of development thinking. In the following discussion, the diffusion of a number of concepts are traced: 'development', 'assisted self-help housing' and 'core housing'. These are understood as being inter-linked, with the self-help housing package proffered by international and localised development agencies representing wider development interests, and containing core housing as one of a number of alternative partial housing provision methods.

The originators of self-help housing ideas, although working in developing countries where, as has been shown, their frame of reference was the unassisted efforts of the urban poor to house themselves, nevertheless had their origins and were mostly based in highly industrialised countries where in the 1960s certain ideas were attracting attention. As Burgess observed, a number of circumstances came together to shape self-help thinking, including, "...idealistic notions about communal living and a return to artisanry amongst contemporary hippie youth culture; and a rising tide of criticism of the ecological effects of large scale industrialisation in the developed countries" (1992:81). Similarly Meffert mentions the evolution of urban social movements in the 1960s which "...made reference to the co-operatives and anti-authoritarian heritage of early utopian socialist projects. They developed networks of alternative 'grassroots' projects, working towards the new society, a new lifestyle and social relations based on mutuality and solidarity" (1992:323).

Meffert then skilfully draws the link between this thinking in 'highly industrialised societies' and the reality of life in much of the developing world:

¹⁰ A useful concept, that applies at a strategic level, is that of innovation diffusion. Using his time geography methods, H  gerstrand observed the process whereby a new idea or structure spread in ways which led to observable spatial phenomena. This he referred to as an 'innovation diffusion'. H  gerstrand was interested in the spatial orders, or landscapes, that emerged as a consequence. For example in a diffusion study H  gerstrand showed that the granting of agricultural subsidies to farmers in a region led to certain typical land use formations. He was interested in how information spread from person to person which then impacted on people's actions creating reproductive processes which in turn influenced the morphology of the landscape (Pred, 1996). Certainly the diffusion of the partial housing provision innovation has impacted significantly on urban landscapes in many countries.

The revival of the self-help philosophy in Europe and North America influenced the debate on self-help housing in the Third World, too. Critics argued that the utopian dimensions of self-help housing, its creative and self-determined aspects, were a privilege of higher-income groups in Western industrialised countries, whereas the urban poor in Third World cities depended on it as an emergency solution but were excluded from its advantages (Harms, 1983:13)¹¹.

The argument illustrates the long-lasting debate on self-help housing and its ideological overburdening by confusing two contradictory social realities: the communitarian, anti-authoritarian and anti-consumerist self-help approach of modern protest movements on the one hand, and the daily struggle for survival by impoverished fragmented populations on the other. (1992:323)

Meffert observes that by trying to escape capitalist exploitation, such protest movements were trying themselves to survive in times of economic crisis, which activity was itself "...highly functional to capital development" (1992:323). As a starting point then, it should be emphasised that the way in which self-help housing, and indeed 'development', was framed by its proponents was different in its content and motivation to the ways in which the 'targeted beneficiaries' received such notions.

This explanation of the origins of assisted self-help housing may go some way to elucidating the motivations of the planners, architects, anthropologists, sociologists, and groupings of such, working at the time but it does not explain why the self-help housing approach was adopted so readily by a series of governments in developing countries, NGOs and CBOs, developers and contractors, and, perhaps less willingly, people living in urban poverty, and why it continued to be part of the package of advice from international funding agencies. Starting with the initiators of the concept of core housing and then taking each of the actors in turn, under what modes of thinking have the various forms of self-help housing been promoted by international donor agencies over the last four decades?

International donor agencies: supporters of improved housing or hidden development agendas?

Looking first at the ideological and financial supporters of self-help housing projects, as was seen in the description of the history of core housing, the main proponents of self-help housing were the backers of the ideologues, i.e. the United Nations, USAID¹², the World Bank and a host of other multi- and bilateral aid agencies. Since core housing was the invention of international donor agencies it should be seen against their various agendas. It is interesting to note that despite the level of theoretical support for the sites and services approach by the UN during the 1960s, the first World Bank supported project was approved only in 1972 (in Senegal)(Laquian, 1983:19).

¹¹ Harms, H. (1983), 'Zur Geschichte der Selbsthilfe. Praxis und Ideologie'. **Trialog**, 1, 9-13.

¹² And, as pointed out by Burgess (1992:75), the US Housing and Home Finance Administration which was active in the 1940s in Puerto Rico, and the precursor to USAID, the International Cooperation Administration, active in many developing countries in the 1950s.

Burgess traces the changes in policy thinking within the World Bank, at first focusing on project spending where core housing may have been an element, and then gradually moving more towards support for wider programmes.

In the first phase (1972-5) attention was almost exclusively focused on sites-and-services; in the second (1976-9) the principal emphasis shifted towards upgrading in the form of integrated urban development projects, with sites-and-services projects to permit de-densification. In the third phase (1979-84) the emphasis on upgrading was complemented by attempts to stimulate labour-intensive employment activities and community organisation and participation. In the current phase attention has been focused almost completely on upgrading, and 'programme' rather than 'project' lending... (Burgess, 1992:82)

Similarly, Mayo and Angel (1993) sketched a broader (and more rosy) picture of the objectives of World Bank funding, which are described as:

1970s: Implement projects to achieve affordable land and housing for the poor; achieve cost recovery, create conditions for large scale replicability of projects.

1980s: Create self-supporting financial intermediaries capable of making long term mortgage loans to low- and moderate-income households; reduce and restructure housing subsidies.

1990s: Create a well functioning housing sector that serves the needs of the consumers, producers, financiers and local and central governments; and that enhances economic development, alleviates poverty and supports a sustainable environment.

It is again clear that the 1970s was the decade of direct project support by the World Bank during which core housing was explicitly supported, and that this approach altered substantially during the next two decades. It is important to note that self-help housing ideas predated the World Bank's involvement in housing and urban policy (Pugh, 1997:92), and that one of the reasons for the rapid spread of self-help projects in the 1970s was the coincidence of the intellectual preparation for such approaches that had taken place in the decade before, and the entering of the period when Robert MacNamara was president of the World Bank (1969-81) and Bank lending became more poverty-oriented (Burgess, 1992:81). Commentators such as Burgess and Pugh trace the more fundamental ideas that were influencing the policies of international donor agencies, from 'modernisation' in the 1950s and 1960s, to 'redistribution with growth' and 'basic needs' strategies in the 1970s and early 1980s, to the liberal 'enablement' and 'structural adjustment' programmes of the mid-1980s and 1990s (Burgess, 1992; Pugh, 1997).

So core housing started for the donor agencies against the backdrop of persuading the governments of developing countries to recognise the rights and potential contributions of people living in squatter settlements. After the groundwork had been laid by Turner, Abrams and others, and the movement gained momentum in the 1970s, core housing spread as a way for governments to achieve higher levels of affordability and cost recovery than were being achieved through complete provision. Contributions were expected from the beneficiaries in the form of loan repayments, service charges, and labour contributions. As the focus shifted in the mid-1980s to the creation of financial

intermediaries and loans to low income families, the ultimate housing product could still be a core house, but emphasis would be on the spin-offs of the process, such as employment creation and the development of supporting markets. From the mid-1980s and through the 1990s with the language of 'enablement' coming to the fore, the housing sector was understood for its functions within wider national, and indeed international economies (Pugh, 1997). "Self-help became just a part of a more complex package of policies in land development, finance and economic development" (92). The language of the Habitat Agenda is illustrative of this period, with its stated commitment to:

...increasing the supply of affordable housing, including through encouraging and promoting affordable home ownership and increasing the supply of affordable rental, communal, co-operative and other housing through partnerships among public, private and community initiatives, creating and promoting market-based incentives while giving due respect to the rights and obligations of both tenants and owners. (UNCHS, 1996b, paragraph 40)

Whether certain types of housing resulted from enablement strategies was probably not of any direct concern to the proponents of such approaches, but it has led to the production of large amounts of core housing, as was the case with South African housing policy in the period 1994 to 1998 (Napier, 1998)¹³. So, although particular periods can be identified where core housing was directly funded by international bodies (i.e. UN in the 1950s and 1960s, and the World Bank from 1972 to 1975), as time passed this housing form became increasingly the by-product of other policy focuses. During later periods core housing fitted conveniently into the enablement approach as described by Pugh, in that it allowed 'partnerships' between 'stakeholders' to be formed thus "...enabling' each participating institution *to pursue its comparative advantage*" (Pugh, 1994:358, italics added).

Whether core housing fits more within the 'provision' or the 'enablement' paradigm as juxtaposed by Hamdi (1991), it is in some senses an exact mix of both, in that the land, services and core can be provided formally by the public and private sectors, while the final realisation of 'adequate housing' (UNCHS, Habitat Agenda, 1996b) is dependent on the efforts of the residents, and the degree to which they are enabled by such initial provision. At other levels, of course, enablement refers to higher order goals and a general move away from government departments being directly involved in the building of complete housing and more towards sectoral interventions. The distinction between community enablement, market enablement and political enablement is a useful one (Burgess *et al*, 1997). Core housing, once constructed, is meant to facilitate community enablement, but a series of core housing projects may have been the result of a policy aimed at either political or market enablement, or both.

Although the origins of the core housing approach are clear, it cannot be simplistically categorised as fitting into one era more than another, but has shown some ability as a housing form to serve the principles of the day.

¹³ A point discussed in detail in Chapter 8.

After 30 years of practice, 20 years of vigorous debate and a series of eras in development thinking, the conclusion in the early 1990s was a little disappointing. After yet another updated review of evidence and viewpoints, Math  y concluded:

Generally speaking, self-help housing has become an accepted strategy as one among several elements to temper the shelter problem of the poor - even if most of its assumed positive attributes, like cost reduction, self-financing, social upgrading and better use values, could not be realised in the day-to-day practice of state-supported projects. Given the present economic and political conditions these programmes are still the best alternative available, and have something to offer not only for a few of the many homeless or badly housed, but also for the more powerful forces in society, including the state and capital. (1992b:389)

The attempt to "get beyond self-help housing" had clearly not been achieved in the way that was hoped. The rather pragmatic conclusion perhaps sums up the frustration with the long running debates on the subject, but it also acknowledged that such forms of housing were likely to continue to be promoted for some time to come, and it urged that the best should be made of the situation in the absence of real alternatives.

But we have analysed development from within the development discourse and thus on its own terms. The important issue, at least for the purposes of analysis, may not be whether it is possible to get beyond self-help housing, nor about getting beyond Capitalism, but as a number of theorists have suggested, rather about getting outside of development.

In a process suggested by Ferguson, to assemble a 'genealogy' of 'development' (1990:xiv), Escobar (1995) traces the history of the development of 'development' from the conceptualisation of underdevelopment shortly after World War II and the sudden 'discovery' of mass poverty in Asia, Africa and Latin America (21). He examined the rhetoric of, and mobilisation around, the idea of declaring of war, not against fascism or any other previous ill, but against 'poverty'. This was motivated, according to Escobar, by the perceived threat felt by the 'First World' (North America and Western Europe) that the effects of poverty and social unrest could somehow spill over from the 'Third World' (Asia, Africa and Latin America)(1995:6, 22). According to De Senarclens¹⁴, this fear was based on the perception that inequalities between First World (particularly the United States) and Third World countries would lead to discontent which would ultimately threaten world peace (1997:191). The development discourse was thus initiated by the 'advanced' societies of the time. The way that the Third World was portrayed was done so as to allow the superiority and then domination of the Third World by the First World, and so essentially to 'create a market' for the wares of the development apparatus.

Thus the discourse was more about alleged problems than real problems, or at least the self-serving possibilities of development were more important to the powerful nations than the overtly stated

humanitarian goals. This assertion was also an echo of Ferguson's work (1990) which demonstrated that the development apparatus continued to dispense aid despite a series of apparent failures at a project level, because the projects entrenched bureaucratic power while appearing to be serving other more altruistic ends. By stepping outside of the development discourse, or deconstructing it, the motivations of the actors behind the donor agencies were exposed to analysis and the 'black box' of development (Ferguson, 1990) could then be opened. Using this form of analysis, core housing can then be observed as to whether it effected the "...deployment of the discourse of development through practices" (Escobar, 1995:11), or in other words, whether in each situation it was more about serving the interests of the urban poor or the development apparatus that was applying it¹⁵.

Although the debates within the UN and World Bank had broadened and deepened over the decades until a view of market sectors and financial mechanisms had almost subsumed any concept of what the final form of housing might be under such policies, the final outcomes looked fairly similar to the direct project interventions of the 1960s and 1970s. Portrayed as a 'logical' way to provide rudimentary shelter to households moving onto new land, core housing remained then as one of a number of the outcomes of international donor support or more indirectly as a product of policies encouraged by donor agencies through targeted subsidies to the poor (Gilbert, 1997). The question of whether the international agendas attributed to the 'development apparatus' (Ferguson, 1990; Escobar, 1995; Fisher, 1997) were achieved overtly or covertly through the continued production of sites and service and core housing schemes would have to remain open for analysis in each national and local case. But, if these were the modes of thinking in the international community, how were such policies and lending regimes received by governments in developing countries?

The State: more for less

Where, from the perspective of the original proponents of self-help housing, core housing was an attempt to emulate and build on the positive aspects of unassisted settlement formation processes using means which we now see were politically fashionable at the time in the First World (i.e. employing communitarian, co-operative methods), the partial provision of housing was also attractive to Third World governments who were attempting to address the quantitative aspects of their perceived national housing shortages using limited budgets while informal housing production grew apace (Skinner and Rodell, 1983:5 and Pugh 1997:92). Thus for idealists, core housing was intended to be the *positive enhancement* of previously unassisted shelter processes, whereas for governments it was a way to legitimately (and with the blessing of their foreign advisors) *subtract* from what they were up until that time expected to provide to low income households. Therefore for governments, self-help approaches, and core housing in particular, was a way to roll back their involvement just to the point where they could keep control of levels of service, land tenure and location, and minimal standards, while at the same time reducing informal settlement occupation while still maintaining that

¹⁴ De Senarclens' paper on the technical assistance era in the US and UN was published in French in 1988, thus predating the seminal works of Ferguson, Escobar and Fisher.

they were allowing resident participation. As a component part of the whole panoply of formal planning practices, core housing showed the potential to contribute to what Scott identified as the State's purpose of making society 'legible' by arranging the population in simpler ways that allowed it to extract benefits, such as taxation and conscription, from its citizens (Scott, 1998:2).

This is perhaps the most direct corroboration of the assertion that core housing can be viewed or interpreted as an intentional co-optation of informal processes, in that *it is a mechanism that is designed to draw households from the informal sector into the formal sector* along with all the benefits that Scott revealed would thereby accrue to the State. Core housing was clearly also a political expedient in that something could be provided to more people for the same cost, or expressed more positively, that a greater spread of State benefits could be achieved. As Fiori and Ramirez observe, this was emblematic of "...the progressive retreat of the State from direct involvement at [the housing construction] level" (1992:24). It also delivered a product thus satisfying the political imperative that the State be seen to deliver, and further, it managed to satisfy the right of access to housing but with the responsibility to create *adequate* housing being transferred to the end user under the guise of 'participation'. By initially relaxing standards, residents were left with the task of bringing the shelter up to local definitions of acceptable or adequate housing.

While this may appear to be casting a rather jaundiced eye on the motivations of the State, there are many examples where assisted self-help housing projects were attempted, and when the aim of the control of groups of people could not be achieved, they were abandoned. Certainly, there was an expectation that the orderly production of core housing would address the early concerns on the part of officials about the disorderly appearance of informal housing, as reported by Turner during his visits to Peruvian settlements (1976).

An illustration of the importance attached by the State to this perceived benefit of core housing is provided by the case of Neighbourhood 14 in Tenth of Ramadan city outside of Cairo. Built from 1977 onwards, the city was to consist of 31 residential neighbourhoods, as well as commercial and industrial sectors. A number of the residential neighbourhoods were to be developed with core housing, with a target number of 7,584 units. Initially 502 units were constructed in Neighbourhood 14. The cores occupied most



Photo 2-4: Neighbourhood 14 streetscape

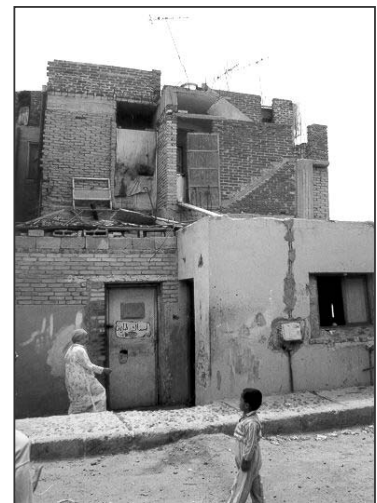


Photo 2-5: Neighbourhood 14 extension

¹⁵ This point is discussed in more detail in the section on "The Beneficiaries", below.

of the plot and extensions were to be done mostly in the form of a second storey. Soon 81% of households occupying the houses had extended, but many extensions used traditional and recycled materials. Before incorporation into the house, materials were stored on roofs. On seeing the visual effect as the core housing settlement developed (Photo's 2-4 and 2-5), officials halted the construction of more core units for fear that private and foreign investment may be adversely affected by this unsightly process. The project may have had some impact on the alteration of national policy to be less supportive of self-help housing. The expectation in the minds of the government decision makers that core housing would allow orderly development had not been satisfied, and thus the approach was declared unacceptable (Abdel-Kader and Ettourney, 1989, and personal observations).

The co-optation of informal processes was seen by self-help housing apologists and the State not only as a way to house people more efficiently but also as a way to control urbanisation:

However, since it is no longer possible to deny or ignore these extralegal building processes, we believe one of the tasks of shelter policy is to prepare a process well in advance of the future growth of urban population that can utilize the tremendous energies embodied in incremental building and incorporate them more effectively and equitably into the production structure of the urban system. (Rodwin and Sanyal 1987:18)

The direction of the argument quoted here echoes Turner's, in that the co-optation of informal processes is seen as a way to grant greater freedoms and rights to participants, rather than, as the State may have seen it, as a way to stabilise and formalise an uncontrolled set of activities. In fact several theorists have questioned whether the role the proponents of self-help housing commonly attributed to the State could ever realistically be expected to materialise.

Schön (1987) challenged the notion that formal government structures could properly intervene in incremental processes.

Formal governmental interventions in support of incremental shelter systems can appear contradictory:

- (a) How can government, committed to legality, facilitate unregistered shelter activities that escape the categories and procedures of the legal system?*
- (b) How can government lend its support to such a system without neutralising its freedom of action, its spontaneity, and its capacity to improvise, the features that make it seem worth supporting in the first place?*
- (c) How does it make sense to say, as some of our contributors do, that incremental shelter systems are disappearing, when at the same time they recommend that government should support them?*

Paradoxes such as these suggest that formal policy support of incremental systems is inherently doomed to fail. (Schön, 1987:371)

However, Schön did go on to suggest ways that these issues could be resolved, by "...converting paradox to experiment", and identifying elements of the informal sector that showed most promise and supporting those, and by not destroying the inherent advantages of the informal sector. What needs to be said is that there is a basic tension within the core housing approach because of its attempt to combine in apparently equal parts the contributions of the formal and the informal sectors.

State attitudes to core housing can often be explained when their expectations of the core housing approach are compared with the actual reality that emerges after implementation.

Others challenged the idea of even considering the incorporation of the informal sector. Academics and theoreticians challenged conventional self-help principles as they were being applied in predominantly Capitalist economies. They questioned the attempt to extract the 'good' out of informal settlements (i.e. by attempting to use informal processes in formal projects) which they saw as essentially reflections of the failure of the formal delivery system to adequately house the poorest citizens. Critics who took this viewpoint in varying forms included Burgess (1982; 1992), Viviescas (1985), and Marcuse (1992), amongst others. They argued that governments should not be emulating characteristics of their own failures to try and solve the problem of which this was an evidence. As Lea observed: "You could not exalt into national policy a sector that was the yellow underbelly of the beast you wished to transform. ...Intellectuals appear to have discovered the plight of the working poor, only to decide rather rapidly that unfortunately nothing can be done about it" (Lea: 1979:52).

Apart from moral repugnance at the idea of exploiting the informal sector to formal, capitalist ends, as has already been stated, these critics also doubted the likelihood that the State and other interests would relinquish control. Despite what Turner argued, powerless communities would never be given full access to power, or control of the mode of production, because it would not suit capitalist elements whose interests were mainly to maintain the dominant mode of production (and concomitant forms of settlement) (Burgess, 1977, Marcuse 1992).

Many of the issues raised related back to the fundamental structural characteristics that prevailed in free market economies and short of the basic restructuring of society, very little could actually be done. This debate continued in Britain through the 1980s with the eventual conclusion that both sides had valid positions and that continued argument was not constructive, least of all to people dwelling in slums (Math y, 1992:384).

The strength and attitudes of the State, and therefore the role of the State, varied from country to country. Although the State has been blamed for the impure motives behind its willingness to support self-help housing, in that it most often did not take on the true spirit of the movement (e.g. by relinquishing control), in many cases the State had a very small part in self-help housing experiments, and other actors such as NGOs and private sector developers were more instrumental in promulgating the self-help orthodoxy.

However, one of the useful insights to emerge from the debate about the role of the State was that free markets were not always fully capable of meeting the needs of the poorest, and that in certain areas some consideration should be given to State intervention aimed at mixing economic principles. Further, signs began to emerge that pure free market thinking was being amended particularly with

the discussion of the failure of the market to cater to the needs of people living in poverty, and the previously unthinkable interventionist idea of tampering by 'enabling housing markets to work' (Mayo and Angel, 1993). The ability of the market to provide for the poor was, however, more often the concern of the international agencies which were involved than the governments responsible for promoting assisted self-help locally. But the sector that did have a vested interest in the operation of the market was the private sector.

The private sector: efficient producers or efficient profiteers?

For the interest groups within the private sector, such as developers, building contractors, materials suppliers, financial institutions and even estate agents (Burgess, 1977:51) as well as design professionals, core housing in particular was convenient because of the clarity of their role and the clear containment of the self-help component. This was a function, as we have seen, of the horizontally stratified participation process that typically accompanied core housing.

The core housing approach, as described by Abrams (1964), almost celebrated the role of the private sector which was expected to be the efficient, high-scale producers of infrastructure and core housing. Other commentators were less optimistic about the way in which the introduction of assisted self-help methods would allow the private sector to widen its influence, and increase its profit margins. By portraying the informal settlement formation process as a dependent petty-commodity mode of production, Burgess (1977:50) reveals this petty commodity market to be increasingly 'penetrated' and 'articulated' by the capitalist mode of production. This penetration of private sector interests was exacerbated by the advent of assisted self-help when it was pointed out that what was meant to be free self-help labour was actually "paid skilled labour"; the construction was undertaken using "income-derived capital"; recycled materials were being "commercially valorised"; and the final stages of construction often incorporated "heavy purchases of manufactured materials" (Burgess, 1977:57)¹⁶.

Core housing, if implemented well, could also require a high degree of design input. The town planning layout, proportions and sizes of the plots, sizes and layouts of the houses, positioning of the on-site services, and materials and constructions methods all affected the ease with which residents were able to extend the houses. If these design elements were consistent with traditional practices (for example, the way that people designed and built in local rural and in urban informal settlements), then the degree to which residents were enabled was increased. Design professionals then stood to benefit from giving their design inputs, although this was limited because of the standardisation and the low cost of the product. Often the design inputs came from professionals located in the NGO sector, and so the profit extracted in this way could be expected to be limited.

There is little doubt or argument that the private sector would be expected to derive benefit from housing production, and precisely because the core housing process normally has such a clear

¹⁶ Using similar case studies, Gough (1996) found little evidence of this.

division between private and popular sector participation at least the degree to which this took place in each case should have been clear. In this sense there was at least less chance that residents would be exploited unexpectedly by private sector schemes in the earlier stages of a core housing project. However, during the post-occupancy phase when self-help extensions were intended to be the central activity, then the awareness that comes from Burgess' description can assist us to identify the incursion of counter-productive interests (representing various "fractions of capital") into the core housing process.

NGOs and CBOs: dispassionate dispensers or gatekeepers of development?

What role did non-government and community-based organisations play and what benefits could they extract from core housing projects? In cases where local government was weak, or not directly involved in shelter issues, such a state of affairs opened up opportunities for a series of civic-based groups to operate more effectively in assisted self-help projects. Typically they were non-profit, non-government organisations. Different NGOs chose to work through different community structures or community-based organisations (CBOs), or in some cases to create their own, so that there would be an intermediary body to articulate and sometimes adjudicate community opinion and need. However, it was generally acknowledged that NGOs could play a key role by occupying "...the narrow political space between communities and formal institutions in the domain of social services and the promotion of local development" (UNCHS, 1996a:165). Such civic groupings were active in many of the more successful core housing projects. This is illustrated by the case referred to above, where FUNDASAL played the NGO role in El Salvador (Harth Deneke and Silva, 1982), and the role played by the Urban Foundation, a national NGO active in South Africa in the 1980s, in the Durban-based case study treated in detail later in this study.

Fisher described the 'space' in which civic organisations operated in these terms:

In the political space created by shifting interdependencies among political actors, by the globalisation of capitalism and power, and by the decline of the state, growing numbers of groups loosely identified as non-governmental organisations (NGOs) have undertaken an enormously varied range of activities, including implementing grassroots or sustainable development, promoting human rights and social justice, protesting environmental degradation, and pursuing many other objectives formerly ignored or left to governmental agencies. (Fisher, 1997:440)

Non-government organisations have been both praised (UNCHS, 1996a, and Rodwin, 1987) and challenged (Fisher, 1997) as they strive to bring together high level attempts most often by international donor agencies to dispense development on the one hand, and real 'on the ground' needs and aspirations, on the other. Fisher talked of a belief that there had been a 'quiet revolution' in which NGOs had become all pervasive as they implemented their sometimes ill-defined but widely used concepts of 'participation' and 'empowerment' of 'local communities'. In less positive assessments, both NGOs and CBOs were sometimes accused of placing themselves in a position

between the State or donor agencies, and the beneficiaries of development in such a way as to play a 'gate-keeping' role in which they could control the flow of benefits.

Given the vested interests of the State and the private sector in self-help housing, as described, many commentators still felt that it was more likely that the realisation of the idealistic intentions of the original proponents of self-help housing could be achieved through the involvement of more progressive, ideologically driven NGOs. But what characteristics of NGOs made them potentially strong players in a core housing approach?

According to Rodwin (1987) their strengths and comparative advantages over other types of organisations (particularly government departments) were that they were:

- small in scale,
- less subject to inertia or interagency rivalry,
- more prone to experiment with innovative ideas,
- better at encouraging private initiatives to solve local problems,
- more open to utilising appropriate (locally learned) technologies, and
- more cost effective.

Certainly the openness to experiment with new approaches made NGOs the natural partners for the donor agencies early on in the core housing era. In addition to these general advantages, many activist NGOs in developing countries had similar urban protest movement roots to those in Europe and North America. Further to this, while not obviously forcing adherence to the latest wisdom, international agencies which funded many NGOs nevertheless attached 'strings' to support and fostered a fairly elitist development discourse of their own.

NGOs therefore took their cue from international agencies thus becoming the more effective (in the eyes of the agencies) purveyors of development. There were several characteristics of core housing which made the participation of an NGO advantageous to the success of projects. With building contractors tending to withdraw immediately after the completion of the contract (in this case the installation of services and construction of the core houses) and local authorities being focused normally at a higher level than the individual neighbourhood, NGOs were better suited to maintaining support of individual communities in the post-occupancy phase at a project level. The increased level of participation by prospective residents was also a goal more easily achieved by NGOs which had a wider range of consultative techniques at their disposal. There was also more precedent and a greater tradition amongst NGOs which had pioneered the facilitation of mutual and self-help construction in many countries.

And as has been alluded to, with funding streams tending to come from international donor agencies, NGOs were in many cases directly answerable to such bodies with their agendas. It is difficult to separate the concepts of development that began in the 1940s and spread throughout the world (see

De Senarclens, 1997), from the growth of the NGO movement itself. The failure of many governments to implement imported development ideals must be one of the major causes for the opening up of the space in which NGOs could operate. So the discussion of the agendas of the international agencies cannot be separated from the discussion of the modus operandi of local NGOs.

But what were the limitations to the involvement of NGOs? As the UNCHS pointed out, over the many years of involvement of NGOs in the housing process, and their support by donor organisations, a number of weaknesses had emerged. Many government programmes had been designed to incorporate NGOs in a support or capacity building role, but in many countries there were then not enough NGOs to cover all the projects needed thus prejudicing the ability of the programmes to deliver at scale. NGOs tended to be sectorally specific, and so often could not efficiently support more diverse programmes, such as those incorporating the development of community-based enterprises. NGOs also could rarely survive from funding extracted from State programmes and many depended on foreign funding to deliver the fuller service expected of them (UNCHS, 1996a: 377).

These observations by the UNCHS and others were based primarily on what NGOs were doing, or attempting to do, in operational terms. In the descriptions of the limitations of NGOs, the expectation was clear that by strengthening the weaker aspects it was entirely feasible that NGOs (and often their partner CBOs) could become better performers in the delivery of development to each Third World doorstep in a way that others could not. Rather than accepting the status quo of how development was being dispensed through NGOs and CBOs, Fisher (1997) joined the other questioners of the fundamentals of development (De Senarclens, 1997, Ferguson, 1990 and Escobar, 1995) by revealing some of the hitherto 'unseen' aspects of NGO activity. He portrayed the views of the proponents of NGOs thus:

The optimism of the proponents of NGOs derives from a general sense of NGOs as "doing good," unencumbered and untainted by the politics of government or the greed of the market. ...NGOs are idealised as organisations through which people help others for reasons other than politics or profit. This idealisation of NGOs as disinterested apolitical participants in a field of otherwise implicated players has led theorists and practitioners alike to expect too much of them. (Fisher, 1997:442)

As seen above, the common view was that NGOs were better than government because they had less bureaucracy, were more flexible, innovative, effective, efficient, and could identify and respond at grassroots level. Thus they were meant to be able to offset the costs of institutional weakness in developing countries. However, there were other advantages to using NGOs as part of the development process.

Activists and revolutionary theorists attribute significance to local voluntary associations not because they see these groups as part of a growing civil society that engages with the state but because they see them as part of a process that is capable of transforming the state and society. [These actors therefore] ...value NGOs for their ability to politicise issues that were not formerly politicised or that were ironically depoliticised through the discourse of

development or 'democratic' participation. ... Just as the 'development apparatus' has generally depoliticised the need for development through its practice of treating local conditions as "problems" that required technical and not structural or political solutions (Ferguson, 1990), it now defines problems that can be addressed via the mechanisms of NGOs rather than through political solutions". (Fisher, 1997:445)

Following the same tradition in which Escobar (1995) showed that the whole of the Third World was portrayed as a single entity for the purposes of dominating it, Fisher showed that it was incorrect to refer to NGOs as an homogenous genus of organisations because of the diversity of types that existed. Fisher saw this homogenisation as a way for local elites, government agents and international non-government organisations to control or 'colonise' them and to ignore the specifics of function and locality of each NGO.

What we are left with is a world in which there are both 'good' and 'bad' NGOs¹⁷. NGOs are able to play both roles, to politicise or to depoliticise issues, depending on the stance of the NGO involved, and the way that it relates to other empowered and disempowered players in each context.

This analysis of the real intentions and positions of NGOs as one of the many actors in core housing is useful in the analysis of the activities of the actors in the South African context. What is important is that none of the actors should escape analysis of the real impacts of their activities, and the power relations which allow them to undertake their stated (and unstated) missions.

So while many saw NGO involvement as being advantageous to the achievement of the stated aims of core housing at a project level, there was a limit to the number of projects they could support, and therefore the scale at which such an approach, along with the whole range of other housing delivery approaches, could be expected to deliver at national and global levels if dependent on NGOs for their success¹⁸. And according to some commentators, the role of NGOs needed to be viewed clearly in each situation and questions asked about their intentions and impacts, and indeed about the models of development they were each promoting.

The beneficiaries¹⁹: participation, co-optation or assimilation?

We have discussed what core housing achieved for a number of the stakeholders during the various policy eras. What has not been fully explored is what it was meant to achieve for, and its actual effect on, people at the other end of the power continuum, namely households living in urban areas in poor shelter conditions. Of greater relevance was how this form of housing was received by residents.

¹⁷ See Fisher's title.

¹⁸ Possibly explaining the low international delivery rates of self-help housing reported by Burgess (1992).

¹⁹ The word 'beneficiaries' is used here intentionally to refer to people moving into core housing as recipients of assistance and as passive actors in the process, as has often been the case.

Who were the beneficiaries, and what was core housing meant to achieve for them? Bearing in mind that this question is framed from the point of view of the expectations of the interveners, let us examine what core housing was meant to achieve.

In theory, residents of core housing were to be drawn from squatter settlements that were being progressively replaced by formal housing (while the perception on the part of governments and funders lasted that levels of informal settlement could be reduced) or, as we saw in the second World Bank period, from settlements that were being de-densified to allow upgrading. If some of the visions of core housing and sites and service schemes to "...prepare a process well in advance of the future growth of urban population..." (Rodwin and Sanyal 1987:18) were to be realised, then presumably some of the candidates for core housing would also have been drawn straight from rural areas or from new household formation in existing urban housing. Math y fairly accurately summarised Abram's view of the intended beneficiaries of core housing as being "...those who cannot afford a finished house". Sites and service schemes without a core house would then be the next level down in the affordability scale, and be designed to cater to the needs of "...the poorest who would otherwise squat" (1992:380). In other words, the beneficiaries were to be chosen according to whether they satisfied the assessment criteria of their ability to pay, and so increase the chances that the funding agencies, and the governments they advised, had that they could recover the costs of the project.

However, in reality, the 'targets' of core housing varied from country to country, depending on the intentions and methods of the agencies implementing core housing projects. Such a clear balance between effective demand and supply, as was suggested by Abrams, was rarely struck and the allocation of units in situations of shortage tended to be motivated by concerns for cost recovery often missing the original target population (Strassmann, 1982). Where governments were involved then allocation would be according to regulations governing waiting lists (Napier, 1998). Where CBOs and NGOs were involved, funded most commonly by foreign donors, then allocation would often be dependent on membership of the organisation (Harth Deneke and Silva, 1982 - El Salvador).

Once core housing had been accessed by a household, whether they conformed to the ideal profile of a beneficiary household or not, the household was meant to leave their previous place of abode (the squatter settlement or rural village) and occupy the house while adding space and amenity as funds became available. In wider terms, this was meant to be the beginning of the formation of a good citizen (Scott, 1998) who, in common economic parlance, was participating gainfully in the formal, urban economy rather than acting as a drain on that economy. In terms of more recent development thinking, core housing should also serve the purpose of giving people the opportunities needed to begin the process of moving from a situation of urban poverty, to a stronger, and less vulnerable position (as described by Moser, 1998) in the urban economy²⁰. By granting an opportunity to

²⁰ These concepts of the alleviation of poverty through development are treated in more detail in the next chapter.

participate, although very circumscribed in most cases, core housing should also have begun the process of building a stronger civil society.

Did core housing and assisted self-help achieve these high goals, some of which were only attributable in later years as the thinking developed? We have already seen not. In the discussion above about the application of core housing, many of the limitations of core housing and self-help related to their immediate impacts on the beneficiaries, such as extra time burdens on the households involved, lack of empowerment of women, poor location, low service and construction standards, overcrowding, lack of meaningful participation, and poor targeting. This added up to at least a bad start for households seeking to pursue an upward trajectory in the urban economy. As we saw though, there was a general weakness in the longer term assessment of self-help projects, and so these reported limitations must remain qualified for the time being.

Now widening the field, a series of other questions arise. What was the response of the people who were targeted by such approaches, and what did they manage to extract from the process? Why did people accept this form of housing, given that it was an importation of a Western ideal and was based on the co-optation of informal shelter creation methods but without many of the comparative advantages²¹? These issues will have to be discussed at a theoretical level, for now, because there are so few reviews of resident views of core housing. However, the aim is also to suggest ways to view core housing from the point of view of residents so that the empirical evidence can be reviewed in this light.

Apart from the theoretical debates which questioned the base assumptions behind self-help housing, there was also an early discomfort with the modus operandi and ultimate effects of the activities of development agencies on the beneficiaries of development. Gilbert and Ward (1985), along with others such as Burgess and Marcuse, questioned whether 'participation' of 'the community' was indeed in the interests of existing power groups. Other treatise were based on observations about the impact of rurally based development projects (e.g. Ferguson, 1990, Escobar and Alvarez, 1992, and Escobar, 1995).

To discuss the difficult question of whether the targeted beneficiaries of core housing accepted it, a number of observations can be made. In situations of constraint, or as we saw Meffert describe it, "the daily struggle for survival by impoverished fragmented populations" (1992:323), it is difficult to discuss how people make choices, or 'choice behaviour' as applied by people like Timmermans and Van Noortwijk (1995) in First World contexts. Viviescas (1985) questioned whether any realistic architectural expression was possible in low income settlements given the oppressive nature of the 'superstructural' conditions (i.e. ideological, political and institutional). Contrasting traditional, vernacular forms of settlement with urban low cost housing, Viviescas said the following::

²¹ As identified by Turner in his description of the "supportive shack" (1976:54).

The absolute imposition of social and spatial relationships suffered by the inhabitants of low-income housing areas results in the architecturally absurd situation in which they have neither chosen nor in any way participated in the determination of site or neighbour. Given these circumstances, the only element which unifies the inhabitants is their economic condition and its special correlative of having nowhere to live. (Viviescas, 1985:45)

Although used to describe the formation of *barríos* in Colombia, this description could apply equally well to most typical core housing projects, particularly in the degree of choice normally allowed to residents. In fact, Viviescas went on to describe the 'self-build' approach as being "...not so much an alternative to the solution of the housing problem as the only available and therefore imposed solution for the vast majority of the population" (46). This serves to highlight again that in situations of resource constraint where very few housing options are available, applying for or allowing oneself to be identified as a 'beneficiary' does not necessarily constitute a full embrace of the form of housing, or indeed the concept of development, being offered as compared to other alternative forms and concepts. The absence of available alternatives, other than homelessness or continuing to be inadequately housed, makes this discussion meaningless. However, to extend that idea to the point where people living in urban poverty are always portrayed as victims and informal settlements only as evidence of the failure of the government system, is perhaps to take the argument too far. There is very little evidence to suggest that the outright rejection by Viviescas of informal settlements and self-help housing can be directly imputed to the urban poor. This may be a moot point, in that it could be argued that the channels of expression or action for that rejection do not exist. However, an alternative view is that the ways that the poor assimilate what development projects offer to them may be much more subtle than outright rejection, as Escobar so clearly demonstrates.

The apparent acceptance of development aid by recipients may be misleading. The way that Escobar (1995) took the discussion outside of the notion of development, or the development discourse, was introduced above. He talks not only about the "forms of knowledge" which the development discourse separates out for its own use, and the "systems of power" which it entrenches, but also about the "forms of subjectivity" which the discourse fosters: "...those through which people come to recognise themselves as developed or underdeveloped" (10). The forms of subjectivity are the ways in which various beneficiary groups understand and then assimilate the meaning and fruits of development into their own contexts. Escobar refers to several case studies (1995:48-52), referred to aptly as 'ethnographies of development', which demonstrate the wide variety of ways in which cultural meaning is overlaid onto the concepts of modernity that accompany the arrival of the development experts in a local situation. He observes that "...local versions of development and modernity are formulated according to complex processes that include traditional cultural practices, histories of colonialism, and contemporary location within the global economy of goods and symbols" (13). He concludes:

The impact of development representations is thus profound at the local level. At this level, the concepts of development and modernity are resisted, hybridised with local forms, transformed, or what have you; they have, in short, a cultural productivity that needs to be better understood. (Escobar 1995:51)

The evidence that Escobar presents showed that beneficiaries accepted development assistance when it supported their own notions of development. The degree to which imported models of development and underdevelopment were adopted varied from place to place. Subtle forms of resistance of the development agenda took shape in many places.

Such vehicles for analysis emphasise the importance of gaining a clear view of local interpretations of the development intentions of the purveyors of development, whoever they might be in the local context. This is particularly important in core housing projects, in that the built environment that results is so highly designed by the direct agents of the development apparatus, and the activities that are left to residents are so constrained. It then becomes essential to examine how residents themselves understand their part in the process, and how it aids or hinders *their own* notions of development and modernity.

What is also interesting is the way Escobar reveals the characterisation of "...villagers' who 'don't understand things'" (49). Thus in rural development projects across the world, irrespective of context, such a characterisation serves the intention of the development discourse to capture 'homogenised' entities which should be subjected to the contemporary development wisdom.

This raises the interesting point that in the self-help housing discourse, similar characterisations exist. Although there has been a growing recognition of the variety of types of informal settlements, the 'targeted beneficiary' and the 'poor urban household' are still referred to as homogenised entities almost without a context. The design of a uniform core house and construction process that can be applied anywhere in the world (based on the belief that the freedom to build extensions will achieve the level of participation necessary to keep participants satisfied), is indicative of the nature of the development discourse that Escobar reveals. Ultimately Escobar pleads for the abandonment of 'contextless' descriptions of development problems and development solutions, the growth in the study of local situations (or the preparation of ethnographies of development), and the examination of what assistance might mean if truly grounded in localities.

So core housing, and the whole self-help package, must be analysed in each situation for whether it performs the role attributed to it by the development apparatus, that is, whether it "...systematically relates forms of knowledge and techniques of power" (Escobar 1995:10). Similarly, the ways that residents interpret and process what is being offered needs to be understood.

Although certainly a co-optation of informal housing production methods, the meaning of core housing for its residents must remain an unanswered question until local examples are carefully viewed. The 'success' of core housing in any given locale is dependent on a whole series of assumptions about what the residents will do once they have occupied the housing. The deconstructors of development have shown that it is at least misguided to make these assumptions for all situations in the Third World. Core housing was proposed as one of a set of possible solutions by its original inventors.

What remained to be seen was how it would be assimilated by residents, and whether it assisted them towards their own concepts of modernity any better than other housing approaches. It remains for the empirical evidence to add more detail to an understanding of the assimilation of core housing by residents in the South African contexts studied.

As has been shown, the actors who joined together to produce and then sustain core housing all had their motivations for becoming involved in the process. This goes some way to explain the diffusion of the core housing approach to many countries and its survival through a number of different eras in development thinking. Another dimension is added if not only the individual motivations, but also the relationships between the actors are understood.

Power relations and the actors

The importance of this discussion of the intentions of the actors in the core housing process is that in concert they have become the modern day implementers of many forms of 'development' of which core housing is only one manifestation. It soon becomes evident that it is not possible in a discussion of the motivations and actions of the various actors to view all as equally powerful players in the local, national and international contexts. So it is necessary to develop a keener awareness not only of the individual intentions of the power groups operating as part of the development apparatus or of the recipients of assistance, but also of their relative power and influence at different periods in time. The effects of development are shaped as much by high level power relations as by the mixed bag of development (or non-development) agendas held by the agents.

It is difficult to make generalisations about the power relations of the actors. It is easier to talk about trends in the growth of power of certain actors, and the shifts in power that were precipitated by changes in political, economic or social circumstances during different historical eras. The discussion within the literature of the changing trends within a 'globalising world' have been extensive, but it is difficult, and not the prime aim of this investigation, to identify the impact of global forces on local actions. However, the methodology for this study works upwards and outwards from the activities of the household, and we need a framework in which the power relations of the actors operating at the whole variety of levels can be understood. This discussion of the development of the idea of core housing, the agendas of the actors, and their relative access to power, is more useful to set the scene in which the structural forces are established since these ultimately circumscribe the actions of residents of core housing.

2.3 Conclusion

This chapter has reviewed the history of the development of the concept of core housing, and how that approach spread in a process of innovation diffusion to many developing countries because of the agendas and powers of the various actors involved in its promotion and production. *The chapter has purposely focused on the initial production of such housing, and the assumptions and intentions*

of the development experts who acted as the main proponents for the approach. It has stopped short of describing how households then interact with such housing and settlements once they have been identified as beneficiaries and move into the houses. This is looked at in detail in the next chapter.

The history of core housing showed that in the form that it was originally proposed, it was a very constrained form of assisted self-help. As a participatory process it was horizontally stratified with the agents having clearly defined roles in each phase. This was both its strength, in that involvement of the State and the private sector was relatively easy to encourage, but also its weakness, in that resident participation was limited in most cases. Core housing was promoted by various international and local agencies such as NGOs, along with all the elements of the typical self-help package, such as secure tenure, access to appropriate finance, skills, materials, construction methods, and the stimulation of the local economy. In historical terms, core housing has shown a remarkable ability to serve the changing development agendas of the various actors, whether they were supporting core housing *per se*, or whether they were promoting sectoral policies which ultimately led to the production of core housing or other partial provision formats.

The discussion in this chapter has formed the basis for the evaluation of the success of the initial production of core housing in a local situation, and how success can be defined for each of the actors in the process. To summarise, the various actors expect to derive the following benefits from the construction of core housing, whether that be as part of a direct core housing project approach, or results from other sectoral interventions that result in core housing.

Donor agencies would expect to be able to advise that core housing was a viable alternative amongst a number of possible housing forms that formed part of the assisted self-help package. Although development thinking changed over the years, the express intent of such approaches would be to improve the quality of life of people living in poverty in developing countries and to use such approaches to stimulate the operation of a number of market sectors leading to general economic upliftment and the distribution of the benefits of growth. The unexpressed intentions, as we have seen, may have been to further perpetuate the development discourse in which the development elite held the knowledge necessary for developing countries to become 'developed'.

The State would expect through core housing to be able to provide more for less. It would for the first time be trying to recover costs. The unit cost of each house would be lower allowing the distribution of benefits to more people. It could also expect to derive the dual political benefits of being seen to deliver housing, and at the same time facilitating participation, albeit limited. The responsibility for the creation of adequate living conditions was shifting increasingly away from the State and towards the residents. The State also recognized the benefits of core housing for being a relatively orderly process when compared to other forms of self-help housing. Minimum levels of service and shelter were ensured.

The wider benefits of co-opting people from the informal into the formal sector, with secure tenure and citizenship responsibilities was also a major motivation for promoting such housing forms. The importance to State authorities of the potential capacity of core housing to control and stabilise urban citizens should not be underestimated. The preparation of land ahead of settlement in order to control urbanisation was also an expectation from the State, though rarely met. Where the expectation that core housing would control and co-opt urban citizens was not met, self-help housing was often abandoned by the State. Ultimately, if such housing approaches were part of the advice of international donor agencies to developing country governments, as they were in the 1960s and early 1970s, then to follow such advice with its prospects of greater cost recovery, and later on, of fiscal discipline, then the benefit to the State was qualification for more donor assistance.

The private sector participated and derived benefit from the design and construction of services and housing. The point at which the resident began to participate in the process was very clear in typical core housing processes. Although the success of core housing depended on the consolidation of the housing after occupation, the private sector was rarely expected to play a role in ensuring that this would take place. Although the State and donor agencies had a major part in setting the agenda in core housing projects, profit could be extracted as easily by the private sector from the design and construction process as from any other building process. The private sector in many countries also controlled the land market, meaning that good location in the city came at a premium and was another avenue for profit making.

NGOs were particularly empowered by self-help housing in that because governments were not used to providing such services, with the participation and after care that they implied, this opened up the political space in which NGOs could operate. Housing approaches that contained elements of participation also strengthened the standing of NGOs with the community groups whom they were meant to serve. Donor agencies frustrated by the ineffective attempts of governments to apply self-help housing often turned to NGOs for support, thus creating more NGOs and fostering a relationship between NGOs and donor agencies in which the development discourse was localised. NGOs could expect to derive benefit as project implementers, as providers of capacity building of many types, and as longer term supporters of the consolidation process.

For the wider urban community, employment was created if local labour was employed in settlement construction. A project that was carefully planned could lead to the empowerment of identified marginalized groups through the construction process, and the empowerment of small contractors and local materials suppliers during the consolidation process. The insistence by NGOs and donor agencies that CBOs be formed to mediate community opinion also led to the stimulation of urban social movements and the strengthening of civil society, at least in the view and analysis of international donor agencies (UNCHS, 1996a).

The beneficiaries would expect to benefit directly through accessing a high quality, though small, house and adequate levels of service. The product was also meant to be affordable to them if they conformed to the correct description of a beneficiary. If well located, they could expect to derive benefit from access to urban opportunities such as employment, and access to social services and amenities. If the houses were well designed, sited and constructed appropriately, the residents could expect to find it relatively simple to add space, particularly if there was also access to skills training, design services, small contractor services and competitively priced building materials. A supportive regulatory framework from the local authority would also assist if standards were incremental, as the houses were intended to be. If residents had moved from housing in informal settlements the entry into the formal sector may have carried a series of benefits to do with an improved living environment, but also the (dis)benefits of being liable to pay rates and taxes of various kinds for the first time, and being generally more subject to control by the State. The way that communities assimilated these forms of development was important in understanding the appropriateness of the core housing intervention.

As we have seen, much of the analysis of assisted self-help housing schemes, and core housing schemes in particular, had been limited to initial project evaluations undertaken immediately or soon after the completion of projects. As a result the evidence gave a clear idea of the strengths and limitations of the production of core housing, but very little view of whether it performed well for the residents and other actors in the longer term. Many of the discussions of the merits and demerits of assisted self-help housing were based on a similar paucity of longer term evidence (with some notable exceptions). This investigation is intended both theoretically and empirically to get beyond the focus of the proponents and detractors of core housing on the production of houses, and to begin to view the activities of residents over a longer period as evidence of the success or failure of the core housing approach developed.

3 A theory for assessing the consolidation of core housing

The nature of society and space is therefore dependent on the structures of society, the actions of human agents, and the context provided by time and place: these constitute the realist project. (Oelofse, 1995)

3.1 Frameworks for viewing the activities of the individual

In most instances, the move from an informal or rural settlement to a core housing settlement would constitute an immediate improvement in living conditions for beneficiaries, if not in space or location, then at least in terms of the construction quality of the house and levels of service. And yet it is acknowledged that this is only the starting point, and the weight of expectations held by the financiers, the regulators, the designers and the constructors of the settlements transfers at that point to the household moving into the house, with or without further assistance from these external agents. Over the following months and years, residents are saddled with the responsibility of creating 'adequate housing' (UNCHS, 1996b), whatever that might mean in the local context. Given the scenario of long term consolidation, and other 'housing adjustment' processes (Seek, 1983), what criteria should be applied to judge the success of core housing and how should these be measured?

A major issue behind this question is of course, who is asking it, or to put it in a Turner-esque form, "Success for whom?" We are seeking, in this chapter, to address the issues primarily from the point of view of the agents who stay involved after initial construction. These include, most importantly, the residents, but also the local authorities and other State representatives who manage, maintain, upgrade and offer services in residential areas, and, to a lesser extent, the urban social movements (whether community-based or not) active in residential areas.

To place this chapter in context, where the last chapter assessed the processes through which the core housing product was produced, this chapter discusses how to measure and interpret the longer term activities of, and effects on, the beneficiaries. While the last chapter was about the pre-occupation phase, this chapter focuses more on post-occupation. In looking for evaluative measures for core housing, to be fair, it should be assessed for its effects and impacts in light of the original goals as defined by the proponents at international level and the implementers at local level. However, core housing can also be assessed for its fulfilment of wider goals, firstly as one of a number of assisted self-help housing approaches, and secondly, as a mechanism through which 'development' is rolled out into Third World countries as discussed in Chapter 2. We will look firstly at the main areas in which we would expect core housing to perform, at these various levels, in order to suggest a methodology for viewing success in core housing. Secondly we will look at how the collective actions of the consolidators of core housing settlements might lead to ways of viewing settlements which would imply whether such settlements can be seen as potentially enabling

environments or not. In adopting a theoretical framework, the aim has been to use the process to enhance the understanding of the data, rather than to develop the theory itself. Whilst not all theorists reviewed could not be said to belong to the same school of thought, the concepts they variously espouse have been useful for interpretation.

A realist framework

There has been much discussion of the motivations of, and the power relations between, the agents involved in the core housing production process. As we move the focus onto post-occupancy housing adjustment activities, a framework is needed which seeks to gain an understanding of such environments by balancing a view of the actions of individual agents with the structural forces which limit or enable action. This is very important in contexts of resource constraint. Without entering into the structuration and structure-agency debates in too much detail (see Peet, 1998:148), there are a number of useful concepts in the realist school as developed by Giddens¹ and others (Sayer, 1992; Gregory, 1985; reviewed by Peet, 1998:165) which assist to define the basic units of this investigation. In this way of thinking, the correlation between events is not interpreted as being a mathematical, one to one relationship (i.e. A leads to B), as in positivism or empiricism, but rather the causal mechanisms which shape the correlations are seen as more important to explain cause and effect (Johnston *et al*, 1981:281).

Oelofse (1995) cites Gregory's definition of realism: "Realism is a philosophy of science based on the use of abstraction to identify the (necessary) causal powers and liabilities of specific structures which are realised under specific (contingent) conditions." As a useful summary, Peet and Oelofse describe the key concepts of critical realism:

- *Objects are embedded in relations which Sayer differentiates into external or contingent (the relation between an individual and a 'lump of earth' is external in that either can exist without the other) and internal or necessary (as between master and slave, or landlord and tenant, where what an object is depends on the other) (Peet, 1998:169)*
- *Structures are "sets of internally related objects and practices. Durable social structures have positions associated with roles independent of the individuals occupying them..." (Peet, 1998:169 referring to Sayer)*
- *Localities are the sum of social structures and agency resulting from the grouping together of diverse individuals, groups and social interests in space. ...Locality is characterised by a particular set of characteristics and contingent conditions.*
- *Contingent conditions create a place-specific, local outcome to the operation of wider structural forces and the action of human agents. They are [the] result of time and the nature of the locality.*
- *Causal mechanisms provide the structures within which individuals make decisions.*
- *The nature of society and space is therefore dependent on the structures of society, the actions of human agents, and the context provided by time and place: these constitute the realist project. (Oelofse, 1995)(emphasis added)*

¹ Giddens, A. (1979), **Central Problems in Social Theory**. Berkley, University of California Press, cited in Peet (1998).

Oelofse concludes that "critical realism provides the tools for understanding the complex relationships between structure, agency, locality and time". Also useful to this study is that the theory has an explicit spatial dimension. As Peet says, quoting Giddens's work, "...a region [or 'locale'] provides the constraints and opportunities for action, the base for what is known about the world, and the materials for changing it" (Peet, 1998: 150).

Gregory (1985) and Sayer (1992) pointed out that there is a significant difference between how realism views the world, and how pure empiricism portrays it. The widening of theory from the consideration of only observable physical entities in time (viewing people almost as atoms in a

scientific system, as Hägerstrand (1967, 1996) was wont to do) to include structural factors, or social and political constructs, presents the opportunity to describe real, but complex events (see the comparison of empiricism and realism in Gregory's diagram – Figure 3-1). A purely empirical framework only allowed the observer to 'see' events and outcomes, but critical realism allows us a fuller view of the contexts and possible explanations for events.

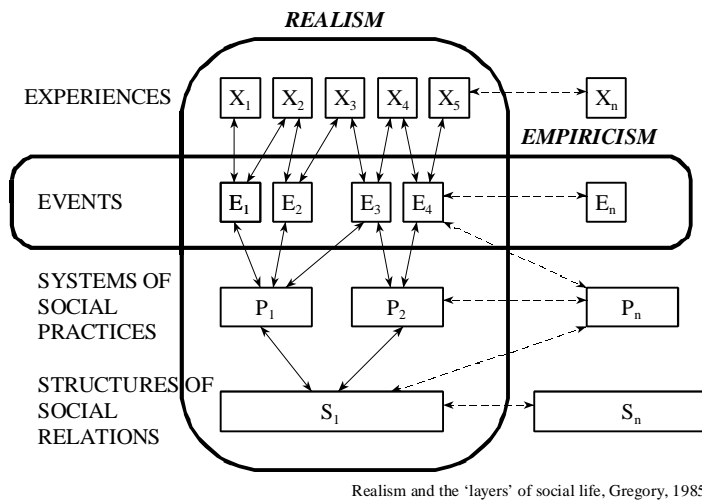


Figure 3-1: Realism versus empiricism (source: Gregory, 1985)

Applying some of these concepts to this investigation, a position could be précised in the following words. In a society (and for the purposes of this study a society would be a local community benefiting from a core housing intervention), human agents (both individuals and collectives) act with volition within *localities* which have both physical and structural characteristics. At an individual level, a person's 'conditions of existence'² (Stea and Turan, 1990), both material and cultural, provide the local context within which that person makes their decisions, individually or collectively as part of wider social movements. *Causal mechanisms* can be identified with accompanying sets of power relations which to a greater or lesser extent determine or constrain the way in which a human agent is able to act within a locality. Changes in wider structural forces coming from outside of societies are the external *contingent conditions*, which may precipitate a shift in power relations of human actors within

a locality. Within this whole locality system, events and outcomes result, and the causes of those events and outcomes can be identified.

Being more specific, the localities that this investigation views are core housing settlements located in cities or towns. The human agents whose activities and choice making behaviour we are attempting to understand are the residents of the housing, along with other local actors who assist or hinder them in their projects. We could describe as structural the relationship in housing projects between project donors (or the State) and beneficiaries. Neither could exist in that role without the other. Reference to the residents of core housing as beneficiaries in this study is therefore intentional for this reason.

The activities we are viewing are attempts to improve quality of life (and achieve other ends) through housing adjustment and other strategies. The local contingent conditions that shape individual actions would include such things as the state of the (mostly informal) construction sector within or near the settlement, the local regulatory framework, and a range of personal motivating factors such as the pressure to adjust housing, the ability to build or organise building, and the like. More remote contingent conditions shaped by distal causal mechanisms would include, for example, the attitudes and praxis of international donor agencies, the attitudes of the State to the self-help activities of their

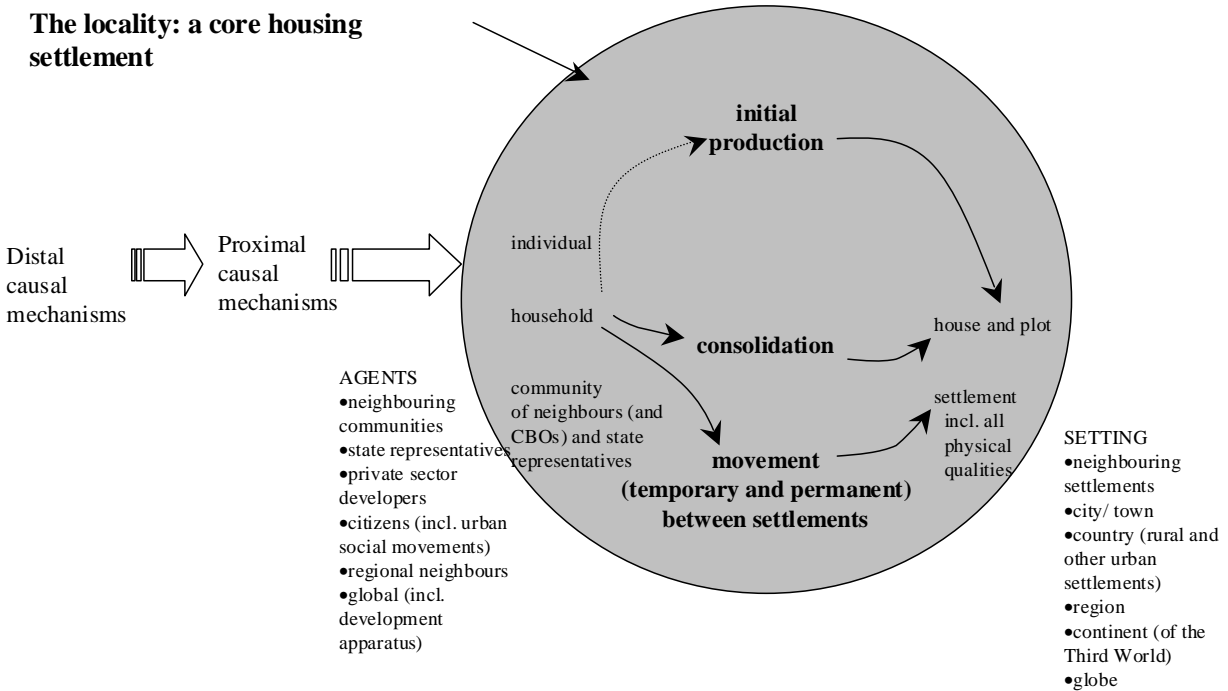


Figure 3-2: A model for core housing localities

² Stea and Turan employ a shorthand method of referring to context. They use the phrase 'conditions of existence': "A society's material conditions and its cultural conditions, taken together, are its conditions of existence". Material conditions include climate, siting, and resources, and cultural conditions include kinship, social and labour relations.

citizenry with the accompanying policies, and the whole range of political, economic and social conditions that applied at the time. All of these factors in varying degrees are assimilated by the actors when decisions are made, and projects planned and executed. This is summarised in the diagram (Figure 3-2). At a more individual level, there are a number of concepts which also help to clarify what we are focusing on in this investigation, specifically those of 'path' and 'project'.

Path and project

When looking for ways of representing the activities of agents, at the other end of the spectrum from the realist model described above, are methods to describe the very localised activities of individuals in the (sometimes overstated constraints of) time and space.

Hägerstrand (1967) is seen as the originator of the idea of 'time-geography', a theory that describes the movement of human agents through space and time in daily configurations rather romantically referred to as "the choreography of daily existence" (Pred, 1996). If carefully observed this 'choreography', can be generalised into repeating patterns that typically turn about the end points (or 'stations') of place of residence and place of work. At a higher level of generalisation the theory is useful for viewing groups of individuals working with overlapping activity patterns, or 'activity-bundles' to shape the landscape (Hägerstrand, 1996).

The time-geography theory permits us a view of the path of the individual through time and space. Hägerstrand explains 'paths' in the following terms:

The fact that a human path in the time-geographic notation seems to represent nothing more than a point on the move should not lead us to forget that at its tip - as it were - in the persistent present stands a living body subject, endowed with memories, knowledge, feelings, imagination and goals - in other words capabilities too rich for any conceivable type of symbolic representation but decisive for the direction of paths. People are not paths, but they cannot avoid drawing them in space-time. (Hägerstrand, 1996:651)

This clear view of the *volition* of the individual is particularly important in the study of core housing in situations of urban poverty. While the choice of the individual needs to be carefully located within the structural limitations imposed by the causal mechanisms within the locality, the aspirations and plans that an individual or household have to improve its house and its living conditions are nevertheless important. Thus we need to gain a clear view of the motivations of the many actors in the core housing process, but particularly those of the residents.

The second concept that is useful is that of the individual 'project'. This is distinct from the 'realist project' described above, which is more concerned with outcomes of the collective activities of all agents in a given locality, a concept we will return to. Hägerstrand uses Pred's definition of project as being, "the entire series of simple or complex tasks necessary to the completion of any intention-

inspired or goal-oriented behaviours"³. Hägerstrand appeals to us to look at the whole 'diorama' of a society so that we can understand that projects are not isolated but are in competition with one another. There is limited public and private space which may bring projects into conflict.

We must be aware of some of the qualities of time-geography, one of which is a near obsession with the 'finitude' of the space-time system or "the holding capacity of space-time" (Pred, 1996:644). There is little discussion of resources other than space and time.

It is almost a truism to state that certain historical events were shaped by whether people had the time or were in the right place to achieve certain things (a grassroots revolution is the example used by Pred). It may not need such a complex model to make us aware that people were correctly positioned and grouped for certain things to happen or not to happen. Flows of information and relationships between people as applied in network analysis (Mitchell, 1969), and in realism more generally, are more useful to describe how things happened. To say things may or may not have happened given certain space-time conditions is to use Hägerstrand to predict cause and effect, which Pred claims the model is not intended to be able to do. One is then left with a purely descriptive tool only usable for describing past events in great detail.

However, where such methods are useful for this study is in striking the balance between choice and constraint in decision making. Time-geography allows us to grasp the constraints that time and place place on individuals. So location and the division of one's labour have to be seen as real constraints which give 'finitude' to the system in which everyone operates. It goes without saying that a person only has 24 hours in a day, can only be in one place at a time, and takes time to move between places. But clearly the resource implications of the use of time and space, and therefore distance, are particularly important for people living in poverty (e.g. Moser's 1998 study on the impact of self-help on women), and give a stronger theoretical basis to view those activities taking place within a spatial urban structure.

A household living in core housing may have any number of 'projects', one of which may be the improvement of their house through extension. As agents capable of exercising choice, one would examine the projects of households and by viewing the paths followed by people in that household, try to understand whether the spatial (and social, economic and political) environment supported or frustrated their attempts to achieve their goals. The particular interest will be in viewing extensions as personal projects conceived of by residents which suffer from the constraints of space and time (and I would add, access to resources, skills, material, technology, tools etc.). Thus the importance of the locations of residential neighbourhoods, and the stations of home, work (if it exists), and other significant places, can be brought out. Movements of people tracing paths in the country as a whole along with the networks on which they depend for survival (Mitchell, 1969), are also conceptually

³ Pred, A. (1981), "Power, Everyday Practice and the Discipline of Human Geography" in Space and Time in Geography. Lund Studies in Geography. Ser. B. Human Geography, No. 48, pp30-55.

important in assessing how certain people apparently succeed in their consolidation projects and how others may have been frustrated, or how others may not even have conceived of, or prioritised extension as a project at all. This study groups individuals together according to the types of house extensions they have made, and the typical activities of these groups are referred to collectively as 'pathways'. In one sense, because time-geography is so obsessed with constraint, it may shed some light on situations of poverty. Near the end of this chapter we will pick up on another concept that emerged from similar schools of thought, namely the concept of cultural landscapes.

3.2 The means of achieving success

Having outlined how the actions of individuals are to be viewed within their localities, what measures of success should be applied to assess whether these artificial (i.e. 'manmade') environments enable their inhabitants in the fulfilment of their projects? At this point it is necessary to distinguish carefully between the ends and the means. The *means* that this study views are the housing adjustment activities of residents in core housing, as well as, to a lesser extent, any other activities that are facilitated by living in a formal urban environment. In other words, we are looking at the position that core housing places people in relative to other opportunities. The ultimate *ends* that they might be able to achieve through these means may include any number of things including, to state these positively, less vulnerability to poverty, improved living conditions, the expression of personal identities through architecture, and related to this, the achievement of people's own concepts of modernity and development (Escobar, 1995). These issues are taken up at the close of this chapter. There are many other ends that can be discussed, depending also on whether one is referring to the personal projects of the individual or households resident in settlements, or the ends which outside agents sought to achieve through core housing.

Stated in this way, the research question becomes: does the move to a core housing settlement give residents the means to achieve these kinds of ends? Let us look at the means first, and then come back to the ends which various proponents expected core housing to achieve, and those which this study intends to use as measures of success.

Access to urban opportunities

The more obvious means by which residents of core housing are able to achieve their ends are the capacity, a) to participate in the formal urban environment (social, economic, political), or put in another way, to access the full spectrum of urban opportunities, and b) to progressively or incrementally achieve adequate housing through their own efforts at housing adjustment.

Using a checklist developed by David Dewar (1988), participation in urban life is granted when residents move into formal housing and are thereby granted access to land (and secure tenure), to location, to municipal services and shelter (with the health, income generation and other benefits this implied), and to the external social and physical environment of the city. Depending on location and

the degree to which the settlement is integrated socially and physically into the surrounding urban fabric, the resident can then access the "economic, social, commercial, cultural and recreational opportunities" offered by the city (Dewar, 1988). Turner talks about how housing functions to meet existential and material needs and priorities. He structures the discussion of needs and priorities into the categories of 'opportunity', 'security' and 'identity' (1972:164).

To state the case slightly differently, Strassmann holds that:

The rent or mortgage payment that a household is prepared to make depends partly on the bundle of services provided by the structure - space, security, convenience, comfort, beauty - and partly on that provided by the site - access to work, public goods, and neighbourhood amenities. (Strassmann, 1982:104)

Clearly, people invading land also have as a priority, in many cases, the accessing of the same potential benefits offered by urban life, and beneficiaries of State housing projects are allocated these benefits formally.

The unique qualities of each settlement created when a core housing project is built as well as the residents' own conditions of existence (Stea and Turan, 1990) would determine the degree to which the resident could truly participate in the wider urban economy and realise the immediate benefits of formal housing. The various benefits that were then accessible would set up the qualities and parameters of the locality in which the residents would operate and work towards the achievement of their own projects. The enablement or frustration of these projects which may have been determined by the levels of access to the various benefits permitted in each locality can be viewed as a measure of the success of that project. The overlay that is needed on Dewar's thinking is the degree to which structural factors moderated access to the benefits. For example, in the apartheid era in South Africa, which was the setting for the case studies in this study, legislation prevented people from accessing certain types of employment and many social amenities in urban areas, then this must be seen as a structural limitation of the exercise of personal choice. The peripheral location of many self-help housing schemes is also a limitation that meant that access to urban opportunities was not a concept that applied equally to all urban citizens.

The qualities of a settlement can therefore be observed in terms of the ease of access to the range of opportunities that location in a particular settlement allows and be taken as an indicator of the success of that project. These qualities of settlement would not be static, but would change over time, as, for instance, the urban areas grew and surrounded new core housing settlements, as infrastructure of all types changed for the better or worse, and as market conditions varied. The *means* that are then granted to residents by the State, or whoever, to achieve the ends of, for example, alleviating poverty, is participation in urban life in all its dimensions through location in a formal settlement (with the benefits that accrue to the State through that transaction).

Housing adjustment

Access to shelter was one of the benefits in Dewar's checklist. The means by which residents are intended to progressively attain adequate housing, as an end in itself, are at the core of this study. In the case of core housing, access to shelter has to be qualified, in that the housing type is lacking in some of its qualities. The single room cores that characterised many projects could only barely be described as adequate housing, often offering less space than the shack houses that people had relocated from. The means intentionally put at the disposal of households by the designers of core housing were housing adjustment activities, including the improvement or consolidation of the house, or indeed the sale of the house and the realisation of its market value, if one exists. The degree to which housing adjustment was to be supported by outside agencies would vary from project to project. How have these processes been conceptualised and studied?

Housing adjustment refers to activities by which residents set out to alter their own housing circumstances, normally by moving house or by altering the house which they occupy. According to Seek (1983:456) most research and literature about housing adjustment has been focused on residential mobility, or how people move house in order to change their housing circumstances. A much wider set of options needs to be considered, including whether people move, or modify their housing, or their neighbourhoods, or whether they suppress their preferences because of lack of resources to adjust. Appendix G contains a fuller review of housing adjustment studies which was undertaken in order to compare the dynamics of adjustment practices in various settlement types, as well as to understand the methodologies being applied in the different kinds of studies. In this next section, firstly a brief overview of mobility studies is given, and then we concentrate on investigations of extensions to government housing, core housing consolidation studies and informal settlement consolidation studies.

First World mobility study trends

There are a number of types of mobility studies, including those that focus on the relationship between mobility and the people involved and society (Briggs, 1997), on the housing market (Forrest and Murie, 1994; Emmi and Magnusson, 1995), on the spatial structure of the city (Pritchard, 1976; Knox, 1995), and on housing preferences and choice making (Timmermans and Van Noortwijk, 1995; Timmermans *et al*, 1996; Floor and Van Kempen, 1997; Clark and Onaka, 1983) (see Appendix G).

Most of the studies used categorisations of household types as a basic building block for their assessments and predictions of mobility patterns. Others (e.g. Clark and Onaka, 1983) chose rather to track the household through its lifecycle as it proceeds "...from initial formation to dissolution" and to assess what impact this has on decisions to move.

A common characteristic of the First World mobility studies were that they were almost all predictive rather than descriptive. They therefore attempted to simplify down sets of motivations for large scale

statistical analysis. The reason they were predictive was that they tended to be undertaken for the purposes of informing the design of housing supply interventions at strategic level. Another level of simplification which may not transfer easily to Third World situations, was that these studies were based on a fairly simplified and limited categorisations of household types. Most of the studies were intra-urban, i.e. they assessed movement *within* specific city boundaries. The models proposed applied to contexts in which there was usually adequate housing supply (and sometimes even surplus), high quality stock, highly controlled or regulated housing markets, and although differential access to housing markets was acknowledged, there were wide choices amongst alternative housing circumstances and high degrees of personal freedom. Many studies seemed to have neoliberal overtones in that they showed bias towards owner occupation, always portraying the move from rental to ownership as being 'upwards' in their analysis. And finally, the studies viewed mobility as the most important housing adjustment option (because they were primarily concerned with housing market dynamics, or the exchange of property). Third World residential mobility studies were, by necessity, very different in both their methods and their findings.

Third World mobility studies

Mobility in Third World countries was most often conceptualised in terms of regional migration patterns between rural and urban areas (e.g. De Haan, 1997a; Cross *et al*, 1992). Relatively few studies exist of intra-urban mobility when compared with the body of knowledge about this aspect of First World cities. Many of the assumptions about mobility and its study which were developed for First World cities were not transferable to the Third World. The situation was clearly very different where formal housing shortages were extreme, personal choice was much more limited by resource constraints (and sometimes by restrictions on personal freedom), and the types of strategic intervention such as new State housing production were very limited.

Third World studies of mobility concentrated on the selling on of self-help housing by speculators (Ward, 1982), the attempts of residents to sell consolidated self-help houses in the longer term (Gough, 1998; Gilbert, 1999), the intra-urban mobility of particular groupings within Third World cities (Ahmad, 1992; Edwards, 1983), the housing aspirations of potential beneficiaries of new low cost housing (Rakodi and Withers, 1995), and more detailed ethnographies of mobility (Rodman, 1985; Kellett, 1995). The review in Appendix G treats these studies in more detail.

What emerged from the review of Third World mobility studies was that the wide scale data analysis of property exchanges over time and space (as seen in First World studies) was rare. Where studies had been done, some managed to skilfully capture the process by which people migrated into the city and then settled there (Ahmad, 1992). Mobility levels tended to be much lower for low income property owners in Third World cities, particularly in Africa (Gilbert, 1999), than for people in most First World countries. Access to State built or assisted self-help housing tended to be the end of the filtering road for most households and then consolidation processes began to predominate. For core

housing then, it is important that the mobility option is placed into the local context so that the viability of the choice to move is properly understood.

Rarely did studies view the housing adjustment activities of the majority of people remaining immobile because of poverty and other structural factors that tended to dominate decision making in the settlements of most Third World cities. *It is to be expected that stress thresholds and coping mechanisms would be much more developed in such situations, and that the suppression or redirection of aspirations away from mobility would be common.*

The research reviewed also brought out that housing adjustment studies needed to redefine the basic concepts for each context, or locality study. Examples would include whether households could be sorted into typical groups for that context, whether households had one home or several family homes, whether individuals migrated between various places on a seasonal or other basis, whether aspirations were towards ownership or whether alternative identities and meanings of home applied.

The mobility studies from First World and Third World countries were briefly described to set housing consolidation studies in context. Apart from showing that most people will remain in a self-help house after occupation (as is the case with the Durban and Cape Town case studies), they also served to demonstrate that each household needed to be understood in terms of their mobility history up until the time they moved to the core house.

By looking at resident origins (i.e. a backward view of mobility), it is possible to establish whether the move to a self-help housing project constituted filtering up or filtering down (Forrest and Murie, 1994). It is interesting to surmise whether this move set up a vacancy chain which potentially benefited others. The other dimension of course is that once occupying a house in a self-help project, the resident usually has the right (subject sometimes to an imposed restriction for the first few years of occupation) to sell their house. The extent to which this happens can also be discussed, and whether people lost the market value of their house in doing so, or whether they were effectively trading up using their self-help house.

Many of the models which attempted to explain the motivations of people to move could be as usefully applied in understanding why people wished to modify their homes. An important difference, however, is that the change in access to urban opportunities that can be effected through the change of location inherent in mobility, cannot be realised by modifiers. Modifiers can only attempt to bring opportunities nearer to themselves.

Modification

Most mobility studies had a (possibly intentional) blind spot in the area of understanding the alternatives to moving house. The few that did refer to the alternatives named them as adjusting one's own preferences (i.e. living with unsatisfied housing aspirations or attempting to reduce the

stress through social means), altering ones' own house or property, and attempting to change the wider locality (e.g. through physical or social neighbourhood improvement initiatives) (Timmermans *et al*, 1996; Floor and Van Kempen, 1997). In this section we concentrate on the option of modifying one's own home or plot.

Before looking at home modification studies, a note on terminology. There are a plethora of descriptions for home modification including improvement (enhancing quality), extension (adding floor area), and rehabilitation (making habitable) (Gosling *et al*, 1991). These tend to refer to modifications specific to the house building itself. Housing 'transformations' is a term that has been used to refer to the alteration and improvement of houses (Strassmann, 1982), and more recently to the extension of government-built housing by residents (Tipple, 1991; 2000). The word 'consolidation' has been used to refer to the way that shack houses, normally located in squatter settlements, are developed into more permanent and extensive homes (Turner, 1965, 1968; Kellett and Napier, 1995). I use this term to refer also to the investment by households in the improvement of their core houses (see Laquian, 1983), and we will return to a discussion of its origins, and motivate its use in this context. The various adjustment options and their interrelationships will be structured in the conclusion.

There has been much work on the design of new buildings and housing for 'flexibility', allowing the resident to participate more easily in their adaptation to suit their own needs, or to 'personalise' them (e.g. Rapoport, 1968; Habraken, 1976; Oxman and Carmon, 1986, Friedman, 1997). In fact, whole architectural schools and journals have, historically, devoted themselves to documenting examples of 'open buildings' theory and practice (e.g. the Open House International journal). Other investigations have looked at how buildings are adapted after occupation, whether they have been designed for this or not (e.g. Brand, 1994). At the consumption end, there have been many studies of the use and meaning of home (Rapoport, 1969; Oliver, 1987; Lawrence, 1987; Arias, 1993), and many ethnographies on specific cultural identities, uses and adaptation processes within the home (e.g. El-Rafey and Sutton, 1993).

Because there are relatively few studies that treat modification in detail or contrast the trade-offs between moving or modification, we will combine First World and Third World studies, bearing in mind that there are still significant differences in the contexts.

Moving and improving studies

Seek (1983) is one of the few theorists to have suggested a model which combines the options of moving house or improving the house (c.f. Tipple, 2000). In the Australian context, Seek had observed that typically about 15% of Australian individuals moved in one year, whereas in a 1980 study, some 62% of houses had been altered or added to (1983:456).

Seek demonstrates how in the literature the improve option has been underplayed or ignored, and how the individuals who have not moved (the 'immobile') have been seen merely as a control for

those who have. Seek then proposes a model, similar to others, but also considering some of the factors external to the household that may precipitate housing adjustments. He cleverly sketches both the processes by which households change as they move through their lifecycles, but also describes the deterioration of buildings themselves which may exacerbate the mismatch or 'gap' between the "desired and the actual level of housing" (456). Not only does stress or dissatisfaction with housing gradually build up over the years thus widening the gap, but there are also 'shocks' such as the arrival of a child or promotion in a career that may precipitate adjustments. The 'critical tolerance level' of stress is different for each family, but Seek believes it to be a function of "income, wealth and social status" (457). In other words patterns emerge if a sample is grouped according to household socio-economic and life-cycle characteristics.

Once the critical tolerance level has been reached, the options of the family are to improve, to move, or to move and improve. Seek does not mention the option of adjusting one's preferences if none of these options are feasible, as may be the case in situations of severe poverty, although he does later mention the option of 'non-action'. Households then make a rational decision between their options by assessing the costs (both financial and psychological) and the potential benefits of pursuing each option.

Seek points out the qualities of housing that cannot be addressed through improving. These include location and the difficulty of changing the basic construction or layout of the existing house. When analysing the reasons that people moved, many had moved to access a newer house in a better neighbourhood sometimes closer to work. 'Improvers' do not have these options, although Seek does not look at the option that Floor and Van Kempen (1997) highlighted, that residents can sometimes intervene to improve their own neighbourhoods, or change jobs so that it is closer to where they live.

Seek concludes that in a situation of low mobility (and we have seen that this is the case in many Third World countries), the implication is that filtering processes do not happen to the extent expected or assumed by most of the mobility experts. In fact, by improving housing to suit personal needs, the property values increase, and when the houses do become available for resale in the mature part of the family lifecycle, they are placed beyond the reach of less wealthy households. This is also Gilbert's (1999) conclusion about self-help houses in some Latin American examples: that a well consolidated house is unaffordable to most potential buyers in self-help settlements. In this context, Seek believes that new housing needs to play a different role, catering to the needs of first time home owners⁴ and not to the needs of established owners who are meant to vacate older stock and allow lower income households to occupy it, as is assumed for countries with high mobility. Seek feels that with the higher income groups being best placed both to move and to improve, and thresholds to entry into ownership continually rising, that the poor will increasingly be "relegated to the rental sector of the housing market" (469).

⁴ For core housing in Third World countries, this is exactly the case, but almost nothing is known about the vacancy chains set up by the move from shack tenancy to self-help ownership.

Seek's is a particularly useful study in the way that it takes in the trade-offs made by families. Given the context, it is to be expected that personal choice would dominate the model and that structural factors would be relatively less important than they might be if much poorer residents in less well resourced cities had been part of the sample. However, although this group obviously cannot be part of Seek's study, his model does potentially provide for it.

Gosling, Keogh, and Stabler (1991), focus almost exclusively on extensions (adding floor area) and do not include rehabilitation or improvement unless these are part of the extension process. There is passing reference to the comparative advantages of moving as an alternative to extension (28). Their empirical work is based on an analysis of extension applications in Wokingham between 1979 and 1989.

In their opinion, "...to date there has been little direct research on extension activity" (29). Their hypothesis from the beginning is that extension activity is a function of the housing market rather than being driven by household lifecycle change. For example, as older houses become lower in density as compared to newer neighbourhoods, the capital investment per square metre becomes lower and so people extend to rectify this. They point out that extension does not only happen because of discontent with the house, or the mismatch argument, but also "...as part of the general process of updating and upgrading housing" (4), possibly with the motives of maintaining value and aesthetics. They distinguish between extending for consumption purposes and for the purpose of increasing house value (i.e. improving potential exchange value).

Gosling *et al* echo the findings of Briggs (1997) when they say that it was the boom market that precipitated extensions and *not* 'significant life events' as usually held (30). Briggs held that structural factors outside the immediate neighbourhood influenced people's decisions more than household conditions. Even though people were extending to increase the value of their houses relative to market prices, Gosling *et al* found that the same people were over optimistic in the valuation of their own houses thereafter⁵. It should be noted that the importance set on the improved exchange value to be realised through extensions in this context would be less relevant where there is a very limited secondary housing market (Gough, 1998; Gilbert, 1999; Ramirez *et al*, 1992).

Strassmann (1982) undertook a comprehensive study of housing production, improvement and mobility for the city of Cartagena in Colombia. It encompassed the full range of settlement types and income brackets in the one city. The study sampled 293 households, with the number of interviews reflecting the proportion of population that lived in each of the city zones.

⁵ Bond (1996) in his critique of McCarthy *et al* (1995) says the same about the self valuation of houses in sites and services schemes in South Africa.

Strassmann uses the word 'transformation' to refer to the "maintenance, subdivision, conversion and improvement" (103) of all, old housing stock. He contrasts the types of improvements found in owner-occupied and in rented houses.

In the sample, 88% of the owner-occupiers had made some kind of improvement to their houses. The remainder considered their houses to be complete. Many different home improvements were listed, and their frequencies captured according to the number of years the owner had occupied the house. The most common improvements overall were the addition of rooms, plastering or painting, and the improvement of kitchens, toilets and windows and doors. The amount of floor space added and the value per square metre correlated with incomes and number of adults in the household. But the number of rooms and the total amount spent on improvements did not correlate with household incomes (131). The installation of water in a house, as well as security of tenure, were the most important factors in stimulating extension activity.

Later Strassmann discusses the factors that frustrate transformation by the poor. Poverty, he says, is clearly the most important, but other issues also obstruct peoples' efforts. Because many build without official permission, the opportunity for technical advice and support from officials cannot be realised. The fear of eviction and the loss of investment this implies impedes consolidation, as well as the fear that what is built will not comply with building regulations. Similarly because of ingrained attitudes about the poor, the 'flow of credit' and the granting of building permission to poor households is slow (154). Without proactive interventions then, the housing prospects for the urban poor are bleak.

The mobility of households in Cartagena was very high, with less than one third of the households having been at their current house for more than 10 years (63). The main reason that people moved was to become an owner. Once this has been attained then mobility seemed to reduce for individual households (c.f. Gilbert, 1999). Other reasons for moving were to be in a better neighbourhood, to pay less for housing, to have a larger house, to be closer to work or to relatives, and a set of other more minor reasons.

These three studies spanned the First and Third Worlds. The rational choices of households making decisions within constantly changing housing market conditions and personal household situations are perceptively portrayed and clear trends emerged in each situation. For probably the first time the trade-offs between moving and improving were brought together in one study by Seek. What is instructive is that some theorists set out to prove that household lifecycle stages were the most significant determinants driving decisions to move or improve, whereas others set out to prove that the external, contingent conditions were more important, and both groups claim to have succeeded in proving their hypotheses! Strassmann seems to have achieved both in one study.

Government housing transformation studies

A particular set of residential modification studies separated out the extension of government-built housing for special attention. Such studies were concerned mainly with the addition of space and not as much with smaller scale internal modification of residential units. In an early study, Carmon and Oxman referred to the phenomenon that they were observing in multi-storey refugee housing in Israel as 'self-help rehabilitation'. They defined self-help rehabilitation as "...the addition of building area in permanent form to the original dwelling, which has taken place through a process initiated by the residents and funded by their personal savings or by loans" (1981:1).

Tipple (1991) reviewed the early housing extension studies, some of which were focused on other issues, but noted extensions to government housing in passing. The countries where studies had been done in the 1970s and 1980s included South Africa (e.g. Beinart, 1971), India, Algeria, Algiers, Israel (Carmon and Oxman, 1981), Ghana and Bangladesh.

Another early study based on an academic project between the universities of Helwan and Newcastle upon Tyne documented the dynamics of resident extension activity in multi-storey social housing in Helwan, Egypt (Tipple, Wilkinson and Nour, 1985)(Photo 3-1). As the term 'transformations' was used in this study to refer to this type of focus, and further funding for research was forthcoming (Tipple, 1991; 2000), the number of transformations studies grew more rapidly over the next ten years leading to the establishment of an extensive body of knowledge about many aspects of extension activity in a range of Third World countries⁶. Housing which was designed to be extended, such as core housing and sites and service schemes, was specifically excluded from transformations studies (Tipple, 1991:4).



Photo 3-1: Transformed workers' housing, Helwan

Transformations were defined as "...an alteration or extension involving construction activity and using materials and technology in use in the locality" (Tipple, 1991:4). In effect, transformations studies were mainly interested in cases where space had been added to the original structure, but did not exclude impermanent additions as Carmon and Oxman (1981) had done.

Trends in transformations studies

Many of the studies referred to the multi-storey extensions in Egypt's social housing (Tipple *et al*, 1985; Kardash, 1990; Kardash and Wilkinson, 1991; Tipple, 1991; Tipple and Wilkinson, 1992; Salama, 1994; Tipple, 2000) which was a particularly impressive form of transformation. Similar

⁶ Tipple (2000:121) has a comprehensive list and bibliography of the countries in which transformations have been observed and studied.

methodologies were applied to study transformations in many other countries, including at least Zambia (Tipple, 1991), Chile (Kellett, Toro and Haramoto, 1993), Korea (Shon, 1994), India (Joglekar and Subrahmanyam, no date), Malaysia (Salim, 1998), and Bangladesh, Ghana and Zimbabwe (Tipple, 2000).

Transformations were analysed from all points of view. As with mobility studies, the motivations that people had for transforming were carefully examined (e.g. Kellett, Toro and Haramoto, 1993). The implications of transformation activity for sustainable development (Tipple, 1996) and housing supply (1996b) were discussed. However, unlike mobility studies, the predominant method in many transformations studies was not to use household types as the starting point. Rather, it was to refer to extension types as the dependent variable. Thus households who had extended in various typical ways (depending on the context) were contrasted with the control group who had not added space. Because in most Third World country case studies, mobility was extremely low, movers were generally regarded as original residents who had been lost to the sample. I do not know of any studies which attempted to track the people who had moved away from government housing, to contrast their actions with those who had stayed.

Using extension types as the dependent variable meant that the characteristics of households within each group were then examined in detail, from their aspirations and motivations for having done (or not done) extensions (see Kellett *et al*, 1993), to their socio-economic status. How the household engaged with the process of extension, organising resources and knowledge, was also carefully examined.

In most cases, by the time government housing built anywhere between the 1930s to the 1970s was studied, ownership of the housing had been transferred to the residents. If this was not the case, then tenure was fairly well secured, as was the case in Egypt where once a certain number of years had passed, the rent-to-buy principle was applied and ownership was transferred (Kardash, 1990). So most studies were of owner occupiers or imminent owners.

Although the ageing mass-built government housing, which was the focus of transformations studies, had not been designed for flexibility or extension, the expansion of houses and flats by whatever means available was inevitable as pressure for more space continued to grow in the decades since occupation. This was not surprising in light of the fairly extreme shortages of formal housing stock in most of the countries studied, meaning that mobility was hardly an option, other than to trade down and possibly to return to informal forms of housing. Even where town planning regulations were opposed to certain types of extensions, but officials were ineffectual in applying the regulations, transformations were common. They ranged in quality from extremely tenuous (as in the bamboo extensions in Bangladesh) to robust and extensive (as in the six storey reinforced concrete frames of Egypt)(Tipple, 1991; 2000).

For officials, self-help transformations were seen as a management problem, in that by-laws were being flouted and physical infrastructure was sometimes coming under strain from the added load. The lack of access to other housing stock which would allow households to adjust housing by moving, meant that transformation of houses to accommodate sub-renters was one of the few options available to generate income, meaning that population densities increased and further load was added to existing infrastructure (Gilbert, 1999:1085). Despite these reservations, local authorities were powerless to stop transformations in many situations and so, as with informal settlements, they became part of the *de facto* urban landscape. Situations where local authorities took the next step and supported transformations as happened in Israel, (Carmon and Hill, 1988) were rare.

For the academic observers, observation soon turned to support as open-ended multi-storey designs were suggested (Tipple, Wilkinson, and Nour, 1985; Tipple and Wilkinson, 1992)(see Figure 3-3) and intervention programmes to officially support co-operation between neighbours were mooted and implemented (Carmon and Hill, 1988). The jump from observing an unsupported phenomenon to becoming apologists for its further promotion, as we have seen from the history of the origins of core housing, is common. So lessons were taken from informal extension processes and transformed into recommendations about how the State should be designing for extension and gearing to provide support for the ongoing transformation process in appropriate ways.

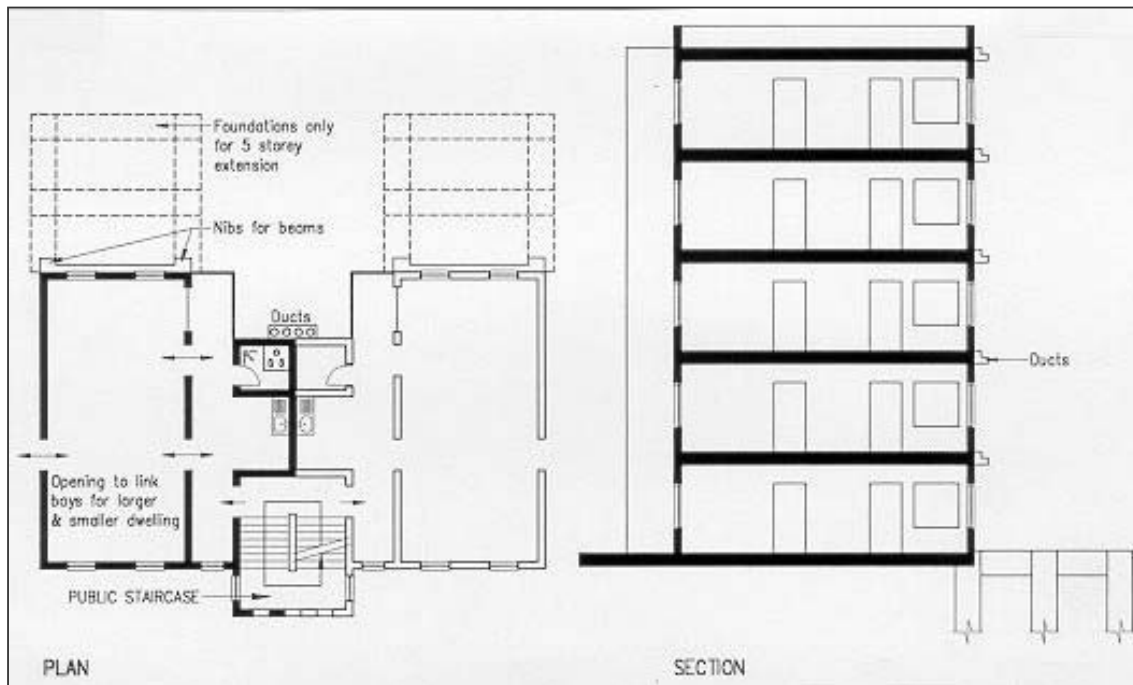


Figure 3-3: Plan for extendable multi-storey flats (source: Tipple, 1991)

Transformations findings

Many important findings emerged from the variety of transformations studies that were undertaken. The studies to date have given us a firm grasp of the physical mechanics of transformations and the (social, political and economic) processes through which individual households achieve the addition of space in situations of poverty. The physical built forms that emerged were carefully documented and the proximal causal mechanisms that led to extension were examined. Some studies went beyond the proximal environment and suggested frameworks capable of assessing the influence of broader structural factors on local extension activity (e.g. Kellett *et al*, 1993).

When compared to households who had not extended, transformations, in most cases, seemed to lead to positive outcomes. In most countries they resulted in greater amounts of habitable space per person, higher levels of service and amenity, more home-based enterprises and rented rooms, more appropriate house plan forms, high levels of personal investment, higher house values, and neighbourhoods with improved identities. A typical conclusion comes from Salama: "Overall, transformations have created more housing accommodation better suited to household needs and provided families with opportunities for income generating activity. They have also produced more personalised and lively neighbourhoods with a mix of overlapping activities, with more efficient use of spaces, and in many cases with rehabilitated buildings and improved infrastructures" (1994:642). As a result of such upbeat conclusions, the next logical step was to recommend that officials actively support transformations and that new projects incorporate design for greater flexibility (Salama, 1994; Tipple and Wilkinson, 1992; Tipple, 2000).

Further, a convincing argument was put to the effect that supporting transformations was equivalent to supporting sustainable development, as enshrined in the principles of a number of international statements such as the Habitat Agenda (UNCHS, 1996b) and the Global Strategy for Shelter (UNCHS, 1990)(Tipple, 2000:134). Bearing in mind that a similar (apologist) case could be constructed around the potential benefits of core housing, the argument was that transformations encouraged households to become producers and suppliers of housing, that built densities were increased thus making better use of existing infrastructure, that residents could participate through transformations in urban renewal thus strengthening civil society, that a greater diversity of social status emerged⁷, that housing became more productive through the creation of space for home businesses and sub-rental, that long lengths of stay in neighbourhoods (in the virtual absence of the option to move) built social cohesion, that officials were forced to take a more pragmatic view of regulations in the face of the reality of transformations, that the best was made of existing stock in places where new housing production was very low, and that the tax base was increased because increased development meant that greater property taxes could be levied. Furthermore, transformations created greater variety of accommodation, house size, house cost, use, and tenure (Tipple, 2000:134-145; Tipple, 1996).

All of these points led to the conclusion that transformations should be supported wherever possible, and should be looked on kindly by State officials, rather than obstructed or ignored: "Our proposals can be summarised as taking a positive view of transformers as providers of valuable housing. ...Just as squatters were, perhaps, not the most welcome actors in the process in the 1960s and 1970s, but were eventually accepted as making a valid contribution, so transformers, today should be accepted" (Tipple, 2000:162).

Transformations limitations

The potential limitations of transformations are alluded to but tend to be downplayed. Findings about transformations as housing supply may be misinterpreted by the State to justify the abrogation of its responsibility to continue to enable the production of new housing. The point at which densities become too great for existing physical infrastructure to bear are a commonly expressed fear amongst officials, and the suggestion is that infrastructure should be upgraded to cope with the added load from transformations (Tipple, 2000: 136). Even if room occupancy is at acceptable levels, the point at which the coping mechanisms of households living in very large houses break down is not examined. The physical parameters that will come into play with endlessly increasing densities, such as the need for natural light and ventilation, the threat of fire and the structural stability of multi-storey buildings (see Photo 3-2), although discussed, were not fully explored. The considerable investment that households put into their own houses is positive, but if those households can almost never realise that investment through resale as Gilbert (1999) asserts, then transformed neighbourhoods could become little more than a locality in which many households find themselves trapped. Similarly, the more extreme forms of transformation take place in areas where by-laws are not enforced, and thus the potential to recover greater tax returns from such areas is unlikely to be realised, as this would constitute a *de facto* recognition of illegal extensions.



Photo 3-2: Egyptian limits to transformation - Helwan Workers' City

At some stage as households grow and buildings grow apace, there will be a limit to what and who can be accommodated in each neighbourhood. *Many of the areas studied in transformations studies seemed to be close to the limit of their holding capacity, physically, socially and even economically (with some exceptions, such as the Zimbabwean case). The physical and social limits of what can be achieved on a residential plot for both living and working do exist.* And yet there was very little discussion of when these limits might be exceeded, or how in policy terms governments should be

⁷ Despite some reservations about raiding of housing by middle income groups that came out of the Malaysian study (Salim, 1998, reviewed in Tipple, 2000).

intervening in housing markets to ensure that transformation is not the only option that the vast majority of poor households are able to exercise. Transformations are essentially a very individualised form of participation, even acknowledging the negotiations that take place between neighbours and officials. The effects of transformations in building civic society and community cohesion should therefore not be overestimated compared to other potentially more empowering forms of participation which rarely occur in the areas studied.

Despite these reservations, transformations studies provide a wealth of information for anyone attempting to design core housing or other partial provision approaches. In many cases it becomes evident that the original mass housing design was not appropriate for the setting in which it was built. The Eurocentric plan forms that dominated government mass housing from the 1930s until at least the 1960s, were the starting point for most transformers. For example, in a number of case studies, Tipple shows that the plan form of the original houses was transformed from an outward looking building set in a garden, to an inward looking building with externalised circulation, particularly in places like Ghana (2000:85, 309). From studies of the built forms that residents have shaped out of the original housing, more appropriate forms emerge. Local transformations studies as precursors to the design of core housing would be useful as this kind of learning can lead to core housing which better facilitates the development of the house towards these kinds of forms, which tend to be specific to context.

The difference between transformations studies and core housing studies is that transformations studies view localities which were not designed for modification. The house and the open space were expected to be maintained more or less in the form that they were originally conceptualised by the professional designers. Core housing studies, on the other hand, view localities that were designed for improvement and extension from the outset, normally with an institutional framework to support it. In that changes in the built form are a common focus, the methods and the findings of both types of studies are useful to each other.

Core housing consolidation studies

The word consolidation was often used in the literature to refer to the growth towards permanence of informal housing in informal settlements (see below). It is also appropriate to describe the incremental growth of core housing as consolidation, particularly because the stage during which residents improve and extend their houses was copied from the informal growth process. Laquian also uses the word in this way when he describes the consolidation of housing constructed through mutual aid in El Salvador, and a sites and services project in Tondo: "Housing consolidation is the process by which families allocated plots in a project progressively develop their houses over a period of time" (1983:54).

The word consolidation is used in this study because it implies the progressive achievement of adequate housing by the resident household. Such a household negotiates through a series of

barriers (more or less successfully) such as finance, land, advice, designs, skills, materials, tools and technologies (Turner, 1976), to attain their home improvement projects. By bringing together, or successfully *consolidating* all of these elements, they manage to improve their home environments. It is then possible to refer to consolidators and non-consolidators, as descriptive of those who are following different consolidation pathways, which have different implications for the quality of life of each household.

In Chapter 2 a number of studies which described core housing projects were reviewed (Meffert, 1992; Harth Deneke and Silva, 1982; Bamberger and Harth Deneke, 1984; Ward, 1982; Siebolds and Steinberg, 1982; Rodell, 1983; Jere, 1984). It was noted that most of these studies lacked a view of the consolidation of that housing in the longer term, but were primarily evaluating whether the project initiators had succeeded in recovering costs, in empowering people during the initial construction, and the like. This section reviews the few studies which take a longer term view of consolidation in self-help settlements.

Some studies have looked at a designed starting point for consolidation, in the form of a serviced site (McCarthy *et al*, 1995; Laquian, 1983:53ff; Development Action Group, 1998). Others have looked at consolidation, usually through managed mutual aid processes, from the starting point of a sanitary core (Harth Deneke and Silva, 1982; Ward, 1982:243ff). However, very few have looked at consolidation in cases where a habitable core house was built. The few that have, have usually referred to core houses as a small component of a larger sample of houses.

Third world core housing studies

In Strassmann's (1982) study of Cartagena in Colombia (reviewed above), the category of 'basic' housing in his typology refers to low cost housing, much of which was minimal in size. In the study, such houses made up 18.8% of the sample, and were financed by ICT (the Territorial Credit Institute) between 1976 and 1980. He states that more conventional mutual aid programmes had been abandoned because the "...programme was expensive to administer, slow in execution, tied up much capital, and that prospective owners subcontracted as much of their own labour obligation as they could afford..." (1982:123). As a result a programme was put in place where formal contractors constructed 'semi-finished' housing (partly unplastered, and unpainted). Houses were typically of two rooms with about 34m² of floor area, and ranged up to houses of 83m² for families with higher incomes. One room, 19.5m² houses were also constructed with additional foundations installed to support extension. Two storey houses were designed to be extended. Strassmann mentions that architects raised concerns about the lack of efficiency of constructing houses that would often be fundamentally altered by residents (e.g. when roofs were removed and realigned), and the fact that individual residents could not buy wholesale materials and often lacked building skills. He holds that the advantage of not having to mortgage one's assets to a bank was more important than some of the gains from efficiency that may have been lost.

In terms of consolidation, or 'transformation', as it was referred to, Strassmann found that improved services to the house improved resale value (unlike Gough, 1998, Gilbert, 1999 and Ramirez *et al*, 1992 – see Appendix G). A water connection to the house increased the value of the house by seven times, whereas a sewer connection did not have as significant an effect on house values. This was because septic tanks were an acceptable waste solution. There seemed to be a more active secondary housing market than in the cities treated by other researchers of Colombia (Gough, 1998; Gilbert, 1999), making improved value realisable.

To illustrate a point, Strassmann cites several case studies of families who had consolidated their ICT funded houses (1982:123-125). The target group for whom the smaller core houses were designed was almost the lowest income group in the city. However, in the time between planning and implementing the project, inflation caused the houses to double in price, and ICT added an extra amount to the house cost to provide for contingencies. As a result many of the houses were bought by wealthier households than intended. The point Strassmann illustrates is that where poorer families accessed this core housing, they used it to accommodate several families, most of whom were relatives, in order to afford the repayments. The minimal or low grade extensions and levels of overcrowding meant that improved quality of life was hardly achieved. Where better off families accessed the housing, they made extensive additions, often before even moving into the house. The whole study brings home the importance of targeting the appropriate income groups to achieve affordability and cost recovery. While delivery of ICT financed housing was impressive, the poor hardly benefited. There was some filtering of other households into ICT housing through resale, but these tended again to be better off households because improvements made the houses unaffordable to the poor. Where poorer households did manage to access the ICT core housing, the qualitative evidence from this study suggests that they were able to attain an upwardly mobile trajectory very quickly.

Laquian (1983) considers a series of factors that influence consolidation in his essay that draws on data from the Tondo and El Salvador projects, an upgrading and a sites and service project with sanitary cores, respectively. He holds that security of tenure is still the most important factor (55), but examines various alternatives to full ownership, such as long term leases, and leasing with an option to purchase. The condition and value of the original shack house also determines whether a household is likely to consolidate further.

Laquian also discusses core housing projects in a variety of places including Manila, Nairobi and Jamaica. The Dandora project in Nairobi granted residents two options: a site with a toilet, and a site with a toilet and room. In the first option households had to build a room themselves before occupying the plot. The second option, with a core house, was occupied more quickly, and the extension of the core also happened more quickly than in the other plots. To the consternation of officials, the people with only a toilet built rudimentary shacks to use for shelter and storage while they built the permanent room. Local authority attempts to demolish these were unsuccessful, eventually

forcing them to allow the residents to use the shacks as long as they were removed within 18 months (58). The households with a core from the beginning, who must also have been slightly wealthier, were more successful consolidators. Laquian also notes from a Jamaican case study that the cues left by designers in the form of cores or party walls are often ignored by the residents as inappropriate.

Other factors that Laquian identifies are that the household income of the residents who are allocated houses in sites and service projects needs to be balanced so that it is not too low to mean that households are unable to extend, but not so high as to exclude all poorer urban residents (60). The greatest pressure on households to extend was when they first moved in, and other elements of household budgets, such as the proportion of income devoted to buying food, tended to be reduced considerably (62). In a Senegalese example, core housing designs that were of too high a construction standard meant that households were not able to afford extensions using similar methods. Similarly, the availability of appropriate building materials in the vicinity is an important determinant of consolidation rates. The timing of the installation of services and other infrastructure is key in supporting people's building efforts (65). The availability of hired labour was a factor (66) and projects where people contracted labour rather than going the mutual aid route tended to consolidate more quickly.

After reviewing the factors affecting the consolidation of core housing, Laquian very perceptively concluded that "The process of housing consolidation exemplifies the problems of transforming a natural process that occurs in slum/ squatter areas into a well-ordered administrative programme" (1983:67). Authorities were trying to accelerate the process to attain the quality of housing that they considered to be acceptable in the shortest possible time, whereas this usually happened over 10 to 15 years in an informal settlement. Laquian feels that if an appropriate type of core housing were to be provided, officials were not impatient, appropriate infrastructure was installed, and the skills of the residents were properly understood, that consolidation would take place at a reasonable pace (67). He suggests that more attention should be given to the use of local, traditional technologies in the construction of cores and the subsequent extensions.

In Turner (1988b) the Saarland Village 1 case study is described. In this example from the Philippines, 110 families from squatter settlements in Manila were resettled in core houses of 21m². Within this very small area there was one bedroom, an open multi-purpose living area and a toilet/shower. The structure was built to accommodate a second storey with sites being only 50m². At the time of the review, 69% of families had built extensions (occupancy rates being high) and invested about a year's income on improvements (94). However, many households had earned an income in their more central location in the squatter settlement as hawkers, shoe polishers, pavement vendors and the like, but were unable to access the same opportunities in their new location (96). As a concession the project developers initiated a job creation programme and designed houses to allow home businesses to operate. Generally levels of satisfaction with the new area were high. The

evaluation was undertaken soon after occupation, and although many extensions had been done, there was no indication of their quality or extent.

In Palo Alto, Mexico, Hardy (1988) documents a case in which squatters secured their rights to land. To further establish their security many families built houses using permanent materials, and model houses were built through mutual aid between 1976 and 1985. This was done before services had been extended to the area. By 1985 80% of the families had permanent homes, either using their own designs, or the double storey core design that the supporting NGO had popularised (Figure 3-4). Community buildings were also built during this period making the area a 'self contained' neighbourhood. The core house started as a 52m² double storey house and could be extended to 102m². Soon after completion many households built a lean-to extension onto the core. The neighbourhood has also had a wider impact in that "it has inspired official programmes of 'core' and 'progressive' dwellings which have been promoted by both non-government and governmental organisations" (142). Again, the view of consolidation is a very limited one and a longer term assessment of the area after a decade of expansion would be very informative.



Figure 3-4: Palo Alto co-operative core housing (source: Hardy, 1988)

Joglekar and Subrahmanyam (nd) look at the 'transformation' of cluster housing in three Indian cities: New Delhi, Agra and Baroda. The original extendable houses (15.4m²) in Bodela, New Delhi, and Ghatwasan, Agra, were constructed by the Housing and Urban Development Corporation (HUDCO) for the "economically weaker sections" (4). The study looks at consolidation at layout level, cluster level and individual unit level. The core unit comprised a room, a cooking alcove and a toilet and open bath (12). The first phase of extension was designed to involve the construction of two ground floor rooms, the second phase a staircase, and the third phase included two upstairs rooms. The prescriptiveness of the extension plans is reinforced by the proximity of the units, allowing only very limited options.

Not surprisingly, they found that residents often built on 100% of the plot, building in the intended ventilation areas, and not being willing to cook outside as the original design suggested. People in

units at the fringes of the clusters added the greatest areas simply because there were more directions in which to extend. About 15% of the houses in Agra had been converted for use as a home business. In Baroda, after one and a half years, 40% of units had been extended, and in Agra, after 14 years, over 80% of the houses had been transformed. About 25% of units had sub-tenants. Because of the cluster layout, the impact of extensions on public open spaces was particularly important. The instances of encroachment onto public space were fairly rare, and space use studies in this research show public shared space developing in a positive manner.

Basically, a very constrained original plan for extension of the core dwelling has been followed by only very few of the residents. This study presents a very detailed account of the physical qualities and uses of the plots and extensions in the projects. They concluded that there was no link between extensions and household income, but that the need for space because of household sizes or to accommodate business were the main drivers of transformation. They saw incremental growth as a positive and effective way to attain high density neighbourhoods. They urged authorities to develop a supportive regulatory framework to stimulate extensions, but to ensure enough open space was preserved.

South African core housing studies

As the production of core housing has grown in the last five years in South Africa, the interest in the degree of consolidation taking place in new housing areas has grown. Three South African studies look at this issue in detail.

The Durban Metro Housing (1998) study assesses consolidation processes in Wiggins settlement in the Cato Manor area in Durban (Photo 3-3). Thirty households who had managed to extend soon after occupation were interviewed. The study used purposive sampling (i.e. isolating those who had extended), to establish resources, financial and otherwise, used to improve the dwelling, to determine if peoples' incomes had allowed them to extend, and to discover the proportions of local contractors to self-build examples. In the view of the researchers, residents generally took long periods of time to complete extensions (6 months and longer), using money to purchase materials as it became available. Only 20% of households built for themselves, with close to 80% using local builders or the builder of the original core house. 94% of people used permanent building materials similar or better than used in the original core house⁸.



Photo 3-3: Cato Manor core housing (source: Department of Housing)

⁸ Which we will see was the same as was found in the Inanda Newtown case where only a small proportion of households had built shack extensions.

The report concluded that people had felt a responsibility to improve their property because they had received government benefit for the core and this was strengthened by being part of the Cato Manor special presidential project, a nationally funded, NGO-led, infrastructure investment project.

The study by Xakaza (1999) documents the consolidation efforts of households who invaded land near to the city of Pietermaritzburg after being driven out of a more rural area by political violence in 1990. Ninety percent of households had been in the area for five years and more. Despite local authority attempts to relocate them, the community was eventually recognised and grew rapidly. The settlement was upgraded, and 23 households who were relocated to allow road construction took part in a mutual aid construction project sponsored by Oxfam Canada and supported by a local NGO. An amount left over from the State housing subsidy after services were installed was made available to each household to purchase building materials. Just more than half the households in the sample built two room core houses using concrete blocks, and another 20% used wattle and daub. 27% of the sample had undertaken minor improvements. The motivations of households for improving their housing are examined. Because of the point at which the data was collected, this study is more about the initial impact of the government housing subsidy on the building activities of poor households than it is about longer term consolidation.



Photo 3-4: Core house in Siyabuswa

Bronchart (2000) comprehensively documents a wide range of core housing types emerging from current South African subsidy policy, and charts individual extensions in the city of East London. The study is a very valuable visual record of individual extensions and uses the findings to suggest better layouts and technologies for core houses.

The recent application of the new government policy on housing in South Africa, starting in 1994, makes it difficult to find neighbourhoods old enough to display sufficient evidence of consolidation patterns and pathways. However, these early studies do serve to establish a benchmark against which later developments can be measured.

A special case of supported consolidation, was the review of sites and service and upgrading schemes that were tried out during the transitional period between 1989 and 1994. The study by McCarthy, Hindson, and Oelofse (1995) was of sites and services schemes established under the Independent Development Trust (IDT) capital subsidy scheme (the precursor to the current subsidy scheme) and a variety of other funding systems pertaining at the time. The investigation interviewed 1500 beneficiaries in eight study areas, most of which were in situ upgrading examples. These included Bester's Camp north of Durban (and directly adjacent to Inanda Newtown), St Wendolins in

Southern Pinetown, Oukasi near Britz, Soweto-on-Sea near Port Elizabeth, Freedom Square near Bloemfontein, and Tamboville east of Johannesburg. A central idea that came out of the study was the view that "Informal settlement upgrading is a very important option for the poor", and that sites and services was an appropriate settlement form to match the affordability levels of households with a housing product. The views expressed were comprehensively challenged by Bond (1996) in his paper mockingly titled, "Do Blacks like Shacks?" in which it was asserted that partial housing approaches were no kind of solution and that the study was based on a shaky method and was little more than a neo-liberal statement emanating from the Urban Foundation with which the authors had close ties.

Core housing conclusions

There are very few other detailed studies of the consolidation of core housing. Kellett *et al* (1993) mention the Chilean State policy in the period 1990 to 1994 of funding core housing and the extensions to that housing. However, their observations focus on the transformation of complete housing. The consolidation of single storey cores into multi-storey buildings in Tenth of Ramadan, Egypt, has been observed by the author but only partially documented (Abdel-Kader and Ettourney, 1989). Other projects that were intended to start as core developments, often attracted more wealthy beneficiaries who did not need the core approach, and consolidation quickly occurred, skipping the core stage altogether (Ismailia, Egypt: Davidson, 1984; Davidson and Payne, 1983; Siyabuswa, South Africa: National Building Research Institute, 1983e; Arrigone, 1977 (Photo 3-4)).

Most core housing studies follow a more spatial research method than informal settlement consolidation studies. In the latter type of study, the housing form has all but disappeared from the view of researchers (Kellett and Napier, 1993) and the structural socio-economic conditions usually receive more attention. However, because core housing starts with a formal product, the methods employed in these studies emphasise the qualities of the spaces added and the dwellings that result. There is also a strong emphasis on the types of households who succeed in consolidating, and what factors motivate them to extend or alter, and these are contrasted to the experiences of the people who have not consolidated. A view of the influence of structural factors on consolidation tends, however, to be underdeveloped.

Informal settlement consolidation studies

Because core housing was conceptualised as a result of observing the consolidation activities of people in informal settlements, there are a number of characteristics of informal settlement consolidation studies which are useful for the study of core housing modification. It is also instructive to compare the differences between the initially unsupported consolidation attempts of people in informal settlements, and the intentionally supported efforts of the beneficiaries of core housing.

Consolidation is the word typically used to describe the broad movement of shack housing towards greater permanence through building activities controlled by residents, and the increased recognition of illegal or spontaneous settlements leading sometimes to their regularisation by authorities. Consolidation happens both at the level of the house and at the level of the settlement if sufficient proportions of households consolidate their individual houses. The incremental building activity, 'instalment construction' (Abrams, 1964:174) or 'progressive development' (Turner, 1976:24), observed by the early researchers of informal settlements are the means by which consolidation is achieved. Smit and Mbona use the word 'consolidation'

...to refer to the direct, tangible results of incremental improvement to housing i.e. the physical transformation of the built environment (Ward, 1982). Housing consolidation processes can be considered as including both the self-help activities mentioned above as well as interventions specifically aimed at supporting or replicating consolidation, such as loan schemes and local building material production units. Physical consolidation is argued to support and reflect a parallel process of social consolidation, in which homebuilders gain confidence and skill, and gradually gain in socio-economic status (Turner, 1968). (Smit and Mbona, 1996:8)

The consolidation of settlements also encompasses added complexity and diversification of functions and forms. As was observed in Kellett and Napier (1993), the movement from temporary forms of housing towards more consolidated housing is accompanied by the movement:

...from single use to multi-use (e.g. income generating activities such as shops, workshops, subletting for rent), low density to high density, illegal to legal (if regularised), absence of infrastructure to full infrastructure, increasing use of specialist construction labour, etc. Considerable changes of form accompany such changes and increased complexity of use. We can observe a change from single room dwellings to multi-room dwellings with increased definition and hierarchy of spaces; from temporary to permanent materials; from reliance on found, recycled and natural materials to industrially produced materials frequently purchased from small-scale informal sector suppliers (e.g. cement, roofing sheets, sanitary appliances etc.). (Kellett and Napier, 1993:22)

The currency of the word 'consolidation' used to refer to the incremental establishment of informal housing could stem from Turner's reference to 'consolidators' who established themselves in cities with their families after the initial acquisition of land had been finalised (Turner, 1965; 1968). In much of the literature the word is used without explanation or definition.

There is a large number of consolidation studies and it is a well established area of knowledge, especially for certain parts of the world. Consolidation processes are perhaps better understood in Latin American countries than in African countries, for example. A number of the studies attempt to describe and understand the typical consolidation processes that households follow in informal settlements (Sewell, 1964 in Ward, 1982:119) and what internal and external causal mechanisms stimulate consolidation (Ward, 1982:176ff; Van Lindert, 1992; Smit and Mbona, 1996). Other studies choose to focus on the role of small builders and materials suppliers who stand behind much of the building production in consolidation (Gough, 1996; Smit and Mbona, 1996; Ramirez *et al*, 1992). Many studies are focussed on ascertaining what formal interventions are key in stimulating self-help consolidation (Wegelin and Chanond, 1983; Angel, 1983; Stevens *et al*, 1998). Finally, some then

take the next step in attempting to understand how individual consolidation activities impact on the urban form of settlements over the years (Schlyter, 1991). Appendix G reviews these in more detail. Again, this selection of sources is merely illustrative, and this section does not constitute an exhaustive review of consolidation studies.

Trends in informal settlement consolidation studies

In contrast to First World mobility studies, most consolidation studies were descriptive of particular cases, in other words they were true locality studies. The predictive modelling tradition built up in mobility studies was almost absent from this genre of research. There was therefore less of a tendency to categorise people according to what household types they were part of, or to link these in a causal way to their consolidation or mobility behaviour. The focus was rather on the changes in the houses and the settlements, and the increasing permanence of the construction materials and methods employed (e.g. van Lindert, 1992).

The relationship between consolidation and regularisation was an important one (Angel, 1983). In each of the case studies, increasing consolidation could either lead to recognition (or indeed, non-recognition) of the legitimacy of settlements, or in other cases early regularisation could stimulate consolidation. There was not a simple correlation between increased security of tenure and consolidation. From the cases reviewed, it was also not correct to assume that all settlements or houses would proceed along a similar consolidation pathway (Kellett and Napier, 1995; Ward, 1982).

One of the limitations of informal settlement consolidation studies is that many were based on very small amounts of evidence. In First World mobility studies, very large numbers of property exchange transactions could be assessed using city records over many years. The most robust consolidation studies were based on long term longitudinal data (Schlyter, 1991) where the researcher built up a full picture from personal observations, but few had the time or opportunity to replicate such studies. It also became clear that generalisations about consolidation were inappropriate, particularly generalisations about what drove consolidation (Wegelin and Chandon, 1983; Meffert, 1992). In certain areas, consolidation towards greater permanence in informal settlements did seem to be consistent, but the reasons that this took place differed fundamentally from settlement to settlement, even within the same city (e.g. Ward, 1982:176). Finding methods to study the dynamics of consolidation processes more accurately seems to be a greater need than trying to build models that can generalise or predict consolidation processes. Consolidation studies remain important, however, as essential precursors to formal intervention.

Conclusion to the review of housing adjustment studies

If we were to map the options open to residents by drawing on the housing adjustment studies reviewed here and in Appendix G, it would become evident that most studies are focused on one small aspect of the process (see Figure 3-5). When households occupy vacant or new housing, as

the household changes in its composition and aspirations or the proximal causal mechanisms change, the pressure to alter the housing good increases. This stress can be relieved in a number of ways, whether that be through moving house, modifying the house, attempting to alter the locale in some way, or basically living with the inconvenience and employing other social or economic coping mechanisms. Throughout this review it has become increasingly evident that the breadth of options available to each household contracts as incomes reduce, and as one moves from the localities in wealthier countries to those in poorer countries. So the balance between choice and constraint, and the relative importance of structure and agency, varies from place to place. The mobility of households through market exchanges of the housing commodity is lower in Third World countries than in First World countries, and so consolidation and transformation studies assume a greater significance.

The motivations and assumptions behind many of these studies are revealed through analysing how they define a successful individual or household. In mobility studies a successful household filters upwards from rental to ownership and consumes greater and greater amounts of housing. If this growth and upward mobility is not occurring, the market is likely to suffer. In residential modification studies, the successful household is described as a home improver, an extender, a transformer or a consolidator. Those who do not modify their housing are referred to as *non-beings* of some kind.

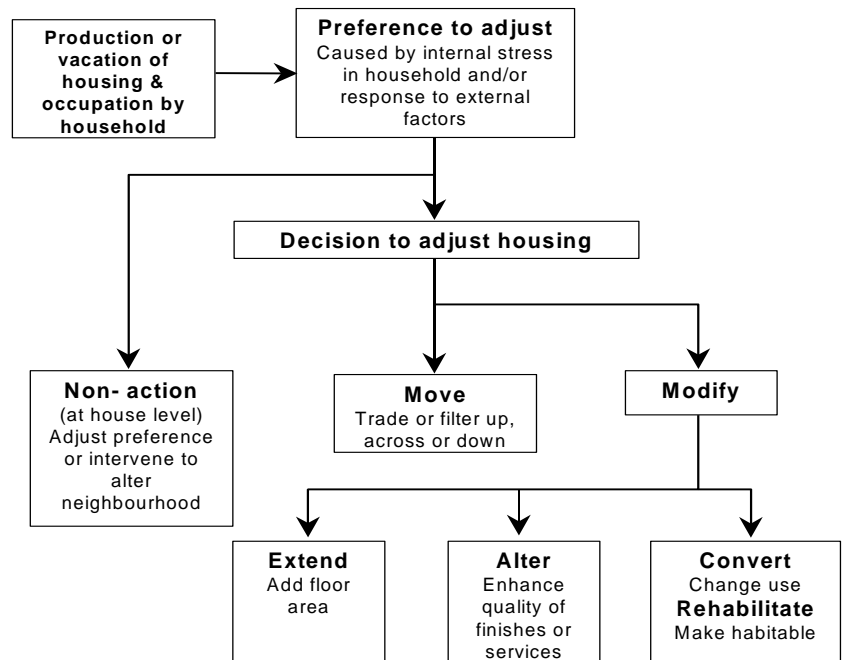


Figure 3-5: Chart of housing adjustment options

Clearly the use of these descriptors is not only motivated by the desire for the housing commodity to increase in value and for the economy to be stimulated through these processes, but also it is motivated by a concern for the quality of life of the people who are not managing to attain a closer match between their housing needs or aspirations, and the dwellings they occupy. However, it should also be noted that there may well be groups of people in each situation for whom increased consumption is neither needed nor wanted.

An understanding of the wide variety of motivations behind housing adjustment studies often explains the methods employed and the conclusions reached. Many of the First World mobility studies sought to predict accurately the future demand for housing. Despite a great quantity of research, there is a

continuing debate about whether household lifecycle stages motivate action more or less than structural factors, such as household responses to the state of the housing market. Many of the Third World informal settlement consolidation studies sought only to describe the characteristics of the households and the building processes that they undertook, but largely missed the qualities of the buildings. Such studies tended to be motivated by the desire to gain official recognition for informal settlements, and subsequently to encourage interventions that sensitively emulated the processes that were being observed. Transformation studies tried to show that whether houses were built to be extended or not, that they would be altered substantially by the residents. The conclusion was that authorities and other players should support the transformation process rather than opposing or ignoring it. Where core housing was built to be extended, it was often not extended in the ways expected by the designers.

The dearth of core housing consolidation studies can probably be explained by reference to motivations for research. All the other housing adjustment studies were investigations of processes which were driven by people themselves with little or no intervention by the State. In core housing, the intervention precedes, and constructs the setting for, the consolidation process. Academics and housing practitioners are fascinated by unassisted processes that take place outside of the remit of the State. As theoreticians propose ways to co-opt such processes the interest of the State increases as it recognises the potential benefits it can realise through the 'formalisation' of people. Core housing is itself one of these assimilations, and because the State has drawn the occupants of core housing into the formal city, and donors and the State have done their duty to supply housing, there no longer exists a strong motivation to go back and assess the long term performance of such projects. It is only as we get into the fifth decade of the implementation of partial provision approaches, and as core housing, sites and service, and informal settlement upgrading continue to be promulgated, that the realisation is dawning that some view of the success of such projects should be gained by revisiting the much vaunted experiments and pilot projects of the past.

It is therefore the aim of this study to gain a fuller understanding of the consolidation paths of various households using some of the methods reviewed here, and to strive to group and represent those pathways as accurately as possible, given the internal and external conditions of their locality. We have seen here how observers of housing adjustment processes have defined success. The next section examines to what extent, through the *means* of consolidation, a series of *ends* can be achieved by households.

3.3 The ends of success

In Chapter 2, there was a detailed historical outline of what core housing achieved for the various actors in the process, whether those were explicitly stated objectives or hidden agendas. In this section, the aim is to work towards a *methodology* for measuring or viewing success, particularly from the point of view of the residents. So here the focus is on contemporary views of core housing and

development, and how to measure its performance. Therefore the issues of poverty reduction, improved quality of life and well-being, and higher order needs such as participation and the expression of identity are key.

What must be carefully stated at the outset is that this study does not presume that the benefits that come with location in urban core housing such as access to urban opportunities and the improvement in the adequacy of housing through consolidation can, on their own, achieve all developmental ends. As Moser commented, the World Bank's 1991 Urban Policy Paper "...recognised that 'watering and housing' the poor has not solved the problem of urban poverty" (Moser, 1995:161). Access to adequate housing must be considered along with a set of other factors such as access to education, health facilities, employment, political freedom and the like. It is important to keep open the question of whether core housing allows people to achieve adequate housing within a reasonable time span, but the ends that are achievable through more adequate housing and location are inevitably limited.

The intended or planned outcomes of a project are most often defined by external agents who initiate the intervention. So from the early declarations of 'war on poverty' (Escobar, 1995) to current calls for the pursuit of the holy grail of 'sustainable development' and the complete 'eradication of poverty' (UNCHS, 1998:vii), the ends of success have been determined by the agents of development, rather than the 'recipients'. As has been discussed, these calls are often more about increasing the hegemony of such organisations and ensuring their own sustainability than about the practice of philanthropy in developing countries (Ferguson, 1990).

However, if the problem is defined from the point of view of the resident then the investigation can be directed at ascertaining whether core housing environments support residents in the pursuit of their own projects. As Turner says, "All the functions [of housing] are dependent variables of human goals which particular households have at any particular place and time" (Turner, 1972:164). In situations of poverty, the exercise of freedom in the achievement of personal goals is, as the structure-agency perspective makes clear, constrained, but not absent.

Increasingly investigations of concepts such as poverty, health and well-being have looked to self-defined descriptions of these concepts, rather than depending on imported definitions and their concomitant, and often incorrect, assumptions (Chambers, 1995). While seeking to structure into categories the motivations that people give for acting in certain ways, the intention is not to pre-empt what they say, but rather to follow their paths and to assess the degree to which the physical environment has created the conditions in which projects can be achieved.

Housing, or shelter, is itself generally regarded as a basic need, along with food and clothing (e.g. Maslow, 1976). The question then becomes, through accessing a core house, how easily can poor households alleviate poverty and thus improve their own quality of life? Whether this is through increased food intake, better clothing, more housing (through adjustment), or in the satisfaction of

higher order needs and aspirations such as improved identity and the expression of freedoms, one must try and gain a picture of the paths that residents are taking. The proportion of households which can be regarded as successful in the pursuit of basic and higher order needs should give an indication of the performance of the particular residential environment under discussion.

The concepts of well-being, poverty, and its alleviation, need to be defined if they are to be taken as indicators of the success of core housing. Similarly the expression of identity within the built environment also needs discussion and definition.

Poverty and well-being

There is a very extensive urban poverty literature and the aim here is merely to define what is meant by urban poverty, and how improvements in situations (or reductions in poverty) can be measured both quantitatively or qualitatively. As was seen in the description of the history of core housing, the recognition by the international community that many people in the Third World were living in poverty only occurred after World War 2 (Escobar, 1995:6). The renewed interest in poverty reduction was stimulated by the publication of the World Bank's 1990 "World Development Report on Poverty" (Moser, 1998:2), and this led many aid agencies to adopt poverty reduction as a high priority objective (Moser, 1998; Amis, 1995:145).

This sparked a wide ranging debate about what poverty was and about what interventions could best address it (e.g. Wratten, 1995; Amis, 1995; Chambers, 1995; Chant, 1997; Moser, 1995). Most countries applied a measure of poverty to their own citizens, making observations about the proportion of the population that lived above and below a normative poverty line. The world development community, embodied in organisations such as the World Bank and the UNCHS, applied their own, uniform measures of poverty in order to compare countries. There is general agreement that in the 1980s and 1990s in many Third World countries, poverty was no longer located mainly in the rural areas but had become increasingly urbanised (Wratten, 1995). This raised problems about both the definition of urban and rural, and the definition of poverty itself.

There have been criticisms of the application of economically biased definitions of poverty to local situations (Moser, 1995). In the face of such externally generated notions of poverty, Chambers pointed out that "the realities of poor people are local, complex, diverse and dynamic" (1995:173). Similarly, Dasgupta raised an important issue when he drew the distinction between *measures* of poverty or destitution and *experiences* of poverty. So speaking of the direction of his investigation he says, "... we will not only inquire into what constitutes destitution, we will try and see what it is like to be destitute" (Dasgupta, 1993:8). This concern with locally generated definitions of poverty echoed the anti-or post-development literature⁹ which was calling for locally defined concepts of development.

⁹ Reviewed above in Chapter 2.

Despite this, there was still a need for some shared measure of relative poverty, not least so that donor agencies could prioritise lending and design interventions. Dasgupta worked towards a universal definition, which he tested for accuracy using data from 48 countries. Based on a notion of citizenship, Dasgupta identified three "constituent spheres" of citizenship, the civil, the political and the socio-economic. As a result, he simplified the discussion down to six indicators of well-being: national income per head, life expectancy at birth, the infant (or child) survival rate, the adult literacy rate, political liberties, and civil liberties.

In explanation of the last two indicators, it is stated that "*political rights*...are taken to be the right of citizens to play a part in determining who governs their country, and what the laws are and will be" and "*civil rights*...are rights the individual has vis-à-vis the State. Of particular importance are freedom of the press and other media concerned with the dissemination of information, and the independence of the judiciary" (1993:109, emphasis added).

Dasgupta combined these together into a complex ranking system which performed as a measure of quality of life. The indicators proposed were capable of measuring both the absolute wealth or poverty within a country (and therefore they define who is considered to be part of the 'income-poor' (Chambers, 1995)), as well as the distribution of resources within a nation (through infant mortality rates, life expectancy at birth, and literacy rates). Clearly, the human development indicators used by the UN in their development reports (e.g. UNCHS, 1996a) is influenced by this type of argument.

Moser (1998) took the debate further by demonstrating that poverty should not be defined purely in terms of what the poor do not have, but that if interventions to reduce poverty are to work, there should be a clearer picture of what the poor *do* have. This view came out of comprehensive research of what Dasgupta alluded to when he referred to 'experiences' of poverty. Moser stated that "Research results show that the poor themselves are managers of complex asset portfolios" (1998:1). She put forward an "asset vulnerability model" which was based on tangible assets such as labour, human capital, and housing (which was regarded as a productive asset), and 'intangible' assets such as household relations and social capital.

Moser used the concept of 'vulnerability' which was defined as "insecurity and sensitivity in the well-being of individuals, households and communities in the face of a changing environment. ... Environmental changes that threaten welfare can be ecological, economic, social and political, and they can take the form of sudden shocks, long-term trends, or seasonal cycles" (3). She made the point that the poor are not merely victims of circumstance but respond to changes with both resources and capabilities at their disposals. This view allows us to understand the motivations of households within a constrained system.

The opposite of vulnerability is security. If a household or individual is in a position which allows them to be less sensitive or more resilient to change, then a higher level of security has been attained.

But as has been observed, access to housing cannot reasonably be expected to fulfil all needs. Moser, citing Swift, placed housing in context, and within a category, when she stated that vulnerability and security were a function of three types of assets (summarised in Figure 3-6):

investments (human investments in education and health, and physical investments in housing, equipment and land); stores (food, money, or valuables such as jewellery); and claims on others for assistance (including friendship, kinship, networks and patrons in the community, government and international community)." (Moser, 1998:3)

These assets allow households to be less vulnerable, and sets or portfolios of assets, even if scarce, are carefully and skilfully managed by poor households in the event of shocks. Moser used the concept of "coping strategies" from the food security literature. 'Coping' was defined as "a short term response to an immediate and inhabitual, decline in access to food" (1998:5), or in other basic commodities. So coping or asset management strategies are used in times of hardship and Moser believed that the behaviour and

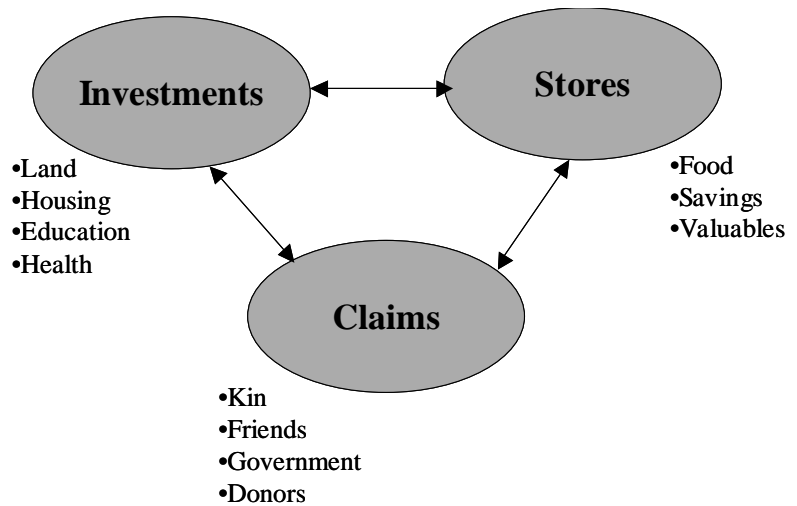


Figure 3-6: Diagram of types of assets

priorities of households in these circumstances were key to deciding what the most effective poverty reduction intervention should be. In other words, households from their own complex understanding of how to survive the exigencies of poverty should set development agendas themselves according to what factors would best strengthen their positions in the urban economy and society. Development agencies should be sensitive to this.

Moser did not ignore the structural aspects of poverty. Her discussion of entitlement demonstrated that the economic system set up the rules by which poverty and its alleviation were defined. A wage labourer's entitlement is given by "what he can buy with his wages, if he does in fact manage to find employment". So entitlement seems to be that which a society is prepared to give someone in exchange for a recognised form of barter (e.g. labour, currency etc.). The structural aspects of poverty are more complex than access to wealth, and in attempting to measure 'political' and 'civil' liberties, Dasgupta (1993) was also describing the relative access the poor have to power. In most discussions of poverty, a balance needs to be kept between a view of the causes of poverty, the measures of poverty and the experiences of poverty. Moser's work primarily discussed the experiences of poverty, but with a view to making interventions more effective.

In some places Moser's descriptions of survival and coping strategies and of efficient and complex asset management practices give the impression that most or all households living in situations of poverty are indeed managing and coping. In this study of core housing, the group of people in any settlement who are *not* coping, those who do *not* have sufficient assets (whether physical or social) to properly survive, are particularly important to identify. Clearly this sets up problems of how one defines what level of poverty should be considered as 'not surviving' or what conditions represent an unacceptable standard of living. However, it is important in a given context to have some measure of adequacy. This will be discussed in more detail when notions of housing adequacy and minimum living level incomes are introduced for the South African context. The fact that such levels are determined according to a minimal level of nutrition makes them appropriate within this discussion.

Using Moser's classification of housing as one among a number of assets, it can be observed that through the investment in the initial purchase of the house (whether subsidised by the State or not), and then subsequent resident investments through consolidation which can increase space, utility, levels of service, and therefore productive capacity, housing and its location can play a key role in reducing poverty and increasing security. Similarly the claims that households can make on others is determined to some extent by location, meaning that the effectiveness of social networks may be tied up inextricably with the settlement histories of each household. As Moser observed, "...large 'stocks' of social capital may be of little use, if the household lacks a house, friends, or an education. Thus the more assets people command in the *right mix*, the greater their capacity to buffer themselves against external shocks" (1998:16).

To sum up, when assessing whether location in core housing has assisted households in improving their security against adverse economic shocks and trends, or decreasing their vulnerability to poverty, we need to measure this in the usual ways such as per capita income, and improvement in health and education, and in the exercise of civil and political freedoms. Nevertheless, we also need to understand how households have managed the range of assets that they command, including social assets, as they set about their home improvement projects. We also need to set great store by people's descriptions of their own situations, and the stated motivations or logic for their behaviour.

From the case study evidence above, it is clear that core housing initiators, such as the State, NGOs or donors, often do not manage to target the income group for whom the housing is designed. In Abrams' original description, core housing was intended for people who could afford a structure of some kind, and sites and service schemes were designed for the poorest. We therefore have a situation in which the poorest often do not succeed in accessing core housing. In applying the research and resultant concepts of urban poverty for this study, the intention is to identify methods to measure improvements in socio-economic status, or more broadly, increases in well-being. This does not imply that core housing is usually occupied by the poorest urban residents. It is therefore important to build up a picture of whether the move from a previous settlement context into a core housing project, and the subsequent consolidation process which the settlement type is intended to

support, has improved the security of beneficiary households in the years since occupation. Reference to the assets that households manage as part of their coping strategies is useful in ascertaining this.

Poverty is not the only measure of well-being. As Chambers pointed out, when focusing on people's own definitions of disadvantage, factors other than income-poverty were raised, including "...social inferiority, isolation, physical weakness, vulnerability, seasonal deprivation, powerlessness and humiliation" (1995:173). Many of these issues can be addressed through better access to political and civil liberties, and improved income, but issues that relate to people's own identities can also be addressed through access to adequate housing and participation in housing consolidation activities.

Identity, expression and cultural landscapes

An inspection of the architecture of consolidated core housing is important for the way that it reveals whether residents have taken possession of the housing that they have received from the developers. As already noted, Strassmann (1982) listed the importance of security, convenience, comfort, and beauty in the house. Turner explained the functions that housing played in the lives of occupants as being 'security', 'opportunity' and 'identity' (1972:165). We have already discussed the first two, the urban opportunities that location in core housing opens to residents, and the potential for being able to achieve security against poverty through the possession of the housing as an asset, but what of identity?

Kellet et al (1993) outlined a variety of motivations and explanations for the transforming activities of residents. An important motivating factor they described was what they referred to as "changes in response to efforts to personalise the dwelling" (6). Citing Max-Neef, they stated that "...the wish to express identity, belonging and creativity are not extras or luxuries to be added after basic needs have been met: they are an integral part of being human" (6). This process of personalising the house (which both expresses people's individual identities but may also be an attempt to conform to the paths towards modernity that others are following within or beyond the neighbourhood), is part of each household's effort to transform house into home (Kellett et al, 1993:6). There has been a resistance to researching squatter architecture or even acknowledging the possibility that it might exist as a product of the consolidation processes that have been so well researched (Kellett and Napier, 1995).

Because of the biases in the study of informal settlements, there has emerged a vigorous debate about whether the built environment of squatter settlements can be viewed as a type of vernacular architecture¹⁰. Some argued that "if vernacular design is defined properly, spontaneous settlements can be shown to be its closest contemporary equivalent" (Rapoport, 1988:53). A contrary view was put forward by Colombian architect Fernando Viviescas, who after studying spontaneous settlements

¹⁰ This debate is reviewed in detail in Kellett and Napier, 1995.

in Medellin, found "... a considerable expressive potential" which might form the basis for a "genuine architectural position" given the right "cultural development context", but which given the present overbearing "... circumstances under which these 'barrios' are established prohibits a reference to architecture. Rather, we are referring to the basic, immediate and desperate need for shelter" (Viviescas, 1985). He argued strongly against the "...conceptualisation of spontaneous or *progressive low-income housing* in terms of aesthetic exuberance and authentic cultural expression" (1985:44) (emphasis added).

At the root of this debate was the issue of whether there could be any personal expression of identities through the architecture created by people as they formed and consolidated informal settlements or as they extended core houses. Also central to this debate was whether the collective actions of all the builders added up to an identifiable architectural style as was observed in the archetypical traditional rural village.

What is interesting in the core housing context, is that an initial, professionally designed built environment usually exists when residents occupy the housing for the first time. This architecture is patently not vernacular. However, the important question to ask when assessing the success of core housing settlements, is whether residents are able to assimilate that environment and make the place their own. Are there sufficient opportunities to transform that environment into a settlement which in its identity is expressive of the identities of the individuals and communities that live there?

There are two ways of expressing whether this has happened. The one is to ask whether core housing settlements give residents the opportunity to participate meaningfully in 'placemaking' (Stea and Turan, 1993). The concept of placemaking processes that Stea and Turan develop fits in well with the main components of critical realism outlined above. Their 'statement on placemaking' has as its starting point a view of the varying modes of production operating within societies, hence their definition of placemaking which they view "...as a form of economic activity, in its broadest sense, combining social, cultural, political, and material aspects of a society's mode of production" (Stea and Turan, 1993).

It has been observed that core housing is a very constrained form of participation in the way that it is normally implemented. But by viewing the consolidation process as a placemaking activity or process, the extent to which the means of production are placed in the hands of residents, and the degree of personal and group identity they are able to achieve through the architecture of extensions can be discussed.

The second way to assess whether core housing environments allow residents to 'stamp' their own identities onto the housing is to view whether 'cultural landscapes' are emerging as a result. This presupposes the existence of a shared model (Rapoport, 1988) of dwelling architecture which in an

urban setting may be more about a shared concept of modernity and development (Escobar, 1995) than about an inherited concept of traditional, rural architecture.

Many theorists have used the concept of cultural landscape, but in slightly different ways. Rapoport (1988), in his case for viewing informal settlements as a type of vernacular architecture, described spontaneous settlements as 'cultural landscapes' which represented the decisions of many individuals over long periods of time but which were notable for adding up to 'recognisable wholes'. Hägerstrand held that by viewing groups of individuals working with overlapping activity patterns to shape the landscape, it was sometimes possible to observe the emergence of a 'cultural landscape' as a result of their collective actions (Pred, 1996). The original idea of a cultural landscape was described by Carl Sauer:

the cultural landscape is fashioned from a natural landscape by a culture group. Culture is the agent, the natural area is the medium, the cultural landscape is the result. ...With the introduction of a different - that is, an alien - culture, a rejuvenation of the cultural landscape sets in, or a new landscape is superimposed on remnants of the older one. (Sauer, 1925).

When looking at the architecture of consolidated core housing and at the settlements as a whole, certain questions must therefore be borne in mind. Is the core housing environment sufficiently flexible and supportive to allow individuals to express their personal concepts of home through placemaking activities, or does the original, mass built architecture still predominate? Do the responses of residents through the means of extensions add up to an emerging architectural style which may be expressive of shared concepts of modernity within an urban environment? Are the occupying communities cohesive enough to allow the emergence of a predominant and physically expressed culture? Although these questions will be difficult to answer conclusively or empirically, it is nevertheless worthwhile to consider them and to ascertain whether identifiable trends in cultural landscape formation can be seen to be developing.

3.4 Conclusion

This chapter has laid the foundation for a practical method of viewing the narrower consolidation activities of residents, interpreting their motivations and describing their paths through life as agents of change but within the constraints imposed by structural factors.

Residents who occupy core housing after the initial servicing and construction phases have been completed, have at their disposal a range of *means* by which to pursue their own projects, and the *ends* they wish to achieve through these projects. The means which this investigation seeks to explore in detail are how people access urban opportunities as a result of their geographical location in core housing settlements, and how they consolidate their housing circumstances (for better or worse). The degree to which these means are able to satisfy the basic needs of the households as well as their higher order aspirations will be taken as a measure of the success of particular core housing approaches, as applied in the case study settlements. Because the main focus remains on

extension activity, the wider housing adjustment options that households may be able to exercise, such as relocating to other areas, passes beyond the scope of this study. However, a retrospective view of the residential origins of households in core housing will be established, and hence the nature of residential mobility up until the time of occupation of core housing will be explored particularly for its influence on the paths that households then choose.

A holistic view of the factors which motivate people to act in certain ways requires a balance between their own freedom to act and the contingent conditions which apply in a locality and which constrain or enable action. The flow of information through social and other networks will be important as a way of understanding how households realise their own projects.

The interpretation of the balance between structure and agency must be based not only on empirical measurements of improvement (or deterioration) of situations of well-being given the structural factors which pertain, but also on the stated *experiences* of households living in core housing settlements. *The way in which households manage their assets, and the specific function that core housing plays as one amongst a number of assets, will be important for assessing the degree of enablement that the physical and social settings grant to residents. Similarly, the way individuals shape their houses architecturally, and communities shape their landscapes collectively will be taken as an indication of whether such settlement types can be effectively assimilated and 'owned' by the residents.* These experiences, and the degree to which positive outcomes have been achieved, will be taken as indicative of the overall success of the core housing projects reviewed. As observed above, the group of people in any settlement who are *not* coping with the variety of assets at their disposal, are particularly important to identify.

It will be important to ascertain whether the development agendas of the producers of the initial core houses and serviced settlements overshadow the subsequent actions of residents, or whether as time passes residents succeed in achieving their own projects and expressing their identities. At a settlement level, there therefore needs to be an investigation of whether the cumulative impacts of individual action are adding up to viable or sustainable settlement types, or indeed whether it could be said that cultural landscapes are emerging from the professionally designed starting point of core housing.

The following chapter seeks to describe the locality (and many of its dimensions) in which the case study settlements existed from the time of production through to the time that the consolidation data were collected, using the concepts defined in chapters two and three.

4 Methodology and the localities: the (re)emergence of core housing in 1980s South Africa

The policy of black home ownership that was floated as early as 1976 and was fully operational by the early 1980s, was a self-conscious attempt to stabilise the urban population by creating a black middle class through home ownership and other social and economic reforms. (Parnell, 1992:57)

4.1 The methodology of investigating the localities

In the last two decades of the Apartheid era the South African government, although resisting fundamental change in the form of a universal franchise, did nevertheless experiment with some aspects of reform. They were therefore partially aware of global movements in approaches to low cost housing policy and practice. This led to a limited number of cases where certain forms of assisted self-help were countenanced. This chapter seeks to answer how the concept of core housing was adopted into the politically constrained historical context of late 1970s, early 1980s, South Africa and what contingent conditions occurred in the decade that followed which may have shaped the nature of consolidation. This intends therefore to act as a description of the locality of the two selected case studies from the time of the initial production of core housing until the time that households and other stakeholders were interviewed in 1996.

Motivation and central research questions

The initial motivation to study core housing in the South African context¹ came from a concern that the housing policy of the African National Congress (ANC), which came into power in 1994, was based on the assumption that households could create adequate housing through their own efforts if provided with a basic core or 'starter' house on a serviced site. Although this was a departure from historical statements by the ANC on shelter issues (for example as contained in the Freedom Charter of 1955) which according to Bond (2000) espoused the provision of complete housing, the 1994 Housing White Paper was clear about the right to access adequate housing on a "progressive basis" (DoH, 1994). The nature of the consolidation processes which were needed to achieve this were fairly unclear. By selecting more mature core housing settlements in South Africa and undertaking a retrospective study of the consolidation process over more than a decade it was thought that some notion of the factors which shaped the paths of households (for better or worse) could be gained. While it was recognised that only certain elements could be transposed out of the policy and institutional contexts of 1980s South Africa and into the more politically enlightened context of the 1990s, it was nevertheless argued that the socio-economic conditions of households involved in the consolidation process were similar enough between the two decades to allow lessons to be learnt for contemporary South African policy

¹ See also Chapter 1, "Demand for the research".

and praxis (Napier, 1998:395). This shaped the focus of early research, which sought to influence housing policy through the dissemination of the results to government, practitioners and theorists (e.g. Napier and Meiklejohn, 1997; Napier, 1997b; Napier, 1998).

This thesis is more focused on interpreting the actions of individuals in the original, historical contexts and spends less time trying to project what this might mean for the contemporary policy context. In the first years of new policy development in South Africa (i.e. 1994-1996) it was necessary (although not methodologically ideal) to use retrospective studies as possible scenarios for consolidation patterns. There is now, however, sufficient evidence from within the new policy milieu to draw direct conclusions for the current policy era (e.g. Napier *et al*, 1999; Smit, 1999; Tomlinson, 1996 and 1999). It is therefore more realistic to let that evidence speak for itself, although the longer term consolidation patterns under new policy (i.e. what happens more than a decade after the building of core housing) is still to emerge.

To briefly revisit the central research question (see Chapter 1), it was to establish whether in particular South African cases, core housing could be seen as a sufficiently supportive framework for allowing or enabling households to counter situations of urban poverty (and along with that to attain a sense of broader well-being and satisfaction), to achieve adequate housing within a reasonable time frame, and to integrate themselves socially, economically and spatially into the city. These questions were asked of a range of stakeholders, including residents, local authorities, CBOs, NGOs, design professionals and developers, with a view to establishing the viability of replicating this form of housing (and indeed the 'rightness' of continuing to promote core housing as a vehicle for 'good development'). The study thus sought to understand the origins of the core housing approach and the subsequent effects of that approach on the 'beneficiaries' of such processes. It also sought to understand whether core housing as a starting point could be said to produce economically and socially viable settlements in the long term. *Ultimately the question was asked as to whether the core housing approach should be accepted and modified to make it more efficient, or whether there were more fundamental characteristics of the approach which were cause for concern and needed to be challenged.*

Research stages

To answer these questions, the research method needed to attain a clear understanding of the initial settlement production process on the one hand, and on the other hand an understanding of the consolidation pathways that households had followed in the locality thus created. It was therefore conceived of as a retrospective, post-occupancy study designed to describe the consolidation activities of residents over more than a decade. It was also felt that the selection of two case study settlements built at approximately the same time in the South African context, but representing different development approaches, would add depth by allowing comparisons between settlement production and then resident extension responses to these contexts.

There follows a brief overview of the method applied, and the subsequent sections present more detail of the methods of data collection and analysis.

The study was initiated in mid-1995 as contract research funded by the South African Council for Scientific and Industrial Research (CSIR), a parastatal organisation based in Pretoria, South Africa. After doing an international overview of core housing practice and current housing policies to set the parameters of the project, a scan of existing core housing settlements in the country was initiated to work towards the selection of case studies. Two settlements were then chosen according to a set of criteria. These were that:

1. sufficient historical and background information should be available;
2. there should be research accessibility to the settlements, especially a willingness by residents to participate in a survey.
3. recent aerial photography records should be available;
4. the development histories of the project areas should be relatively similar to allow comparison;
5. they should not be small, pilot projects, but should preferably represent delivery of housing at scale, whether contractor-built or through assisted self-help; and
6. the cases chosen should represent a mix of situations:
 - a mix of successful and unsuccessful examples;
 - a mix of core house types; and
 - a mix of institutional frameworks and delivery processes.

A wide range of case studies where core housing had been built was found (e.g. NBRI, 1983a to 1983i; PNAB, 1983; Noero, 1988; FC Elevations, 1987; Modern Mass Housing, 1981 and 1983), however most of these examples were small, pilot projects, and some had not had a meaningful consolidation process after occupation by households with incomes above the intended beneficiary group. After developing and applying the criteria listed above, two case studies were chosen which had the necessary qualities and which allowed a comparative method to be applied. The two projects were established at similar times but had contrasting delivery mechanisms and processes. They were Inanda Newtown in Durban, and Town 1 of Khayelitsha in Cape Town.

They were the only two known cases of this type in South Africa at the time, with a long enough time having elapsed to allow some consolidation to have taken place. Given the large scale of the two housing projects, and the fact that the investigation was focused on the formal provision of a shelter of some type, it was decided that it would not be feasible to also study a control group from another settlement type. This was both because a sufficient number of studies of consolidation in other settlement types had been done (reviewed in chapter 3), and because a control group of a different kind existed within the sample (viz. households who had not extended their houses).

The two projects chosen differed in several key respects. The Inanda Newtown project, built from 1981 and including about 4000 houses (Photo 4-1), had the long term involvement of a non-government organisation as main facilitator and supporter of the process. Levels of servicing were basic, and more was invested in the core housing. There were several options of delivery process and house type open to the residents. Self-build using available materials and advice was one option. The use of a local small contractor was another. Residents could choose a two room core, or a four or six room shell house, or a complete house, with a range of levels of finish. Inanda Newtown was located on the far north periphery of what was then known as the "Durban Functional Region".



Photo 4-1: Inanda Newtown panorama

The Khayelitsha Town 1 project, built from 1984 and including about 5000 sites, was established by provincial and central government (Photo 4-2). A consortium of professionals designed and project managed the building of the neighbourhood. Levels of servicing were high. There was no choice of house type for residents. Large contractors mass produced three small, standard house types. Although initially planned, long term support for the consolidation process was not available. Khayelitsha was located towards the east of the Cape Town city centre beyond the urban edge at the time. Despite these differences, both projects represented delivery of core housing at scale.



Photo 4-2: Khayelitsha streetscape

The second step in the method was the investigation of the historical and policy contexts in which the two core housing settlements were conceived and built, to understand the motivations and decisions of the initial producers and the unconsolidated forms of the settlements. This was based on policy commentaries, on existing project documentation, and ultimately on interviews with project agents and community leaders.

Thirdly an aerial survey of the consolidated settlements was done and the results were analysed

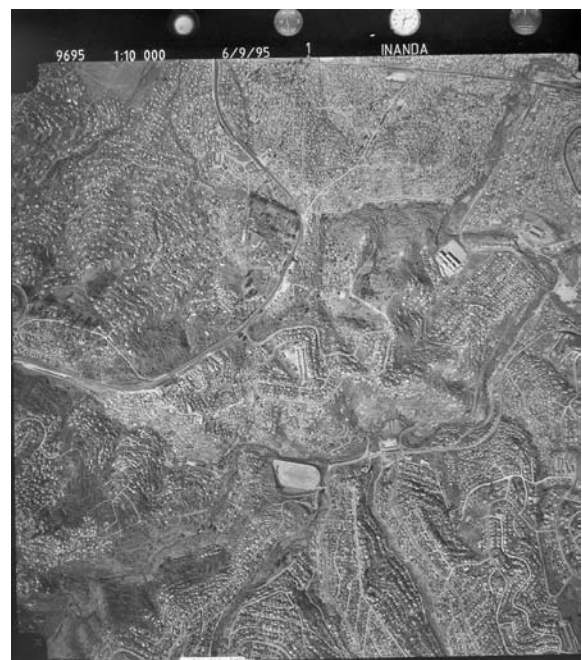


Photo 4-3: Aerial photography example from Inanda

according to an extension typology (see appendix F and Photo 4-3). Recent aerial photography of Inanda Newtown (September 1995) and Khayelitsha (December 1994) was used. This allowed the samples to be stratified based on a full census of the houses in each settlement. In that the investigation began as a piece of contract research, parts of the work were undertaken by different people. Fred and Florence Kruger (CSIR employees with expertise in aerial photography analysis) classified each house from the aerial photography according to an extension typology which I formulated based on previous work with the CARDO team working on the international study of transformations (see Tipple, 2000). The size of the extensions relative to the original core house was added as a variable to the extension typology as a result of discussions with Fred Kruger (see appendix F).

The addition of usable space to the original core houses was seen as fundamental to ascertaining the amount of consolidation that had taken place in the settlements. This could also be accurately interpreted from the aerial photography. Every house in each area was therefore classified according to:

- a) whether roofed space had been added, or not;
- b) whether the rooms built were of formal, permanent materials, or of informal, impermanent materials;
- c) whether the space added was larger or smaller than the original house; and
- d) whether the extension had been built directly onto the house or was separate from the house.

The set of clearly identifiable consolidated house types which were found to occur within the two settlements were simplified into four main categories which in turn became the strata on which the random sample for the household questionnaire survey was based (Table 4-1). The 'mixed' category was introduced after the houses were visited.

Table 4-1: Definition of extension types

<i>No extension</i>	<i>Informal extension</i>	<i>Formal extension</i>	<i>Mixed extension</i>
No addition of roofed space to the original core house.	Extension to core house using impermanent materials such as earth, corrugated iron, plywood etc.	Extension to core house using conventional, permanent materials such as brick or block.	Extension to core house using both temporary and permanent materials

The following were the results of the classification of houses from the aerial photography (Table 4-2).

Table 4-2: Aerial photography results - census of houses

	Inanda Newtown		Khayelitsha	
	N	%	N	%
Unextended	1968	55%	1303	26%
Informal extensions	485	14%	2552	51%
Formal extensions	1104	31%	1106	22%
Total	3557	100%	4961	100%

Fourthly the aerial photography results were used to select a stratified main sample of 5% of the population, and a 50% backup sample of houses for each settlement according to the proportions of extension types in the whole settlements. In the event, the full 50% sample was called on because of the absence of households, or the absence of a suitable adult respondent. In most cases, heads of households or partners of heads were interviewed. The statistical selection method for the stratified random sample was done on the advice of Dr. Chris Elphinstone (a CSIR statistician).

Fifthly, I designed a household questionnaire (based partly on Hall, 1994), a physical house survey, and questionnaires for other stakeholders (see appendices A to D). The method throughout was essentially quantitative, although open ended questions were included. Four research bodies were then contracted to collect the household data. In Cape Town Research Surveys (Pty) Ltd. (a private market research company) did the household surveys in Khayelitsha. Architectural students from the Community Projects Office (an NGO at the Peninsula Technikon) did the physical survey. In Durban, McIntosh, Xaba and Associates (a geography consultancy linked to the University of Durban-Westville) did the household survey and students from the Housing Masters course at the University of Natal's School of Architecture and Allied Disciplines did the physical survey. I undertook the training of all of the interviewers in the use of the household questionnaire and the physical survey, monitoring the results as they were collected. The structure of the physical house survey which reduced plans to line diagrams and referenced internal and external spaces was based on a method I had previously developed for a Geographic Information System application (see Napier, 1994b, and Appendix B). Further, I conducted the stakeholder interviews with the developers, the local authorities, the design professionals and the NGOs involved in the original projects. Household and stakeholder interviews took place in December 1995 and January 1996

The data capture from the household questionnaires and physical survey was done by Research Surveys in Cape Town and McIntosh, Xaba and Associates in Durban, who produced basic tables of results per survey question. Tables were cross tabulated by extension type (see Table 4-1), core type (for Khayelitsha), resident type (new, recent or original)(see Table 5-1), and by neighbourhood (three neighbourhoods in Inanda Newtown, and two in Khayelitsha). Measures of significance were shown on each table, as well as means, medians, modes, variance, and standard deviation where applicable. Further statistical analysis was done by myself with some of the tests being run by Bernu Henning of the CSIR. The interpretation of the results was then written up as an internal CSIR report

(Napier, 1997a) and in a series of short articles for wider dissemination (Napier and Meiklejohn, 1997; Napier, 1997b; Napier, 1998).

With the stratified sample and backup sample lists, the final figures of people interviewed are recorded in the table below (Table 4-3). In subsequent tables in this report, the total sample number varies in that non-responses were often excluded, and in some cases household data was collected but not physical house data. As stated, the initial aim was to attain a 5% sample.

Table 4-3: Final sample of extension types

	Inanda Newtown		Khayelitsha	
	N	% (corrected)	N	%
Unextended	124 (110)	63% (60%)	54	23%
Informal extensions	25	13% (14%)	99	42%
Formal extensions	39	20% (21%)	56	24%
Mixed	5	3%	26	11%
Remodelled	5	3%	3	1%
Total	198 (184)	100%	238	100%

In Inanda Newtown 206 households were interviewed and 198 valid cases were attained once physical house data was collected. Originally Inanda Newtown was planned to include 4000 sites. Once sites without houses were excluded in the aerial survey the total reduced to 3557. This then meant that the survey covered a 5.6% sample. In Khayelitsha 238 valid cases were attained. The original project included 5000 sites and the aerial survey picked up 4961, meaning that a 4.8% sample was achieved.

If compared to the results of the aerial photography survey (above), it will be seen that the proportions of extension types attained in the final survey have changed. There are several explanations for this. In Inanda Newtown the proportion of the two room core sub-type was inflated by a factor of 10, since it was of particular interest to this research (small cores being commonly advocated in the later policy context). The 'no extension' category is therefore slightly larger, and this is reflected in the table above, the bracketed figures indicating the sample after it has been corrected for that exaggeration. The correct proportion of informal extensions was visited. Some formal extensions were reclassified as 'mixed' after the physical survey. An "other" category also arose in both cases where house extensions did not fit clearly into any of the categories, such as when a house had been completely remodelled. In Khayelitsha the biggest change was in the proportion of informal extensions. Many of the informal extensions were reclassified as mixed extensions on visiting the sites, resulting in a smaller proportion of informal extensions overall, but a significantly large group of mixed extensions (where for Inanda Newtown this did not emerge as an important group).

This was how the data was collected. During the time between the initial interpretation and documentation of the results, and the preparation of this thesis, the results have been presented in many forums allowing the findings to be tested and developed in the light of comments received².

4.2 Country context

The two key issues that the description of the context seeks to address are: what contingent conditions led to the outcome of the production of two, large core housing settlements in South Africa in the early 1980s at a time when assisted self-help was generally not well supported by the State; and, what was the changing nature of the localities so created as settings for the consolidation activities of the residents during the time between settlement creation and the household survey? It is important to note that the description of the local realities within South Africa should not be divorced from the global trends in development thinking and the emergence of progressive housing approaches described in the previous two chapters. Although parochial in some respects, the South African government of the 1980s was not unaware of such world trends, and certainly civil society (particularly housing NGOs) reflected contemporary thinking more directly.

Political relations in the 1980s and 1990s and their spatial impacts

The 'separate development' policy pursued under the Apartheid system from 1948 changed the South African landscape in a way which was certainly an observable case of innovation diffusion (see Robinson, 1992 and Mills, 1989). However, it is well known that the fundamental elements of segregation had already been put in place in South African urban areas since Colonial (pre-1910) and post-Colonial (1910-1948) times (Swanson, 1968) through the native reserve system of the early colonial towns and the Native (Urban Areas) Act of 1923 (Lemon, 1991:1). The Group Areas Act of 1950 extended the concept to other parts of life and entrenched it spatially.

With the stabilisation of the African labour force around the major cities by the late 1960s (Mabin, 1992:18), the Bantustan system enacted in 1954 was more vigorously applied, and all new African housing was built in the 'homeland' areas, often around 'decentralised growth points' where tax and other incentives tried to stimulate the formation of centres for production and employment creation.

² Some of the forums in which the results have been presented include:

- a. A half day forum discussion, 29 October 1997, University of Natal, Durban. Forum title: "Towards a Better Understanding of Consolidation Processes in South African Cities". Presentation title: "The Growth of Core Housing".
- b. National Housing Forum Trust Lecture Series, 15 July 1998, Johannesburg. Session title: "The First Four Years of Delivery." Presentation title: "Is Housing Consolidation Happening?"
- c. Conference hosted by CSIR and University of Newcastle upon Tyne (CARDO), and sponsored by Department for International Development, 25 - 26 October 1999, Pretoria. Conference title: "The consolidation of housing through self-help extensions: local implications of findings from international research." Presentation title: "Consolidation pathways of households in core housing settlements in South Africa: a post-occupancy investigation in Khayelitsha and Inanda Newtown: lessons for design and support".

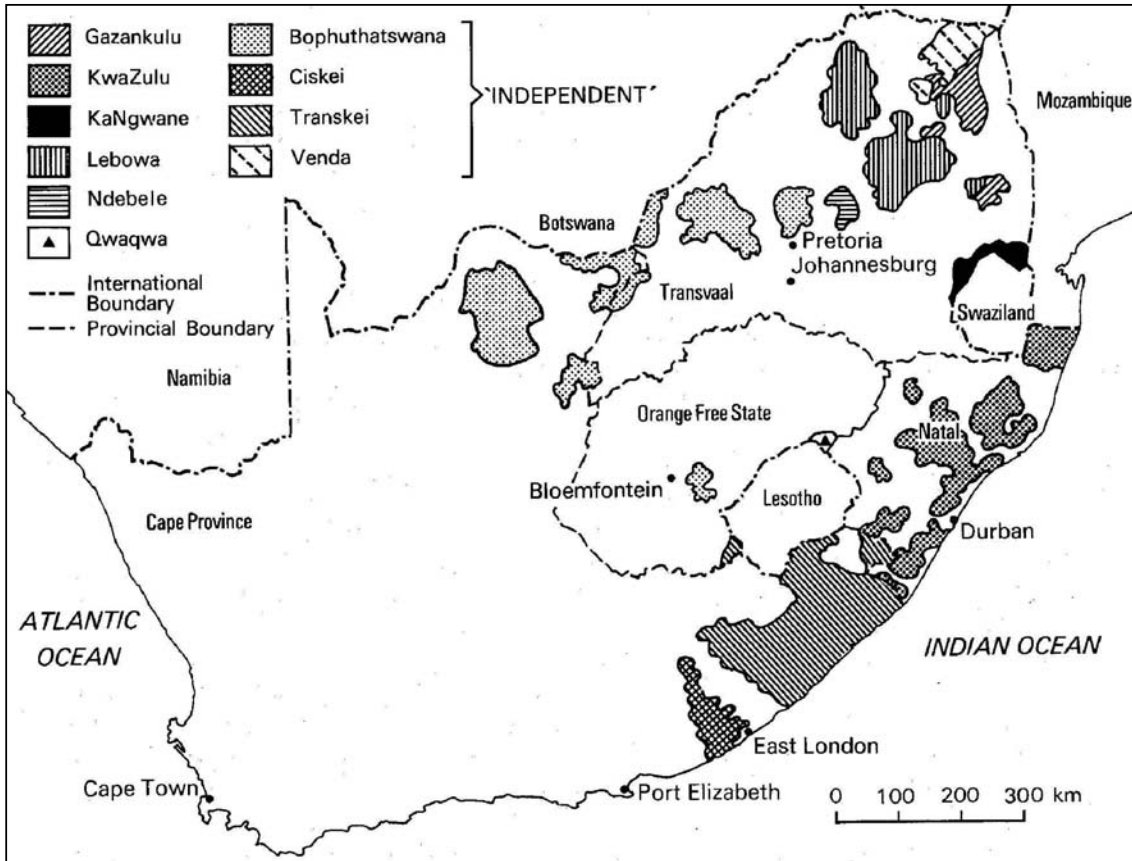


Figure 4-1: Map of homeland areas of South Africa (source: Smith, 1987)

Under the Apartheid system, only some African people were given rights to stay in cities³, and all were linked to a 'homeland' area which was meant to be a permanent, rural home. Some of the homelands were given quasi-independent status (see map in Figure 4-1).

By the beginning of the 1970s the almost complete separation of races had been organised within cities where most urban African people had been forcefully removed to townships on the periphery (Photo 4-4), and from rural areas in 'white' South Africa to demarcated Bantustans or homeland areas. Thus African people dwelling in cities were regarded as temporary residents of 'white' South Africa, with slightly stronger rights of occupation granted to Asian and people of mixed ethnicity (so-called 'coloured' people).



Photo 4-4: 1960s township layout (Soweto)

d. A meeting of councillors and officials of the Cape Metropolitan Council Housing Department, 31 March 2000, Cape Town. Presentation title: "Self-help Extensions: urban renewal or urban decay?"

³ The right to dwell in cities was often dependent on being able to prove permanent, formal employment.

The orderly spatial arrangement of ethnic groups in the country lent an apparent stability to the country, at least in the eyes of the government authorities. However contingent conditions emerged in the 1970s which were to disrupt this. Strike action over low wages in the early 1970s (Mabin, 1992:19), and the demonstrations of school children in the mid-1970s in Soweto and spreading to other parts of the country, led to a situation where the government realised that its racialist blueprint for society could not be sustained.

Growing population pressure within existing housing in the townships, coupled with the State's refusal to build more housing within the cities, saw the beginning of the phenomenal growth of informal settlements on the homeland borders that were located near the major cities⁴ from the early 1970s. This took place in Durban in the form of 'freestanding' informal settlements on the distant edges of the city (within the KwaZulu homeland), and in Cape Town more in the form of backyard shacks and small 'infill' settlements⁵. In Durban, the number of people in informal settlements increased from 437,000 in 1980 to 969,000 in 1987, with an estimated annual growth rate of 6% in overall urban population (Byerley and Smit, 1997). There was no access to political power by African people at this time (or Asian or so called 'coloured' people), and voting rights were limited to 'white' people. In the face of this growth on the urban periphery, the State gradually realised the need to plan for movement to the cities, and it introduced policies aimed at promoting 'orderly urbanisation' (Reintges, 1992).

The 1980s saw the partial reform of the political system with an attempt to move away from the grand Apartheid scheme. In 1983 the tricameral parliamentary system was introduced with political representation through three houses representing the interests of white, Asian and 'coloured' people. Although there was no representation of African interests outside of the homelands, during this same period the government established Black local authorities in township areas. These were not well accepted by most sectors of civil society. Up until that time township administrations had limited powers reporting to provincial Administration Boards. Regional Services Councils were established in all areas and Black local authorities were represented on these councils (McCarthy, 1992 and Reintges, 1992). Black local authorities thus became slightly more powerful although local Councillors were not democratically elected, but rather chosen by the local authority. Soon afterwards there was a move by government to privatise township housing, offering properties for sale to residents from 1986, a process which was opposed by many township residents, and which has continued until today. This was an attempt to shift responsibility for maintenance and upgrading of township areas onto the very under-resourced Black local authorities at the time.

The last conservative Afrikaans State President, P. W. Botha, who was in power during the development of both case study settlements, was ousted in 1989 to be replaced by a more progressive State President (F.W. de Klerk) who would eventually relinquish control of the country to

⁴ In the 1930s there had also been an increase in informal settlement around cities (Mabin, 1992), but this had been effectively halted by the township building and homeland development policies of the Apartheid government.

allow a fully democratic process to take place. The 1980s saw little house building except for limited provision for the minority groups of Asian and coloured people under the tricameral parliamentary system, and private sector production for wealthier people.

To complete the context in which consolidation of housing was happening, the 1990s was the decade of fundamental change with the transition to a democratic system. A series of contingent conditions such as international pressure, and the release of Nelson Mandela in 1990, signalled the beginning of the transition which led to the first democratic elections in 1994. An initially multi-party government (the "Government of National Unity") was introduced and began to remove racist legislation and to establish a constitution guaranteeing a set of human rights, including the right of access to adequate housing and services. The government committed itself to build a million houses in its first term (5 years) (Smit, 1999) and a housing grant (referred to as a housing 'subsidy') was introduced to assist low income earners. Government acted as facilitator and the process of house building under the subsidy scheme was dominated by private sector developers (Napier *et al*, 1999).

Civil society and urban social movements in the 1980s and 1990s

The political changes had an important effect on the housing sector and on the key actors in the sector, particularly NGOs and design professionals, not to mention the broader effects on political relations and class relations. Community-based organisations were also subject to changes in focus and strength.

Non-government organisations

The deepening of the social (and the housing) crisis exemplified by the mass action from 1973, and the government's continued inaction in the political and the housing spheres, opened up a space for the creation of housing and other civil rights NGOs. Immediately after the 1976 riots, the State appointed the Cilie Commission which found that the Group Areas Act "...had contributed in no insignificant way to the rioting" and that "housing was a major source of grievance", lack of home ownership in urban areas being at the root of such discontent (Soni, 1992). The call for a "stable urban Black middle class" came from the Transvaal Chamber of Commerce immediately after the 1976 riots, and this was accompanied by a call for greater investment in housing and other amenities. "Faced with this contradictory relationship in the drive for accumulation, capital, for the first time, resolved to participate in general provision of housing. Therefore, in 1976, the Urban Foundation was formed in the hope of improving the quality of life of the Black townships and contributions to the value of R25 million were pledged" (Soni, 1992:44).

The Urban Foundation was created to address the housing, health and education crises within the country, and to begin to challenge the government on some of its policy stances. The Board of the

⁵ Types of informal settlement based on Urban Foundation typology (Urban Foundation, 1991).

Urban Foundation was dominated by large, white-owned, business interests. The organisation had regional offices in all of the provinces and its stated role was to address quality of life issues in urban areas and, according to its mission statement, to "promote peaceful structural change ...in relation to housing and associated rights and facilities, employment, career and business opportunities, education and training..." (Urban Foundation, 1985). It was also linked into the international development apparatus through its donor funders, and adopted neoliberal approaches to housing which were ultimately to influence the housing policies of the new, democratic government (Bond, 1996).

Other housing NGOs, with less direct links to private enterprise, were also created in South Africa during the 1980s⁶. These NGOs took a stance on human rights and performed an advocacy role in attempting to alter government policy. Funding for the work of housing NGOs in South Africa traditionally came from both multilateral and bilateral agencies as well as from private donor organisations. During the Apartheid era much of this funding was channelled through progressive NGOs because of their relative legitimacy. NGOs such as the Urban Foundation were more willing to work directly with government initiatives (such as that in Inanda Newtown) than were other more activist NGOs which directed their efforts to fighting for the rights of communities to resist forced removal and access housing and secure tenure.

The shifts in the nature and relative power of urban social movements in South African cities through the 1970s and 1980s affected the ways in which housing NGOs and CBOs worked (see Chapter 2). In measuring the power of civic organisations and community groups in various contexts, access to the local modes of production (or the petty commodity form of housing)(Burgess, 1982) would be an important indicator.

Where NGOs were not involved in housing projects, groups of almost exclusively white engineers, planners and architects were available to undertake work on a professional basis, as was the case with the design and building of Khayelitsha. While some of the national, professional bodies (such as the South African Council of Architects) had small groups of dissident voices, most professionals did not question the legitimacy of the State or of local authorities, nor did they tend to question the Apartheid planning principles and by-laws which were guiding development in cities and towns.

Community-based organisations

Because of the establishment of unelected, and hence illegitimate, Black local authorities to govern townships in the early 1980s (the case in both case studies), unofficial urban social movements were particularly important to local NGOs, in the same way that the NGO sector was needed by

⁶ Examples of advocacy-based housing NGOs included the Built Environment Support Group (Durban), Planact (Johannesburg), and the Development Action Group (Cape Town). These were subsequently affiliated to the Urban Sector Network, together with a larger set of member organisations.

international donor agencies to ensure some level of equitable distribution of benefit in an unjustly structured society.

In the face of the perceived extension of white minority rule through Black local authorities, an urban social movement of civic organisations (or 'civics') arose in urban areas in the early 1980s (Coovadia, 1991). Coovadia defines civics as "...local social movements accountable to local communities. They have elected executives, formal constitutions, and their organisational structures are based on active grassroots participation by the membership" (336). They had a dual role: to fight for housing, land and services, on the one hand, and on the other, to "...link the resolution of these problems to the dismantling of Apartheid" (336). Local civics joined together into national bodies such as the South African National Civics Organisation (SANCO).

Ironically, as Apartheid was dismantled, and the national body, SANCO, was strengthened by an alliance with the new ANC government, the local influence of civics waned. Pieterse (1997) lists a range of reasons for this, including that "civics mostly represent sectional interests in communities and have not been convincing in their attempts to demonstrate sole representative status...". While playing a central role in the reformulation of policy in the new era, civics had "...largely failed to build on that strategic location after the democratisation of local government". As a result other urban social movements such as settlement-based development forums and beneficiary groups began to compete with civics as mediators of government housing benefits.

What this meant was that at the time when the core housing settlements were established, civic groups were very active and played a significant role in the day to day organisation of housing settlements. They were not, however, officially involved in the original planning or management of residential areas: in fact their participation was actively opposed by the national and local authorities of the time. As personal freedoms were strengthened from the mid-1990s, the civic movement generally receded, although CBOs continued to play significant, and now officially sanctioned, roles in the upgrading and management of settlements (often through development forums and the like).

Clearly as legislation became supportive (rather than obstructive) of low income housing production (and the right to housing), and the partial control of production by residents, the roles of NGOs and design professionals also changed. The increase in personal freedoms implied by the Constitution (which gave rise to commissions such as the Human Rights Commission and the Commission on Gender Equality) meant that rights to shelter and basic services, as well as the removal of discrimination, were legally defensible. The transformation of many of the organs of State such as the police and local authorities from white-dominated to more representative departments, also had a liberating effect in the realm of human agency and, consequently, widened the scope of building extension activity and the use of dwellings. However, at the same time, with the weakening of corporate structures like the civic organisations, the ability of a community to lobby for improved services after the implementation of a project was also weakened.

Self-help in 1980s South Africa

Given these contingent conditions and the causal mechanisms of political and social relations, how did some forms of assisted self-help emerge in 1980s South Africa and how were the consolidation paths of individual human agents subsequently enabled and constrained by the characteristics of locality? Judging by the political relations described above and the attitude of government towards the settlement of African people in major urban areas in 'white' South Africa, it would perhaps be considered surprising that two, large core housing settlements were established in the early 1980s under what was still an Apartheid government. What contingent conditions and combinations of human action opened up the space for this to happen, particularly in the arena of housing policy development?

From 1963, with the promulgation of the Bantu Laws Amendment Act, the government had actively opposed the urbanisation of African people (Soni, 1992:42). However, from 1973 onwards with widespread mass action, and the growth of informal settlements, it became increasingly clear that urbanisation could not be completely halted.

The government therefore took a more pragmatic stance and in the early 1980s moved slightly away from 'separate development' and, as we have seen, towards what was dubbed by commentators as its 'orderly urbanisation' policy (Smith, 1992:7). This was embodied in the Circular Minute No. 1 of 1983, which for the first time called for the mobilisation of the private sector in the production of low cost housing and acknowledged the possibility that assisted self-help initiatives could be an acceptable form of housing delivery. This thinking was further developed in the Government White Paper on Urbanisation of 1986, in which it was stated that "as much recognition as possible should be given to community involvement in housing matters, and that community development projects such as self-build schemes should be utilised, whenever possible, for the provision of housing" (quoted in Urban Foundation, 1991:9).

It is evident from the housing policy of this era that government was attempting to distance itself from direct provision, with the exception of the "truly needy" or "welfare candidates", and to shift this responsibility onto the private sector and resident communities wishing to be housed (Napier, 1993b).

Clearer statements of the orderly urbanisation policy came through a much later document entitled a "policy framework for dealing with squatting" (South African Government, 1991), in which it was stated that "the objective of government is to *manage urbanisation effectively* to prevent squatting. ...In order to achieve this objective, government accepted... that land be designated to legally accommodate squatters in *an orderly fashion*" (South African Government, 1991:6)(emphasis added).

Another agenda behind developments in 1980s State housing policy, was the wish to address the needs of what was seen as a volatile sector of the population. The 1985 Development and Housing Act confirmed a new move towards black home ownership. "The policy of black home ownership that was floated as early as 1976 and was fully operational by the early 1980s, was a self-conscious attempt to stabilise the urban population by creating a black middle class through home ownership and other social and economic reforms" (Parnell, 1992:57).



Photo 4-5: 1980s core house pilot project in Mabopane, on the distant northern periphery of Pretoria

As a result, this era was characterised by an attempt to provide housing through sites and service projects (and some core housing projects) located far from city centres (see Photo 4-5). It was an acknowledgement that African people might have a right to dwell in cities and towns but not that this should necessarily allow efficient access to urban opportunities.

The recognition of sites and service and core housing projects (but not unassisted self-help in the form of squatting) was interpreted against the background of the policy developments of the day. As Reintges comments, the policy of orderly urbanisation was to be applied as a "...new and more effective form of influx control [by] ...insisting that people have access to a site before allowing them to settle in an urban area ..." (1992:99). A similar observation was made in the international context when Crooke observed that, "One may ponder whether these gains in official control... over irregular housing and business activities are an undeclared aim of many government-sponsored sites and services and settlement upgrading projects" (1983:178). The work of Ferguson (1990) on the role of NGOs in promoting global paradigms of development and local manifestations of bureaucratic power bears this out.

The Inanda Newtown case study, which began its existence as a transit camp in the late 1970s, preceded some of the clearer statements of the orderly urbanisation policy. Inanda Newtown was primarily a crisis response, but was also an early example of the pragmatic stance which the government was being forced to take in the face of its loss of control of the actions of people in civil society. Khayelitsha was a more planned approach, also conforming to the orderly urbanisation policy, and attempting to accommodate people in core housing which was to be further developed by residents but without the advantage of secure tenure.



Photo 4-6: Experimentation with high density housing in KwaNdengezi, Durban, 1980s

Other examples of alternative housing types which emerged under this new policy in the country during the 1980s included a range of experimental housing in KwaNdengenzi (FC Elevations, 1987)(see Photo 4-6) west of Durban, a core housing project in Ntuzuma (PNAB, 1983) north of Durban, an incremental housing project in the homeland town of Kanyamazane (NBRI, 1983g), another in Siyabuswa (NBRI, 1983e; Modern Mass Housing, 1981, 1983), and many other examples (see NBRI, 1983a-l). This does not imply that this was the first policy era in which incremental forms of housing were built in South Africa. In fact, two room houses were built in a number of late 1950s townships (e.g. KwaMashu in Durban), and although residents as municipal tenants were constrained in what they could do in terms of extensions, the idea that the houses would have to be extended to become habitable must have been in the minds of the designers. Hence the 1980s can be referred to as the decade of the re-emergence of core, and other forms of assisted self-help, housing in South Africa.

In the 1980s, the experiments by the government with self-help housing tended to be done in partnership with parastatal organisations such as the CSIR, private consultants, and establishment NGOs such as the Urban Foundation, who were each willing to design and implement projects in homeland areas or within the Black local authority system that applied to urban areas. The activist-based housing NGOs were less likely to assist under these conditions. In situ upgrading was only attempted in the late 1980s and 1990s (Merrifield *et al*, 1993; McCarthy *et al*, 1995)(Photo 4-7), as early forms of the current government housing subsidy were piloted.

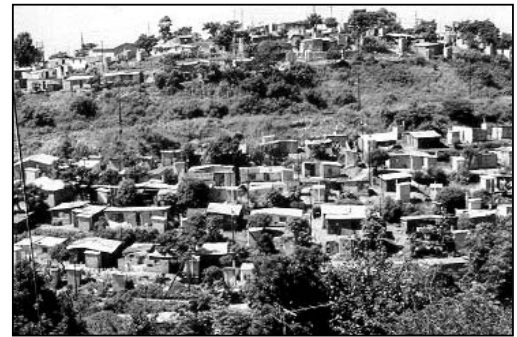


Photo 4-7: Besters Camp in situ upgrading, Durban

These then led through into the core housing policy of the new ANC government from 1994 which, although giving obeisance to international enablement thinking, was in effect a direct government intervention to deliver large quantities of core housing during the first term of office. The use of the housing subsidy to deliver housing was similar to the model developed by the Independent Development Trust set up by the previous government and the Urban Foundation (*Update*, July 1989) in the late 1980s.

The production of the two case studies described below, Inanda Newtown and Khayelitsha, in the early 1980s can best be understood as representing a time when there was a 'state of flux' in the thinking of the State (as Parnell (1992) refers to it). The transition from "influx control" (i.e. the effective blocking of urbanisation) to orderly urbanisation, the movement from pure municipal rental and limited urban rights to the creation of a stabilised black middle class with property ownership, and the movement from the State as provider to an attempt at the enablement of private sector-led housing production, were all processes that had been mooted but not yet properly established in law

Ntuzuma (see map, Figures 4-2 and 4-3) and 26km north of the city centre. People have lived in the Greater Inanda Region for many years. In fact there are records of occupation prior to the establishment of the British settlement in Durban in 1824. This occupation by African people continued after the declaration of the area as a Native Reserve (1846), and during the time when land was bought up by previously indentured Asian labourers in the 1860s. The land owners (both African and Asian) initially used the land for agriculture and later increasingly for shack farming (i.e. renting land to informal tenants). In terms of the 1936 Land Act, the area was classified as a Released Area (known as Released Area 33) which meant that freehold title to land could be granted to African people during the subsequent Apartheid era (Cross *et al*, 1992), an unusual state of affairs in the country.

In 1958 with the removal of land owners and squatters from Cato Manor near the centre of Durban, many people who did not qualify for resettlement in the new township of KwaMashu, moved to the more distant, rural areas of Inanda, such as Amaoti. In the following years, the population and number of informal settlements grew phenomenally, the land being neither a homeland area nor falling within the boundaries of the Durban Metropolitan Area (see Hindson and McCarthy, 1994).

At that stage infrastructure services in most settlements were basic or non-existent, and links with the central city tenuous. By the early 1990's there were some 18 clearly identifiable informal settlements in Released Area 33 which were described as ranging "...in character from quasi-rural areas - such as Amatikwe - to extremely dense settlements of a decidedly urban character, such as Bambayi" (Cross *et al*, 1992:6).

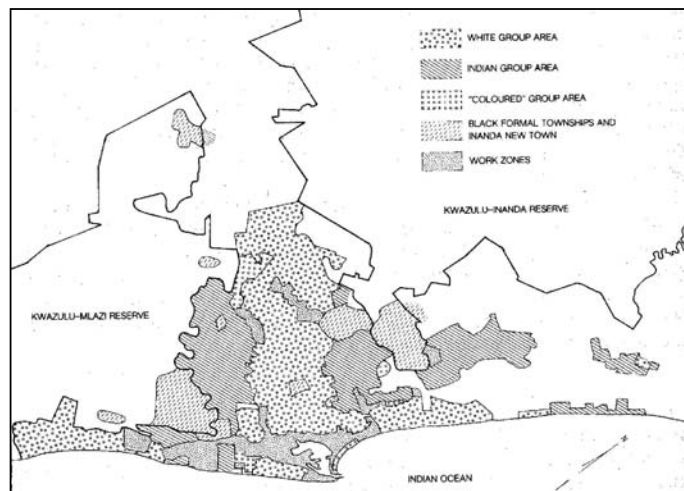


Figure 4-3: Durban Group Areas map (source: Davies, 1991)

Project history

As a result of droughts in 1978 and 1979 and the lack of a clean water supply, there was an outbreak of typhoid in several of the Inanda informal settlements. This prompted the Department of Health at the time to intervene with measures to supply clean water, a response characteristic of sanitary boards in local authorities since Victorian times (McGranahan *et al*, 2001). In the late 1970s the Department of Co-operation and Development of the South African government responded by initiating a sites and service scheme which was ultimately to comprise some 4000 sites. The Urban Foundation began to act in an advisory role to the Department but soon became the main generator of development policy for the project. It was on sparsely settled land near the southern border of

Released Area 33 that Unit A of Inanda Newtown was first established in 1980. Units B and C followed and were then each extended over the next 10 years (see map, Figure 4-4).

Despite the government's initial intention to use Inanda Newtown as a temporary resettlement area, the Urban Foundation suggested the securing of tenure and a move towards more permanent forms of shelter (process illustrated in Figure 4-5). The permanence of the settlement was eventually recognised by the authorities. The Newtown area was given formal township status and occupational rights to the land were securable under Deed of Grant, the most secure form of individual tenure available to African people at the time.

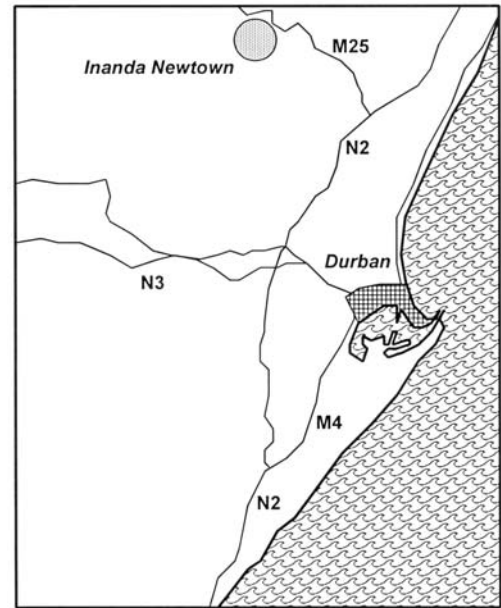


Figure 4-4: Inanda Newtown locality map

The targeted beneficiaries were identified as being the people worst affected by the outbreak of disease, and most came from the settlements of Amaoti and Amaotana. The township manager at the time controlled entry onto the waiting list. People applying were given a means test, and screened according to whether they were married, had dependants, were formally employed and were first-time home buyers⁷.

The first group of people qualifying started with a tent and basic services (as illustrated in the Urban Foundation diagram, Figure 4-5, and Photo 4-8). Sites were occupied from October 1981. A consolidation process supported by the Urban Foundation was initiated and by 1984 about two thirds of the 4000 sites had approved houses built on them (Vines, 1985:8). The aerial photography survey by the CSIR at the end of 1995 showed that there were houses on 89% of the sites. Sites not occupied were generally too steep for affordable house construction.

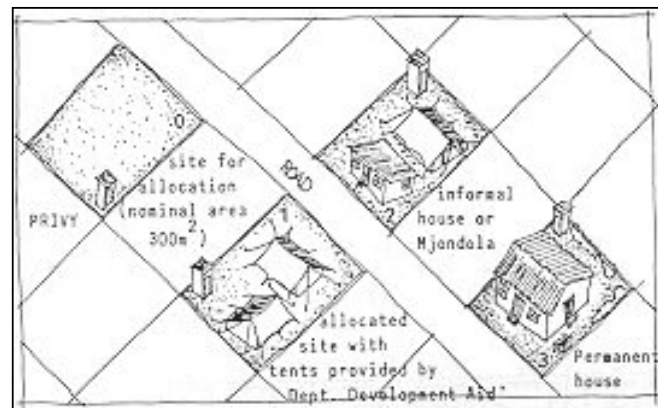


Figure 4-5: Illustration of settlement stages (source: UF, 1981)

⁷ These criteria are very similar to the housing subsidy criteria under the current ANC government, except that having dependents, rather than being married, is the criteria applied to a qualifying household.

As the urgency of the health crisis abated and a more permanent status for the area was agreed to by the government bodies involved, the Urban Foundation began to apply more long term development principles. They hoped to use this as a pilot project "to demonstrate the viability of an alternative approach to mass housing" (Urban Foundation, 1981) which would eventually result in an area of conventional, or formal, housing.



Photo 4-8: Tent stage (source: UF, 1983)

Their stated goals for the project were:

1. the use of the self-help approach to involve people in decision making and management of their own housing;
2. to promote human development through transferring technical and managerial skills;
3. to apply an 'appropriate' level of subsidisation while not prejudicing replicability; and
4. to increase the flexibility of the product and the choices open to residents (Urban Foundation, 1981).

Note that there is no reference in the goals to the strengthening of civil society, and that the language used to describe participation is couched in individualistic terms.

Layout, public spaces and amenities

The 4000 sites were laid out initially as a sites and services scheme. Generally speaking, main feeder roads run along the easiest gradients with secondary roads and cul-de-sacs running against the contours (see Figure 4-6). With gradients between 1:3 and 1:8 this means that car access to some of the sites is difficult.

The sites ranged in size from a minimum of 180m² to 350m². According to the Urban Foundation the gross density at which the area was planned was 13.7 sites per hectare (Urban Foundation, 1983:97). The aerial survey found that the gross density varied from 14 sites per hectare (in Units A and C) to 11 sites per hectare (in Unit B where slopes are steeper).

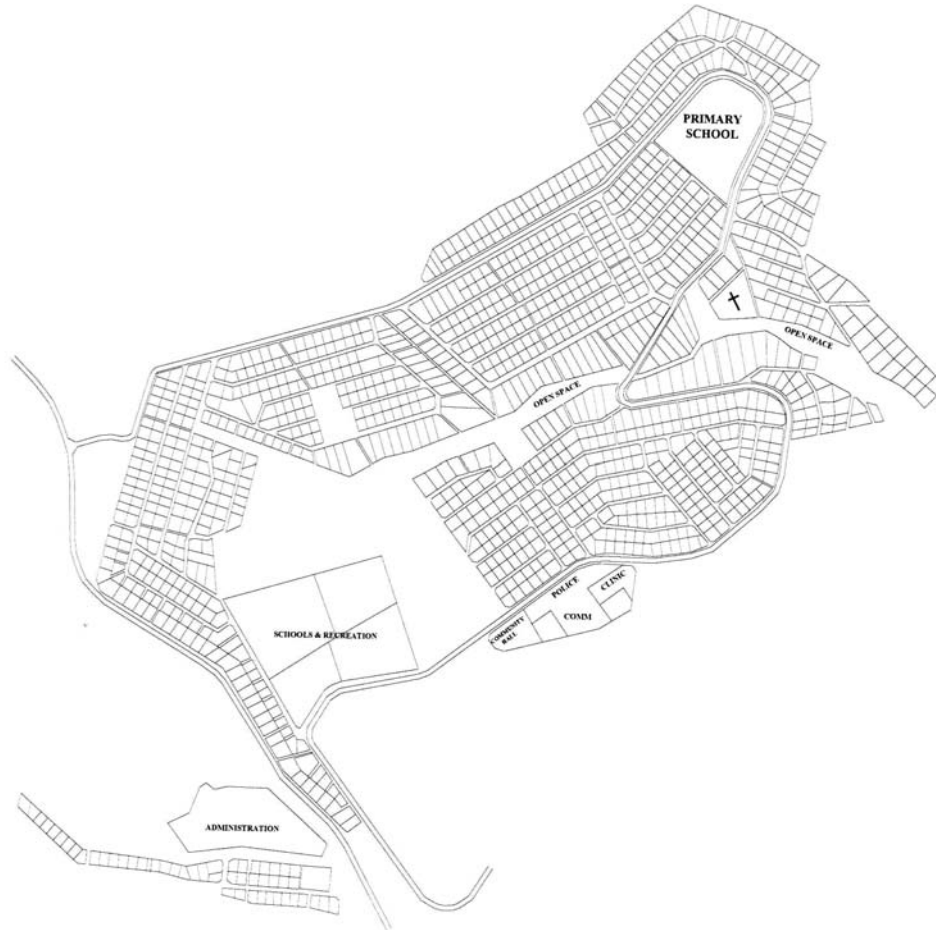


Figure 4-6: Example of area layout: Inanda Newtown Unit A North

As the area became established, in addition to a public transport system, several community facilities were built, including a community hall, a pre-school, a clinic, a sports field, a small business centre and several retail outlets (see Photo's 4-9). Because the Urban Foundation as developer, shared responsibility for seeing that public amenities were provided, a well balanced infrastructure of amenities was ensured from the outset. The size of the project also made it necessary to establish this public infrastructure within the neighbourhood, rather than leaving it to some other agency and hoping that it would be established beyond the project boundaries as can happen with smaller housing projects.

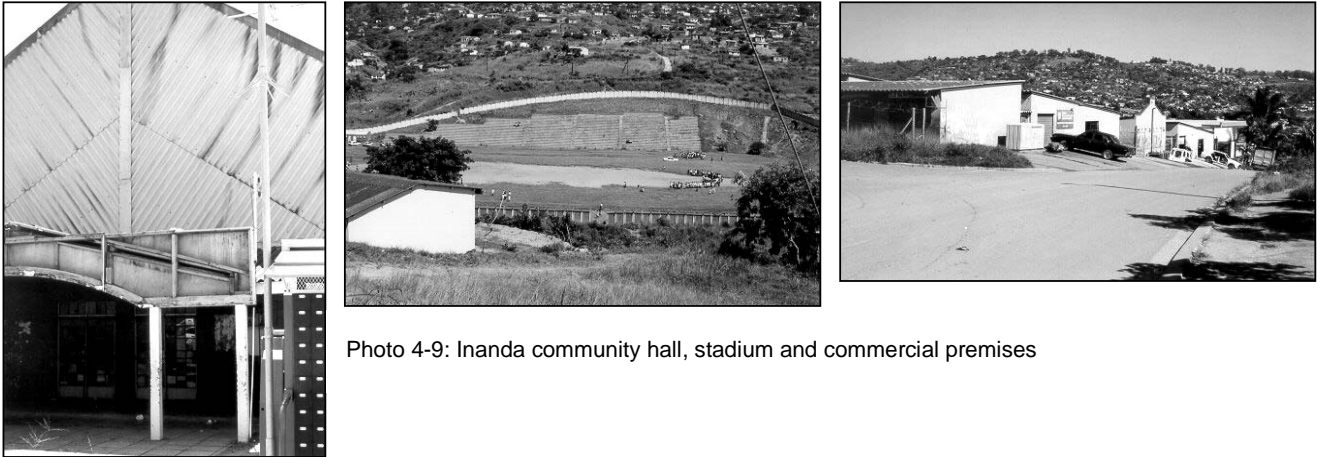


Photo 4-9: Inanda community hall, stadium and commercial premises

Servicing

Levels of servicing were at first fairly low and infrastructure was designed for subsequent upgrading. Bus routes were tarred and secondary roads surfaced with gravel (Photo 4-10). Each site had a pit latrine with a top structure that could be moved when the pit was full. Refuse removal was by residents to local bin collection points which were emptied twice weekly.

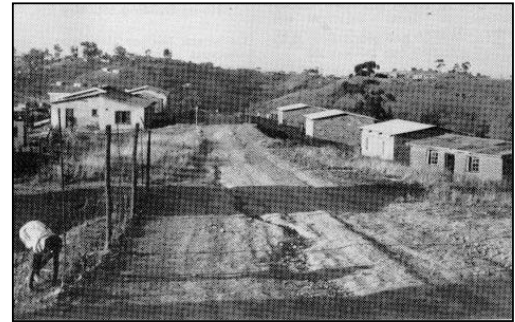


Photo 4-10: Dirt roads at first (source: UF, 1983)

Standpipes were located along main routes at between 60 and 100 metre intervals. At the time of the household survey, a waterborne sewage system and individual water connections were being established in the area, although progress was slow. The household survey indicated that 42% of houses were still dependant on the stand pipe for water supply. These people walked an average of 73 metres to fetch water, although distances of up to half a kilometre were reported. Five and a half percent of households now have a sewer connection and have installed flushing toilets.

Houses

After the toilet and tent stage, the developers envisaged that a shack could be built by households as an intermediate step before the establishment of a permanent house. Households would keep the tent and once each household could afford to build a 'formal' house, the shack would be demolished and people would live in the tent again while the house was being built.

There were essentially two house types: an extendable core house or an upgradeable shell house. The core option consisted of two rooms to which a number of different extensions could be added at a later stage. There were different shell house sizes which could be subdivided into anything between

four and eight rooms (see plans). Completed houses were also an option for those who could afford it. Different levels of finish were possible with the inclusion of components such as ceilings, floor slabs and plastering being optional.

Taking the "G-Type" house as an example, the two room core had an area of 28.8 m², the four room shell house was 46.7 m² and the six room shell covered 67.6 m² (see plans, Figure 4-7 and Photo's 4-11).

The founding conditions were reasonably stable so conventional strip foundations were used, with 140mm external and 90mm internal concrete block walls. Standard steel, pre-stressed door and window frames were installed making lintels unnecessary. Roofs were of corrugated asbestos cement sheeting on timber trusses. Floors were either compacted earth or wood floated concrete slabs, depending on what could be afforded in each case.

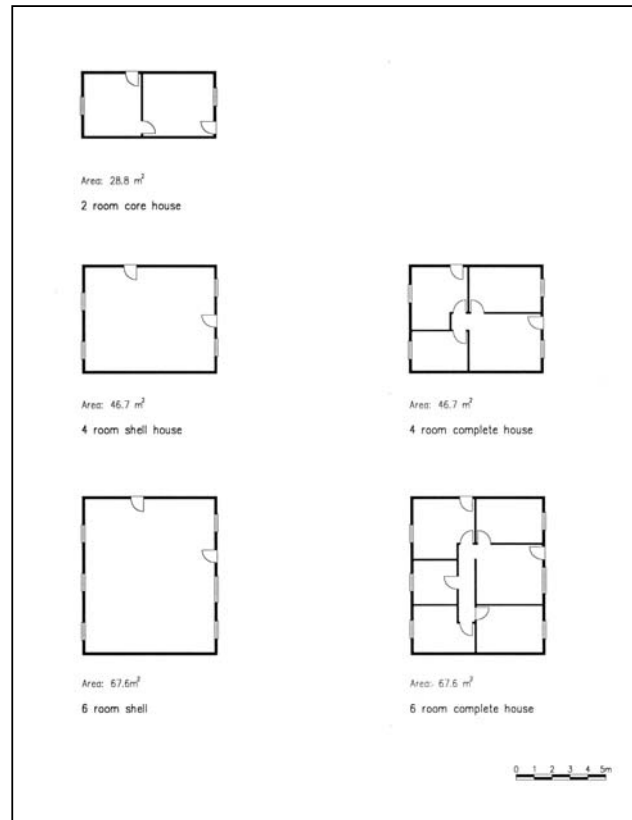


Figure 4-7: Inanda standard house plans (G-Type)



Photo 4-11: Two, four and six room houses

Financial framework

In the earlier stages of the project, loans to the value of R2,000 were made available by the Department of Community Development. By 1985 this had been increased to R3,500 with repayments over 30 years. Instalments were related to income. Households whose head earned less than R350 per month were eligible for the loan. Monthly service charges were between R2.50 and R10.

In 1983 a complete 62.8m² house built by a contractor was costing R72.50 per square metre (i.e. total cost of about R4,500) and a basic shell house of 47m² without ceilings or internal walls cost R55 per square metre (about R2,500 in total). In 1985, for the same price, an owner could choose to build their own five room house with bathroom and toilet. A shell house built by one of the participating contractors also cost R2,500.

Process and support

Because the project started not with a contractor-built, standardised core, but with tents, there was much earlier involvement by residents than is sometimes the case with more conventional starter schemes where cores are constructed ahead of settlement. The Urban Foundation assumed a central role in support and their longer term involvement in the whole of Inanda Newtown lasted from 1979 until 1988.

The Urban Foundation set up an advice centre, test houses (Photo 4-12) and a materials yard near the road entrance to the area just off the main road and adjacent to the now dense Piesang's River/ Soweto shack settlement. Several small businesses were set up. One manufactured trusses at the Urban Foundation advice centre, another one-woman business undertook the glazing of windows. Site levelling, which involved the cutting of a building platform on often very steep slopes (slopes varied from 1:3 to 1:8), was also done by an independent agent.



Photo 4-12: Two room Urban Foundation show house

The option in which the resident chose to employ a contractor depended on ten local builders who had been trained by the Urban Foundation. These people became the regular contractors who shared the work available in the scheme. The key characteristics of the Inanda Newtown project are summarised in Table 4-4.

Table 4-4: Summary of Inanda Newtown development information

Location	Adjacent to Ntuzuma, 26km north of Durban CBD
Government Authority	Department of Co-operation and Development
Implementing Agent	Urban Foundation
Year Initiated	December 1980. First sites occupied October 1981
Local Authority	Newtown Town Council

Resident Origins	Inanda informal settlements (e.g. Amaoti, Amaotana), townships (e.g. KwaMashu, Umlazi) and rural areas	
Initial Tenure	Deed of grant	
Total number of sites	4000 sites	
Project type	Sites and services, followed by small contractor or self-help production of housing	
Range of plot size	180 - 350m ²	
Core house types & sizes	2 room core	28.8 m ²
	4 room shell	46.7 m ²
	6 room shell	67.6 m ²
Gross residential densities	Planned:	13.7 sites/ha
	Unit A	14 sites/ha
	Unit B	11 sites/ha
	Unit C	14 sites/ha
Average nett residential densities	Highest	32.25 sites/ha
	Medium	16.5 sites/ha
	Lowest	10 sites/ha
Levels of servicing	Tarred bus routes Gravel secondary roads Pit latrines Stand pipes	
Delivery	Local small contractors Materials yard Support available for self-build	
Participation	Interviews with households Choice of house and site	

Inanda Newtown comment

At the time of its development, the Inanda Newtown development was generally viewed in a positive light by authorities, project developers and theoreticians. Davies (1991:86) makes comment about the contingent conditions which applied at the time the settlement was established:

The State, through its Department of Development Aid, however, was nevertheless constructively involved in an important, experimental site and service housing scheme established in co-operation with the Urban Foundation on released land in the northern distant periphery from 1983. The scheme, at Inanda New Town (sic), integrated planning and infrastructural resources of the Department, advice and financial resources accessible to the Foundation, community participation and individual involvement in privately creating informal and formal housing. The scheme now houses some 40,000 people. It was a forerunner of the State's concept of 'orderly urbanisation' and an important indicator of a future urban development form. It also demonstrates management of African urban location and the co-optation of a local community in an area of severe conflict.

With the unparalleled growth of informal settlement on the northern periphery of Durban, here was an ideal situation in the national context in which the State could test whether alternative settlement types to the formal township of the 1950s and 1960s could serve to stabilise both a volatile health situation and a sector of society whose needs were not democratically addressed by the political system. The setting up of a Black local authority, the Inanda Town Council was a concomitant of the housing development, and also experimental for its time. While being innovative in the degree of permanence of tenure and housing types that the Urban Foundation urged on the government department involved, the local authority form, although geared to be supportive of resident consolidation, was very much in line with the policy of separate development. As such, the Urban Foundation was perhaps less aware of this element of the project than other more activist housing NGOs would have been. Put more strongly, the Urban Foundation was actively colluding with the Apartheid government in the frustration of demands to grant full franchise rights to African people. Similarly, the location of the settlement did not challenge the Group Areas mapping of the city in any way, although it may have represented an improvement in location for some of the residents moving from more far flung informal settlements. Bond (1996) interpreted the positions of the Urban Foundation on incremental housing, developed here in Inanda Newtown⁸, as being evidence of a neoliberal stance which was carried through in the work of UF staff who moved on to other organisations when the organisation was wrapped up (e.g. McCarthy et al, 1995; Bernstein, 1996).

The scale of delivery in Inanda Newtown qualified it as more than a pilot project in the order of most other cases of self-help in the country at the time. The delivery of 4000 sites and the subsequent establishment of formal housing thereon within a relatively short time was impressive. The apparent efficiency of that delivery was also noteworthy. The costs of housing and servicing seem to have been low, and therefore affordable to the residents. The targeting of low income households most affected by the typhoid outbreak was successful at least during the first two stages of the project despite its apparent breakdown in the final phase (ex-Urban Foundation staff member interview).

The fact that this approach was characterised by more investment in housing and less in service infrastructure should be emphasised. In Inanda Newtown, surfaced roads, sewerage, on site water supply and electricity were all designed, but not initially provided. Some of these services were installed over a number of years. The division of responsibility inherent in this balance between services and housing was such that the longer term costs of service upgrading rested with the local authority, and the resident, by accessing a larger house in the first instance was put in a stronger position. However, with the weakening of civic organisations in the 1990s, and the relatively greater development needs in many of the surrounding unserviced settlements, the upgrading of many services has been slow. Many of the access roads have almost totally broken down and the funding to upgrade them has not been forthcoming.

⁸ Bond does not mention Inanda Newtown as such, but links the work of the Urban Foundation in the 1980s with the development of housing policy by the National Housing Forum in the early 1990s.

The choice model, or mode of participation, that the Urban Foundation applied strongly favoured household level participation through the choice of location and house types. At a community level, civic engagement was, if anything, suppressed, to ensure that the favoured system of local government could be implemented. In terms of wider empowerment, the strategy carefully circumvented the existing civics. The approach adopted by the Urban Foundation can therefore be described as politically reactionary.

However, when compared to other projects during this era, such as Khayelitsha, a characteristic which distinguishes this project, was the lack of coercion of individual households to participate. It apparently represented an improvement of both conditions and location for the people who were invited to participate, and so coercion was unnecessary.

At a household level, the flexibility of choice meant that people could choose a house that despite being a starter house in the planner's view, looked like a complete house from the outside. Most residents (71%) chose the four room shell house, or the completed four room house (16%). Less than 1% of households chose the two room core. The alternative range of finishes also meant that resources available to each household could be well matched to a personalised housing solution, rather than attempting to apply standardised cost saving measures to all houses as in Khayelitsha. Participation also meant that an initially complex participation model was soon informed by the process and modified into a simpler format.

There were, however, certain key qualities which influenced the apparent success of the initial development process. Firstly, the involvement of an NGO as developer meant that a presence was maintained on the site throughout the development phase and for a substantial period thereafter. It is questionable whether a private developer or a local authority could have undertaken such a project as effectively as the Urban Foundation. The comparative advantages of NGOs discussed in Chapter 2 proved true in this case. The partnership between several State authorities and the NGO seems to have been effective in the delivery of housing despite some of the oppressive aspects of the causal mechanisms of the time.

The success of the project in establishing core housing through household participation was heavily dependent on the proactive, 'hands on' involvement of the Urban Foundation as an independent project agent. This involvement was both long (almost 10 years) and no doubt costly. The level and duration of involvement became a source of criticism of the Urban Foundation because of the failure to allow the project to become more self sustaining at an earlier stage. The costs of this involvement were also not realistically reflected in the project costs especially to the end user.

But the highly supported system led to the achievement of many of the project aims including low delivery costs, the support of entrepreneurship within the agent-designed framework, the

establishment of the core houses and their consolidation. The well funded NGO model, which enabled many of the support costs to be absorbed within the organisation, was a characteristic of the times, given the level of foreign funding channelled directly to the NGO sector in South Africa.

Secondly, an unfortunate, but possibly unavoidable, event was the failure to target the final phase at the intended market as effectively as the initial two phases. The explanation given was that increased sophistication of potential beneficiaries through exposure to screening procedures in the early stages enabled candidates to depress their declared incomes and thus qualify for entrance to the project in its later stages. This remains a problem with the current subsidy scheme as households manoeuvre themselves to qualify to the externally set criteria (Huchzermeyer, 1999).

The Urban Foundation withdrew from supporting residents in Inanda Newtown in the late 1980s as housing became established in the area, and as its continued presence became unsustainable. By the early 1990s the Urban Foundation as a national body was going through a crisis of funding and of its role in a transforming society. Housing and service delivery by the outgoing regime had halted and new structures were not yet in place to deliver under the incoming government framework. The Urban Foundation played some role in informing new housing policy but its collusion with Apartheid government bodies prejudiced its role as a facilitator of housing under the new administration. It was also not able to sustain its project-related activities during the virtual halt in housing delivery in the time of transition. At the same time, the type of international funding it had attracted was now refocused towards the newly legitimated national and local government bodies.

Under pressure from many quarters the Urban Foundation wrapped up its activities and a number of smaller bodies were formed independently by outgoing staff (e.g. the Centre for Development Enterprise and the New Business Initiative). These became almost exclusively advocacy and research organisations with little or no capacity to promote delivery and development at a grassroots level. This was typical of a number of establishment NGOs which did not survive the transition to a democratic State.

While the Inanda Newtown case may not be hugely innovative in the international context, for the era in which it was established in South Africa, the housing product and the delivery process represented significant advances towards a workable model for assisted self-help. However, this history was assembled primarily from the viewpoint of the project agents, and the issue of whether the residents viewed the settlement so created as a supportive environment for improved quality of life will only be evident in the subsequent chapters.

Khayelitsha Town 1 core housing project

Khayelitsha background

Early in 1983 the P.W. Botha government announced the establishment of the township of Khayelitsha which was planned to house the inhabitants of the squatter settlements of Crossroads and KTC as well as the residents of the existing Cape Town townships of Langa, Nyanga and Guguletu (Ellis, 1984:3). This came against the background of policies which had been in effect up until that time, designed to favour the 'coloured' population and to exclude most African residents from the Western Cape. The growth of informal settlements on the periphery of Cape Town, while not being associated with a homeland border as in the Durban case, was another instance where the policy of influx control was obviously failing. The establishment of Khayelitsha was to restore the geographic order of a city planned according to Group Areas legislation (see map, Figure 4-8). While the grand Apartheid approach that the initial Khayelitsha scheme represented was, at first, not fully implemented because of considerable opposition from a number of different quarters (Cook, 1992),

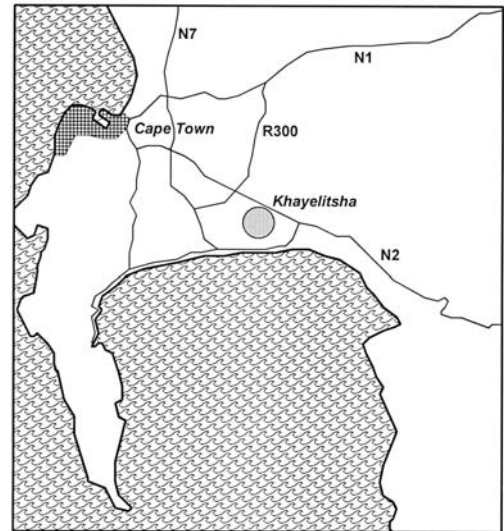


Figure 4-8: Khayelitsha locality map

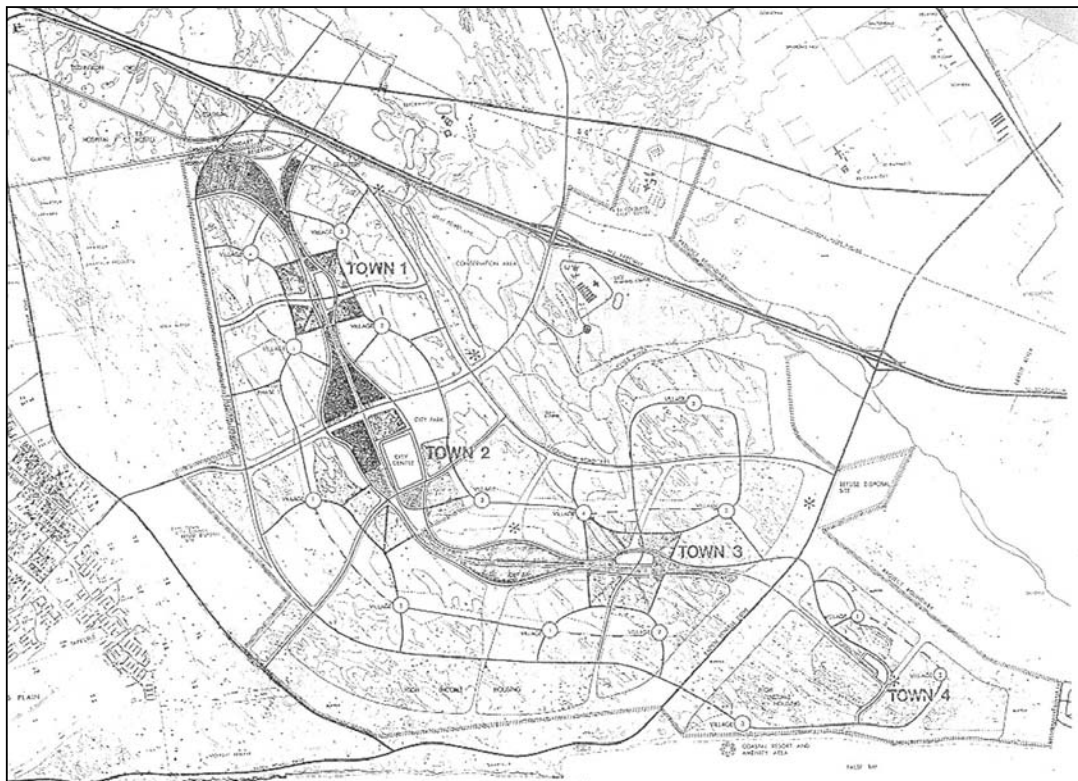


Figure 4-9: Greater Khayelitsha layout (source: Rault, 1985)

the project did go ahead in an amended form and eventually became a major settlement that continues to be extended under the current government. The attendant problems of locational disadvantage to which the position of Khayelitsha gave rise, being located 35km from the centre of Cape Town, have clearly remained problematic for its residents.

The township was located East of Mitchell's Plain and South of the N2 freeway (see location map, Figure 4-8). The False Bay Coast lies to the South. The geography is typical of the Cape Flats and problems of wind-blown sand, a high water table, flooding, and lack of vegetation were the challenges faced by the planners.

Initially a 3,220 hectare site was levelled. There were to be four 'towns' each comprising four 'villages' (Figure 4-9). The whole of Khayelitsha was planned to eventually house 250,000 to 300,000 people. Census figures vary about the number of people now resident in the wider settlement. Figures from NELF (the National Electrification Forum) Database placed the population in 1993 at 216,000, with just below 20% of those people living in formal housing.

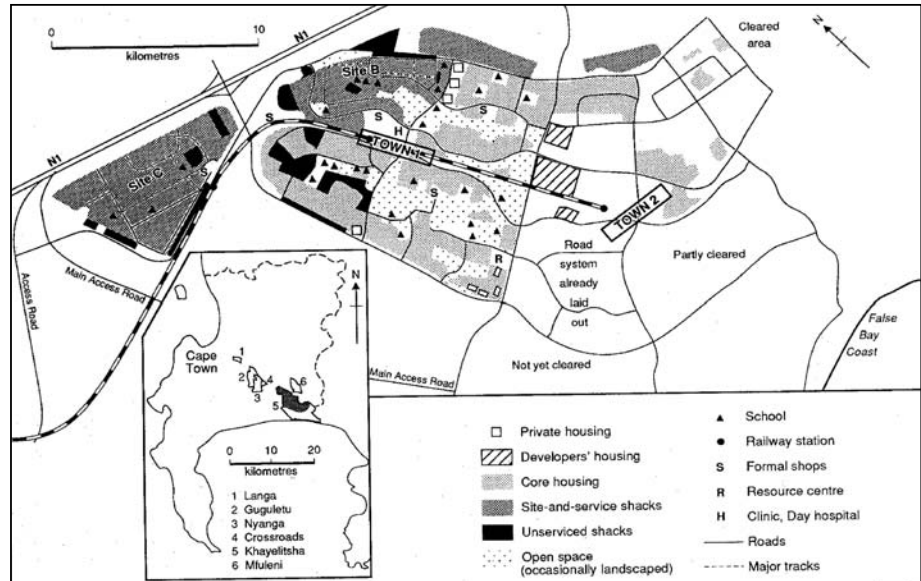
Cook (1992:125) sketches the initial stages of the project:

Almost immediately (June 1983) people from squatter settlements who were prepared to live in Khayelitsha were temporarily housed in 14.4 square metre flexicraft huts adjacent to Town 1. In the face of refusals to be moved, representation through official channels, demonstrations and rioting, first 99-year leasehold was introduced in Khayelitsha (September 1984), then site-and-service plots, to which even 'illegal' squatters would be allowed temporary access, were incorporated in the plans (November). Finally in February 1985 the idea of moving all Africans in Cape Town to Khayelitsha was dropped. A site-and-service scheme commenced at site C, and land was allocated for the Technikon, hospital and stadium (March). By October 5,000 houses were rented out to 13,000 Africans legally in Cape Town while 8,300 squatter families from Crossroads occupied 4,150 site-and-service plots. In 1986 the private sector became slightly involved when government encouraged firms to build houses or hostel accommodation for employees. More significantly official acceptance of the orderly urbanisation strategy meant that the site-and-service component in Khayelitsha ceased to be regarded as a temporary expedient and 4,600 plots of 78-90 square metres were developed to a higher standard for informal housing at site B under 99-year leasehold.

It is remarkable that commentators on both case studies brought in the way that the settlements represented the newly framed orderly urbanisation policy of government. In that Khayelitsha was established four years after Inanda Newtown, these policies were more developed, and the first villages of Khayelitsha were a large scale attempt to give expression to them. The fact that the targeted beneficiaries were not willing to participate unconditionally demonstrated the tensions within the State's partial and non-committal adoption of community-led housing development approaches.

Project history

The focus of this study is the core housing which was constructed in Villages 1 and 2 of Town 1 in 1984 (see map, Figure 4-10). There were to be 5000 sites, and core houses were to be 25 to 32 square metres (Cook, 1992; ABWC, 1983; ABWC, 1984; NBRI, 1983).



The motivations behind the establishment of Khayelitsha have been described. Many of the factors which appear to have initially limited the potential of the incremental growth process can be traced back to the development rationale applied and the ideology which informed it.

There was not an existing community nor a local authority in the area because Khayelitsha was a greenfields development and located far from existing settlements. However, according to the project agents, community leaders had been approached in areas from where the proposed township was to draw its residents, i.e. Crossroads. With the rejection of the proposed en masse forced removal and resettlement of people from Crossroads such consultation was rendered fairly meaningless in that the target population changed. After standing empty for two years, the houses were eventually occupied by people from backyard shacks in Guguletu, Langa, Nyanga and some from Crossroads. This was confirmed by the community leader interviewed and was further supported by findings from the household interviews.

This area of Khayelitsha was built as municipal rented housing, and despite being offered for sale from 1986 onwards, most people opted to continue to rent. In 1990, only 14% of the core houses had been sold (Cook, 1992:128). By January 1996 this had risen to 21%. The refusal by the State at the time to grant full ownership of the core houses to residents illustrated not only the tension within an Apartheid-based government attempting to espouse a participatory housing development approach,



Photo 4-13: Bus stop on boundary street

but also a singular lack of exposure to world knowledge on assisted self-help and tenure (e.g. Angel *et al*, 1983). Advisors to the State, both the National Building Research Institute (CSIR) and the project consultants, had urged the granting of secure tenure (ABWC, 1983:1, 28; NBRI, 1985:1).

Layout, public spaces and facilities

The four new towns were to be laid out along a curved rail spine with the village centres placed either side of it (see layout above, Figure 4-10). Each town had a centre located near the railway station and each village also had its own centre. Two main roads passed through the middle of the villages parallel to the railway. Three offramps served the township from the N2 freeway which links the main airport to the city centre.

The first two villages built comprised 5000 sites and were well supplied with public facilities, schools and stations (Figure 4-11). Stations placed 2km apart were designed for a maximum walking time of

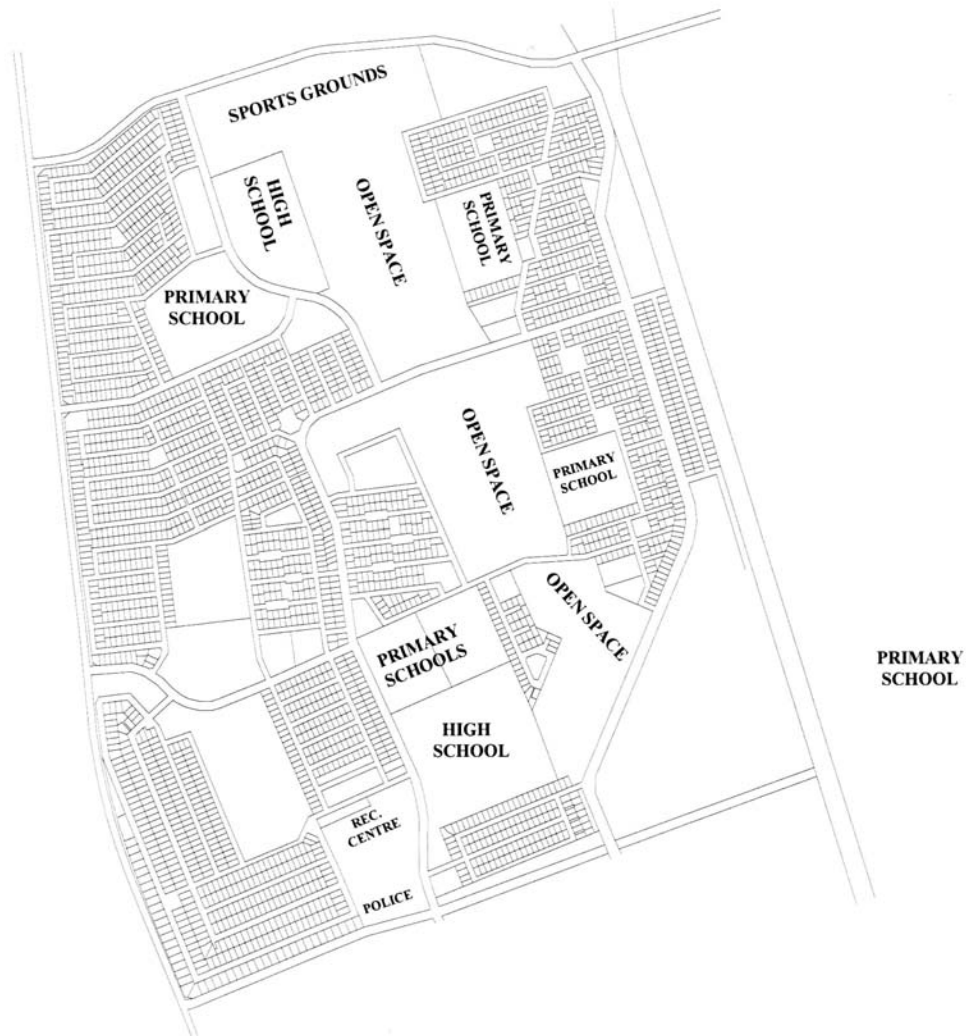


Figure 4-11: Example of layout: Khayelitsha Village 1

10 minutes and to obviate the need for an internal bus system (Ellis, 1984:3).

The growth of the private taxi industry was not anticipated by the planners. Clinics, crèches and community centres were also built.

A 'resource centre' was built at a cost of R1 million with the intention that activities designed to support the extension of houses by tenants be co-ordinated from there.



Photo 4-14: Khayelitsha open space system

Public open spaces like parks (Photo 4-14), recreation sites and sports fields were carefully designed and landscaped. The open space system is apparently still intact with no informal settlement taking place in the open spaces within the township. However there is a great deal of informal settlement activity immediately adjacent to the formal housing sections (Photo 4-13).



Photo 4-15: Widening of roads at mid-block

Sites were laid out back-to-back with some streets widening at the centre of a block to create communal spaces (Photo 4-15). Local roads were narrow and curvilinear to keep traffic slow. Care was given to dealing with the problems of windblown sand and adverse weather by orientating building blocks mainly on the east/west axis, although any large open space cannot avoid the effects of these. Despite this, weather related problems in houses still rated highly in the household interviews.

Servicing

Service levels were generally high. Street lighting was by tall mast floodlights, a common form of lighting in South African townships. From the outset, there were water and sewer connections to each house, allowing flush toilets. Sewage is pumped to the Macassar Sewerage Works which were

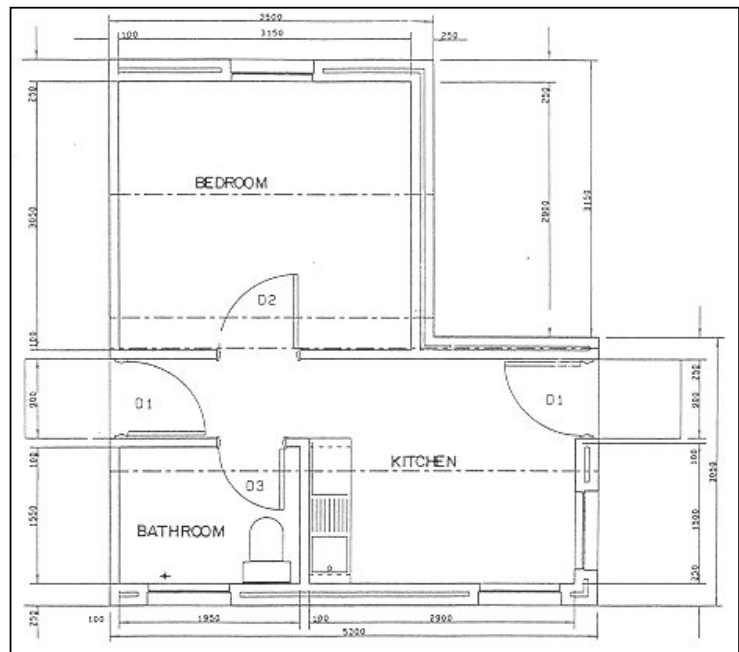


Figure 4-12: Original house plan for tender (source: VKE)

enlarged to create the extra capacity required by Khayelitsha (Ellis, 1984:3).

Electrical connections to houses were not available until 1994. Twenty three thousand houses in the greater Khayelitsha area had been connected to electricity by 1997, including many informal houses (National Electrification Forum Database). All roads in the area were tarred and underground storm water drainage was installed to a high specification.

Houses

Tenders were invited for the construction of the 5000 houses. The contract documents called for a house based on a design by consultancy firm, Van Niekerk, Klein and Edwards (VKE), with a 26m² core including a bedroom, a kitchen with a sink and the wet core which could be upgraded into a bathroom (Rault, 1985:3)(see plan, Figure 4-12).

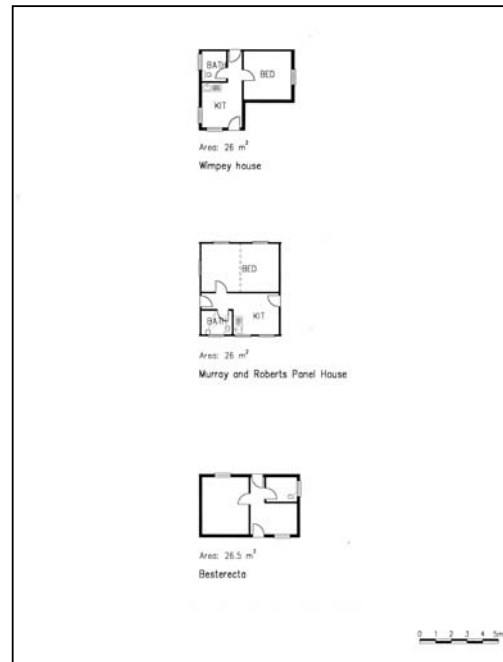


Figure 4-13: Three mass house plans

Because of the scale of the project, three large contractors were appointed to undertake sections of the house construction. The arrangement was for Besterecta to build 3300 houses, Wimpey to build 924 houses and Murray and Roberts to build 776 precast panel houses (Rault, 1985). Each of the contractors took the VKE plan and adapted it slightly (see plans, Figure 4-13, and Photo's 4-16).



Photo 4-16: Wimpey, Murray and Roberts, and Besterecta houses

Houses were placed on the site one metre from the one side boundary. This was a relaxation of the conventional two to three metre side building line which applied in residential areas. It allowed residents to extend on the other side of the house without going the final step of designing the houses as semi-detached.

According to the tender documents, foundations were detailed to be of a raft type, monolithic with the surface bed to suit the founding conditions of sand. Most of the core houses were to have 250mm cavity concrete block walls, painted, with 100mm block internal walls. Murray and Roberts built a concrete sandwich panel house (Rault, 1985). Doors were steel, and windows were steel cottage pane. Roofs were of corrugated asbestos cement sheeting.

Financial framework

Ellis (1984:5) states that the direct costs of the houses were R9,400 per house with R5,000 being spent on the servicing and the rest on the building. The project was financed by government with apparently very little attempt to recover costs from the residents. According to the project agents, the intention was to recover costs through rental of the houses. Rents were subsidised, however, and stood at R40 per month at the time of the survey, including the costs of municipal services.

Process and support

The project planners recognised from the beginning that some kind of ongoing support was essential if people were to be enabled to consolidate the core houses. The planners proposed the establishment of a 'resource centre' and 'technical advisory service' from the inception of the project (ABWC, 1983:1)(Photo 4-17).

Despite initial attempts which included the building of a large resource centre, little thought had been given to the equipping, staffing and running of the centre and the whole initiative collapsed. A number of possible reasons for the collapse of the centre were offered by the project agents. Financial provision for the running of the centre had not been made within the project. The political commitment to supporting self-help was not present at the time, neither was there the will nor inclination to ensure that it worked.

The issues that came to the fore with the subsequent establishment of the site and service schemes dominated the attentions of the government planners. In light of the informal nature of that housing, according to an interview with the project agent, the recipients of the core housing were seen as 'the lucky ones' and not in need of further support.

In effect then, the occupants of the core housing in Khayelitsha were not directly supported in their efforts to add to and improve their housing. Because private companies designed and implemented the project, there was no presence on the site after the completion of the construction contract. The community leader interviewed confirmed that for many years there had also been no support for consolidation from the local authority. It is now possible to approach the council for advice, but this is a more recent state of affairs. A summary of Khayelitsha information appears in Table 4-5.



Photo 4-17: Khayelitsha resource centre

Table 4-5: Summary of Khayelitsha development information

Location	Khayelitsha (Town 1, Villages 1 & 2), 35km east of Cape Town CBD		
Government Authority	Western Cape Development Board.		
Implementing Agent	Administration Board of the Western Cape (ABWC) with VZS Consultants		
Year Initiated	1983/4. Occupation: October 1985		
Local Authority	Lingalethu West Town Council		
Resident Origins	Backyard shacks (e.g. in Guguletu, Nyanga, Langa), and informal settlements (e.g. Crossroads)		
Initial Tenure	Rental		
Total number of sites	5000 sites		
Project type	Core house scheme		
Range of plot size	144 -160 m ²		
Core house types & sizes	3 room cores:	Wimpey	26m ²
		Besterecta	26.5m ²
		Murray & Roberts	32m ²
Gross residential densities	Village 1	18 sites/ha	
	Village 2	22 sites/ha	
Average nett residential densities	Village 1	55 sites/ha	
	Village 2	49 sites/ha	
Levels of servicing	All roads tarred Storm water Water supply to houses Flushing toilets and showers		
Delivery	Mass housing by large contractors Support planned but not implemented		
Participation	Initial contact with informal settlement community leaders Choice of site in very few cases		

Khayelitsha comment

Unlike Inanda Newtown, Khayelitsha was not seen by commentators as a positive example of participatory housing development. Cook's (1992) description of the attempt to allocate housing in Khayelitsha and its standing empty for two years was direct evidence that all was not well. The sense of ownership of the project by residents, both literally and psychologically, was not present to the same degree as in Inanda Newtown. This was illustrated on the first research visit to Khayelitsha, where we might have been mistaken for government officials, and the comment was made: "Oh, have you come to extend our houses for us?" This revealed a perception that was an exact inversion of what the planners had intended: that people be responsible for the establishment of their own housing. Both the low level of participation in the design process and the insecure form of tenure are two of the more obvious explanations for the lack of identification by residents with the project.

The design process for Khayelitsha represented a consultant-led approach in which the services and the houses were built so that extension could take place reasonably easily. However, the design of the process disallowed any participation or choice by residents. House types were uniform, and because there was no choice of location, even a choice between the three house types was denied to most residents.

The high level of investment in services and the production of much smaller core houses was the opposite of the approach used in Inanda Newtown. It was perhaps also typical of a State and consultant-led approach in which long term costs were to be avoided, and the costs of upgrading housing were passed on to residents. The services remain robust in Khayelitsha, and as the resident survey will demonstrate, it is indeed the residents who daily face the challenges of living in small core houses and not the local authority whose ongoing investment in the area has been minimal.

While the open space system was generous and even conceptually progressive, again a lack of ownership of the public spaces meant that many of these areas have become little more than vacant, left over, land. The problems of crime and unowned space in Cape Town townships have been comprehensively explored elsewhere (Kruger *et al*, 1997; Napier *et al*, 1998).

In one respect, Khayelitsha is similar to Inanda Newtown in that it allowed the establishment of the newly formulated Black local authority system. The Khayelitsha local authority was named the Lingalethu West Town Council and it was represented at the Regional Services Council. The size of Khayelitsha and its relative isolation from other settlements meant that a whole new local government arm was needed. Ferguson's (1990) observations that 'development' often serves to establish and entrench bureaucratic power was certainly true of the way that Khayelitsha was developed. Under the guise of a form of housing that was originally conceived in other contexts as a way to enhance participation (Chapter 2), the Apartheid government successfully, although not without the use of force and coercion, incorporated a large number of disaffected people into the control of the formal State apparatus. The stabilisation of society and the creation of 'good citizens' (Scott, 1998) was also

within the State's agenda, as Parnell (1992) demonstrated. However, the continued refusal to purchase houses can be interpreted as evidence that residents accepted 'development' on their own terms (c.f. Escobar, 1995), and this was to have implications for the degree and nature of involvement in the consolidation process by residents.

It was found that in interviewing stakeholders to write up the history of the development of the settlements, the consultants and officials involved in building Khayelitsha were much less willing to talk about the project, and indeed less enthusiastic about its success, than was the case for Inanda Newtown. For both the officials and the consultants, the imperative to develop Khayelitsha came from the central State, allegedly from the State President himself, if the anecdotes are to be believed. The creation of the settlement was a means to achieving the ends of orderly urbanisation. As such, the degree to which the developers identified with the project, and therefore were dedicated to ensuring its longer term success was much less than in Inanda Newtown. The developers of the Khayelitsha core housing project, if anything, showed some obedience to the letter of assisted self-help thinking, but certainly not any devotion to its spirit.

Case study conclusions

The project origins of the two case studies varied widely and were implemented through very different processes. However, in both cases the housing form, viz. core structures which were designed to be extended by residents, served the divergent purposes of the initiators of the projects. Core housing proved in this instance to be a highly flexible housing form in achieving a variety of ends, supporting the international review of origins and early practice (Chapter 2).

In the case of Inanda Newtown, the core house was a manageable and affordable type of structure which was the next logical step in the sites and service process. The variety of cores and completed houses allowed individual households to choose a product to suit their needs. For the Urban Foundation, the project acted as a demonstration to its international and local donors of how managed self-help could be achieved even within the South African context. The Urban Foundation went on to replicate this type of project through a housing subsidiary company, mainly for the more upmarket, Asian community throughout the 1980s. The primary interest of the national government departments involved in the Inanda Newtown project was to address a health crisis in surrounding informal settlements, and their gradual acceptance of the permanence of the settlement was, at this stage, probably more a pragmatic response than the proactive application of State policy.

In the case of Khayelitsha, the core housing form was applied differently. Initiated by central and provincial government at the time, it allowed the professional team to design for extension but without consultation. It allowed large contractors to move onto site and to produce the services and the cores at scale without the 'inconvenience' of having residents present. It allowed the central State authorities to claim that in the new policy era of enablement, a more participative form of housing was emerging in which residents could contribute through extension. The core housing form in this case,

therefore, was organised so that participation by residents was kept in an airtight compartment labelled 'post-occupancy'.

In both cases, the projects heralded the 1980s spirit of limited reform within the Apartheid government, particularly its move towards allowing the orderly urbanisation of African people to cities and towns. Inanda Newtown as a self-help project suggested by the Urban Foundation was therefore countenanced by the State departments, and four years later, Khayelitsha was directly initiated by the State. In both cases, the projects were accompanied by the establishment of new government offices, which represented, on the positive side, a more responsive local authority willing to support consolidation processes (in the case of Inanda Newtown), and on the less positive side, the extension of the State apparatus in the form of unelected Black local authorities. Had the peculiar set of contingent conditions described above not taken place, it is unlikely that either of the case study projects would have been built at all.

It is interesting that both project implementation phases were characterised by violence and conflict around political change. In the case of Khayelitsha the conflict accompanied the actual attempt to co-opt people into the development. In Inanda Newtown, a general context of internecine violence was prevalent at the time (Byerley et al, 1992; Davies, 1991; and see Hindson and McCarthy, 1994), particularly during the first five years of the consolidation of the area. The aim of stabilising communities through relocation to formal housing was therefore more explicit at the time than may now be obvious.

The early commitment by the authorities and developers to the enablement of residents to establish themselves in the core housing and then to extend it was present in the Inanda Newtown case, largely by virtue of the long term involvement of the NGO, the Urban Foundation. It was notably absent from the Khayelitsha case, despite significant investment in a resource centre to support consolidation. Neither the developers nor the local authority seemed willing to lend ongoing support, and the very design of the project as a mechanism for enablement was flawed because of the refusal by the authorities to grant full title from the outset. The element of coercion in the allocation of units, and the motivations for the development of the project also coloured people's views of the project. With such shaky beginnings, and such a constrained basis for participation, it is surprising that residents responded in the way that they did. These then were the conditions under which the projects were established. How did these physical settlement forms and non-physical structures enable the efforts of residents to consolidate their houses and households, and to integrate themselves into the city?

5 The occupation of the settlement: resident origins and original core houses

Description of Khayelitsha in 1992: *"Distance from employment centres means that commuters average two hours and forty minutes daily and spend 11% of income on travel. ... There are no fire fighting services, fewer than a dozen telephones, only two resident doctors and the two general clinics and one nutrition centre operate during the day. ... There are very few formal shops. ... Help in shack construction is difficult to obtain and must be paid for at commercial rates. Second-hand shack building materials are expensive and prices of cardboard and plastic reflect cost of transport from Cape Town"* (Cook, 1992:130, 132, 133)

5.1 Introduction

When residents occupied the neighbourhoods of Inanda Newtown in 1981 and Khayelitsha in 1985, they faced great challenges in coping with settlement to a new place where much of the social, economic and physical infrastructure was still lacking (Cook, 1992 – see above). Depending on each household's background they had different sets of assets (Moser, 1998) and skills at their disposal to begin the settling in and consolidation processes. The physical setting (and some elements of the structural setting, such as the local government bodies) had been determined by the project implementers. This section looks at the beginning of the processes, and the proportions of residents who came from different places and housing conditions. It fixes the kinds of core houses and space standards which applied at the time of occupation so that observations can be made at a later stage about how the living conditions of residents had changed. The aim is also to understand the extent to which households in the two different case study settlements can be compared at a socio-economic level, so that the respective pathways of the residents can be related to each other. It also looks at how residents described their motivations for moving and their experiences of the early stages of the projects. It is therefore a description of the proximal causal mechanisms which residents found at occupation. As a convention throughout the chapters which report on empirical data, the Inanda Newtown case will be reported on first, followed by the Khayelitsha case study.

5.2 Resident origins

The success of a retrospective study of this kind depends to a fairly large extent on the presence of original residents who have been living in the housing since the area was established. Because of other studies in similar environments (e.g. Tiple and Wilkinson, 1992; McCarthy et al, 1995; Smit and Mbona, 1996; Gilbert, 1999: 1080 (quoted in Chapter 3)) it was expected that mobility would be low. This did prove to be the case (Table 5-1). Inanda Newtown was built in three phases, and so when asked whether they were original participants in the project, many respondents took this to mean participation in the first phase. Some 54% of residents felt they were original participants. In Khayelitsha the settlement process extended over a much shorter time span, and 76% of residents

felt they were original participants. A more reliable measure of whether residents could be classified as original residents of the project was the number of years they had been in the area. In subsequent statistical analysis which requires original residents to be separated from more recent in-migrants to the neighbourhoods, this classification is used.

Table 5-1: Length of stay

		Inanda Newtown		Khayelitsha	
New	0-4 years	17	8%	35	15%
Recent	5-9 years	25	12%	25	10%
Original	10+ years	161	79%	178	75%
Totals		203 ¹	100%	238	100%

It is clear that there has been some mobility more recently in Khayelitsha than in Inanda Newtown, but on the whole, three quarters and more of the residents had been in their houses for more than 10 years, indicating a fairly low level of residential mobility. This also meant that the community memory of the consolidation period was intact and information about the consolidation process was therefore dependable. To get a backwards view of where people had moved from, or the filtering processes which were set up as a result of the production of these core housing areas, one can view the places and house types from which the occupying households had moved.

Inanda Newtown was meant to target people moving from under or unserved informal settlements in the broader Inanda area. Both original residents and the sample overall, were isolated to report on this issue (Table 5-2).

Table 5-2: Places of origin - Inanda Newtown

	Original		Overall	
	N	%	N	%
Informal settlement origins	73	45%	85	41%
Township origins	60	37%	82	40%
Rural origins	28	17%	39	19%
Totals	161	100%	206 ²	100%

(See also pie graph below, Figure 5-3)

The informal settlements people came from were named as Inanda and Ndwedwe, both in close proximity to Newtown. Townships of origin were KwaMashu and Ntuzuma, near to Newtown (see map, Figure 5-1), and the more distant areas of Umlazi (south of Durban) and Clermont (east of Durban). The fairly high proportion of households with rural origins were from areas just beyond the

¹ The total number of households is 203 because some households for whom physical household data was not available were included, but three households who did not respond to this question were excluded.

² The total number of households for which socio-economic information was available was 206, whilst only 198 households had physical house data.

When plans to remove people from Crossroads were abandoned (reflected in the figure that only 11% of original residents were from there) attention turned to resettling people from backyard shacks in townships. This became evident from people's responses to what type of houses they had come from. A higher proportion of people (26%) said that they came from "shack" housing than the 15% who had come from informal settlements.

In general, the original targeting intentions of the planners of Khayelitsha were frustrated. However, the more reasonable effect of improving the quality of life of people in shack housing by allowing access to a core house and a high level of servicing was achieved despite the political objectives of the project.

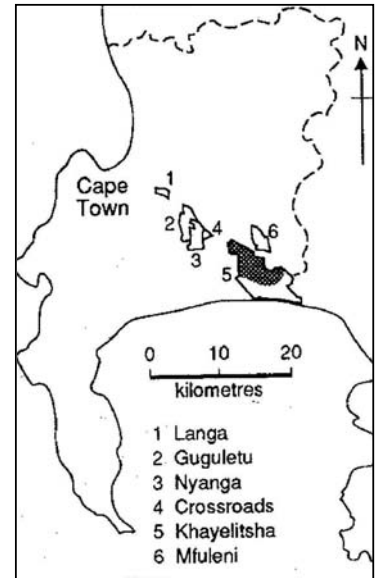


Figure 5-2: Areas near Khayelitsha (source: Cook: 1992)

Without a vacancy chain study (e.g. Emmi and Magnusson, 1995) it is not possible to comment on what secondary effects these filtering processes set up. It is not known for instance whether shacks in under-serviced areas in Inanda Newtown were occupied by new people moving from rural or township areas. It was inevitable that people moving from sites and service areas in Khayelitsha were either replaced by new households or that households split and some members stayed in the sites and service areas whilst other moved to the new core housing. What would certainly have been interesting is the effect that movement out of backyard shacks in Cape Town townships would have had on the sub-rental market in the area (c.f. Gilbert et al, 1997).

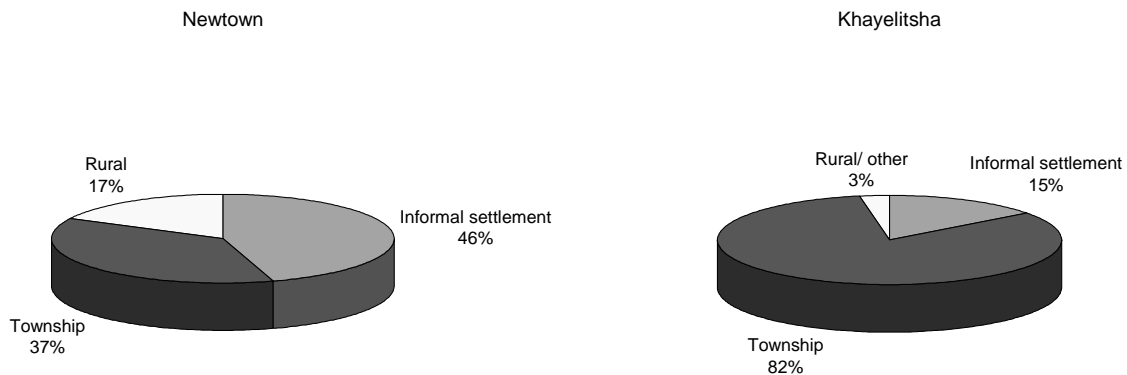


Figure 5-3: Graphs of resident origins for original residents

What is very clear, is that when the two settlements are compared (see graph, Figure 5-3), Inanda Newtown was dominated initially by people from rural and informal settlements, and that Khayelitsha was dominated by people from townships, many of whom were from backyard shacks.

It is important to note that for most people in the Durban case study the move from informal settlements further to the north of Durban to Inanda Newtown meant that both their location relative to job opportunities in central and south Durban, and their integration into the city via transport networks and health and education services was significantly improved. For the smaller number of people moving from township areas, location was slightly worsened by the move. However, in Cape Town for almost all households except the 3% from rural areas or other towns, the move to Khayelitsha meant they were further from the city of Cape Town and further from most areas of employment other than those to the east of Khayelitsha (e.g. Somerset West). Social services in Khayelitsha would have improved with time since social infrastructure was planned into the project, but at occupation such services were probably weaker than in the townships from which the households had moved.

5.3 Living conditions at occupation

Original household profiles

Another dimension of targeting was that households living in situations of poverty were originally to be targeted in both projects. As was noted in the theoretical chapters, the move to core housing in most cases represented an improvement in access to services, though not always in access to space. What were the household sizes, space standards and housing conditions which people found on accessing the core housing?

Unfortunately it was not possible to establish exact household incomes from respondents at the time of occupation³ and the effectiveness of targeting according to income has to be left to the reporting of project agents at the time. The Inanda Newtown project agents did apply a maximum income in the screening process and as reported in the previous chapter, they felt that this had worked well during the first two phases but that there was some abuse of the screening process during the final phase (Unit C) when people found ways to under-declare household income. In Khayelitsha, the poorest were ultimately not targeted and Cook cited a study which showed that by 1990, households in the core housing areas were better off (52% living below a normative poverty line) than households living in the sites and service areas of Khayelitsha (where 76% of households lived below the poverty line)(Cook, 1992:130). Average incomes are not all that useful and there were clearly still households living in situations of poverty in both settlements. One indicator of this, at least in Inanda Newtown, was the type of house which households could afford (discussed below).

Residents were asked to say how many people had been in the household when they occupied the housing. Reported household sizes were fairly small. The mean household size in Inanda Newtown for original residents at occupation was 4.43 people, and in Khayelitsha it was 4.1 people.

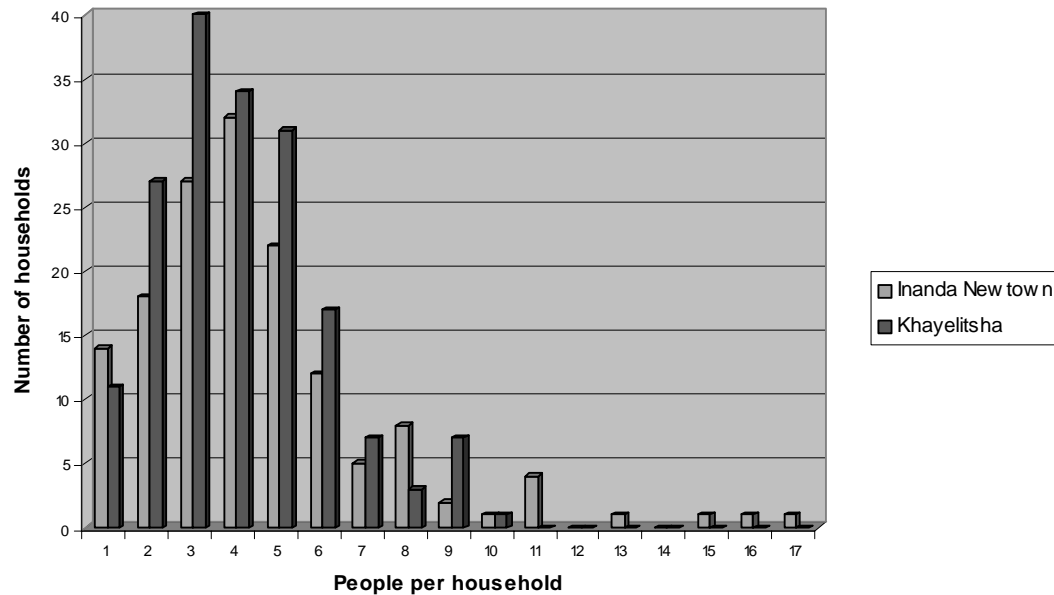


Figure 5-4: Graph of original household sizes

Strong modalities are indicated in the graph (Figure 5-4), with three people in Khayelitsha and four people in Inanda Newtown being the predominant household size. This was probably indicative of newly formed nuclear households or single parent households with two dependants moving into the housing⁴ (Photo 5-1).

Original core housing types

The previous chapter outlined the house types which were built in each settlement. In Inanda Newtown there was a choice of house types (and construction process) and the following mix of types emerged in the houses sampled (Table 5-4). The two room core house was ultimately over-sampled by a factor of ten (meaning that 20 households were interviewed), to get a better understanding of this house type.

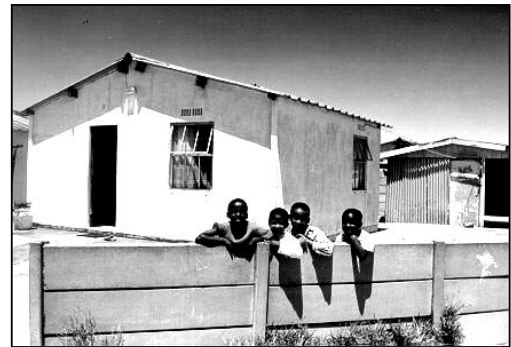


Photo 5-1: Khayelitsha children

³ Household income questions about current income were covered in the household questionnaire in detail and it was felt that questions about previous incomes would a) complicate the discussion and b) be difficult for respondents to answer accurately in retrospect.

⁴ This is conjecture to some extent in that original household structure was not analyzed. However, project agents did talk of targeting small nuclear households. This graph should not be used to compare the case studies as it reflects absolute numbers.

Table 5-4: Newtown core house types

	N	%
2 room core (28.8 m ²)	2 (20)	1%
4 room shell (46.7m ²)	129	70%
4 room complete (46.7m ²)	29	16%
6 room house (67.6m ²)	10	5%
Other (own design)	13	7%
Totals	183	100%



Photo 5-2: Inanda Newtown four room house

In Inanda Newtown, the vast majority (86%) of households in the sample began with four room houses of 46.7m² (Photo 5-2), whether these were shell houses (70%), or complete houses with internal walls (16%). Less than 1% of households started in the small two room core of 28.8m². A small proportion (12%) were able to afford the 67.6m² six room house or to build according to their own plans (the "other" category).

Because there were a number of delivery options offered by the developer in Inanda Newtown, residents were asked who had built their original house. Most original residents said that the Urban Foundation or a local builder had built their house (90%). Only 9% of original residents had opted to build their own house. So decision making power was given to residents in this case and most people chose to use the local builder option; only one in ten people chose to go the self-help route. This emphasises the need to grant choice to residents, and the need for realistic options. It is not possible to anticipate what people will choose. However, this project was billed as a self-help project at the time by the Urban Foundation (1981), and the take up of self-build shows that it was limited in its success. In fact, I have argued that core housing is a very constrained form of self-help. The benefits of self-build in terms of satisfaction with the housing product (Turner, 1976 - as discussed in Chapter 2, "The application of core housing") were therefore not realised even in Inanda Newtown, as becomes evident below in respondents' views of their core housing.

It is interesting to note how few people chose the two room option (Photo 5-3). This housing form has dominated the current delivery of housing in South Africa. It was clear in Inanda Newtown that when given a choice between space and slightly higher levels of finish, or indeed greater affordability, the majority of people chose space.



Photo 5-3: Inanda Newtown two room house

In Khayelitsha a more accurate estimate of the breakdown of original house types was possible (Table 5-5) because distinct contracts were awarded to build three house types en masse, and so personal choice and variety was largely removed from the equation.

Table 5-5: Khayelitsha core house types

	Total frame		Final sample	
	N	%	N	%
Besterecta (26.5m ²)	3287	66%	161	68%
Wimpey (26m ²)	909	18%	37	16%
Murray & Roberts (32m ²)	765	15%	33	14%
Core demolished		0%	7	3%
Totals	4961	100%	238	100%

It is clear that the sample achieved a very close reflection of the house types in Khayelitsha. This was partly coincidental as the chief aim of sampling was to match extension types as accurately as possible.

Space standards in original cores

Taking the mean household sizes above, this meant that Inanda Newtown households had 6.5m² per person in the two room houses, 10.5m² per person in the four room houses, and 15.3m² per person in the six room houses.



Photo 5-4: Khayelitsha Besterecta house

Because of the smaller sizes of houses in Khayelitsha and very similar household sizes to Inanda Newtown, Khayelitsha residents started with between 6.34m² (Wimpey), 6.46m² (Besterecta - representing the majority of the houses built, Photo 5-4), and 7.8m² (Murray and Roberts) of space per person. In real terms, because bathrooms were inside the Khayelitsha houses, the amount of habitable space per person was even smaller (just below 6m² per person for most houses).

To place these figures in context, the average space available to people living in townships was 9m² and in informal settlements it was 4 to 5m² for the country as a whole (Mayo, 1993)⁵. In very broad terms then, the majority of Inanda Newtown residents were moving to houses which were significantly more spacious than informal settlements, and slightly more spacious than township houses. However, Khayelitsha residents tended to be moving to more crowded conditions than in townships, and many were only just better off than people in informal settlements. There was therefore a much greater pressure to extend the Khayelitsha houses than the Inanda Newtown houses, as will soon become evident.

⁵ Crowding measures and occupancy rates will be discussed more comprehensively when the conditions in consolidated houses are reviewed.

5.4 Motivations and experiences of involvement and participation

Residents were questioned about several aspects of their experiences of participation during the early stages of the two projects. It is interesting to compare the views expressed by residents during the household survey in 1996 (by which time the memory of the original settlement process may possibly have faded slightly and been altered into a kind of shared oral history), with the story told by the project developers and officials based on their memory and documentation of events (Chapter 4).

Process of involvement and decision to move

Firstly, the original households heard about the projects from a variety of sources (Table 5-6).

Table 5-6: Source of information about project (original residents)

	Inanda Newtown		Khayelitsha	
	N	%	N	%
From friends/ neighbours	103	66%	50	28%
From local authority	23	15%	116	65%
Radio	14	9%	4	2%
Newspaper	11	7%	2	1%
Other	6	4%	6	3%
Total	157	100%	178	100%

In Inanda Newtown surprisingly few residents heard via the local authority and most used local networks such as friends, neighbours, radio and newspaper for their information. In Khayelitsha, with a more top down approach, the local authority was the main purveyor of information about the initial project, although another one third then heard about the project from friends, neighbours, the radio or the newspaper.

Secondly, after hearing about the project, residents then had to make the decision on whether to move or not. Given the condition of the housing from which households were moving, and the relative shortage of opportunities to access other formal housing at the time, the discussion of people's motivations for moving are, perhaps, a little circumscribed.

Respondents were asked why they had decided to "take part" in the new projects. This was an open ended question where respondents were invited to describe their thinking at the time. In both cities, most people moved in order to gain some measure of independence. Within this category people gave their reasons for moving as "needing a place of our own", "living previously with parents or family or in-laws", "wanting to be independent", and "needing our privacy". 71% of Inanda Newtown residents, and 62% of Khayelitsha residents moved to the new areas for these reasons.

The second most common reason for moving was the desire to live in a permanent house. This was expressed by people as feeling "desperate" for a house, or wanting a permanent or brick house, or

finding the previous house too small. 9% of Inanda Newtown respondents felt this, along with 14% of Khayelitsha respondents.

The third set of reasons cited for moving referred to government actions of some kind. Respondents, mainly in Khayelitsha, said that their reason for participating was that the government had "given" them the houses, or that they qualified for participation by being on a waiting list or because they were "married men" and so were given first option on the houses. This accounted for 12% of the Khayelitsha residents moving. Only 1.25% of Inanda Newtown residents gave this as their reason.

Finally some people stated that they had moved because of violence. For original residents this was not a major factor (only 1 person in Inanda Newtown and 3 people in Khayelitsha gave this as a reason). More significantly 15% of recent and new residents in Newtown cited violence as their reason for moving (with 5% in Khayelitsha).

With so many people having moved from informal settlements and informal housing in formal townships, and with the overcrowded conditions that often pertain in such situations, it is perhaps not surprising that the most important reason for participating in these core housing projects was the need on the part of households for privacy and independence. This is supported by findings from other studies (Urban Foundation, 1991:20) which show that many people in northern Durban informal settlements moved from township housing in order to start new, independent households. Ten years later with crowding in the houses increasing, and with large numbers of young people (10-20 years of age) living there, it is possible that such a cycle could be repeated unless measures are adopted to support residents in increasing their living space. What is important to note, within the broader frame of mainly First World housing adjustment studies, is that the discussion of motivations here is not about trade-offs between a wide set of alternative courses of action, but rather about 'jumping' at an opportunity offered irrespective of some of the negative implications of taking that opportunity. The discussion of choice can therefore be seen in Yapa's terms as a case of 'biased innovation' in that the poor are not free agents but work from within the unequal structural arrangements of society (Gregory, 1985), not to mention the way that entitlement to the housing asset was defined in each of the projects (Moser, 1998).

Acquisition of the houses

Once households had decided to participate and were accepted after the screening process, all of which had the concomitant effect of fixing their location in the city, what project level decisions did residents say they were granted and what were their initial feelings about living in core housing? One choice was the way in which the house was procured.

One third of the original Inanda Newtown residents bought their houses from the local authority. 59% of original residents said that they started off renting the houses. The subsidised loan granted by the Urban Foundation may have been considered by these people as a form of rental. Full title was

withheld by the local authority for a number of years to prevent downward raiding by more affluent buyers. The majority (61%) of new residents who have moved in more recently, bought their houses from existing residents. However, a significant number (36%) said that they bought or rented from the local authority.

Residents who had bought their houses were asked where they had accessed the finance (see Table 5-5). The responses are indicated in the following graph. Over two thirds financed their houses using personal savings. Over 10% acknowledged the help of the Urban Foundation (UF) which was in the form of a bank loan with a low interest rate.

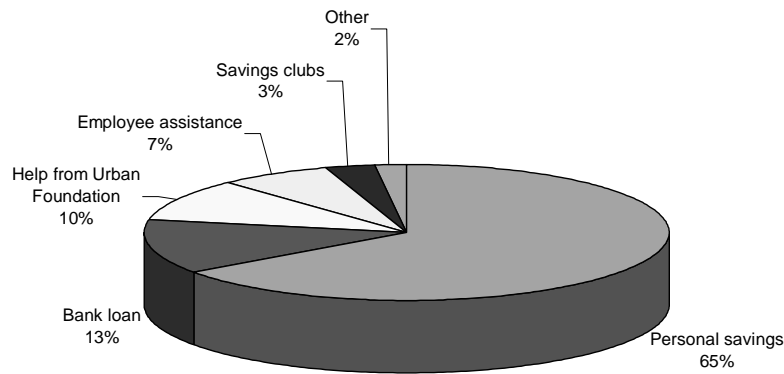


Figure 5-5: Graph of sources of housing finance - Inanda

In Khayelitsha virtually all original residents (94%) rented their houses from the municipality at the outset. Only 3.4% of households said they bought their houses, which may have indicated that these people took up the offer by government to sell houses from 1986. The remainder said that they had inherited their houses. People moving into Khayelitsha more recently have rented houses that have become vacant (57% of new households), or bought houses from the previous owners (23% of households), or bought their houses directly from the municipality (10% of households).

Choices at project inception

Original residents of the projects were asked whether they had been given a choice of location in the settlement and the types of houses they were to live in (Table 5-7).

Table 5-7: Levels of choice for original residents

	Inanda Newtown		Khayelitsha	
	N	%	N	%
Choice of site location	38	37%	15	9%
No choice of location	65	63%	156	91%
Choice of house type	26	25%	19	11%
No choice of house type	77	75%	152	89%

According to the project agents in Inanda Newtown, each household participating in the project was interviewed and given a choice of sites and of house types (Photo 5-5). When the original participants were asked about this, only 37% indicated that they had indeed chosen their site, and only 25% said that they had chosen the type of house. All of the Inanda Newtown residents who answered this question had been in the area for at least 10 years, and many for as long as 14 years. It is possible that with the passage of time, the fact that there was some choice between whether to build a four room shell, or a two room core, may have been forgotten. Or it is possible that residents did not feel that this represented a choice, especially given that many households would have had resources which severely circumscribed the choices presented to them. Civic leaders interviewed in 1996, felt that although choices were offered to Newtown residents, they were so desperate for shelter that any alternative to their previous living conditions would have been preferable.

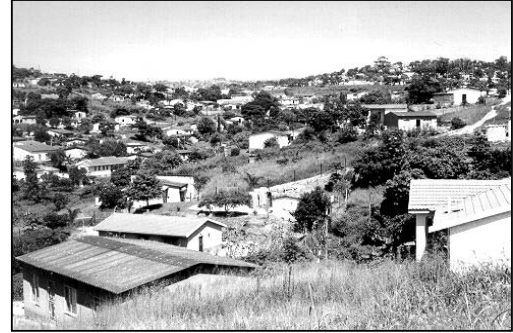


Photo 5-5: Choice of location in Inanda

In Khayelitsha where choice was never planned into the process, 91% of households confirmed that they had not chosen their sites and only 9% had made some kind of choice of location. Only 11% of households had been given a choice between the three contractor built houses. Basically, as was common at the time, and sometimes is still the case, the provincial authority (the Western Cape Development Board) allocated houses without the opportunity for self-selection (see uniformity of product in Photo 5-6).



Photo 5-6: Choice of location in Khayelitsha

So in both cases, levels of choice in the initial stages of the projects were perceived as being fairly limited. This was to be expected in Khayelitsha, but is surprising in Inanda Newtown. Certainly if the majority of people felt that they made no choices, their level of identification with the projects and with the idea of self-help consolidation must have been prejudiced. This is further borne out by the following responses to questions about responsibility for consolidation of the houses. Since a sense of ownership and identification with a project (and a design process) forms one of the commonly recognised foundations of successful consolidation, this could be seen as a limiting factor in both projects.

Even if there were not high levels of choice, the project agents maintained that residents had been informed about the planned incremental growth process. Residents were therefore asked the question, "When you moved into this house, were you told by anybody that you would need to

improve and add to this house yourself?" If the answer was positive, respondents were asked what they understood about what they would need to do.

In Inanda Newtown 24% of original residents said that they had been informed about needing to improve their own houses, which in many cases referred to the internal sub-division of houses and not only to the addition of new space. Of these people, 55% said that they were told they would need to extend or improve their houses themselves. Another 16% said that they knew they needed to paint the outside of their house and could buy materials from the Municipality for extensions. The remaining 29% of the households said that the government or the Municipality had undertaken to help them extend their houses further. Expectations that authorities would directly assist in the consolidation process were therefore high. Civic members confirmed that there was an expectation that the Urban Foundation would 'come back' and add a room and a toilet (presumably an inside toilet) to the core houses. In Inanda Newtown it is possible that the undertaking that an advice office would operate for a number of years was seen by the people as a promise of direct assistance.

The questions above were aimed at assessing whether residents had been informed about the incremental process when the project began. In order to assess present perceptions, all respondents were asked the question, "Whose responsibility do you think it is to see that your house is improved?". Here the responses were more encouraging (Figure 5-6).

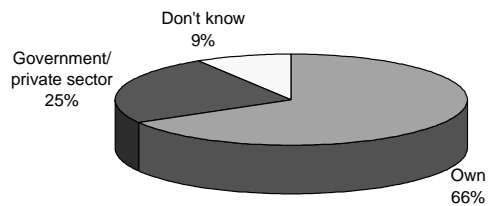


Figure 5-6: Graph of responsibility to extend - Inanda

Exactly two thirds of Inanda Newtown households said that it was their own responsibility to see to the improvement of their house. Almost a quarter said that the government, the Municipality or the private sector should see to the improvement of their houses. 9% of the households did not know who should take on this responsibility. It is still a matter of concern, however, firstly that many Inanda Newtown households still felt that it was not their final responsibility to improve their houses, and secondly that 76% of original residents maintained that they had not even been told that the housing needed to be improved by them.

In Khayelitsha where houses are very obviously starter structures, 90% of original residents said that they had not been told that they needed to improve their own houses. Of the small number of households who had been told (20 households), 60% knew that they would have to extend and improve the houses themselves, 15% understood that they should upgrade finishes and could get

materials from the Municipality, and 25% stated that the government or Municipality had promised to extend for them.

When all residents were asked about whose responsibility it was to see that the houses were improved, over a half of residents acknowledged their own part in the improvement of their houses. Over one third still looked to the government, the Municipality or the private sector to improve their houses. The remaining 8% of households did not know whose responsibility it was. Again, there seems to have been a promise made at some stage by government that the municipality would add rooms to the houses. This was denied by the Clerk of Works for Khayelitsha Towns 1 and 2, but re-asserted by the chair of the Khayelitsha Development Forum. It is quite possible that with the level of coercion that was needed to get people to move into the houses which were standing empty, that some promises were made. The issue is how it affected people's understanding of core housing and of the need to extend to make the houses liveable.

Comparing to the Inanda Newtown case, in Khayelitsha the responses to these questions indicate even less of a sense of ownership of the project (Figure 5-7). Only 10% of households maintained that they knew from the outset that this was a core housing project in which their own input was essential to the successful consolidation of the neighbourhood. Of all residents, a large proportion still felt that the authorities should bear the responsibility for improvement.

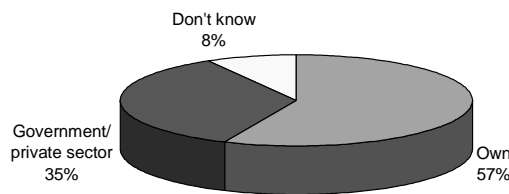


Figure 5.7: Graph of responsibility to extend - Khayelitsha

More participation and choice at the outset in Inanda Newtown led to a slightly better understanding of the incremental growth process. However even where full participation was meant to take place, most residents did not feel that they were properly consulted, and a quarter of the households still felt that their housing was not their problem. With little choice and no participation at the commencement of the project as in Khayelitsha, 43% of residents in Khayelitsha felt that the authorities should still intervene by improving their houses for them, or they did not know who should take responsibility for their housing. Only just over a half of residents were finally taking responsibility for the improvement of their housing after a decade of living there.

The levels of understanding of the incremental growth process were generally not good, despite at least in Inanda Newtown's case, good intentions on the part of planners and project implementers.

More work would be needed to establish how the flows of information through the networks that existed at the time of establishment broke down, or how the understanding of participation by residents was different from that of the original purveyors of development.

Attitudes to core housing at occupation

Respondents were asked to recall their first impressions of the houses when they first occupied them. The question was open ended and respondents often gave a range of impressions (Table 5-8).

Table 5-8: First impressions of core house

	Inanda Newtown		Khayelitsha	
	N	%	N	%
Felt that it needed to be extended	89	57%	42	24%
Felt there was no alternative	19	12%	20	11%
Dissatisfied with size of house	7	5%	116	65%
Finishes are poor	6	4%	21	12%
Dissatisfied with condition	4	3%	33	19%
Unhappy with level of services	1	1%	13	7%
Windows broken/doors missing	0	0%	5	3%
Other/ don't know	32	21%	6	3%
Number of original households	155	102%	178	144%

Despite most respondents saying that they were not told that they would need to extend their houses in Inanda Newtown, this question revealed that more than half immediately felt that the house was too small or needed to be extended. In support of the assertion above that discussion of choice is limited in situations of poverty, about 12% of the households felt they had no alternative but to accept their houses (see further comment below). Others were unhappy with the finishes (4%) or condition of the house (3%).

The people who expressed dissatisfaction with the size of the house said that the house was too small or that there was no privacy. People dissatisfied with the condition of the house said that the house looked like a shack, was dirty or was in a poor condition. Poor finishes included that there was no ceiling or no plaster on the walls of the original house. Most of these concerns related directly to the fact that the houses were core houses and were therefore designed to be minimal in size and/or finish. Perhaps if the participation process had been better, expectations would have been more realistic. It is interesting to note that although services were minimal in Inanda Newtown, only one household cited this as a first impression.



Photo 5-7: Khayelitsha extensions begin

A greater proportion of original households in Khayelitsha felt that the house was too small and needed to be extended (89% of original households)(Photo 5-7). About 22% of households were unhappy with the condition of the houses or said that windows were broken or doors were missing. 12% were unhappy with the finishes. Even though service levels were fairly high in Khayelitsha, 7% of households were unhappy with the services. Similar to Inanda Newtown 11% of households felt there was no alternative but to accept the houses as they were. By implication, such responses here and in Inanda Newtown point to the view on the part of residents that to express an opinion about the product delivered by the development apparatus is, in effect, irrelevant because an opportunity has not been offered to the recipients to alter it.

More Khayelitsha households displayed negative views of the original houses than in Inanda Newtown. In Inanda Newtown, the total number of responses to this question equalled 102% of the sample (i.e. on average households each raised one problem). In Khayelitsha the response rate was 144% of the sample (i.e. on average every second household raised more than one issue). With greater involvement of residents in the design of the original houses in Inanda Newtown this would be expected, as there seem to have been more positive feelings about quality of life at occupation than in Khayelitsha. However, given the descriptions by project agents of the way that the two projects differed in levels of resident consultation and choice, one would have expected there to have been even higher levels of satisfaction expressed by Newtown residents. The satisfaction with the relatively low level of services in Inanda Newtown was to change as these eroded rather rapidly over the next 10 years.

5.5 Conclusion

The discussion of the origins of residents has shown that the move to Inanda Newtown and Khayelitsha was for most residents a definite improvement at least in access to on-site services and more robust shelter. For Newtown residents a reasonably open process had led, in most cases, to improved location in the city and better space standards than those enjoyed by people living in the same vicinity. However for Khayelitsha residents it represented a move to a worse location in relation to urban opportunities, more crowded living conditions and, initially at least, less social infrastructure. The fact that settlement level choices were extremely limited probably further exacerbated the situation for residents. In this sense, structural factors were, at first, more dominant in constraining the activities of residents in Khayelitsha than in Inanda Newtown.

While the view of what it was like to live in the core housing areas of Newtown and Khayelitsha when they were first established is limited by the more statistical research method employed here, a fair understanding has been gained from these responses. In terms of innovation diffusion, it is important to note that core housing was not as familiar a concept to residents as it is in present day South Africa. With a million or more subsidy houses having been built during the first six years of the ANC government's tenure (Smit, 1999), many of which are very small in extent although fairly well serviced,

the process of innovation diffusion has moved on phenomenally from these 1980s examples. Awareness amongst residents about the implications of living in core housing are much further developed (e.g. Napier and Lungu-Mulenga, 1999) than was found to be the case here. The locality with its causal mechanisms must therefore be understood from within its earlier formulation for the purposes of viewing the initial establishment of the two neighbourhoods.

It was therefore reasonable to assume that residents would still carry the expectations that accompanied living in the historic 1960s townships. In Khayelitsha this was strengthened by the contradictory tenure situation where core houses were initially rented from the municipality despite the onus being on residents to extend. Although the level of 'buy in' or ownership of the project by Inanda Newtown residents seems to have been stronger than in Khayelitsha, the disjuncture between the account of participation by developers (each household being interviewed about house type, affordability, location in the settlement, and choosing whether to build or employ a builder etc.) and those of residents is somewhat puzzling. To discount the views of residents that there was very little consultation or choice even at the household level is perhaps unfair. Certainly there was a noticeable gap in the understanding of the incremental development process on the part of the original residents, and based on the evidence presented the education process that was undertaken at the outset cannot be said to have been highly effective in either case.

As a broader assessment, given the views expressed by residents about their feelings when they occupied the core houses, as well as the contingent conditions described in the previous chapter, it does seem to be clear that the pre-conditions in Inanda Newtown for a positive consolidation process were better laid than in Khayelitsha. Certainly human agents directing themselves to achieving consolidation projects were initially better supported in Inanda Newtown and were likely to have found less in the way of structural barriers to the process. If original project characteristics were the predominant determinants of subsequent behaviour, an assumption behind many of the early project evaluations most commonly done for self-help projects (see Chapter 3), then Inanda Newtown residents would be expected to have become more involved in the consolidation process than Khayelitsha residents, and in a more positive way. The next chapter, in looking more closely at the consolidation process, will show whether this proved to be the case.

6 The consolidation of households, housing and settlements

Physical consolidation is argued to support and reflect a parallel process of social consolidation, in which homebuilders gain confidence and skill, and gradually gain in socio-economic status (Turner, 1968). (Smit and Mbona, 1996:8)

6.1 Introduction

By the time residents occupied the two case study settlements, most of the official or formal ground rules for core housing had been laid. Physical infrastructure and location were set, government and non-government institutions and legislative frameworks (whether weak or strong) were in place, and the residents had been targeted and allocated houses. Residents were now, in many ways, on their own in transforming the housing into a personalised object with better qualities of habitability, comfort and identity. The picture prior to and at occupation has been outlined. Effectively 15 years have passed in Inanda Newtown and 11 years in Khayelitsha and the second 'snapshot' is taken firstly, and literally, using aerial photography and secondly, by means of the household interviews and physical surveys of the houses. These views seek to gain a picture of the dimensions of the consolidation process which happened between occupation and the surveys. The social consolidation (as referred to by Smit and Mbona, 1996) of the household, the physical consolidation of the house, plot and settlement, and the means by which these were achieved are the topics for this chapter.

6.2 Resident profiles

Household size

Household sizes at occupation were reviewed in the last chapter. The small, mainly nuclear families who moved into the core housing had grown by 1996, as indicated in the following table (Table 6-1). In this analysis only original households are considered. In most cases this chapter uses the total number of people on a plot as being synonymous with a household, because in 94% of cases only one household occupied a plot (see Table 6-8). Where this became significant in a calculation, plots with second and third households were excluded.

Table 6-1: Household sizes over time

	Number of original household	Original household size	Household size at interview	Percentage increase	Years since occupation	Annual growth rate
Inanda Newtown	161	4.43	6.49	47%	15	3.1%
Khayelitsha	178	4.1	5.5	34%	11	3.1%

When the annual growth rate is calculated, it emerges that Inanda Newtown and Khayelitsha have the same growth rate of 3.1% per annum. This compares to a national average of 2.06% in 1996 (Central

Statistical Services, 1997). Because Newtown households were slightly larger than Khayelitsha households at the time of the survey, this rate of growth implies that on average each household grew by one person approximately every 5 years in Inanda Newtown, and approximately every 6 years in Khayelitsha. Over the time since occupation Inanda Newtown households had grown by more than two people and Khayelitsha households by an average of just less than one and a half people.

The question about household size was framed in such a way as to gauge the number of people who normally lived on the site. For the sake of clarity, people were also asked how many people had slept at the house the previous night. When all households in the sample were considered, Inanda Newtown normally had an average number of 6.4 people per site and Khayelitsha 5.3 people per site. Information reviewed below about household sizes in each of the two Provinces in which the case studies were located show that household sizes in KwaZulu Natal are generally larger than in the Western Cape (Tables 6-3 and 6-4), and so households in Inanda Newtown and Khayelitsha mirrored this pattern. At the time of the survey (December and January) plot occupancy rates were slightly lower as some household members were visiting rural and other urban areas. The following graph gives an idea of the sizes of the households in both settlements (Figure 6-1).

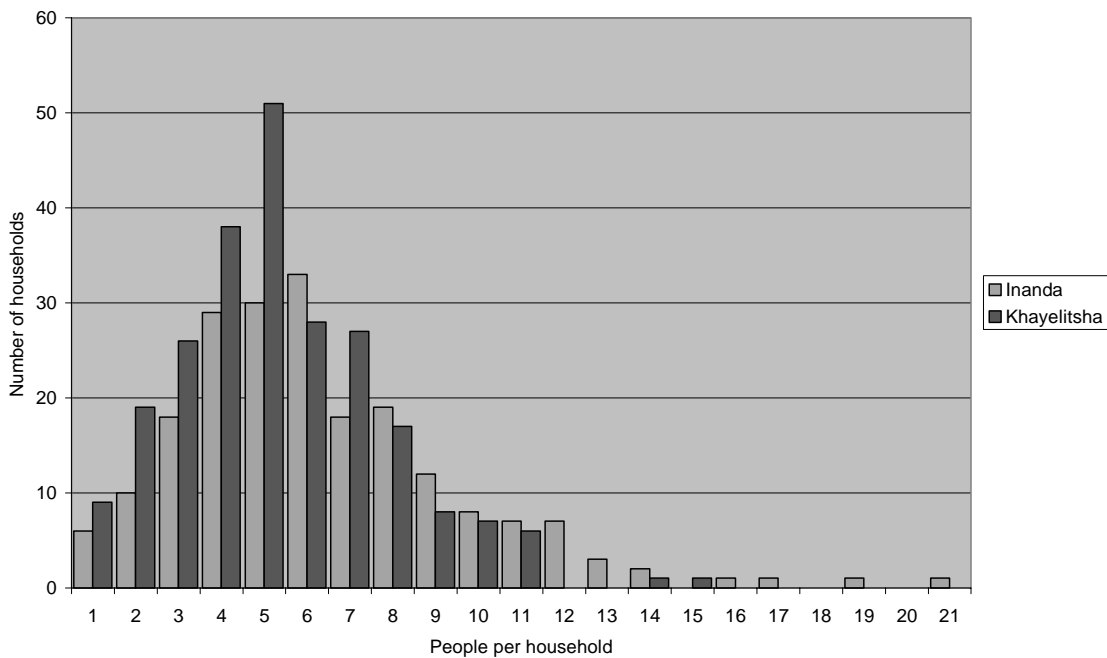


Figure 6-1: Household size distribution

The graph shows absolute numbers of households. There is a greater spread of Khayelitsha household sizes than Inanda households. The graph cannot be used to compare the case studies but it demonstrates primarily that there is a marked modality in Khayelitsha households (with a higher proportion of households having six members) and less modality in the Inanda Newtown sample (with similar proportions of households being made up of four, five and six people).

How do these household sizes compare with other settlement types in each vicinity? Most South African statistics about household sizes have been done per building rather than per plot. It is therefore necessary first of all to calculate this for the case studies. Where a second, separate building is built on a plot, this qualifies as an additional building. This is the convention used for the October Household Survey cited below¹. Using the consolidation data, the following figures were calculated (Table 6-2).

Table 6-2: Calculation of people per building and plot

	Inanda	Khayelitsha
Single building on a plot	147	131
Two separate buildings on a plot	51	107
Therefore, total buildings	249	345
Total plots	198	238
Total people	1267	1263
People/ building	5.1	3.7
People/ plot	6.4	5.3

The National Electrification Forum (NELF) database² estimated that the total population of Inanda Newtown in 1993 was 23,122 people living in 4,364 houses, which seems to be an underestimation of population size when compared to the figures from this survey. The 1995 October Household Survey (Statistics South Africa, 1997a) gave the following household sizes for the whole of KwaZulu's African population (Table 6-3).

Table 6-3: KwaZulu household sizes per building (Statistics South Africa, 1997a)

	Average household size
Formal house (township)	5.5
Formal backyard building	6.0
Informal freestanding shack	5.9
Informal backyard shack	5.3
<i>Inanda Newtown building (this survey)</i>	<i>5.1</i>

Inanda Newtown, at 5.1 people per building compares favourably with all other dwelling types at the time of the survey. However, this is not a direct indication of space standards which will be reviewed below once consolidation data has been analysed.

¹ This definition is based on the South African census definition, for which local comparative data are available. It is acknowledged that this is not fully consistent with the more internationally acceptable definition of 'dwelling' as constituting the building or buildings occupied by a single household.

² The National Electrification Forum Database was compiled by the national South African electricity utility company, Eskom, in 1993. These figures were taken from this database for these areas.

For the formal section of Khayelitsha, the NELF database indicated that there was a population of 42,905 people in 9,808 formal housing units (i.e. an average of 4.4 people per plot) which again seems to be an underestimation of population particularly seeing that this survey is representative of 5000 of these units. Another study estimated that mean household size in the formal parts of Khayelitsha was 5.0 people per plot (Mazur and Qangule, 1995) which is closer to this study's finding of 5.3 people per plot. The 1995 October Household Survey (Statistics South Africa, 1997b) gave the following household sizes for the whole of the Western Cape's African population (Table 6-4).

Table 6-4: Western Cape household sizes per building (Statistics South Africa, 1997b)

	Average household size
Formal house (township)	4.2
Formal backyard building	5.7
Informal freestanding shack	3.9
Informal backyard shack	3.5
<i>Khayelitsha core housing (this survey)</i>	3.7

With 3.7 people per building, Villages 1 and 2 of Town 1 therefore had lower people per building ratios when compared to their formal and informal neighbours, except for backyard shacks in other established townships. Again, more detail is needed about space per person particularly given that Khayelitsha core houses are two thirds of the size of full township houses (26m² compared to 40m²) and so people per building ratios are somewhat misleading. However, as a broad indicator it has allowed comparison with other house types. The people per plot ratio in Khayelitsha is still high when compared to neighbourhoods in the vicinity.

Household structure

The biographical details of all household members were collected (see Table 6-5). In both places there were more women than men. This was fairly similar to the national averages.

Table 6-5: Gender of household members

	Females	Males	N
Inanda Newtown	54%	46%	1185
Khayelitsha	55%	45%	1263
National (1996 census)	52%	48%	40,583,545

Age and gender data is summarised here using bar graphs which indicates the percentage of the population surveyed which falls into each age group (Figures 6-2 and 6-3). Generally speaking 33% of the Inanda Newtown population was below the age of 15, and 46% was below 20 years. In Khayelitsha (see graph below), 32% of the population was below the age of 15, and 46% was below 20 years. There were slightly more infants (0-4 years) in Newtown than in Khayelitsha but slightly

fewer children of 5-9 years. Although there were gender differences, the age proportions of the people living in Inanda Newtown and Khayelitsha matched almost exactly.

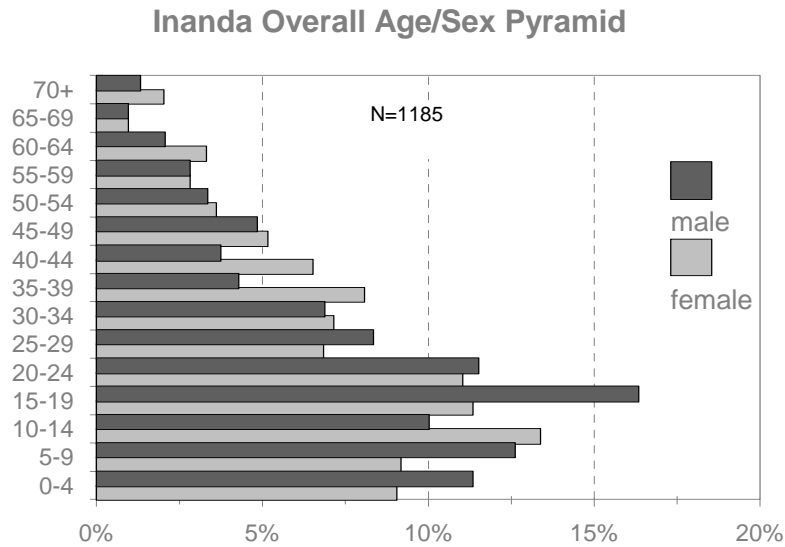


Figure 6-2: Inanda age and gender profile

Comparing these profiles to other studies in Durban and Cape Town (e.g. Cross et al, 1992, and Mazur and Qangule, 1995) these neighbourhoods do have very high proportions of younger people particularly teenagers. Given that both settlements are between 10 to 15 years old, many of the people in these age groups would have been infants at the time the project was initiated. This then

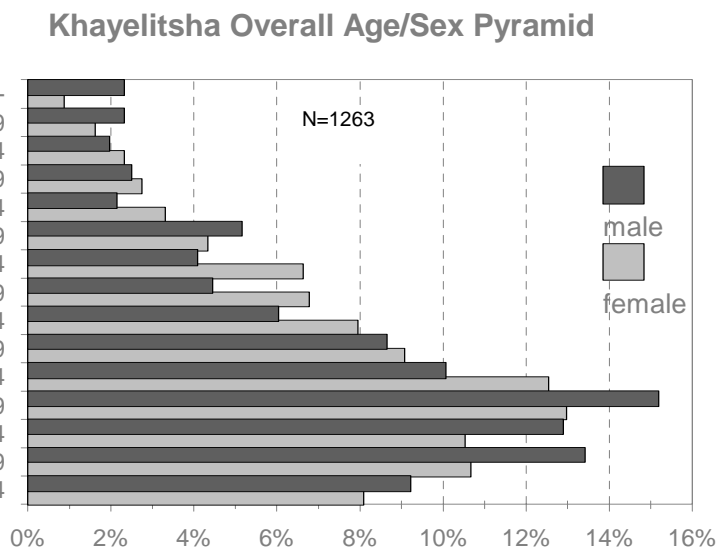


Figure 6-3: Khayelitsha age and gender profile

could be linked to one of the most commonly stated reasons given for moving to core housing, i.e. to gain independence.

Many families with young children moved to these settlements for this reason (Photo 6-1), and their children now fall into the teenage group. This has implications for the provision of public facilities, especially pre-, primary and secondary schools. Early on in such projects there would be a high demand for such facilities, but as the population grew older (and residential mobility remained low) the need would reduce, at least until new household formation revitalised growth. Access to employment opportunities would also vary as the population makeup changed through time.

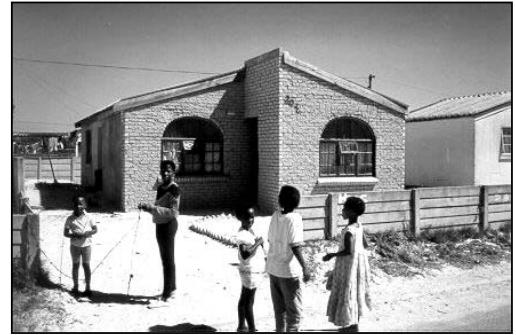


Photo 6-1: Khayelitsha households

It is also important to note that in many African contexts the household living on an urban site does not represent the whole of the household (see Smit, 1998, and Baber, 1996). Respondents were therefore asked whether they had another house other than the core housing they were occupying in the city (Table 6-6).

Table 6-6: Incidence of second homes

	Inanda Newtown		Khayelitsha	
	N	%	N	%
No other home	141	68%	128	54%
Yes, in the city	33	16%	22	9%
Yes, in the country	32	16%	88	37%
Totals	206	100%	238	100%

Many more people in Khayelitsha had a second rural home than their Newtown counterparts (Photo 6-2). The impacts of the history of the obstruction of the movement of African people particularly to the Western Cape and the broader homeland policy as discussed in chapter 4 are clear here. The dynamics which these contingent conditions set up in the extension process are important, especially when households make decisions about where to invest their energies and income. The split between urban and rural priorities therefore needs to be borne in mind. Despite the incidence of households with rural links, 86% of Inanda Newtown residents and 91% of Khayelitsha residents said that they intended to remain living in their core houses for the foreseeable future. This indicated a high degree of urban commitment and of identification with the two neighbourhoods. People

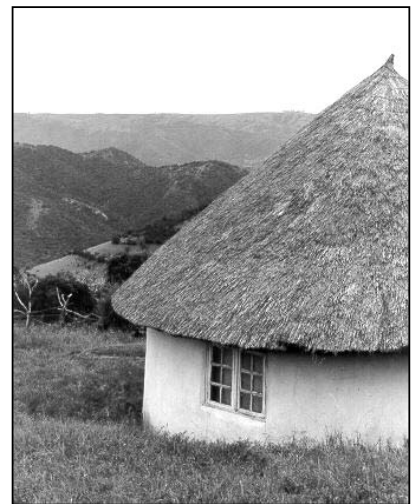


Photo 6-2: A typical KwaZulu rural home

who had moved to the areas more recently had slightly lower levels of commitment, with 75% of Inanda Newtown and 88% of Khayelitsha new residents saying that they did not intend to move in the future.

Gender of respondents and heads of households

The concept of heads of households was used in the survey. The respondent, whether the head themselves or in some other relationship to the head, was left to define this themselves. There was a fairly clear identification with the idea of a head of household. In Inanda Newtown 88% of the respondents who answered the questionnaire defined themselves as the head of household and 9% as the spouses of the head. The remaining 3% of respondents were adult relatives of the head of household. In Khayelitsha, 61% of respondents were heads of households, 21% were spouses of heads, 11% were adult children of heads, 4% were more distant relatives, and 3% were non-relatives. More importantly, the following was the gender profile of heads of households (Table 6-7).

Table 6-7: Genders of heads of households

	Inanda		Khayelitsha	
	N	%	N	%
Female-headed households	83	41%	102	43%
Male-headed households	119	59%	135	57%
Total	202	100%	237	100%

Again there is a significant degree of similarity between the two case studies. Male headed households outnumbered female headed households by almost three to two. These figures indicate a bias in the allocation of houses to male headed households if the national averages are considered. This was supported by the observation in the last chapter that some men moved to the Khayelitsha core housing because married men were being favoured. Below, this classification of households is used to assess whether woman-headed households have acted differently in terms of what they have built.

Other household characteristics

In older settlements and in other parts of the world it is common for many households to live on one plot and this has an implication for the consolidation of houses as space is sub-divided as many times as possible (Tipple, 2000:47ff). The number of plots with more than one household in the case studies was surprisingly low, as seen in Table 6-8.

Table 6-8: Number of households per site

	Inanda Newtown		Khayelitsha	
	N	%	N	%
1 household	193	94%	224	94%
2 households	10	5%	13	5%

	Inanda Newtown		Khayelitsha	
	N	%	N	%
3 households	1	0.5%	1	0.4%
4 households	1	0.5%	0	0%
Totals	205	100%	238	100%

Unlike other places, the pressure to sub-divide the Newtown and Khayelitsha houses into discreet spatial parts to accommodate separate households would therefore have been limited, although this does not include parts of one household which may wish to live in separated space, such as grown up children.

It is commonly thought that extensions are built to accommodate lodging families or individuals who pay rent to the owner or main tenant of a house particularly in times of hardship (e.g. Gilbert, 1999; Rakodi and Withers, 1995). The incidence of lodgers, or people sub-renting space in houses in both settlements was fairly low (see Photo 6-3 for typical lodging room). In Inanda Newtown only 4% of households had lodgers. The number of lodgers varied from 1 to 5 people. There was a mean number of 2.4 lodgers per house where there were lodgers. Rents being received in Inanda Newtown ranged typically from R35 to R100. In Khayelitsha 4.6% of households had lodgers. The number of lodgers varied from 1 to 4 people, with a mean of 2.1 lodgers per house for houses with lodgers. Only one respondent indicated what rental was being received from the lodger on their site (between R200 and R300).

With the growth in households being mainly from increases in numbers of children and direct relatives moving to the core housing, it was clearly too early for a larger market in lodgings to emerge. House sizes were also still small and being used mainly to accommodate the immediate family. The issue of whether people extended in order to offer lodgings is picked up later (in section on "Space use" below and in Chapter 7).



Photo 6-3: Lodging or family accommodation?
Inanda backyard room

The central purpose of this survey was not to assess levels of lodging. However at least two of the questions made reference to lodging. The unwillingness to divulge income received from lodgers is understandable. The identification of residents who were lodgers was possibly a less difficult question to respond to. Despite this, the number of lodgers was probably under-counted and a more directed questionnaire would be needed to better assess the levels of lodging and the degree to which income is being supplemented from rentals. However, the low level of lodging corresponds to the low incidence of houses with more than one resident household (6%) which seems to support the accuracy of the finding.

A related question was also asked about what contributions towards expenses household heads were receiving from people on the site, whether that was rent or simply contributions from family members. In Inanda Newtown 34% of households declared they were receiving such contributions, and these ranged from R40 to R4000 per month. 90% of contributions were between R40 and R1250. In Khayelitsha there was more reluctance to answer this question, but 18% of households implied that they received some contribution. Those indicating the amounts said they were between R20 and R600.

Employment and unemployment

It was clear that poor people were targeted in the original projects, although this was not highly effective in all cases, as was discussed in the previous chapter. However, after more than a decade of occupation, how were households doing in economic terms?

The level of unemployment is defined here in two ways. Firstly it is defined as the number of people actively seeking work as measured against all the people of employable age (i.e. excluding home makers and pensioners). Secondly, it is defined as all people who are unemployed whether they are currently looking for work or not. This second definition allows for the possibility that some people have looked for work previously, but have become discouraged.

Table 6-9: Rates of unemployment

	Inanda Newtown		Khayelitsha	
	Unemployment (seeking work)	Unemployment (seeking & not seeking)	Unemployment (seeking work)	Unemployment (seeking & not seeking)
Unemployed	95	226	126	155
Employable	547	547	505	505
Rate	17%	41%	25%	31%

As can be seen from Table 6-9, in Inanda Newtown there was a larger proportion of unemployed people who were not actively seeking work than in Khayelitsha. Overall then, applying the first definition, in Inanda Newtown 17% of employable adults did not have employment. At the same time, the unemployment rate in KwaZulu was 24.4%, so Inanda Newtown residents were slightly better employed than others in the province. However, using the second definition, the rates for Inanda Newtown and African people in the whole of KwaZulu were the same (41% and 42% respectively)(Statistics South Africa, 1997a). In Khayelitsha 25% of residents were unemployed despite seeking work. This compared to a rate of 22% for African people in the Western Cape as a whole. Again, the number of people in Khayelitsha whether seeking work or not was the same as for African people in the whole of the Western Cape (i.e. 31%)(Statistics South Africa, 1997b). Overall, it appears that Khayelitsha residents were in a worse situation than Inanda Newtown residents, and than other people in the Western Cape particularly in the category of those seeking work.

For those who were employed, three types of employment were identified: self-employed people, occasionally employed people (e.g. piece work) and formally employed people.

Three types of employment were described to respondents in this way:

- employed people are those who formally earn a wage from someone else. The income you record should be net cash earnings after deductions like tax, i.e. this is how much they bring home each month;
- self-employed people include doctors, shop keepers, etc. and informally employed people like dress-makers, taxi owners and drivers, and people who run businesses from home. Their income should also be what money they bring home after business expenses, i.e. their profit.
- occasionally employed refers to people who may get 'piece work' on construction sites but who do not have a regular source of income. Their recorded income will have to be an average of what they bring in each month.

The picture, overall, is illustrated in the graphs (Figure 6-4). When looking at all employment categories, the level of employment is fairly high, with 59% of adults in Inanda Newtown and 69% of adults in Khayelitsha having some form of employment. This does not, however, give an indication of the levels of income being earned by households.



Figure 6-4: Types of unemployment

Income

Several types of income data were collected. There was reluctance on the part of some respondents to furnish income data, and the figures quoted here exclude the cases where income information was not volunteered. Firstly respondents were asked about income from employment of all the people on the site (if this was known)(Table 6-10).

Table 6-10: Mean monthly income for respondents declaring income

	Inanda Newtown	Khayelitsha
Employed	R1429.11	R1314.29
Self-employed	R114.04	R147.14
Occasionally employed	R36.48	R73.30
Mean total household income	R1579.63	R1534.73
N=	183	227

The figures shown above are total household incomes from the various types of employment. Those households who declared income in Inanda Newtown were earning slightly more from wage employment per month than were Khayelitsha households, but significantly less from their own businesses and from piece work. There appeared to be more entrepreneurial activity in Khayelitsha than in Inanda (Photo 6-4), and better returns for being involved.



Photo 6-4: Inanda garage shop ("spaza")

Enquiries were also made about sources of income from sources other than employment. In both cases, just over a quarter of households received income from pension and welfare grants. Only three to four percent of households received remittances from absent relatives, and very few generated income from within their own homes though home businesses or rent. When the incomes from employment and other sources were combined, a measure of total household income was generated and this was compared to an independently calculated measure of minimum and subsistence living level for the two areas (Table 6-11). Minimum living level (MLL) in each of the metropolitan centres (i.e. Durban and Cape Town) is defined by the Bureau for Market Research as "... the lowest sum possible on which a specific size of family can live ... The MLL denotes the minimum financial requirements of members of a family if they are to maintain their health and have acceptable standards of hygiene and sufficient clothing for their needs" (Bureau for Market Research, 1996:1). A second comparison can be made with the Supplementary Living Level (SLL) which is not defined as a "subsistence budget" but rather as a "modest, low level standard of living". These levels are fairly widely used in South Africa and MLL can be regarded as a "poverty line" measure.

Table 6-11: Household incomes compared to MLL and SLL

	Inanda Newtown	Khayelitsha
Mean total household income	R1800.21	R1696.84
Average household size	6.4	5.3
MLL (February 1996)	R1320.36	R1065.77
SLL (February 1996)	R1801.78	R1441.99

Households in Durban were earning on average 37% more than the MLL and the same as the SLL. Households in Khayelitsha, where the cost of living was lower, were better off, earning on average 59% more than the MLL, and 18% more than the SLL. Although households appeared poorer in Inanda Newtown, they had access to more space in the core houses and initially to stronger social infrastructure. As a way of identifying beneficiaries, original Inanda Newtown residents were filtered according to household income, and poorer families were targeted at the time. This survey suggests that the incomes of the residents have improved in the meantime, but that Inanda Newtown residents remain in the poorer income category.

On average then, residents of both settlements were not extremely poor. However there were households within the sample which did have very small incomes especially those that were chiefly dependant upon the pensions of members of the household. Looking at a household level, rather than at the personal level, there were a number of households with no formally employed person. In Inanda Newtown 15% of households were in this position, and in Khayelitsha 18% of households had no formal wage earners. There were also a smaller number of households with no apparent source of income (i.e. no income from self-employment, piece work or wage employment) other than pensions or remittances. This had a direct effect on whether households were able to consolidate or not, an issue which is discussed further in Chapter 7.

Expenditure

In order to reconcile income with expenditure and to ascertain the levels of expenditure on housing, residents were asked about how they spent their money (Table 6-12). The question focused on the month immediately preceding the survey, and the following information was gathered.

Table 6-12: Expenditure against income

	Inanda	Khayelitsha
Total expenditure	R 1,543.97	R 1,442.78
Total income	R 1,800.21	R 1,696.84
Income accounted for	86%	85%
N=	180	231

In both case studies, a high proportion (85-86%) of income was accounted for in the breakdown of expenses. In the following illustration, the breakdown of expenditure on different items is illustrated graphically (Figure 6-5).

Inanda Newtown residents were paying much larger amounts towards education (26% of total expenditure), than their Western Cape counterparts (4%). Food expenditure in both places was fairly similar (between 23% and 24%). Cape Town residents spent significantly more on clothing (19% as against 10% in Inanda Newtown) and on furniture (17% as against 7%). Transport budgets were not as high as expected, although still significant.

Ranked Items of Expenditure

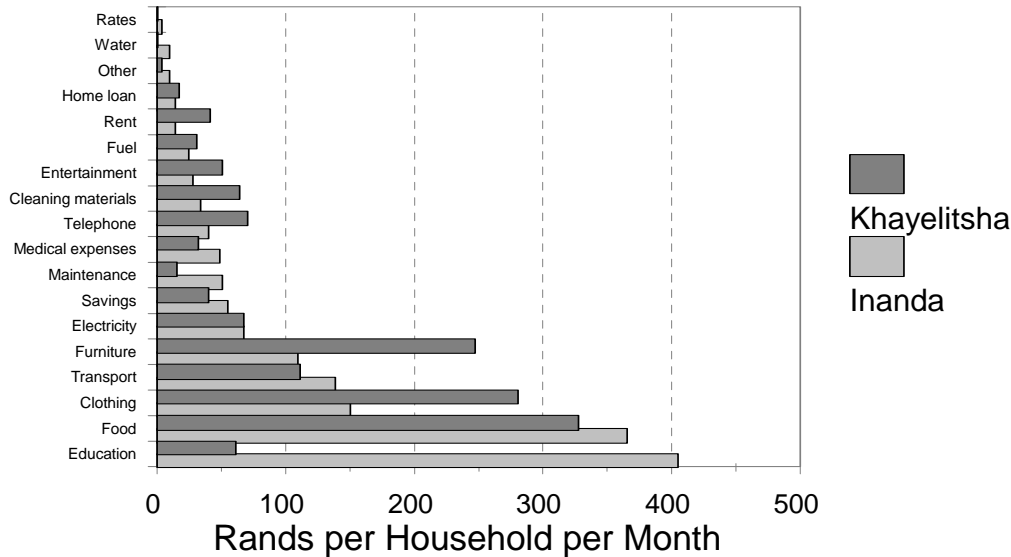


Figure 6-5: Household expenditure

If the expenditure items above are categorised into directly housing-related items and items not directly related to housing (e.g. food, clothing, education, transport) other than as functions of location, it emerges that in Inanda Newtown 23% of expenditure was housing related, and in Khayelitsha, 38% was housing-related, as evident from the following table (Table 6-13).

Table 6-13: Breakdown of housing/ non-housing costs

	Inanda Newtown	Khayelitsha
Housing finance (loans)	0.8%	1.1%
House maintenance	3%	1%
Capital items e.g. furniture	7%	17%
Rent, rates, services & running	12%	19%
Non-housing related costs	77%	62%

The amounts being spent by residents on house capital repayments, either in the form of rent or home loan repayments (for extensions), were very low (around 1%). Rents in Khayelitsha were set at a flat rate, and the interest rates on loans granted by the Urban Foundation in Inanda Newtown were subsidised. The age of the settlements must be borne in mind, meaning that many of the capital costs on the houses had therefore been effectively paid off by the residents. Habitual spending on maintenance was also low. The actual costs of extensions are reviewed in more detail below.

Being aware that a rental and rates boycott had been in effect in Khayelitsha over a protracted period, residents were asked to state the amounts that they expected to pay in each expenditure category,

and then asked whether they were actually making those payments. At the time of the survey, 37% of Khayelitsha residents were paying and 63% were not paying their rates and rental. On the other hand, around 95% of residents were paying electricity and telephone bills. Inanda Newtown residents were all paying rates and service charges of some kind.

At this stage in the history of South Africa, the move to core housing did not mean great increases in the housing related costs to residents, although the loan repayments in Inanda Newtown must initially have meant a necessary change in budgeting practices for households moving from informal settlements. After more than a decade, ongoing housing costs were fairly low, although rates and taxes were still significant in Khayelitsha when households were paying these. Generally location in core housing does not seem to have been overly onerous on the household budgets of people participating.

Resident profile summary

This then is a description of the resident households directly involved in projects to alter their immediate environments. It is clear from the household information that despite very different localities, the profiles of the people living there are very similar. The growth rate of households, the ratios of numbers of women to men, the proportions of women-headed households, and the age profiles of people in both settlements all correspond. In both settlements, most residents are committed to remaining where they are. With the very different migratory patterns, and political and project histories in the two city contexts, it was expected that the composition of the people living there would differ more. However the profile of people living in core housing in both cities is very much the same, and they differ rather from their informally settled neighbours. It seems that the similar allocation criteria and low household mobility have to a large extent led to a fairly homogenous mix of household types, a characteristic which has come to dominate subsidised housing developments in South Africa in the 1990s (Huchzermeyer, 1999). There were, however, slight differences between resident profiles in the areas of origins, the incidence of rural homes, unemployment levels, and levels of income.

Overall the employment and income picture is fairly positive. Employment levels are high (59% and 69% of employable adults have some form of employment in Inanda Newtown and Khayelitsha respectively) and most households have some form of income. A key point is that households in both settlements were on average living at the subsistence living level (Inanda Newtown) or above it (Khayelitsha). Residents of the settlements are therefore not the poorest in urban areas and this can be taken positively as a sign that relocation to the core housing areas in the early and mid-1980s had enabled households, taken on average, to improve their income and therefore their quality of life by the mid-1990s. In addition, the ratio of people per building is generally lower than most other settlement and dwelling types in the vicinities of both settlements, pointing to a better quality of life in consolidated core housing. However, the analysis so far does not distinguish between more and less successful consolidators, so the picture needs to be more detailed than that gained so far.

With low residential mobility, the majority of households who gained access to the original core housing have consolidated their situations in these localities, through the growth of the family, increasing levels of urban commitment and, in many cases, improved situations of employment and income. A process of social consolidation of households can therefore be said to have happened over the period under investigation. The similarity in resident profiles means that the two case studies can be effectively compared. People living in Newtown and Khayelitsha core housing have more or less the same means at their disposal, and similar needs for space (in terms of household growth and family structure, for example). The question then is: have households also improved and consolidated their housing in similar ways? The answer is no. And the challenge is to identify reasons for why they have not. But first, a more detailed picture of how people have improved, or not improved, their houses is needed.

6.3 Consolidated houses

Extension types

The original core houses were described in Chapter 5. The first source of information about what the consolidated settlements looked like was taken from the analysis of the aerial photography. This was the most accurate source of information because it covered all houses in the two neighbourhoods, although the level of detail was not as great as was to be gained from the sample survey³. Although a more complex categorisation of extension types was used initially (and data from this categorisation is used below), the categories of unextended, informally extended and formally extended were finally used (see definitions and results in Chapter 4). Once houses were visited 'on the ground', two more extension categories were added, mixed extensions and remodelled houses. The results are summarised in the following graphs (Figure 6-6).

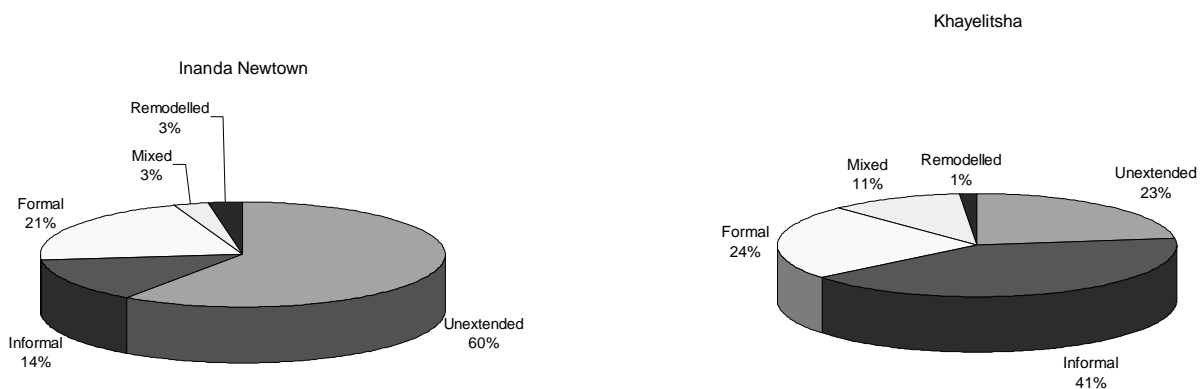


Figure 6-6: Extension types (corrected sample)

³ The proportions of households who had extended in different ways was used to define the stratification of the sample. So observations about the proportions of extension types should be derived primarily from the full house census.

The differences in the consolidation paths of households in the two neighbourhoods over the more than a decade of development is immediately evident. In Inanda Newtown where cores were generally larger, and residents had chosen their house types, more than half of residents had not extended by 1996. The number of shack extensions was very low (only 14%) and almost a third of households had formal extensions. In Khayelitsha where cores were more standardised and smaller than in Newtown, many more people had extended. Over half of these were in the form of shack extensions (Photo 6-5), and over a fifth had formal extensions. Just under a quarter had not extended.

Core housing is thought by planners and designers to set in place a set of physical parameters which assist people to develop in certain directions. When looking for a link between core types and extension types, the link seemed to be very tenuous. For most of the core and extension categories, there was no apparent link between how people started (i.e. what type of core house they occupied) and what they then did.



Photo 6-5: Khayelitsha backyard shack

In Inanda Newtown, whether people started with two room cores, four room shells or six room houses, almost equal proportions then added formal or informal extensions. The same proportion of people (just over 60%) with different core types did not add any rooms. Where there were differences were:

1. in two room cores if people added anything, they added formal extensions (as opposed to informal extensions); and
2. in four room completed houses (i.e. with internal dividing walls) more people overall added extensions than their counterparts living in other core types, probably indicating that people who could afford the more expensive core house types could then afford to extend using more permanent materials.

In Khayelitsha, it was expected that the panel house built by Murray and Roberts (M&R) would have been more difficult to extend because the construction was not conventional. There may well have been other factors involved (like for instance that a different target group occupied the M&R housing), but the M&R house had been extended to a comparable degree to the other two core house types. 88% of the M&R houses were extended in some way, 90% of Wimpey houses, and 71% of Besterecta houses. Village 2, where most of the Besterecta houses were built, showed less extension overall than did Village 1, making it more likely that external neighbourhood influences moulded extension responses rather than their being influenced by the design of the core house types. The slight differences in the areas and layouts of the original core types did not therefore seem to have affected the way in which people had extended them. This finding strengthens the

hypothesis that the original, physical project characteristics become less deterministic of resident responses as time passes.

Materials used

Each extension in the sample was categorised according to the materials used, including instances where more than one extension was built (Table 6-14).

Table 6-14: Walling materials used to build extensions

Category	Wall material	Inanda	Khayelitsha
Permanent materials	Concrete block	53%	27%
	Clay brick	4%	9%
	Face brick	0%	1%
Impermanent materials	Timber slats	7%	38%
	Plywood	8%	8%
	Corrugated iron	0%	13%
	Wattle & daub	10%	1%
	Plastic	1%	0%
	Other	17%	4%
Total number of extensions		101	252

In Inanda Newtown the most common type of formal construction was concrete block (Photo 6-6). Only 4% of extensions used clay brick. Most informal extensions were constructed using earth (wattle and daub frame construction), plywood or timber slats.

In terms of wall surfacing, 37% of extensions had no surface finish on the walls. 42% of extensions were plastered, half of which were also painted, and 11% were finished with mud. About 46% of roofs were corrugated iron, 35% were asbestos cement (as were most of the original house roofs), and 4% were tiled.

In Khayelitsha concrete block was also the most common formal walling material. Brick and face brick were, however, used more extensively than in Inanda Newtown. The many informal extensions were built mainly using timber slats (Photo 6-7), corrugated iron, or plywood. Earth construction was very rare and given the sandy conditions on the Cape Flats this was to be expected.

Walls surfacing was as follows: 20% of extensions were plastered and painted, 14% were only painted, 9% were only plastered, and 54% had no surface finish. 59% of roofs were of corrugated iron, 34% were asbestos cement, only 2.5% were tiled, and the remainder were unroofed (still under construction) or roofed with other materials.

The greater use of traditional technology such as wattle and daub construction (Photo 6-8) may be evidence of the greater number of people in Newtown who were of rural (17%) or informal settlement (45%) origin. There is a greater tradition of building in earth in Durban informal settlements (Kellett and Napier, 1995). In Cape Town the use of timber for informal house construction is much more common (Cook, 1992) and this was certainly the case for informal housing within this neighbourhood. The processes attached to the use of materials, such as where people purchased materials and how they paid for them, are examined further below in the process section (section 6.5).

Contiguity and position

There are several other characteristics of extensions other than whether they were built out of permanent or temporary material. These revolve around contiguity with the original core structure and position on the plot.

In Inanda Newtown the small number of informal extensions were almost all built separate from the original houses (Table 6-15). Just over half of the formal additions were attached directly to the houses, with just less than a third being separate. The remaining people in the formal extension category had both separate and attached extensions on the same site.



Photo 6-6: Inanda concrete block extension

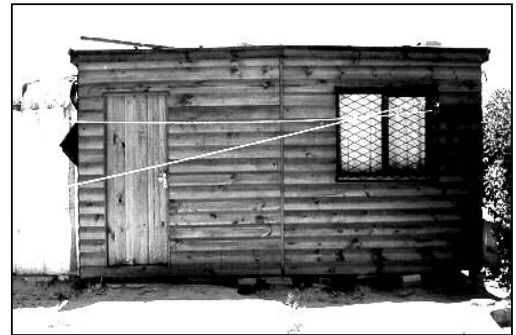


Photo 6-7: Khayelitsha timber slat extension

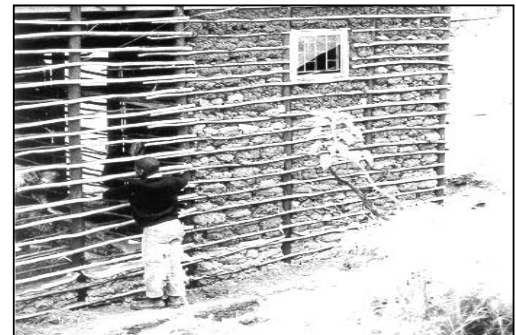


Photo 6-8: Wattle and daub construction - near Inanda

Table 6-15: Contiguity of Newtown extensions

	Informal		Formal		All	
	N	%	N	%	N	%
Attached	2	8%	21	54%	23	36%
Separate	23	92%	12	31%	35	55%
Both	0	0%	6	15%	6	9%
Total	25	100%	39	100%	64	100%

With the steep site conditions in Inanda Newtown, the largest proportion of people extended their houses to one side (46% of houses). 30% of households positioned their extensions behind their houses, and 20% built towards the road. The remaining 3% of people extended in more than one direction.

Formal extensions connected directly to the house were most commonly made onto the side of the house, as the original architect's drawings suggested. A special sub-type of this was where people added onto the side of the house making an L-shaped plan, with the new wing at right angles to the line of the ridge of the core house (Photo 6-9 and Figure 6-7). On the whole, the extended plans and form of the houses were evidence that individualising the appearance of the house was a high priority for residents. One common method of doing this was to add on a veranda with a unique design (Photo 6-10 and Figure 6-7). When adding to the side of the house, roof and plan forms are often stepped to add interest. The diagram summarises the typical plans (Figure 6-7).

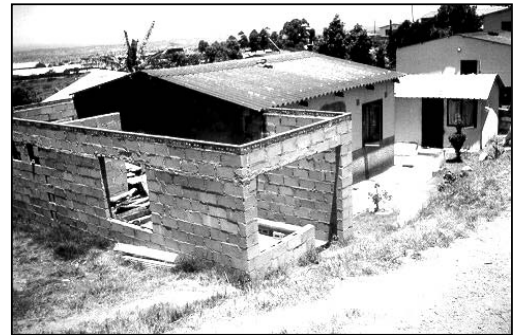


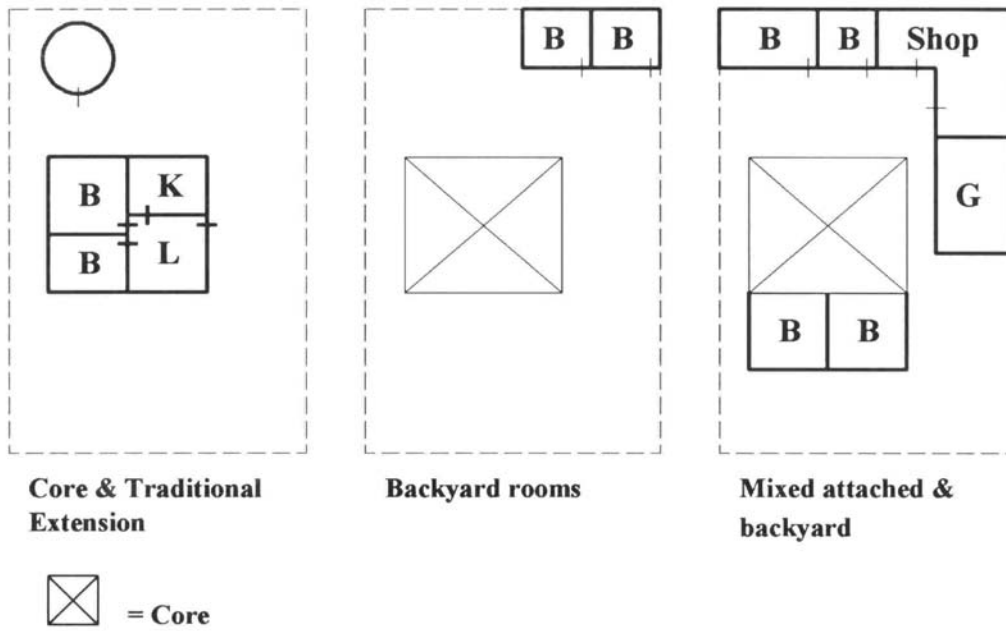
Photo 6-9: L-shaped extension to main house



Photo 6-10: Veranda extensions

Considering the often tight site constraints in Inanda Newtown, much has been achieved by residents through the addition of useful space and added complexity of built form, with the result that visual variety has been created from the largely common starting point of over a decade ago.

Typical Informal & Mixed Extensions: Inanda Newtown



Typical Formal Extensions. Inanda Newtown

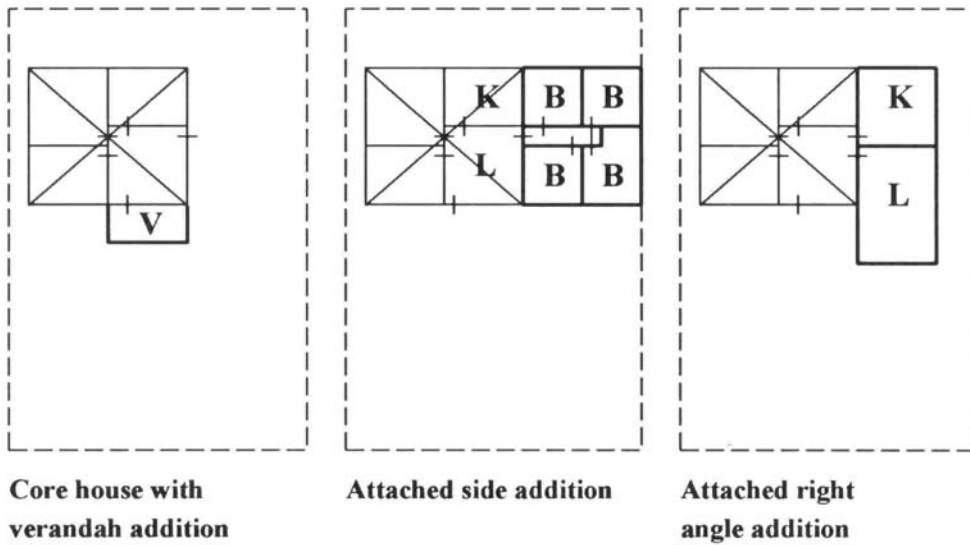


Figure 6-7: Typical extension layouts, Inanda

Table 6-16: Contiguity of Khayelitsha extensions

	Informal		Formal		All	
	N	%	N	%	N	%
Attached	33	33%	44	79%	77	50%
Separate	59	60%	9	16%	68	44%
Both	7	7%	3	5%	10	6%
Total	99	100%	56	100%	155	100%

In Khayelitsha (see Table 6-16), 60% of informal extensions were detached shack structures (Photo 6-11). One third of the informal extensions were directly attached to the houses. Around 80% of formal extensions have been built directly onto the core house. A significant proportion of residents had both formal and informal extensions (not indicated on the table). Of the 26 households in this situation, 22 of them had an attached formal extension, and a detached informal extension. The order in which extensions were built, for example, whether informal extensions are built first and then formal extensions were built later, will be investigated below.



Photo 6-11: Detached, backyard shack

In Khayelitsha informal extensions also tended to be built behind the house (81% of informal extensions)(Photo 6-11). 14% of informal extensions were built to one side of the house (space having been created by the designers for this purpose through the relaxation of building lines)(Photo 6-12 and Figure 6-8), and only 4% were built adjacent to the road. In contrast, 13% of formal extensions were built next to the road, 14% to the side of the house, 14% both front and back, and 63% behind the house.



Photo 6-12: Garage extension to one side

Although site sizes were smaller in Khayelitsha, virtually all sites were completely flat. Thus the on-site area available for extension was not constrained by topography, as in Inanda Newtown. A main constraint was, however, the position of the core house. All houses were placed one metre from the one side boundary and then at varying distances from the road. The choice of whether to extend towards or away from the road was largely determined by this positioning, a choice in which the residents had no say initially. The streetscape of Khayelitsha had not changed as much as Inanda Newtown, because so many of the house improvements are positioned behind the houses. It might be argued that this was an advantage, in that it allowed the public face of the houses to remain formal, whereas the more informal building took place slightly

away from that domain. The choice to build the numerous informal extensions behind the house, away from the road, is significant. The characterisation of the predominant form of extension in Khayelitsha as a “backyard shack” is therefore an accurate one.

The summary of plan types illustrates some typical layouts (Figure 6-8).

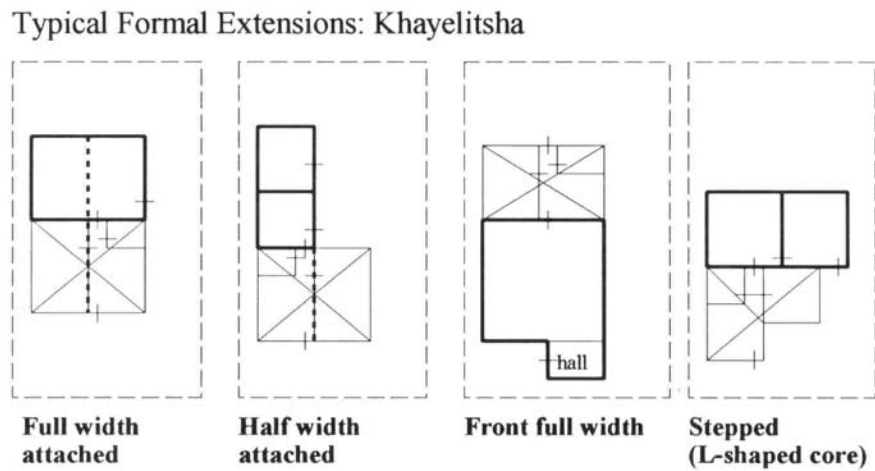
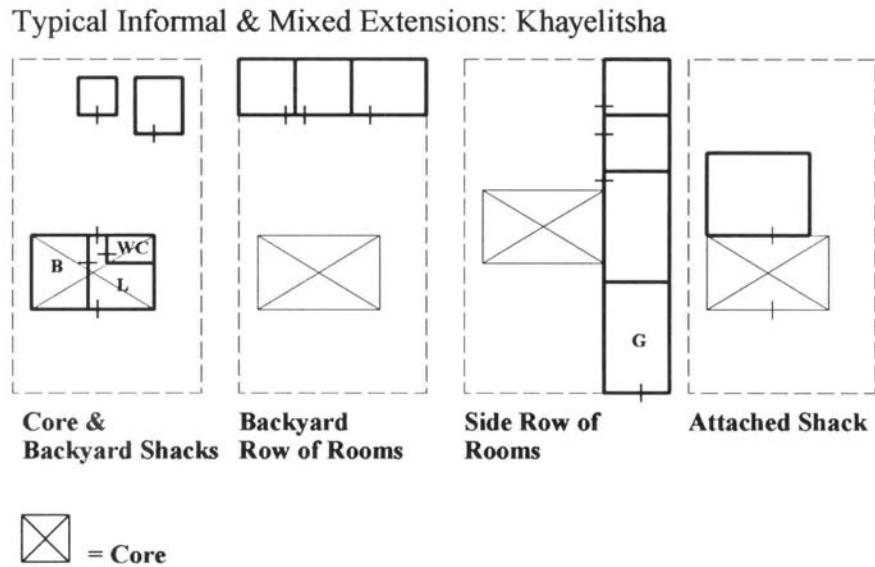


Figure 6-8: Typical extension layouts, Khayelitsha

The roof form of the original cores was a major determinant of the form of the extensions, with the ridge of extensions often linking with the original house.

The internal plan layout of the different core houses leant itself to extension. Despite this many people had moved doors and windows in the original houses in order to accommodate their individual designs (see Photo 6-13).



Photo 6-13: Khayelitsha windows, door and roof alterations

Overall, the proportions of extension types in the two settlements differed substantially. However there was a general tendency in both settlements for people to build informal extensions separately from the original house, and to attach formal extensions directly to the house. As has been seen, there was also a tendency to build formal extensions in more visible positions. One explanation for these patterns would be that formal extensions were being used by residents to improve the identity of the house and hence their status as a household in the community. This was supported by the visual appearance of the formal extensions (Photo's 6-14) in that the designs and decoration were more elaborate than for informal extensions. Informal extensions on the other hand, tended to be more hidden and used to add usable space rather than status. This was in contrast to Latin American examples reviewed previously where attention to the design and elaboration of some informal extensions was almost as great as for formal extensions (Kellett and Napier, 1995). Further qualitative research would be necessary to establish the actual role of formal extensions as expressions of status in the South African context.



Photo 6-14: Formal extensions as expressions of identity - both settlements

Rooms and space added

The types of extensions added gives a broad brushed idea of what residents have done. A more sensitive measure of this activity can be found by looking at the amount of space added and how it is used. The amount of space can be indicated simply in terms of the number of square metres built. Two definitions of space use are utilised here: habitable space and non-habitable space:

- Habitable space is defined in this study as any roofed room in which people are likely to sleep (e.g. bedrooms, living rooms, kitchens and spaces used for commercial purposes during the day);
- Non-habitable space is defined as rooms or spaces in which people are less likely to sleep (e.g. bathrooms, toilets, passages, staircases, stores etc.).

External spaces such as verandas, carports and gardens are excluded for the purposes of this particular analysis. The space added should be compared in each house with the amount of space in the original core house. This leads to the following conceptual diagram of space types (Figure 6-9).

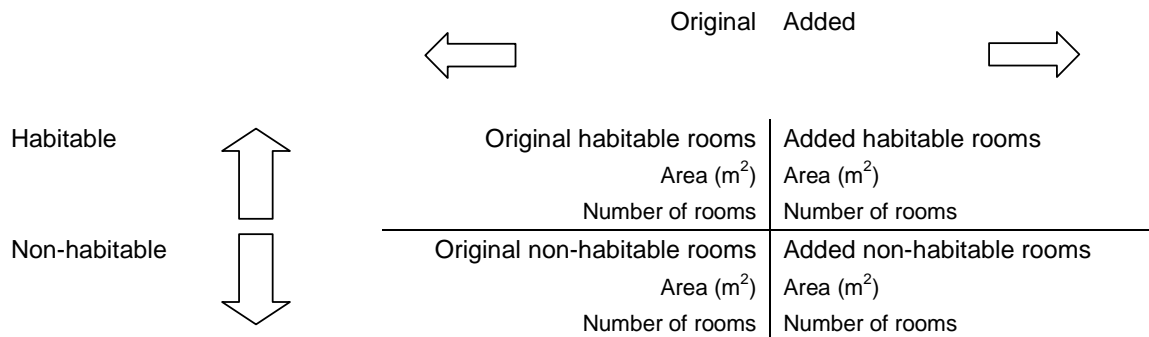


Figure 6-9: Space types

Looking first at the number of rooms and areas added, it is evident that those who had extended had expanded their original houses considerably.

Inanda Newtown households (see Figure 6-10) started with 5 original rooms (4 rooms in the house seeing that most people had subdivided the shell house, the fifth room being the outside toilet). They started with an average of 43m² (internal space). Taking only the households in the sample who have added rooms, the averages added were 2.2 rooms and 24.7m² (habitable and non-habitable). This represents a 44% increase in the number of rooms, and a 58% increase in the space available. The small number of people with informal extensions had increased their space by 36% (17m²) by adding an average of 1.6 rooms to their houses. People with formal extensions added 63% more space (26.6m²) to the original house, and on average 2.4 rooms.

The total size of extended houses counting both the original house and the additions was 67.7m² in Inanda Newtown. Informally extended houses were noticeably smaller (60m²) than formally extended houses (69.6m²). Taking the smallest site size in Inanda Newtown (180m²), this means that coverage was on average only between 33% and 40% of the site area. However, building platforms cut out of the steep land usually only allowed about half of the site to be built on, meaning that about 75% of the buildable area was used. Second storeys were extremely rare in Inanda Newtown.

Most of the space added in this way was habitable space. On average, 1.95 habitable rooms and 21.9m² of habitable space was added to houses where there was some kind of extension (76% of

rooms added were habitable). Informal extensions averaged 1.5 habitable rooms (and an average area of 17.1m²) and formal extensions were typically 2.2 habitable rooms (24m²). The areas of non-habitable space are best analysed in terms of what services had been added (such as toilets and bathrooms). There was generally very little of this type of addition, and this is discussed below in the section on "Services Added".

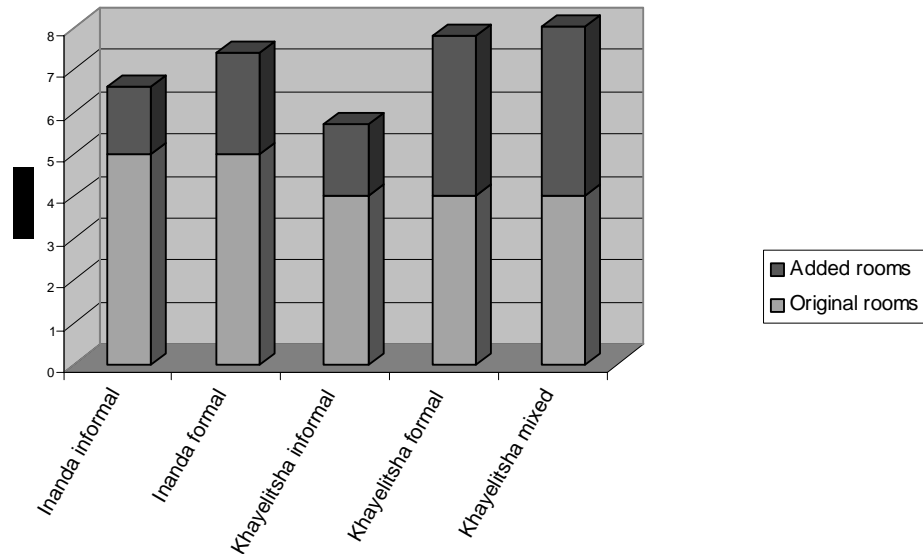


Figure 6-10: Average number of rooms added

Khayelitsha residents (see Figure 6-10) started with 4 rooms (counting the bathroom). The average amount of space available in the cores was 26.45m². Taking only the people who had extended, households had on average added an extra 2.8 rooms and 30.44m² (habitable and non-habitable). This meant that households had increased the number of rooms by 75% and the areas of their houses by an average of 115%, or more than doubled the sizes of their houses.

Informal extensions had an average of 1.7 new rooms, and areas had increased by 71% (19.8m²). Formal extensions had an extra 3.8 new rooms which had increased the house size by 137% (38.1m²). Mixed extensions had 4 new rooms and houses were 167% larger (44.1m²).

The total size of extended houses in Khayelitsha was 56.9m². Again, informally extended houses were noticeably smaller (46.25m²) than formally extended houses (64.6m²). Houses with mixed extensions were on average 70.55m². Coverage was on average between 35% to 40% of the site areas (144 to 160m²).

As in Inanda Newtown, most people who had added, had built habitable space (64% of new rooms were habitable). Overall 1.97 habitable rooms and 24.5m² of habitable space had been added.

Informal extensions had an average of 1.5 habitable rooms and 18.15m² of habitable area. Formal extensions comprised 2.3 added habitable rooms and 27.9m². Mixed extensions had 2.6 habitable rooms and 33.8m² of extra habitable space.

Looking at the medians, which gives a good indication of typical houses, in Inanda Newtown people started with 4 habitable rooms and had added another 2. In Khayelitsha households started with 2 habitable rooms and have added 5 rooms. Given the average house sizes and the average household sizes, households who had extended in both settlements were achieving the same average space of 10.6m² per person. The issue of space as an indicator of quality of life is discussed in Chapter 7. Many of the figures above apply only to the people who had extended. It then becomes important to reiterate that for Inanda Newtown this only applied to 40% of households. The remaining 60% of households in Newtown had not extended at all. The situation was better in Khayelitsha with only 23% of households not managing to add space, however those people had much less space than most of the unextended cores in Newtown.

Space use

As has been seen, most households added habitable space when they extended their house. By far the most common addition was in the form of bedrooms. The table below outlines the proportions of room types for both settlements (Table 6-17).

Table 6-17: Proportions of original and added rooms

	Inanda		Khayelitsha	
	Original rooms	Added rooms	Original rooms	Added rooms
Bedrooms	43%	49%	22%	49%
Living Rooms	16%	13%	4%	9%
Dining Rooms	1%	3%	1%	3%
Kitchen	16%	11%	23%	4%
Toilet	17%	1%	12%	3%
Bathroom	2%	1%	16%	6%
Passages	3%	3%	22%	12%
Stores	2%	16%	0%	6%
Commercial	0%	0%	0%	2%
Veranda	1%	2%	0%	1%
Other	0%	0%	0%	6%
N=	985	144	941	540

What this means is that in Inanda Newtown 43% of original rooms were bedrooms and 16% were living rooms. This was purely a reflection of the design of the original core houses. Taking those rooms that had been added, almost half (49%) of all new rooms built were bedrooms and 13% of new rooms built were living rooms. Many new kitchens and store rooms had also been added. On the

other hand there were very few new toilets and bathrooms, and almost no spaces devoted exclusively to commercial uses.

Using the habitable / non-habitable definition used in the previous section, it emerged that 76% of the rooms added were habitable. The remaining 24% of new rooms, many of which were store rooms, were not habitable.

In Khayelitsha the proportion of bedrooms in the original houses was lower at the outset (22%). Almost half (49%) of new rooms were bedrooms. A fair number of living and dining rooms had also been added (totalling 11% of added rooms), but very few kitchens. More toilets and bathrooms had been added (totalling 9% of new rooms) than in Inanda Newtown (only 2%). Again the proportion of stores had increased significantly. In both case studies it appears that the original house designs underrated the importance of storage spaces.

In Khayelitsha a small proportion of spaces (1.67%) had been built for commercial purposes. 64% of new rooms were habitable and 36% were non-habitable.

Another aspect of the use of rooms is whether the main household used the rooms, or whether they were occupied by a lodger. Only 3.3% of rooms in Inanda Newtown were occupied by lodgers (remembering that 4% of households said they had a lodger). Another 3.5% of rooms were used by tenant households who occupied the whole house. In Khayelitsha only 1.3% of rooms were occupied exclusively by lodgers although almost 5% of households said they had lodgers. Lodgers mostly used rooms that had been added by the main tenants or owners of the house.

Services added

The Inanda Newtown area began with low levels of services, with the idea that these be upgraded in time. All houses had to draw water from street stand pipes. All sites had pit toilets (Photo 6-15).

By 1996, at the time of the survey, 58% of houses had their own water supply connections. Only between five and seven percent of houses had been connected to sewers or septic tanks, and had flushing toilets. 91% of houses had electricity supply, and 45% had telephones. This indicates good progress with certain of the services. The main areas of concern, however, were the completion of the sewer so that water supply and upgraded toilet systems could be installed in more houses, and the upgrading of roads and the stormwater management system. These issues were reflected in people's attitudes to living in the neighbourhoods, as discussed in Chapter 7.



Photo 6-15: Inanda pit latrine

Khayelitsha was highly serviced from the outset. All houses had their own water supply and flushing toilets. They did not however have electricity. At the time of the survey, almost 20% of households had added an extra toilet or bathroom. Almost all houses had electricity (97%) and 54% of houses had a telephone. A telephone can be viewed as a luxury item. It was interesting to note, therefore, that 70% of formally extended houses had phones, while only 41% of informally extended houses and 43% of unextended houses had them.

Condition of additions

So far in this study, what was added has only been classified in terms of materials used (formal or informal) and in terms of use. The extensions that people made were also assessed for whether they were structurally sound, and whether they were in a good condition. Although many extensions made were informally built, this assessment was intended to give a measure of the adequacy of the built additions, in other words, was adequate housing being created in construction terms?

Three descriptions of structural soundness and condition were used: "good", "adequate" and "poor". In structural terms, "poor" would indicate that the structure could possibly fall down (see Photo 6-16). Minor cracking that was not threatening the structure would result in an "adequate" rating. The surface condition of walling was also assessed. A poor condition would refer to plaster falling off the walls, or signs of damp penetration.



Photo 6-16: Poor structural condition

In Inanda Newtown only 16% of extensions were in a poor structural condition. This meant that 84% of what people had built was either adequate or in good structural condition. There was a marked difference in formal and informal extensions. Only 3% of formal extensions were structurally poor, half were adequate and the remainder were structurally good. In contrast, 21% of informal extensions were structurally poor, 62% were adequate, and 17% were good. The surface condition of extensions was on the whole good. Overall, only 19% of extensions were in poor condition and, again, most of these were in the informal extension category.

What was also interesting, was that more of the original houses of people who had not extended, were in a poor structural state (11%), than people who had added informal (4%) or formal extensions (3%). The activity of adding more space seems to have been accompanied by the maintenance of existing houses.

In Khayelitsha 12% of extensions were in a poor structural condition. The remaining 88% of extensions were structurally adequate or good. Only 4.5% of formal extensions were structurally unsound, but 17% of informal extensions were unsound. As could be expected with a mass built

group of houses, virtually all of the original houses were in an adequate (20%) or good (78%) structural condition.

The surface condition of 11.5% of houses in Khayelitsha was poor. 16% of informal extensions were in poor condition, and only 3% of formal extensions. Overall, over half (56%) of all houses were in an adequate condition, and the remaining one third (34%) were in a good condition.

Essentially then, around one fifth of the informal extensions in both Inanda Newtown and Khayelitsha were structurally inadequate. *That the large majority of remaining, resident-initiated structures (both formal and informal) were structurally sound, can be viewed as evidence of the production of adequate housing by those residents, at least in physical terms.*

Other improvements

Of course the addition of built space is not the only change that people make, as Strassmann (1982) demonstrated. It would be a mistake to measure consolidation only through space added to houses. Much investment has gone into improving the original house in other ways (see Table 6-18).

Table 6-18: Other improvements

	Inanda		Khayelitsha	
	N	% of total	N	% of total
Internal sub-division of house into rooms	124	62%	35	15%
Upgrading of finishes, like plaster or paint or ceilings	147	74%	222	93%
Changes to doors	71	36%	69	29%
Changes to windows	54	27%	71	30%
New roof	36	18%	78	33%
Additions of roofed open spaces like verandas	11	11%	13	5%
Addition of services, such as bathrooms, toilets etc.	9	5%	47	20%
Total number of households	199		238	

In Inanda Newtown the shell houses were designed to allow the addition of internal walls. The majority of people in these kinds of houses had made this addition, with 62% of households overall adding internal walls (Photo 6-17). Upgrading of finishes was also allowed for in the design in that walls were not plastered or painted in many of the houses, and again the response has been good, with almost three quarters of families upgrading finishes in some way. The relatively low proportion of people in Inanda



Photo 6-17: Inanda interior – curtains as room-dividers

Newtown who have built on extensions, is balanced against this very high proportion of more minor improvements. The choice in Inanda Newtown was to build more spacious houses with low levels of finish and service, and the hoped for improvement of those houses by residents has taken place.

Most people in Khayelitsha (93%) have upgraded the finishes of their houses. The addition of services, as seen above, is also fairly common (20% of households). Internal sub-division is less common, but this is to be expected with the core rather than the shell design of the original houses. Only 8% of households had made no improvements to their houses.

The figures above on house improvements were gathered in two ways: through observation by the site surveyors and by asking the respondents what they had done. Both sets of responses support the picture presented here. Small numbers of people also added garages (around 3% in both settlements) and home-based shops (1% in Inanda Newtown and 2% in Khayelitsha) although when space uses were plotted, very few spaces were devoted exclusively to the shop. This pattern was reflected in other, more recent South African research (Napier and Mothwa, 2000). If asked about home-based enterprises as a broad set of activities (rather than as a space use), the incidence would most likely have been much higher.



Photo 6-18: Khayelitsha crop cultivation

The sites on which the houses stand had also been improved in other ways. Almost 40% of Inanda Newtown residents had built fences around their properties. 69% of residents had gardens, and 40% cultivated crops on their site (Photo 6-19). Khayelitsha sites had concrete fences originally. 35% of households had added more fencing or hedges, only 50% had gardens, and 17% cultivated crops (Photo 6-18). Basically, Inanda Newtown as a settlement has a much higher level of greening than Khayelitsha both because of the climate and soil conditions and because of the efforts of the residents.



Photo 6-19: Inanda crop cultivation

6.4 The consolidated settlement

Up until this stage, the analysis of physical improvements has been at the level of the individual site. This analysis has been based on the sampled household survey. The aerial survey conducted prior to the household interviews included the whole of both settlements. At this level, certain patterns of development were observed. Observations about the influence of contextual elements such as the

proximity to opportunities and the influence of neighbours, can be surmised based on the emerging morphology of the settlements.

It becomes evident that people do not act in isolation when they decide to change their houses, but are influenced through flows of information between friends and neighbours as is also seen in the next section.

Inanda Newtown settlement patterns

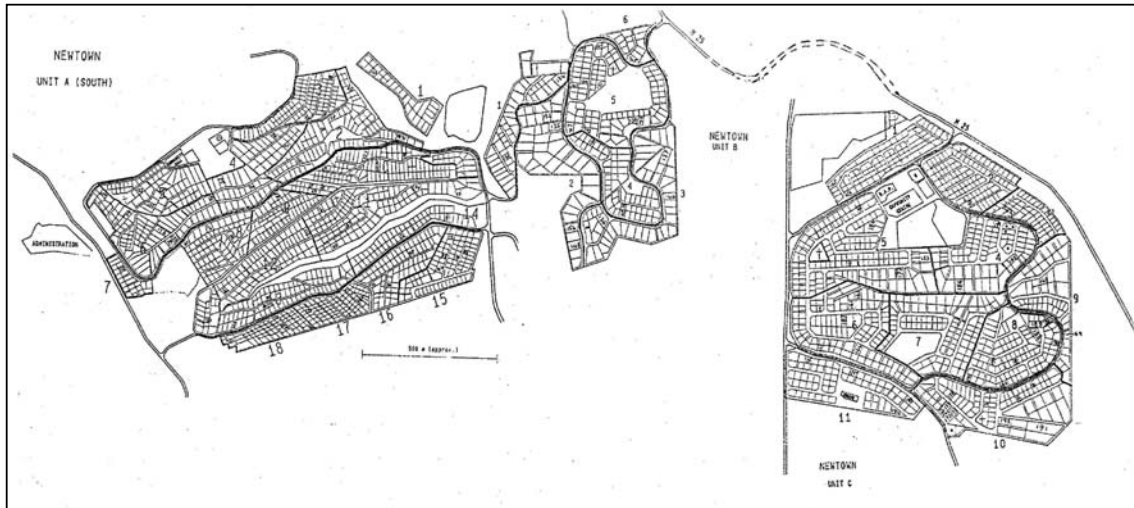


Figure 6-11: Inanda Newtown Units A, B and C

Firstly, as noted, Inanda Newtown was developed in phases: Unit A first, and then Units B and C. The possibility that Unit C had been settled by better-off residents was raised by the town planner for the settlement, Simon Vines, early on in the study. To establish whether this was the case, or whether other factors may also have resulted in differing tendencies in areas, the extension types were separated according to residential area (Table 6-19). In all of these observations it should be noted that Unit B is very small (271 houses) compared to Unit A (2385 houses) and Unit C (901 houses)(Figure 6-11).

Table 6-19: Inanda extensions by neighbourhood (aerial photography)

	Unit A		Unit B		Unit C		All Newtown	
	N	%	N	%	N	%	N	%
Unextended	1304	55%	194	72%	470	52%	1968	55%
Informal extension	357	15%	21	8%	107	12%	485	14%
Formal extension	724	30%	56	21%	324	36%	1104	31%
Total	2385	100%	271	100%	901	100%	3557	100%

Unit A had the most shack extensions (15%), with Unit C second at 12%, and Unit B with significantly fewer at 8%. Units A and C had similar proportions of unextended houses (55% and 52%) while Unit

B has significantly more (72%). This would tend to support the earlier observation about downward raiding, with Unit C showing a low proportion of shack extensions and the highest proportion of formal extensions. The reason for the large proportion of unextended houses in Unit B could include constraints arising from the relative steepness of sites in Unit B and possibly the levels of violence experienced by residents in that area (see Byerley, Hindson and Morris, 1992).

The high incidence of unextended houses in Unit B was reflected in the low incidence of formal extension (only 21% as against 30% and 36% for Units A and C respectively). So overall, the observation that Unit C was better off in terms of the extension from 4-room houses to larger houses was supported by the aerial survey.

Looking now at the spatial groupings of houses, it was anticipated that there would be some grouping of extension types around certain features (see appendix F). For example, corner sites can be used for home-based shops, and shack rental can be more prevalent near public transport routes, although in both cases these potentials had not yet been realised by residents. Nevertheless the maps of house types were analysed for the following:

- grouping of more extended houses along bus and taxi routes;
- grouping of more extended houses along main roads;
- grouping of more extended houses around activity nodes such as public amenities;
- occurrence of larger houses on street corners;
- direct adjacency, or "clustering", of particular house types; and
- general grading of extent of additions away from important routes or nodes.

The patterns anticipated were not as marked as expected, however some significant findings did emerge (see appendix F for the maps of house types). In Inanda Newtown Unit A, it was common to have clusters of four to ten formally extended houses. There were ten such clusters in the area. This would seem to indicate that residents were influenced by the type of extension made by their neighbours, and that extension activity on one plot may even have stimulated action by others living on adjacent plots. This was supported by the information about the flows of information and advice between neighbours described below.

In one extremely steep section of Unit A there was a large cluster of 53 houses that were not extended at all (Photo 6-20). Most of the other houses (20) in the area had only backyard shack extensions. Despite the residents in this area having larger plots to make up for the slope, the topography had clearly limited what could be done by the people living there.

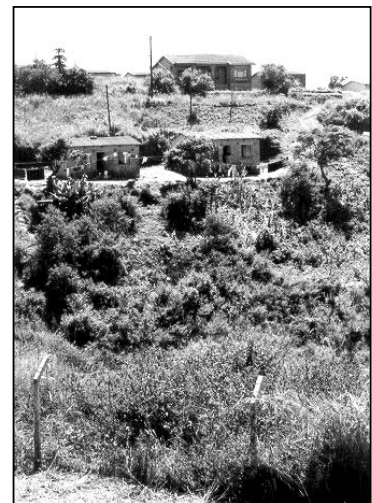


Photo 6-20: Steep Inanda slopes and lack of consolidation

There was also a high incidence of large remodelled houses in the north western corner of the area. These were scattered evenly through this area, and not clustered. This might indicate the increased prestige of having a site with a high elevation or proximity to the main road, although the latter was not found to be the case in Unit C.

The houses of Unit B, a small section of the total, were generally less extended than in the other units, and large clusters of unextended houses were noticeable. The small number of formally extended houses were scattered throughout the area. The higher incidence of formally extended houses in Unit C was further characterised by the clustering of these houses. There were four large clusters of this kind. There were also clusters of unextended houses and what was conspicuous was that they were located on the eastern fringes of the neighbourhood adjacent to the main road (route M25) and to the adjoining shack areas (see map above). Given the transitional nature of the settlements nearby, both socially and physically, this lack of development might indicate a feeling of insecurity on the part of those residents who then were less willing to invest further in their houses. Further qualitative research would be necessary to establish whether this hypothesis is accurate, although this idea was supported by civic association members who were interviewed.

More formally extended houses were located along main bus routes and were noticeably clustered around the complex of public facilities in the northern half of the area. The better quality of housing in Unit C was evident, and apart from other possible explanations, it should be noted that the land is flatter and easier to build on than in Units A and B. Generally speaking, topography was observed to be a major determinant of extension type in Inanda Newtown. This contrasted with the flat sites in Khayelitsha which allowed greater flexibility. The clustering of extension types which is interpreted as evidence of the influence of neighbours is particularly noticeable in Inanda Newtown.

Khayelitsha settlement patterns

Town 1 of Khayelitsha, which was the subject of this survey, is functionally separated into two domains: Village 1 and Village 2 (Table 6-20). They are separated by the railway running along the spine of Khayelitsha, were built at slightly different times, and had different core house types. Village 2 had only the Besterecta houses, and Village 1 had a mix of the three core types. In Village 1, the aerial survey covered 2701 sites, and in Village 2, 2260 sites were classified (see appendix F).

Table 6-20: Khayelitsha extensions by neighbourhood (aerial photography)

	Village 1		Village 2		All Khayelitsha	
	N	%	N	%	N	%
Unextended	664	25%	639	28%	1303	26%
Informal extension	1390	51%	1162	51%	2552	51%
Formal extension	647	24%	459	20%	1106	22%
Total	2701	100%	2260	100%	4961	100%



Figure 6-12: Village 2 layout

From the aerial analysis, Village 2 (Figure 6-12) had shown slightly less formal development than had Village 1. This was indicated by more unextended core houses (28% as against 25% in Village 1) and less formal extensions (20% as against 24%). The levels of backyard shack development were remarkably similar (51.5% in Village 1 and 51.4% in Village 2) possibly indicating similar demands for extra accommodation which is not as costly to construct as when using formal building methods.

The Khayelitsha maps were analysed for the same types of spatial groupings as for Inanda Newtown. Groupings of extended houses along routes and around activity nodes were noticeably absent. What was apparent and which had not been seen in Inanda Newtown was the high incidence of formally extended houses on residential



Photo 6-21: Corner shop being built

block corners (Photo 6-21). In many cases, corner sites in Khayelitsha are larger, lending themselves to more extensive development, but the increased exposure to opportunity afforded by a corner position was likely also to have played a part. The slightly higher incidence of home-based shops in Khayelitsha could be one explanation for this.

There were nine clusters of formally extended houses in Villages 1 and 2, consisting of between four and fourteen houses. With the high level of backyard shack development in Khayelitsha generally, there were also clusters of shack extenders. Neither of the cluster types were located in a way that may have easily explained their existence (e.g. near public facilities) other than that they may again have been cases where neighbours built in similar ways to one another.

What was expected was that the strong spine arrangement of the transport layout of Khayelitsha would have an impact on house type, especially the building of shacks for rental and commercial purposes. In subsequent analysis, it became clear that shack rental was fairly rare at the time of the survey.



Photo 6-22: Khayelitsha railway

To analyse for this possibility, the street blocks that made up Villages 1 and 2 were classified in two ways: firstly working horizontally on the map from west to east they were rated as being near to the boundary road of the area, in the middle of the village or near to the railway line (see Photo 6-22); secondly each block was rated for proximity to the railway station: near (600m), middle distance (1km), and distant (1.5-1.8km).

Table 6-21: Extension types by distance from transport spines

		Unextended	Informal Extension.	Formal Extension.	Total
Village 1	Near perimeter road	23%	53%	24%	100.00%
	Middle of village	24%	50%	26%	100.00%
	Near railway line	29%	52%	18%	100.00%
Village 2	Near perimeter road	29%	53%	18%	100.00%
	Middle of village	29%	50%	21%	100.00%
	Near railway line	26%	54%	21%	100.00%

For the first type of spatial analysis (see Table 6-21), most informal extensions were found alongside the railway and the perimeter road (between 52 and 53% in both villages). The highest incidence of unextended houses was near the railway in Village 1 (29%) and in Village 2 the lowest incidence was near the railway line (26%). The results therefore did not show any particular trend. In the middle blocks of both Villages there was generally slightly less shack development and noticeably more formal development (26% and 21% in Villages 1 and 2).

So a pattern has emerged of more informal development along transport routes, but also of higher levels of households with no extensions. It is possible that the prospect of a more active rental market may have stimulated the growth of informal building near main routes even if this had not yet materialised. People away from transport routes had managed to consolidate their houses more formally.

The second spatial analysis based on concentric distance from the railway station did not yield convincing results. In Village 2 there was an unexpected result in that near the station there was a lower level of backyard shack development (32%) than in the distant street blocks far away from the station (38%). Looking at the results, generally proximity to the station was not significant in the stimulation of shack development, whereas proximity to main road routes was.

Physical consolidation summary

Comparing the two case studies, it becomes evident that less Inanda Newtown residents extended the area of their houses than Khayelitsha residents. However, other types of improvements, particularly the internal subdivision of shell houses were common in Newtown. Most extension that did take place in Khayelitsha made use of informal materials. In contrast, very little informal extension occurred in Inanda Newtown (see Chapter 7 for discussion). Formal extension happened to a similar degree in both places. There was evidence that people who extended their houses were more active in maintaining their original core houses.

In both case studies most of what was built (between 84 and 88%) was structurally sound. Resident-driven consolidation of core housing was therefore producing in most cases adequate housing in material terms.

6.5 Process

The consolidated 'product' at house and settlement level has been described above. How did people achieve this in process terms? In other words, what portfolios of assets were drawn on to achieve individual extension projects?

Tenure and refinancing

Before describing the process, a key issue of context or locality was the way in which tenure had changed by 1996. In Inanda Newtown functionally secure tenure had been granted from the outset, and therefore the only changes were in the form of new residents who had bought into the area. The majority (62%) of new residents who had moved in more recently, bought their houses from existing residents. However, a significant number (36%) said that they bought from the local authority.

In summary, the tenure situation in Inanda Newtown was as follows at the time of the survey (Table 6-22).

Table 6-22: Tenure in Newtown in 1996

	Original residents	New residents	Overall
Owner	92%	90%	92%
Rent from Municipality	7%	0%	6%
Rent from Owner	0.6%	7%	2%
Other	0%	2.4%	0.5%
N=	157	41	198

It is likely that the people who described themselves as renting from the Municipality were referring to the loan they were still paying off. Private ownership was therefore the dominant tenure type giving the security of tenure usually held to be the most significant precondition for personal investment (see Chapter 2). It is notable that 7% of newer residents were tenants of original residents.

As stated in the last chapter, virtually all original Khayelitsha residents (94%) rented their houses from the municipality at the outset. As described in Chapter 4, properties were offered nationally to township residents for sale from 1986. Most Khayelitsha residents confirmed that they had been given the option to buy their houses, but 22% said that they had not (see Table 6-23). The decision to buy one's house was, and probably still is, a political issue in Khayelitsha. The historical boycott of rents meant that residents stood to gain by not owning their houses. So what was the take up of the offer to buy houses?

Table 6-23: Tenure in Khayelitsha in 1996

	Original residents	New residents	Overall
Rent from Municipality	82%	47%	73%
Owner	16%	37%	22%
Rent from Owner	0.6%	12%	3%
Other	1%	3%	2%
N=	178	59	237

The situation at the time of the survey was that 82% of original residents still rented their houses from the municipality. Only 16% of original households had chosen to buy their houses. Just under half of more recent settlers rented from the municipality, with 37% owning their houses. A significant proportion (12%) rented from an absent owner.

When asked, most people who had not bought, said that they did not have the money to buy (59% of residents said this), or that they were expecting the government to fulfil a promise to give them the

houses (6%). The remainder of residents declined to answer (19%), or said that they intended moving elsewhere or that the house was too small for their needs (6%).

Those Khayelitsha residents who had bought, had accessed finance from the following sources (Figure 6-13).

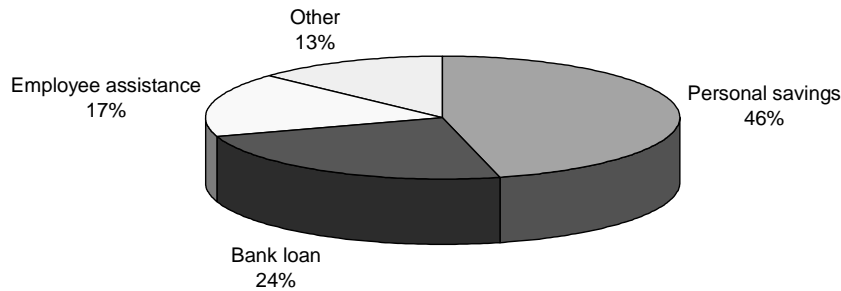


Figure 6-13: Sources of finance for purchasing Khayelitsha houses

Although the overall number of house purchasers was very small, nevertheless the role of bank loans and employee assistance in securing tenure was significant.

Tenure had therefore not consolidated fully in Khayelitsha, at least from the point of view of the authorities who took the position that private ownership was the ultimate end to be achieved in the transferral of responsibility for housing to the resident. The ongoing insecurity of tenure in Khayelitsha over the consolidation period is likely to have exerted a significant effect on the projects of households, and must have been one of the factors in the ongoing impermanence of extensions in that area. In Inanda Newtown people who classed themselves as renters had not consolidated quite as much as people who saw themselves as owners (69% of renters had not extended and 61% of owners had not extended). In Khayelitsha the patterns were much more marked. People who were still renting from the municipality by 1996 were twice as likely to have left their houses unextended when compared to people who had bought their houses. A full 25% of municipal renters were non-extendors while only 12% of owners were non-extendors. This difference between Newtown and Khayelitsha forms part of the explanation for the observed differences in resident responses in the two neighbourhoods.

Who built extensions?

The analysis of most process issues is done according to the extension types. In this way the four streams or pathways are viewed for whether there were significant differences in the process of achieving different products. Firstly, residents who had extended were asked who built the extensions. Each extension was classified accordingly (Table 6-24).

Table 6-24: Builders of extensions

	Inanda Newtown				Khayelitsha			
	Informal	Formal	Mixed	All	Informal	Formal	Mixed	All
Self-build	33%	23%	0	23%	31%	14%	22%	24%
Builder	67%	77%	100%	77%	58%	81%	69%	68%
Both	-	-	-	-	10%	5%	8%	8%
N=	15	35	7	57	77	57	36	170

Overall, 77% of extensions in Inanda Newtown were built by builders (e.g. Photo 6-23). Only 23% were built by people themselves. The balance of self-built to contractor-built was the same for formal extensions. As expected, more informal extensions were built by people themselves. However, this was still not a majority and two thirds of informal extensions were built by builders.

The figures were similar for Khayelitsha, with just less than a quarter of people building their own extensions. Almost a third of households built their own informal extensions and only 14% of people built their own formal extensions. It is interesting to note that between 5 and 10% of people chose to use both their own labour *and* that of a contractor. In both case studies, the builders that dominated the building of extensions were informal builders who were unrecognised by the formal construction sector. However, the quality of extensions, as seen above, was generally fairly high.



Photo 6-23: Who builds extensions?

Sourcing of building materials

In many cases where informal builders were used, residents sourced their own building materials (79% in Inanda Newtown and 92% in Khayelitsha). This was similar to informal building habits observed in many other parts of the world where residents stockpile their own materials as a form of stored asset prior to construction. Respondents who had extended were asked, “Where did you get the materials to build your extensions?”. The following were the responses (Table 6-25).

Table 6-25: Sources of building materials

	Inanda Newtown				Khayelitsha			
	Informal	Formal	Mixed	All	Informal	Formal	Mixed	All
Formal materials supplier	33%	72%	75%	62%	33%	85%	63%	57%
Local informal supplier	42%	28%	25%	31%	61%	13%	33%	39%
Donated or salvaged	25%	0%	0%	7%	6%	2%	3%	4%
N =	12	29	4	45	72	55	30	157

Given the number of responses, it appears that even though most households got a builder to help add on to their houses, many of those people were involved in the process through purchase of their own materials and site management. The picture in Inanda Newtown and Khayelitsha was remarkably similar. Informally extended houses got two thirds of their materials from local suppliers or salvaged that material. In Durban it was more common to salvage material for shack building (one quarter of home builders did this). Given that the predominant informal building materials in Inanda Newtown were plywood, timber and earth, the higher level of salvaged materials was to be expected. In Cape Town only 6% of households salvaged material for informal building. There, the use of timber was also common but instead of salvaging this or using collected materials (such as gum poles) people were buying this and corrugated iron sheeting from local informal and formal suppliers.

Most formal extenders bought materials from formal suppliers (Photo 6-24). However, the informal suppliers' market share for formal extensions was also significant (28% in Newtown and 13% in Khayelitsha). Overall, almost two thirds of residents purchased from formal materials suppliers, around one third (30 to 40%) bought from informal local suppliers, and 3 to 6% of households salvaged natural or waste materials.

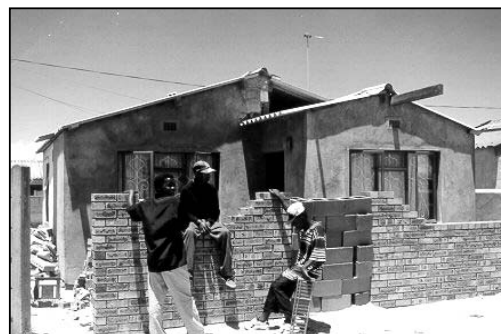


Photo 6-24: Use of formal materials, Khayelitsha

Building skills within the household

The link between whether people built informal, formal or no extensions, and the level of building skills available in a household was investigated. Respondents were asked what building skills they had available from within their household. Percentages shown are as proportions of all households in each extension category (Table 6-26).

Table 6-26: Building skills in Inanda Newtown households

	None	Informal	Formal	Mixed	All
Brick/ block laying	11%	12%	18%	20%	13%
Plastering	12%	16%	10%	0%	12%
Plumbing	5%	8%	10%	0%	6%
Traditional	4%	12%	5%	0%	5%
All skills	2%	8%	10%	0%	5%
No skills	78%	52%	77%	60%	72%
Other skills	6%	4%	15%	40%	8%
N =	124	25	39	5	198

Looking at the no skills category, people who had added informal extensions were most skilled with around half of all households having one or more skills available. More than three quarters of the

people who had no extensions or formally built extensions, had no building skills. However, one area in which formal extenders outshone their counterparts was in the possession of brick and block laying skills. Informal extenders on the other hand had more traditional building skills, as was reflected in the use of wattle and daub construction described above.

Table 6-27: Building skills in Khayelitsha households

	None	Informal	Formal	Mixed	All
Brick/ block laying	6%	9%	7%	8%	8%
Plastering	7%	7%	4%	12%	7%
Plumbing	6%	3%	0%	8%	3%
Traditional	4%	6%	0%	8%	4%
All skills	4%	1%	2%	4%	2%
No skills	93%	80%	88%	85%	84%
Other skills	0%	1%	2%	0%	1%
N =	54	99	56	26	238

Khayelitsha residents had less access to skills within households than households in Inanda Newtown (see Table 6-27). Households with no extensions were particularly badly off with 93% of households having no available building skills. Again, people with informal extensions (which represent a much larger proportion of residents than in Newtown), had better access to building skills when compared to households with other extension types

Costs and financing of extensions

Respondents were asked what they had spent on each extension to their house. The following tables (Table 6-28 and 6-29) draw a distinction between people who added formal extensions, and those who added impermanent, informal extensions. All amounts were corrected to 1996 values using the consumer price index.

Table 6-28: Average costs of 1st extensions - Inanda

	Informal	Formal	Mixed	All
Average	R6,029	R19,172	R33,139	R17,606
N =	7	22	3	32

On average, Inanda Newtown residents were paying around R17,600 for their extensions. The few people who added informal extensions spent just over R6000 to build them, and formal extenders paid over R19,000 to add on rooms. Although overall only about one third of residents had extended their houses, those that had had invested substantial amounts. Combining the average costs and the proportions of extension types in the area as a whole, by 1996 over R24 million had been spent by residents just on their first extensions.

The larger sample size in Khayelitsha meant that more dependable averages were attained.

Table 6-29: Average costs of 1st extension - Khayelitsha

	Informal	Formal	Mixed	Other	All
Average	R2,419	R19,746	R12,019	R20,261	R10,075
N =	57	39	20	2	118

In 1996 terms, the average expenditure in Khayelitsha of over ten thousand Rands per household on just one extension also represented a high level of investment, especially since additions were more widespread than in Inanda. As is to be expected, there was a marked difference between the amounts invested in formal extensions compared to informal extensions. While on average informal extensions cost around R2,420, people were spending more than eight times that amount on formal extensions (R19,746). Formal extenders in Durban and Cape Town were spending similar amounts on their extensions but informal extensions were much cheaper in Cape Town. In Khayelitsha Towns 1 and 2, by 1996 over R28 million had been invested by residents on first extensions at a settlement level.

The space data above indicated that formal extensions tended to be larger than informal extensions, and clearly there was also a large difference in the costs of materials used in the different types of extensions. The huge cost difference between formal and informal extensions, partly explains the popularity of the backyard shack in Khayelitsha. Local materials suppliers could supply the necessary materials at very low cost and the desperately needed extra space was thereby accessible to the large numbers of people who could not otherwise hope to consolidate the very small core houses.

Sources of Finance for Extension

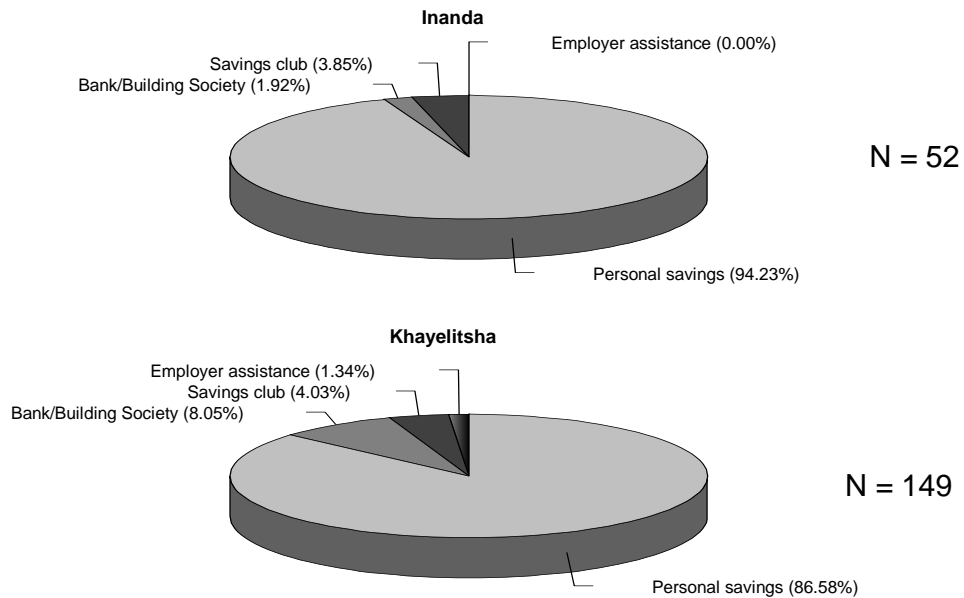


Figure 6-14: Sources of finance for extension

From where, then, had people sourced the money to pay for the improvements to their homes? The vast majority of people in both places used personal savings to finance building (see Figure 6-14). In Inanda Newtown the use of bank loans was very low, at less than 2%. In Khayelitsha it was more common, at just over 8%. Around 4% of residents in both settlements were part of savings clubs and used those funds to build extensions. Employer assistance was apparently not available in Durban, but just over one percent of people in Khayelitsha had assistance of this kind.

Dates of extensions

Given that Inanda Newtown had been consolidated by residents over 15 years at the time of the survey, and Khayelitsha for 11 years, the dates of extensions are revealing of contingent conditions (see Chapter 7). Households began to extend their houses almost immediately after occupation.

The following graph for Inanda Newtown (Figure 6-15) takes into account the fact that many people made a number of extensions over the years (Photo 6-25). It indicates the total number of extensions that took place each year in the households surveyed.

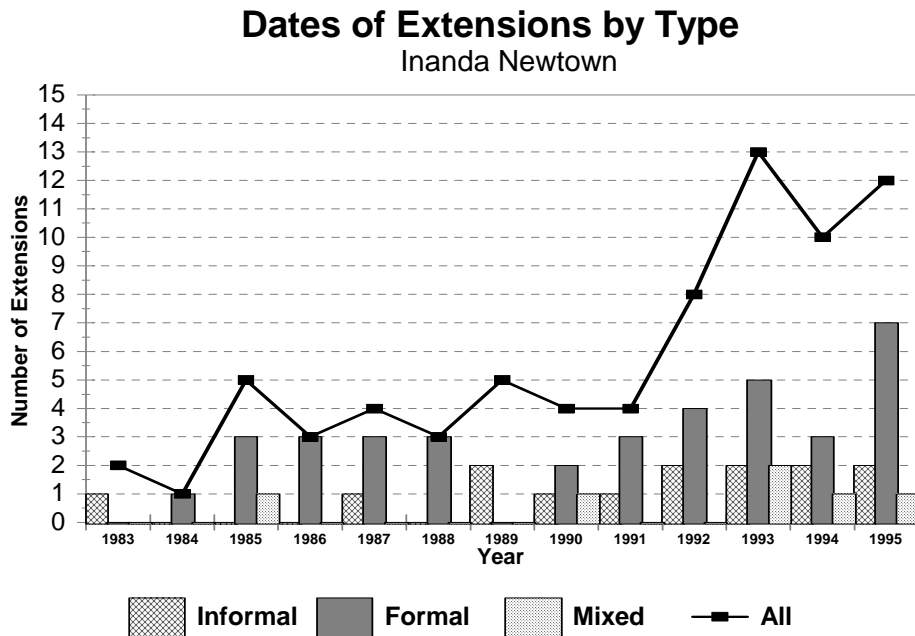


Figure 6-15: Dates of extension - Inanda

Overall, there had been a steady increase in building activity with a peak in 1993. The building of informal extensions remained uncommon throughout the period. Formal extension was more popular and was constant from 1985 until 1991. It has escalated since then.

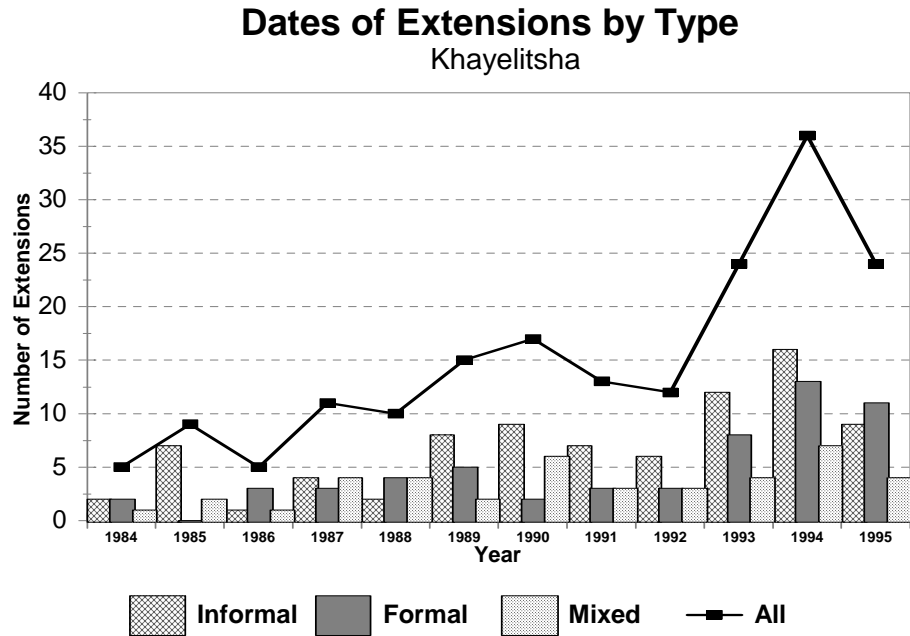


Figure 6-16: Dates of extensions - Khayelitsha

Again, in Khayelitsha, as in Inanda Newtown, there was an overall increase in extension activity with a peak in 1994 (Figure 6-16). There were peaks in both formal and informal extension activity. There was also a minor peak in informal building activity between 1989 and 1991.

The increase in extension activity after 1991/2 in both settlements may be interpreted as evidence of the relaxation of control on informal building in the areas. It is also likely that with the contingent conditions surrounding political changes at the time, that perceptions about personal freedom could have been significant in influencing the actions of residents (see Chapter 7).



Photo 6-25: Multiple extensions, Inanda

Support for extensions

The histories of both settlements show that it was the intention of planners and of government to support people's own efforts to consolidate their core housing. The contract documentation and articles at the time when the areas were being developed made much of this planned support process (see Chapter 4).

What then did residents say about what support was available to them when they wished to consolidate their houses?

First of all, respondents were asked whether they had applied for permission to build their extensions. In Inanda Newtown 58% of people did get permission to build, and the remaining 42% did not. In Khayelitsha only 32% of residents applied for permission to build extensions. As might be expected, more people with formal extensions got local authority permission (44%) than people with shack extensions (17%).

Secondly, residents were asked whether they received any form of support from the local authorities, or from building contractors when they decided to add on to their house. Bearing in mind the proportion of households who used builders (see above), in Inanda Newtown 57% of residents who extended their houses did not receive any form of advice or support. 11% of residents had a plan drawn for them (e.g. Figure 6-17) and received advice on what to build. Only 2.6% of residents took advice on building costs and where to buy materials.

Compared to the averages listed above, more people with formal extensions had plans drawn (30%), and informal builders were more likely to get advice on how to build and where to access finance (4% of informal extenders). This correlates to the higher incidence of self-build amongst informally extended house residents, and the lower incidence of self-build by formally extended house residents.

When asked who people had asked for help, 8% of formal extenders said they had asked an architect or draughts-person for advice, and 28% asked a builder. Another 8% asked their friends, while 5% asked their families. These often informal channels of information were crucial to the building up of knowledge by residents who were organising their own building efforts. A quarter of the households with informal extensions also depended on their builder for advice. None of them asked an architect or draughts-person.

In Khayelitsha 72% of residents who had extended did not get help or advice. 18% of residents had plans drawn for them, 10% had help with costing, 9% with where to get materials, and 5% with advice on how to build. Again formal extenders were much more likely to have plans drawn (38%) than people with informal extensions (5%). In fact most households (87%) with informal extensions received no help or advice.

Almost 35% of formal extenders asked advice from their builder, 9% from an architect or draughts-person, and another 9% from friends and family. Only 2% asked neighbours for advice. Very few

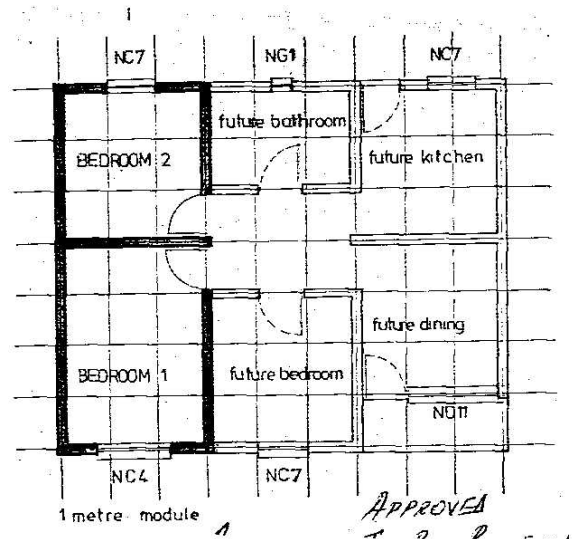


Figure 6-17: Help with drawing plans

people with informal extensions asked anyone for advice. 5% of households asked their friends or family, 3% asked their neighbours, and another 3% asked a builder.

Although in both settlements, there were significant numbers of people who accessed expert advice, the majority of households said that they had not. The situation was slightly better in Inanda Newtown where an advice office operated for a number of years, and the local authority was generally helpful. In Khayelitsha project-related support after the construction of the houses was almost completely absent and lines of communication between residents and the local authority did not appear to have been open. The proportion of households who applied for permission to build was evidence of this.

In Khayelitsha building skills, materials and advice were all predominantly sourced from the informal sector. The consolidation process was therefore driven by informal sector information and resources. This was less the case in Inanda Newtown, although as formal support gradually withdrew it also became increasingly the case.

The end of the consolidation process?

Residents were asked whether they considered the consolidation process to be complete, or whether they still intended to continue adding rooms within the next five years. Considering whether the house was seen as complete in 1996, the following were the responses (Table 6-30).

Table 6-30: Is the house complete? Inanda

	None		Informal		Formal		Mixed		All	
	N	%	N	%	N	%	N	%	N	%
Yes	41	40%	12	50%	18	53%	4	40%	75	44%
No	62	60%	12	50%	16	47%	6	60%	96	56%
Total	103		24		34		10		171	

The correlation with extension type is clear, with more formal extenders (53%) saying their house was complete than none extenders (40%). Although these proportions of respondents said their houses were complete, higher proportions said that they still intended adding rooms. Two thirds of all Inanda Newtown residents (67%) said that they still intended adding rooms as compared to the 56% who said their houses were still incomplete. The 11% difference could be accounted for by situations where people felt the house was complete but that as a matter of convenience or utility still intended to add rooms.

In Khayelitsha, the situation was as follows (Table 6-31).

Table 6-31: Is the house complete? Khayelitsha

	None		Informal		Formal		Mixed		All	
	N	%	N	%	N	%	N	%	N	%
Yes	11	21%	28	29%	26	46%	10	33%	75	32%
No	41	79%	69	71%	30	54%	20	67%	160	68%
Total	52		97		56		30		235	

The correlation between extension types is even more marked. Because core houses were so much smaller, only 21% of Khayelitsha non-extender households felt they could live in the unextended house (compared to 40% in Newtown). Overall, as expected, less people in Khayelitsha felt that the consolidation process was complete (32% as against 44% in Inanda Newtown). Small core houses and the predominance of informal extensions would explain this. In Khayelitsha there was a closer match between people intending to add more rooms and those viewing their houses as incomplete. This reflected the situation of fairly extreme pressure to extend in Khayelitsha, so that further consolidation was seen as an imperative, whereas the difference in responses in Inanda Newtown indicated that people had more of a choice of whether to respond (because more houses were viewed as complete but could still be extended).

Process observations

These patterns of building, where residents mainly used informal builders with materials sourced from the formal sector were common in other parts of the world. As discussed in Chapter 3 in the review of several researchers (e.g. Gough, 1996; Ramirez et al, 1992; Smit and Mbona, 1996), and now supported through these finding, what are considered to be self-help processes are not constructed exclusively by residents themselves, particularly during the consolidation phase.

There appears to be a link between the availability of skills and the choice to build particularly informal extensions. Households with informal extensions had built these themselves more often than people with formal extensions. They were also the people who had more building skills within their households. People with no extensions or with formal extensions generally had less building skills.

An increase in building skills through the training of residents might therefore be expected to stimulate more self-build activity. When the income levels of households are considered (see following chapter), it becomes clear that lack of building skills has hindered the building activity of the poorest people, seeing that people without extensions tend to be poorer than others. For them the lack of both finance and skills has meant that they have not added to their houses. For the people who had added formal extensions, who also tended to be better off, their access to finance meant that their lack of building skills had not stopped them from extending because they were able to hire a builder to build for them. For most people, the consolidation process was still in full swing, with only 32% (Khayelitsha) to 44% (Inanda Newtown) feeling that their houses were complete.

6.6 Summary

The information presented here shows a picture of partially consolidated settlements which have developed in very different ways in physical terms but which house communities which are remarkably similar in most of their basic social and economic characteristics. The similarity of the allocation processes which targeted young, nuclear households, combined with low levels of residential mobility in both settlements would account for this similarity. Khayelitsha residents although locationally prejudiced by their relocation to the core housing, were by 1996 slightly better off relative to the cost of living than their Inanda Newtown counterparts. While the households in both settlements could not be described as well off, on average they were living on or above the subsistence living level and well above the minimum living level. It is difficult to link the economic status of these households with location in core housing and therefore to make a final observation about the degree to which such households have been enabled by access to this housing. This is because tracking data was not available on economic status at occupation and then in 1996, and because of the complexity of the contingent conditions operating in both localities. A broader discussion of other aspects of quality of life is taken up in the next chapter. What can be said here is that *on average* most households are not living in extreme urban poverty and whatever the causes for this, it is likely that the location to core housing from the types of housing from which people originally moved, has had a broadly enabling effect.

Although households had themselves consolidated by growing at the fairly high rate of 3.1% per annum, the settlements were still accommodating mainly single households (94% in both settlements) and very low levels of lodging were observed. This was confirmed by the finding that most households felt their houses were not complete and even more intended to continue adding rooms in the next five years. In other words, the housing stock being produced through extension was mainly accommodating the internal growth of households and very little new stock was being created for extra households. This was in marked contrast to other settlement types in South Africa, particularly established townships (Crankshaw et al, 2000:846; Gilbert et al, 1997; Sapire and Schlemmer, 1990), and those in places such as Zimbabwe and Ghana (Rakodi and Withers, 1995; Tipple, 2000).

Despite similarities in the social and economic status of the occupants of both settlements, the responses in terms of the personal consolidation projects of the households were very different. The starting points in the two settlements were different in that at least topography, service levels and house types were different. The processes through which the houses were initially produced and the levels of participation were also very different. The responses in Inanda Newtown have been to improve houses internally and then, if extensions were built, to predominantly use permanent materials. Informal extensions were fairly uncommon. In Khayelitsha the trend was to add space by any means possible. This was mainly in the form of impermanent extensions adding as much space as possible at the lowest cost. The market in informal building materials and services was more favourable in Khayelitsha than in Inanda Newtown making informal extensions much more affordable. As expected, the tenure situation of individual households did impact on extension activity particularly

in Khayelitsha where continued insecurity of tenure must be seen as a major contributing factor to the impermanence of extensions.

In both settlements formal extensions tended to be located in visible positions and to be attached to houses to enhance the appearance of the houses and the identity and status of the households. Most informal extensions were placed out of sight and used as utility space rather than as a status enhancing mechanism.

At the time of the survey the settlements were only partially consolidated in that the built densities were not yet anywhere near those seen in other parts of the world (e.g. Egypt, Bangladesh, India and Ghana - Tipple, 1991, 2000; Kardash, 1990; Joglekar and Subrahmanyam, no date). Double storey extensions were almost unheard of (about three cases being observed in Khayelitsha and one in Inanda Newtown) and much of the plot area remained undeveloped. Extensions in Khayelitsha remain particularly temporary in nature and most Inanda core housing remained unextended. The physical patterns of development were more like those in Zimbabwe than in other countries observed (see Rakodi and Withers, 1995; Tipple, 2000). This also corresponds to the higher levels of households which are split between urban and rural localities which particularly characterised Khayelitsha households, 45% of whom had second houses, and to a lesser extent Inanda Newtown households, 32% of whom had second houses. Again, this split is common in Zimbabwe where the incidence of backyard shacks is similar, although the incidence of lodging households or individuals was very different between the two countries.

Where extensions had been made, these were mostly of sound structural quality. Where permanent materials were being used, adequate housing in structural and service terms was being produced. Where temporary materials were being used most were of adequate or good quality but there was cause for concern about the quality of about one fifth of informal extensions in both settlements. People who had extended tended to maintain their original core houses better than those who had not. In purely physical terms then the consolidation process was in most cases achieving adequate housing.

The processes through which the housing was being consolidated were being driven mainly by small contractors. In cases where households did have building skills, they were using these to consolidate themselves, accounting for about a quarter of the extensions built in both settlements. Informal extensions were more often built by residents than formal extensions but the majority (two thirds) even of informal extensions were built by small, informal builders. The consolidation process was overwhelmingly financed by the personal savings that households had accumulated over the years. Most extensions in Inanda were built with local authority permission, but in Khayelitsha most were built without it. In Khayelitsha extension building was therefore a much more informal process leading to a less permanent product than in Inanda Newtown. This reflected the reality and perceptions of official support and sanction for consolidation in a situation which was explicitly planned to be

consolidated by residents but which was overshadowed by political circumscriptions at the time it was initiated. In the absence of official support, the informal sector of builders and informal draughts-people became the primary sources of information on how to consolidate. Friends and neighbours also played an important role as is witnessed by the spatial clustering of extension types which occurred in both settlements. Only in Inanda Newtown was the local authority seen as being supportive of consolidation and a much more permanent set of extensions had resulted.

There was evidence that external causal mechanisms such as levels of violence in certain areas had an influence on extension. This became evident when the spatial distribution of extensions was analysed. Other contingent conditions such as political events in the early 1990s must also have had an impact particularly when the dates of extensions in both settlements are observed. This is discussed further in the following chapter.

A large amount of essentially statistical data about the consolidation process has been presented. This chapter has by and large stopped short of discussing the primary causal mechanisms which would explain the nature of the consolidation process in the two case study settlements. It has simply presented the situation in 1996 at the time of the survey by describing the resident households, the consolidated houses and settlements, and the processes through which this was achieved. The following chapter discusses the motivations and possible explanations for the products and processes of residential consolidation, trying to link the factors described above into a more causal relationship.

7 The motivations for, and effects of, consolidation

7.1 Introduction

The discussion of causal mechanisms and contingent conditions in Chapter 3 demonstrated that the explanations for behaviour (in this case consolidation activity) should not be limited to simplistic empirical causal relationships. In looking to explain the responses of residents to core housing, many internal and external factors need to be considered but it must also be stated from the outset that this investigation works with essentially quantitative data and so inevitably most of the explanations of the causes of the actions of human agents are constructs. Some quasi-qualitative data exists in the form of people's explanations of their own actions (presented here first) and case studies which take individual cases and link motivations and consolidation responses. This chapter aims to construct a descriptive argument of what pressures within and outside of households shape individual responses to core housing (including those which do not include extension activity). These are the paths which households follow in attempting to match their housing product with the needs and expectations they have. It has become obvious by now that the paths of individuals have been categorised into broad streams (or pathways) which depend upon the types of extensions and improvements they had each made by the time of the collection of the data. It is also clear that households will move through the various extension type categories as time passes. The chapter also looks at the resulting effects which the various courses of action have on the households involved.

This chapter starts by describing the basic motivations and internal pressures which create certain living conditions and pressures to extend and then moves to a discussion of the effects or impacts of extension (or non-extension) activity. It looks specifically at how people have responded to the pressures they are experiencing. The whole set of motivations and pressures to extend are in places referred to as 'drivers'¹ of consolidation, thus describing a set of structures and circumstances which shape the causal mechanisms in the locality. The statistical method, while allowing large amounts of data to be analysed and trends identified, is weak in describing individual cases and in connecting intentions with actions. Here, very brief case studies are presented alongside the text to illustrate individual cases. The information was extracted from the questionnaire and physical house data. These accounts are not based on qualitative interviews *per se*. The cases were also used elsewhere to illustrate some of the statistical data (Napier, 1998).

¹ The word driver is used in the way that the Organisation for Economic Co-operation and Development (OECD) has applied it as part of the pressure-state-response approach and the wider framework including driver-pressure-state-impact-response.
<http://www.oecd.org/env/indicators/index.htm>

7.2 Motivations for extension

The most important set of data about motivations for extension were those provided by the residents themselves. It is essential that the discussion of causes is shaped by this 'insider' view of the process as the subsequent discussion is essentially an outsider view (see Hågerstrand, 1996).

Most people who extended in Inanda Newtown indicated that they did so simply because the houses were too small and they needed more space (92% of households). Two households (3% of the sample) specifically mentioned the need for privacy and security. Almost 5% of households said that they had extended in order to accommodate home businesses. In Khayelitsha 43% of residents also said that the house was too small. Another 40% said that they needed more room for a variety of reasons, including the need for a sitting room, and the need for rooms to accommodate children, adults, visitors or lodgers. 10% of residents said they had added on because of the need for privacy. Only 4% added to accommodate a home business. 2% added bathrooms and 1% added to increase security. Essentially the responses to this question were somewhat disappointing and the limitations of the quantitative method were highlighted. The household case studies below are an attempt to connect motivations and actions more directly in individual cases.

Those who did not extend their houses were asked if there were particular reasons for them not doing so (see Figure 7-1). It is interesting to note that many people with informal extensions responded to this question, thus implying that they did not consider these as 'proper' extensions.

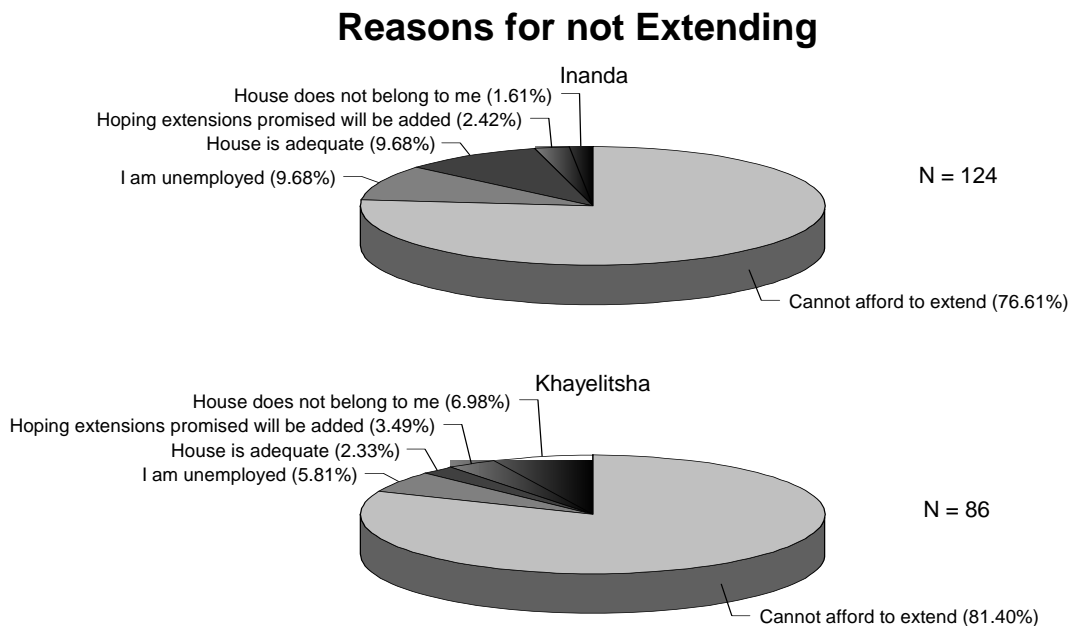


Figure 7-1: Reasons for not extending

The responses of Inanda Newtown residents are particularly important because they represent the majority (60%) of households in the settlement. It has been surmised that the pressure to extend the Newtown core houses was not as great because they were more spacious from the outset (Photo 7-1). Almost 10% of residents confirmed that this was the case, but about 86% of residents said that affordability was their main constraint (i.e. combining affordability and unemployment responses).



Photo 7-1: Unextended house in Inanda

The information above on the relative poverty of Inanda Newtown residents is therefore borne out by this response. The much smaller proportion of Khayelitsha residents (23%) who had not extended, gave the same response but much smaller numbers said that the house was adequate (2% compared to 10% in Inanda Newtown), which was to be expected.

A small number of people in both settlements maintained that a promise had been made to extend their houses and they were waiting for the fulfilment of this undertaking (see Chapter 4, "Khayelitsha comment"). Some of the people who were tenants did not extend because they did not own the house, stressing the importance of tenure as a proximal causal mechanism influencing the consolidation process. There were many more cases of this in Khayelitsha than in Inanda Newtown (7% versus 2%)

It was clear from these responses that most households who had not yet extended still intended to extend rather than to move (90% in Inanda Newtown, and 98% in Khayelitsha). Very few households, especially in Khayelitsha, felt that the core housing did not need to be extended. This was supported by the responses to another question about future intentions, in which 86% of Inanda Newtown residents and 91% of Khayelitsha residents said that they intended to stay in their houses in the future rather than to move to another place. In situations of relative poverty, in marked contrast to the findings of many of the First World housing adjustment studies reviewed in Chapter 3, many households were essentially adjusting (or suppressing) their preferences to suit their housing rather than vice versa. They were living, or 'coping', with the daily pressures which emanated from occupying unextended core housing, in the face of very few other options. Most did not see residential mobility as a realistic alternative, preferring to remain in the core housing whether it was adequate for their needs or not. The socio-economic effects of living in unextended core housing are discussed below.

Attitudes to living in core housing

The first impressions of the core houses were discussed in Chapter 5. It was very clear that residents recognised that they were moving into core housing and that the housing needed to be extended to match the needs of the household. Who should be responsible for extending was less clear. By 1996

we have seen that most of the housing had been significantly improved, if not extended *per se*. To gauge levels of satisfaction, the housing residents were asked to compare their own living conditions with those of people living in conventional four room township housing (see Photo 7-2). This settlement type had dominated the South African cultural landscape up until this time. Many people (about 40% in both settlements) had themselves spent some time in township housing. It was a familiar benchmark against which people could compare their own localities.



Photo 7-2: Traditional township house, Vosloorus (source: Neil van Niekerk)

In Inanda Newtown, 43% of respondents felt better off than township residents, 45% felt worse off, and 12% felt neither better nor worse off with their housing. As expected, more people without extensions felt worse off (49%) than people with informal (42%) or formal extensions (36%). Why did people feel this way? Here people's reasons are given in order of frequency (Table 7-1).

Table 7-1: Reasons for feeling better off - 43% of Inanda residents

Our houses/ rooms are bigger	13	15%
We are happy to have a house	12	14%
No violence	10	12%
The house/ room is built my way	10	12%
We own the house/ property	8	10%
Better services	6	7%
Better social life, public facilities	5	6%
Toilet and bathroom inside house	4	5%
Plots big enough to extend house	3	4%
It is very cool/ comfortable	2	2%
Well built	2	2%
No problems	2	2%
Don't know	2	2%
We pay less	1	1%
Other	4	5%
TOTALS	84	100%

When comparing with a township lifestyle, many of the reasons for feeling better off revolved around people's sense of independence, ownership and being able to make their own choices. Some of the reasons were to do with positive feelings about the area itself ("less violence" and "better public facilities"). Others were to do with the size of the houses, how well they were built and the level of services. The people who felt worse off cited the following reasons (Table 7-2).

Table 7-2: Reasons for feeling worse off - 45% of Inanda residents

No services: roads, water, taps, health facilities	80	56%
Our houses/ rooms are too small	21	15%
Houses not well built	13	9%
Still need to extend/ improve/ divide rooms	13	9%
There is not enough space	4	3%
There is no privacy	4	3%
Violence	2	1.4%
Transport far away	2	1.4%
Site is not satisfactory	2	1.4%
Other	3	2%
TOTAL	144	100%

From this question the dissatisfaction with the levels of service in Inanda Newtown becomes clear. Certainly in interviews with members of CBOs, the deterioration of services and the need for upgrading was a major cause for concern (Photo 7-3). A small number of people raised issues that had to do with the neighbourhood ("transport too far away" and "violence"), but most of the rest of the respondents who felt worse off, referred to the fact that their houses were still not adequate in space or in the way they functioned (e.g. "privacy")(a total of 30% of the households). Of the small number of households who felt the same, almost one third still felt that the services in Inanda Newtown were not as good as in conventional townships.



Photo 7-3: Inanda Newtown services

The 9% of people who felt the houses were not well built represented a larger number who experienced various problems with the houses, as indicated in the following table (Table 7-3).

Table 7-3: Construction problems with Inanda houses

	Inanda	
	N	% of all
Leaking roof	135	66%
Cracked walls	121	59%
Problem with doors	31	15%
Moisture penetration through walls	23	11%
Services inadequate (toilets and baths)	4	2%
Finishes inadequate	2	1%
No problems	51	25%
NUMBER OF HOUSEHOLDS	206	

These problems would have influenced people's attitudes to living in the housing. It is difficult to distinguish between those problems which applied to the core housing and those which applied to the extended parts of the houses. Small numbers of people had problems with the services in the houses, and the problems with services highlighted in other questions referred mainly to collective services such as roads and shared standpipes.

At the end of the questionnaire an open ended question invited comment on any subject that the respondent felt like raising or emphasising. A very small group of people mentioned problems with the sizes of the houses (3% of households). Most households took this opportunity to highlight problems with services. 30% of the households mentioned that there were problems with the pit latrines, and that there was a need for a sewer connection. 25% of households said that water supply to individual plots was important. 27% of respondents highlighted the need for road maintenance.

In Khayelitsha the balance of feelings was less positive than in Nanda Newtown. Just under a third of the respondents (31%) felt better off than people in township housing, 61% felt worse off, and the remaining 8% felt the same. This again correlated with extension type except for informal extenders. 70% of non-extenders felt worse off, and even more informal extenders (73%) felt worse off! Only 45% of formal extenders and 33% of mixed extenders felt worse off.

Given the original contingent conditions at project initiation, it was expected that there would be lower levels of satisfaction in Khayelitsha than in Newtown where participation was so much more central. Had there been more participation and better ongoing support for the consolidation of the housing, it is likely that more people would have been in the group of residents who felt better off than others living in township housing. The hypothesis that the original project conditions become less important as time passes is only partly supported here. It may be more true for process issues such as consultation and participation, but it is less true for the product in the form of location, houses and services which, even if consolidated, stay with residents indefinitely. This is demonstrated by the problems that people cited after a decade of occupying the houses (see below – Table 7-5). The reasons people gave for feeling better or worse off than township residents appear in the two tables below (Tables 7-4 and 7-5).



Photo 7-4: Informal settlements adjacent to Town 1

Table 7-4: Reasons for feeling better off - 31% of Khayelitsha residents

Our houses/ rooms are bigger	28	33%
We own the house/ property	14	17%
The plots are big enough to extend the house	10	12%
The house stands on its own	5	6%
We pay less	5	6%

The house/ room is built my way	4	5%
We are happy to have a house	4	5%
The toilet and bathroom are inside the house	3	4%
Other	11	13%
TOTALS	84	100%

The most common reason for feeling better off, that houses were bigger than in townships, is surprising. However, looking at a cross tabulation with extension type, it becomes evident that this view was held mostly by people with formal extensions. In other words, they were referring to the fact that their extended house was larger than a normal township house. This view is similar to that expressed by people who said that the sites were large enough to allow the extension of the houses. Those who saw the potential to improve their housing, or had realised this potential, displayed more positive feeling than those who had not.

There is a fair amount of terrace and semi-detached housing in nearby townships (many of the residents came to Khayelitsha from Gugulethu), and so the house "standing on its own" rated as a reason for feeling better off. As in Inanda Newtown, feelings of independence were also important to people (represented by the responses: "we own the house", "the house is built my way" and "we are happy to have a house"). These views were held by over a quarter of the sub-sample (27%).

Table 7-5: Reasons for feeling worse off - 61% of Khayelitsha residents

Our houses/ rooms are too small	109	65%
There is no lounge or dining room	22	13%
There is not enough space	12	7%
There is no privacy	6	4%
Poor quality materials	6	4%
We must spend money to extend	5	3%
Other	7	4%
TOTALS	167	100%

Most of the negative feelings revolved around the sizes of the houses and the fact that households needed to extend but could not afford to do so (see Table 7-5). In this case, these feelings were shared equally among residents, whether they had added onto their houses or not. A small group of people felt that the materials were of poor quality. None of the residents expressed any problems relating to the levels of services (the complaint that topped the Inanda Newtown list). And several people in the previous table pinpointed good sanitation services as their reason for feeling positive

Only 20 households said there was no difference between Khayelitsha core housing and local township housing. However, two households within this group mentioned that lack of space was a problem.

Only 4% of households had highlighted poor quality materials when comparing themselves with township residents. However, the more directed question elicited a much broader range of problems with the houses which were well built, but which were subject to the fairly harsh weather conditions of the Cape Flats.

Table 7-6: Construction problems with Khayelitsha houses

	Khayelitsha	
	N	% of all
Doors and windows loose	81	34%
Leaking roof	74	31%
Finishes inadequate	73	31%
Cracked walls	58	24%
No problems	55	23%
Moisture penetration through walls	47	20%
Services inadequate (toilets and baths)	39	16%
Problem with doors and windows	26	11%
NUMBER OF HOUSEHOLDS	238	

Similar to Inanda Newtown, about a quarter of households said they had no problems with the houses (Table 7-6). Topping the list were a series of problems with sand and rain blowing into the house, and windows and doors not fitting properly (34% of households). Another 11% of households also mentioned that doors and windows were broken. The reference to inadequate services has probably to do with the fact that original houses had showers and the overwhelming preference was for baths. Otherwise the services in Khayelitsha were fairly robust.

In the final open ended question of the questionnaire, Khayelitsha residents chose to talk mainly about the housing. 14% of respondents said that the houses were not properly built from the outset. Another 5% of respondents said that the houses were still too small or that the government had not honoured its promise to extend the houses. Another 3% of respondents highlighted the need for employment.

In Inanda Newtown most of the negative feeling was related to the low level of services and the need for better maintenance and upgrading of services. In other words, they were focussed outwards onto issues which required collective action to upgrade neighbourhood infrastructure. Overall many more people felt better about living in Inanda Newtown than in Khayelitsha. In Khayelitsha the lack of space and all of its implications for privacy and convenience topped the list of reasons for feeling negatively about core housing. In both cases, the majority of positive feeling stemmed from the independence and choice which households gained by moving most often from freestanding or backyard informal housing into core housing. This has also proved true for new, government subsidised core housing in the Pretoria area (Napier and Lungu Mulenga, 1999) where independence, ownership and privacy were given as the basis for optimism about a move to new

housing or sites. With the raised awareness of social capital and the coping mechanisms which depend on social networks (e.g. Moser, 1998), there is often an assumption that the move away from crowded living conditions where people have lived for long periods of time and built up these networks is a negative thing. It is then argued that housing responses which maintain existing social capital should be favoured, such as *in situ* upgrading of existing settlements. It is informative that so many people moving to greenfields sites in South Africa when asked, cite feelings of independence from their previous social networks as the most positive aspect of their relocation!

Feelings about living in core housing were discussed earlier in this chapter since it is held that peoples' attitudes and feelings were an important driver of consolidation. It is suggested that positive feelings about living in the two neighbourhoods would lead to greater investment in the housing. Despite the fairly large numbers of households feeling worse off than people in townships, as seen above, most said they would not move to other housing. This may have been indicative of the fact that moving was not a viable choice or alternatively evidence of some level of basic satisfaction with the settlement.

These attitudes were also a result of whether people had extended or not, as was seen from the correlation of positive feelings by people who had formally extended houses and the more negative feelings on the part of people in unextended houses. The feelings about living in informally extended core housing in Khayelitsha were particularly negative, lending support to the view that informal extensions, while mostly structurally sound, *were not seen by residents themselves as adequate or acceptable housing*. Where residents had the opportunity to avoid informal extensions, as in Inanda Newtown, they had done so.

Attitudes to public facilities and services

A few households said that they felt positive about living where they were because of the facilities available. The question was also asked directly, "Are there adequate facilities near where you live?" To assess needs, the question was then asked, "What other facilities do you think are still needed?" (Table 7-7). While these questions do not properly assess the broader issue of access to the full set of urban opportunities, they are indicative of the perceived adequacy of neighbourhood level social infrastructure.



Photo 7-5: Secondary school in Inanda

Over 83% of the Inanda Newtown residents felt that public facilities were adequate. In Khayelitsha slightly less people felt that public facilities were adequate with 72% being satisfied with the facilities. In both places many other facilities were still needed.

Table 7-7: Social facilities needed

	Inanda		Khayelitsha	
	N	% of households	N	% of households
Sports facilities	120	58%	104	44%
Churches	99	48%	101	42%
Post office	95	46%	102	43%
Crèches	77	37%	135	57%
Clinics/ hospitals	73	35%	128	54%
Shops	61	30%	108	45%
Community hall	59	29%	104	44%
Police station	57	28%	109	46%
Schools	47	23%	114	48%
No other facilities needed	18	9%	45	19%
Total households	206	100%	238	100%
Total responses	706		1050	

There is one sports field in Unit A of Inanda Newtown. Clearly this is not seen as adequate, with the need for more sports facilities topping this list. The need for churches and a post office are the next most important. The need for schools was the lowest as there were a sufficient number and they were of a sufficient quality to satisfy most people (Photo 7-5).

When the different Inanda Newtown neighbourhoods were analysed separately, the need for certain facilities was seen to be concentrated in certain areas. For instance, many residents of Units B and C mentioned the need for a post office, while few Unit A residents did so. In all categories, Unit B seemed to be the worst off for public facilities. 85% of Unit A residents and 91% of Unit C residents felt that existing facilities were adequate, whereas only 25% of Unit B residents felt the same. All Unit B residents interviewed specified the need for a church, a post office and a crèche, and most also said that shops, a community hall and a police station were needed.

Respondents were then asked about what forms of transport they regularly used (i.e. at least once a month). Most people in Inanda Newtown made use of both buses and taxis. 90% of households used taxis and 84% used buses. Only one household travelled regularly by train.

In Khayelitsha many more residents of Village 1 named certain facilities that they felt were needed. In general Village 2 residents were a lot happier with the existing public facilities. The proportion of respondents who said that no other facilities were needed was higher in Khayelitsha than in Inanda Newtown (19% as opposed to only 9% in Inanda Newtown). The infrastructure of public facilities in Khayelitsha has become fairly strong over the years since the initial establishment of the area. The fact that the need for crèches topped the list could mean that the project agents did not adequately provide for this type of facility during the planning stage.

With the railway line running through the centre of Khayelitsha, the largest proportion of respondents used trains (51%) with 46% of households using minibus taxis, and only 33% using buses.

Urban opportunity

Both settlements were located on the far periphery of the cities in which they were located. While levels of satisfaction with local social infrastructure have been shown to be fairly high with 83% of Inanda Newtown and 72% of Khayelitsha respondents saying that they were adequate, many facilities are still needed within the areas. As was seen in Chapter 6, transport costs were between 7 and 8% of total monthly household expenditure in both settlements. The large dependency on public road transport in Inanda Newtown (Photo 7-6) and public rail transport in Khayelitsha are probably being progressively eroded by private taxi transport as public subsidies reduce and the private service extends itself. A function of distant location and inadequate local schools in Inanda Newtown was the high proportion of money spent on education mainly in schools outside of the settlement (26% of household budgets as compared to only 4% in Khayelitsha).



Photo 7-6: Public transport to and from Inanda

Residents of both settlements will therefore continue to be prejudiced by peripheral location and the levels of formal employment discussed above are likely to worsen as people in sometimes better located, newer low cost settlements offer themselves in the same job market at lower total costs of employment because they are able to reach places of employment more easily (c.f. Napier, 1993a).

A factor not fully appreciated in some of the early commentaries on Khayelitsha (e.g. Cook, 1992) was that despite fairly extreme peripheral location at the time the settlements were established, the city would inevitably grow out to meet and surround the settlements. This has taken place as more informal settlements in Inanda are formalised and as the formal parts of Khayelitsha have continued to grow under new government housing programmes (i.e. post-1994). What this means is that the markets in building materials and services, and the host of other social and economic opportunities, have gradually improved over the years. Residents would therefore have found it more difficult and costly to consolidate their housing at first, but easier and cheaper as time passed and settlements became more integrated into the surrounding urban structure. This was evident from the peaks in extension activity after 1992 in both settlements. The scale of the two settlements have themselves prompted further investment in both areas. So urban integration has improved in terms of infrastructure and transport services. However, the degree to which formal employment has moved out closer to the settlements remains in doubt (see Napier, 1994a).

These then are a set of data about what residents themselves said about the opportunities and constraints of living in core housing. It was the insiders' view of core housing, and views varied according to whether people were living in consolidated housing or not, and according to whether they were living in an under-serviced neighbourhood (Inanda Newtown) or in a settlement with very small core housing (Khayelitsha). Other data about who has managed to extend and who has not are now presented, and this represents more of an outsider's, comparative view across the households and settlements investigated.

7.3 Drivers of consolidation in Inanda Newtown

From the review in Chapter 3, it was clear that some theorists held that internal household pressures related mostly to lifecycle stages prompted housing adjustment, whilst others focused on external factors which caused households to adjust, such as maximising opportunities for employment and realising improved property values. In looking for the main drivers of consolidation activities in Inanda Newtown and Khayelitsha, it is necessary to look both at internal pressures within the households and within the localities or settlements, and also at contingent conditions beyond the settlements. As stated in chapter 3,

The local contingent conditions that shape individual actions would include such things as the state of the (mostly informal) construction sector within or near the settlement, the local regulatory framework, and a range of personal motivating factors such as the pressure to adjust housing, the ability to build or organise building, and the like. More remote contingent conditions shaped by distal causal mechanisms would include, for example, the attitudes and praxis of international donor agencies, the attitudes of the State to the self-help activities of their citizenry with the accompanying policies, and the whole range of political, economic and social conditions that applied at the time. All of these factors in varying degrees are assimilated by the actors when decisions are made, and projects planned and executed.

Firstly what internal pressures (or local contingent conditions) may have been at the root of extension activity? Through this analysis we wish to explain why people extended in different ways, through different processes, and at different times. To build up an accurate picture of the two localities, it is necessary to treat each separately, although many of the macro-conditions and mechanisms would affect both.

Internal drivers in Inanda Newtown

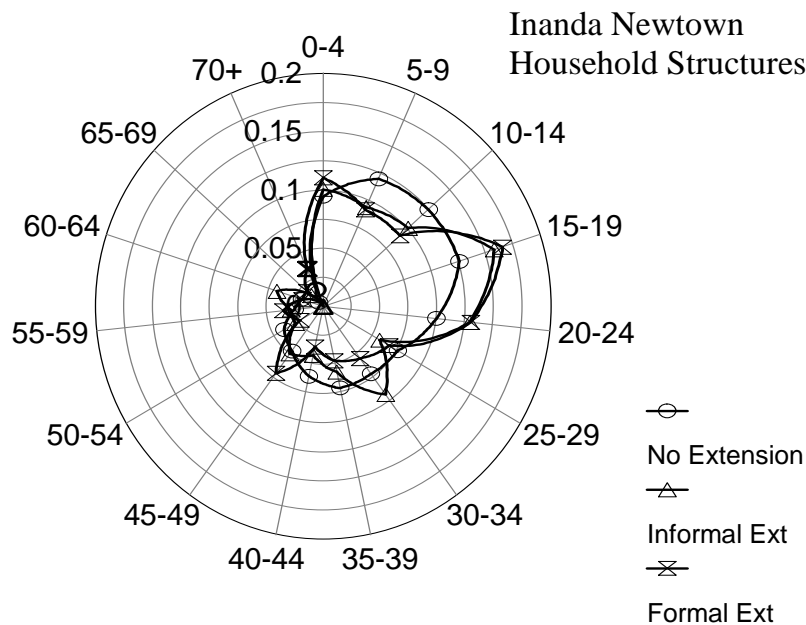
The need for space for the use of the family seems to have been very important from the evidence presented so far. By looking at the household characteristics of the various types of extenders, certain trends begin to emerge which go some way to explaining the internal pressures to extend (Table 7-8). In Inanda Newtown the small group of people with informal extensions tended to have larger households than others (7.2 people / site). People with formal extensions also had larger than average households (6.8 people / site). The average household size of people without extensions is smallest at 6.1 people/ site.

Table 7-8: Household size and extensions - Inanda²

	No extension	Informal extension	Formal extension	Overall
Mean household size	6.1	7.2	6.8	6.4
Median household size	6	6	6	n/a
N	125	25	37	

The growth rates of households also differed with informal extenders having a growth rate of 4.2% per annum, whilst people with no extensions had a rate of 2.5% and people with formal extensions a rate of 2.2%. So people with formal extensions had larger household sizes to start with but have grown more slowly and so the gap between the housing product and household needs at the outset was less marked than 15 years later. Although households with no extensions were slightly smaller, what is of concern is that household sizes were increasing by 2.5% per annum and therefore the pressure on existing space was growing year by year.

Secondly, household structure is clearly important to assess at what point respondents were in their lifecycle. The following graph for Inanda Newtown shows percentages of individuals in each age group in the different extension types (Figure 7-2).

**Figure 7-2: Inanda household age structure**

The profile of household structures was very similar for people with informal and formal extensions, particularly in all of the age groups below 29. The characteristic peak in the 15 to 19 year old age

² Because the number of households with mixed extensions was so small in Inanda Newtown (5), the mixed category has been omitted from this and many of the other tables in this chapter.

group that was seen earlier was evident. However, the profile of non-extenders was very different. In households who did not have extensions, there were on average more people in the 5 to 14 age group, and less in the 15 to 25 age group. There were therefore more children in primary school and early secondary school, but less older teenagers and young adults. As was seen above, non-extenders also had smaller families. It seems from this evidence that younger families had on average either decided not to extend or had been unable to extend as much as families with older children. There could be a number of explanations for this, including that older children are able to bring in some additional income, and possibly skills, thereby increasing resources to build, and that families with older children would feel a greater need to extend in order to allow them privacy and independence. It appears that people in Inanda Newtown were able to extend when they needed to, and because of the extra space available in the original houses, did not feel the pressure to extend as acutely as Khayelitsha residents.

Another difference in household structure which might have a possible influence on extension types, is whether the household was headed by a male or a female. In Chapter 6 it was shown that there was more or less a 40% to 60% ratio of female-headed households to male-headed households in both case studies. So were there any differences in what these types of households had done (see Figure 7-3)?

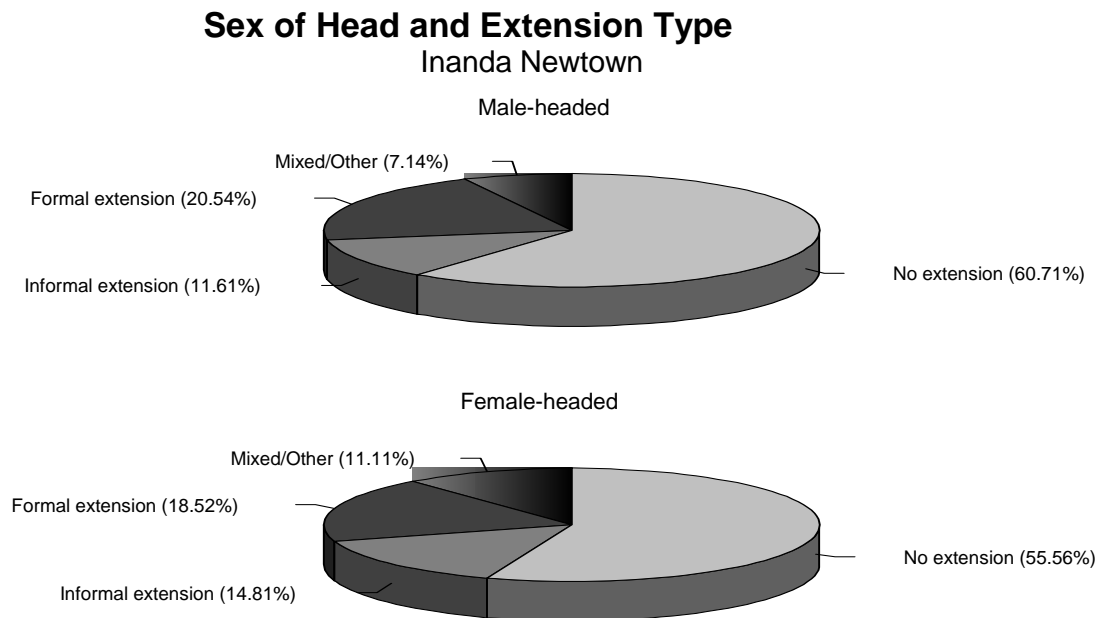


Figure 7-3: Gender of household head and extension type - Inanda

Table 7-9: Income and employment by extension type - Inanda

	No extension	Informal extension	Formal extension	Overall (excl. zero incomes)
Mean monthly household income	R 1,611.98	R 1,594.68	R 1,859.27	R 1,800.21
Rate of unemployment (people seeking work)	19%	6%	14%	17%
No. of households	126	25	37	n/a

In Inanda Newtown the main difference between the households was that overall more female-headed households had made extensions than male-headed households (Figure 7-3). The extra extensions in female-headed households were mainly in the informal extension category (15% of households had informal extensions as against 12% of male-headed households). The differences in types of extensions according to whether the household was headed by a man or a woman were not large. Woman-headed households had made slightly more extensions *despite* the fact that their average monthly household incomes were 40% lower than male-headed households (R1119.31 compared to R1885.53 for male-headed households)(Table 7-9). Again the evidence does not point to any particular group of people being prejudiced by the locality from consolidating when they needed to.

This view can be further checked by viewing income and employment data for households in the different house types. In the table above, households declaring no income were included in the analysis. In the no extension category 12% of households had no income while there was only one household in this position in both of the other two categories.

In Inanda Newtown, the small number of households with informal extensions were the best employed, with only 6% of household members seeking work, but on average those households were not bringing in a total income as large as people with no extensions or formal extensions. Non-extenders had

Case 1: Dorcas - spacious four room house does not need extending

Dorcas (48) lived with her three children (19, 13 and 11) in a four room house in Inanda Newtown. She had a full time job bringing in R1,000 each month. She had been in the house for 13 years after moving out of a shack in Inanda. This was her only home and she moved here so that her children could have a place to stay.

Using the services of a builder, and advice from friends, neighbours and family, Dorcas subdivided the house in 1983 after deciding that the tent supplied as part of the original scheme "was not a suitable house for a human being". Dorcas preferred living in Inanda Newtown because a normal township house would have been too big for her needs. An expressed need was to have a tap in the house, sewage and a flush toilet.

For Dorcas, the house she had suited her needs. She was happy with her situation although she did eventually want to extend further. Her satisfaction might well be linked to having been given the opportunity to choose a four room house at the outset. For her, the internal sub-division of the house was a manageable task and one which satisfied the household's need for space and privacy.

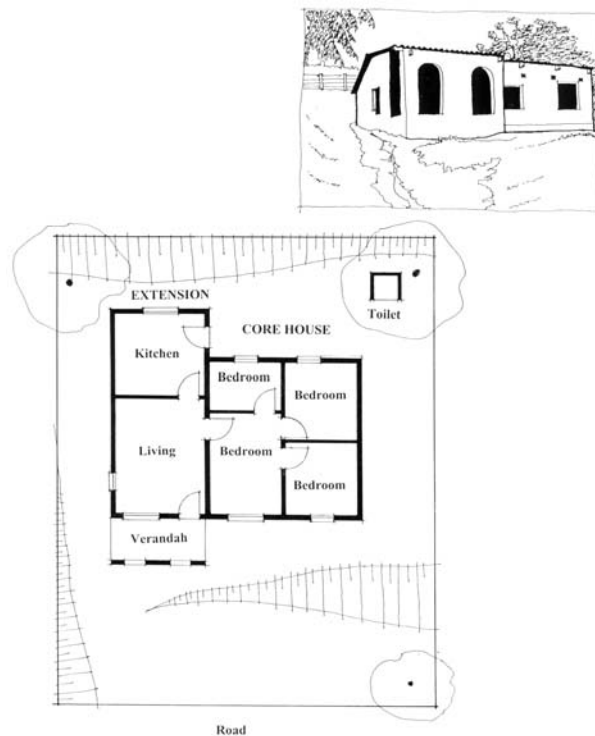


slightly higher levels of unemployment (19%), but their household incomes were slightly larger than informal extenders. People with formal extensions had medium unemployment (14%) but, as expected, the highest incomes. The most important point emerging from this analysis is that there was not a huge income differential between extenders and non-extenders in Inanda Newtown (a 13% difference between non-extenders and formal extenders). The correlation of both income and employment when compared to extension types is not clear. This supports the view that Inanda Newtown households had the 'luxury' of deciding not to extend until their households grew to the extent where extra space and privacy was needed (see the case of Dorcas above). When this did happen, most seem to have had the means to extend (see the case of Sipiwe).

Looking more closely at those means, in the previous chapter several other factors were correlated with extension type. Using Moser's (1998) asset model, one of the investments people mobilised to consolidate were the human investments of skills and labour. People who had access to more building skills within the household built informal extensions drawing on their own labour in a situation of lower incomes. People without skills but who had access to 'stores' of money, were more likely to employ builders and build formal extensions. People who did not yet need to extend because pressures from within the household were not yet great enough given the larger shell houses, had decided not to extend. These households, while being almost as wealthy as formal extenders, nevertheless had less in the way of human investments in building skills.

Case 2: Sipiwe - regular income allows high quality extensions

Sipiwe bought a four room house in Inanda Newtown in 1988. Both he and his wife were formally employed and they lived in the house with their five children. In 1995 he used personal savings to employ a builder to add two rooms and a veranda at a cost of R8,000. His only complaint about the house was that he felt the pit toilet was not hygienic. This was a case where regular income had allowed high quality extensions. However, looking at all of the sample for Inanda Newtown, there was not as clear a link between income and extensions.



In Inanda Newtown very few households used formal means to enhance or 'gear up' their stores of money. The use of formal bank financing was very rare, and personal savings were the predominant form of financing for extensions. Monetary stores were accumulated and enhanced through the use of informal group saving clubs in 4% of cases. The use of social capital, through claims on others particularly for advice and information about building was common, mostly from builders and less often from friends and neighbours. In Inanda Newtown there was a balance between the use of public resources of information and permission, and the use of neighbours and friends. The institutional and legislative contexts were much more supportive of consolidation, as tenure was secure and authorities mostly proactive in supporting extension. The more permanent and formally approved nature of the extensions was therefore explained.

Spatial clustering of extension types were particularly noticeable in the area as neighbours acted together or consecutively in building on in characteristic ways. Access to informal building services was more difficult in Newtown, with informal extensions being two and a half times more expensive than in Khayelitsha (see the case of Nomakhosi). This was probably a function of peripheral location and the fact that most of the settlement surrounding Newtown remained informal, and largely unconsolidated (Kellett and Napier, 1995). Many people chose therefore to extend formally or not at all, rather than to extend using impermanent materials. Qualitative discussions with community civic organisation representatives indicated that many people saw the move to Inanda Newtown from informal settlements and rural areas as a step towards urbanisation and concepts of modernity (Escobar, 1995), and that informal building methods were rejected in many cases as households embraced what they saw as a more urban way of living. With the luxury of slightly more space at their disposal, most households were able to adopt and maintain the identity of an urban dweller.

The physical context in which extensions took place was fairly constraining in the Inanda Newtown context. Although the original houses could be sub-

Case 3: Nomakhosi - informal extension creating habitable space

Nomakhosi (26) lived with her parents (54 and 55) and their three grandchildren (7, 13, 14) in what was a four room shell house. They had come from a rural area 12 years before where they had lived in a shack. The joint income of Nomakhosi's parents added up to a reasonably good monthly income (over R1,000 per month). In 1992 they employed a builder to build them an earth outbuilding for R4,000. With the extension, they had 52.5m² of space, with an average of 1.2 people per habitable room. The building of this extension, which was more reasonably priced than many informal extensions in Inanda Newtown (average expenditure R6,030), thus minimised the overcrowding problem for this household and probably enabled the teenagers in the family to have more privacy. Members of this household claimed that they were not informed that they would have to improve their house themselves when they first became participants in this scheme. However, they recognised the need to create more habitable space and had opted to create an informal extension (in the form of a gum pole frame and earth infill outbuilding) to their original core house.



divided fairly easily and construction methods used in the cores were easy to add onto, the topography imposed constraints. However, the climate of Inanda Newtown is more favourable and so the greater dependence on indoor space which is evident in Khayelitsha was not as marked and outdoor spaces performed important functions. Overall there was less internal and external pressure to extend in Inanda Newtown and this explains the general low scale and sizes of extensions in the area.

External contingent conditions and Inanda Newtown consolidation

The external contingent conditions described in Chapter 4, where the South African context was described, had locally specific outcomes in Inanda Newtown over the period under review (1981 to 1996). While the system of public administration being rolled out in the early 1980s was representative of the reform rather than the abandonment of apartheid policies, and the Urban Foundation as the NGO supporting was responsible for perpetuating the system, its local outcome in Inanda Newtown was in a fairly beneficent form. The building of Inanda Newtown did represent the extension of the power of the apartheid bureaucracy (similar to development projects in Lesotho documented by Ferguson, 1990) but that bureaucracy was influenced by the Urban Foundation to support a narrow set of consolidation activities, if not the strengthening of broader civil society or democracy in the area. Again, the high proportion of households seeking and gaining permission for extensions from the local authority was evidence of this.

The weakening of civic organisations towards the end of the apartheid era (as discussed in Chapter 4) would probably explain the inability of Inanda Newtown civic groups to campaign for better services in the area. However, at the same time the many other informal settlements in the area were at last being recognised, and the regularisation of these settlements was seen as a higher priority than the upgrading of the already formal Newtown area (e.g. Bester's Camp, Merrifield et al, 1993).

As to how these external conditions were influencing the individual consolidation projects of households, the dates at which extensions were done is revealing. Consolidation activity in Inanda Newtown proceeded fairly consistently until 1991. There was a lag between events such as the release of Nelson Mandela in 1990, the negotiation of a new democracy, and the picking up of extension activity. As democratic transformation began to become more of a reality at local level, there was a phenomenal growth of extension activity from 1992 onwards. Macro-economic changes are unlikely to have been the main cause here, in that there was little evidence of an increase in personal incomes at the time.

The political changes were reflected at local level in the lifting of controls on the freedom of movement of people and the freedom of activities such as the running of home businesses. City by-laws in Durban were removed at the time, and a new set of by-laws framed over the subsequent years. It is only more recently that the new by-laws which limit or restrict the activities of civic citizens are being reinstalled, now more equitably across the city rather than on the previously differentiated Group

Areas basis (Napier and Mothwa, 2000). I would argue that the removal of the restrictions on personal freedoms of African people, and the changes in perceptions about what people could and could not do was key in precipitating the increase in extension activities.

Changes in personal and group identities were also taking place in the early 1990s. No longer labelled as part of a race group which had both practical restrictions on action and social stigmas attached to it, households were able to participate on a more equal basis in the urban economy than ever before. Certainly access to income and locational disadvantage had hardly changed, but physical and social access to many urban amenities had changed. Many urban residents identify themselves no longer as residents of 'townships' or locations' but now as residents of the new 'suburbs' into which they hope the townships will be transformed³. Aspirations towards suburban lifestyles and built forms then find their way into how people extend and modernise their houses (see Kellett and Napier, 1995, and chapter 6). Core housing settlements provide an opportunity for residents to transform mass built housing into cultural landscapes. I would argue that the relatively small number of formal extenders have done this in Inanda Newtown, as was seen by the positioning and design of formal extensions earlier. Given that Inanda Newtown is only partially consolidated, the transformation into a cultural landscape is still in progress and the final outcome not yet clear.

At the time that the survey was done, it was too early to assess whether the transformation of local government and the institutional landscape occupied by NGOs and CBOs was having any significant impact on people's consolidation projects. Local government is still in a state of transition in South Africa (the re-demarcation of municipal boundaries having only been completed late in 2000) and so the level of practical public sector support for extensions in Inanda Newtown is still to be established.

Impacts of Inanda Newtown consolidation

The impacts of pursuing the various extension paths were not as extreme in Inanda Newtown as they were in Khayelitsha. Here we are concerned particularly with the people who have not managed to extend their houses, or live in poor quality extensions. In Inanda Newtown this was a significant proportion of the population, with 60% of households having not extended, and another 3.6% of all households living in poor quality extended houses.

It has been shown that the pressure on households to extend because of household size was not particularly great in Inanda Newtown in that many unextended houses were occupied by families with young children. Those with older children had extended, mostly using formal materials. Looking now at the amount of space available, a more indicative measure of living conditions is gained by calculating the number of people per room and the amount of space per person (Table 7-10). In each

³ Focus group discussions in Pretoria, Mamelodi, to ascertain attitudes towards social housing for the Pretoria Metropolitan authority, 1999.

case there are two measures: total space including all roofed space in the house, and habitable space, using the indicators and definitions from UNCHS (1995).

Table 7-10: Mean occupancy rates - Inanda Newtown

	No extension	Informal extension	Formal extension	Overall
People per room	1.28	0.95	0.93	1.16
People per habitable room	1.67	1.33	1.33	1.55
Area per person (m ²)	10.66	12.97	12.73	11.39
Habitable area per person (m ²)	9.83	10.63	11.61	10.28

Focusing on habitable space, households who were adding space to their houses, whether using permanent or temporary materials, had an average of 1.33 people per habitable room, and between 10.6m² and 11.6m² of habitable space per person (formal extensions being larger than informal extensions). As was seen above, household sizes for people without extensions were smaller. Despite this, people in unextended houses were comparatively not as well off in terms of people per habitable room (1.67 people) and habitable space per person (9.8m²). Essentially, households who had extended were managing to effectively relieve overcrowding and new space available was not being filled by other people moving into the housing, at least not to the extent that crowding levels were worsened. This finding was consistent with some studies, notably Tipple's (2000), but not others (e.g. Strassmann, 1982).

People in unextended houses were living in more crowded conditions, but did this constitute overcrowding in the Inanda Newtown case? Firstly, how do these figures compare with other situations within and outside of South Africa (see Table 7-11)?

Table 7-11: Floor Area per Person (usable living space)(Mayo, 1993)

		Average floor area per person
South Africa	Median in previously 'white' areas	33m ²
	Median in previously 'coloured' and 'Indian' areas	12-18m ²
	Formal black township housing	9m ²
	Informal housing	4-5m ²
	Median (all groups)	11m ²
	Mean (all groups)	18m ²
World	Typical low income countries	6m ²
	Typical high income countries	35m ²

Given the average of 10.3m² of habitable space per person, people in Inanda Newtown were slightly better off than were the formally accommodated households in townships in 1993. Even unextended

households were slightly better off (9.8m²). People in informal areas were particularly crowded according to Mayo (1993).

In searching for a normative measure of adequate space per person, the following measures were found. UK and other European countries set a standard of 1.5 people per habitable room and 17m² per person as the maximum recommended occupancy level (Home, 1982). The often referred to South African Slums Act of 1934 defined a minimum floor area of 3.7m² per adult and 1.9m² per child less than 10. This Act has been repealed and perhaps should not be taken as a reasonable or acceptable measure of habitability or adequate housing. More recent work by Crankshaw and White (1992) in their study of inner city Johannesburg, measures overcrowding at more than two people per bedroom. The Built Environment Support Group's study of housing adequacy in South Africa (BESG, 1999) cited rather low space norms of 4m² to 6m² per person but also cited studies which suggested more adequate measures of between 10m² and 17m² per person.

People in unextended housing in Inanda Newtown were therefore living in overcrowded conditions in European terms, whilst people in extended houses had sufficient people per room rates (i.e. below 1.5) but inadequate space available to each person. Using definitions used more locally, none of the people living in Inanda Newtown could be said to be living in overcrowded conditions. Despite this, higher levels of crowding were clearly an impact of not extending, and added internal pressure to extend, although this pressure was not as acute as in Khayelitsha. As has been seen people living in unextended households were only slightly worse off in terms of total household income and only marginally worse off in their access to formal employment. The only group, which has been shown to be very small (less than 2% of households in Inanda Newtown), for whom there is cause for concern were the households living in unextended two room core houses. Even their initial occupancy rates in 1981 were high (6.5m² per person) (see the

Case 4: Nonhlanhla - no extension of two-room core house

Nonhlanhla was a single mother who, with her sister and their two children (aged 12 and 8 respectively), lived in a two-room unplastered and unpainted house in Unit A of Inanda Newtown. Nonhlanhla was only occasionally employed and her sister was seeking work. They had a low and unpredictable household income. She had moved out of a township house in Kwa Mashu to gain her independence.

She was not happy with the house in which she had lived for the past seven years and intended to move out to another house in the area. Her house was badly maintained and obviously too small. Despite indicating that she would like to move to another house, she also said she intended to add another two rooms by 1998. She had not yet done so because of financial problems. Nonhlanhla said that it was her responsibility to extend the house, but that she would appreciate some government assistance even if she had to supplement what was granted from her own pocket. She felt worse off than people in township houses because of the number of rooms she had, and because she had to cook in one of the bedrooms. The family only had access to a standpipe in the street. There was electricity and a phone in the house. Despite unhappiness with the house itself she was happy with the social facilities in the area.



case of Nonhlanhla). Looking at the more macro-scale, people densities in Inanda Newtown are indicated in Table 7-12. Site densities vary because of differences in topography, so people density is calculated for three situations: high, medium, and low density areas.

Table 7-12: People per hectare - Inanda

	Nett residential density	People per site	People per hectare
Highest density	32.25 sites/ha	6.4	206.4
Medium density	16.5 sites/ha	6.4	105.6
Lowest density	10 sites/ha	6.4	64

If the size of families when they first moved into the area are considered, it emerges that people densities were 45% higher than 15 years previously. These densities have implications for the upgrading of the levels of services, particularly sanitation. The pit latrine system which most households were still using, is appropriate for densities of up to 250 people per hectare (Heap, 1984). Although the highest density in Inanda Newtown was 206 people per hectare, the maximum of 250 people per hectare applied to ideal topographical conditions. With the steep sites in Inanda Newtown, and an apparent unwillingness on the part of residents to reuse old pits, as well as growing population densities, it is becoming increasingly important that sanitation infrastructure be upgraded.

Overall, the Inanda Newtown situation did not represent a hugely unequal set of living conditions when the pathways of non-extenders were compared with those who had extended. Location and access to local urban opportunities were of course the same across extension types (excluding economic barriers to urban opportunities), and those who had not extended were not significantly worse off than those who had. Considering this evidence, the locality of Inanda Newtown as created by the original project agents seems to have been in most respects an enabling one for the residents.

7.4 Drivers of consolidation in Khayelitsha

Internal drivers in Khayelitsha

Household sizes and structures led to greater internal pressure increasing the need to extend in Khayelitsha more so than in the Inanda Newtown case. This was a function of household size and the space available within the Khayelitsha core houses (see Table 7-13).

Table 7-13: Household size and extensions - Khayelitsha

	No extension	Informal extension	Formal extension	Mixed extension	Overall
Mean household size	4.1	5.2	5.8	6.9	5.3
Median household size	4	5	5	6.5	n/a
N	54	99	56	26	238

Household sizes in Khayelitsha were generally smaller than in Inanda Newtown. It should be noted that the lack of availability of space in Khayelitsha could also have kept household sizes smaller, as a conscious choice, but it has been shown above that household sizes in the Western Cape were generally smaller than those in KwaZulu Natal, and that the residents of the two study settlements reflected this broader trend. People with no extensions had the smallest average household sizes (4.1 people per site). Informally extended houses had larger household sizes at 5.2 people per site. Formally extended houses had slightly larger household sizes again (5.8 people per site), and households with mixed extensions (both formal and informal buildings) had the largest household size (6.9 people per site).

The growth rate of households with informal extensions was 2.5% per annum. Formally extended houses were accommodating a 3.3% per annum growth rate and houses with no extensions had the highest increase, at 3.9% per annum. This picture was very different to Inanda Newtown where non-extenders had a fairly low growth rate (2.5%) meaning that the pressure on existing space was not increasing as quickly as in Khayelitsha. With this high growth rate the concern was that conditions of overcrowding were likely to develop fairly rapidly if some kind of space was not added to unextended houses. How did household structures differ in Khayelitsha houses?

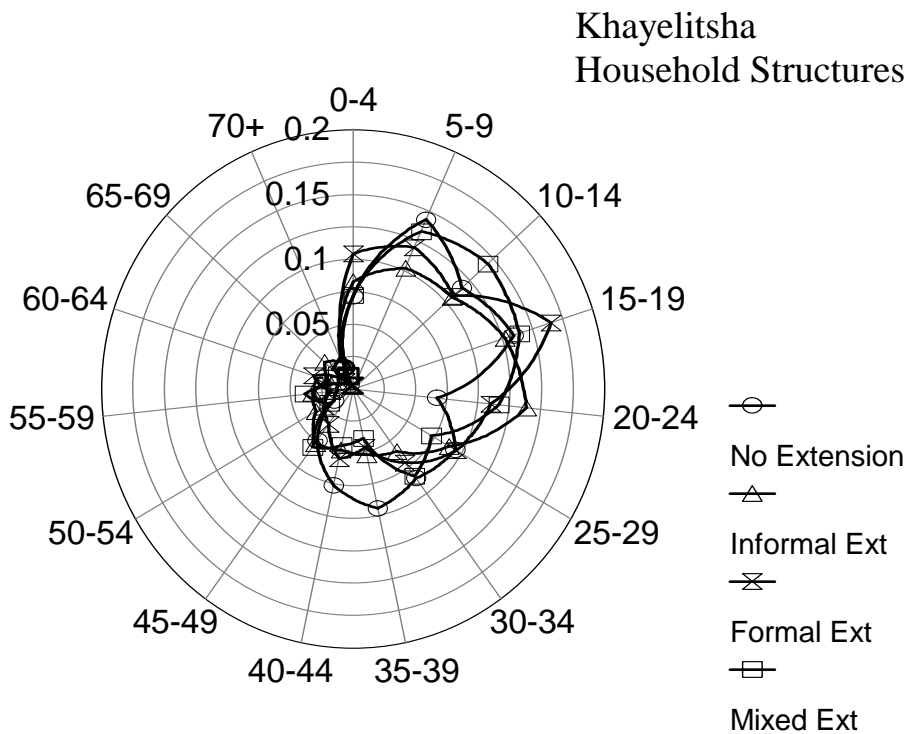


Figure 7-4: Khayelitsha household age structure

The differences between household structures in Khayelitsha were not easy to trace (Figure 7-4). There were not strong characteristic trends across wide age group bands as was seen in Inanda Newtown. Households with mixed extensions were better represented in the 10 to 14 age group.

Households with formal extensions had more 15 to 19 year olds, and households with no extensions had very few 20 to 24 year olds, but more than average numbers of people in the 35 to 44 age group. None of these trends was easy to interpret and there were not significant differences. It could be argued, in the absence of further, directed research, that household structure was not as strong a driver of extension type as it was in Inanda Newtown. Were there gender differences?

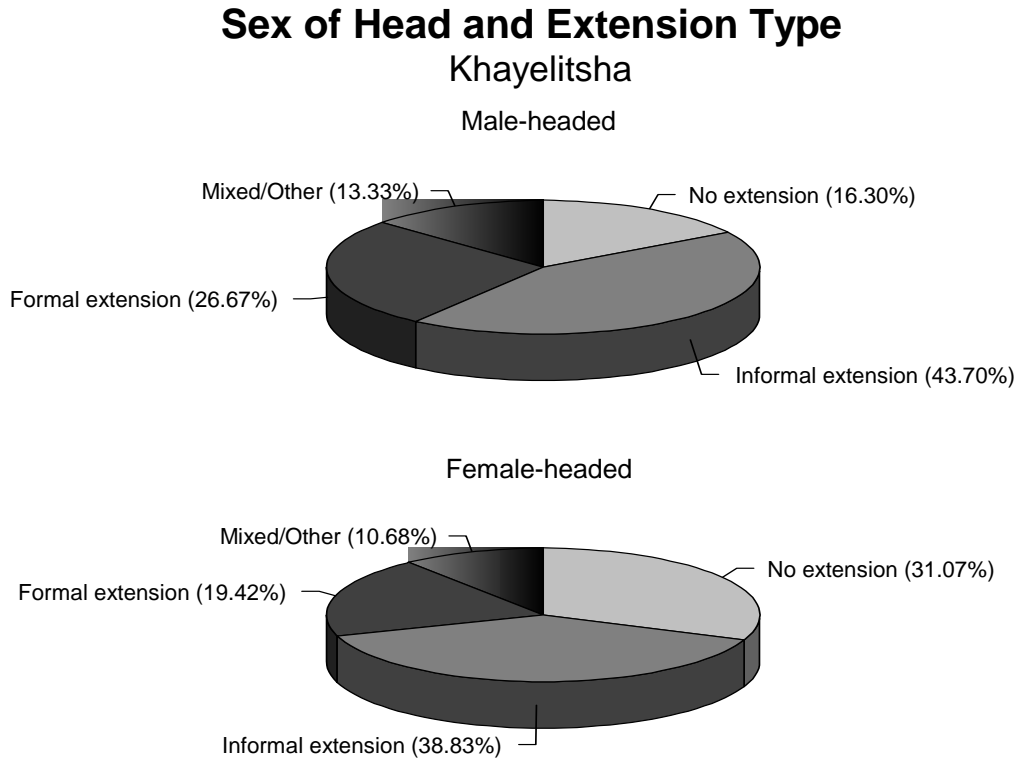


Figure 7-5: Gender of household head and extension type - Khayelitsha

In Khayelitsha there were notable differences (see Figure 7-5). In female-headed households the proportion of households with no extensions was almost double that for male-headed households. Female-headed households had fewer formal extensions (19% compared to 27% of male-headed households) and slightly fewer informal extensions. In looking for reasons for these marked differences, the relative incomes of households depending on whether they were headed by men or women were important (Table 7-14).

Table 7-14: Total household income according to gender of head - Khayelitsha

	Mean total monthly household income	N =
Male-headed households	R1,842.20	135
Female-headed households	R1,325.11	103
Overall (excluding zero incomes)	R1,696.84	227

Female-headed households earned on average 28% less per month than male-headed households. This partly explained the relative lack of extension in female-headed households. What is perhaps puzzling is that the differences in household incomes between the differently headed households were greater in Inanda Newtown than in Khayelitsha, and yet it seemed to have had a greater impact on ability and/or willingness to extend in Khayelitsha. In Khayelitsha where there was a greater imperative to extend in some way, the ability to extend was being directly affected by household income. Because woman-headed households received less income, they were less able to fulfil this need to extend. In fact, overall household income and employment played a very important role as a driver for extension.

Table 7-15: Income and employment by extension type - Khayelitsha

	No extension	Informal extension	Formal extension	Mixed extension	Overall (excl. zero incomes)
Mean monthly household income	R1,190.65	R1,493.47	R1,962.57	R2,070.04	R1,696.84
Rate of unemployment (people seeking work)	31%	25%	16%	32%	25%
Number of households	54	99	56	26	238

In Khayelitsha the trends in formal employment, incomes and extension types were very marked (Table 7-15). The level of formal unemployment was highest among households with no extensions (31%), medium amongst the majority of households who had informal extensions (25%), and lowest amongst people with formal extensions (16%). The exception to this trend was the group of households with mixed extensions. Their level of unemployment (32%) matched that of the group of people with no extensions, but their actual income was the highest of all groups. When incomes from self employment were isolated, it emerged that households with mixed extensions earned almost double each month from informal businesses when compared to formal extenders. Despite high unemployment, households with mixed extensions were earning enough from informal means to allow extensive investment in their houses and were using some of the structures on their sites to accommodate their informal businesses.

The income differential between non-extenders and formal extenders was much higher than in Inanda Newtown (39% as against only 13% in Inanda Newtown). From this data, household income appears to be the key determinant of people's ability to invest in housing in Khayelitsha. If the resources were available people chose to invest in their housing, although the impact of the continued lack of title to the houses does seem to have had a depressive effect on the permanence of extensions.

With the imperative to extend the small Khayelitsha houses and as households grew apace, what other assets did households have at their disposal? The very large number of people who made informal extensions, and whom we have seen were fairly poor, nevertheless were more likely to have access to the human investment of building skills than people in other categories. Although only 20% of such households had such skills, more than 30% built informal extensions for themselves. They

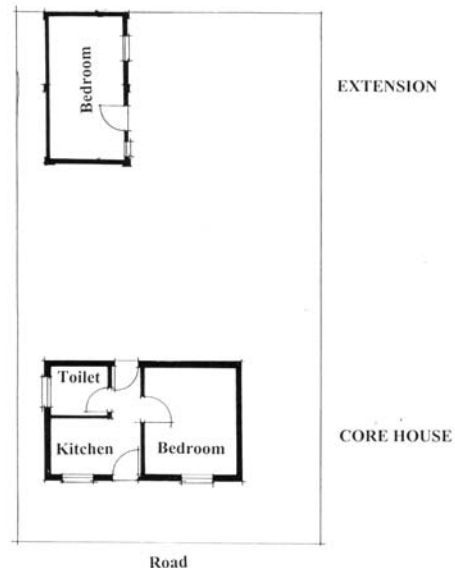
basically added space in the face of very little in the way of accessible human investments. Another 10% of households with informal extensions contributed their labour to decrease the cost of hiring a builder. Another interesting finding which applied more to Khayelitsha residents than Newtown residents, was that households with township origins were less likely to extend than residents with informal settlement origins. Some 24% of households with township origins did not extend whilst only 12% of households with informal settlement origins did not extend. The culture of living in a public form of rented housing where consolidation was disallowed could therefore have had an impact on suppressing the willingness of ex-township households to become involved in extension activities once they had moved to core housing.

Consolidation activities in Khayelitsha were taking place in a locality where the availability of informal builders and materials meant very cheap space could be built using informal materials. As a result many households who could not afford formal extensions nevertheless were enabled (although not consciously by the original developers) to consolidate (see the case of Nomtebeko).

Case 5: Nomtebeko - timber panel room results in improved quality of life

As Nomtebeko's two children grew up she felt there was a need for another bedroom. She purchased prefabricated timber framed panels for R1,700 which are readily available from outlets in the informal settlements which surround the formal part of Khayelitsha. These panels were put together by a builder into a 13m² room. This was placed away from the house towards the back of the site, and signified a marked improvement in quality of life for the family both because of the extra space and greater levels of privacy it afforded the family.

This was an example of an informal extension which created adequate housing as do 83% of the informal extensions undertaken in Khayelitsha. A direct comparison shows that informal extensions on average cost 2.5 times more in Inanda Newtown than in Khayelitsha. This case highlighted the importance of the local material supply market and the cost to employ small builders as determinants of choice of extension type.

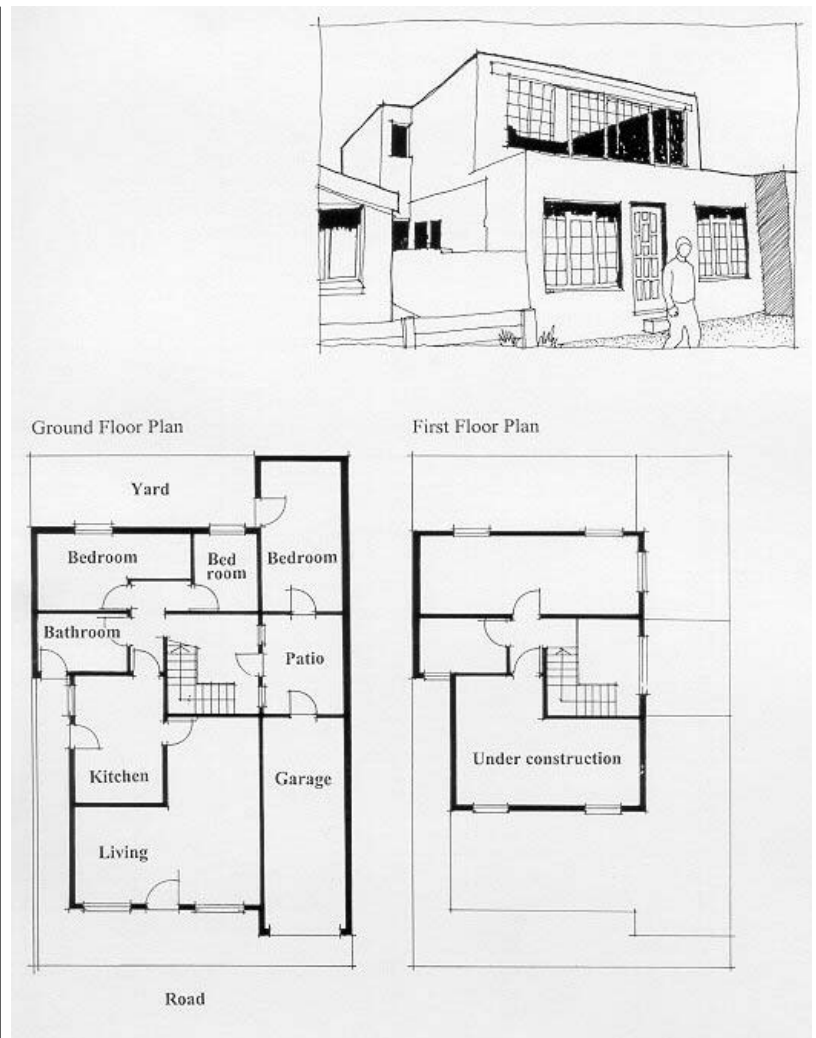


People who most needed to extend (as was evident from the household sizes) but could not afford to do so, and who did not have building skills within the household, basically had to adjust their preferences and somehow to cope with the conditions which this implied. This represented almost a quarter of households and their quality of life is discussed further below as an impact of non-extension.

In Khayelitsha, personal assets or 'stores' (Moser, 1998) in the form of savings, were combined in more cases with bank loans (8% of extenders) and the services of savings clubs (4% of extenders) as a means to save. The dependency on personal savings was an advantage in that debt was rarely incurred when building extensions, but also it was a limitation in that when savings were used up, often building activity also came to a halt (see Zodwa's case). Drawing on social capital in the form of advice from other people was fairly under developed, with most support coming from informal builders rather than friends or neighbours. There was a particular gap in the dependence on the local

Case 6: Zodwa - grand scale reconstruction on limited resources

Zodwa lived with her two children in a unique, still-to-be completed, ten room double story house in Khayelitsha. Initially she almost completely demolished her core house and built a five room house. In 1995, she added three more rooms at a cost of R25,000. This was just above average for formal extensions, although in this case they were particularly large extensions. The upstairs rooms were not complete at the time of the survey because Zodwa was self-employed with low monthly earnings which were not dependable. She had relied on personal savings to undertake the extensions so far but was seeking formal employment so that she could complete the house. This was an example of remodelling which went beyond what the original core house designers had envisaged and to an extent which would not have been anticipated at this income level. The importance of personal savings in the consolidation process is also highlighted. Zodwa's house, which remained incomplete for a year after the survey, was one case where a lack of regular income had hindered building activity. As has been shown, personal savings remained by far the most common method of financing for extensions with 87% of extensions in Khayelitsha and 94% in Inanda Newtown being financed in this way.



authority for information or permission. Khayelitsha residents rarely made claims on the public authorities and this was reflected in the fact that more than two thirds of all extensions did not receive approval from the local authority.

Added to this, the early collapse of the support initiative and the ongoing situation of insecure tenure in Khayelitsha meant that the local institutional and legislative contexts were anything but enabling at least during the 1980s and early 1990s. In this context of poverty, income inequality, and lack of enablement, the extensions remained predominantly informal in nature⁴.

Personal aspirations towards an urban lifestyle were evident in the more formal extensions (see the case of Zodwa), but the majority of extensions were informal and constituted utility space rarely used to enhance one's image or status in the neighbourhood.

The influence of distant location and peripherality was more significant as a shaper of extensions during the early stages of the project, but in general Khayelitsha has become better integrated into the urban economy than Inanda Newtown. The physical characteristics of the project were fairly enabling, or at least not obstructive, of people's efforts to extend. Flat sites and the reasonably good siting of the core houses on the plot meant that most of the space available could be used for extensions. The imperative to extend usable indoor space was increased in Khayelitsha by adverse weather conditions and less opportunities to use outdoor space for living than in the more salubrious surroundings of Inanda Newtown.

External contingent conditions and Khayelitsha consolidation

As outlined in Chapter 4, the external contingent conditions early on in the Khayelitsha consolidation process were, if anything, fraught, and unsupportive of people's own efforts to extend. Where the establishment of Inanda Newtown was accompanied by the creation of a supportive, if undemocratic, form of local government, in Khayelitsha the same national contingent conditions created a much less enabling institutional context. The stated aim of using Khayelitsha to control and stabilise the black urban population of Cape Town in the mid-1980s through the policies of orderly urbanisation, meant that the self-help principles of core housing were all but subsumed by the political intentions.

Government imperatives were not softened by the presence of an NGO which was attempting to "do good" (Fisher, 1997) as in the Inanda Newtown case. The professional team effectively had no say in the political and social dimensions of the project and so the rhetoric of self-help was revealed to have been empty. Residents were left to achieve their consolidation projects in isolation from almost all institutional assistance.

The legacy of these early events unfortunately remained in place throughout the period under review (1985 to 1996), particularly in the form of insecure tenure and the lack of capacity of the local

⁴ Strassmann listed similar obstacles to consolidation in Colombia (1982:154).

authority to support consolidation. Ironically, a strong civic movement in Khayelitsha meant that the service and rates boycott remained in place and that most people chose not to purchase their core housing from the State. There was almost a feeling that the form of development offered to Khayelitsha residents (without their support or agreement) was largely rejected. The lasting expectation that the government would still come back and extend the houses for people was evidence that core housing as a form of development had been misunderstood, or more likely, it had been seen for what it was in the way that it was originally offered: a way of coercing residents to participate in an undemocratic system. In the Khayelitsha case, there is little doubt that the original intentions of the 'inventors' of core housing had been conveniently adopted by the State as a way to bring citizens within the control of its apparatus (see Chapter 2).

As in Inanda Newtown, there was a sudden increase in extension activity from 1993 onwards in Khayelitsha, as national transformation at last partly outshone the local political constraints of the locality. While people's perceptions of personal freedom may have changed fairly rapidly at this time, a legacy which was not as quickly overcome was the lack building skills which it had been the policy of the Western Cape province to deny to African 'temporary' residents until that time. The internal pressures to extend remain extreme (see below), and it will only become evident with time whether the changes in the external environment will lead to more permanent forms of extension and more exuberant expressions of personal identities than had been the case up until 1996 in Khayelitsha. In the meantime, the cultural landscape of Khayelitsha core housing bears more resemblance to that of the surrounding informal settlements than to that of a formally consolidating core housing scheme.

Impacts of Khayelitsha consolidation

In Khayelitsha the impacts which were of concern were on the people living in unextended core houses (23% of households) and the 8.5% of households living in poor quality extensions. It has been shown that Khayelitsha households starting off a low base of space available, extended by any means available. The implications of living in unextended houses were fairly extreme in Khayelitsha. This was particularly evident from the comparison of occupancy rates for various extension types (Table 7-16).

Table 7-16: Mean occupancy rates - Khayelitsha

	No extension	Informal extension	Formal extension	Mixed	Overall
People per room	1.04	0.94	0.87	0.91	0.94
People per habitable room	2.05	1.58	1.51	1.57	1.66
Area per person (m ²)	9.07	11.21	13.83	11.93	11.67
Habitable area per person (m ²)	6.74	8.99	10.05	8.83	8.85

Because core houses in Khayelitsha were smaller (26-32m² compared to 47m² in Inanda Newtown), people who had not extended, although they had smaller household sizes, were by 1996 in a worse position than their counterparts in Inanda Newtown (see the case of Thembeke).

The inclusion of service space within the house also meant that the amount of habitable space per person was very small (6.74m²). Formal, informal and mixed extensions had yielded similar occupancy levels in terms of people per habitable room (1.51 to 1.58 people per room). In formally extended houses there was slightly more habitable space per person (10.05m²) compared to informal and mixed extensions (8.99m² and 8.83m² respectively).

Referring back to the discussion above about overcrowding, do these figures from the Khayelitsha case study represent overcrowding? The people who had not extended represented the most crowded group. For them even the significant local figure of two people per room was exceeded. And given that this is an average, there are undoubtedly many families who do live in overcrowded circumstances. All groups exceeded the European standard of 1.5 people per habitable room.

Comparing to other situations within South Africa, with the average of 8.85m² of habitable space per person, Khayelitsha residents were slightly worse off than their counterparts in formal townships (who had a median of 9m² per person). A decade after occupation, almost a quarter of the residents were facing living conditions which, according to the most lenient standards, could only be described as overcrowded. At site level, people densities varied between Village 1 and Village 2 (Table 7-17) both because the site densities in the two villages differed, and because the average number of people per house was different.

Table 7-17: People per hectare – Khayelitsha

	Nett resident density	People per site	People per hectare
Village 1	55 sites/ha	5.5	302.5
Village 2	49 sites/ha	5	245

Case 7: Thembeke - still no extension

Thembeke was a single mother with four children ranging in ages from three to sixteen. She moved from Gugulethu 10 years ago with her husband to gain independence from her family there. She found the house small. She and her ex-husband intended to extend but they 'broke up' before this could happen. Thembeke was getting a salary of R700 from her job and R300 maintenance each month. She said that her small maintenance payment did not allow her to extend then, although she would have liked to have added another three rooms.

Thembeke's core house had two habitable rooms (including the kitchen) totalling 19m² of habitable space. With six people often staying at the house there was an average of three people per room and only 3.2m² per person.



The flat site conditions and the planners' decision to increase site densities resulted in much higher people densities than in Inanda Newtown. Levels of between 250 and 400 people per hectare are considered to be sustainable in terms of infrastructure provision (Heap, 1984). With densities of up to 303 people per hectare in Khayelitsha, the installation of full waterborne sanitation from the outset was a wise choice. Population density had increased on average by 29% since people first moved into their houses.

Combined with the income and gender data above, people in unextended houses, apart from being the most crowded, were also the poorest, the most unemployed in both the formal and informal sectors, and had the greatest number of female-headed households. They had the least access to building skills within the household (see case of Samuel and Thandi). Essentially such households were suppressing their preferences to adjust their housing and simply trying to cope with very poor quality of life until events changed so that other assets could be mobilised to alleviate the pressures. The specific coping mechanisms of such households were not studied in detail in this study and this could perhaps be a useful direction for new research. An impact of small houses that people were unable to extend is that at some stage the household would be forced to split, as has been seen in the decanting of people from overcrowded townships into informal settlements in South Africa over the last twenty years (Hindson and McCarthy, 1994). This would mean in most cases a worsening of location and therefore access to urban opportunities for the part of the household forced to relocate, unless a subsidy house was accessed.

Case 8: Samuel and Thandi - overcrowding despite informal extension

Samuel and Thandi (71 and 60) lived in a house in Khayelitsha with their three adult children and two grandchildren. Their two pensions were the only household income. They could not afford any formal extensions to their three room house and lived in very cramped conditions. They have had many problems with the core house including sand and rain coming in under the doors (34% of households identified similar problems), and fungus growing on the walls (another 20% of families also named moisture penetration as a problem). They say they have no privacy. With five adults and two children living in three habitable rooms this is understandable. In 1995, they built a plywood and cardboard covered timber frame extension at a cost of R600. They did this to split up the adults in the family into separate rooms. Samuel had expected help from the government in improving the house but none was forthcoming.

Samuel and Thandi's extension was an unusually temporary structure. It raised the issue of whether the ubiquitous backyard shack in the Khayelitsha example could be viewed as an improvement to the core house. The house surveyor rated this extension as structurally unsound and in poor condition. Clearly according to both the household dwelling there and according to conventional planning standards this could not be regarded as the production of adequate housing. It was a desperate measure by the household to deal with overcrowding which led to a structurally unsound and inadequate dwelling. Such structurally unsound extensions were found in 17% of the households surveyed in Khayelitsha.



7.5 Conclusions

It is difficult to conclude whether internal pressures on accommodation were more important than the external contingent conditions coming from outside of the two localities as the main drivers of consolidation activity. It would be wrong to generalise, and individual cases would differ. However, looking at the evidence fairly broadly, it appeared that the political realities which determined institutional, legislative and even social realities at a local level did have a major influence on consolidation. The strongest evidence for this comes from the dates at which most extension activity took place, which coincided with the national transition to a more democratic form of government.

In Inanda Newtown, the effects of the apartheid system were ameliorated to some degree by a more supportive set of government and non-government institutions which were active in the area throughout the period under review. Although households were on average poorer than Khayelitsha households when compared to the local costs of living, there was not as great a difference in incomes between extenders and non-extendors. This, combined with a physical context which gave households more space from the outset and more of a part in decision making, had resulted in a closer match between the housing product and the needs of families. The main driver of extension was the internal need for space and households were mostly able to respond to this pressure. The impacts of not extending were less extreme and households were in a better position to do something about adjusting their housing when this became a major issue for them. In other words, the ability of households to achieve their own projects was supported in many cases. It could be seen as a context which, although it could have been improved in some ways, was enabling.

In Khayelitsha, the initial political intentions of the project initiators had translated into a set of structural relations in the locality which continued to disempower households and to prejudice the consolidation process. The designed built environment gave households opportunities to extend but very little in the way of habitable space in the core housing. Households decided to take this form of development and to reinterpret it in their own ways particularly through non-cooperation in the payment of rents and services. The main drivers of extension activity were the internal pressures from growth in household size and the age of dependants. A result of the markets and actors operating in the locality was the emergence of a predominantly informal process and product. Although crowding was relieved by informal extensions, residents did not feel that this was adequate or acceptable housing when they compared themselves to people living in township housing. It could be argued that Khayelitsha represented not so much a cultural landscape where households were succeeding in expressing their identities and aspirations, as a landscape where many households were simply trying to cope (c.f. Viviescas, 1985



Photo 7-7: Police lookout post and core house, Khayelitsha

and Rapoport, 1988). The impacts on households who had not 'succeeded' in following a consolidation path which the planners envisaged, were quite extreme. Structural factors had overshadowed personal endeavours and in many cases adequate housing and quality of life were not being achieved. The language of enablement had been appropriated by the original project initiators, dominated by the apartheid State, but had not been applied in the spirit in which it was intended by its inventors. So many of the elements of support were missing and residents refused in many cases to be further incorporated into the State's vision of development for the area.

The findings and explanations reviewed here raise many issues which are treated in more detail in the conclusion. They have implications for the current housing policy context in South Africa, and the findings need to be viewed against international trends and development thinking in general.

8 Conclusion

There are, however, still too many households for whom the core housing approach is not an enabling one in the South African, and probably the wider African, context, for whom it achieves neither adequate housing nor acceptable levels of satisfaction. (Napier, 1998:415)

8.1 Structure

The conclusion provides firstly a summary of the findings of the study, and secondly a discussion of the key themes and debates that have emerged which give answers to the central questions this investigation has sought to address. The chapter can be read as an 'executive summary' for the thesis as a whole. Thirdly the implications of the findings for the South African and the global contexts are discussed, followed fourthly by an assessment of the fulfilment of the research goals. Finally directions for future research are suggested.

8.2 Points of departure

The core housing intervention was 'invented' in the late 1950s as a technologically inspired response by bilateral and international donor organisations and involved theorists to several perceived social and housing problems. Several factors prepared the ground for its introduction as a mechanism to house people living in poverty: the recognition of mass poverty in Third World countries in the early 1940s (Escobar, 1995:21), the spread of communitarian, anti-authoritarian self-help thinking in First World protest movements (Meffert, 1992; Burgess, 1992), the recognition of informal, incremental housing processes in the 1950s (Turner, 1965; Abrams, 1964), and the recognition on the part of donor agencies and Third World governments that full, mass housing provision by many countries was becoming impossible to afford or sustain (Hamdi, 1991; Koenigsberger, 1987; Ward, 1982). Whether core housing was an emulation by its initiators of informal progressive building (i.e. innovation trickling upwards from the informal to the formal sector)(Ward, 1982:202), or an effective reduction of full provision by governments (Burgess, 1992:83) but with the advantages of being able to bring previously informal citizens under the control of an extended bureaucracy (Ferguson, 1990 and Scott, 1998), is a moot point because it represented different things to different actors.

Essentially the subsequent diffusion (Pred, 1996) of the core housing innovation to many developing countries through the many agents of the international development, and local State, apparatuses was because it suited the widely varying agendas of the different agencies, including international donor agencies, governments of Third World countries, the private sector, and NGOs and CBOs. This was because core housing made possible an exact mix of provision and participation through a horizontally stratified process which was understandable and manageable for its promoters. It has shown remarkable adaptability to adjust to the development rhetoric of the day (as described by Mayo and Angel, 1993, and Burgess, 1992:82, amongst others), moving from an explicitly technological

approach directly funded by international agencies, to the by-product of wider housing sector interventions and funding mechanisms.

The way that the beneficiaries of development received core housing differed according to locality, but the responses to other forms of development hinted that residents would tend to receive it on their own terms, effectively unravelling the concepts of development and modernity which had been tied into core housing by the purveyors of 'good' development and adapting the product to their own ends (Escobar, 1995).

The review of housing adjustment studies demonstrated that the modification or consolidation of core housing was only one of a number of possible paths that residents could choose (in an ideal world) to alleviate mismatches between their housing goods and their needs and aspirations (Seek, 1983). Another possible response was residential mobility which had, for the most part, been better studied in First World countries (Briggs, 1997; Forrest and Murie, 1994; Emmi and Magnusson, 1995; Pritchard, 1976; Knox, 1995; Timmermans and Van Noortwijk, 1995; Timmermans et al, 1996; Floor and Van Kempen, 1997; Clark and Onaka, 1983) than in Third World ones (Ward, 1982; Ahmad, 1992; Edwards, 1983; Rodman, 1985; Kellett, 1995) where mobility was in many cases very low, particularly in self-help settlements (Gough, 1998; Gilbert, 1999). The other housing adjustment options were the modification of neighbourhoods (Timmermans *et al*, 1996), or indeed the suppression of a household's own preferences (Edwards, 1983).

Many international studies of consolidation concentrated on purely informal processes which were not formally or officially supported (such as the consolidation of informal settlements e.g. Turner, 1965; Abrams, 1964; Ward, 1982; Van Lindert, 1992) or the transformation of government built housing (e.g. Strassmann, 1982; Beinart, 1971; Carmon and Oxman, 1981; Tipple, 2000). Most evaluations of formal interventions such as sites and service schemes and core housing schemes tended to be undertaken very soon after the implementation of projects and therefore to have only a partly formed view of the consolidation process. Core housing had rarely been studied in as much detail as other, mainly informal, consolidation processes. This study has sought to make a contribution by taking a longer view of consolidation, albeit a retrospective view rather than a longitudinal one (i.e. tracking consolidation at regular intervals, e.g. Schlyter, 1991). Unlike other informal consolidation processes, the study of core housing is a study of an explicitly (professionally and formally) designed start to the self-help housing process, including the provision of an upgradeable, serviced house which sets the physical parameters of development in place for the residents.

The focus then moved to South African contingent conditions from the 1950s to the early 1990s. The spatial, social and economic results of apartheid planning were traced. The case study histories were outlined within this structural context. Both projects heralded the spirit of limited reform emerging during the 1980s within the Apartheid government, particularly its move towards allowing the orderly urbanisation of African people to cities and towns. A growing interest in 'incremental' housing in

South Africa followed the release of the new housing policy in 1994 (Department of Housing, 1994) which was based on a capital subsidy to individuals qualifying on the basis of income and other criteria. The consolidation of sites and service schemes in South Africa had been studied as a precursor to the capital subsidy scheme. As mentioned in Chapter 3, it had been tested in the early 1990s by the Independent Development Trust (McCarthy *et al*, 1995; Bond, 1996). Similarly the consolidation of informal settlements (Smit and Mbona, 1996; Stevens *et al*, 1998) and their upgrading (Merrifield *et al*, 1993) had been documented. With the likely production of very large numbers of core houses under the new subsidy system, it was realised that the consolidation process for core housing was not adequately understood. Although this study focused on core housing settlements established well before the introduction of the subsidy scheme, and the research approach has been to ground them within their historical localities, the view it permits of the factors which enable consolidation and the conditions which support improved quality of life have some relevance for the current South African policy context.

This study could only, by its nature, answer some of the questions which relate to core housing in South Africa. The type of data collected was mostly quantitative allowing a broad overview representative of the consolidation activities of around 9000 households in the two case study settlements. The data are fixed in time and space, looking at a period of between 11 years (1985 to 1996) in Khayelitsha, Cape Town, and 15 years (1981 to 1996) in Inanda Newtown, Durban, towards the close of the apartheid era. The settlements were large scale interventions with differing approaches and sets of contingent conditions surrounding their development. The differences in the consolidation responses of residents and therefore the resultant settlement patterns in the two settlements were used comparatively to reflect on the local outcomes of the causal mechanisms operating in the two localities.

Recognising the limitations imposed by the parameters of the study, observations can nevertheless be made about the implications of the findings for the current South African policy context (i.e. post-1994) and the cases can be interpreted against more global development thinking, and against the ideas of the originators and earlier critics of self-help housing interventions. Many of the hypotheses set up as a result of the review of the origins of core housing and of broader housing adjustment studies can also be discussed.

8.3 Consolidation in the localities

The key question which the study sought to answer was whether core housing could be seen as a sufficiently supportive framework for allowing or enabling households to counter situations of urban poverty, achieve adequate housing, and integrate themselves socially, economically and spatially into the city. Two settlements were studied representing different core housing delivery processes but during the same era when political and social relations in South Africa were at a certain stage of

development. A chronological process was followed in analysing the consolidation evidence from the two case study settlements:

- a) an analysis of the history of the development of the settlements and developments in the contingent conditions over the duration of the study;
- b) a view of the households and houses at occupation of the settlements;
- c) a view of how households and houses had consolidated by 1996, and the processes or means by which they achieved their consolidation projects; and
- d) a discussion of the explanations for the levels and nature of consolidation found in the two settlements.

Inanda Newtown

Inanda Newtown was a case in which a strong NGO presence, in the form of the pro-establishment Urban Foundation, had introduced the idea of incremental housing, secure tenure, some level of personal choice of housing product and location, and a supportive local authority. Whilst possibly unwittingly aiding in the extension of the partly reformed bureaucracy of apartheid government in the form of a new Black local authority, the worst aspects of the orderly urbanisation policy were ameliorated by the initial and then longer term presence of the NGO as it imported international notions of development into the locality. The NGO remained involved in the area for at least nine years and had an interest in seeing that the consolidation process was supported.

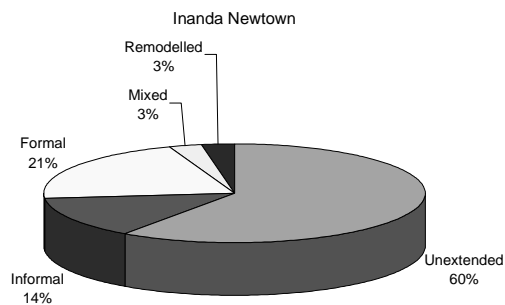


Figure 8-1: Inanda extension types

The settlement began as a crisis response by the Department of Health and the Department of Co-operation and Development with the resettlement of people to tents mainly from the informal settlements worst hit by an outbreak of typhoid in 1979. It was located on the far north periphery of Durban, 26km from the city centre and further north than the historic townships of KwaMashu and Ntuzuma. The Urban Foundation became involved early on in the process and eventually almost 4000 houses were built in three phases (Photo 8-1). Most residents moving to Inanda Newtown in the early years came from informal



Photo 8-1: Early project development in Inanda (source: Urban Foundation, 1983)

settlements (45%) and rural areas (17%), with the remainder (37%) coming from townships. Residential mobility had been low over the 15 years up to 1996 with 79% of the sample being participants in the original project. The advantages of the retrospective method were realised in that most people recalled the early stages of settlement and participation.

Levels of service in Inanda Newtown were basic, with pit latrines on each site, shared standpipes in the streets, and only the main bus routes surfaced. The topography of the wider Inanda area is steep (slopes of between 1:3 and 1:8) and the site sizes had to vary from between 180m² to 350m² to allow enough space to allow for the core house and place for extensions. The lower level of service was offset by larger core houses, with 71% of residents choosing the 47m² shell house, and another 16% being able to afford the internally sub-divided four room house (also 47m²). Less than 1% of residents chose the 29m² shell house, and the remaining 12% were able to afford the 67.6m² six room house or to build according to their own plans. Most core houses were built by small contractors trained and then employed on the project.

Residents were given a form of tenure that was the most secure possible under apartheid legislation and loans with subsidised interest rates related to income meant that financing the houses was not onerous for residents in most cases. Although the choice of whether to have lower levels of service or higher levels of housing was not given to the resident community, the choice of space over finish in the selection of core housing types by residents was informative, and in marked contrast to the experiences of residents in Khayelitsha who were given a single, mass produced product largely without any choice. Public amenities such as schools, community halls, churches, a sports field and commercial sites were planned within the project boundaries and most amenities were established fairly quickly.

By 1996, the consolidation responses in Inanda Newtown were not extensive in terms of built additions (Figure 8-1). The majority of households (60%) had not added to the built area of the houses but most of the people with shell houses (89%) had sub-divided their shell houses. A fairly small number of households had added formal extensions (21%), with an even smaller proportion of people (14%) adding extensions using traditional materials such as wattle and daub, and collected materials such as plywood and timber slats. Only 3% had a mixture of formal and informal extensions. Most extensions were structurally adequate, with only 16% being in a poor condition.

When looking at the main drivers of extension in Inanda Newtown, it became clear that overall households were slightly poorer than people in Khayelitsha, and the market in materials and services, especially for informal building meant that extensions were comparatively expensive (informal extensions being more than 2.5 times more costly than in Khayelitsha). Consolidation was therefore taking place fairly slowly, but in a context in which consolidation in informal settlements was also very slow (Kellett and Napier, 1995). There were a large number of families with young children who had not extended, and households with young adult dependants had tended to extend. There was not a

huge income differential between those who had extended and those who had not (only 13% difference in average total household incomes) indicating that the locality was sufficiently enabling that households could extend when they needed to. This was supported by the occupancy and crowding rates which showed that even people without extensions could not be classed as overcrowded (1.67 people per room and 9.8m² per person). Although this was more crowded than people who had extended (showing that extensions relieved crowding) it still did not represent cause for concern. By 1996, there was an average of 6.4 people per site, and 5.1 people per dwelling in Inanda Newtown. So households were generally better off than people in the surrounding informal settlements and townships. This situation was confirmed by the fact that 43% of households felt better off than people living in townships, although almost half of people without extensions felt worse off because they had not yet managed to extend. There were also high levels of satisfaction with public amenities with 83% of households saying that local amenities were adequate.

Overall, it was concluded on the basis of the evidence that the locality created in Inanda Newtown was a reasonably enabling and supportive environment in which residents could pursue their consolidation projects. Although the proportions of households following the different extension pathways indicated slow consolidation (in common with surrounding informal settlements), where consolidation did take place it was mostly formal in nature and of a high quality. However, the success of the project from the point of view of residents had to be qualified in that the original decision to install low levels of service meant that the upgrading particularly of water supply, the pit latrine system and secondary roads was overdue by 1996. Peripheral location meant that building continued to be relatively expensive and access to employment and education costly. In the transition to democratic and developmental local government, it remained uncertain whether the local authority located in the area would remain focused on consolidation support, or whether its capacities would be overwhelmed by the needs of the broader, and mostly informal, Inanda area. In the early years, a vibrant civic movement had blossomed in the area despite the project developers' purposeful circumventing of political urban social movements. However, as in many other parts of the country, the role of the local civic movement was undermined by the installation of development forums from 1994 and the failure of the civic movement to win sole representative status (Pieterse, 1997) in the Inanda Newtown area.

Khayelitsha

In Khayelitsha the hypothesis that the original project conditions are eventually overtaken by current realities was not supported. The use of the development of Villages 1 and 2 of Town 1 of Khayelitsha as the first stage in a strategy by the last, non-reformist apartheid prime minister to control the urbanisation of African people (dubbed their 'orderly urbanisation' policy) has continued to overshadow residents' responses to, and perceptions of, core housing. An attempt by government to resettle people from the informal settlements of Crossroads and KTC

was met with considerable opposition, and this plan was eventually abandoned. Residents were eventually drawn mostly from backyard shacks in the area (83% of original residents). Only 15% of the original residents had come from informal settlements, and 3% from rural areas or other cities. By 1996, 75% of the original residents were still living in the Khayelitsha core housing.

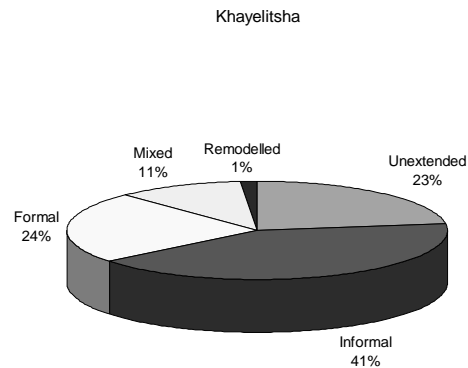


Figure 8-2: Khayelitsha extension types

The master plan for Khayelitsha was extensive, with Town 1 being only the first stage. It was located 35km east of the city centre in an area, which at the time, was far beyond even the traditional townships. Almost 5000 houses were mass built by three large construction firms, and although completed by 1983 were only occupied by 1985. The houses were fairly small (ranging from 26m² to 32m²)(Photo 8-2) and located on level plots of between 144m² to 160m². An indoor bathroom, a kitchen / living area, and a bedroom were accommodated within the main house, meaning that service levels were higher than in Inanda Newtown. All roads were tarred and the infrastructure was generally of a high quality. Public spaces and amenities were planned as part of Town 1, along with convenient access to rail transport from most parts of the settlement.

The occupation of the original houses was an exercise in the allocation of the available houses largely without reference to the preferences of residents for location or house type. Around 90% of original Khayelitsha residents confirmed that there had been no choice of house type or location. 66% of households occupied the 26.5m² Besterecta houses, the largest of the mass housing contracts built mostly in Village 2. Some 18% occupied the 26m² Wimpey house, and 15% occupied the 32m² pre-cast panel Murray and Roberts house.



Photo 8-2: Rows of cores, Khayelitsha

The consolidation responses of Khayelitsha residents were very different from those of Inanda Newtown residents (Figure 8-2). They reflected a locality in which structural relations seemed to dominate human agency. Significant internal pressure on the small core housing had led to high levels of consolidation but mostly using impermanent materials. Only 23% of households had not added space, whilst 41% had added informal extensions and another 11% had added informal and formal extensions. The category of people who had only formal extensions on their plot at the time of the survey was similar to Inanda Newtown at 24% of households. The majority of extensions were built from timber slats (38%) plywood (8%) and corrugated iron (13%). Some 17% of informal extensions were of poor structural condition, and 12% of all extensions were in this state. So the construction quality of most extensions was acceptable, although there was concern for the almost one fifth of residents living in inadequate informal extensions.

Although the responses of Khayelitsha residents seems to have been better, when viewing the proportion of extenders to non-extendors, the overwhelmingly informal nature of extension needed explanation. There were many factors which, I believe, contributed to the informality of consolidation.

The most localised of pressures to extend was the accommodation of households in small core houses. As households grew, the pressure on habitable space quickly became noticeable and the imperative to extend for space and privacy was inevitable, even though annual growth rates of households were exactly the same as in Inanda Newtown.

Added to this, despite being peripheral to the urban economy when it was established, the urban areas grew around the core housing areas of Khayelitsha both through informal settlement and sites and service schemes. The market in building materials and services was therefore competitive by 1990, and informal extensions were very affordable as a result. The skills to build informally and the advice was easily accessible, if not from the formal authorities.

As with all apartheid-style townships, residents were not granted secure tenure, having to rent from the municipality. The national attempt to sell off properties to township occupants (Parnell, 1992:57) met with little success in Khayelitsha, and despite being offered for sale since 1986, by 1996 only 16% of the original Khayelitsha residents had bought from the government. The effects of a municipal services boycott with its roots in the apartheid era were still being felt in 1996, with 63% of residents saying that they still were not paying their rents and service charges. These factors influenced perceptions of security and therefore the levels of personal investment in extensions were affected.

Changes in national politics and social relations altered matters to some extent, but many of the legacies lived on, such as the insecure tenure, the service boycotts, a local authority not geared to enable consolidation, and negative attitudes to living in core housing (61% felt worse off than township residents, compared to 45% in Inanda Newtown). Many residents did not take responsibility for their own housing when they occupied it with 35% expecting the government to extend their

houses for them, and 6% of households still expected this 11 years later. These figures indicate a very low level of ownership of, and identification with, the intentions that the purveyors of this form of development had for this project.

Given the pressures and contingent conditions in the Khayelitsha locality, the one quarter of households who did not manage to extend their houses were left to live with the consequences. Such households were 39% poorer than households who had extended formally, were twice as likely to be headed by women with 28% less household income than men, and were living in conditions which by any standards could be described as overcrowded. There were more than two people per habitable room and 6.74m² of habitable space per person. Such households also had less access to building skills within the household when compared to informal and formal extenders. Although Khayelitsha households were on average slightly better off in terms of total household income compared to costs of living than Inanda Newtown residents, the people whose portfolios of assets (investments, stores and claims) were small, were hardly coping. For them adequate housing and acceptable quality of life had not been attained. Even people living in informally extended houses, although mostly structurally adequate, did not feel they were doing well.

Not surprisingly therefore, when comparing themselves to township residents, 73% of informal extenders and 70% of non-extendors felt worse off. Most people (89%) gave their reasons as not having an adequate number of rooms, enough space or sufficient privacy in the houses. Despite most residents justifiably negative feelings about living in Khayelitsha core housing, 72% were satisfied with the public amenities. This was lower than Inanda Newtown's 83% satisfaction level, but some indication that most of the problem resided for Khayelitsha residents not in the public realm, nor in the service levels, but in the shortage of space available to live and the difficulty of achieving their consolidation projects which would have alleviated the situation.

Given this evidence, it had to be concluded that the way in which Khayelitsha had initially been framed as a project had led to a situation where the achievement of adequate housing by most residents remained a future aspiration. Although the informal building process was vibrant and had led to the production of great amounts of extra space (and such amazing amounts of informal activity and displays of personal initiative could easily be romanticised)(e.g. Photo 8-3), residents themselves ranked this as inadequate, and as representing the non-achievement of their projects and concepts of modernity. The predominance of structural factors over personal attempts to create adequate housing, including insecure tenure and an unsupportive local authority, meant that Khayelitsha could not be seen as an enabling context. Households who had acquired their houses from the Khayelitsha municipality were twice as likely to



Photo 8-3: Khayelitsha shack architecture

have extended than those who still rented. In fact, the quality of life of households who could not assemble the necessary resources to extend seemed to be worse than that experienced by many other people in informal settlements. So what was tantamount to forced relocation to core housing had, if anything, exacerbated conditions for these people. Turner's example of the enabling shack and the dis-enabling mass house is pertinent here (Turner, 1976:73-88). The attempt by the State to subvert a housing approach designed to allow at least some form of participation had not worked as most of the recognised elements of successful self-help were missing as a result.

Thankfully, Khayelitsha residents had strong infrastructure services, public amenities (e.g. schools, clinics etc.) and public transport to fall back on. Public space was also extensive though largely under-developed and therefore under-utilised (Photo 8-4). The argument that access to public space alleviates pressure on small houses would be difficult to defend given the Khayelitsha example and the negative effects of lack of personal space on quality of life.



Photo 8-4: Undeveloped open space

8.4 Themes and debates

A number of broader debates are raised when the trends within the two case studies are compared. The brief discussion below of the themes arising out of the case studies is intended to further interpret the significance of the findings. It is also to comment on whether the findings have answered the component parts of the central research questions outlined in chapters 1 and 3, and therefore to what extent the investigation achieved its goals.

At this point, given the findings outlined above, we need to be careful not to caricature Khayelitsha as an overwhelmingly negative case study and Inanda Newtown as a perfectly conceived and executed example of core housing. Looking at the differences between the two settlements in reported levels of satisfaction, levels of understanding amongst residents of the incremental process, and consolidation responses, it was clear that neither project was ideal. However, the negative impacts on Khayelitsha residents were more pronounced at the time of the survey than in Inanda Newtown. Some attempt will therefore be made to remain true to the complexity of the findings and the fact that not all explanations of motivations and conditions were fully proved.

Although the consolidation responses of residents in Inanda Newtown and Khayelitsha were very different, arising from the different development processes and the localities so created, the wider, national contingent conditions and causal mechanisms were very similar. Both settlements were developed within two years of one another within the same national policy context, and both represented delivery of core housing at scale. Another level of similarity which was comprehensively demonstrated in chapter 6, was that the households occupying the two settlements bore remarkable

resemblance to one another. The growth rate of households, the ratios of numbers of women to men, the proportions of women-headed households, and the age profiles of people in both settlements all corresponded. In both settlements, most residents were committed to remaining in urban areas and in the neighbourhoods, meaning that in the absence of other alternatives residential mobility had remained low. Some of these similarities in household profiles were attributable to the similar allocation practices applied at occupation by the developers of both the settlements (and which are not that far removed from allocation practices under current South African housing policy). Although the local urban economies operating in and around both settlements did differ, the location of both settlements within the apartheid city structure was very similar. Looking at a broad overview of factors, there was enough similarity to mean that the comparative element of the research could be justified, at least from the point of view of the human agents attempting to pursue their consolidation projects.

What was core housing?

Core housing, as originally conceived by Abrams (1964:177), was a way to organise the staged delivery of mass housing so that the product was more affordable to the end users. The various forms of elemental construction (Ward, 1982) were seen as ways of involving residents in the process while giving them access to land, services and sometimes formal, if incomplete, housing. As discussed in chapter 2, the ideas of self-help housing spread quickly as different agencies supported it for their own reasons. What did core housing represent for its creators in Inanda Newtown and Khayelitsha? Although developed very close to one another in time, the case studies were different at least in the way that they allowed the agencies to operate at the implementation stage.

What was core housing in Inanda Newtown?

In the aftermath of the crisis response to the health threat which, as we saw, was a common response by city authorities to informal settlements, the political space between government and residents (Fisher, 1997:440; UNCHS, 1996a:165) was opened up in which the Urban Foundation NGO could effectively operate. As a newly formed NGO (formed in the aftermath of the 1976 Soweto riots) and funded by international donor agencies (and therefore linked into the wider development apparatus and its internationally shared way of thinking (Escobar, 1995)), the Urban Foundation was proactive in transforming a transit camp into a self-help pilot project (Photo 8-5 c.f. Photo 4-8). So for the Urban Foundation it was indeed an opening to do good (Fisher, 1997) and for them it became a way of working and the basis on which a non-profit utility company was formed to continue to deliver low cost housing with an element of personal choice. Bond (1996) traces how Urban Foundation thinking on incremental

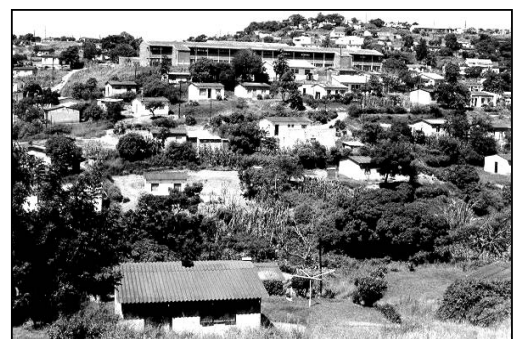


Photo 8-5: Inanda Newtown

housing was incorporated into the policy of the new South African government in the negotiation of housing policy in 1994 (McCarthy et al, 1995; IDT, 1994). Although the link was not explicitly drawn, it is also likely that the developers of Khayelitsha had learnt from the way in which the Inanda Newtown core housing process had been formulated.

For the government at this stage, very early on in the new era of orderly urbanisation and the introduction of new Black local authorities, the departments involved in the development of Inanda Newtown seem to have stood back from trying to fully control the process. It was one of the first instances since 1968 when housing for African people was built within 'white South Africa' and not within the homeland areas. In the same way that informal settlements grew at a phenomenal rate on the far northern periphery of Durban in the 1970s, the development of Inanda Newtown as a participative form of housing within an oppressive structural context, seemed to have gone almost unnoticed by the authorities. As a result, in this time of transition the Urban Foundation was allowed an unusual amount of latitude. Although we have seen that the Urban Foundation did not address some of the fundamentals such as mass participation, the building of urban social movements and the promotion of democratic local government, it did nevertheless achieve a situation which was innovative for its time and the creation of a locality which was in its institutional makeup supportive of the narrower activity of housing consolidation.

For most Inanda Newtown residents, the move from informal settlements and rural areas to Inanda Newtown housing represented an improvement in location, services and housing. The coercive element in relocation of people to Inanda Newtown was less of a factor than in many other projects at a time when forced removals were still common. The evidence supports the interpretation that for residents the move to Inanda Newtown was a move away from informality towards a more urban way of life. People's concepts of modernity were reflected in the unusually low level of informal extensions and in the statements of identity evident in the design of formal extensions. So for the various actors, the ways that core housing was conceived and received was mainly constructive, and it remained true to the international concepts of good practice in self-help processes and the ideas of the originators of the core housing concept.

What was core housing in Khayelitsha?

It has become clear that the vested interests of the actors in the Khayelitsha were not as benevolent. In fact viewing the way that political agendas dominated most of the main decisions about location, tenure, process and design, the Khayelitsha core housing scheme could well be characterised as a subversion of the original ideas of self-help and core housing by the apartheid State at a time when it was making a last ditch attempt to reform the system using policies (including the introduction of the tricameral parliamentary system) designed to make it appear more acceptable to the international community. Under these circumstances, the quality of the core housing approach which allowed the horizontal stratification of participation, effectively shutting out the part of residents until they occupied the housing, but giving the appearance that a self-help approach was being tried, was put to

maximum use by the State. The initially ambitious intention to use Khayelitsha to resettle the whole of Cape Town's African population (Cook; 1992) using coercive means if necessary, is evidence of the way in which the State was using the core housing approach.

Thus the State at the time had no intention of carrying out the spirit of core housing as originally framed by Abrams (1964). The private design consultants had no vested interest in the longer term success of the project, nor in the building of a strong civil society, and after designing a robust set of services and small core houses, continued to assert that the project represented a successful example of higher density, incremental housing and settlement design despite evidence to the contrary. The construction of the costly building support centre showed that on paper the principle of support was acknowledged, but the immediate collapse of the support initiative because of lack of planning for the staffing and funding of the process was evidence of a lack of commitment. The one quality most mentioned in self-help literature as a precondition for personal investment and community ownership of projects, secure tenure, was not granted by the State at the time.

The local authority established in Khayelitsha was not done with a view to supporting residents in their consolidation projects (only 32% of residents sought permission to build, compared to 58% in Inanda Newtown). Evidence that Khayelitsha was primarily an instrument of control was that the State made little attempt to recover the capital costs of the development. Construction of services and houses in the sandy site conditions was very costly. The flat rate rents were nominal (and then boycotted). Core housing as described by Abrams and Turner (1976) as one of the ways to match the affordability levels of residents with a housing product was clearly not the intention of the developers of Khayelitsha: the coercive incorporation of citizens into the formal system obviously was.

The completion of the construction of Khayelitsha in 1983 (although only occupied in 1985) coincided with the introduction of new Black local authorities under the tricameral system. Rather like core housing, this local government system was intended to give the appearance of democracy but without actually allowing full citizen rights, such as the election of councillors. Khayelitsha (as well as Inanda Newtown) was an opportunity to install the new local government system in a greenfields settlement. Unlike Inanda Newtown, the Khayelitsha local government was not geared to support residents consolidate their housing. So Khayelitsha, from its initial conception by President Botha as he flew over the area in a helicopter and wagged his infamous finger in the direction of a large open space of sand flatlands running from the Cape Town airport down to the False Bay coast line (or so the anecdote goes), was designed to extend the apartheid state bureaucracy (similar to Ferguson's (1990) Lesotho example) and to make 'good' citizens (Scott, 1998) of the black population of Cape Town.

As Escobar (1995) pointed out, citizens do not always receive the proffered forms of development in exactly the way that the external development agencies expect. The refusal by the squatter communities of Crossroads and KTC to be moved to Khayelitsha was the first act of resistance. The refusal of most to purchase the properties offered by the State from 1986 was another act of defiance, and the ongoing rent and services boycott was another. The impact of this was, as we have seen, the emergence of a predominantly informal form of extension building in Khayelitsha. Insecure tenure, cheap informal materials and informal building services, and a view of urban life influenced possibly by the extensive informal settlements on the Cape Flats (and the fact that many residents had themselves lived in informal settlements and had the building skills associated with the building of temporary structures), meant that the backyard shack was the most common form of space creation (Photo 8-6). In an area intended to incorporate and control citizens, most chose not to seek permission to build from the authorities and the consolidation of core housing in Khayelitsha was largely in the form of unassisted self-help. The expectation that the government would come back and help people remained a strong but unfulfilled wish for many people.



Photo 8-6: Khayelitsha back yards

Informal settlement improvement or mass housing reduction?

Was the application of core housing in these two cases an emulation of what was happening in informal settlements (as Ward (1982) held) or a reduction in full, mass provision by the State as typified by the township construction of the 1950s and 1960s? By the time it was adopted in South Africa, core housing had already spread to the rest of the world (chapter 2), and so was a well established housing delivery mechanism. In the case of Inanda Newtown, a locality in which a multitude of informal settlements already existed, and the settlement started with the emergency resettlement of people into tents on serviced sites, the production of core housing was an upgrading or improvement of settlement form from a very temporary form to a more permanent form, with the participation of residents. The innovation diffusion was not, at this stage, coming from a national policy which was altering landscapes as is the case under current South African housing policy (see below and Photo 8-7), but rather from an improvement on more informal forms of settlements. The residents chose to accept this form of development as a step upwards into their conception of urban life, and despite their informal origins, mostly resisted consolidating using informal methods. So for the external development agencies ideas were flowing from the informal to the formal



Photo 8-7: South African housing subsidy innovation diffusion (source: DoH)

(as well as from the international to the local), and for the residents from the formal to their newly formalised circumstances. In Khayelitsha it was the other way around on both counts. Khayelitsha Town 1 was for the government and developers a trend downwards from full provision of four room township houses to partial or elemental provision. Sites B and C, which were sites and services schemes bordering Town 1 towards the north, were developed immediately afterwards. The trend in international funding from support for the development of core housing, then sites and service, and then informal settlement upgrading, happened within a decade in Cape Town (although all approaches continued to be promoted in parallel). So Khayelitsha was a reduction of full provision, to smaller plots, smaller houses, but similar service levels. For municipalities, the ongoing cost would reside in services, and so the initial installation of higher level services was an astute way of ensuring low running costs for the authorities whilst transferring the responsibility for the creation of adequate housing to residents. As we have seen, for residents innovation diffusion was flowing from informal settlements to their newly formalised circumstances as the predominant form of consolidation was informal in nature, both in product and process. Despite the State attempting to progressively roll back its responsibility for housing, residents effectively resisted this through non-payment and by refusal to purchase properties.

Participation or co-optation?

It is clear by now that core housing is a very versatile instrument which can allow exactly the mix of resident community participation that the developers wish to permit. Inanda Newtown was more vertically integrated in that households in the first phase (Unit A) were occupying the sites and so were able to choose their core house types, their location (in later phases), their house position on the site, and whether to use a project-based small contractor or to employ their own contractor or to build themselves.

The responses of Inanda Newtown residents of what they felt about participation were disappointing. 63% of original residents said they had not chosen their location in the project, and 75% said they had not chosen their house type. There is evidence that the process of choice of location and houses designed by the Urban Foundation was followed systematically in each case. What is worrying is that residents felt they had not been given choices and that this element was not strong in their memories after a decade of occupation.

Inanda Newtown may have been relatively strong on household level participation but mass participation was not as well developed. The (possibly intentional) circumventing of existing civic organisations and the installation of an unelected Councillor for the area meant that fundamentally political participation had not improved. It is doubtful that it could have improved given the broader causal mechanisms operating at the time and at least the new local authority was supportive of consolidation.

Enough evidence has been presented to show that Khayelitsha was not intended to be a participatory exercise. From the identification of beneficiaries, to the choice of houses and location (around 10% of people indicated they had some choice), the old township provision mentality predominated. People were simply allocated a mass produced product and were expected to be grateful. In this case, core housing was packaged in the most horizontally stratified form possible. The private sector undertook a design, servicing and house building process which was effectively isolated from the ultimate end users. Participation for residents began only after occupation and was limited to bearing the load of the consolidation process. To argue that core housing applied in this was a form of enablement is hardly defensible. It was in effect simply the reduction of the quantity of goods that the State was providing (Burgess, 1992:83) allowing the State to reduce its responsibility for housing while extending its control over citizens.

Another issue in answering whether location in core housing allowed participation is to what extent did that depend on where residents had come from? The point has been made that people moving to Khayelitsha from informal settlements where consolidation was part of life were twice as likely to extend their houses than people who moved from townships where consolidation was purposely suppressed. Essentially what this meant was that for households with township origins *no momentum of personal participation had been built up*. They had few building skills, little organisational experience, and very limited exposure to the implications of home ownership (Napier, 1998). People from informal settlement origins would have been more used to being involved in providing for their own housing needs and seem to have shown greater willingness to consolidate. What appears to be the case, then, is that a history of direct involvement in the establishment of one's own housing may well have aided households in establishing themselves more successfully in core housing.

Enablement and urban poverty alleviation

We have discussed participation in the initial phases of the development of core housing in the two case studies, but here we move more to the consolidation phases and discuss the broader measures of whether the residents have been enabled to achieve better quality of life and their own consolidation projects by location in the two settlements. In Chapter 3 it was stated:

Residents who occupy core housing after the initial servicing and construction phases have been completed, have at their disposal a range of means by which to pursue their own projects, and the ends they wish to achieve through these projects. The means which this investigation seeks to explore in detail are how people access urban opportunities as a result of their geographical location in core housing settlements, and how they consolidate their housing circumstances (for better or worse). The degree to which these means are able to satisfy the basic needs of the households as well as their higher order aspirations will be taken as a measure of the success of particular core housing approaches, as applied in the case study settlements.

Essentially we are asking whether core housing proved to be a good vehicle for resident enablement. To assess enablement it was stated in Chapter 3 that it was necessary to achieve a holistic view of the factors which motivate people to act in certain ways and to understand the balance between their own freedom to act and the causal mechanisms which apply in a locality and which constrain or

enable action. There are several elements taken as indicators here: the alleviation of poverty and attainment of better quality of life, and the success in personal expressions of identity and status.

Does location in core housing lead to poverty alleviation and better quality of life?

It does appear from the evidence that residents were in a better position than when they moved into the core housing settlements in both Inanda Newtown and Khayelitsha (Photo 8-8). The origins of people moving mostly from informal settlements to the first two phases of Inanda Newtown, and from backyard shacks to Khayelitsha, suggests that the residents were originally part of the poorest sectors of urban society at the time. By 1996, most households in Inanda Newtown and Khayelitsha were living above

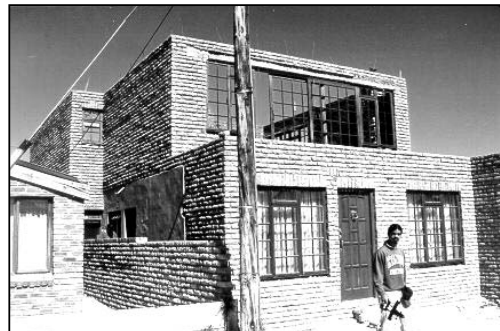


Photo 8-8: Improved quality of life?

the Minimum Living Level and on (Inanda Newtown) or above (Khayelitsha) the more generous Supplementary Living Level. Their access to adequate shelter (in structural, if not in space, terms) and infrastructure services had improved. Local amenities were adequate in both settlements. On moving to the settlements, location relative to places of employment improved for Inanda Newtown residents but was made worse for Khayelitsha residents. This improved slightly over the years as the city of Cape Town grew towards and around Khayelitsha, making access to urban opportunities easier through better integration into urban structures. Public transport to both settlements was always strong, but came at the premium of subsidisation, demonstrating that the peripheral location of both settlements was not sustainable without the political will which put them there in the first place. In income and employment terms residents in both settlements could by 1996 no longer be classed as the poorest in their urban areas or provinces. It does appear based on a narrower definition of poverty alleviation that, on average, the respective communities were enabled. This was against the backdrop of a reasonably active urban economy, and the improved conditions should not be attributed only to the provision of housing and services (as pointed out by Moser, 1995:161 – see Chapter 3).

In terms of broader well-being, the measures adopted were expressions of satisfaction and positive comparisons with people living in township housing. Although levels of satisfaction were a lot higher in Inanda Newtown than in Khayelitsha, there was still a significant proportion of people in Inanda Newtown who rated themselves as worse off than township residents.

Taking Dasgupta's (1993) notions of well-being as encompassing the civil, the political and the socio-economic, we have dealt with the socio-economic. The limitations on the civil liberties of African people during the first half of the consolidation period clearly limited access to urban opportunities and suppressed consolidation activity. The attainment of civil and political freedom was accompanied by a significant increase in consolidation activity in both settlements. The local authorities as originally

installed were there to extend the control of the apartheid State apparatus and, in Inanda Newtown, to support consolidation. The severe limitation of personal freedoms during the early stages did, I believe, suppress consolidation activities and the attainment of better quality of life in all its dimensions particularly social, economic and spatial integration into the city. The lack of consolidation in Inanda Newtown, and the predominantly informal nature of Khayelitsha extensions, are partly explained by the dominance of the structural factors.

This raises an issue similar to that raised by the critics of assisted self-help (e.g. Viviescas, Burgess, Marcuse, Schön etc.). They held that self-help would not work within a capitalist system because the interests operating would not allow the devolution of control to communities as Turner hoped would happen. These two cases have shown that the success of core housing in enabling residents to attain better quality of life is severely limited by a context in which an oppressive regime effectively frustrates many of the projects of disenfranchised citizens. Poor geographical location (with the implications of movement in space and time pointed out by Hägerstrand) which was the hallmark of apartheid State planning, played no small part in marginalising the occupants of the settlements, a quality which does not change with a change in government and which residents themselves struggle to change through residential mobility.

Was adequate housing attained?

Once location in the settlements and relative to other urban opportunities (which moved closer over the years) was set, one of the main means at the disposal of residents to alleviate poverty and attain better quality of life was the consolidation of their houses.

Access to the basic services is an important indicator of adequate housing (UNCHS, 1996a, 1996b). In Inanda Newtown access to services was adequate. By 1996, most households had an electricity connection. However, 42% of Inanda Newtown households still did not have access to clean water within the houses and had to walk to the street standpipes to collect it. Inanda Newtown sanitation services were in need of improvement with at least 93% of households still using pit latrines. Upgrading to a waterborne system was dependent on the installation of a bulk sewer line in the area. Roads and storm water infrastructure were particularly in need of repair and improvement (Photo 8-9). The decision to build larger houses and to install lower levels of service meant that by 1996 the upgrading of infrastructure had become a priority item for expenditure by the local authority. Residents had to live with the lower levels of service in the meantime but would not have to bear the costs of improvement (other than through a possible increase in rates). I would argue that they were in a better position with adequate space than those in Khayelitsha.

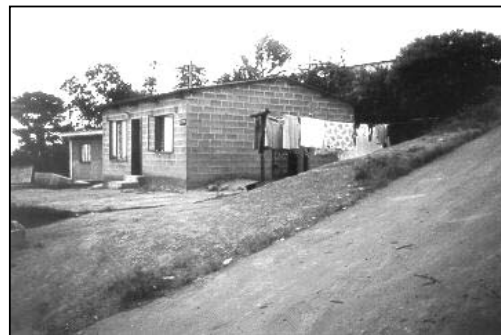


Photo 8-9: Steep slopes caused roads to degrade relatively quickly

In Khayelitsha infrastructure was generally good. The high quality of indoor services installed from the outset had paid off for the Khayelitsha local authority. All households had clean water within the house. 20% of households had added new toilets and bathrooms. And 97% of households had electricity. Residents were left to bear the costs of adding space, but access to services with the accompanying health benefits was good.

People in a position to consolidate did, as has been shown, alleviate crowding and improve privacy. The larger houses in Inanda Newtown meant that households could postpone extension while they spent larger amounts on education and other personal priorities. When their children grew up, then most households were able to add permanent built space. This was costly given the markets operating in the locality, but there were not as large an income differential between extenders and non-extendors as in Khayelitsha. There the very much smaller core houses meant that additional space was needed immediately on occupation. For people not extending, who by 1996 still represented 23% of residents, the impacts on quality of life were dire. They were the poorest, least employed, least skilled, most crowded and (not surprisingly) most dissatisfied group, with many living in structurally inadequate extensions posing a direct threat to the occupants' own safety. The pathway they had been forced to follow represented, if anything, dis-enablement. Even the large majority of people in informal extensions were dissatisfied with their position (although not as overcrowded). Despite a more positive and enabling environment, in Inanda Newtown, as shown by the individual case studies, there was also a category of people who had also been 'left behind'. The degree of ongoing support for residents suggested by Abrams (e.g. loans for extensions, availability of skills training) was not applied in either settlement and although most had 'succeeded' in consolidating, a significant minority had not. The impacts on those not succeeding were worsened in Khayelitsha by the lack of space in the cores and the lack of support from the local authority. Households in these situations were evidently not coping and hardly surviving: they were not managing to manipulate their portfolios of assets to improve quality of life, and the way that the localities were designed and located were part of the reason for this.

Problems that accompanied very dense consolidation seen in other countries were not yet an issue in these settlements. Generally, light and ventilation to rooms was good, and circulation routes in and around the houses were not interrupted. Despite the predominance of timber shack structures in Khayelitsha, even the risk of the spread of fire (a common occurrence in Western Cape informal settlements) was very much reduced by the low densities (Photo 8-10). Site sizes as originally laid out were still generous in international terms, allowing opportunities for extension. The cause for concern is how technologies



Photo 8-10: House where an adjoining shack burnt down, Khayelitsha

which allow the construction of more storeys will be adopted once the need to increase densities becomes imperative.

One area which was very under developed in the two case studies was the use of housing to generate income. As we saw, levels of lodging were very low as was the incidence of home-based enterprises (although it was probably under-counted). The institutional context, while oppressive at first, does not fully explain the apparently very low levels of income generating activity in core housing. From the evidence, I would characterise the situation as being that households were spending their resources mainly in meeting their own space and utility needs during the first decade of occupation. Once the initial household lifecycles developed further, it could be expected that income generation in the house would be further developed by residents. The evidence from places like Zimbabwe (see Tipple, 2000, and Rakodi and Withers, 1995), and other settlement types within South Africa (e.g. Napier and Mothwa, 2000) would support this.

Does core housing allow expressions of identity and status?

Taking less quantitative measures of well-being, was there evidence to suggest that the core housing settlements had enabled their occupants to express their identities and notions of modernity? And what about security, opportunity and identity (Turner, 1972:165)? Collectively this expression would add up to the formation of a cultural landscape or a vernacular settlement in the way that Rapoport (1988) defined it. It was stated in Chapter 3 that "the way individuals shape their houses architecturally, and communities shape their landscapes collectively will be taken as an indication of whether such settlement types can be effectively assimilated and 'owned' by the residents."

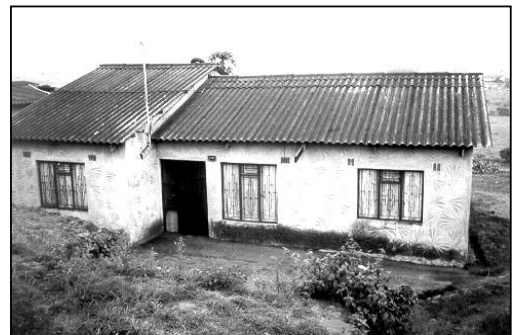


Photo 8-11: Personal expression?

The emphasis of this thesis has not been on architectural expression *per se*. However, the small amount of visual evidence that has been presented and the patterns of the positioning of informal and formal extensions relative to the frontage of sites does suggest that people used formal extensions more often as statements of identity to improve their status (Photo 8-11). This means that approximately one fifth of households in both settlements were probably using consolidation as a means to personal expression. Less evidence was found of people using informal extensions in this way, contrasting to the situation in Colombia where even informal extensions could also be used as expressions of identity (Kellett and Napier, 1993).

As an indication of the satisfaction of higher order needs, there was not yet much evidence of this. In Inanda Newtown, where awareness of notions of urbanity seemed to be more developed, households

had more space and time at their disposal before the need to extend became imperative. What resulted was a landscape which had not changed much from that created by the professional designers, except for those who had built their own initial houses and those who has extended formally. It was argued in Chapter 7 that Khayelitsha was a case where the architecture of consolidation was an expression of basic needs as asserted by Viviescas when discussing informal settlements (1985). Backyard shacks dominated the landscape with only a handful of (sometimes exuberant) examples of personal expression. We can therefore conclude that after the 11 to 15 years of consolidation in both settlements, neither had yet become a true cultural landscape in which the residents had succeeded in transforming the urban form from what it had been when designed into a shared set of settlement and house expressions (Rapoport, 1988). The streetscapes of Khayelitsha were very much the same, and variety had mainly been created in Inanda Newtown because of the accident of topography, and because there was a wider degree of choice of initial product. As an indicator of enablement then, both settlements had not yet been fully assimilated by the residents, and the ownership of the Khayelitsha neighbourhood by the community remained unrealised in all its dimensions.

Despite the lack of the emergence of strong architectural expression, there was evidence that some occupants were achieving at least a degree of comfort and security even through informal extensions. One advantage of the core house which should not be underestimated, is that even if small, it creates a secure space for residents from the outset. Comfort connects rather closely to crowding and privacy and many residents indicated that they had not managed to achieve this.

Overall, Inanda Newtown was a more enabling environment than Khayelitsha. Despite low levels of consolidation, quality of life was not unduly affected by this. Choice and participation from the outset resulted in better social consolidation (i.e. empowerment) alongside what physical consolidation there had been. A benevolent, if neoliberal, NGO remained involved for a relatively protracted period to ensure that the project moved from sites and service to core housing successfully and that residents were placed in a stronger position to consolidate as a result of the initial house construction process. The local authority was supportive if not democratic. Enablement in the Khayelitsha settlement was ultimately derailed by external contingent conditions. Many of the foundations for a strong consolidation process which would have led to the creation of more adequate housing were missing. The initial conditions surrounding the establishment of the area continued to overshadow development even as the country moved towards democracy. The success of consolidation in both settlements was limited by a lack of political and civil liberties, which has recently changed, and weak location and urban integration, which has not changed. Thus the achievement of the projects of individuals attempting to carve out a place for themselves in the urban economy have often been frustrated and their pathways towards consolidation have not been easy to follow.

8.5 Implications of the findings for South Africa - housing subsidies and core housing

It was stated early on that the evidence from the case studies was to be interpreted from within the context of the time they were developed and consolidated, along with the causal mechanisms that were predominant during the 1980s and the first half of the 1990s. We have seen that the success of assisted self-help was limited, in this case, because of the oppressive regime in power at the time. Nevertheless, the point is argued here that the findings do have some relevance for the current South African policy context. There have been many assessments of the successes and failures of South African housing policy (e.g. Bond and Tait, 1997; Smit, 1999; Tomlinson, 1999; Napier *et al*, 1999) which are not fully reviewed here. This discussion only touches on the implications of the findings for the current context.

Current policy adopted in 1994 states that the State's responsibility is to facilitate " the establishment of viable, socially and economically integrated communities" and the 'progressive' realisation of adequate housing¹ (Department of Housing, 1994). The progressive achievement of adequate housing is based on a capital subsidy granted to individuals who are citizens of South Africa, have dependants, and have not accessed a subsidy previously. A number of subsidy bands apply, with the highest subsidy going to the lowest household income earners. A household earning less than R1,500 per month qualifies for the full subsidy (R16,000) which is sufficient to service a site and to build a small core house. At first this led to the production of smaller and smaller houses (Financial Mail, 9 February 1996) as municipalities tried to attain the highest level of services and the smallest possible house (i.e. shifting as much responsibility onto residents as possible). From 1999, national government developed norms and standards which defined the minimum size for houses as 30m². They also effectively partitioned the subsidy saying that only R7,500 could be spent on land and services (Department of Housing, 1999).

These policies led to the production of very large amounts of core housing (Photo 8-12). Out of more than one million houses delivered by government between 1994 and 2000 (Department of Housing, 2000), the vast majority were developer driven processes (Napier *et al*, 1999). Only between one and two percent were classed and supported as 'people driven' processes under the government mechanism designed to support self-help projects (Napier,



Photo 8-12: Mass core housing under current policy (source: DoH)

¹ Policy defines the adequate housing to which all South Africans should have access as a "minimum complete house". More specifically this is a "permanent residential structure with secure tenure, ensuring privacy and providing adequate protection against the elements" and having "potable water, adequate sanitary facilities, waste disposal and domestic electricity supply" (Department of Housing, 1994).

2001). There were very few new sites and service schemes because early on in the new policy era the Housing Minister rejected this approach despite early experiments with it (McCarthy *et al*, 1995; Bond, 1996). In situ upgrading was also neglected in the drive to deliver the one million new houses. So the vast majority of settlements produced have been core housing for the very reason, I believe, that it allows such a clear cut division of the roles of the agencies involved in its production as well as delivery at scale. As Gilbert has pointed out, the capital subsidy itself is similar and goes beyond this in that it allows the government "...to limit the responsibilities of the State, to encourage market forces, to reduce protection against imports and to operate 'sound' monetary and fiscal policies" (Gilbert, 2000:23). This can be achieved because a fixed number of subsidies is released each year and the State can therefore budget for this. Similarly core housing, unlike people's processes, is a known quantity where the private sector can deliver on time without the 'interference' of communities wishing to participate at an earlier stage, although some community input from residents is required by current housing policy. It is not surprising therefore that core housing has become the most common product of capital subsidies.



Photo 8-13: Subsidy housing in Siyathemba (source: DoH)

Most of the projects continued to be located on the far periphery of cities (Photo 8-13) because developers sought to minimise land costs which had to be borne within the subsidy amount, and the location of new settlements was the responsibility of provincial housing boards rather than local authorities (Napier *et al*, 1999). The granting of subsidies was on an applications basis meaning that the developers who had land and could demonstrate affordable delivery, were allocated the subsidies. Current housing approaches also leave households largely unsupported in their consolidation efforts after occupation, despite early warnings that this would be essential. In a paper produced by the Independent Development Trust (IDT), after reviewing international positions on incremental housing, Alan Mabin concluded that "In general then, it is clear that there is no international consensus against incremental housing; rather, there is an international caution about the tendency of market driven approaches to ignore support for incremental processes, and a growing search for appropriate means of finding such support" (1994:3). The housing support initiatives and the building of building support centres in the current policy context have been applied exclusively to informal settlement upgrading or sites and service schemes, and not to core housing schemes where post-occupancy support is often required (Napier and Meiklejohn, 1997; Napier, 1998).

One could therefore argue that there are enough similarities to make it feasible to extract qualified lessons for the current South African policy context. The household level constraints on consolidation remain much the same in that the vast majority of households targeted for government housing were still relatively poor, tended to be small, nuclear families, had limited access to building and other skills, and most of the new settlements were still located in very peripheral areas (Napier *et al*, 1999).

Access to micro-credit had improved slightly (Baumann, 2000) and clearly civil and political freedoms had improved.

The lessons that could be applied at project level in the current milieu are fairly simple. The opportunities for resident participation from the earliest stages of a core housing project should be maximised, thus vertically integrating the participation process and giving households a momentum of involvement that will carry through into the consolidation phase through the acquisition of building and management skills. Choice between a variety of products which match affordability and household needs should be offered, also allowing residents to correct oversights by professional designers. The allocation of plots or houses to a wider cross section of resident households would stimulate more entrepreneurial activity in core housing areas, rather than the very narrow profile of households normally targeted. Any opportunity to maximise habitable space should be given to households as this becomes one of the most valuable assets in the long term. Opportunities for involvement in the process in the form of labour contributions by residents should be done with a view to minimising the disruption of existing income earning activities (Photo 8-14). Skills should be made available to residents, where requested, to assist households not able to afford the services of informal or formal builders, but who would be willing to build for themselves. Access to micro-credit is crucial if consolidation is to continue beyond the reserves that people have built up in the form of personal savings. An understanding of the recurring costs of the new housing compared to the circumstances from which residents have come will help local authorities to design cost recovery mechanisms which are not overly burdensome on the assets of poor households. Access to adequate infrastructure services improves health and well-being. Secure tenure is essential for elemental forms of housing in which personal investments are expected. The location of the settlement relative to urban opportunities is as important to the production of adequate housing as any of the other factors. The design of houses and plot layouts should be done to maximise the opportunities for extension, not to suit a single predetermined plan.



Photo 8-14: Community-based block making
(source: DoH)

Local regulations and authorities should support the building of adequate but affordable structures during the consolidation phase. Regulations should support the building of extensions using appropriate, safe technologies whether considered permanent or not. NGOs have proven to be more effective supporters of incremental housing processes than profit-motivated private sector organisations. Building centres that outlast the initial construction phase would support residents better, as would dedicated local authority departments working on the principles of area-based management.

The list of ingredients which can improve the chances of success for residents is potentially endless. However, there are more fundamental issues. The application of self-help approaches can only be expected to work in a context supportive of personal freedoms. This may be the most significant difference between the case studies studied here and the current context. It is hoped that a freer civil society will improve the rate and quality of consolidation in core housing settlements developed since 1994 in South Africa. What may be lacking is the capacity at local government level to support the consolidation process. Local authorities are under pressure to attend to initial delivery of numbers and housing NGOs are stretched to capacity in supporting people's housing processes (Napier, 2001).

The most important lesson that can be transposed to the current South African context is that in any core housing area, there is likely to be a group of people for whom the consolidation process proves to be difficult or impossible. In other words, the scenario most likely to emerge under current policy conditions is the Khayelitsha one (Photo 8-15). If the housing is small and badly located, which is the case for most new housing, then the negative social and economic impacts on the households not succeeding in the consolidation stakes can be extreme.

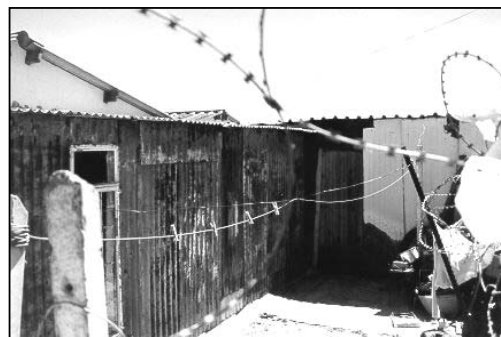


Photo 8-15: Khayelitsha shack

The most fundamental issue behind the inability of households to consolidate, or indeed to purchase an adequate house in the first place, is that such a large sector of South African society is too poor to afford adequate housing, whether the State subsidises part of it or not. The White Paper estimated that 69% of the country's population earned less than R1,500 per month (DoH, 1994). Although classed as a middle income country, South Africa has been measured as having the second highest inequality coefficient in the world (May *et al*, 1998)(second only to Brazil). Incremental housing in effect tries to treat this symptom. Ironically, if the targeting is effective and the poorest are allocated core houses, then the burden on them to afford the services, rates and costs of consolidation are the greatest, not to mention the costs of peripheral location. It is therefore to be expected that there will be a group of people for whom core housing does not form an enabling environment.

If we take the position that large amounts of core housing have already been built, and there is therefore a need to 'make it work', then a recommendation to local authorities would be to regularly monitor consolidation of both houses and households (say once every 5 years), and where this is resulting in poor quality of life, to put in measures to assist the households who are "falling through the net", and have therefore not been enabled by relocation to core housing. The three categories of people who could be targeted for further support would be:

1. Those who need space but who have not managed to extend;
2. Those who have added structurally or otherwise inadequate extensions;

3. Those, in the South African context, who wish to further increase densities but lack the building technologies or design know-how to achieve that (especially the adding of additional storeys).

The core housing approach can be improved through carefully creating supportive localities. Causal mechanisms operating in societies are less easily altered. The alternatives open to South African households in the form of residential mobility remain very limited. The ongoing production of large amounts of new, greenfields, housing is unlikely to be sustained and is likely to go upmarket (Napier *et al*, 1999) or to become more focused on households qualifying for special attention (e.g. the destitute and the homeless, and people with disabilities). The emergence of a secondary market in township housing has not occurred (Dueñas *et al*, 1998), so residential mobility is likely to remain low and shortages of housing high. The urban housing backlog was 1.45 million in 1996 (Napier *et al*, 1999). In this context, discussions of housing preference and choice making behaviour remain limited. Preference is skewed and housing needs and aspirations are often suppressed. This is echoed in one of the responses to the question about people's first impressions of core housing in Khayelitsha and Inanda Newtown: "We had no alternative".

In a context of personal poverty and lack of public resources (or political will) to address poverty, core housing, once built, is unlikely to be rejected by many people. However there is anecdotal evidence that under current policy some settlements have been so badly located and serviced that they stand unoccupied. However, in most cases the demand for housing is so great that residents will accept this form of development but, as we have seen, on their own terms.

A pertinent question² is whether core housing as delivered by government under current policy may be holding people back in some way where another housing approach might have been more enabling. It should be said that core housing should be one of many approaches that could be applied depending on the situation. The way that it has dominated delivery during the first five years of democratic rule is worrying. Housing analysts such as Mary Tomlinson (1995, 1996, 1998) have pointed out that secure tenure, for example, may not be appropriate for all urban dwellers. People choosing to base themselves in cities but preferring to invest more in rural homes may thus not find core housing ideal. The selling on of government subsidy houses or their occupation by tenants is evidence of a mismatch between housing needs and actual housing delivered. Further to this, core housing may be more enabling for people who do have access to building skills or the income necessary to extend the housing. Some form of more complete dwelling with less secure tenure may, unlike suggested by Abrams, be more appropriate for the poorest. There are also cases where sites and services schemes have resulted in positive outcomes through consolidation (Napier and Lungu-Mulenga, 1999). Core housing should therefore be applied where appropriate but it is doubtful whether without a housing subsidy it would be sustainable at the scale that it is currently being

² This question was raised by Tanya Zack, a Johannesburg-based housing consultant, in conversation.

implemented. It requires an initially high input of capital and in the absence of a subsidy, unless financial mechanisms can link the affordability limitations of households with an acceptable housing product, then core housing is more likely to be left behind as an approach as the housing subsidy eventually disappears.

Bond argues that incremental housing was not the intention of the ANC before it came to power, but rather the implementation of a full, mass housing programme (Bond, 1996). He blames the domination of private sector or neoliberal interests of the policy formulation process specifically naming previous Urban Foundation staff and consultants as the main proponents of incremental housing. It is interesting that the Urban Foundation's experience of core housing started in the 1980s with the Inanda Newtown project (not mentioned by Bond) and that Bond and others (e.g. Baumann, 2000) continue to argue against an incremental housing policy in which private sector interests dominate the initial production of housing, and an initially inadequate house is delivered. This investigation certainly shows that small core houses that are not quickly extended are inadequate mainly in terms of space and privacy, qualities which the government committed itself to achieve in the delivery of adequate housing (Department of Housing, 1994; South African Government, 1994).

Core housing has already left its mark on the South African landscape, with its beginnings in the 1980s flirtations of the apartheid government with the idea of assisted self-help and the attempt to roll back its responsibility for full provision, and more recently as an innovation diffusion from the household subsidy policy where a newly elected government has needed to demonstrate delivery to the poor and previously disenfranchised. It is likely that core housing neighbourhoods will eventually be transformed and fully owned by residents, and that the professional design inputs to the original areas will be subsumed by people's own projects. What remains of concern is the proportion of people for whom that process will be so slow that quality of life will for many years be inadequate, and the people that this study has not traced, who were displaced from the areas early on by choice or by necessity.

8.6 Implications in the global context - getting beyond core housing

Core housing does seem to be endemic to countries where governments have stayed active in public housing programmes, whether through enablement or direct provision. Examples include the large scale programmes in Colombia (Strassmann, 1982; Gilbert, 1997) and Chile (Kellett *et al*, 1993; Gilbert, 2000), and smaller numbers of core housing in El Salvador (Harth Deneke and Silva, 1982), India (Joglekar and Subrahmanyam, no date) and Egypt (Abdel-Kader and Ettouney, 1989). There is therefore enough evidence that as a housing approach it can deliver housing at scale.

As we have seen, it is often a pulling back by governments from full provision and is a concomitant of neoliberal approaches which urge the enablement of the provision by governments of more for less (a duality which Bond (1996) challenges as unnecessary). Where governments have virtually given up housing programmes of any scale, other approaches such as piecemeal slum upgrading and sites

and service schemes are more common, delivering less to the ultimate occupants of the areas. The shift of attention to micro-credit and sectoral or market interventions (e.g. Mayo and Angel, 1993) has not been fully analysed in this study, and it is probably still too early to understand the longer term housing outcomes of such policies. However, all interventions aimed at improving shelter conditions should eventually, if successful, have housing outcomes, whether they are focused on those outcomes or not. Residents spend their daily lives in the houses and settlements so created and the causal mechanisms which impact on their localities will shape how they are able (or willing) to respond to those contexts. With the shift away from the technological approach (Escobar, 1995) towards more sectoral interventions aimed at alleviating poverty, there has been strong attention on the socio-economic impacts of interventions (e.g. Moser, 1995, 1998; Amis, 1995; Chambers, 1995; De Haan, 1997a/b), but there has been a growing blindness about the nature of the housing products which result from poverty alleviation interventions and therefore the physical conditions in which people live out their daily lives.

The physical constraints of time, space, and resources are what shape the outcomes of personal projects towards the attainment of well-being. And location in specific settlement and housing types influences these constraints along with the structural factors which apply. It is therefore essential that impact assessments of broader policies continue to be done to monitor how they are benefiting people living in poverty and how the development apparatus, the State, the private sector and civil society are benefiting. The South African cases have shown that resident interests can be overwhelmed by political agendas to the detriment of quality of life.

At a more detailed level, the consolidation patterns found in the two South African settlements are comparable to the findings of international housing adjustment studies (reviewed in Chapter 3 and Appendix G). In the South African cases, residential mobility was low (as found by Gilbert, 1999) and the formal exchange of properties rare (as found by Gough, 1998; Ramirez et al, 1992). Downward raiding of projects and therefore the change in the income of households targeted did occur in Inanda Newtown as had happened in other parts of the world (Harth Deneke and Silva, 1982; Strassmann, 1982: 123-125; Gilbert, 1999:1075). Insecure tenure did slow consolidation especially in Khayelitsha, as is held in most of the literature on self-help housing (e.g. Laquian, 1983:55; Angel *et al*, 1983). In international terms, both settlements were not far advanced along the consolidation path in that built densities were still low, households still mainly comprised related family members, and income generation activities were still fairly rare. The emergence of a new urban vernacular for consolidated core housing settlements had therefore not yet occurred (c.f. Rapoport, 1988; Kellett and Napier, 1995). Much building was done by informal builders and some by residents, with a mix of formal and informal materials suppliers, but without huge intrusions of fractions of capital similar to the findings of Gough (1996), Laquian (1983), Smit and Mbona (1996), and Durban Metro Housing (1998). It was confirmed that consolidation relieved crowding in line with Tipple's (2000) findings, but unlike Strassmann's (1982) findings for poor households in Colombian core housing and Gilbert's observations (1999:1085). It was also confirmed that core housing consolidation was in most cases

largely unsupported by official or formal agencies despite the original descriptions of core housing (Abrams, 1964), with the exception being the Chilean case where follow up financing packages were available (Gilbert, 2000). In general, structurally adequate housing was being produced through resident controlled consolidation, similar to most international studies (e.g. Tipple, 2000).

More recently the emphasis of international bodies such as the United Nations Centre for Human Settlements (UNCHS) has moved back to the themes of "adequate shelter for all" and "sustainable human settlements development in an urbanising world" (UNCHS, 1996b - Habitat Agenda). The growing emphasis on the relationship between the natural and the built environment is evident in documents such as the Habitat Agenda, being derived from documents such as Agenda 21 (UNCED, 1992). The means of achieving adequate shelter are described as being "...through an enabling approach to the development and improvement of shelter that is environmentally sound" (UNCHS, 1996b: para. 3). There is an emphasis on the processes through which settlements are produced, consumed and maintained, which must be sustainable. Most of the literature leaves the question, "Sustainable for whom?" unanswered. The work of Tipple (2000) in answering whether transformations constituted sustainable development was reviewed in Chapter 3. He argued that consolidation made settlements more sustainable than they would have been if consolidation had not taken place or if it had been effectively obstructed by the State.

Having reviewed the growth of the international development apparatus in this investigation, and seen how the creators of the development discourse have sought to locate themselves above political and other agendas, one is perhaps cynical of the new formulation of the development paradigm as sustainable development. It seems to have all of the faults of the old development debate, but transfers attention onto the impacts of current actions on the ability of future generations to meet their own needs (WCED, 1987:2), thus again attempting to go above the boundaries and power plays of the day. Using the same critique we would soon realise that all future generations are not a cohesive unit, and are not likely to have equal access to resources. That having been said, the sustainable development discourse has revived interest in what should be considered 'good' development and has added the ecological dimension to the measurement of human development.

It begs the question of whether core housing can lead to adequate housing (as defined in the Habitat Agenda³ very similarly to the South African policy definition (Department of Housing, 2000)) and sustainable settlements. It is clear from this study that the sustainability of core housing for the State or the international development apparatus (which has been notoriously unsuccessful in promoting delivery at scale - Burgess, 1992:83) does not guarantee sustainability for all residents. Core housing

³ "Adequate shelter means more than a roof over one's head. It also means adequate privacy; adequate space; physical accessibility; adequate security; security of tenure; structural stability and durability; adequate lighting, heating and ventilation; adequate basic infrastructure, such as water-supply, sanitation and waste-management facilities; suitable environmental quality and health-related factors; and adequate and accessible location with regard to work and basic facilities: all of which should be available at an affordable cost." (para. 60).

is usually sustained by the State not so much for humanitarian reasons as to achieve a variety of higher order goals (e.g. the application of fiscal discipline under neoliberal policies, control and stabilisation of previously informal citizens, and wanting to be seen to be delivering a tangible product in a newly democratic country). When these higher order goals disappear, so often does the funding for core housing. The political will to return to full, mass provision (as suggested by Bond, 1996, and implied in much of Burgess's work), would have to be very strong indeed. Most governments seem to be following the trend towards trying to provide less of a product for less money, with less direct responsibility, but trying to reach more people. Many critics view this as the abrogation of the State's responsibility to provide adequate shelter for its citizens, thus contradicting the commitments appearing in the South African Constitution and also taken on by the signatories to the Habitat Agenda (even if rather softly worded).

So core housing in the current international context seems to be a shrinking phenomenon. It can be made to work for residents if applied in the right situations and given favourable conditions within the localities (e.g. freedom of action). However, in recent times core housing has become more of a by-product or concomitant of other mechanisms such as subsidies, and remains a convenient method to allow the actors to do what they do best.

- Governments can be bureaucratic, allocating subsidies or loans to large numbers of very similar looking beneficiaries (Huchzermeyer, 1996) at a lower unit cost, being seen to be delivering houses to their citizens who are incorporated into the formal city in the process, and demonstrating to their international backers that they are spending their funds efficiently and in a predictable manner through a process which has an aura of participation.
- Early on in the core housing era, donor agencies when they wished to do pilot projects could construct something that was visible and suggested a pathway towards adequate housing and even acknowledged that the skills gained in constructing informal settlements could be used in the formal settlement process. More recently donor agencies have been more concerned about intervening in macro-economic sectors, not worrying too much about what housing products result.
- NGOs can fill the (sometime rather large) political spaces between government and communities by facilitating core housing production and consolidation processes, being better at long term neighbourhood support than local authorities tend to be, and thus improving the ultimate outcomes.
- Private sector consultants can design and implement services and houses with minimal contact with the communities who will occupy the housing, guaranteeing a risk-free and cost efficient (i.e. profitable) construction phase, whilst financial institutions back the process, also with minimal risk. Micro-financiers can then step in with specialised products to back the consolidation process, although they have rarely succeeded in doing this at scale.
- And beneficiaries are usually left with access to adequate services, small but sound shelter, and varying degrees of access to urban opportunities, depending on location. Depending on

the assets they can mobilise, their path towards truly adequate housing could be fairly easy, or nigh impossible.

Can we get beyond core housing? I do not think so. If core housing is understood as the by-product of the policies of the international development apparatus or other more local political imperatives, and one of the methods to treat the symptoms of poverty (in that households in many countries remain unable to afford adequate housing), then it is likely to continue to be called in as an approach which has been shown to be very versatile in suiting the agendas of the agencies producing it. It remains a constrained but viable vehicle for resident participation and one which can, *under the right circumstances*, enable the majority of households to achieve improved quality of life within a reasonable time span. Core housing can as easily serve the purposes of an oppressive government (Chile and apartheid South Africa) although in these circumstances the distal causal mechanisms are likely to overshadow personal efforts to improve. And so there is nothing inherently good or bad about core housing, and there is enough research to know when it will be enabling or disabling for residents. Core housing might start to be constructed from materials which are less wasteful of embodied energy, to have solar panels on the roof, and to have water saving devices installed, but we are unlikely to get beyond core housing and other elemental housing approaches as long as the international development apparatus grinds on and governments wish to hold on to power.

8.7 Attainment of research goals

To a large extent, the goals of the investigation have been achieved. The full census of housing consolidation using aerial photography meant that a particularly accurate stratified sample could be chosen. The large amount of quantitative data collected has meant that it has been possible to comment on whether core housing could be characterised as an enabling approach in these two localities, and for whom.

Personal motivations behind consolidation activity have been less easy to explain using the quantitative method. The statistical method is well known for not being able draw causal links as well as a more qualitative method might have done. This does leave an opening for further research. However these limitations were partly overcome by looking at a number of individual cases and by having open ended questions about people's feelings and attitudes.

The comparative element has worked well across settlements (Inanda Newtown and Khayelitsha) and across the different pathways (i.e. non-extenders, informal extenders, formal extenders and mixed extenders). In the absence of an external control group drawn from other housing types, it has been more difficult to answer the question of whether other assisted self-help housing methods would have been more or less enabling. This was not the central aim of the research and the answer could be reached through secondary research comparing consolidation studies of different assisted self-help settlement types or further primary research (as attempted by Napier and Lungu-Mulenga, 1999).

8.8 Directions for further study

As an overall comment, given the method employed and using the resources available, a clear picture of the process and product elements of the consolidation projects of the sample households has been gained. The histories of the development of the localities including the actions and approaches of the designers and initiators is also clear. What needs to be left to further study is the collection of more detailed individual case histories of how people have applied survival strategies in coping with the conditions of life in core housing, particularly when they fall into the category of people who do not have the means to consolidate. In the absence of other housing adjustment options, such as upward or even sideways residential mobility, what mechanisms do households employ to deal with the internal and external pressures they experience? More detail could also be added to the understanding the power relations inherent in the causal mechanisms which enable and constrain the activity of the beneficiaries of core housing.

Another area for potential new research is, given the fairly low levels of mobility in core housing, and in self-help housing generally, what filtering processes are set up by the production of government or donor funded housing, and what are the conditions of onward mobility from such housing in the cases where this does happen? In fact, a mechanism to monitor the wider, and mostly informal, sets of property exchanges and mobility patterns in the Southern African context is needed particularly in an urban context (as migration studies have tended to concentrate mainly on rural-urban movement).

Also suggested above, was a wider comparative study of the whole gambit of housing delivery alternatives (going further than the review in Chapter 3), which could probably be based on many of the existing studies of informal settlement consolidation, sites and services consolidation, core housing consolidation and full mass housing consolidation (or transformation). All of these directions for further research suggest that better and more comparable and coordinated post-occupancy monitoring of formal housing interventions and informal housing processes would provide a more accurate picture of what approaches work best in what circumstances. If the ultimate litmus of success is the lasting impacts on the quality of life of residents (as broadly defined by people such as Dasgupta) measured by people themselves as well as by outsiders, then through further directed investigation much could be learned about more appropriate housing policies for 'developing' countries.

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10 Appendices

A. Household questionnaire


MAIN QUESTIONNAIRE


Final Version V

COVER SHEET

 Refer to **Guidelines for Interviewers** for more detail or for definitions if there is anything that you are uncertain about.

1.	Name of Interviewer & Interviewer Reference Number:	_____			Ref:
2.	Date: (day/month/year)				
3.	Questionnaire Number Today: e.g. 1st, 2nd, 3rd household interviewed today				
4.	House Sample Number: (cross check that Physical Survey has same reference number)				
5.	Respondent Name, Telephone Number & Address of House:	_____			
6.	FOR OFFICE USE ONLY Name of Checker:				
7.	FOR OFFICE USE ONLY Questionnaire Record Number				

 **Explanations that you can use to help the people being interviewed (the respondent) are indicated in bold using this hand sign.**

 *Notes to the interviewers are in italics with this crayon sign.*

NOTES TO THE INTERVIEWER:

See also *Guidelines for Interviewers*.

How to Introduce Yourself

You are welcome to come up with your own introduction, but here is an idea of how you might introduce yourself when getting to one of the sample houses.

Good morning / afternoon/ evening. My name is I am assisting Research Surveys (Khayelitsha) / University of Durban-Westville (Inanda Newtown) and the CSIR with a survey of households in this area. Your house has been randomly selected to be part of this survey. Our aim is to find out about what you have done with your house since you moved here and to hear some of your opinions about living here.

The information that you give us will be combined with information from all of the other people that we interview, and it will be used to plan new neighbourhoods and to help other people who move into housing projects like this. The exact answers that you give me will remain private and no-one else here will know what you have said to me. We will use your address when we look at the house plans but will not pass on your address to anyone else.

The questions should take just over half an hour and we would also like to make a drawing of the rooms in your house. Would this be alright with you?

Who to Interview

On arriving at the house indicated on the sample map you will need to find the best person to interview, whom we refer to as the 'respondent'. It should be the household 'head' or the spouse of the head, who will know about the decisions that have been made through the years. In particular the person you interview should be able to answer questions about income, employment and the history of the house and households who live on the site.

If the owner of the house does not usually live in the house, interview the head of the household who rents directly from the owner. If the house is rented from the Municipality, interview the person who rents directly from the Municipality, and not someone who might rent a room from the main tenant.

Rules for Asking Questions

1. Interviewers must ask the questions in the order in which they are in the questionnaire.
2. Interviewers must read the questions from the questionnaire, using exactly the same wording as indicated in the questionnaire. You can give further explanations if people are unsure about the question but make sure the original question as written is clear.
3. If the interviewer does need to explain anything to the respondent, s/he must use the same definitions as indicated in the questionnaire and in the *Guidelines for Interviewers*.
4. Do not leave ANY of the answers blank, unless you leave out a whole section. If a question does not apply to the person you are interviewing, then write N/A in the space (Not Applicable). If you have asked the question and the person does not know the answer, write D/K (Don't Know).

Household Details



For this survey we are only going to interview the main household, but we would like, if possible, to know some details about other households that may live on the site, like whether they pay rent and how many people are in that household. As we have said, this information will be kept private.

8. How many people slept in all the rooms on this site **last night**? 8.



Of these people there may have been some visitors, and other people who usually live here may have been away. For the next few questions could you please think about only the people who spend more than half of each month at this house.

9. Counting only people who spend more than half their time here, how many people **usually** live on this site/ property? 9.



List on the table the first names of all the people who usually live here starting with yourself and working through all the families who live here.

#	First Names	Relationship to Head (see below)	Sex M = 1 F = 2	Age in years	Occupation (see below)	Member of which Household (see below)	Comments/ Notes
1	Respondent	10	11	12	13	14	
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							

Relationship to Head - 1=Head. 2=Spouse of head. 3=Child of head. 4=Brother or sister of head. 5=Parent of head. 6=Grandchild of head. 7=Other relative. 8=Other non-relative.

Occupation: 1=Infant (too young to attend school). 2=child at Junior School. 3=Senior School student. 4=child over 6 not at school. 5=Self-Employed (e.g. dress-maker, block maker etc.). 6=Occasionally Employed (piece work, e.g. construction worker). 7=Wage Employed. 8=Homemaker (working in the home without a wage). 9=Unemployed but seeking employment. 10=Unemployed and Not seeking work. 11=Pensioner.

Member of which Household 1=Member of Owner's household. 2=Member of Main Tenant's household(if no owner on site). 3=Member of First Lodger Household. 4=Member of Second Lodger Household. 5=Member of Third Lodger Household etc. 11=Member of First Non-renting Household. 12=Member of Second etc.

#	First Names	Relationship to Head (see below)	Sex M = 1 F = 2	Age in years	Occupation (see below)	Member of which Household (see below)	Comments/ Notes
		10	11	12	13	14	
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

Relationship to Head - 1=Head. 2=Spouse of head. 3=Child of head. 4=Brother or sister of head. 5=Parent of head. 6=Grandchild of head. 7=Other relative. 8=Other non-relative.

Occupation: 1=Infant (too young to attend school). 2=child at Junior School. 3=Senior School student. 4=child over 6 not at school.


5=Self-Employed (e.g. dress-maker, block maker etc.). 6=Occasionally Employed (piece work, e.g. construction worker). 7=Wage Employed.

8=Homemaker (working in the home without a wage). 9=Unemployed but seeking employment. 10=Unemployed and Not seeking work. 11=Pensioner.

Member of which Household 1=Member of Owner's household. 2=Member of Main Tenant's household(if no owner on site). 3=Member of First Lodger Household. 4=Member of Second Lodger Household. 5=Member of Third Lodger Household etc. 11=Member of First Non-renting Household. 12=Member of Second etc.


Cross checking with the last column of the table (question 14) and with the respondent, ask:

15. How many households altogether live on the site? 15.

 "The household consists of all people who live and eat together; they share the same pool of income, and act together when it comes to decisions about expenditure and consumption. The **household** is not the same as a **family**. For example, a married son staying at his parent's house may have his own household, if he and his wife eat separately, and take decisions independently" (HSRC).

Residential History

16. How many years has your household been living here in this house? 16.

 If less than 6 months, write 0 years, if between 6 months and a year, write 1 year. Otherwise just write the number of completed years.

years

17. In what area did you live before moving here? 17.

18. In what kind of house did you live before moving here? 18.

- | | | |
|-------------------------|--------------------------|---|
| A shack or "shanty" | <input type="checkbox"/> | 1 |
| A township house | <input type="checkbox"/> | 2 |
| A rural house | <input type="checkbox"/> | 3 |
| Other (describe): _____ | <input type="checkbox"/> | 4 |

19. Why did you decide to move here and take part in this project?

 Listen to the answer and then give a brief summary of what was said.

20. How did you first hear about this project? 20.1

Radio	<input type="checkbox"/>	20.1
Newspaper	<input type="checkbox"/>	2
From friends or neighbours	<input type="checkbox"/>	3
From the Town Council or Municipality	<input type="checkbox"/>	4
Other (describe): _____	<input type="checkbox"/>	5

21. Do you intend to stay in this house in the future? ✓ 21.

Yes		1
No		2

22. IF NO IN QUESTION 21: where do you intend to go when you leave this house?
✎ Listen to the answer and then tick the most appropriate box. ✓ 22.

to another house in this area		1
to another neighbourhood in this city		2
to another city		3
to the country		4
other (describe) _____		5

The Original Project

✎ **Introduction: for the next few questions can you please think back to when you first moved into this neighbourhood and the house you now live in.**

23. Were you one of the **original participants** in this project when it was first established?

Yes		1
No		2

24. IF YES IN QUESTION 23, when you first got involved,

(Ring)

-were you able to choose which site you would like to live on?	1. Yes	2. No	24.1
-were you able to choose the type of house you wanted?	1. Yes	2. No	24.2

25. How did you **first** get this house? ✓ 25.

I bought it from the municipality		1
I bought it from the previous owner		2
I rented it at first		3
I inherited it		4
Other (describe) _____		5

26. What is the situation **now**? ✓ 26.

I am the owner of the house		1
I rent from the municipality		2
I rent from the owner who also lives in the house with me*		3
I rent it from the owner who lives somewhere else		4
Other (describe) _____		5

* If the respondent chooses number 3 for this last question, you may be interviewing the wrong person.

27. *If you rented at first and have now bought the house (SEE QUESTION 25 & 26), in what year did you buy it (Khayelitsha only).* 27.

28. *If you are still renting the house (SEE QUESTION 26), have you been given the option to buy it? (Khayelitsha only)* ✓ 28.

Yes		1
No		2

29. *If you have decided so far NOT to buy the house, why have you decided this? [open ended] (Khayelitsha only)*

30. Do you have another home either in the city or in the country? ✓ 30.

No		1
Yes, in the city		2
Yes, in the country		3

Questions about the Original House



Introduction: for this section, could you please think back to the house as it was when you first moved in.

31.	Who built the original house on this plot? (Inanda only)	✓	31.
	a builder		1
	myself		2
	Myself with some help from a builder/s		3
	Other (describe) _____		4

32.	How many rooms did the house have at first?		32.
-----	---	--	-----

✎ Explain to the respondent that when counting the number of rooms for this question you should include only habitable rooms like bedrooms, living rooms and kitchens, but not rooms like toilets, bathrooms and stores.

33.	How many people were living here when you first moved in?		33.
-----	---	--	-----

34. What did you think of the house when you first moved in?

35. Have there been any problems with the house in the last 5 years?

✎ Listen to the answer and then list them, making each description as brief as possible, e.g. leaking roof, cracked walls.

35.1 _____

35.2 _____

35.3 _____

35.4 _____

35.5 _____

35.6 _____

36. What do you use as fuel for cooking? ✓ 36.

open fire place		1
coal stove		2
primus stove		3
coal brazier		4
gas cooker		5
electrical stove		6
other (describe) _____		7

37. If you have bought your house (SEE QUESTION 26), where did you get the money to pay for the original house? *More than one answer may be ticked if the owner used a combination of methods.* ✓ 37.

from personal savings		1
using a bank/ building society loan		2
with help from my employer		3
through a savings club (stokvel)		4
other (describe) _____		5

38. If you have bought your house (SEE QUESTION 26), how much did it cost altogether? R 38.

	R	
--	---	--

Questions about How the House has been Adapted by the Residents


The next couple of questions are designed to assess people's attitudes towards and understanding of self-help and incremental housing projects.


39. When you moved into this house, were you told by anybody that you would need to improve and add to this house yourself?

Yes		39.1
No		2

40. IF YES IN QUESTION 39: what was your understanding of what you would need to do to the house? [open ended]

Extensions to the House

 **We would now like to know something about how you have changed and improved your house since you moved in.**


 *For the next question, "Rooms" includes both brick / block rooms AND backyard shack rooms, and building on verandas. It does NOT include if people have internally subdivided their house into more rooms (see next section).*

41. Have you added any rooms to your house?


✓

Yes		41.1
No		2

IF NO THEN SKIP THIS SECTION AND GO ONTO THE NEXT SECTION " Future Extensions ", Question 47. IF YES THEN CONTINUE WITH Question 42.


 **Many people make extensions to their house at certain times. We therefore want to ask questions about each time that you extended your house.**

42. For each extension that you have made, can you tell us

 *Interviewer: work your way down each column from the first (earliest) extension the respondent made to the most recent.*

	Ext. 1	Ext. 2	Ext. 3	Ext.4
42.1 how many rooms you added				
42.2 in what year you completed the extension	19	19	19	19
42.3 how much the extension cost you to build	R	R	R	R
42.4 who built the extension (myself/ a builder/ myself with help from skilled people/ - ring other _____	1. Myself 2.Builder 3. Mix 4. Other	1. Myself 2.Builder 3. Mix 4. Other	1. Myself 2.Builder 3. Mix 4. Other	1. Myself 2.Builder 3. Mix 4. Other

43. Where did you get the materials to build your extensions?

 *You may tick more than one block.*

- From a formal building materials supplier
- From a local, informal supplier
- Materials were donated or salvaged from other buildings
- Other (describe) _____

✓

	43.1
	2
	3
	4

44. Where did you get the money to pay for each of the extensions?

 Tick relevant box. If more than one source of money was used tick those boxes. ✓


	Ext. 1	Ext. 2	Ext. 3	Extensio n. 4
44.1 from personal savings				
44.2 using a bank/ building society loan				
44.3 with help from my employer				
44.4 through a savings club (stokvel)				
44.5 other (describe) _____				

45. Did you get permission to build any of these extensions, for example by submitting plans to the local authority or township manager?

Yes	<input type="checkbox"/>	45.1
No	<input type="checkbox"/>	2

46. Why did you decide to extend your house? [open ended]

Future Extensions

 This section is for people who have extended AND for those who have not.

 **Looking ahead now to what you plan to do with your house in the future...**

47. Do you plan to add any more rooms to your house in the next five years?

47. Yes	<input type="checkbox"/>	1
No	<input type="checkbox"/>	2

48. In five years time, how many more rooms do you hope to have **added (i.e. not counting the rooms you have already)**

<input type="text"/>	48.
----------------------	-----

49. Do you feel that your house is now complete.

49. Yes	<input type="checkbox"/>	1
No	<input type="checkbox"/>	2

50. IF NO IN QUESTION 49, and you feel the house is **not** complete,
- | | | |
|---|-------|-----|
| a. how many rooms will you have once it is complete ? | rooms | 50a |
| b. by what year do you think it will be complete? | year | 50b |
51. IF NO IN QUESTION 49: how many people will live here once the house is complete? 51.

Modifications to the House

52. Have you changed or improved your original house in any other way?
 Listen to the answer and then tick the most appropriate box or boxes. If none are correct add a reason under 'other'. If the person cannot think of any changes you can prompt them from this list.

- | | | |
|---|--------------------------|-----|
| | ✓ | 52. |
| - changed the windows | <input type="checkbox"/> | 1 |
| - changed the doors | <input type="checkbox"/> | 2 |
| - put a new roof on the house | <input type="checkbox"/> | 3 |
| - plastered the house | <input type="checkbox"/> | 4 |
| - painted the house | <input type="checkbox"/> | 5 |
| - added walls inside the house | <input type="checkbox"/> | 6 |
| - added a veranda | <input type="checkbox"/> | 7 |
| - added a bathroom or toilet | <input type="checkbox"/> | 8 |
| - added a garage | <input type="checkbox"/> | 9 |
| - added a shop | <input type="checkbox"/> | 10 |
| - other (describe) _____ | <input type="checkbox"/> | 11 |
| - have not changed or improved the original house | <input type="checkbox"/> | 12 |

IF NO IN QUESTION 41, i.e. for those who have not added any rooms to their house

53. Are there any particular reasons that you have not added any rooms to your house?
 [open ended]

Housing Support


54. What building skills do you and the people in your household have?

You can read out this list...

✓ 54.

- none 1
- brick laying / block laying 2
- plumbing 3
- plastering 4
- traditional building 5
- all building skills 6
- other (describe) _____ 7

55. If you have extended or improved your house (SEE QUESTIONS 41 & 52), did you get help from the building contractors, the authorities or the township office with any of the following:

 *You should read out this list and you may tick more than one box.*

✓

- no help 1
- working out what you needed and having a plan drawn 2
- helping you work out how much the changes would cost 3
- getting materials to build with 4
- showing you how to build 5
- advising you on where you could get money to build 6
- telling you who else you could go to for help (like builders & banks) 7
- other (describe) _____ 8

56. Did anyone else help you making the changes or by giving you advice:

✓ 56.

- no-one 1
- an architect / draughtsman 2
- a builder 3
- friends 4
- neighbours 5
- family 6
- other (describe) _____ 7

57. Whose responsibility do you think it is to see that your house is improved? [open ended]

58. Living in your house as it is now, do you feel that you are better or worse off than people living in 4-room township houses?

58. Better	<input type="text"/>	1
Worse	<input type="text"/>	2
The same	<input type="text"/>	3

59. Why do you feel this? [open ended]

60. Are there adequate public facilities near where you live (like schools, clinics, halls, shops and sports fields?)

60. Yes	<input type="text"/>	1
No	<input type="text"/>	2

61. What other public facilities do you think are still needed? *More than one answer may be ticked.*

None	<input checked="" type="checkbox"/>	61.1
School	<input type="checkbox"/>	2
Clinic/ Hospital	<input type="checkbox"/>	3
Shops	<input type="checkbox"/>	4
Post Office	<input type="checkbox"/>	5
Police Station	<input type="checkbox"/>	6
Sports facilities	<input type="checkbox"/>	7
Crèche	<input type="checkbox"/>	8
Church	<input type="checkbox"/>	9
Community Hall	<input type="checkbox"/>	10
Other (describe) _____	<input type="checkbox"/>	11

62. What public transport do you use regularly, that is, at least once a month? *More than one block can be ticked.*

Minibus Taxies	<input checked="" type="checkbox"/>	62.1
Buses	<input type="checkbox"/>	2
Trains	<input type="checkbox"/>	3
Other (describe) _____	<input type="checkbox"/>	4

Incomes and Expenses



We need to find out something about how much money the people that live here earn. THIS INFORMATION WILL BE KEPT STRICTLY PRIVATE.

63. List the first names of the people on your site who are working in any kind of job (see Question 13), and how much they earn each month.




Definitions:

- *employed people are those who formally earn a wage from someone else. The income you record should be net cash earnings after deductions like tax, i.e. this is how much they bring home each month;*
- *self-employed people include doctors, shop keepers, etc. and informally employed people like dress-makers, taxi owners and drivers, and people who run businesses from home. Their income should also be what money they bring home after business expenses, i.e. their profit.*
- *occasionally employed refers to people who may get 'piece work' on construction sites but who do not have a regular source of income. Their recorded income will have to be an average of what they bring in each month.*

First Name	Income Per Month in Rands		
	Employed	Self-employed	Occasionally employed
1	R	R	R
2	R	R	R
3	R	R	R
4	R	R	R
5	R	R	R
6	R	R	R
7	R	R	R
8	R	R	R
9	R	R	R
OFFICE USE - Totals	63.1	63.2	63.3

64. How much money do you get in contributions (not including rent) from these people for keeping the house going? R 64.

65. Have you or your household received any money from each of the following sources in the last month? If yes, could you say how much?

 *If the respondent does receive money but does not know the amount, write D/K in second column.*


	Yes ✓	How much	
Income from pensions and other welfare grants	1	R	8
Income from absent friends / relatives received regularly (e.g. migrant remittances)	2	R	9
Income from home businesses	3	R	10
Income from rent from households on the site: 1st household	4	R	11
Income from rent from households on the site: 2nd household	5	R	12
Income from rent from households on the site: 3rd household	6	R	13
Any other income (lobola, insurance payouts etc.)? (describe) _____	7	R	14
FOR OFFICE USE. Total		R	15

 **We would like to know something about how your household spends its money.**

66. Just in the last month, how much money did you spend on each of the following things: 66.

Amount spent on food	R	1
Amount spent on cleaning materials & personal care	R	2
Amount spent on heating and light (fuel)(not including electricity)	R	3
Amount spent on clothing	R	4
Amount spent on transport	R	5
Amount spent on medical expenses	R	6
Amount spent on education	R	7
Amount spent on furniture and other household things	R	8
Amount spent on entertainment	R	9
Amount spent on savings	R	10
Other (describe) _____	R	11

67. How much money did you spend last month on your house?

 If some of these amounts are not being paid because of something like a rent or services boycott, then list what amount **should** be paid, but make a note that the amount is not being paid. If some of the categories are not applicable, write "n/a" in the block. Do not leave it blank.

	Amount in Rands	Being Paid	Not being Paid	
on rent	R			1
on home loan (bond) repayments	R			2
on municipal rates, refuse removal etc.	R			3
on water	R			4
on electricity	R			5
on telephone bills	R			6
on regular maintenance or repairing your home	R	n/a	n/a	7
other (define what) _____	R			8
TOTAL	R			9

68. Is there anything else you would like to say that we have not discussed already? [open ended]


B. Physical house survey

Slightly different physical survey questionnaires were used for the Durban and Cape Town surveys because the service options differed. The Durban example is presented here as it included the full set of questions.


PHYSICAL QUESTIONNAIRE


Version IV-DBN

COVER SHEET

 Refer to **Guidelines for Interviewers** for more detail or for definitions if there is anything that you are uncertain about.

1.	Name of Interviewer & Interviewer Reference Number:			Ref:
2.	Date: (day/month/year)			
3.	Questionnaire Number Today: e.g. 1st, 2nd, 3rd household interviewed today			
4.	House Sample Number: (cross check that Main Survey has same reference number)	Number	Main Sample OR..	Backup Sample
5.	Respondent Name & Address of House:			
6.	Name of Checker:			
7.	FOR OFFICE USE ONLY Questionnaire Record Number			

 Notes to the interviewer are in italics with this crayon sign.

 Explanations that you can use to help the people being interviewed (the respondent) are indicated in bold using this hand sign.

NOTES TO THE INTERVIEWER: How to Introduce Yourself

You are welcome to come up with your own introduction, but here is an idea of how you might introduce yourself when getting to one of the sample houses.

Good morning / afternoon/ evening. My name is I am assisting the University of Durban-Westville and the CSIR with a survey of households in this area. Your house has been randomly selected to be part of this survey. Our aim is to find out about what you have done with your house since you moved here and to hear some of your opinions about living here.

The information that you give us will be combined with information from all of the other people that we interview, and it will be used to plan new neighbourhoods and to help other people who move into housing projects like this. The exact answers that you give me will remain private and no-one else here will know what you have said to me. We will use your address when we look at the house plans but will not pass on your address to anyone else.

The questions should take just over half an hour and we would also like to make a drawing of the rooms in your house. Would this be alright with you?

Rules for Asking Questions

1. Interviewers must ask the questions in the order in which they are in the questionnaire.
2. Interviewers must read the questions from the questionnaire, using exactly the same wording as indicated in the questionnaire. You can give further explanations if people are unsure about the question but make sure the original question as written is clear.
3. If the interviewer does need to explain anything to the respondent, s/he must use the same definitions as indicated in the questionnaire and in the Guidelines for Interviewers.
4. Do not leave ANY of the answers blank, unless you leave out a whole section. If a question does not apply to the person you are interviewing, then write N/A in the space (Not Applicable). If you have asked the question and the person does not know the answer, write D/K (Don't Know).

Physical Questionnaire Sections

This part of the survey is divided into three sections and the logic behind it is explained here.

Section 1. *Walk around the site noting the kinds of service connections there are and the characteristics of the open spaces.*

Section 2. *Categorise the extension type. This is a general observation that you need to make about what type of extension the residents have made (if they have made an extension). If no extension has been made, we still need a plan of the house.*

Section 3. *Make a measured sketch of the rooms of the house answering the questions about each room. After noting the condition and materials of the building, ask the resident answering the Main Questionnaire (the 'respondent') about things like what the rooms are used for and when they were built. These kinds of questions have purposely been left until near the end when the main questionnaire should be finished and the respondent free to talk to you for a few minutes.*

Section 1. Site Survey

8. Does the site have its own water supply connection? 8.
If there are operational taps on the site then it is likely that it has its own connection.

Yes	No
-----	----

9. If not, approximately how close is the nearest, working stand pipe in the road? 9.

metres

10. What type and how many toilets does the house have?
✎ Write the NUMBER of TOILETS in the RELEVANT blocks.

		10.
no toilet		1
pit toilet outside the house		2
flushing toilet <i>outside</i> the house		3
flushing toilet <i>inside</i> the house		4
other (describe): _____		5

11. Is there a connection to the main sewer? 11.

Yes	No
-----	----

12. Does the house have an electricity connection? 12.

Yes	No
-----	----

13. Does the house have a telephone? 13.

Yes	No
-----	----

14. Looking at the slope of the site, estimate its average slope either side of the house platform 14.

	✓	
Flat		1
Very gentle slope		2
Gentle slope		3
Medium slope (i.e. around 1 in 5)		4
Steep slope		5
Very steep slope (i.e. more than 1 in 2)		6

15. What is the site enclosed with? 15.
✎ More than one block can be ticked.

	✓	
Nothing		1
Wire fence		2
Timber fence (slats or branches)		3
Concrete fence		4
Hedge		5
Other (describe) _____		6

16. In the garden:

a. is there some kind of ground cover over *most* of the garden (e.g. grass and paving etc.) or is it mostly bare?

b. is there any sign of cultivation of crops on the site?

1. Covered	2. Bare	a.
1. Yes	2. No	b.

Section 2. Core and Extension Type

17. Looking at the **original** house that was first built, please work out what type of house it was (*you may have to check with the respondent*). ✓ 17.

2-room core house		1
4-room shell house (originally no internal walls)		2
6-room shell house (originally no internal walls)		3
Complete 4-room house		4
Complete 6-room house		5
Core has been demolished		6
Other (describe) _____		7

18. Looking only at the extensions now, what type of extension has been added? *More than one block may be ticked.* 18.

Note that even shacks qualify as extensions as long as they are usable rooms.

Just a freestanding toilet does not qualify as an extension.

Permanent = wall materials like block / brick

Temporary = impermanent wall materials like corrugated iron, plywood, and earth.

		Materials		
		Perm- anent	Temp- orary	
No extension	1			1
Rooms added directly onto the original core (joined)	2			5
Outbuildings separate from the core house	3			6
Veranda of original house enclosed to make a room	4			7
Other (describe) _____	8			8

19. Are there signs of other improvements to the original core house? ✓ 19.

Internal subdivision of house into rooms		1
Upgrading of finishes, like plaster or paint or ceilings		2
Addition of roofed open spaces like verandas, porches, or carports		3
Addition of services, such as bathrooms, toilets etc.		4
Other (describe) _____		5

20a Is the site on a street corner, or in the middle of a block?

✓ 20a


On a corner	<input type="checkbox"/>	1
Mid-block	<input type="checkbox"/>	2

20b If there has been extension, has the house grown...

Only one block may be ticked - use "other" for special cases.

✓ 20b

towards the road	<input type="checkbox"/>	1
away from the road	<input type="checkbox"/>	2
both front and back	<input type="checkbox"/>	3
to one side	<input type="checkbox"/>	4
to both sides	<input type="checkbox"/>	5
in all directions	<input type="checkbox"/>	6
upwards (second storey)	<input type="checkbox"/>	7
other (describe) _____	<input type="checkbox"/>	8

 *If the house is on a corner, do not use the "sides" options (i.e. 4 & 5); describe the extension as only being towards or away from the road.*

Section 3. House Plan Sketch & Room Inventory



1. On the graph paper, draw the plot outline with dimensions and neighbours / roads marked;
2. Mark the site access point/s i.e. where a car can be brought off the road and/or where pedestrians enter the site - see symbols.
3. Choose a corner of the house near one of the boundaries and place that on the site;
4. Draw the house on the site, making a line sketch plan using the symbols listed to show the centre lines of doors and windows and measuring internal dimensions of rooms.
If, for example, a passage leads into a living room without a door between (i.e. there are two interleading spaces used for different purposes) then you should draw a dotted line between the two spaces and reference them as separate spaces.
No furniture or fittings need be shown.
5. After the sketch has been done with room dimensions written on the plan, mark each room and space with a letter, starting with the spaces which were part of the original core house, and working clockwise through the rooms and spaces.
6. Hatch the rooms that were part of the original core house.
7. Then reference the rooms which have been added again working clockwise through the spaces.
8. Finally reference the open spaces. If an external area is used for something specific, like storing materials for a business or parking a car, then draw an 'envelope' line around that space and reference it with its own letter.

The grid is large dots at 1 metre intervals (scale 1:100) and small dots at 250mm intervals. A method for counting metres down or across the page is to put your finger in the middle of each bold-dot square.

List of symbols

Door		Vehicle Site Access	
Window		Pedestrian Site Access	

Plan Checklist

- | | |
|---|--|
| <input type="checkbox"/> North point | <input type="checkbox"/> Doors and windows shown |
| <input type="checkbox"/> Plot boundary & dimensions | <input type="checkbox"/> Room/ space reference letters |
| <input type="checkbox"/> Roads & neighbours on boundaries | <input type="checkbox"/> Original rooms hatched |
| <input type="checkbox"/> Access point/s to the site | <input type="checkbox"/> Direction of slope if applicable |
| <input type="checkbox"/> All room dimensions | <input type="checkbox"/> Building platform outline if applicable |

Space Inventory

CHECK THESE WITH RESPONDENT										
REF2	TYP 22	DIMEN- SIONS 23	AREA (square metres) 24	SERV- ICES 25	NUMBER OF EXTERNAL OPENABLE WINDOWS 26	NUMBER OF EXTERNAL DOORS 27	MAIN SPACE USE 28	SECONDARY SPACE USE 29	YEAR BUILT 30	OWNER/ TENANT OCCUPYING 31
A										
B										
C										
D										
E										
F										
G										
H										
I										
J										
K										
					0 FOR NONE, NUMBER or "GAPS"	0 FOR NONE, or NUMBER	ABBREVIATIONS LIV=living DIN=dining KIT=kitchen BED=bedroom BATH=bathroom WC=toilet COM=commercial PAS=passage STO=store VER=veranda GAR=garden etcetera			1=OWNER 2=MAIN TENANT 3= LODGER

COMMENTS & HOME BUSINESS TYPE: _____

(CONTINUED)

CHECK THESE WITH RESPONDENT										
REF2 1.	TYP 22	DIMEN- SIONS 23	AREA (square metres) 24	SERV- ICES 25	NUMBER OF EXTERNAL OPENABLE WINDOWS 26	NUMBER OF EXTERNAL DOORS 27	MAIN SPACE USE 28	SECONDARY SPACE USE 29	YEAR BUILT 30	OWNER/ TENANT OCCUPYING 31
L										
M										
N										
O										
P										
Q										
R										
S										
T										
U										
V										
					0 FOR NONE, NUMBER or "GAPS"	0 FOR NONE, or NUMBER	ABBREVIATIONS LIV=living DIN=dining KIT=kitchen BED=bedroom BATH=bathroom WC=toilet COM=commercial PAS=passage STO=store VER=veranda GAR=garden etcetera			1=OWNER 2=MAIN TENANT 3= LODGER

COMMENTS & HOME BUSINESS TYPE: _____

Extension Condition & Materials

EXTENSION #	TYPE ATTACHED / SEPARATE	WALL MATERIAL	EXTERNAL FINISH	ROOF MATERIAL	STRUCTURAL SAFETY	CONDITION
32	33	34	35	36	37	38
ORIGINAL						
EXTENSION 1						
EXTENSION 2						
EXTENSION 3						
EXTENSION 4						
Cross refer extensions on plan using symbol ① ②, etc.	1 = attached extension 2 = separate extension	1 = block 2 = brick 3 = timber slats 4 = wattle & daub 5 = plastic 6 = plywood 7 = facebrick Other - specify	0 = none 1 = plaster 2 = plaster & paint 3 = mud Other - specify	1 = corrugated iron 2 = asbestos cement 3 = roof tiles Other - specify	CODE 1 = GOOD 2 = ADEQUATE 3 = POOR	

39. Comments on Safety / Condition if poor: _____

40. What is the smallest distance between the house and the boundary? _____metres 40.

41. What is the largest distance between the house and the boundary? _____metres 41.

42. What is the approximate total plot area? _____sq.m. 42.

43. In what direction does the main living space face, i.e. the main living room or bedroom if there is no living room. *If North West then tick North AND West.* 43.

North	<input type="checkbox"/>	1
South	<input type="checkbox"/>	2
East	<input type="checkbox"/>	3
West	<input type="checkbox"/>	4

44. Some of the houses will be photographed. Bearing in mind the types of extension in question 18, would you rate this as a particularly good example of one of them, i.e. would it be worth photographing?

Yes	<input type="checkbox"/>	44.1
No	<input type="checkbox"/>	2

C. Guidelines for interviewers

Aim of the Research

The aim of the wider research project being undertaken by the CSIR's Division of Building Technology is to assess what factors influence the growth and success of starter housing projects in this country. The methodology being followed is to test current policy and practice initiatives against past empirical experience. An initial study has been completed and two main case studies where there was delivery of starter houses at scale have been identified for more detailed research. They are Inanda Newtown assisted incremental housing project in Durban, and Khayelitsha, Town 1, core housing project in Cape Town.

The opinions and experiences of residents living in starter housing are important if we are to really see whether this kind of approach is helpful and supportive, or if there are cases where the planning approach has actually hindered people's own efforts to house themselves. Therefore a house to house survey is a way of collecting this kind of data to which end the questionnaires have been designed.

There are two parts to the house survey.

1. The **Main Questionnaire** has questions about socio-economic issues like income and employment, questions about house extensions, and open-ended questions about attitudes towards the type of housing. This will be addressed to the household head or the spouse of the head, who is able to answer the questions accurately.
2. There will also be a **Physical Questionnaire** in the survey which will necessitate the drawing of a basic house plan and site diagram, and the answering of questions about the materials, use and condition of what has been built.

These two parts will be handled by two different people visiting each house together.

How to Introduce Yourself

You are welcome to come up with your own introduction, but here is an idea of how you might introduce yourself when getting to one of the sample houses.

Good morning / afternoon/ evening. My name is I am assisting Research Surveys (Khayelitsha) / University of Durban-Westville (Inanda Newtown) with a survey of households in this area. Your house has been randomly selected to be part of this survey. Our aim is to find out about what you have done with your house since you moved here and to hear some of your opinions about living here.

The information that you give us will be combined with information from all of the other people that we interview, and it will be used to plan new neighbourhoods and to help other people who move into housing projects like this. The exact answers that you give me will remain private and no-one else here will know what you have said to me. We will use your address when we look at the house plans but will not pass on your address to anyone else.

The questions should take about three quarters of an hour and we would also like to make a drawing of the rooms in your house. Would this be alright with you?

Who to Interview

On arriving at the house indicated on the sample map you will need to find the best person to interview, whom we refer to as the '**respondent**'. It should be the household 'head' or the spouse of the head, who will know about the decisions that have been made through the years. In particular the person you interview should be able to answer questions about income, employment and the history of the house and households who live on the site.

If the owner of the house does not usually live in the house, interview the head of the household who rents directly from the owner. If the house is rented from the Municipality, interview the person who rents directly from the Municipality, and not someone who might rent a room from the main tenant.

The procedure to follow if the appropriate person to be the respondent cannot be found, will be determined by the research partner (i.e. Research Surveys in Cape Town, and University of Durban-Westville in Durban).

Sampling and Sample Size

The sample size is presently set at 5% of all sites in each area, i.e. 200 houses in Inanda Newtown and 250 houses in Khayelitsha. This is to be finalised and agreed after aerial photography interpretation exercise is complete and in discussion with the partners.

There will also be a '**substitute list**' of addresses to use if you cannot get access to some of the houses on the main sample list.

Rules for Asking Questions

- 👉 Interviewers must ask the questions in the order in which they are in the questionnaire.
- 👉 Interviewers must read the questions from the questionnaire, using exactly the same wording as indicated in the questionnaire. You can give further explanations if people are unsure about the question but make sure the original question as written is clear.
- 👉 If the interviewer does need to explain anything to the respondent, s/he must use the same definitions as indicated in the questionnaire and in the Guidelines for Interviewers.
- 👉 Do not leave ANY of the answers blank, unless you leave out a whole section. If a question does not apply to the person you are interviewing, then write **N/A** in the space (Not Applicable). If you have asked the question and the person does not know the answer, write **D/K** (Don't Know).

How the Two Interviewers should Coordinate the Work

It is planned that the two interviewers will visit each house together. The one person will interview the respondent using the main questionnaire. While this is taking place the second interviewer who has plan drawing and observation skills will start the physical questionnaire.

The latter part of the physical questionnaire will require some contact with the respondent but the initial part is mainly based on observations of the house and can take place simultaneously with the main questionnaire, as long as the resident is happy that the person can wander around the rooms of the house or can let someone else from the household accompany them while the main interview carries on.

The interviewer doing the Main Questionnaire should just follow the questions that have been asked and tell the other interviewer when they have finished.

The Main Questionnaire is grouped into sections. The first question of some of the sections determines whether you should carry on with that section or not. If the person says no to that question then you can skip the section and go to the next. Make sure however that you do not skip more than one section. For example, if the family has made no extensions at all, then the section on extensions can be omitted for that person.

The Physical Questionnaire is divided into three sections. This is only for the person doing the Physical Questionnaire but it is included here for the information of both interviewers.

Section 1. *Walk around the site noting the kinds of service connections there are and the characteristics of the open spaces.*

Section 2. *Categorise the extension type. This is a general observation that you need to make about what type of extension the residents have made (if they have made an extension). If no extension has been made, we still need a plan of the house.*

Section 3. *Make a measured sketch of the rooms of the house answering the questions about each room. After noting the condition and materials of the building, ask the resident answering the Main Questionnaire (the 'respondent') about things like what the rooms are used for and when they were built. These kinds of questions have purposely been left until near the end when the main questionnaire should be finished and the respondent free to talk to you for a few minutes.*

You should not spend longer than an hour at each house, preferably less. As you get used to the questions and the procedure it should get faster. However when you get familiar with the questionnaires, do not take people's answers for granted. Make sure you accurately record each one.

Glossary of Terms Used

Some of these terms will be explained in training and in the questionnaires, but they are included here also for quick reference. The question that the definition applies to is recorded in brackets: **MQ**= main questionnaire; **PQ**= physical questionnaire. The terms are listed in the order that you come across them in the questionnaires.

Respondent

The respondent is the person you should be interviewing. As described above, they would be the head of the main household living in the house, or the spouse of the head.

Household (MQ14-15)

"The household consists of all people who live and eat together; they share the same pool of income, and act together when it comes to decisions about expenditure and consumption. The **household** is not the same as a **family**. For example, a married son staying at his parent's house may have his own household, if he and his wife eat separately, and take decisions independently" (HSRC).

Another type of household would be an unrelated family or individual who rents a room on the site and does not eat with the main household. This person will not be interviewed in this survey but should be included when counting the number of people on the site.

Employment (MQ13 & 63)

There are three categories of employment used:

1. 'employed' refers to formally employed by someone else with a regular wage each month;
2. 'self-employed' refers to people like doctors, shop keepers, etc. and informally employed people like dress-makers, taxi owners and drivers, and people who run businesses from home.
3. 'occasionally employed' refers to people who may get 'piece work' on construction sites but who do not have a regular source of income. Their recorded income will have to be an average of what they bring in each month.

Income (MQ63)

In questions about income, the amount you write down should be how much the person brings home each month, i.e. "net cash earnings" after deductions like tax etc. Make sure you tell the respondent this when you ask about income.

For income from informal businesses, the amount quoted should be the profit after expenses like rental and purchases have been paid, so again the amount of money that the person actually brings home each month.

For income from occasional employment, the person will have to estimate how much they bring in over a year and then average that out per month.

Lodger (MQ14)(PQ Inventory)

A person who rents a room or rooms from the main household on the site is a lodger. (see also 'tenant')

Tenant (MQ14)(PQ Inventory)

If the owner of the house is absent from the site, there may be a main household who rents directly from the owner. Alternatively there may be no owner, and the household may rent directly from the Municipality. This is the 'tenant' household.

Rooms (MQ32 & 42 & 47)

When counting the number of rooms in a house for question 32 in the Main Questionnaire you should include only usable rooms like bedrooms, living rooms and kitchens, but not rooms like toilets, bathrooms and stores. So a four-room house may have two bedrooms, a kitchen and a lounge, but also a bathroom which is not counted as one of the 'four rooms'.

When we talk about rooms being ADDED this includes both shack rooms and brick/ block rooms, but again not toilets etc. (see also Extension/ Addition definition). THIS DOES NOT APPLY TO THE PHYSICAL QUESTIONNAIRE WHICH RECORDS ALL ROOMS ON THE SITE IRRESPECTIVE OF WHAT THEY ARE USED FOR.

Extension/ Addition (MQ42-44)(PQ18)

Extensions refer to the addition of usable space. The extension may be of any material, whether permanent like bricks or blocks, or less permanent like corrugated iron or timber.

We have excluded open verandas from this definition and freestanding toilets (they qualify as 'modifications').

Modification (MQ52)(PQ19)

Question 52 describes what we refer to as 'modifications' (as opposed to 'extensions'). They include changes in finishes or fittings, addition of services like toilets, subdividing spaces, adding open verandas or any other improvement to the house not included in the habitable extension category.

We have mentioned shops in the modification question even though this is really an 'extension' because we want to pick up whether people specifically intended an extension to be used as a shop.

Notes on Space Inventory Matrix
(this section for *Physical Interviewers* only)

These notes explain how the Space Inventory is to be filled out. Guidelines for how to make the plan sketch appear on the Physical Questionnaire.

21/2. SPACE REFERENCE & TYPE

This is the reference letter that cross refers the room to the plan sketch. Make sure that you have the cross reference correct. As a convention, the first letters should be the rooms in the original house. Then the rooms in the extended parts of the house should follow. The last letters should refer to the open spaces.

The second column asks you to categorise the space type.

1. are rooms that formed part of the original house
2. are rooms that have been added
3. are areas added that are roofed but not enclosed, like verandas and car ports
4. are the open spaces, like gardens etc.

23/4. DIMENSIONS & AREA

From the room dimensions written on the plan calculate the room areas. This can be done later if it saves time but make sure you have all the room dimensions because you can't go back. The areas of the outside spaces need only be recorded if they are used for specific purposes like storage, a carport or whatever. The area of the whole plot is asked for in a later question.

25. SERVICES

Record each service fitting in the room. If there is a bathroom with a toilet, shower and wash hand basin, write 1,3,4.

1. WC = toilet
2. WHB = wash hand basin
3. SHW = shower
4. BAT = bath
5. SINK = sink

26. NUMBER OF EXTERNAL OPENABLE WINDOWS

Here we want to ascertain how well ventilated each room is. This will have to be done from inside each room. We want you to observe the windows which open to the OUTSIDE and which are not fixed closed. Even if there are no windows, there may be gaps between the roof and the walls which also give ventilation. If there are no windows but there are gaps, write "GAPS". If there are no windows nor gaps then write "0", i.e. there is no ventilation.

27. NUMBER OF EXTERNAL DOORS

Doors also give some ventilation, so record the number of doors there are to the outside. If there are no doors to the outside, even if there are internal doors, write "0".

28/9. MAIN AND SECONDARY SPACE USES

Under MAIN use write the primary use of the room. The use may be obvious from the furniture but you should also check with the respondent especially if there is a secondary use. Often rooms may be used for both living and sleeping, so this should be recorded using the MAIN and SECONDARY columns. If there are more than two uses then you can use the comments line at the bottom or squash more uses into the blocks!

In USE we are very interested in spaces used for commercial purposes like home businesses, even if the space is used for only part of the day for this purpose. Describe these kinds of uses in SECOND SPACE USE if the commercial use is secondary to residential use. At the bottom of the page, the type of home business should be written e.g. shop, sewing, brewing etc.

30. YEAR BUILT

Ask the respondent when each room was built. If the room was built over a number of years ask when it was COMPLETED and record this year. If something is still being built write what year the people expect to finish it.

31. OWNER /TENANT /LODGER OCCUPYING

1. Indicate which rooms are occupied by the owner.
2. If the owner does not live in the house, indicate which rooms the main renter or tenant occupies (see Glossary of terms).
3. If the owner who lives there, or the main tenant, rents rooms to other lodgers, then indicate these rooms as occupied by lodgers.

You do not need to show who uses rooms like toilets and bathrooms, unless they are exclusively used by the owner, or a renter.

Notes on Extension Condition & Materials Matrix

32. EXTENSION # (Number)

To make observations about the materials used and the condition the buildings are in, a distinction is drawn between what was built originally and the stages of extension. If there are notably different extension types, for example a concrete block outbuilding and a corrugated iron outbuilding, then separate these into Extensions 1 and 2 and note the details of each. **Write which extensions you are referring to on the plan by using a ringed number, e.g. Ⓝ for extension 2.**

33. EXTENSION TYPE

If the extension you are describing is built directly onto the house, use "1" for "attached extension", and if separate from the house, use "2" for "separate extension".

34/6. WALL AND ROOF MATERIALS

Write in the predominant materials used using the codes. If not covered under the codes write in the material used.

35. EXTERNAL FINISH

Note what finish has been used on the outside of buildings. If not covered in the codes supplied, then write what finish was used in the block.

37. STRUCTURAL SAFETY

1. If there are no signs of problems then use "good".
2. If there are cracks or other structural faults not actually threatening the structure, use "adequate".
3. If the room looks like it may fall down, then use "poor".

38. CONDITION

This is aimed at judging the condition of the rooms, for example the state of repair of paint and plasterwork, or if corrugated iron walls are very rusty.

1. If in very good condition, use "good".
2. If in reasonable condition, use "adequate".
3. If for example, the plaster is falling off, or the paint peeling because of damp, write "poor".

If the condition is poor, on the comments line at the bottom of the page write what is wrong.

D. Stakeholder questionnaires: planners and community leaders

Issues for Planners: Questionnaire

Project History

1. How were **households identified** and/ or **screened** as **candidates** for the project? Who was eligible?

Actors & Roles

2. What was the **role** of the **Lingeletu West Town Council** in the planning and implementation of the project? [Khayelitsha only]
3. Were any **other community-based organisations involved**? If so, what was their role?
4. Did the **planned roles of LA's and CBO's work as envisaged**? How could they have been better facilitated?

Public Spaces & Facilities

5. How was the **layout of public amenities planned**? What standards were used?

House Plans & Choice

6. Was there a **preplanned way of extending** the starter houses? If so, **how was this communicated** to the residents?

Support Model

7. **Whose role was it to support** the house extension process?
8. What was the **intended nature** of the support process? i.e. what forms of support were available to residents?
9. **When** was housing support **initiated**? - what **year** and what **stage** in the implementation process?
10. **When** did housing support **end**? - **year** and **length of total involvement**. **WHY**?
11. Were elements of the support initiative **sustainable** in the long term? If yes, **which parts** were **continued** after the project agent's withdrawal and **who sustained** them?
12. How would you **rate** the support initiative:

<input type="checkbox"/> totally ineffective	<input type="checkbox"/> ineffective
<input type="checkbox"/> satisfactory	<input type="checkbox"/> effective
<input type="checkbox"/> very effective	

Why?

13. Can you **suggest improvements in the support process** as it was implemented in this project?

Costs & Cost Recovery

14. Was it an **intention to recover** the **costs** of the development from the **end-users**? If so, did you achieve this? If not, **how far short** of full recovery was the project?
15. In your involvement as a project agent, **what types of costs were not passed on** to the end-user or to the project financier? How were these costs dealt with?
16. With the way that the project was run, could you have continued to do similar projects successfully: i.e. was it **replicable** or sustainable for you as a project agent? If not, what could have been changed to make it so?

Findings of Research so far

Khayelitsha version:

17. In our initial studies, we have found that in Khayelitsha **26.5%** of people have **not extended** their houses beyond the three room core, **51.5%** have built **shack** extensions, and **22%** have built **formal** extensions. It is surprising that there are not more formal extensions and that there are so many shack extensions. Do you have any background information you think might **explain** these proportions?

Inanda Newtown version:

- In our initial studies, we have found that in Inanda Newtown 58% of people have not extended their houses beyond the four rooms, 12.5% have built shack extensions, and almost 30% have built formal extensions. It is surprising that there are not more shack extensions. Do you have any background information you think might **explain** these proportions?
18. Were there any initial encouragements or deterrents to the establishment of **businesses in homes**, either in the design of houses or the application of by-laws? Similarly, was **hiring rooms to tenants** encouraged or opposed by planners and authorities?

Issues for Community Leaders: Questionnaire

Project History - thinking back to the establishment of this area...

1. As far as you know, what level / type of **community based organisation** participation was called for during the planning and initial implementation of the project?
2. What role did the **local authority** play in the planning / implementation of the project?
3. When/ if residents chose their own **houses [plans], was there enough choice** and do you think people were happy with the options they were given?

Financial Framework

4.
 - a. Are people still paying back **loans** or rent on the original houses?
 - b. If so, about how much per month?
 - c. And are people still happy to pay that amount? Were the terms of the sale/ rental acceptable/ favourable?

Services

5. What are the **service charges at present**: including rates, electricity, water etc.? Do people happily pay the service charges?
6. What services are **still needed**?
7. By how much are these likely to **increase** the **service charges**?

Khayelitsha version:

8. Do you feel that the method used here of building **small houses with a fairly high level of services** was a good way of developing the area? **Or** would it have been better to have **larger houses and less services** from the outset?

Inanda Newtown version:

Do you feel that the method used here of building **houses first with less services**, and then upgrading later was a good way of developing the area? **Or** would it have been better to have **smaller houses and better services** from the outset? Secondary dirt roads, stand pipes, pit latrines.

Support for Extensions & Income-generating Activities

9. If a person wants to extend their house, is it **easy to get advice** on how to do it? Was the developer/ contractors helpful in this when they had a site office here?
10. In your opinion, **whose responsibility is it to improve and extend houses** here in Khayelitsha? Who should pay for these improvements?
11. Do you in community leadership positions **actively encourage** people to improve their own housing? If yes, **in what forum** do you do this? If not, why not?

Khayelitsha version:

12. We have seen that most people who extend their house have added **shack extensions (51.5%)**, but very few have added **formal extensions (22%)**? **Why** do you think this is? (Compared to Inanda Newtown)

Inanda Newtown version:

We have seen that most people who extend their house have added **brick or block extensions (30%)**, but very few have added **shacks (12%)**? **Why** do you think this is? (Compared to Khayelitsha).

13. What is the attitude of the **local authority** to **running businesses from homes** in the area and **rental of rooms to tenants**? Do they oppose it, ignore it, or encourage it?

Local Issues

14. Is there still resistance to **buying** houses, as opposed to **renting** from the local authority? If so, is this encouraged as a strategy?
15. Is a **rent or services boycott** in effect at present? If so, what are the **motivations** for it?
16. Discuss ways to plough findings back into this community.

How the two stakeholder questionnaires related to each other

PROJECT AGENTS QUESTIONNAIRE	COMMUNITY LEADERS QUESTIONNAIRE
Q2 Role of LA	Q2 Role of LA
Q3 CBO involvement	Q1 CBO involvement
Q4 Success of CBO/LA involvement	
Q5 Standards for public amenities	
Q6 Planned extension path? How communicated?	Q3 Was there enough choice?
Q7 Who supported?	
Q8 Nature of support	Q9 Was it easy to get advice?
Q9 When initiated?	
Q10 When finished?	
Q11 Sustainability of support	
Q12 Rating of support	
Q13 Suggested improvements	
Q14 Cost recovery intention	Q4 Still paying loans? Happy to pay? Q5 Service charges? Happy to pay? Q7 Affordability of service charges
Q15 What costs not passed on?	
Q16 Was project replicable?	
Q17 Reaction to shack/ formal/ non percentages	Q12 Reaction to shack/ formal/ non percentages
Q18 Encouragement/ discouragement by LA of home businesses and rental	Q13 Encouragement/ discouragement by LA of home businesses and rental

E. List of stakeholders interviewed

List of Project Agents Interviewed

For the Urban Foundation in Inanda Newtown:

Mr. Simon Vines (town planner)
Mr. Roy Heath (project manager)

For VZS in Khayelitsha:

Mr. David du Plooi (VKE Urban Designers and Town Planners)
Mr. Vincent Barry (Clerk of Works)

List of Community Leaders Interviewed

For Inanda Development Forum:

Mr. Langa Dube
Mr. Mondli Mthembu

For Inanda Civic Organisations:

Ms. Sibongile Khawula (Unit C Civic Organisation)
Mr. Mandla Chonco (Unit B Civic Organisation)

For Khayelitsha Development Forum (KDF):

Rev. Otto Ntshanyama (chair of KDF)

F. Maps of extension types

This appendix contains the maps produced from the aerial photography survey. It is presented as graphic support for the observations made in Chapter 6 about the spatial patterns associated with groupings of extension types. The aerial photography interpretation work of Fred and Flo du Toit, previously of the CSIR, is acknowledged.

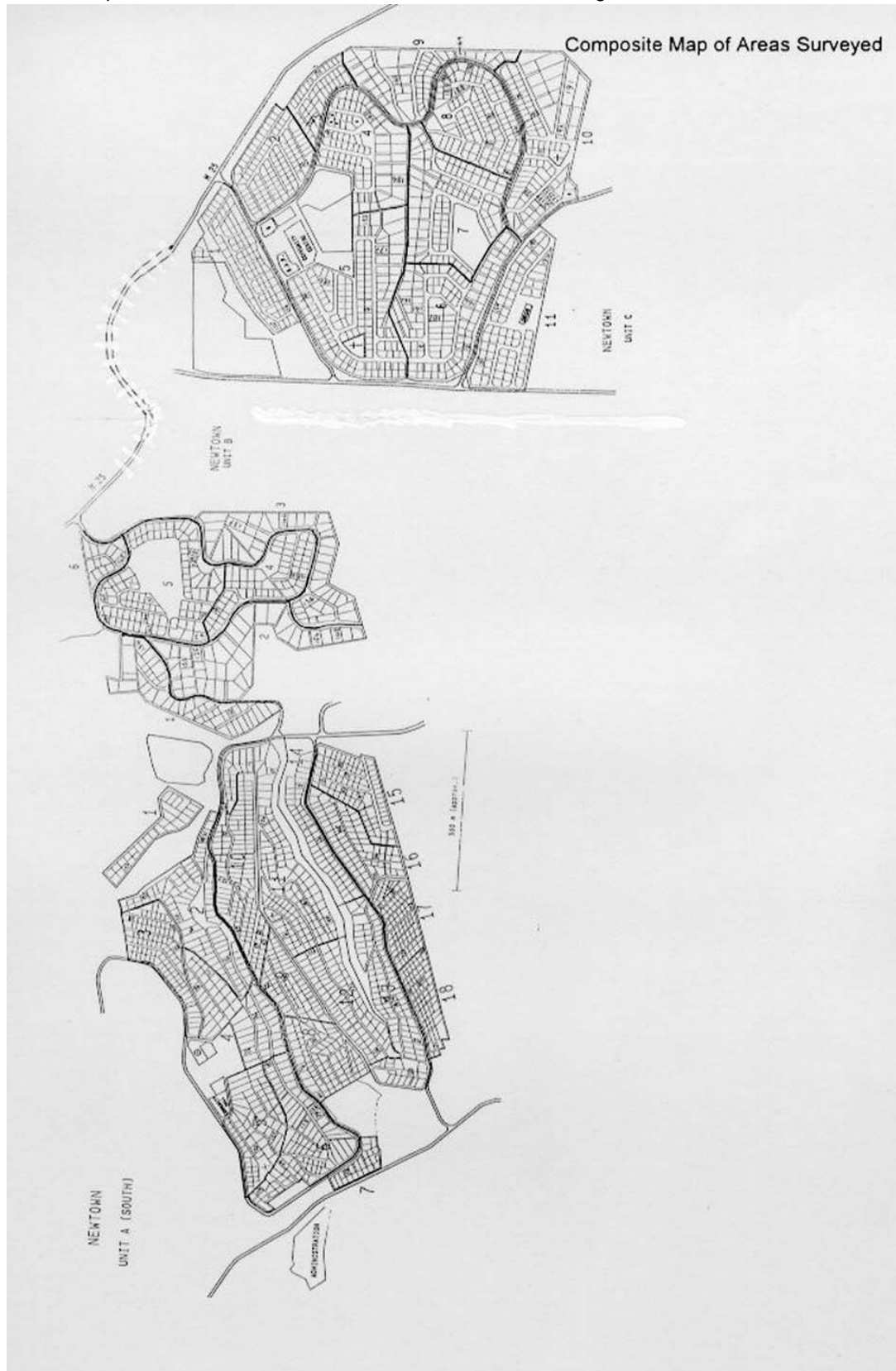
At an early stage in the research, the following coding was used (see Chapter 4 for context):

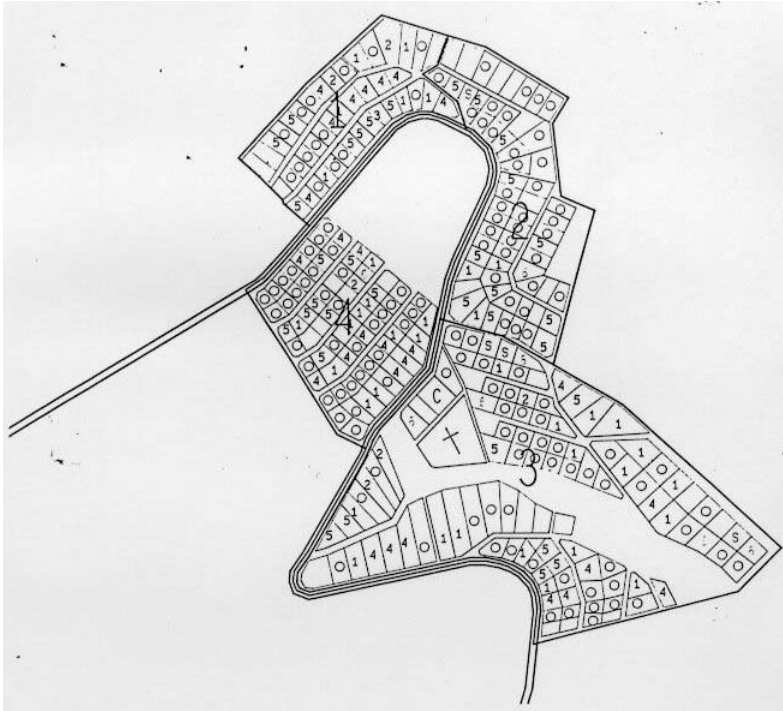
Type	Description	Contiguity and size
0	UNIMPROVED STARTER HOUSE with no other structure of any kind on the plot. For Inanda Newtown this was most commonly a four room shell and for Khayelitsha it was a three room core with internal rooms.	n/a
1	STARTER HOUSE WITH BACKYARD SHACK detached from house. Very small shack structures of less than 1.5m ² were disregarded.	Detached Any size
2	STARTER HOUSE WITH SMALL, ATTACHED SHACK EXTENSION in the form of a lean-to, the area of which is less than or equal to that of the original.	Attached Smaller than or equal to original
3	STARTER HOUSE WITH LARGE, ATTACHED SHACK EXTENSION in the form of a lean-to, the area of which is greater than that of the original.	Attached Larger than original
4	STARTER HOUSE WITH SMALL, FORMAL EXTENSION, the area of which is smaller or equal to the original. For Inanda Newtown the six room shell house fell into this category.	Attached Smaller than or equal to original
5	STARTER HOUSE WITH LARGE, FORMAL EXTENSION, the area of which is greater than the original.	Attached Larger than original
6	REMODELLED HOUSE where the original starter house has been substantially remodelled so that the original is no longer distinguishable, or demolished, or individually designed from the outset (the last happening in Inanda Newtown only).	Any size
S	UNIMPROVED TWO ROOM HOUSE in Inanda Newtown where some people chose to build the two room core and have not extended it.	n/a

The figures on the following maps indicate the extension type on each plot. The stratification of the random sample was based on these plot classifications.

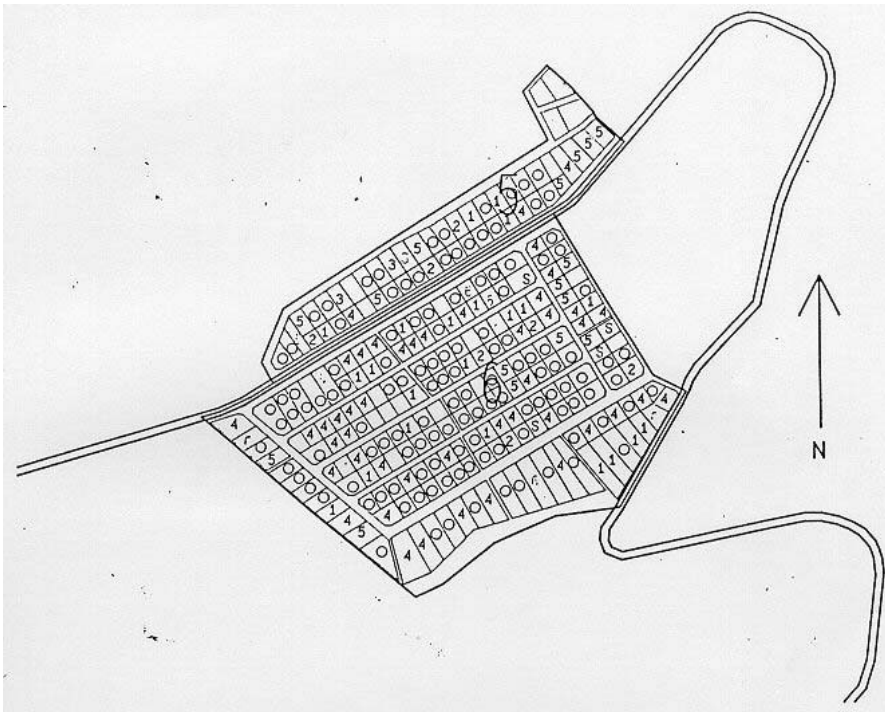
Inanda Newtown

Master map of Inanda Newtown Units A, B and C with numbering of domains.

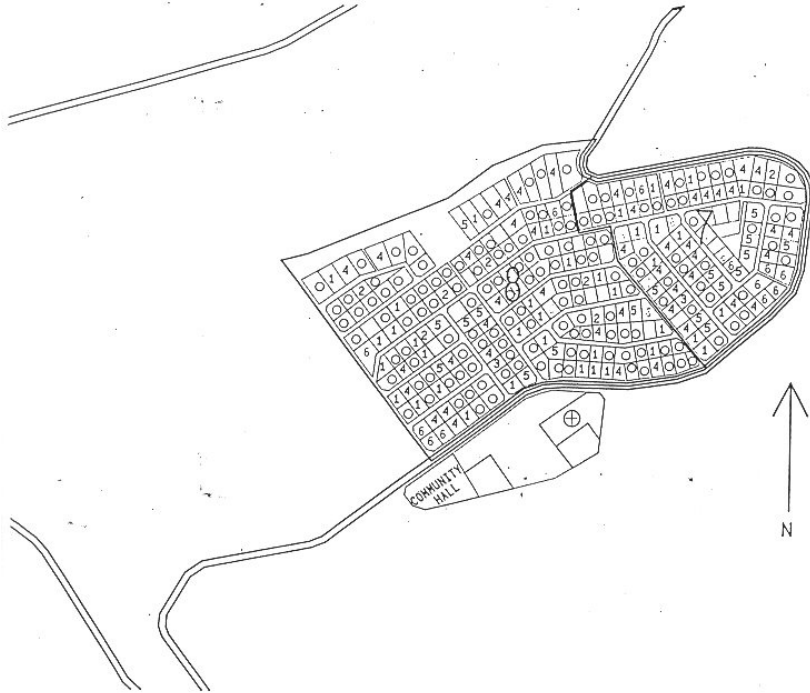




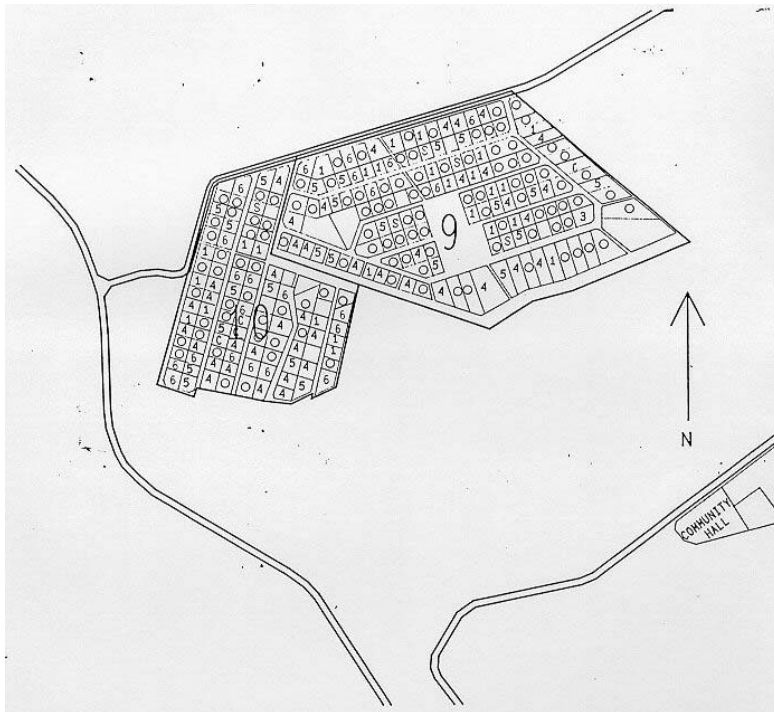
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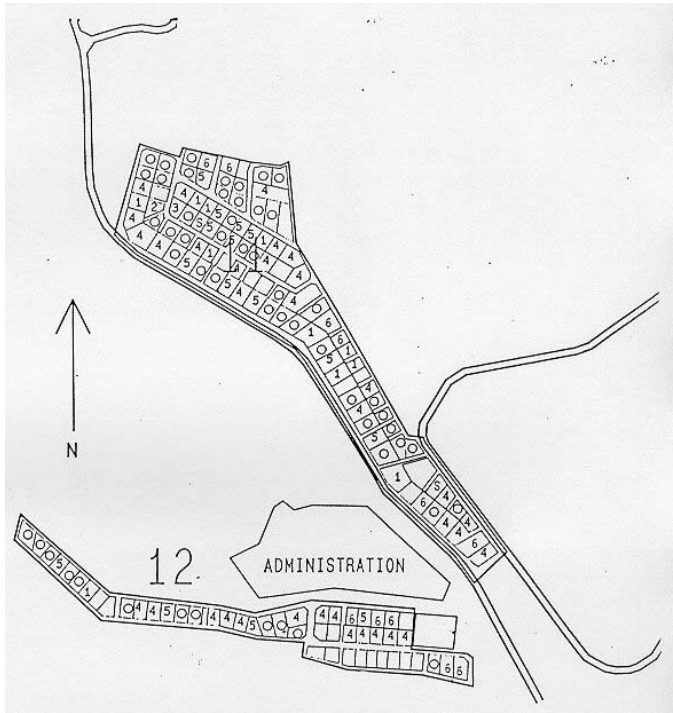
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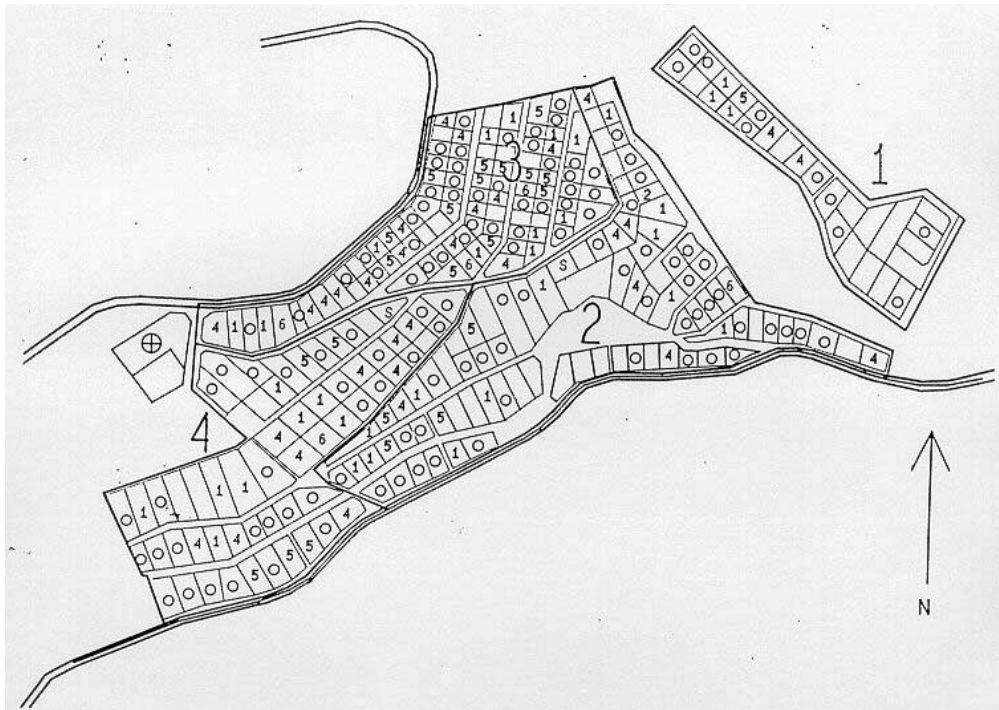
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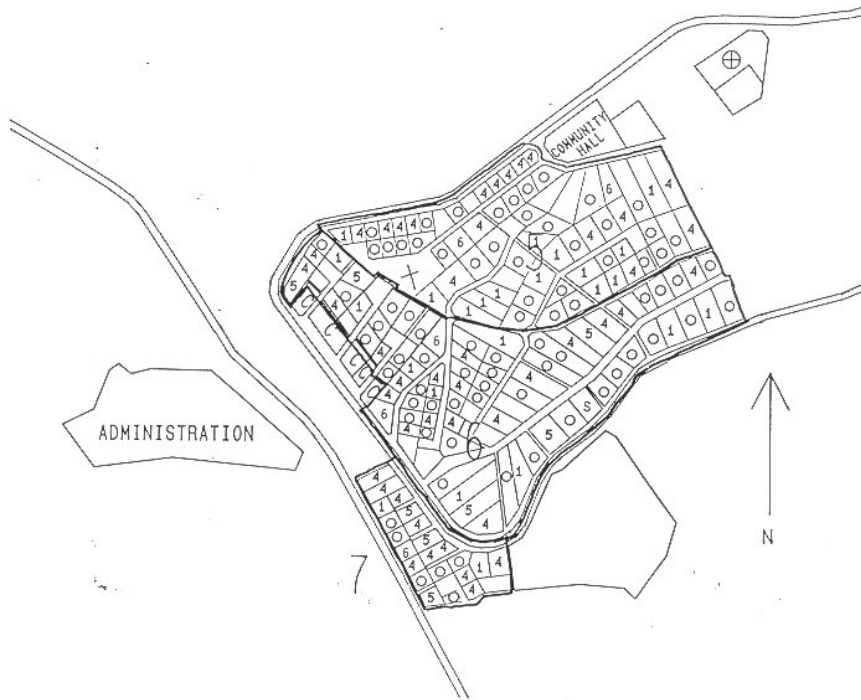
Inanda Newtown Unit A, North



Inanda Newtown Unit A, North



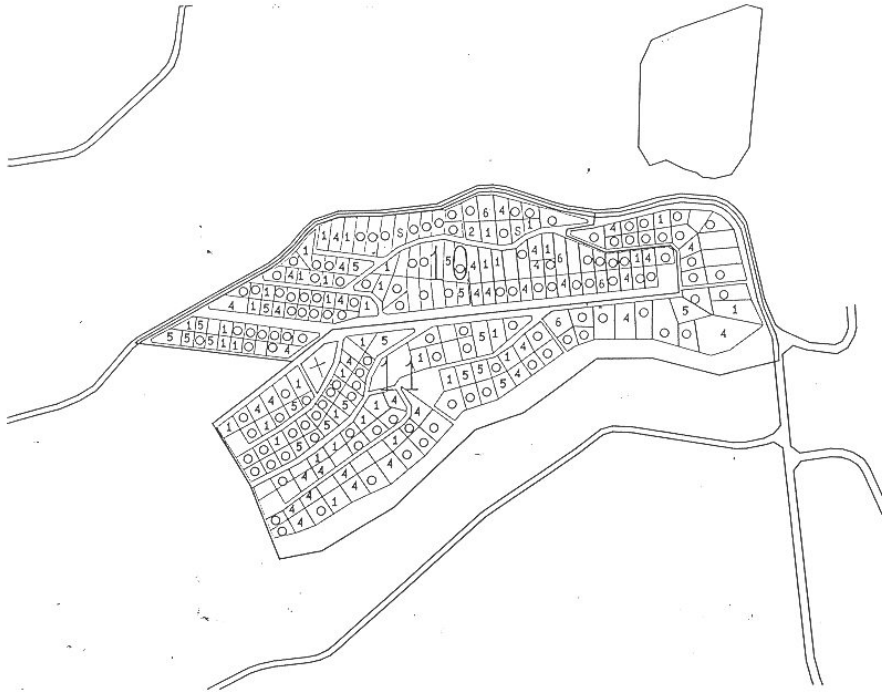
Inanda Newtown Unit A, South



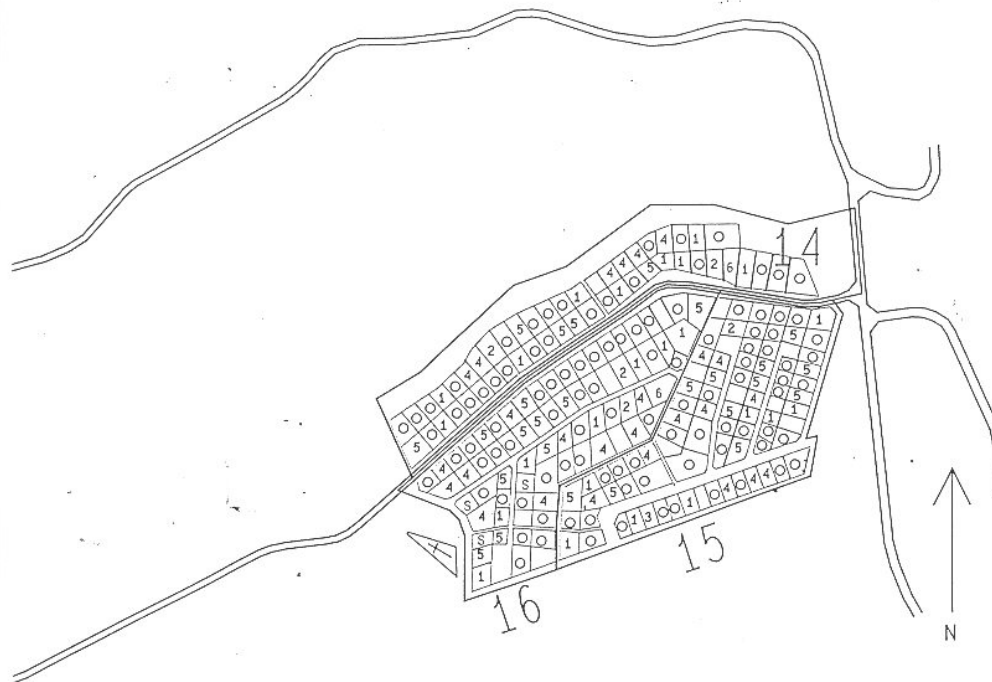
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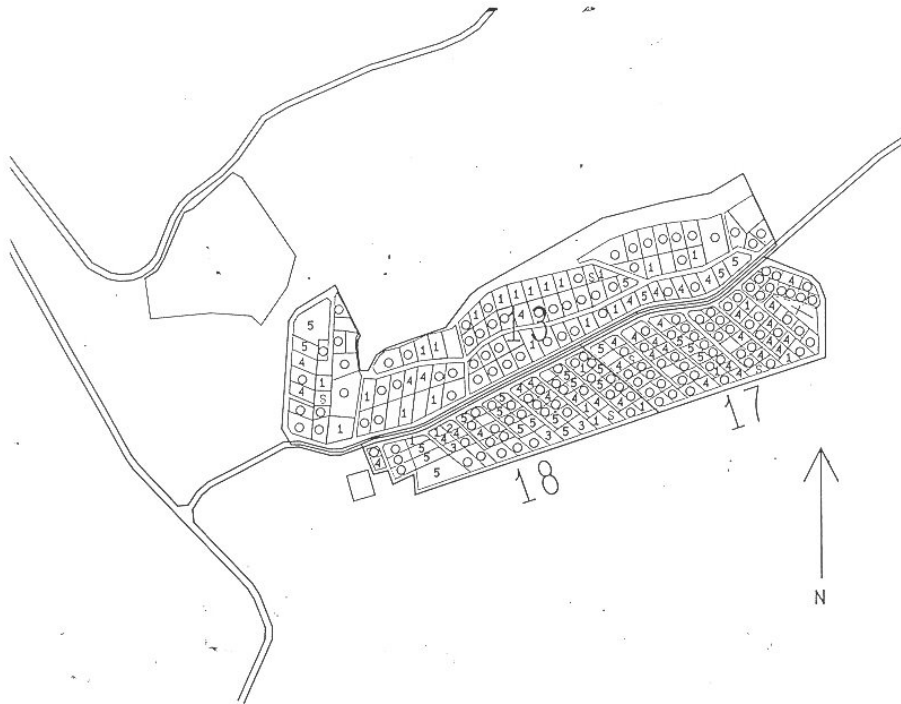
Inanda Newtown Unit A, South



Inanda Newtown Unit A, South



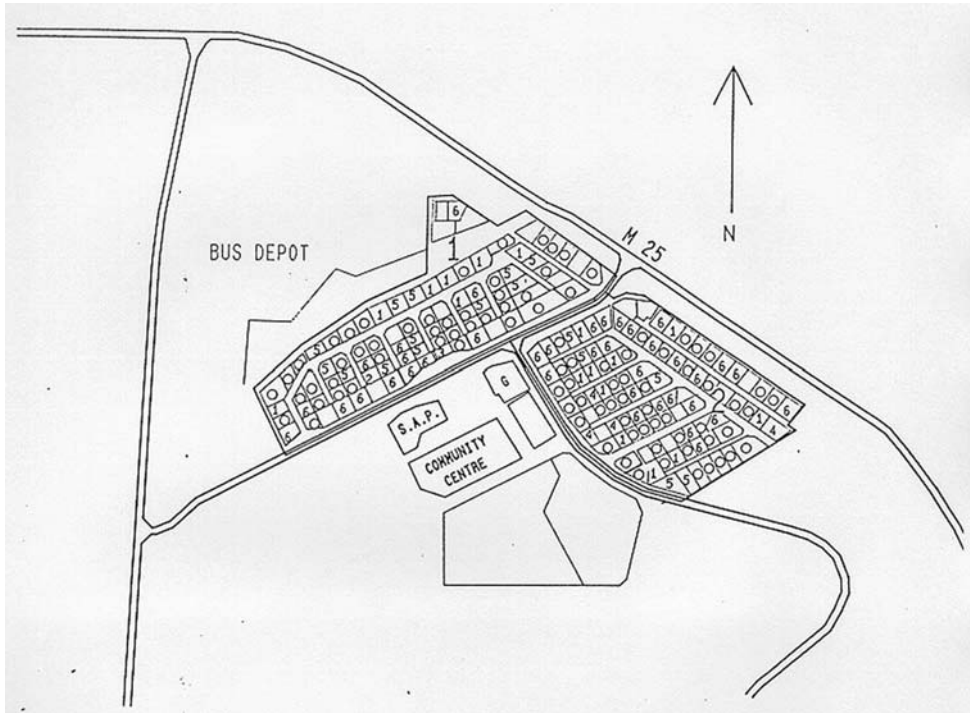
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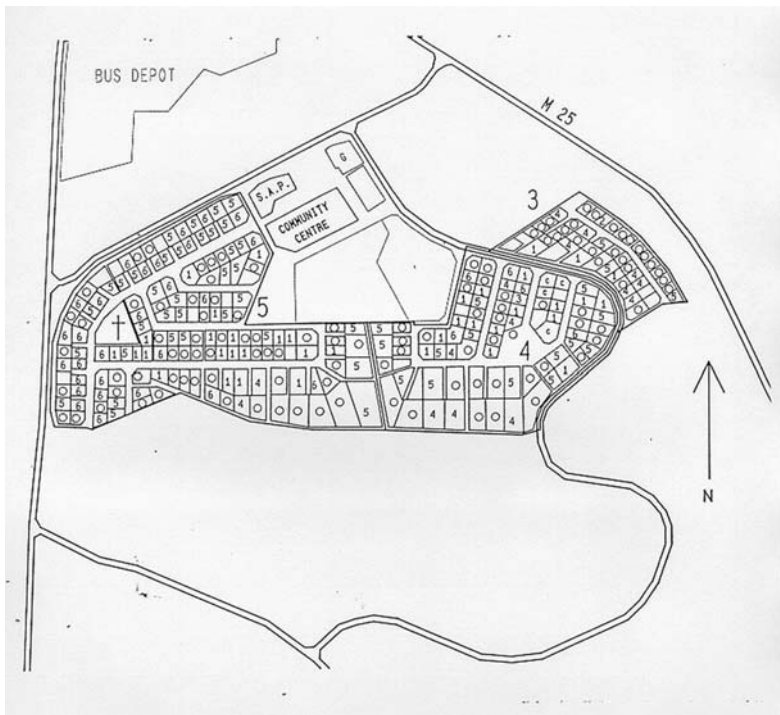
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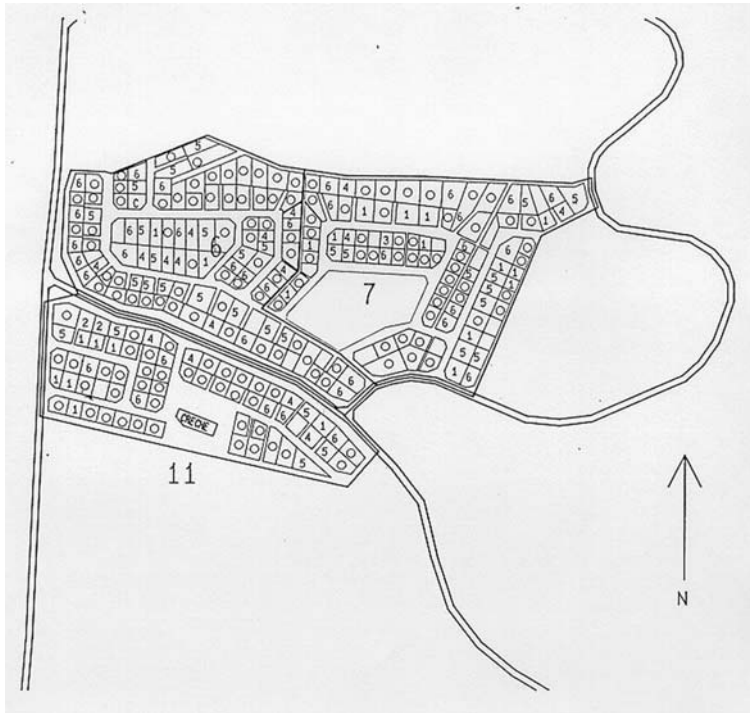
Inanda Newtown Unit B



Inanda Newtown Unit C



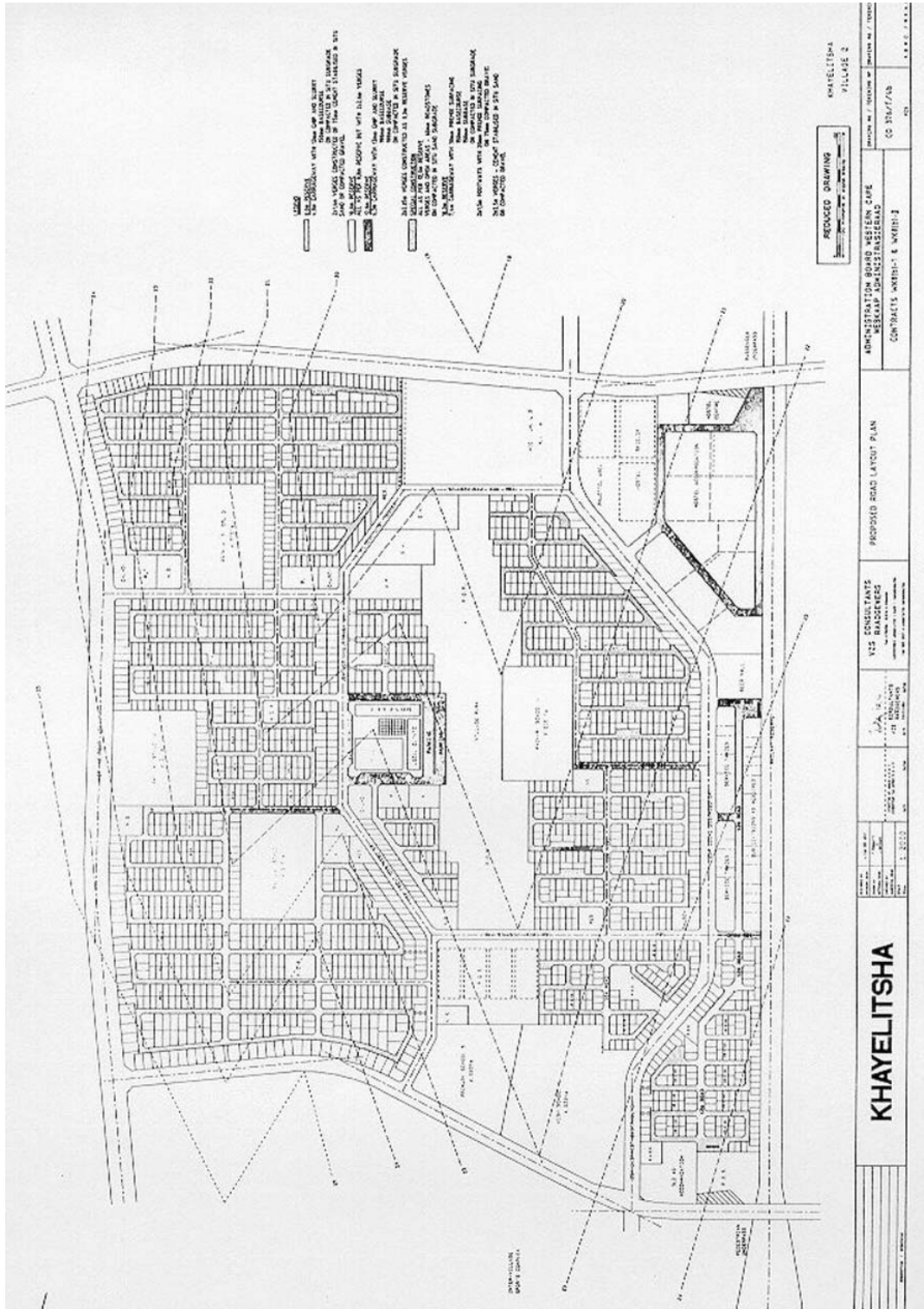
Inanda Newtown Unit C



Inanda Newtown Unit C



Inanda Newtown Unit C



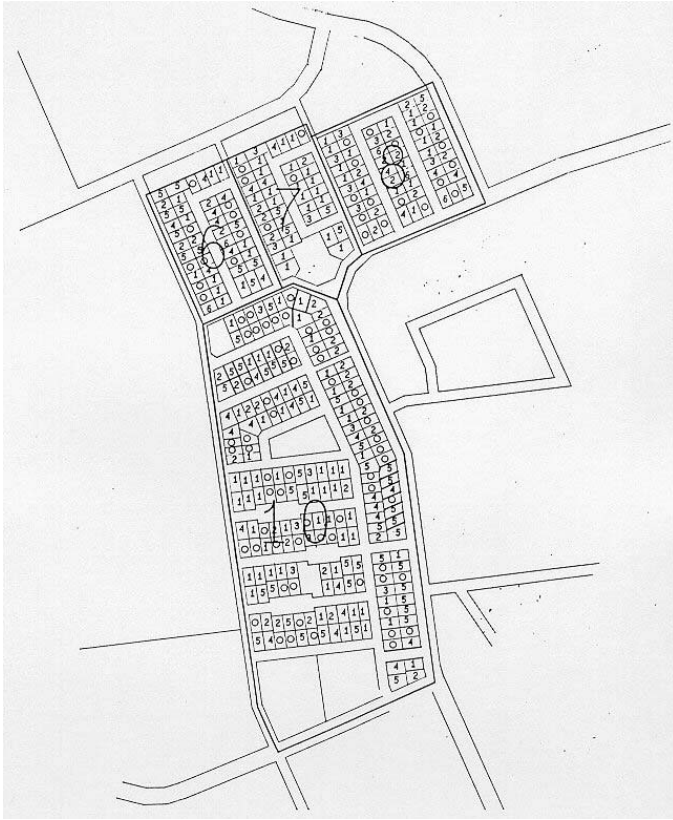
Khayelitsha Village 2 layout



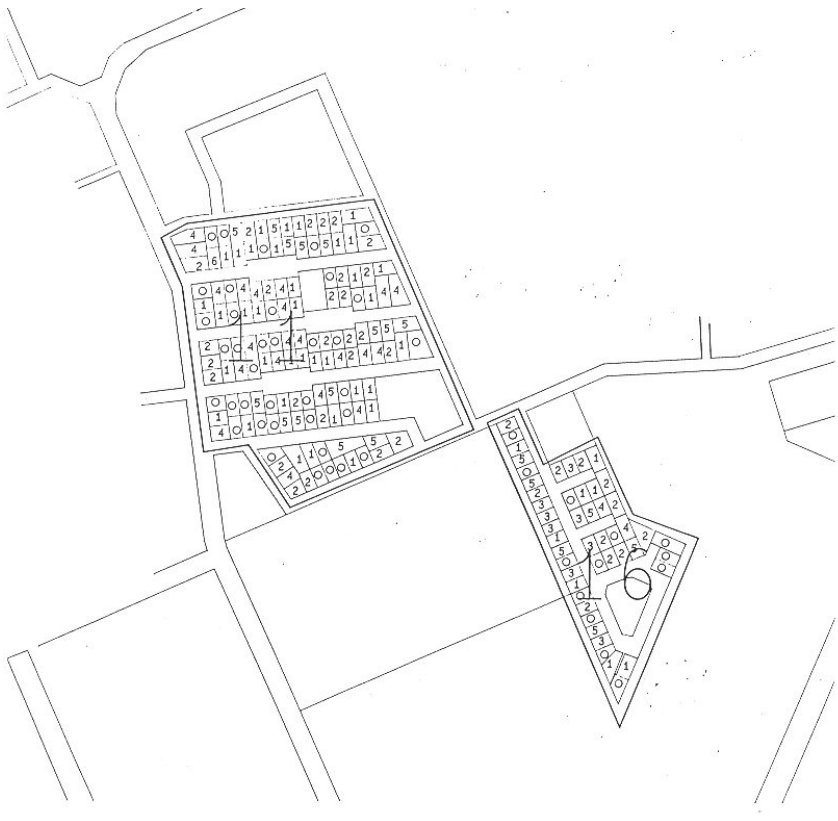
Khayelitsha, Village 1



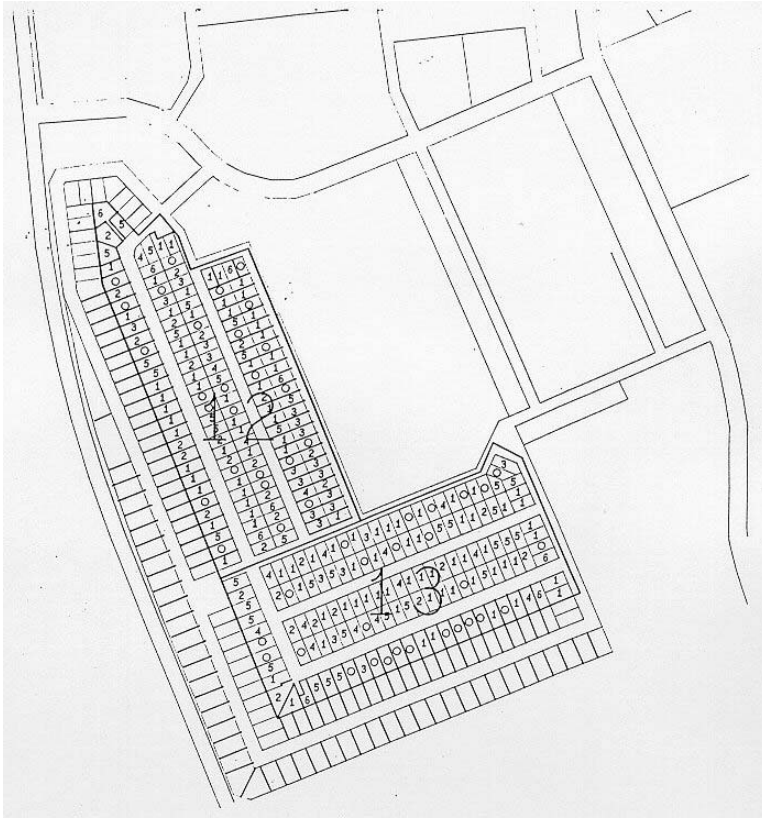
Khayelitsha, Village 1



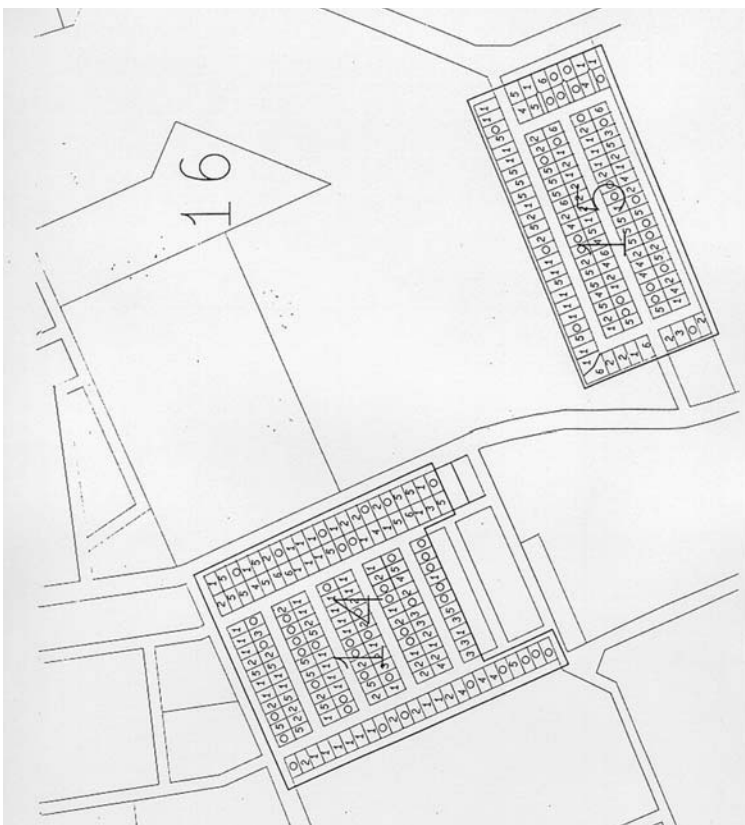
Khayelitsha Village 1



Khayelitsha Village 1



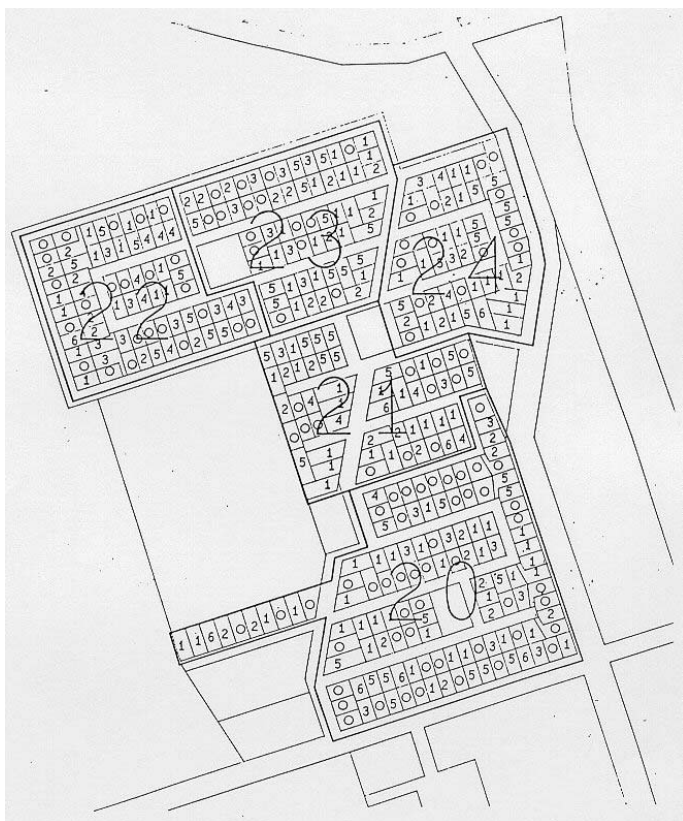
Khayelitsha Village 1



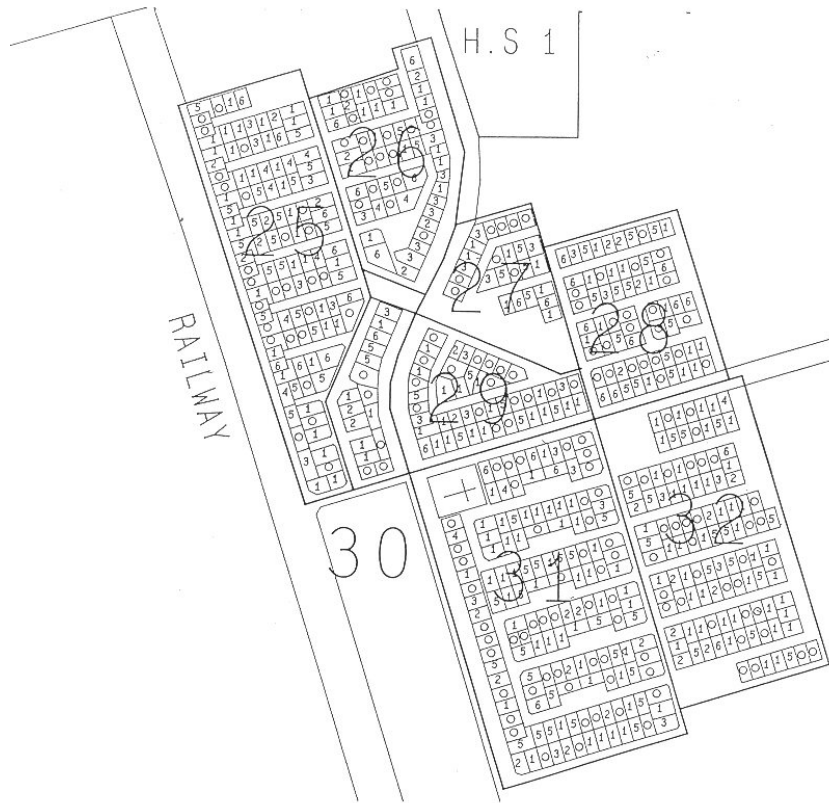
Khayelitsha Village 1



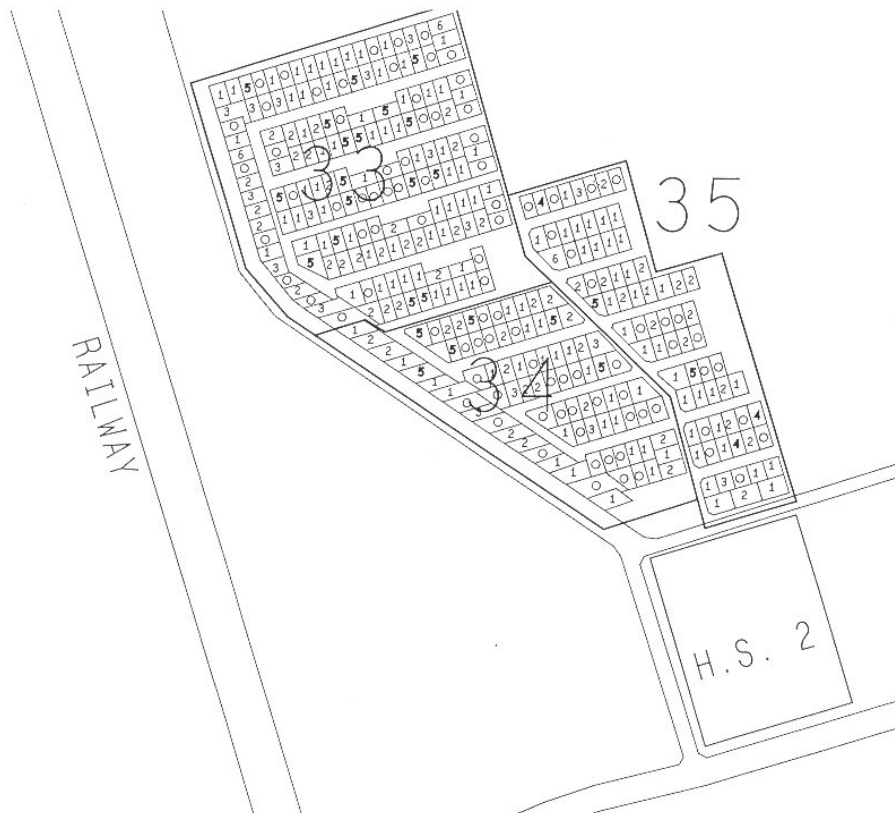
Khayelitsha Village 1



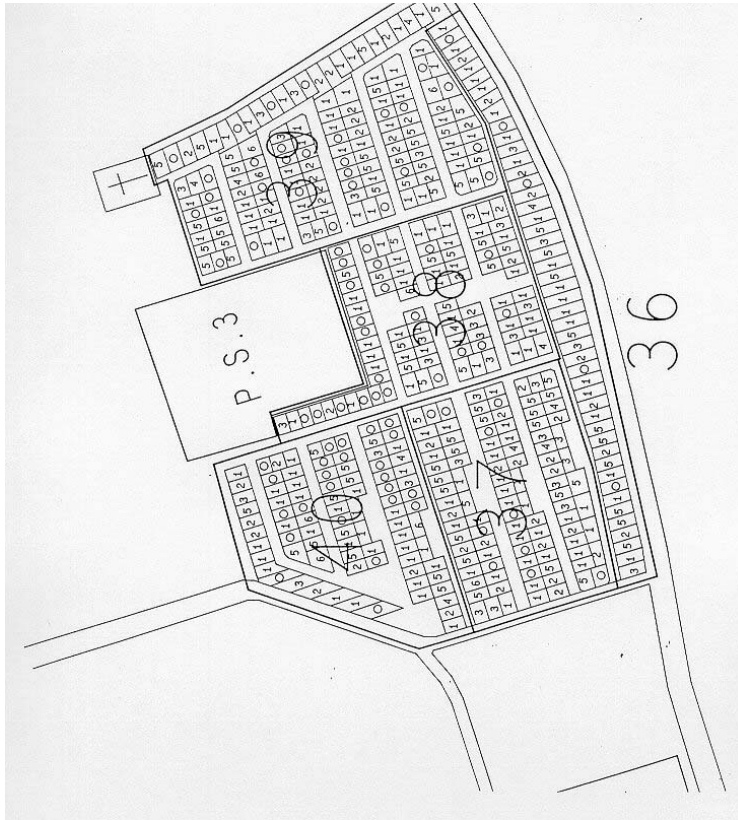
Khayelitsha Village 1



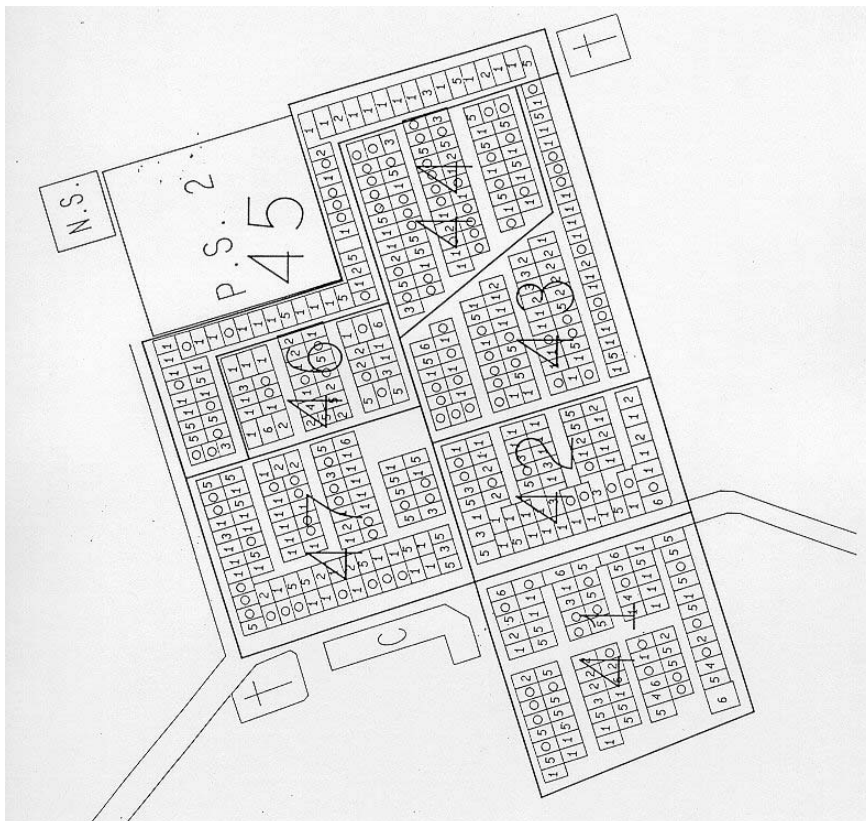
Khayelitsha Village 2



Khayelitsha Village 2



Khayelitsha Village 2



Khayelitsha Village 2



Khayelitsha Village 2

G. Review of housing adjustment studies: mobility and informal settlement consolidation studies

Chapter 3 attempted to place the consolidation of core housing into the broader context of housing adjustment studies. The evolution of a theory to interpret core housing consolidation was based on this wider review of housing adjustment studies. The more detailed assessment of the mobility and informal settlement consolidation studies are therefore included in this appendix. The text is somewhat repetitive of the main report so that each document can be read on its own.

This review starts with First World and Third World mobility studies, and then it looks at informal settlement consolidation studies. These are reviewed in order to compare the dynamics of adjustment practices in various settlement types, as well as to understand the methodologies being applied in the different kinds of studies.

First World mobility studies

There are a number of types of mobility studies, including those that focus on the relationship between mobility and the people involved and society (Briggs, 1997), on the housing market (Forrest and Murie, 1994; Emmi and Magnusson, 1995), on the spatial structure of the city (Pritchard, 1976; Knox, 1995), and on housing preferences and choice making (Timmermans and Van Noortwijk, 1995; Timmermans *et al*, 1996; Floor and Van Kempen, 1997; Clark and Onaka, 1983).

Mobility and neighbourhood effects

Briggs (1997) looks at the debate about whether moving to a better neighbourhood will improve the chances of individuals in society, a concept referred to as 'neighbourhood effects'. He looks at the basic assumptions behind 'mobility programmes' in America, which are interventions aimed at assisting poor people to move to 'better' neighbourhoods. In analysing the social outcomes of mobility programmes for beneficiaries, Briggs states that the simplistic models being applied do not serve to explain these. It is complicated by the fact that "...participants in housing mobility programmes respond to structural and personal forces, many of them beyond the sphere of the immediate spatial neighbourhood" (1997:224).

Pritchard (1976), in a long term historical study of Leicester, goes further in discussing how residential mobility and intra-urban migration have shaped the city. He argues that residential is the largest single category of land use in any city, and as such the mobility patterns of people in the city have the largest impact on urban structure. Knox (1995) holds that given sufficient mobility, the city will change as a result in that 'social ecology' and the neighbourhood image that accompanies this will change and in turn shape the mobility decisions of other households.

In the sense that the residents of core housing have often moved from squatter settlements or other less adequate forms of housing, the concepts of the mobility debate have some resonance here. If the State is intentionally trying to remove informal settlements, then the production of core housing could be seen as a 'mobility programme' in that it seeks to move people to better, albeit new, neighbourhoods.

Mobility and the market

Another genre of mobility studies uses the study of vacancy chains to understand why people move and how this affects the housing market. In the study by Forrest and Murie (1994), the initial sample group is of households who have moved into new housing, and the second sample group are all the households that move into the sequence of housing left vacant as a result. Other vacancy chain models take into account a wider variety of 'change events' that might set off a chain, viz. "...new construction, the sub-division of single units into multiples units, the conversion of non-residential structures into residential units, the out-migration of households and household death or dissolution" (Emmi and Magnusson, 1995:1362).

The Forrest and Murie's study of Southern England was concerned with gaining an accurate picture of who was 'trading up' (buying a more expensive property) rather than trading 'down' or 'across'. The

stages that households were in, from single people to newly formed households though to ageing households, was taken as an important determinant in predicting the housing preferences and behaviour of households, and the way that they 'filtered' through housing stock. The finer nuances of these filtering processes were seen as important in aiding "...targets for house building, land release and planning to meet local housing need" (Forrest and Murie, 1994:287). In situations in which there is a surplus of housing, very detailed and accurate property exchange information, and high levels of choice and mobility, then interventions could be planned and co-ordinated at a strategic, regional level. In these contexts, vacancy chain studies were found to be highly accurate (Emmi and Magnusson, 1995).

Mobility and choice

The next grouping of mobility studies focuses on housing preferences and choice making behaviour when searching for a new home (Timmermans and Van Noortwijk, 1995; Timmermans *et al*, 1996; Floor and Van Kempen, 1997; Clark and Onaka, 1983). It is in this section of the literature that people's reasons for wishing to move house are examined in the greatest detail. Timmermans *et al* (1996) cite a large number of studies which use the concept of 'residential stress' to describe the mismatch between the real attributes and the preferred attributes of the houses and properties that people occupy. Clark and Onaka (1983:48) refer also to 'shocks' that may be internal or external to the household but generate dissatisfaction with the housing product. The coping strategies for residential stress would be to move house, or alter the house or to alter ones own preferences (i.e. to decide live with the inconveniences arising from the mismatch)(Timmermans *et al*, 1996).

Floor and Van Kempen's (1997) study, also based in the Netherlands, focuses on the attributes of a dwelling that people consider before finally deciding to move into the dwelling. By analysing housing preferences they hope to contribute towards the framing of policy and the design of housing supply to meet the needs and aspirations that predominate amongst different household types. The alternatives when there is a 'discrepancy' between actual and preferred housing conditions are given as refurbishment, making the neighbourhood 'more liveable', reducing one's aspirations or moving house. The addition (when compared to the work of Timmermans *et al*) of the category that describes personal action to improve the locality itself is a useful one, and an alternative that may be exercised in the virtual absence of the option to move house, which applies to the majority of people in many Third World countries.

Both Timmermans *et al*, and Floor and Kempen have models which focus on the volitional factors which people consider to be part of their decisions. In doing so they largely overlook the factors that are structural. Knox (1995) gets one step beyond this by proposing a model of residential demand which includes not only the demographic changes (shaping need) or economic changes (shaping resources) within the household, or lifestyle choices, but also external factors. These are referred to as 'historical societal processes' which impose societal constraints on decision making. It is a more useful model and one that can be extended usefully to explain behaviour in Third World cities. Knox's overall review of mobility studies is also useful.

First World mobility study trends

Most of the studies reviewed have used categorisations of household types as a basic building block for their assessments and predictions of mobility patterns. Rather than taking snapshots of what household types are moving during any period, Clark and Onaka (1983) choose rather to track the household through its lifecycle as it proceeds "...from initial formation to dissolution" and to assess what impact this has on decisions to move. They distinguish between 'forced moves' precipitated by events that are not within the control of the household such as eviction by a landlord, 'adjustment moves' where households voluntarily change homes in order to change dwelling qualities, neighbourhood qualities or improve accessibility to an opportunity of some kind, and 'induced moves' which result from a change in household circumstances (1983:49-50). Incidentally, Fitchen (1994) also found that 'unwanted moves' where households were forced to move by unexpected circumstances were common in poor rural areas in the United States. Clark and Onaka go on to analyse data taken from studies in several different countries and demonstrate the trends that emerge when the types of moves (i.e. forced, adjustment and induced) are correlated with the life-cycle stages of the households involved. It is a convincing argument, but again very constrained in light of the complexity of decision making in real situations and in the face of the alternatives to moving, which are not considered.

The common characteristics of the mobility studies reviewed here are that they are predictive rather than descriptive. They therefore attempt to simplify down sets of motivations for large scale statistical analysis. The reason they are predictive is that they tend to be undertaken for the purposes of informing the design of housing supply interventions at strategic level. Another level of simplification which may not transfer easily to Third World situations, is that these studies are based on a fairly simplified and limited categorisations of household types. Most of the studies are intra-urban, i.e. they assess movement *within* specific city boundaries. The models proposed apply to contexts in which there is usually adequate housing supply (and sometimes even surplus), high quality stock, highly controlled or regulated housing markets, and although differential access to housing markets is acknowledged, there are wide choices amongst alternative housing circumstances and high degrees of personal freedom. Many studies seem to have neoliberal overtones in that they show bias towards owner occupation, always portraying the move from rental to ownership as being 'upwards' in their analysis. And finally, as was observed at the beginning, the studies view mobility as the most important housing adjustment option (because they are primarily concerned with housing market dynamics, or the exchange of property). Third World residential mobility studies are, by necessity, very different in both their methods and their findings.

Third World mobility studies

Mobility in Third World countries has most often been conceptualised in terms of regional migration patterns between rural and urban areas (e.g. De Haan, 1997a; Cross *et al*, 1992). Relatively few studies exist of intra-urban mobility when compared with the body of knowledge about this aspect of First World cities. And it is unlikely that the assumptions built up for First World cities would be transferable to the Third World. The situation is likely to be very different where formal housing shortages are extreme, personal choice is much more limited by resource constraints (and sometimes by restrictions on personal freedom), and the types of strategic intervention such as new State housing production are very limited.

Third World studies of mobility have concentrated on the selling on of self-help housing by speculators (Ward, 1982), the attempts of residents to sell consolidated self-help houses in the longer term (Gough, 1998; Gilbert, 1999), the intra-urban mobility of particular groupings within Third World cities (Ahmad, 1992; Edwards, 1983), the housing aspirations of potential beneficiaries of new low cost housing (Rakodi and Withers, 1995), and more detailed ethnographies of mobility (Rodman, 1985; Kellett, 1995). This review of sources is not exhaustive, but serves to illustrate the differences between First and Third World findings.

Mobility and barriers to selling

The first studies in Third World cities focus on households living in self-help housing, and on their prospects for recouping their investments in such housing through resale. Ward (1982), Gough (1998) and Gilbert (1999) have written about these aspects in Latin America.

Ward (1982:184ff) discusses the selling on of assisted self-help housing soon after initial occupation. Building on Turner's observations that 'population turnover' was very low in Latin American cities, Ward nevertheless identifies a group he refers to as 'speculator squatters'. These people acquired more than one plot in spontaneous settlements and sold them on later after having a 'caretaker family' occupy the house in the meantime. Ward also discusses the displacement of households who cannot afford service costs once settlements are regularised and upgraded, or who are forced to move after intimidation by the settlement leader or landlord who are serving their own interests.

Gough (1998) reviews the debate about whether self-help housing should be seen as important for its use value (Turner, 1976) or for the fact that it can be turned into a commodity and its exchange value realised (Burgess, 1982). Turner had swung the focus away from the importance of exchange value, towards a recognition of the importance of the usefulness of a house to a household in Third World cities, and in light of the low mobility figures shown by Gilbert, this shift in view seems to have been justified, if not necessarily always beneficial to the owner. Gough finds that for self-help housing in Pereira, Colombia, there is very little resale of consolidated houses but there is a market in land, which has no housing, or very rudimentary housing on it. Gough interprets the reasons for the lack of mobility as being that many households do not wish to sell after investing so much of themselves in building the house, that households wishing to buy rarely have access to the financial packages or

levels of savings needed, and that the legal exchange of property is difficult to engineer in a largely illegal land market. Gough concludes that while exchange value is important as a notion in self-help housing, the importance of the use value of the house for the household does predominate. It is also clear from Gough's work that it is much more difficult to capture the exchange of property in Third World cities because of the breadth of types of exchange that occur ranging from formal exchanges to a variety of informal exchanges between family and friends. This is confirmed in the work by Ramirez *et al* (1992), who found evidence of the exchange of property in the *barrios* of Caracas, but observed that the buying of shacks and incomplete houses was seen by the buyers as gaining access to land and not as the purchase of a house *per se*. They concluded that although housing had been commodified, a formal housing market had not yet been established (1992:127). Their observation that only shacks and incomplete houses were being exchanged was also one of the chief findings from Gilbert's (1999) study.

Gilbert (1999) reviews a wide range of data which show that amongst the poor who are owners of houses in informal settlements, very few households sell their house and move. While a World Bank indicators report cited in Gilbert shows sub-Saharan Africa to have the highest mobility rate of the developing country regions, Gilbert refutes this in his review of individual studies, saying "...there seems to be very little movement in most African cities" (1999:1080).

Gilbert presents detailed figures from his study of Bogotá, Colombia, to show that while owners believed their self-help houses constituted a good investment, few people knew what the value of the house was, and even fewer would ever succeed in selling their house. The house performed more important functions in the views of the owners, such as allowing them not to have to pay rent, being able to call the house one's own, and being able to generate income from lodging and home businesses. Unlike First World cities therefore, because of a very different secondary housing market, the house was not seen primarily as an investment. In the virtual absence of the option to adjust housing circumstances by selling and buying a different house with different qualities, households in Gilbert's study added space if the family grew, commuted longer distances if the location of employment changed, and took in more lodgers if times were hard. Thus the 'stresses' experienced by households *were absorbed within the location* as it existed for that family.

At a broader level, Gilbert points out that the general lack of mobility would lead to greater burdens on transport infrastructure as people are unable to relocate relative to work, that levels of population density increase as subsequent generations inherit houses and remain living there, and that many are forced into becoming landlords because of the need to generate income in this way rather than through realising their investments through the sale of their properties. Similarly, for people wishing to move from being tenants to being owners, as housing stock in a city becomes more established and mobility remains low, it becomes more and more difficult to become a home owner. Gilbert concluded that if it was so difficult to sell self-help houses, then homeownership in these contexts "proves to be an adequate vehicle for housing people, but it is a poor vehicle for upward mobility" (Gilbert 1999:1089 citing Edel *et al*).

Mobility and Third World filtering

Secondly, very few studies track households as they move through housing stock as we saw the vacancy chain research do for First World cities. However, a couple of studies stand out.

Ahmad (1992) focuses on the mobility of migrant households in Karachi, Pakistan. He sets his argument within fast growing Third World cities where urbanisation places added pressure on urban infrastructure.

The second part of Ahmad's study focuses on intra-urban mobility. Migrant households moved more often than non-migrant households. Migrants were more likely to move from authorised to unauthorised settlements than their non-migrant counterparts. Ahmad also found that there was some upward mobility in that more than a third of migrant households were moving to larger and better quality houses when they moved. The ethnic composition of neighbourhoods to which households were relocating was important. The levels of violence in different neighbourhoods did not affect the choice of where to move. Half of migrant households moved to be closer to their employment.

Ahmad concludes that the concentration of ethnic groupings in the city could have disastrous consequences for the upsurge of ethnic violence, that settlement at the periphery is likely to result in urban sprawl and costly extension of services to those areas, and that urban sub-centres, as contrasted to the central city areas, provide an important role in offering employment and accommodation to people.

Edwards (1983), in yet another Colombian study, looks at mobility and the housing market in Bucaramanga. He brings out the importance of viewing not only the household lifecycle circumstances that prompt the decision to move, but also the structural constraints that the housing market places on residential decisions. "According to the structuralist approach, the characteristics of the housing market (and, by extension, the society) in which a family lives are considered to be more important influences over residential mobility than the characteristics of the household itself, at least below a certain level of income" (1983:131).

Edwards seeks to show by applying a structuralist framework using empirical evidence that "...residential mobility among poor families is as much a reaction to changing conditions in the housing market as a response to variations in household demand" (131).

He shows that what people *want* in terms of a housing aspiration is not connected with what they *get* (1983:133). Because of low incomes and the way the housing market operates, poor people have very little choice, and aspirations are rarely met. Alternatives in housing only open up as incomes increase. Viviescas (1985) held a similar view of choice and structural constraint.

What Edwards demonstrates is that housing preferences within income groups are not uniform, and that people respond rationally to the opportunities presented by the housing market. Rather than looking purely at the household unit and their needs and aspirations, one needs to take a wider view of what is available on the supply side. Instead of being able to draw a link between internal household pressures (stresses, triggers, etc.) and the change in housing circumstances, one has to instead look at how the market suppresses these preferences during some eras, and how in other eras availability of opportunities is seized whether there is an internal pressure or not. This is important in situations of severe housing shortage. Finely tuned demand-based models of housing adjustment evolved for First World cities mean little in contexts of extreme resource shortages.

Mobility and unfulfilled aspirations

The third kind of study focuses on housing preferences or aspirations. In the Third World context this has relevance for governments who are still producing housing stock, as with Rakodi and Withers' (1995) study of Zimbabwe. The question here is really, for the few people who have the opportunity to move (usually as one of the very few beneficiaries of State programmes) what kind of housing would be desirable and indeed affordable.

In the Zimbabwean context, mainly in Harare and Gweru, Rakodi and Withers concentrated on the views of lodgers in other people's houses as obvious potential beneficiaries of new housing. They compared views about current accommodation and aspirations about future accommodation "if the opportunity arose".

While the study by Rakodi and Withers is not a mobility study *per se*, it gives interesting insights about what people who are virtually trapped in rented accommodation aspire to if they were to be given the opportunity to move. To use this information to design new housing may overlook the need for participation of the actual beneficiaries in the design of the project, but may well lead to the broad movement towards more appropriate mass housing for such a generalised beneficiary group.

Mobility ethnographies

Finally, an example of an ethnography of mobility can be found in Rodman's (1985) study of Longana, Vanuata. It demonstrates that First World assumptions and categorisations do not always hold in some Third World countries. Apart from a complex matrilineal society which would render the household categories of First World studies fairly meaningless, 'moving house' did not mean that a household moved to a new house. Rather, in that context it meant that an existing, bamboo house, or part thereof, was moved to a new location, and that this form of mobility affected the vast majority of

households in that settlement within a five year period. The social roles that the house facilitated in the matrilineal society were particularly important. The meaning of home and concepts of security of tenure were so different in these societies that most mobility study assumptions did not apply.

Certainly, Kellett (1995) has shown that even in urban settlements, access to home ownership in self-help settlements is not the ultimate end of the mobility process, as Turner (1965) and many others have portrayed it. Kellett's work on households in Santa Marta, Colombia, could also be seen as an ethnography, for its detailed view of the movements of households over a number of years. Households may move into and out of regularised settlements, depending on what strategies most suit their needs at the time. Again, the quest for security (of tenure and other aspects) may not be as easy to generalise as many assume¹.

Third World mobility study trends

What emerges from this brief review of Third World mobility studies is that the wide scale data analysis of property exchanges over time and space is rare. Where studies have been done, some manage to skilfully capture the process by which people migrate into the city and then become settled there (Ahmad, 1992). Mobility levels tend to be much lower for the poor in Third World cities than for people in most First World countries. Access to State built or assisted self-help housing tends to be the end of the filtering road for most households and then consolidation processes begin to predominate. For core housing then, it is important that the mobility option is placed into the local context for the viability of such an option in each household's choice making behaviour.

Rarely have studies viewed the housing adjustment activities of the majority of people remaining immobile because of poverty and other structural factors that tend to dominate decision making in the settlements of most Third World cities. It is to be expected that stress thresholds and coping mechanisms would be much more developed in such situations, and that the suppression or redirection of aspirations away from mobility would be common.

The studies reviewed here also bring out that housing adjustment studies need to redefine the basic concepts for each context, or locality study. Examples would include whether households can be sorted into typical groups for that context, whether households have one home or several family homes, whether individuals migrate between various places on a seasonal or other basis, whether aspirations are towards ownership or whether alternative identities and meanings of home apply.

These mobility studies from First World and Third World countries have been described in order to set housing consolidation studies in context. Apart from showing that most people will remain in a self-help house after occupation (as is the case with the Durban and Cape Town case studies), they also serve to demonstrate that each household needs to be understood in terms of its mobility history up until the time it moved to the core house.

By looking at resident origins (i.e. a backward view of mobility), it is possible to establish whether the move to a self-help housing project constituted filtering up or filtering down. It is interesting to surmise whether this move set up a vacancy chain which potentially benefited others. The other dimension of course is that once occupying a house in a self-help project, the resident usually has the right (subject sometimes to an imposed restriction for the first few years of occupation) to sell their house. The extent to which this happens can also be discussed, and whether people lost the market value of their house in doing so, or whether they were effectively trading up using their self-help house can be ascertained.

Many of the models which attempt to explain the motivations of people to move can be as usefully applied in understanding why people wish to modify their homes. An important difference, however, is that the change in access to urban opportunities that can be effected through the change of location inherent in mobility, cannot be realised by modifiers. Modifiers can only attempt to bring opportunities nearer to themselves.

¹ See the discussion of Wegelin and Chanond (1983) and Angel (1983) below.

Informal settlement consolidation studies

There are a number of characteristics of consolidation studies which are useful for the study of core housing modification. It is also instructive to compare the differences between the initially unsupported consolidation attempts of people in informal settlements, and the intentionally supported efforts of the beneficiaries of core housing.

There is a large number of consolidation studies and it is a well established area of knowledge, especially for certain parts of the world. Consolidation processes are perhaps better understood in Latin American countries than in African countries, for example. A number of the studies attempt to describe and understand the typical consolidation processes that households follow in informal settlements (Sewell, 1964 in Ward, 1982:119) and what internal and external causal mechanisms stimulate consolidation (Ward, 1982:176ff; Van Lindert, 1992; Smit and Mbona, 1996). Other studies choose to focus on the role of small builders and materials suppliers who stand behind much of the building production in consolidation (Gough, 1996; Smit and Mbona, 1996; Ramirez et al, 1992). Many studies are focussed on ascertaining what formal interventions are key in stimulating self-help consolidation (Wegelin and Chanond, 1983; Angel, 1983; Stevens *et al*, 1998). Finally, some then take the next step in attempting to understand how individual consolidation activities impact on the urban form of settlements over the years (Schlyter, 1991). Again, this selection of sources is merely illustrative, and this section does not constitute an exhaustive review of consolidation studies.

Descriptive consolidation studies

Firstly, there is good precedent for the studies which describe typical 'serial' or 'incremental' building processes for specific cases. In fact, this was the starting point for the two 'fathers' of progressive development, with both Turner (1965) and Abrams (1964:174ff) describing what they had observed of informal settlement consolidation. Turner's Lima typology of low income bridgeheaders and consolidators, middle income status seekers and upper income elites influenced many theorists (e.g. Van Lindert, 1992). As we saw, this led Turner and Abrams to propose formalised copies of these processes.

Following this tradition, many people undertook to describe, and sometimes to generalise, the consolidation processes that they were observing in Third World cities. Ward (1982:117) 'critiques' the *gecekondus* of Ankara using the work of Sewell (1964). Sewell had "...identified the main stages in the evolution of a settlement..." (119). By using a case study from another continent, it reinforced the idea of rapidly consolidating informal settlements following similar, recognisable patterns.

Ward (1982:176ff) describes consolidation in Mexico City. Three squatter settlements were investigated to compare levels of physical improvement and the impacts of official efforts at upgrading. He made a distinction between the successful squatter and the 'failed' squatter (175), i.e. those who had consolidated and 'survived' formal regularisation of their settlement, and those who had not and had been forced to move to other settlements. The significant factors in stimulating consolidation could not be generalised even though the settlements were within the same city. What could be generalised was that as settlements grew older densities increased, the numbers of households renting increased and the level of economic activity in the areas grew (179).

Van Lindert (1992:161) demonstrated that informal settlements on the former periphery of La Paz were more consolidated (i.e. more houses were constructed from permanent materials) than settlements on the recent periphery. In informal settlements in La Paz, consolidation was mainly a function of the length of time residents had had to consolidate. Van Lindert looked for links between occupational mobility and 'housing advancement'. He found that there was no link between an improvement in occupational status and housing advancement, either through residential mobility or housing improvement. He showed that households continually attempted to strengthen their positions in the housing market but that this was independent of key events in upward social mobility (such as improved job status).

The notion that housing in informal settlements inevitably moved in a kind of evolutionary manner towards greater permanence and regularity, which is the assumption that had been built up mainly through observations in many Latin American countries, was challenged in Kellett and Napier (1995). Particularly in the South Africa context, the motivations and strategies for settling in informal

settlements have been specific to the spatial and historical contexts, and as a result consolidation does not take place in the uniform way observed in certain cases in other countries.

Similarly, Ward cites a number of studies to show that "not all squatter settlements develop or demonstrate the same positive features of organisation as those described by Mangin and Turner for Lima" (1982:176). Ward listed a series of environmental factors which differ fundamentally from place to place and affect the degree to which consolidation happens. These factors, he says, make it impossible to generalise either for Latin America or for the Third World as a whole.

Smit and Mbona's (1996) study of consolidation in Durban's informal settlements illustrates this point. The investigation was undertaken to inform a planning process in which an NGO wished to design a support process for settlements which had recently been regularised. The study was qualitative, and longitudinal, in as much as two interviews were done a year apart. Three settlements around Durban were covered. A detailed picture of the motivations for extensions and the methods of production of extensions (including labour, finance and materials) is built up from the qualitative data.

Smit and Mbona conclude that consolidation is linked to the commodification of housing, increased consumption and improved socio-economic status (1996:78). This leads to recommendations for the 'support' and 'replication' of housing consolidation processes through training, advice and finance for small builders and informal concrete block makers (the predominant material used for consolidation), the facilitation of building materials suppliers to operate in convenient locations near the consolidating settlements, and training, advice and subsidies to households.

In that this is a piece of applied research, the causal links revealed by interviews with households who are consolidating their housing rapidly within a supportive environment are useful for planning further interventions. However, it does not reveal anything about consolidation processes in settlements which are not yet regularised, and must be seen as typical of a special period in the regularisation of settlements. The longitudinal research process will need to be continued to better establish the early trends emerging.

Consolidation, small builders and materials suppliers

The idea that most consolidation is undertaken by households themselves has been discounted since the early days of consolidation studies. The importance of the role played by the informal (and sometimes the formal) sector in the construction that leads to consolidation has been underscored by many studies. The main players are small contractors and building materials suppliers.

Gough (1996) looks at how the production of building materials links to their distribution and consumption in self-help settlements in Colombia. She contrasts capitalist production where the means of production are separated from labour, and petty capitalist production which is chiefly organised within households with little employment of wage labour (398). Personal examples of households are given in a similar way to Turner's two home dwellers (1976), but they are of a large, formal building materials merchant and a small, petty capitalist merchant (405).

Gough uses her detailed empirical data to challenge the views of Pradilla and Burgess that the building materials industry is inevitably dominated by the capitalist mode of production, and that the State uses self-help projects to strengthen the influence of industrialised production. She demonstrates how petty capitalist building materials merchants are not dominated intentionally by capitalist interests, but exist amicably alongside one another for the most part.

Similarly, Ramirez et al, (1992:129) review the role played by established building materials suppliers in the initial production and consolidation of squatter housing in three Caracas settlements. The early shacks were built from discarded or re-used materials meaning that suppliers had a low profile at that stage of the settlement formation process. The fact that the consolidation process is directly associated with the move towards more industrialised building materials means that suppliers of such materials become increasingly important as consolidation progresses in each settlement. This was the case in Caracas, where it was found that most of the households that formed the qualitative sample for this study purchased their materials from established, formal suppliers either within or close to their settlements. Ramirez *et al* did not distinguish between larger and smaller (or capitalist and petty capitalist) materials suppliers as Gough had done.

Smit and Mbona² (1996) give a clearer picture of the materials supply process and the construction process. In their case studies, they observed a difference between the types of materials purchased in the early stages and the more consolidated stages of the settlements. Second hand materials such as old corrugated iron and doors and windows could be bought from formal, second hand suppliers and this as a source of materials for more consolidated housing was also growing. Consequently the use of materials from informal suppliers and free materials (such as waste materials) was decreasing.

Similar issues of the supply of labour and advice affect the occupants of core housing, and will be examined in detail in the discussion of the South African case studies. The important issue is often not whether households build for themselves or employ someone else to, but whether they manage by whatever means to add space (and thereby relieve overcrowding). The levels of building skills that households then have access to either within the household or amongst their friends (i.e. for which money will not necessarily have to change hands) becomes an important factor in the decision of who should build extensions, and indeed whether the addition of space can be afforded by the household.

Consolidation stimuli

The purposes of many consolidation studies was to understand how strategies for intervention in squatter settlements could be designed so that local authorities and other stakeholders increased their chances of stimulating self-help consolidation. What interventions should come first: legalisation of land tenure, or service installation, or managed self-help programmes? So again the tendency within this type of research is to move from the observation of an informal phenomenon to becoming apologists for its formalisation. However, in this case where the envisaged intervention is the regularisation or upgrading of informal settlements, the research is not an attempt to emulate informal processes. Such research is rather aimed at understanding the dynamics of the informal consolidation process in order to intervene in a sensitive way so as not to disrupt the processes that are already in place.

In Wegelin and Chandon's study (1983), a method similar to those used in transformations studies was applied, with the household composition, income, tenure and other characteristics of home improvers being contrasted with those of non-improvers.

The most common observation from these kinds of studies was that the granting of legal, secure tenure to informal settlement dwellers was the most important precondition for house consolidation and indeed for formal upgrading of infrastructure by authorities (Meffert, 1992:326). Wegelin and Chanond (1983) showed that the threat of eviction in slums in Bangkok did delay, and limit the scale of, home improvements³. However they pointed out that certain determining factors such as household income were at least as important, and other factors such as household composition, the age of the house and the settlement, and access to finance also played a role (1983:88).

In the same book, Angel (1983) discusses the question of the link between tenure and quality of housing in detail using three examples from Karachi, Bombay and Jakarta. The cases illustrate again that generalisations are difficult. It did emerge that the expectation of secure tenure was as important as actual security but that some residents displayed greater acuity in ascertaining whether there was a real prospect of regularisation or not. Residents' home improvement behaviour was rational within their experiences of the likely actions of local authorities.

An ongoing longitudinal study by Stevens, Marshall, Morrison and Rule (1998), tracks informal settlement upgrading in four informal settlements in Gauteng Province, South Africa, over several years. It confirms the findings of the researchers reviewed above, about the relative importance of tenure. However, tenure regularisation was not always at the top of the residents' own priority lists. Priorities varied between settlements and over time as the upgrading process proceeded. Services to houses were ranked far ahead of the need for tenure, though some local authorities insisted on tenure first. In many cases, residents preferred services first, before housing (although in one settlement this was reversed).

² Already reviewed above.

³ As we shall see in the Cape Town case study where continued rental did affect the permanence of extensions.

Consolidation and urban form

A few studies have focused on the spatial characteristics and impacts of consolidation on settlement form. Schlyter's (1991) study of the squatter settlement, George, in Lusaka uses time series analysis to track the consolidation of that settlement over a 20 year period starting in the 1960s. This is perhaps one of the most accurate and revealing (not to mention difficult) methods of tracking consolidation at both the house and the settlement level. It revealed how the 'urban patterns and densities' changed over the years. The type of information that Schlyter has collected would be ideal for making observations about whether the collective actions of residents in consolidating have led to the formation of a cultural landscape (Sauer, 1925). This idea will be discussed in more detail below.

The longitudinal method developed and applied by Schlyter reveals a great richness in the consolidation processes operating at many different levels within settlements. Many groups have taken on the longitudinal approach (e.g. Smit and Mbona, 1996; Stevens *et al*, 1998) but few with as much commitment as Schlyter.

Trends in informal settlement consolidation studies

In contrast to First World mobility studies, most consolidation studies are descriptive of particular cases, in other words they are true locality studies. The predictive modelling tradition built up in mobility studies is almost absent from this genre of research. There is therefore less of a tendency to categorise people according to what household types they are part of, or to link these in a causal way to their consolidation or mobility behaviour. The focus was rather on the changes in the houses and the settlements, and the increasing permanence of the construction materials and methods employed.

The relationship between consolidation and regularisation is an important one. In each of the case studies, increasing consolidation could either lead to recognition (or indeed, non-recognition) of the legitimacy of settlements, or in other cases early regularisation could stimulate consolidation. There was not a simple correlation between increased security of tenure and consolidation. From the cases reviewed, it was also not correct to assume that all settlements or houses would proceed along a similar consolidation pathway.

One of the limitations of consolidation studies is that many were based on very small amounts of evidence. In First World mobility studies, very large numbers of property exchange transactions could be assessed using city records over many years. The most robust consolidation studies were based on long term longitudinal data (Schlyter, 1991) where the researcher built up a full picture from personal observations. But few have the time or opportunity to replicate such studies. It has also become clear that generalisations about consolidation are inappropriate, particularly generalisations about what drives consolidation. In certain areas, consolidation towards greater permanence in informal settlements does seem to be consistent, but the reasons that this takes place differ fundamentally from settlement to settlement, even within the same city. Finding methods to study the dynamics of consolidation processes more accurately seems to be a greater need than trying to build models that can generalise or predict consolidation processes. Consolidation studies remain important, however, as essential precursors to formal intervention.

Conclusion to Appendix

The motivations and assumptions behind many of these studies are revealed through analysing how they define a successful individual or household. In mobility studies a successful household filters upwards from rental to ownership and consumes greater and greater amounts of housing. If this growth and upward mobility is not occurring, the market is likely to suffer. In residential modification studies, the successful household is described as a home improver, an extender, a transformer or a consolidator. Those who do not modify their housing are referred to as *non*-beings of some kind. Clearly the use of these descriptors is not only motivated by the desire for the housing commodity to increase in value and for the economy to be stimulated through these processes, but also it is motivated by a concern for the quality of life of the people who are not managing to attain a closer match between their housing needs or aspirations, and the dwellings they occupy. However, it should also be noted that there may well be groups of people in each situation for whom increased consumption is neither needed nor wanted.

An understanding of the wide variety of motivations behind housing adjustment studies often explains the methods employed and the conclusions reached. Many of the First World mobility studies sought to predict accurately the future demand for housing. Despite a great quantity of research, there is a continuing debate about whether household lifecycle stages motivate action more or less than structural factors, such as household responses to the state of the housing market. Many of the Third World informal settlement consolidation studies sought only to describe the characteristics of the households and the building processes that they undertook, but largely missed the qualities of the buildings. Such studies tended to be motivated by the desire to gain official recognition for informal settlements, and subsequently to encourage interventions that sensitively emulated the processes that were being observed. Transformation studies tried to show that whether houses were built to be extended or not, that they would be altered substantially by the residents. The conclusion was that authorities and other players should support the transformation process rather than opposing or ignoring it. Where core housing was built to be extended, it was often not extended in the ways expected by the designers.

The dearth of core housing consolidation studies can probably be explained by reference to motivations for research. All the other housing adjustment studies were investigations of processes which were driven by people themselves with little or no intervention by the State. In core housing, the intervention precedes, and constructs the setting for, the consolidation process. Academics and housing practitioners are fascinated by unassisted processes that take place outside of the remit of the State. As theoreticians propose ways to co-opt such processes the interest of the State increases as it recognises the potential benefits it can realise through the 'formalisation' of people. Core housing is itself one of these assimilations, and because the State has drawn the occupants of core housing into the formal city, and donors and the State have done their duty to supply housing, there no longer exists a strong motivation to go back and assess the long term performance of such projects. It is only as we get into the fifth decade of the implementation of partial provision approaches, and as core housing, sites and service, and informal settlement upgrading continue to be promulgated, that the realisation is dawning that some view of the success of such projects should be gained by revisiting the much vaunted experiments and pilot projects of the past.