Hilette Lindeque, BAS

Housing provision and subsistence practices:
Exploring informal settlement interventions in South Africa

MASTER'S THESIS

to achieve the university degree of

Diplom-Ingenieurin

Master's degree programme: Architecture

submitted to

Graz University of Technology

Supervisor

Assoc.Prof. Mag.art. Dr.phil. Daniel Gethmann

Institut für Architekturtheorie, Kunst- und Kulturwissenschaften

Graz, October 2018

Abstract

The provision of adequate housing has been a political priority in South Africa since the early 1990s. The primary approach has been the large-scale delivery of state-subsidised RDP housing, which has provided millions of people with houses for ownership over the last two and a half decades. The prioritisation of delivery, emphasising a prescribed product, has overshadowed the outcomes this approach has had on the lives of residents. This thesis is concerned with the role of affordable housing on the lives of the urban poor. The research aims to show how interventions in informal settlements impact the communities, households and livelihoods of the poor. This study considers the aims and expectations of housing practice, exploring how these impact intervention approaches, and how the outcomes and limitations imposed on residents influence their interaction with their houses and impact their livelihoods.

The research employs a case study design, exploring the understandings of housing in South Africa by looking at three different interventions in Johannesburg and Cape Town. The first case study, Alexandra in Johannesburg, considers the overarching approach to housing provision, looking at the effects life in RDP housing has on residents relocated from Old Alexandra. The second case study considers a small-scale, *in situ* intervention in the form of a reblocking in the Ruimsig informal settlement. The third case study looks at the design intervention of the Empower Shack project in Khayelitsha, Cape Town. These case studies confirm the fixation on the house as an end-product, linked to various expectations of the impact this product should have on the lives of its recipients. They further reveal a disjuncture between expectations and real outcomes, where people's practices in their new environments do not match these expectations.

This thesis argues that the complexities of informal settlements and the lives of the urban poor should be considered in the framework of low-income housing provision. The cases reveal that expectations surrounding 'formality' and the house as a product does not remove the difficulties faced by residents prior to the intervention, and people's practices continue adding a degree of 'informality' to their environment. Careful consideration of the interaction of residents with their houses and environments is necessary to provide insight for interventions that could contribute to lasting improvements to their lives. Drawing from potentials found in the spatial analysis of the case studies, this thesis suggests changes in practice to accommodate the needs of people, and points to possibilities for future interventions concepts.

Kurzfassung

Seit den frühen 90er Jahren, ist die Bereitstellung angemessener Wohnungen, die politische Priorität Südafrikas. Der Hauptansatz dieser Priorität, war die Massenlieferung staatlich geförderter ‚RDP-Housing', die seit den letzten zweieinhalb Jahrzehnten Millionen Menschen mit Eigentumswohnungen versorgten. Die Lieferung von dem Produkt, ein fertiges Haus, überschattete die Folgen dieses Ansatzes für den Alltag der Bewohner. Diese Arbeit beschäftigt sich mit der Rolle von finanziell erreichbarem Wohnraum für das Leben der städtischen Armen. Die Forschung versucht den Einfluss von Interventionen in informellen Siedlungen auf die Gemeinden, Familien und den Lebensunterhalt der Armen hervorzuheben. Die Ziele und Auswirkungen der Wohnungspraxis werden in dieser Arbeit betrachtet, und den Einfluss und Auswirkungen der Wohnungspraxis auf Interventionsansätze wird untersucht. Weiter betrachtet die Arbeit den Einfluss dieser Auswirkungen und Einschränkungen, die den Bewohnern auferlegt werden, ihre Interaktion mit ihren Häusern und ihrem Lebensunterhalt.

Ein Fallstudienentwurf wurde verwendet für die Untersuchung der Wohnraum- Verständnis in Südafrika, anhand drei unterschiedlichen Interventionen in Johannesburg und Kapstadt. Die erste Fallstudie, Alexandra in Johannesburg, betrachtet den übergreifenden Ansatz für die Wohnungsprovision, die Bereistellung von ‚RDP-housing', und untersucht die Auswirkungen, die das Leben in dem ‚RDP house' auf die Bewohner von ‚Old Alexandra' hat. Die zweite Fallstudie betrachtet eine kleinräumige In situ Intervention, im Format einer ‚Reblocking' der informellen Siedlung Ruimsig in Johannesburg. Die dritte Fallstudie befasst sich mit der Designintervention, Empower Shack-Projekt, in Khayelitsha, Kapstadt. Diese Fallstudien bestätigen die Fixierung auf das Haus als ein Ziel. Das Haus ist mit verschiedenen Erwartungen und Bedürfnissen verbunden, die mit dem Leben der Empfänger zusammenhängen. Die Fallstudien zeigen eine Diskrepanz zwischen Erwartungen und realen Ergebnissen.

Diese Arbeit argumentiert, dass die Berücksichtigung der Komplexität informeller Siedlungen, und das Leben der Städtische Armen, wichtig sind im Rahmen der Wohnungsprovision. Die Fallstudien zeigen, dass Erwartungen bezüglich die ‚Formalität', und das Haus als Produkt, die Schwierigkeiten, die den Bewohnern vor der Intervention konfrontierten, nicht beseitigt werden. Die Tätigkeiten der Menschen fügen in ihrer Umgebung immer mehr "Informalität" hinzu. Eine sorgfältige Beachtung der Interaktion zwischen Bewohner und Haus, bzw. Umgebung, ist erforderlich für einen Einblick in die Interventionen, um die dauerhaften Verbesserung des Lebens unterstützen zu können. Diese Arbeit schlägt Änderungen im Verfahren vor, die gefunden worden anhand der räumlichen Analyse der Fallstudien um den Bedürfnissen der Menschen entgegenzukommen, und weist auf Möglichkeiten für zukünftige Interventionskonzepte zu.

AFFIDAVIT

I declare that I have authored this thesis independently, that I have not used other than the declared sources/resources, and that I have explicitly indicated all material which has been quoted either literally or by content from the sources used. The text document uploaded to TUGRAZonline is identical to the present master's thesis dissertation.

02. 10. 2018
_____
Date

Hindegue.
_____
Signature

Acknowledgements

Table of Contents

Chapter four_A design intervention in an informal settlement: The Empower Shack project

Chapter five_Three approaches to housing: Comparing the cases

Chapter six_Conclusion and suggested changes to the practice of housing delivery and informal settlement interventions

Note: All bold terms in this thesis are clarifief in the glossary, providing explanations on South African housing terminology and related programmes or institutions.

Acronymns

ANC   African National Congress

ARP   Alexandra Renewal Project

BNG   Breaking New Ground

CORC   Community Organisation Research Centre

DH   Department of Housing

DHS   Department of Human Settlements

FEDUP   Federation of the Urban Poor

ISN   Informal Settlements Network

RDP   Reconstruction and Development Programme

SDI   Shack/ Slum Dwellers International

UISP   Upgrading Informal Settlements Programme

Chapter 1
Introduction

Housing in South Africa

Housing forms an integral part of the South African political landscape. It is an issue strongly entwined in the country's political history, and that of the ANC liberation movement (Charlton, 2013: 132). In the post-apartheid country, housing delivery became synonymous with nation-building. This housing delivery, defined by market-driven delivery instruments, has been the focus of informal settlement interventions in South Africa (Huchzermeyer, 2004: 3). The provision of subsidised houses to residents in informal settlements has not been able to keep up with the demands of the growing backlog or to meet the policy requirements of creating sustainable human developments (Department of Housing, 2004; Daniels et al., 2016: 130).

South African cities are defined by pervasive informality, accounting for the large **housing backlog**. Policies and practice have been seeking to eradicate informality from the country. However, these attempts have only helped reproduce conditions of informality. Informality continues finding new, and ever more fluid and complex ways of expression, contrasting the bare, monotonous conditions of state-provided **housing developments**, clearly highlighting the ineffectiveness of the discourse on housing provision as formalisation and eradication of informal settlements (Daniels et al., 2016: 130). These informal settlements have generally been blamed on the burden left by apartheid spatial planning. The growing disparities in the country have also largely been linked to the neoliberal macro-economic policies the country has since adopted, opening local markets to international competition (Huchzermeyer, 2011: 24). Potentially transformative policies following the early post-apartheid values of 'spatial justice' were overshadowed by conservative market forces, and the housing delivery programs have instead been criticised as contributing to urban sprawl and continuing marginalisation of the poor (Fieuw & Mwau, 2016: 181).

Understanding the concepts related to housing provision and informal settlement interventions, and their development within the international and local debate on the topic, forms the introduction to this thesis. This chapter introduces the South African housing benefit, the aims of the housing programme and the evolution from its roots to today, using literature to consider the concept of interventions in informal settlements,

and placing the South African debate in the broader, international context. The research of this thesis will then be situated in the context of this evolution and the relevant concepts relating to housing interventions. This chapter will introduce the aims and research question of this thesis and discuss the methodology and structure used to fulfil these aims.

The South African housing benefit

The South African low-income housing programme is built on the tradition of the Kliptown Freedom Charter[1] (Charlton, 2013: 131; African National Congress, 1994). The Charter proclaimed that in a South Africa free of racial restrictions "there shall be houses, security and comfort for all" (African National Congress, 1955). These ideals formed the roots of the Reconstruction and Development Programme (**RDP**) close to 40 years after the signing of the Charter. The RDP contained a chapter on 'Meeting Basic Needs', including a lengthy section on 'Housing and Services' (Charlton, 2013: 132; ANC, 1994). Having formed part of the multi-party negotiations that took place in the period leading up to the 1994 elections and the taking of control by the African National Congress (ANC), the matter of housing was politically charged and forms a key issue in the South African landscape. Housing constituted an essential position in the transition period, where housing delivery formed part of election campaign promises (Charlton, 2013: 132), and access to housing for all became a priority.

The South African constitution enshrines the 'access to adequate housing' as a right (Republic of South Africa, 1996). The Bill of Rights places the duty of endeavouring to realise this right on the government (Department of Human Settlements, 2018).

> **Housing (26)**
> 1. Everyone has the right to have access to adequate housing.
> 2. The state must take reasonable legislative and other measures, within its available resources, to achieve the progressive realisation of this right.
> 3. No one may be evicted from their home, or have their home demolished, without an order of court made after considering all the relevant circumstances. No legislation may permit arbitrary evictions (Republic of South Africa, 1996).

---

1. the Freedom Charter was forged at a mass non-racial gathering in Kliptown, Soweto in 1955. The Charter proclaimed that in a future South Africa free from racial restrictions: 'there shall be houses, security and comfort for all' (Charlton, 2013: 131).

The rights in the constitution carefully replaced the wording of the preceding RDP call for a right to housing, which had stated that "one of the RDP's first priorities is to provide for the homeless", in now stipulating provision within 'reasonable' measures (African National Congress 1994: 23). This was done as the shortcomings of the housing policy had become evident when the constitutional negotiations were being concluded in 1996 (Huchzermeyer & Karam, 2016: 91).

The RDP was introduced by the ANC in their campaign for the 1994 elections. To deal with the issue of the housing backlog, the ANC promised the delivery of one million houses and basic services, through a new capital housing subsidy scheme (Smith, 2016: 37; Huchzermeyer & Karam, 2016: 87). The RDP aimed to create a "coherent national policy" under a "single national housing department", requiring a substantial budgetary allocation for housing development with a "national housing bank and national home loan guarantee fund". The RDP called for a "right to housing" with emphasis on the rights of informal settlement dwellers, becoming a "mass housing programme" providing various housing types and tenure options, developing this housing within accessible distance of economic opportunities and access to health, education, transport and social amenities (African National Congress 1994: 22-28; Huchzermeyer & Karam, 2016: 87). These notions gave meaning to the RDP and its conception of the road to urban citizenship (Huchzermeyer & Karam, 2016: 87).

'RDP' housing became the widely-used term for houses-for-ownership delivered through the capital subsidy, despite their lack of fulfilling the programme's goals. This label came to refer to the promise of free housing delivery, and the term found its way into official terminology, with the **BNG**-house later coming alongside it, referring to a larger and better quality subsidised house (Adebayo 2011: 11; Huchzermeyer & Karam, 2016: 91). Since 1994 these houses have been delivered in vast numbers across the country, generally provided in the form of detached single-storey dwellings in newly established neighbourhoods or **townships** (Charlton, 2013: 13).

The roots of South Africa's housing subsidy programme do not lie in the RDP, but can be traced back to the 1980s, with the unravelling of the apartheid system, and the establishment by Anglo American of the private-sector think tank, the Urban Foundation (Smith, 2016: 37). The foundation conducted the majority of the research on informal settlements during the 1980s, when they began searching for a different approach for South Africa's housing policy, recognising informal settlements as a problem to be

addressed (Smith, 2016: 37). Internationally, the development of informal housing had become of interest to designers internationally in the 1970s, when they concerned themselves with public housing projects, and the provision of decent shelter and sanitation as improvements on the slums from which people were being moved, and not focusing on affordability. Interest arose among academia researching social issues, local politics and the vernacular planning forms, with architecture following when informality began overwhelming cities beyond their absorptive capacity. With growing economic inequality, an oscillation arose between controlling informality and regularising it. Regularisation rose with the realisation of the contribution informality offers in alleviating a growing housing shortage, often providing a visible change within settlements (Serageldin, 1990).

The degree to which South African policies were influenced by international practice and the World Bank remains a debated issue. Gilbert (2002: 1911) argues that South Africa resisted pressure from the World Bank and ignored relevant lessons from other countries wherever policies or practices were considered unsuitable. Others argue that although the policies do not entirely conform, in principle they largely align with World Bank orthodoxy of the 1980s (Jones and Datta, 2000; Charlton, 2013: 133, 134). South Africa did not qualify for funding from the World Bank until the mid-1990s and was, therefore, free from the requirements many other countries had to comply with (Huchzermeyer, 2004: 30-1). Influences from the World Bank model include the use of targeted capital subsidies, as well as the emphasis on individual ownership. Following these ideas, a new approach to the subsidy scheme was proposed, where tenure, plot sizes and service levels were to be standardised through employing a household-based capital subsidy (Smith, 2016: 37,38). This proposal is considered a benchmark in the country's practice of informal settlement intervention. The Independent Development Trust (IDT) piloted an initiative in the early 1990s using the capital subsidy and **freehold title** approach (Gilbert, 2002: 1916), which came to be incorporated in national housing policy[2].

As a whole the housing sector is more diverse and complex than delivering new subsidy houses, involving activities such as encouraging the banking sector to provide loans to low-income households, and rationalising the institutional presence in the housing sphere (Charlton, 2013:133; Department of Housing, 2000). The approach to low-income housing conforms to an entire sector and an enabling approach, aligning with the World

---

2. national housing policy – the national policy regarding 'housing development' (see glossary entry) as determined by the Minister of Housing (Department of Housing , 1997).

Bank's 1980s orthodoxy on low-income housing provision in developing countries (Charlton, 2013:133; Jones and Datta, 2000). However, the range of initiatives has largely been overshadowed by the predominant and most visible component of the programme, namely the vigorous delivery of state-subsidised housing stock. The subsidy became the **National Housing Programme**'s primary measure of assistance, with housing delivery considered essential in the corrections to the market (Charlton, 2013: 134; Department of Housing, 2000).

The Project Linked Subsidy became the dominantly used mechanism in housing delivery (Charlton, 2013: 134). The ownership model was selected for fiscal reasons. A once-off capital subsidy could be used to finance this model, not incurring the ongoing costs of a rental subsidy for the state (Charlton, 2013: 135; Charlton and Kihato, 2006). This model is also argued to have considered the interest of the beneficiaries, as capital subsidy **'site and service' projects** would not incur large rental, maintenance or loan payments (Goodlad, 1996: 1634; Charlton, 2013: 136). Additionally, the effective beneficiaries of the programme are poor black families, who had been prevented from ownership opportunities in urban areas during apartheid. Ownership of a house and land carries both symbolic and political value. The option of delivering housing for ownership to disposed and excluded voters on a large scale was an attractive and politically charged option (Charlton, 2013: 137).

Aims and outcomes of the housing policy

The South African government embarked on a large-scale land development programme shortly after the 1994 elections aiming to assist the poorest of the poor. The housing programme created new housing stock with land, engineering services, '**starter houses**' and title deeds (Charlton, 2013: 137). This mass delivery was a point of pride for the new government. The delivery of a million houses in the six years following 1994 was of political importance, showing the fulfilment of a promise, and progress while the government struggled in other areas. It should be noted, however, that in certain parts of the country these houses were no more than a single room, referred to as a 'starter house', where a significant portion of the subsidies was spent on engineering requirements, or the purchase of land where this was more expensive (Charlton, 2013: 144).

Despite having provided millions with secure tenure and access to basic services, the RDP programme has been widely criticised, particularly for its focus on the physical delivery

of housing, and its peripheral development locations (Zack & Charlton, 2003; Smith, 2016: 38). In the implementation of the housing policy, many important provisions were being ignored. Development persistently favoured a single aspect of the policy, that of the subsidy mechanism for providing free-standing fully subsidised houses qualifying for freehold titles. These houses were rolled out as a one-size-fits-all solution, not considering the severe consequences it came to have on cities and the freedom and rights of urban dwellers (Huchzermeyer & Karam, 2016: 85).

Charlton argues that beyond delivering numbers, further aims of the housing programme can be grouped into three categories. First are the aims to address national ambitions of fulfilling an election promise, demonstrating delivery and contributing a milestone in the struggle for freedom. Secondly, the aim to address cities and towns at the urban level, especially in addressing past inequalities and restructuring the apartheid city. Finally, and most important to this study, the aims involving households, intending to provide decent accommodation to replace poor living circumstances (Charlton, 2013: 145, 146).

The state's household level aims included a range of underlying expectations, relating to the functioning of the house itself, as well as the settlement as a whole. The house should provide decent shelter; provide a secure, stable home base to support work for reasonable income; contribute to poverty alleviation, education and recreation. It should encourage the gradual absorption of residents into becoming responsible, fee-paying urban citizens (Charlton, 2013). The house should serve as the beginning of a resident's journey up 'the property ladder' (City of Johannesburg, 2006), corresponding with the government's idealised view that changing a person's housing circumstances would contribute to lifestyle shifts: increasing comfort, suitability, desirability and value (Charlton, 2013; Huchzermeyer, 2001). The BNG policy amendment described housing as an asset, which can economically serve to generate income, providing a location for a shop, business or home industry, or facilitating rental units. The house is also seen as a social asset, with practical and symbolic roles as a gathering place, a home, a place of safety, and through providing an address, a place conferring status (Rust, Zack & Napier, 2009; Charlton, 2013: 156).

The shortcomings in meeting the household-level aims have been attributed to a number of factors. These include differences between policy intentions and 'as-built' housing developments; the skewed policy emphasis, especially focusing on the house

itself; a lack of clarity in the interpretation of policy; the economic context not matching expectations; and factors beyond control of the housing sector (Zack and Charlton, 2003; Charlton, 2013: 166).

The 'human settlements' concept

Together with these shortcomings, the extensive delivery of government subsidised housing since the end of apartheid has not been sufficient in stemming the growth of informal settlements. By the end of the first decade of democracy, the need for the development of a new paradigm had become widely recognised (Charlton & Klug, 2016: 29), with government reviews revealing the levels of dissatisfaction with housing provision since 1994. The Department of Housing announced that the focus of their delivery for the next decade would shift from quantity to quality (Huchzereyer, 2004: 6), following the need for 'integrated development' and 'sustainable human settlements' established in the reviews (Huchzermeyer & Karam, 2016: 93; Charlton & Kihato, 2006: 260). Despite this, the influence of the RDP housing programme continues to be seen in the new upgrading practices (Charlton & Klug, 2016: 56).

The delivery of completed houses had become a political priority, dimming any initial efforts at community participation, adding time pressure to delivery and moving towards standardised end products. In the late 1990s subsidy amounts were increased, allowing for bigger houses built to the newly established minimum standards. The increase in standards for subsidy housing completely erased *in situ* upgrading from the agenda, as a practice no longer compatible with standard units on standard plots. Informal settlements were being replaced by standardised townships on cheaply acquired land on the outskirts of urban areas, perpetuating the existing urban structure (Smith, 2016: 38; Huchzermeyer, 2003: 592). This approach meant that most informal settlements were being relocated. The rapid growth of informal settlements meant governments continually turned to ad-hoc service provision in settlements, in the form of temporary servicing along with temporary security of tenure during the waiting period for permanent 'formalisation' (Huchzereyer, 2011: 199; Smith, 2016: 40).

The upgrading of informal settlements became an international priority with the adoption of the Millennium Development Goals (MDGs) in 2000 followed by the 2003 publication of UN-Habitat's 'The Challenge of Slums' (Smith, 2016: 41). UN-Habitat emphasises the need to recognise the defining character that informal settlements lend to African cities.

They advocate on-site upgrading as the preferred method of intervention in informal settlements, (UN-Habitat, 2011: 18-19, Charlton and Klug, 2016: 57) defining on-site upgrading as the improvement of the physical, economic and social environments in existing informal settlements, and advocate this as the most humane and inexpensive form of intervention, causing minimal disturbance of people's lives and their fragile support networks. Upgrading does not break up communities, it encourages participation and encourages residents to invest in their homes and neighbourhoods (UN-Habitat, 2011: 18-19), and it includes the securing of land rights and tenure, removing the threat of eviction (Charlton and Klug, 2016: 57). The concept of *in situ* upgrading was introduced in the 1960s, by Turner and others, focusing on incremental housing (Turner & Fichter, 1972). It has, since then, come to be recognised as the primary way for informal residents to improve their living conditions. However, Abbott (2002) discusses how the sites-and-services development approach continues to have a significant influence on current day upgrading practices, identifying thematic approaches to informal settlement upgrading, namely the provision of physical infrastructure, microplanning or community action planning, and physical transformation.

The lack of an upgrading programme in South Africa became an obvious gap in the country's overall housing programme. Accordingly, a fundamental shift in policy focus was introduced, manifested in a new housing programme, Breaking New Ground (BNG): A Comprehensive Housing Plan for the Development of Integrated Sustainable Human Settlements, in September 2004. The plan supported informal settlement eradication through *in situ* upgrading (Department of Housing, 2004: 12; Smith, 2016: 41). The BNG policy amendment introduced a targeted, incremental approach of upgrading informal settlements in four phases (Department of Housing, 2004; Charlton & Klug, 2016: 60), under the Upgrading Informal Settlements Programme **(UISP)**, intended to advance *in situ* upgrading (Smith, 2016: 41; Huchzermeyer, 2011: 117). The approach is characterised as a paradigm shift away from government-delivered housing for the poor (Charlton & Klug, 2016: 60), moving from uniform peripheral dormitory housing projects to accommodating human settlements in response to the demands of informal settlements. UISP aims to limit relocations, promoting development that would provide residents with secure tenure and settlements with improved infrastructure, in using incremental and participatory processes to address the social needs of the poor and build social capital (Department of Human Settlements, 2007; Charlton & Klug, 2016: 60). The policy acknowledged the tension existing between the UISP's aims of focusing on

quality and livelihoods, and the emphasis on quantity and service delivery of the existing delivery targets (Charlton & Klug, 2016: 60). In the absence of supporting elements, the programme remained shelved until the introduction of the National Upgrading Support Programme (**NUSP**) in 2009 (Smith, 2016: 41; Huchzermeyer, 2011: 117).

The policy has played an important role in promoting an integrated and participatory development approach. The participatory engagement of this approach depends on the implementation of principles of respect, accountability and transparency, with the role of communities influenced by their ability to mobilise themselves (Molaba & Kahn, 2016: 200). The programme pays special attention to the maintenance of survival networks existing within communities during the development process (Department of Human Settlements, 2009d: 30). NGOs have supported informal communities in participatory development projects to better respond to the residents' needs (Smith, 2016: 42). These projects typically involve the self-help implementation of the basic services and required community facilities, in certain cases, this has taken place in partnership with local government initiatives. NUSP provided municipalities with support in implementing the UISP policies in incrementally upgrading informal settlements (Smith, 2016: 42).

Despite these policies, and various upgrading projects having been implemented, the prevailing approach towards informal settlements remains relocation and **'rollover' upgrading** (Smith, 2016: 42). BNG is criticised for not having a clear structure in dealing with issues of ownership and land, and further for the lack of realisation of the promised supporting of self-help, returning to government implementation as opposed to community involvement and supporting self-help projects (Huchzermeyer & Karam, 2016: 94).

A fixation on modernisation

Three case studies are explored in this thesis, showing the continued fixation on modernisation in the South African mentality on low-cost housing. The cases show different approaches present in the current housing scene, the predominant approach of relocating residents to new neighbourhoods, an *in situ* intervention focusing on the improvement of service provision with the aim of future formalisation, and an in situ upgrade formally rebuilding a settlement. These different approaches each have their potentials and limitations, which are discussed in the following chapters, yet the final aim of the housing programme remains the creation of a formal township. This aim is

seen in the case of Alexandra with the development of RDP housing, and through a different approach in the Empower Shack project. When residents begin adapting these environments to suit their lives, the informal nature through which the adaption occurs is frowned upon and even criminalised.

Modernity can be interpreted in various ways; however, the term is commonly used to refer to the Western capitalist socio-economic organisation. Modernisation in development is understood as the process of transformation in which 'third world' countries leave their traditional socio-economic practices in favour of conforming to the ideals of the industrialised world (Charlton 2013: 37; Rigg 2007). Both the extent and reach of the requirements imposed on the population, and the ability to 're-invent society' through the influence and shaping of the collective identity and consciousness of the people contributes to a 'modern' state (Midgal 1997: 230). The study of housing in this thesis focuses on the dimensions of modernity related to the physical attributes of housing settlements.

Positions on modernity in South Africa range from the 'optimists, through sceptics to the 'pessimistic anti-modernists' believing modernity to be fundamentally inappropriate and imposed on the developing world by Western rationality (Glasser, 2001; Charlton, 2013: 38). Mid-twentieth century 'development' has been criticised for promoting Western science and economy as correct and forward-thinking, while condemning the 'developing' world as backwards. This view is criticised for using Western notions of modernity to establish Western perspectives, ideals and values as the norm, casting the developing world aside for being impoverished and problem-ridden. These constructs ignore the value in local practices and systems, labelling people as 'needing improvement' (Escobar, 1997; Charlton, 2013:38-9), and in effect erase cultural differences (Glasser, 2001). Scott (1998) criticises high modernist practices for their failure to value indigenous knowledge. The use of infrastructure as a key resource in interventions has been found to reduce the issues affecting people's lives to a technical concern, viewing the 'problem of poverty' as the result of false planning (Li, 2005; Charlton 2013: 39).

The replacement of informal settlements, either by relocation or by implementing 'rollover' upgrades, has been described as an attempt to convert the 'chaotic' settlements of **shacks** into 'orderly' neighbourhoods for working-class citizens, an attempt that has only been partially successful (Smith, 2016: 40 on Robins, 2002: 511). This approach to upgrading has shaped both the formal low-cost housing environment, as well as the

concept of the informal/ illegal environment, requiring this environment of informal settlements to be replaced by standardised products. This concept discourages the gradual investment by residents in permanent structures (Huchzermeyer, 2003: 591-592). The government aimed to establish socially accepted neighbourhoods of homeowners, an ambition not viable in the uncertain conditions of crime and poverty in which they are found (Smith, 2016: 40; Muyeba & Seekings, 2012: 58). This tendency increased after 2000 with the new political campaign to 'eradicate informal settlements' (Huchzermeyer & Karam, 2016: 89). Upgrading in South Africa has focused on the 'rollover' method, ultimately redeveloping entire settlements to produce RDP housing layouts. Housing regulations applied to these upgrades imply lowering the density of existing informal settlements (Charlton & Klug, 2016: 29), through prescribed minimum house and plot sizes (Department of Human Settlements, 2009a: 54). This approach contradicts the minimal displacement in situ upgrading, as not all residents of the original settlement can be accommodated in the upgraded development resulting in significant permanent relocations. The new developments also bear only slight, if any resemblance to the original informal settlement (Charlton & Klug, 2016: 59). Upgrading initiatives introduced from 2004 onwards placed great emphasis on the top structure, with specifications regarding the size, shape and quality of units (Charlton & Klug, 2016: 64).

The capital subsidy framework requires informal settlements to be replaced by fully standardised housing units and layout, discouraging gradual investment in and construction of permanent structures by residents of informal settlements. Even with the granting of temporary occupation rights such construction remains illegal, as discussed in the Ruimsig case in Chapter three, and is subject to punishment by demolition without any compensation other than a standardised subsidy house for qualifying households (Huchzermeyer, 2003: 592). Huchzermeyer (2003: 593) argues that the ambiguous terminology around informal settlements, developed to support the capital subsidy framework, serves to weaken the ability of the housing sector to challenge the inappropriate standardisation with its associated regulations and controls, and instead engage with the reality of informal settlements.

Informal settlements are assumed to be replaced, at some point, by standardised housing units through the product-linked capital subsidy (Huchzermeyer, 2003: 594). Although additional policies have since been introduced to address informal settlements themselves, the ultimate goal of these programmes remains housing consolidation and

the establishment of a formal township, albeit now following the process of an in situ intervention. Charlton points out that state improvement programmes linked to financing tend to be connected to the expectation of a certain aesthetic. Rather irrationally, the regularised 'look' can become an end in itself. The other side is, therefore, that the 'look' of informality becomes condemned (Charlton, 2013: 43, 44). Ghertner (2011: 280) refers to the 'rule by aesthetics', in which developments are judged by appearance, whereby informality becomes associated with illegality. User-transformations of their government-provided houses are criticised for 'looking chaotic' as opposed to the excepted, planned and regularised appearance (Charlton 2013: 44 on Tipple 2000: 133). The concerns about informality are not limited to appearance; the imagery concern also includes income-generating activities.

In reality these state attitudes are often more ambivalent than this straightforward manner of discussion. While informal construction is looked down on, it is often 'officially accepted' as temporary accommodation built by those waiting to receive their subsidised houses (Charlton, 2013: 45). Wiesenthal goes on to point out that the enforcement of the 'ideal' is not always feasible. This reality was affirmed by an **ARP** official, stating that the widespread 'informal' structures found in Alexandra should be demolished, however, this is not occurring (personal communication, ARP official, 23 April 2018). It appears to be in part because of bureaucratic practices spread across various government bodies. Charlton points out that the unease about informality may be about more than just appearance, but about what it represents, particularly in relation to the state. Formal structures and activities represent order, while informality represents temporariness, unruliness, disorder, lack of cleanliness, and could imply a lack of state control (Charlton, 2013: 46).

Following these views of informality, the government has certain expectations of how beneficiaries should use, and act in relation to their houses. These expectations are discussed together with the case of Alexandra in chapter two. The previous president, Jacob Zuma, noted that decent, habitable settlements promote human dignity as well as the stability of communities, revealing the state's expectations of the influence of housing on people's behaviour. An influence generally blurred in the eyes of the state by the presence of 'informal' structures and businesses in housing developments.

A no 'backyard shack' policy

Housing delivery fulfils a constitutional right. Patel (2015) examined the process and the politics of housing allocation, where it can be seen to play a role in advancing or denying agendas of citizenship. This view understands informal settlements as the actions of citizens realising their right to housing, as well as contesting the monopoly of the state in determining the legitimacy of people claiming belonging and space. The state-centric view where housing allocation intrinsically forms part of inclusive citizenship, places tremendous emphasis on housing delivery and beneficiary participation. In the context where delivery cannot meet the needs of a growing backlog, discriminatory practices enter the allocation process, undermining the conception of bottom-up inclusive citizenship based on the idea that all people are rights-bearers and thus have the right to self-determination.

'**Backyarding**', or the presence of '**backyard units**' on residential properties, is a phenomenon found across cities in South Africa, in both formal and informal areas, yet it is considered undesirable, or even criminal in lower-income areas, and in RDP developments (Gardner & Rubin, 2016: 79). Backyarding is supported by community groups and housing professionals concerning themselves with issues of livelihoods and survivalism, as it challenges the accepted discourse and concepts of housing (Gardner & Rubin, 2016: 77).

Generally, backyarding takes the form of small-scale activities at a household level, rarely consisting of more than a few units per property (Gardner & Rubin, 2016: 79). The predominant purpose of backyard units is residential use, with a portion of these units being allocated to uses such as service provision, subsistence retail and petty manufacturing (CSIR & Shiska Development Management Services, 2006). Residential units are often rented out for a monetary income or a form of service compensation, or occupied by family or kin free of charge or on a cost recovery basis (Gardener & Rubin, 2016:79; personal communication, ARP official, 23 April 2018).

The nature, quality and size of these backyard structures vary considerably. Structures are often built from tin, wood, cardboard and plastic, or units could be built of more conventional materials such as brick, prefabricated panels or blocks. The nature and quality of access to services also vary considerably, between internal, on-site and off-site. Further variance is found in landlords' willingness or ability to comply with building regulations (Gardner & Rubin, 2016: 79). An official from the ARP mentioned the 'problem'

of illegally built backyard units, as well as extensions or adaptions to the original RDP houses. He stated that the clear majority of residents (in the two extensions we visited in Alexandra) built their backyard units without going through the proper channels of approval (personal communication, ARP official, 23 April 2018). It is important to note that the appearance, materials or quality of a unit does not reflect its legal status. Backyarding consequently does not conform to the preconceived concept of formality and informality (Gardner & Rubin, 2016: 79-80), as is demonstrated in the cases of Alexandra and Ruimsig. These cases show many residents constructing 'permanent', quality brick structures, some which may even conform to planning and building norms and standards, yet these structures remain illegal, being built on public land without any building approvals.

Historically, the government has either ignored backyarding or taken an approach of eradicating these structures and gentrifying the areas (Gardner & Rubin, 2016: 85). Following on the earlier discussion about the fixation on modernisation in the South African approach to housing, Charlton and Shapurjee (2013) describe how the state views backyarding as a form of 'failed modernity'. It has been argued that formal housing policy has not only augmented informality, but in attempts at engaging with backyarding, many cases of intervention have had unintended unfortunate consequences for tenants and landlords (Lemanski, 2009; Gardner & Rubin, 2016: 85). The expected response of the state towards 'illegal' backyard structures in RDP developments is their demolition. However, this does not always occur and appears to be the result of different government bodies being responsible for the various aspects relating to RDP developments. "It is the by-laws that must deal with 'illegal' structures" (personal communication, ARP official, 23 April 2018).

The **Department of Human Settlements** has no formal national rental housing strategy or encompassing backyard policy response in the current context. State responses and interventions in this area are therefore ad hoc, and not backed by any guidance from national policy. Gardner and Rubin (2016) discuss the two arenas of state interventions to backyarding, namely interventions aiming to improve conditions in existing areas, and the proactive planning for backyarding situations in new developments. Responses range from eradication of backyard units followed by rebuilding and direct interventions, to providing services to backyard dwellings in municipal housing areas (Gardner & Rubin, 2016).

The case of Alexandra also demonstrates another state response to backyarding, that of providing rooms for rental in greenfield interventions. The Alexandra K206 project provided subsidised houses along with attached rental units (Gardner & Rubin, 2016: 90), discussed in more detail in chapter two. As an intervention into the backyard rental market, it appears the state aimed to provide all beneficiaries with rental units constructed to acceptable standards. However, there has not been a clear understanding of the entirety of the complexities surrounding the roles of backyarding in the lives of the urban poor. As previously discussed, the existence of backyarding is not exclusively for rental or income generation, households often also desire the flexibility to house their extended relatives. In the K206 project these realities, often methods of providing social safety, were overlooked in favour of providing beneficiaries with a way of generating income (Gardner & Rubin, 2016: 90-91).

In light of these considerations, it can be argued that backyarding plays various roles in the lives of the urban poor. It is therefore important to reconsider the strong stance against backyarding. Gardner and Rubin (2016) argued that backyarding should be seen as a tool for city-building, as opposed to the current view that it acts as a contributor to urban 'blight'. Interventions to date have followed the concepts of formalisation, eradication and modernisation seen in informal settlement upgrading.

A shelter or a home?

The spectrum of accommodation considered inadequate, and therefore contributing to the backlog, is quite wide: taking into account not only the inferior quality of construction and building materials but also the location of dwellings. Gardner (2003: 73) lists five categories of inadequate accommodation, which the Department of Housing (**DH**) placed into the backlog during the national census. The following census categories fall into the backlog:

> House/flat/room in a backyard; Room/flatlet not in a backyard but on shared property; Informal dwelling/shack in backyard; Informal dwelling/shack not in backyard; Caravan/tent/ship/boat (Gardner, 2003: 73).

The aim of providing decent shelter evolved with time and the changes can shed light on some of the current disjunctures in housing practice. The nature of the house and its process of realisation underwent a significant shift. Initially, the programme intended beneficiaries to be involved in creating their house. **The Housing Act** 107 of 1997 (Republic of South Africa, 1997) described a notion of progressive realisation of the right to housing, referring to a 'starter house' provided by the state which would over time be maintained and improved by the users (Charlton, 2013: 147). These initial RDP houses built in the 1990s consisted of porous, unplastered block walls, bare roof trusses and no ceiling, and were often one-room shells which could be subdivided by the user. The quality of 'starter houses' varied across the country, according to the cost of land, infrastructure, and other project-specific costs. These variations occurred as a result of a fixed subsidy amount per household, regardless of developing specific sites. The policy concept of 'adequate housing' referred to tenure security, availability of services, facilities and infrastructure, materials, location, accessibility and affordability (Department of Housing, 2000; Charlton, 2013: 148).

The initial concept of starter houses did not include technical specifications for the house itself. This approach was largely abandoned in 1999 with the introduction of the Norms and Standards, specifying that each house should be a minimum size of 30m^2 and built to a defined standard of construction. Minimum levels of services were also introduced (Charlton, 2013: 149), as well as a financial limit on how much of the subsidy could be used towards funding infrastructure. Funding for further infrastructure or higher level-services now had to be obtained from sources other than the subsidy, such as municipal funds. These changes marked the beginning of the emphasis on the house itself, and the downgrading of the involvement of beneficiaries in the construction process (Charlton, 2013: 149-150). The adequate dwelling was therefore upgraded from a basic shelter to a standardised house.

The housing programme aimed not only to meet basic shelter needs but to facilitate access to economic opportunities. The intention of RDP housing was, therefore, to create 'habitable, stable and sustainable' neighbourhoods, ensuring 'viable households and communities' (RSA, 1997; Charlton, 2013: 151). Layout norms guided the planning of new settlements, making provision for social facilities such as religious buildings, playgrounds and schools (Charlton, 2013: 152). The emphasis on the settlement within which a house was located increased in the early 2000's with the government discourse stressing

the creation of well-functioning neighbourhoods, referred to as 'sustainable human settlements' in the BNG policy amendment (Department of Housing, 2004; Charlton, 2013: 153). These settlement-level concerns were elevated in response to wide-ranging criticism about the inadequate nature of many housing developments provided during the first decade of democracy (Charlton, 2013: 153). These new policies contributed to the idea of creating houses rather than shelters. However, the practice does not generally reflect the ideals, as shown in the previous discussions.

Situating this study

Informal settlements present an international challenge, yet it is manifested differently in every country providing implications particular to each context and being met with equally varying responses (Cirolia et al., 2016: 3). Informal settlements represent more than simply poverty: they are found where local policies or decision and globalisation intersect. The reigning bureaucratic attitude towards this challenge, however, remains focused on blaming the formation and growth of informal settlements on the 'problems' of its manifestation and therefore mainstream practice works on eliminating the visible symptoms rather than the underlying causes (Huchzermeyer, 2011: 23). The discussion of housing and informal settlement upgrading in South Africa demonstrates this focus on physical manifestations of problems, perpetuating these physical manifestations rather than contributing to the lifestyles and livelihoods of the poor.

This thesis aims to contribute to the understanding of the role that housing interventions plays in the lives of the urban poor. In particular, it seeks to understand and show the effects these interventions have on residents' livelihoods. The objective of the study is to show how low-income residents in new housing developments or 'upgraded' informal settlements live with, and interact with their new houses and the changed aspects of their neighbourhoods. The study sets out to explore the expectations, as well as the value, associated with housing and interaction with the housing, both of the residents, and of the state, or in certain cases the NGOs, providing and developing the housing.

The research question for this study can be formulated as follows:

How do the practices and policies of housing interventions in informal settlements impact the lives of the urban poor, and how do residents interact with their new/upgraded houses and neighbourhoods? Moreover, what impact do these interventions and the resultant interaction have on the livelihoods of the residents?

This leads to the sub-questions guiding this research:

How do the aims and expectations of the policies and the housing programme influence the practice of housing delivery and informal settlement interventions?

What are the limitations imposed on residents through policies and intervention practices, as well as the possibilities created by interventions? Moreover, how do these limitations influence the way residents engage with their dwellings, and impact their livelihoods?

How might interventions better meet the requirements of residents' livelihoods?

The research uses a case study approach, drawing on qualitative research strategies. Using case studies allows the consideration of the practical workings out of the issues discussed here in a theoretical framework. The choice of a qualitative strategy is connected to the conceptual framing of the research on livelihoods and social justice in housing interventions, relating to multi-dimensional, value-based constructs.

The qualitative methodology of this study is applied to three low-income urban communities, two in Johannesburg, namely Alexandra and Ruimsig, and one in Cape Town, the Empower Shack project in Khayelitsha. The case studies were selected to represent the approaches of different actors involved in housing interventions in South African informal settlements. The selected settlements represent three approaches to low-cost housing provision, looking at a mixture of in situ interventions and relocations to new developments, and were selected on the following criteria:

The availability of the relevant background information on the area and the settlement.

Representing the different approaches and involvement of different actors in the affordable housing scene.

Accessibility to the researcher. Practically possible to visit the site of the intervention or development and to communicate with the relevant people: those involved in the project development, and in some cases the residents living in the new/ upgraded settlement.

The first case, Alexandra, considers new housing projects developed on the edge of an existing informal settlement. Two extensions of the Alexandra renewal project form part of this study. Alexandra Ext. 7 provides an example of the housing benefit in its most common form, in the provision of a single-storey house on an individual plot. This extension shows the formal, modern expectations and the reality of self-construction and expansion. Alexandra Ext. 9 shows an attempt by the state to acknowledge the livelihood structures of the urban poor, as well as acknowledging the important, and widely overlooked, role rental plays in the low-cost housing market.

The second case, Ruimsig, is an informal settlement that underwent an in situ intervention through '**reblocking**'. This intervention aimed to de-densify the settlement and provide basic structures. The case provides an example of an intervention quickly improving the living conditions of residents where they are and providing them with a structure that is an improvement on what was there before. However, in light of the categorisation of 'inadequate housing', reblocking structures remain on the edge of informality. This case shows how stringent policy requirements and state expectations do not appreciate the realities of the poor's lives and the way residents build in their communities to meet their needs, and limit upgrading possibilities.

The last case considers the Empower Shack project in Khayelitsha, Cape Town, another example of an in situ intervention, furthering the basic concept found in Ruimsig. Empower shows an in situ intervention providing formal structures, and a formal layout, including all infrastructure and services. The project also incorporates livelihood strategies in the form of spaces provided for rental or commercial use.

These cases present different degrees and natures of intervention, showing differences in interaction with the house and surrounds, from smaller interventions to significant projects relocating residents to new developments. Considering these interventions of different natures allows the identification of issues and potentials across the intervention spectrum. Following this theoretical introduction, each case study is considered individually. The research on the case studies involved some literature in establishing a foundation for the study, looking at the background and development of each settlement. Interviews were conducted with relevant parties in each case to discuss the aim and development of the project, the roles and expectations of the actors involved and the outcomes of the project. These findings are analysed based on information

from the interviews, literature on the project and policy documentation. Diagrams are used as a method of spatial analysis of the different scenarios, looking at the evolving built forms, considering the expectations of projects compared to the found realities of residents living in the houses. Findings from the case studies are placed side-by-side, and considered within the framework of analysis for this thesis and the relevant positions in literatue, in a cross-case analysis. This analysis allows an exploration of the limitations and possibilities in the current approaches to low-cost housing, providing a base for the conclusion of this thesis, in which potential interventions and policy adaptions are suggested, building on the findings of the analysis.

Figure 1.1 RDP house yard in Alexandra

Figure 1.2 Emposer Shack Project

Figure 2.1 RDP house yard in Alexandra Ext. 7

Chapter 2
The Government's approach:
RDP housing in the Alexandra Renewal Project

Introduction

Alexandra, a township located in the north-eastern suburbs of Johannesburg, provides an example of the low-cost housing or RDP housing being developed through the South African housing benefit. The township's development can be traced back to the early 20th century, prior to a series of land acts marking the Apartheid spatial planning, accounting for it being a relatively well-located township. This ideal location led to the rapid population growth and informal settling following the abolishment of Apartheid laws. The presidency launched the Alexandra Renewal Project (ARP) early in 2001 in an effort to deal with the overcrowding and lack of service provision, where housing provision became a vital tool in dealing with the issues faced by the township and working towards realising the project's goals. A number of housing extensions have been built around the 'original' Alexandra **township**, or Old Alexandra, eliminating the relocation of residents to new houses built in peripheral locations, as is too often the case in low-cost housing projects in the country.

Housing in the ARP is developed through the state housing programme, providing an example of the development, ideals and aims, and the realities in the outcome of low-cost housing projects in South Africa. The case study looks at two housing extensions developed on the edges of Old Alexandra to consider the effects that government low-cost housing provision has had on the lives of beneficiaries. These two extensions portray two different typologies of the **RDP house**, showing the widely used single-storey house built on an individual stand, as well as a newer, lesser used typology of double-storey RDP houses with adjacent rental units. Considering both typologies shows how one attempted to incorporate a strategy to aid livelihoods, while the way in which residents live similarly in both housing extensions shows the limitations also present in this approach.

The chapter first contextualises Alexandra and the ARP, under which the selected housing projects were developed. The development and implementation of national housing projects are then discussed, with the state's expectations regarding the usage of RDP housing. In considering the two housing extensions, the chapter considers how the housing practice and relevant policies respond to the issues faced by residents. The

chapter discusses the realities of the lives of residents in their subsidised dwellings, identifying the limitations imposed on them by these policies and intervention practices. The chapter concludes by discussing the differences between expectation and reality of usage and life in an RDP development, showing how the intervention and restrictions influence the way in which residents engage with their houses and the impact these practices have on their livelihoods.

Contextualising Alexandra

Situated in Johannesburg's North-eastern suburbs, the Alexandra township lies adjacent to some of the city's most wealthy residential areas. Alex, as the township is locally known, still carries deep scars of the Apartheid era. The township's poverty and deprivation provide a stark contrast to the wealth found in Sandton a mere 3km away (Wilson, n.d.). The township area covers of around 800 hectares (MIT, 2018), relatively small compared to many townships located far away from urban centres, and it is relatively well located in being close to the centre of Johannesburg.

The township's development can be traced back to 1904, when Mr Papenfus bought a farm on which he wanted to start a white suburb. However, little demand for the land, at the time considered too far from the centre of Johannesburg (Wilson, n.d.), meant it became an area in which black people could purchase freehold land (South African History Online, 2018a). This occurred the year before the 1913 Natives Land Act was passed, after which black citizens were prevented from owning or buying land in South African urban areas. However, black people continued to migrate towards urban areas such as Johannesburg in search of work, leading to the overcrowding of designated black areas. Alexandra was administered by a Health Committee until 1958, albeit inefficiently due to lacking funds. The City of **Joburg** (CoJ) refused any involvement in the area due to its designation as a black area, and consequently, neglect and the lack of investment lead to conditions in the township progressively worsening (Wilson, n.d.).

Over the years the residents of Alexandra were subjected to various resettlement efforts, where about 69 000 people were forcibly moved to other settlements. Residents able to provide proof of employment in central Johannesburg could stay on in Alex, as they provided a vital labour pool for the city. During the 1960's and 1970's, a number of efforts at urban planning were employed in Alexandra, including rebuilding the entire township
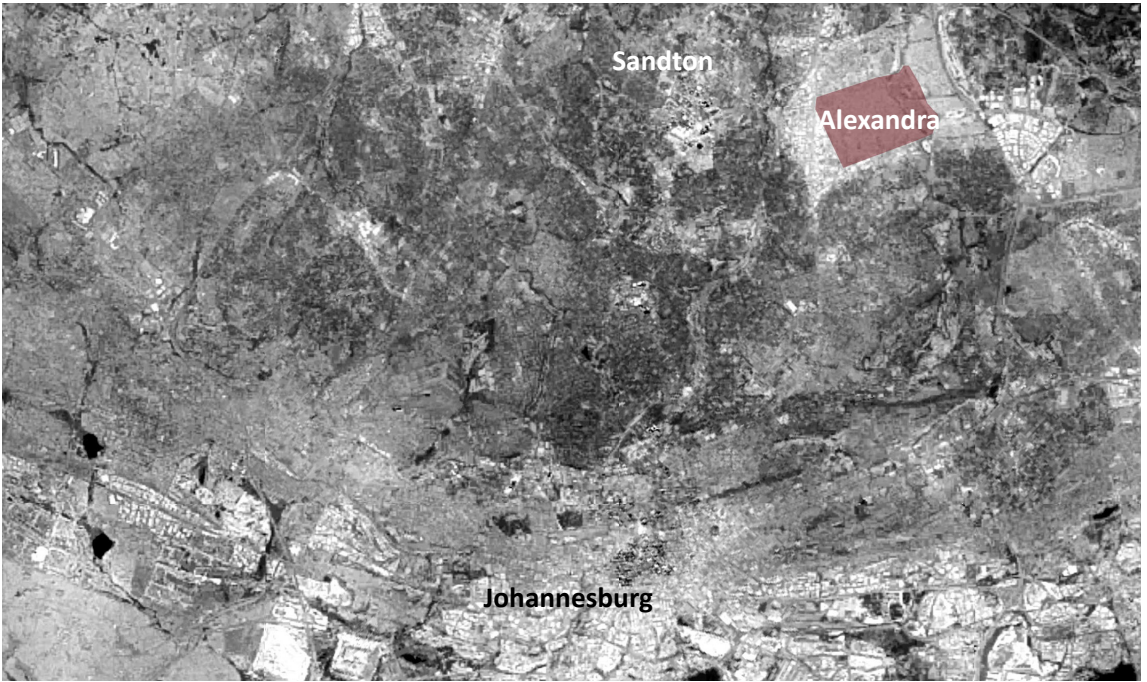
Figure 2.2 Location of Alexandra township in relation to the Joburg CBD

Figure 2.3 Location of Alexandra township in relation to the Sandton residential area

as a **hostel** city, or building blocks of flats to try and deal with the housing problems. Every one of these efforts turned out problematic (Wilson, n.d.).

Throughout these efforts, the overcrowding continued to worsen, as Alex became a refuge for those seeking work in Johannesburg. Many people were coming in illegally. With the abolishment of the influx control legislation[3] in 1986, black people could move more freely, increasing the number of those coming into Alex. The number of shacks in the township increased from 7352 to 20 000 between July 1987 and October 1991. Out of desperation for land and living space people began erecting shacks overnight on roads that were to be paved (Wilson, n.d.). The number of shacks is currently estimated at around 34 000 (ARP, 2018).

Alex has seen decades of political upheaval (Jochelson, 1990; Wilson, n.d.), often having been a site of anti-apartheid political struggle as well as youth movements during the apartheid years. Alexandra residents went on to live through political violence and hostel violence post-1994. It is against this backdrop of violence, poverty and poor living conditions that the present-day Alex must be understood.

Alex today: the Alexandra Renewal Project

Townships were constructed to provide controlled environments in which to house the labour force. They were deliberately denied services and facilities. On the positive side, community life was in many cases very communal, and heavily politicised. Now, in the 1990s, townships have to become 'normal' (Isserow & Everatt, 1998: 97)

Alexandra cannot be considered a homogenous township area, when in fact the area is diverse and disparate. Alex is home to people of different cultures, languages, income groups and varying educational levels. The township is made up of three different parts. Old Alexandra to the west of the Jukskei river, laid out on a grid, is largely made up of informal dwellings, blocks of flats and hostels. The East Bank is found east of the Jukskei river, mostly consisting of conventional middle-class homes developed since the 1980s. The Far East Bank consists of RDP houses and other housing developments. Despite the continuous flow of people through Alex, moving in and out, it is considered an established

---

3. Influx control legislationn - Legislation put in place to prevent black people from entering urban areas unless they had to do so for work (Wilson, n.d.: 10).
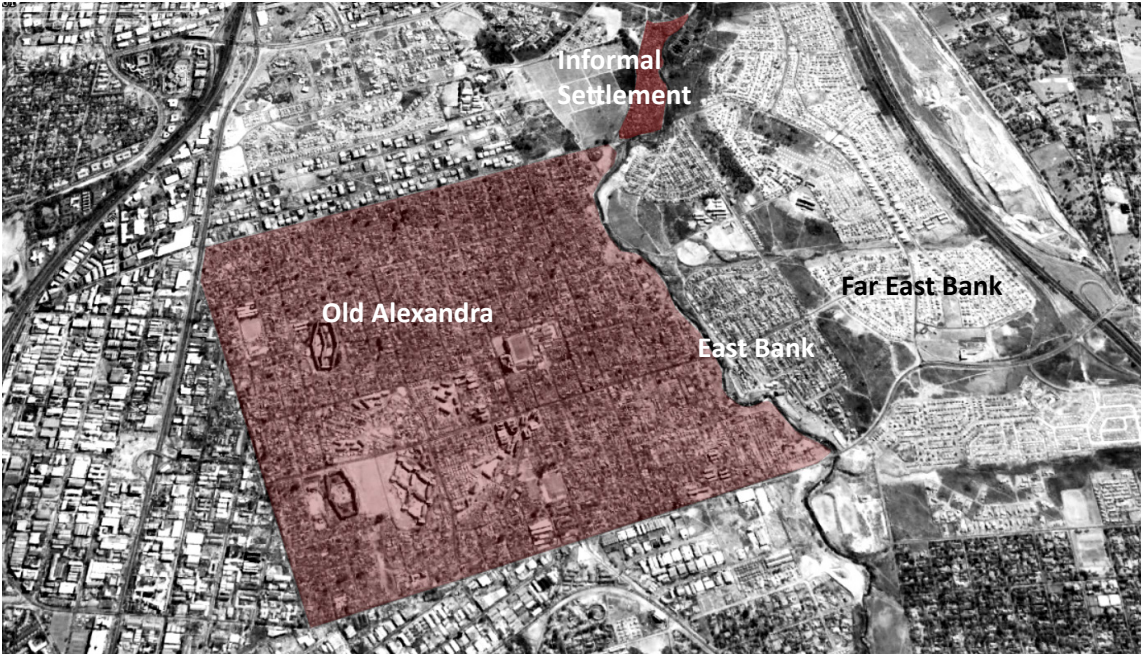
Figure 2.4 Alexandra 2001 - Old Alexandra and informal settlement on the banks of the Jukskei river

Figure 2.5 Alexandra 2009 - Old Alexandra, growing informal settlement, and the new developments of the ARP

township, with an estimated 54% of the residents having lived there for at least a decade (Isserow and Everatt, 1998).

The infrastructure in Alexandra was designed for a population of around 70 000. By the year 2000, the haphazard informal growth of the township resulted in widely varying population estimates, ranging somewhere between 180 000 and 750 000 (Massachusetts Institute of Technology, 2018). In 2014 the population was estimated at between 350 000 and 500 000 (Johannesburg Development Agency, 2018). The original township **stands** were of a size of 500-600m^2 with a sizeable house. These yards tended to accommodate an average of three to six '**backyard shacks**', each rented by an additional family, providing the owners with a significant income (Massachusetts Institute of Technology, 2018).

The sizeable, unplanned population, overcrowding the area, placed considerable strain on the township's infrastructure, with the high densities making it is impossible to reach some areas for assistance and maintenance. The congestion created stressful, unhealthy and dangerous living conditions with many service problems including low water pressure, frequent sewage problems and haphazard electricity connections and many cases of people dangerously tapping off main lines to provide their shacks with electricity (Massachusetts Institute of Technology, 2018).

After the repealing of the apartheid laws, Alexandra saw a significant population increase. In addition to the development of 'backyard shacks', which had been taking place for some time, the large numbers of people coming into the township to seek employment opportunities resulted in the development of informal settlements on the banks of the Jukskei river (Massachusetts Institute of Technology, 2018). It is often found that as many as 50 people share a single yard in the Old Alexandra township, where these yards initially held a single dwelling (personal communication, ARP official, 23 April 2018).

Against this backdrop, the then President, Thabo Mbeki launched the Alexandra Renewal Project (**ARP**) during the official opening of Parliament in February 2001, as one of the eight focus nodes of the Government's Urban Renewal Programme (ARP, n.d.). The project was given a budget of 1.3 billion South African rands (€ 177 197 640 at the time) to be implemented over a span of seven years in an effort to assist Alex in becoming 'normal' (Wilson, n.d.). The ARP became a key tool in the Government's efforts at addressing the challenges in Alexandra, aiming for integrated development and addressing the socio-economic shortcomings (ARP, n.d.). The overall aim of the project is to de-densify the old township structure. Housing delivery is not the primary goal of the project, but is seen

as a significant factor addressing issues touching the majority of those living in Alexandra (personal communication, ARP official, 23 April 2018). The project aims to upgrade living conditions as well as encourage human development in Alexandra. The ARP adopted a participatory approach, aiming to allocate as much of the work as possible to Alex residents (Wilson, n.d.).

Developing and implementing state-subsidised housing

In the Development of State-subsidised housing, the National Housing Act (Republic of South Africa, 1997) stipulates the roles of actors across the three government levels: national, provincial and municipal. The Constitution (Constitution of the Republic of South Africa, 1996) and the Public Finance Management Act (Act no 1 of 1999) stipulates that all interfaces between the state and the suppliers of housing goods and services have to be undertaken in a fair, transparent, equitable and competitive process. To comply with these procurement stipulations, municipalities are required to fulfil the role of developer, plan the housing development project, compile project descriptions and implement the projects. The design and establishment of townships, including houses and services, must be carried out by appointed professionals. Finally, contractors must be appointed to carry out the construction of services and housing units (Department of Human Settlements, 2009c:31). The Housing Code further stipulates who are to take up the roles of decision-maker(s):

> 1.5 WHO ARE THE ROLE PLAYERS AND DECISION-MAKERS?
> The municipality assumes the role of the developer and applies for funding from the MEC. The municipality undertakes all planning and project activities. The MEC reserves and distributes funds and assesses and adjudicates various aspects of the project process and approves project applications (Department of Human Settlements, 2009a: 15).

In the ARP, contractors for the different housing extensions were appointed by the provincial Department of Housing (and later the provincial Department of Human Settlements). The ARP then had the responsibility of monitoring the implementation and ensuring that what is being implemented corresponds to what the people on the ground want (personal communication, ARP official, 23 April 2018).

In the first stage of development, architects are employed to develop a concept. In the next step, the councillors representing the communities have to be convinced about the concept. The councillors will then call meetings during which the proposed project can

be presented to and discussed with the people. The importance of communication about new projects, their allocation and the relocation of the residents, was stressed by an ARP official (personal communication, ARP official, 23 April 2018).

The contractor, selected by the provincial government, appoints their professional team, including the Quantity Surveyors, architects, engineers and their foremen. Other than the appointed professional team, all other work is done by Small, Medium and Macro-Enterprises (SMMEs) and local labourers. The ARP is there to ensure that construction in the ARP is done by local Alex labourers, employed for each new development and emunerated accordingly (personal communication, ARP official, 23 April 2018).

How to use the RDP house: State expectations

Expectations of the impact housing delivery will have on the lives of beneficiaries, and the way in which it will be used, are embedded into the conceptualisation and implementation of the programme (Charlton, 2013: 209). This section considers these expectations, and identifies the limitations they place on residents' lives.

The primary intention of the house delivered by the state is to provide essential, basic accommodation to poor households, without decent shelter, or property. The introduction of the housing programme followed the assumption that people were in desperate need of a house. Thus, the programme would be fulfilling a basic need. Since its introduction, it has become conflated and seen as a significant gift from the state (Charlton, 2013: 209), rather than the responsibility of the government to fulfil the constitutional right to housing.

A second usage expectation is that the household would hold on to the ownership of their house for a period considered to be 'reasonable'. Regulations prescribe a period of up to eight years. This restriction on the period is subject to different perspectives, as individual title deeds each contain a **pre-emptive clause**. The introduction of the Breaking New Ground (BNG) document in 2004 shortened this period to five years. However, the Housing Act has not been amended (Charlton, 2013: 209).

Figure 2.6 Alexandra 2017 - ARP housing extensions in relation to Old Alexandra

10A Restriction on voluntary sale of state-subsidised housing

(1) Notwithstanding any provisions to the contrary in any other law, it shall be a condition of every housing subsidy, as defined in the Code, granted to a natural person in terms of any national housing programme for the construction or purchase of a dwelling or serviced site, that such person shall not sell or otherwise alienate his or her dwelling or site within a period of eight years from the date on which the property was acquired by that person unless the dwelling or site has first been offered to the relevant provincial housing department.

10B Restriction on involuntary sale of state-subsidised housing

(1) Notwithstanding any provisions to the contrary in any other law, it shall be a condition of every housing subsidy, as defined in the Code, granted to a natural person in terms of any national housing programme for the construction or purchase of a dwelling or serviced site, that such person's successors in title or creditors in law, other than creditors in respect of credit-linked subsidies, shall not sell or otherwise alienate his or her dwelling or site unless the dwelling or site has first been offered to the relevant provincial housing department at a price not greater than the subsidy which the person received for the property (Republic of South Africa, 1997).

There are opposing opinions in appreciating this clause. Some provincial officials realise that by the end of the prescribed time, situations may have changed requiring beneficiaries to sell their house. Others are of the opinion that the pre-emptive clause on title deeds preventing the sale of a subsidised house should be permanent (Charlton, 2013: 209).

It is further intended that the RDP house primarily be used as 'a place of residence'. Residents may operate small businesses from their RDP house, and it may often even be desirable, as long as it does not become the dominant use. The attempts at controlling the businesses run from RDP houses differ between projects, in most cases, residents have to apply for business approval. Generally, by-laws and policies require a property to be rezoned from a residential property to a business property to allow the running of a business. In the case of the ARP, area regulations allow for other uses (Charlton, 2013: 210).

The occupants of a residential building may practice including inter alia their social and religious activities and their occupations, professions or trades retail trade, on the property on which the residential building is erected provided that the dominant use of the property shall remain residential. The occupation, trade or professional activity shall not be noxious and the occupation, trade or profession shall not interfere with the amenities enabled (interview with state official by Charlton, 2013: 210).

In both Alexandra housing extensions considered in this case study, additional structures or 'backyard shacks' are abundantly present. These are used to provide accommodation for family, as rental units or small businesses to provide a source of income. Although these are permitted from a usage point of view, as has been discussed, the presence of house extensions and additional structures bring up other restrictions and limitations present in the use of an RDP house. The following sections consider the usage realities and the limitations of living in an RDP house, as experienced by the residents.

Housing allocation and the two typologies in Alexandra

As an urban upgrading project, the ARP encompasses many development projects within its larger framework, including a number of different housing developments. These housing developments are not restricted to state subsidised '**top structures**', otherwise referred to as RDP houses. The project aims to create affordable housing opportunities for different income levels, providing housing through a number of the programmes and subsidies provided by the Department of Human Settlements in the **National Housing Code** of 2009 (Department of Human Settlements, 2009a). These housing projects include upgrading existing houses, developing new houses, redeveloping hostels, relocating informal dwellings, redeveloping warehouses, interventions in backyard rental accommodation, and transferring publicly owned housing (ARP, n.d.). This case study will focus on the development of new housing projects.

Two housing extensions developed in the Greater Alexandra, namely Alexandra Ext. 7 and the K206 project in Alexandra Ext. 9, are considered here. Extension 7 was developed between 2005 and 2007 and consists of RDP houses provided through the project linked subsidy Scheme. Extension 9 was developed in 2010 through the same subsidy scheme. In this extension, the houses take on a different form than the usual single-storey, free-standing house on an individual plot. In extension 9, double-storey houses were built for subsidy qualifiers, each with adjacent rental units for those not qualifying (personal communication, ARP official, 23 April 2018).

Figure 2.7 RDP house in Alexandra Ext. 7 with wall between houses built by residents

Figure 2.8 RDP hous in Alexandra Ext. 9 with extension built by the resident

An official from the ARP described that in the relocation process, a segment of either the old Alexandra township or one of the informal settlements along the river was relocated. Due to the extreme density, moving people section by section is considered the only practical way to handle the situation (personal communication, ARP official, 23 April 2018). Registered aspirant beneficiaries on the **'waiting list'** (or now on the **Housing Database**) are processed for subsidy approval with the initiation of a new project. Upon allocation, beneficiaries sign the so-called 'happy letter' expressing satisfaction with the house. They can then take occupation, and simultaneously or within a short period, receive a title deed confirming freehold ownership. Theoretically, the demand database allocates beneficiaries according to their present geographical location. In cases such as Alexandra, new developments have been built beside the old, overcrowded areas, minimising the relocation distance. However, as the township is situated within the city, there is not sufficient land to acceptably relocate all residents from the overcrowded informal settlements to new housing within the Greater Alexandra area (Charlton, 2013: 204).

In relocating from the informal settlements to new housing developments, residents are placed in new communities. A resident mentioned, since living in her new house: "it's just a few people from the other side, it is mostly new people" (personal communication, Alexandra resident, 23 April 2018). Despite the relocation in sections, the scale of new projects could not support the retention of communities that in situ interventions can accomplish. New housing developments generally provide uniform accommodation, thus providing dwellings only for those qualifying for the subsidy, as is the case in Ext. 7. Ext. 9 caters for a bit more diversity (personal communication, ARP official, 23 April 2018).

A resident in Ext. 9 described how the house she is currently residing in is smaller than what her family had in the informal settlement they resided in before, near the Jukskei river. She had previously stayed in a four-room house; now she stated that her house had two rooms upstairs and a kitchen downstairs, for a household of seven, four children, two parents and a grandparent (personal communication, Alexandra resident, 23 April 2018). Each unit is a double-storey RDP dwelling of 40-50m^2, intended for individual ownership. Adjoining this unit is a 40m^2 rental unit, consisting of two separately accessible rooms and an ablution facility (Osman, 2016). About two years ago the family built an additional room onto the house. In their case, this room is for the family's use and not to be rented out, as the house was too small to accommodate the growing household. Despite these
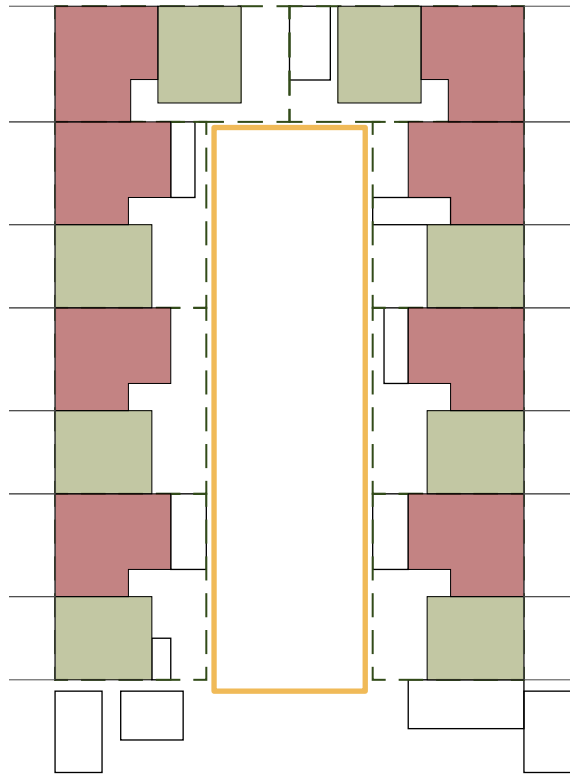
Figure 2.9 Alexandra Ext. 9 housing typology - cluster of eight RDP units, each with adjoining rooms for rental, as well as additional self-built structures

Figure 2.10 Alexandra Ext. 9, gate installed by community

issues, she said that it was "okay...I have my family". They also have electricity which they did not have in the informal settlement (personal communication, Alexandra resident, 23 April 2018).

The woman did say that she felt much safer in the new house (personal communication, Alexandra resident, 23 April 2018). In the k206 project (Alexandra Ext.9) units are grouped together to form clusters of eight to ten (personal communication, ARP official, 23 April 2018), arranged around semi-private communal courtyards, forming small 'communities' (Osman, 2016), accessed off a larger street through the development. Many of these tiny communities work together to install a gate to be able to close off their driveway. The larger community comes together to form patrol blocks, working together with the South African Police Service (SAPS), to collectively look after their streets over weekends when crime is at its worst (personal communication, Alexandra resident, 23 April 2018)

After showing the housing typologies, and the changes in residents' conditions from their old to new dwellings, the following section will look into the effects this new environment has on its residents, and the limitations with which they are faced there.

Life and limitations in an RDP house

This section considers the restrictions and limitations, corresponding to the expected usage as well as further limitations, which comes with living in an RDP house. In discussing these limitations, the disjuncture between the reality of living in a state subsidised house and the expectations the state has in the provision of these developments is shown. Beneficiaries in the two design approaches represented here generally face the same restrictions and limitations. However, with its alternative typology and resident mixture, life in Ext. 9 poses additional challenges to its beneficiaries.

The National Housing Code stipulates that the subsidy house should be a minimum of 40m^2 (Department of Human Settlements, 2009b: 25), an increase from the original 30m^2 provided for a decade earlier when the house first became standardised. This size translates into the standard two-bedroom house with a small bathroom and a combined living/kitchen space. Generally, this house is delivered as a single-storey top-structure on an individual plot, allowing for the future ownership of a house on a small piece of land. Alexandra Ext. 7 provides an example of this case. Alexandra Ext. 9, however, is an example of a different approach. Here the typology was adapted to a double-storey house with two upstairs rooms and a downstairs kitchen and bathroom, as previously
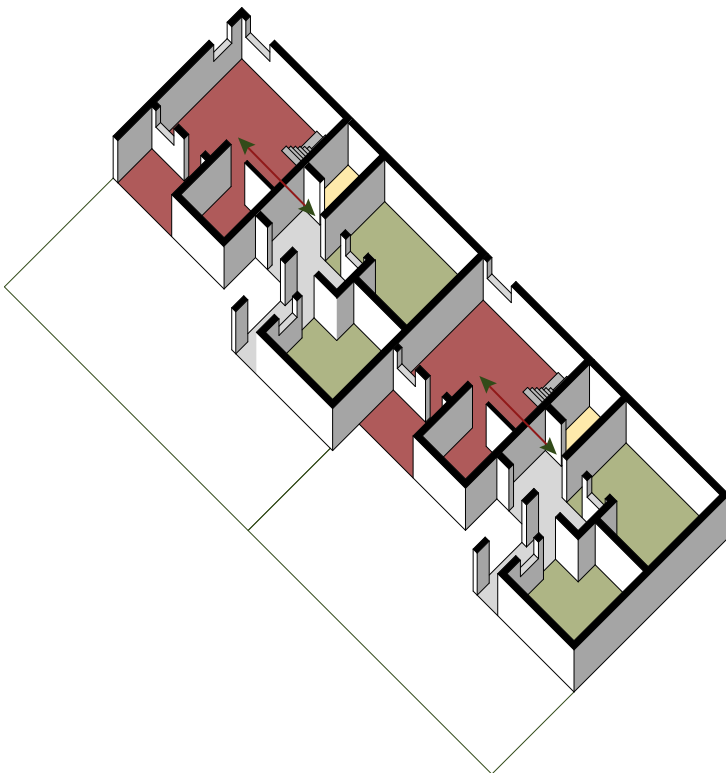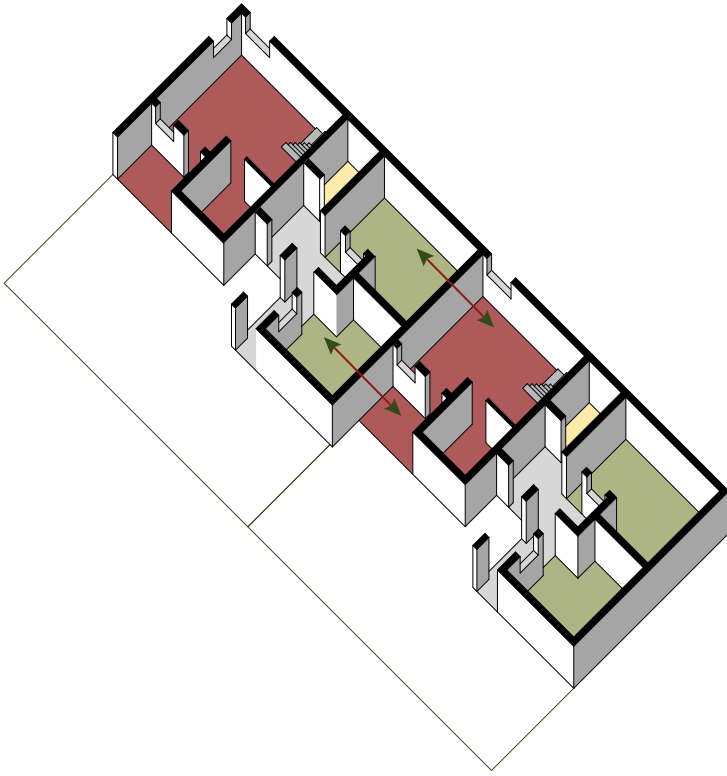
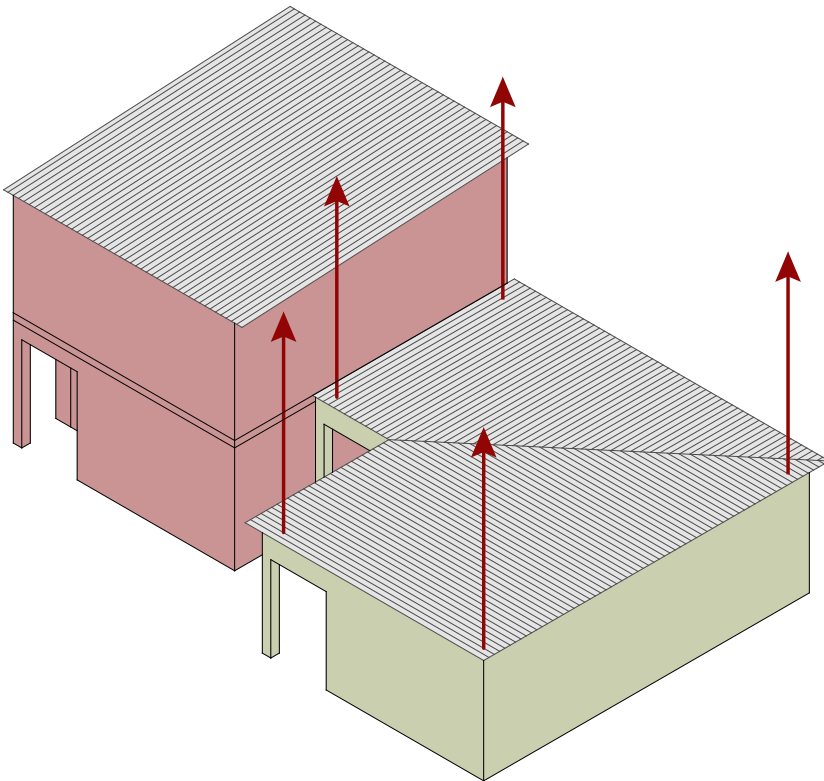Figure 2.11 K206 Extension concept - joining of units to form larger dwellings

Figure 2.12 K206 Extension concept

shown in a resident's description of her home. This development also includes single-storey rental units abutting the subsidy houses (personal communication, ARP official, 23 April 2018).

The concept of the double-storey 'ownership' unit with the attached single-storey unit, is firstly to provide a means of income (Gardner &Rubin, 2016: 90), and it creates a design allowing for future extension. The single-storey unit can be extended upward to double rental space, with the addition of an external staircase. Rental units can be merged to create larger rental spaces. Alternately, the attached layout of the two units would allow adaptions converting the entire ground floor into a single, more substantial dwelling, and the first floor could be used for rental purposes. Thus, the original structure can be manipulated to a degree, however, the construction of the primary unit does not allow many opportunities for change, as it would be a costly, complicated exercise (Osman, 2016).

The residents of this rental unit pay rent to those living in the adjacent subsidised house. However, the government allocates people to both the subsidy and the rental units. Until those living in the subsidy houses receive their title deeds, they have no control over who their renters are. The title-deed beneficiaries of Ext. 9 are to receive will give them ownership of their plot, consisting of the subsidised house they reside in plus the attached rental units. The household will only then be free to do with it as they please (personal communication, ARP official, 23 April 2018). Conflict has arisen where landlords are not happy with the fact that the government has allocated the renters. There has also been much contention about who received a subsidised unit for future ownership and who was allocated to a rental unit, while all the residents came from the same informal settlement (Gardner & Rubin, 2016: 90, 91).

For a period of five years, residents (owners/tenants) are restricted to adaptions, or personalisation of their houses, which generally translates into adaptions for improved security, such as adding Burglar proofing bars to windows. Other common personalisation includes the painting of walls, tiling or plastering interior or exterior floors, walls, door and window frames. Some residents have replaced the exterior steel doors with timber doors. The alterations of the main space would require the breaking down of load-bearing masonry walls (Osman, 2016).

In both extensions discussed in this chapter, abundant illegal structures can be seen. Houses obtained through the South African low-income housing programmes, are not
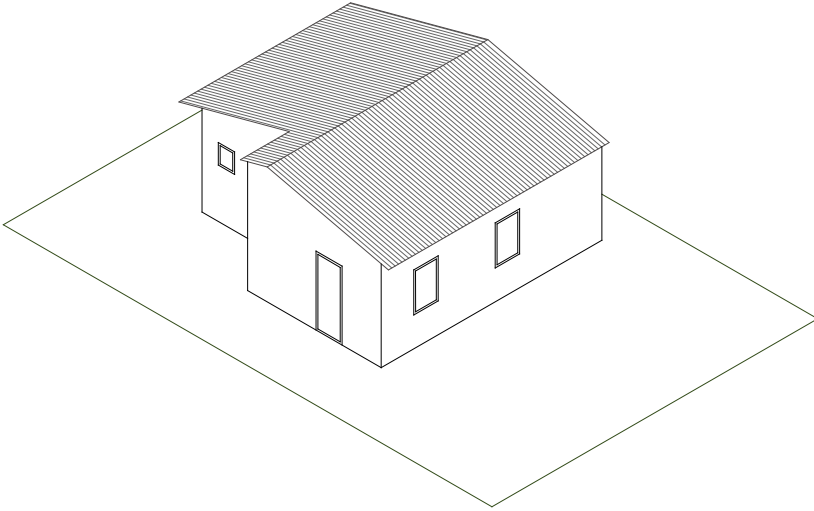
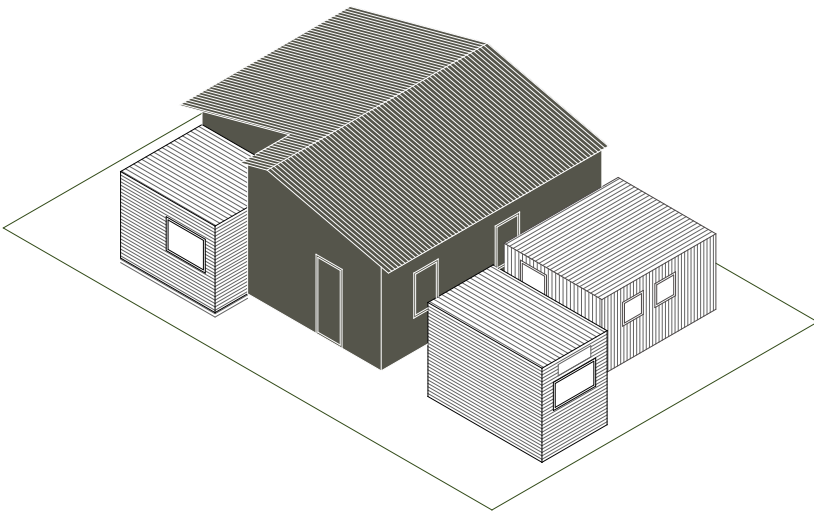Figure 2.13 Original RDP house in Alexandra Ext. 7

Figure 2.14 RDP house in Alexandra Ext. 7 with the resident's extension
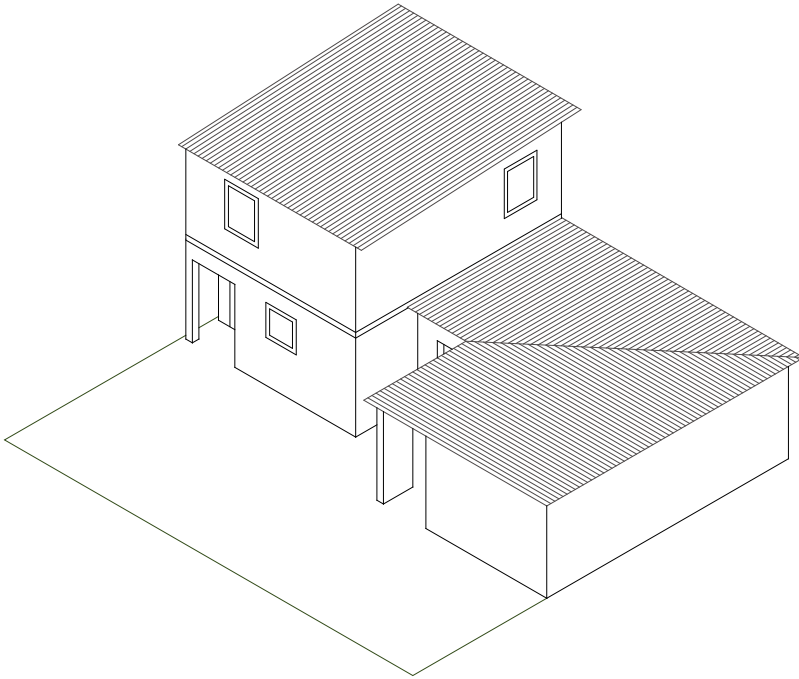and additional structures

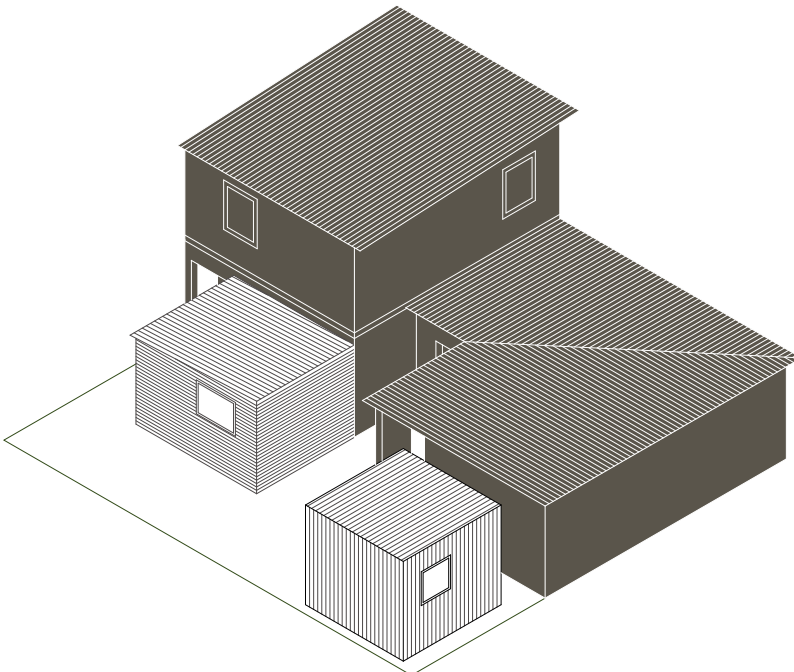Figure 2.15 Original RDP house in Alexandra Ext. 9 with state provided rental units

Figure 2.16 RDP house in Alexandra Ext. 9 with extension built by the resident

handed over with ownership for a period of eight years, when title deeds can be extended to residents. In many cases, residents end up waiting longer for their title deeds. In the Alexandra extensions visited for this research, residents are still awaiting their title deeds after a decade. Without a title deed, the resident's ownership and right to improve the property can't be proven as such. However, these considerations fall into the formal, legal framework, while there are pragmatic ways that bureaucracies work around these. Beneficiaries are not prevented from improving their house before the issuing of a title deed. At the same time, the municipalities do not employ much effort to ensure that construction after the issuing of title deeds is done according to building regulations. All the additional structures seen in these extensions have been built by residents themselves without the necessary plans. The city is supposed to perform a mass eviction of such structures, seen as the 'problem' of illegally built 'backyard shacks', as well as the many extensions and alterations to the original RDP houses. Although upgrading houses and building additional structures is not prohibited, the vast majority of residents (in the two extensions we visited) had built without going through the proper channels of approval (personal communication, ARP official, 23 April 2018).

Approved construction would require meeting the Norms and Standards laid out in the Technical and General Requirements section of the National Housing Code, as well as the requirement for all home builders to be registered with the National Home Builders Registration Council (**NHBRC**). Like any construction project, affordable housing is also subject to compliance with the National Building Regulations (NBR) (Department of Human Settlements, 2009b: 24). Construction must meet minimum specifications regarding materials, foundation specifications, wall specifications, roof, fenestration, etc (Department of Human Settlements, 2009b: 25). It is important to point out that the RDP house is a top structure (Huchzermeyer, 2003: 596). The intention was therefore always that the beneficiary would upgrade this house as they become able to do so. Considering the nature of the house as a base unit, as well as the generally low quality of construction, it becomes necessary for residents to upgrade and maintain their dwellings. In most cases, this is not done according to the proper formal requirements of going through approvals and meeting building requirements.

These bureaucratic requirements, although present in the undertaking of any form of construction, become particularly restrictive to the residents of low-cost housing. There is a variance in people willing and able to comply with building regulations. Gardner and

Rubin (2016: 79) discuss this variance regarding the construction of backyard units. Some landlords go through the required formal channels of applying for building approval and then build to legal specifications. Then there are others who either choose to ignore or are ignorant of the existing planning frameworks, by-laws and regulations (Gardner & Rubin, 2016: 79). On visiting housing projects in Alexandra, an ARP official confirmed this, while also applying these statements to extensions and adaptions to the RDP house itself. He stated that the majority of the beneficiaries do not go through the legal channels. This can be attributed to a number of reasons, ranging from time to financial constraints (personal communication, ARP official, 23 April 2018). It is important to point out once again, that in the case of the projects considered in this case study, the residents have not yet received their title deeds, and ownership is not proven.

The realities found in RDP housing developments do not entirely match the expectations of the state. The expectations, and the related limitations surrounding low-cost housing, and home building do not correspond to all the realities faced by beneficiaries in their daily lives. Expecting people with limited income and resources, and in cases, limited knowledge about the full extent of the restrictions they have to live with, to go through formal channels, which often require the payment of fees, could be considered unrealistic.

Conclusion

This chapter used two housing development projects from the Alexandra Renewal Project to show the impact that the state's housing programme has on the residents. This case study considered the aspects of the houses themselves, and does not include the impacts of location, which is not a significant limitation in the case of Alexandra. The chapter showed the expectations the state has as to the usage and outcomes of RDP housing, contrasted by the reality of the outcomes as experienced by the beneficiaries.

The case of Alexandra demonstrates the limitations placed on residents by the housing programme and policies. This case study shows that the state's expectations in their housing programme do not correspond to the full scope of the complex realities of urban poor residents. The restriction imposed on beneficiaries overlook aspects of social networks and livelihood strategies employed by these residents. The study further shows that despite these restrictions, considerable household investments into RDP houses and neighbourhoods can be observed, in the alterations of the basic RDP house, as well as improvements to the yards through backyard units or gardens.

Figure 3.1 Ruimsig upgraded shack with brick extension by resident

Chapter 3
In situ informal settlement intervention:
Reblocking Ruimsig

Introduction

The first case study considered the predominant practice of housing in South Africa, the provision of state-subsidised low-cost housing. Prior to the adoption of the BNG programme, the national policy focused on the housing benefit. The BNG document (Department of Housing, 2004) introduced updated approaches, followed by altered policies and new intervention mechanisms brought into the new National Housing Code of 2009. New policies introduced tools for upgrading settlements *in situ*, through the Upgrading Informal Settlements Programme (**UISP**), as well as opening the door for other alternative intervention approaches.

This case study considers how an *in situ* intervention in a settlement affected the lives of its residents, both during the process of development and in the years thereafter. The case of the Ruimsig informal settlement presents an example of an intervention 'co-produced' by a number of actors. The intervention took the form of a **reblocking**, or blocking out, a process of spatially reconfiguring an informal settlement. Ruimsig was the first settlement in Johannesburg to which this upgrading strategy was applied. This case study considers how the development, implementation and outcomes of the *in situ* intervention in Ruimsig responded to the needs of the residents. The chapter discusses the aspects relating to the restrictions and challenges the upgrading introduced to the lives of the residents. Whereas the previous chapter discussed these aspects in a government-led project, this case study examines the impacts of reblocking on the lives and livelihoods of the Ruimsig residents.

The chapter starts by providing a background to the case study through a brief look at the location, emergence and growth of the settlement. The chapter continues to describe reblocking as the chosen intervention method, going on to describe the different actors involved in the process and their respective roles, and considering the hurdles hampering the reblocking. The changes brought about by this intervention has had a significant impact on how the Ruimsig residents engage with their dwellings and their settlement. This is shown by considering both the legal and physical restrictions, as well as the advantages, that reblocking and the subsequent 'self-help' development has had on the Ruimsig residents.
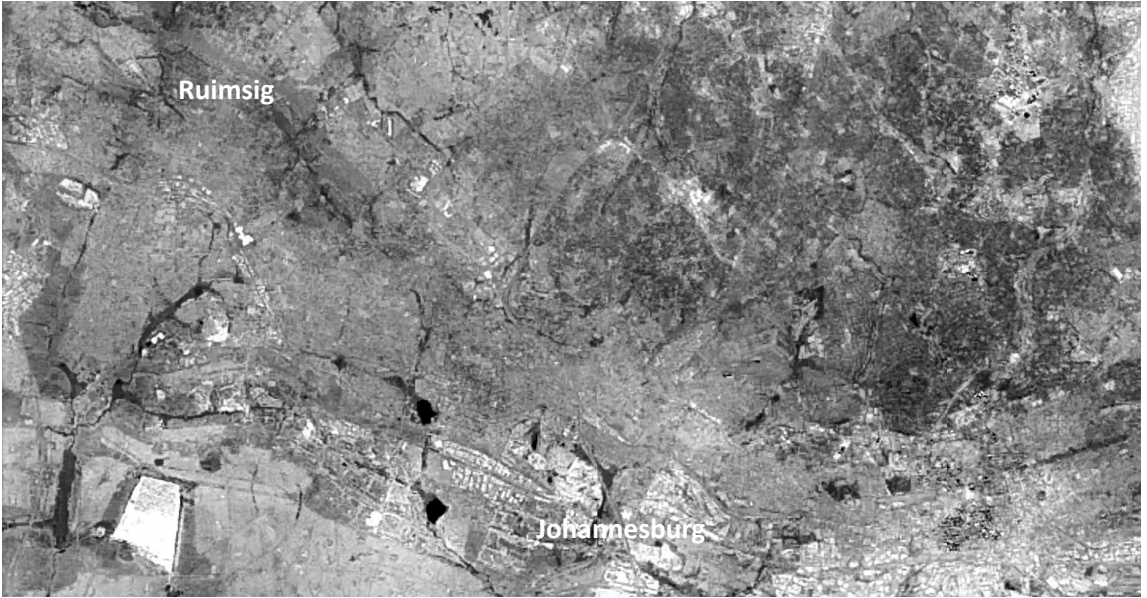
Figure 3.2 Locating Ruimsig in relation to Joburg CDB

Figure 3.3 Ruimsig informal settlement

Ruimsig informal settlement: Emergence and growth

The Ruimsig informal settlement is located in the West Rand, north-west in the Greater Johannesburg metropolitan area (South African Alliance of the SDI, 2013). The settlement took its name from the Ruimsig upmarket residential area situated to its west. To the north of the settlement lies a stone quarry (South African Alliance of the SDI, 2013; Molaba & Khan, 2016: 206) and south-east of the settlement is the Roodepoort Athletic Stadium. To the south, the informal settlement borders on the Ruimsig golf course. The south-eastern edge of the settlement is bordered by a wetland.

The Ruimsig informal settlement is situated on a 5.2-hectare municipally-owned property, located on the judicial border between the City of Johannesburg and Mogale City (South African Alliance of the SDI, 2013; Molaba & Khan, 2016: 206). The contestation about this location has been the cause of many complications. Residents now understand their settlement to fall under Mogale City, after its official demarcation into Ward 28 of Mogale City (Roodepoort Northsider, 2018). However, they believe this to be purely political as their settlement is still being serviced by the City of Johannesburg (personal communication, Ruimsig Community leader, 11 April 2018).

The Ruimsig informal settlement was established in the 1980s as two residential facilities providing rental accommodation for workers employed on a nearby farm. Around 1998 the municipality acquired farmland nearby, which was then rezoned to 'residential and recreational' from its previous demarcation as 'peri-urban agricultural' land. The larger rezoned area later facilitated the development of the Ruimsig residential area, the Roodepoort Athletics Stadium and the Ruimsig Country Golf Course. The residential facilities, formerly housing farm workers, came to house construction workers drawn to the area by the development of the middle-class residences and the athletics stadium (South African Alliance of the SDI, 2013).

One of the two workers' residential facilities was destroyed by fire in 1996, and the other was demolished. In need of alternative accommodation, the former tenants built themselves shacks in the undeveloped land surrounding their previous residential facilities. The settlement grew from the few shacks set up in 1996 to about 290 shacks by 2010 (Adegun, 2016: 125). According to the Household Enumeration Report, conducted by **CORC**, **ISN** and **FEDUP**, preceding the reblocking of the settlement, approximately 369 households, or 780 people were housed in the Settlement in 2010 (South African Alliance of the SDI, 2013). This number rose to over 900 people in 2011 and over 1200

in 2014, according to resident estimates. Thirty additional households were relocated to the Ruimsig settlement by early 2015 (Adegun, 2016: 128), following an eviction, applied for by a private developer in the South Gauteng High Court, after which the municipality was ordered to provide the Taylor Road residents with alternative accommodation (SERI, 2015).

The informal settlement grew through a tenancy-to-owner occupational pattern, where migrants came to the settlement seeking residence, and in time themselves became owner occupiers and, in some instances, even informal landlords (Adegun, 2016: 129). The population increase since 2012 can be attributed, in part, to the settlement reblocking. Residents came to realise that their settlement was secure, that they had 'proper yards', and some residents then brought their children and relatives to live with them (personal communication, Ruimsig community leader, 11 April 2018).

In upgrading through 'reblocking,' the settlement remains informal. However, the 'reblocking' has created a certain sense of permanence among the residents. As discussed later in this chapter, this permanence is not based on any hard facts or legal provisions, but purely through a realisation by the residents that their situation has improved. This improvement has given them a feeling of empowerment to continue bettering their situation and livelihoods by their own means (personal communication, Ruimsig community leader, 11 April 2018).

Reblocking Ruimsig settlement

Reblocking echoes the principles of, but neither forms part of nor guarantees the ultimate implementation of, the 'phased *in situ* upgrading' of South Africa's comprehensive plan for housing delivery (Department of Housing, 2004). The process sets up the preconditions for further, long-term *in situ* development. The incremental nature of the reblocking process can be applied to tenure regularisation (Fieuw & Mwau, 2016: 187). Reblocking, sometimes referred to as 'blocking out', refers to the reconfiguration of spaces, including reconfiguring dwellings in and the layout of informal settlements (iKhayalami, 2018a). The process, initially associated with upgrading projects implemented four decades ago by the World Bank in Asia, has been led in South Africa by the NGO, **iKhayalami**, for the last five years (Adegun, 2016: 136). iKhayalami describes reblocking as a community-driven design process for informal settlement upgrading (iKhayalami, 2018a), reconfiguring

Figure 3.4 Ruimsig 2007, two residential developments

Figure 3.5 Ruimsig informal settlement 2010, pre-reblocking

Figure 3.6 Ruimsig reblocked settlement 2014

Figure 3.7 Ruimsig settlement 2017

settlements to create less congested and safer environments, while allowing access for emergency vehicles (Bolnick, et al., 2012: 63). Ruimsig was one such reblocking attempt.

Prior to the reblocking, a household enumeration was conducted by the Community Organisation Resource Centre (CORC), together with the Informal Settlement Network (ISN) and the Federation for the Urban Poor (FEDUP), considering the population, and the state and extent of existing services. At the time the community's services consisted of about 70 ventilated improved pit (VIP) toilets, which they claimed were only serviced once a year by the municipality, and some remained inaccessible for servicing. Further services included three standpipes, each connected to a water tank, spread through the settlement, one which was not working. The Ruimsig settlement did not have any electricity (South African Alliance of the SDI, 2013).

Despite the lack of services, the settlement is ideally located, and suitable for an *in situ* upgrade (South African Alliance of the SDI, 2013). For the practical purpose of the upgrading, the settlement was divided into four sections, where each was named after a landmark within the area. These were 'wetland', '**spaza**', '**shebeen**' and 'church'. This sectioning eased the facilitation of development in the settlement. By clear allocation to areas, residents knew which section they belonged to and what this encompassed regarding the planned development (personal communication, Ruimsig community leader, 11 April 2018).

The Ruimsig informal settlement falls under the **SDI**'s ISN (personal communication, Ruimsig community leader, 11 April 2018), forming part of a network with an established socio-political relationship with the local government aimed at initiating community-based improvement, and providing a platform to show the City how communities experience incremental upgrading. These network meetings led to a test model of community-driven incremental upgrading, initiating the reblocking of Ruimsig informal settlement (Molaba & Khan, 2016: 205).

Co-producing the reblocking

The Ruimsig community connected with CORC through their relationship with the ISN. CORC facilitated workshops in Cape Town, where a few community leaders from the Johannesburg-based network could exchange knowledge with Cape Town communities and learn from their processes (personal communication, Ruimsig community leader, 11 April 2018). In partnering with the NGO **iKhayalami**, the community could use reblocking

Figure 3.8 Plan for the reblocking of Ruimsig settlement

to realise their goals of improvement (personal communication, iKhayalami, 5 April 2018). The development of Ruimsig was possible due to the intersecting interests of different actors, to respond to grassroots mobilisation around the shift in policy from the eradication of informal settlements towards *in situ* upgrading approaches (Adegun, 2016: 137). The actors, and project partners, included professionals from 26'10 South Architects in Johannesburg, the University of Johannesburg's Architecture Department, SDI-affiliated organisations (including iKhayalami at the time), the City of Johannesburg and **NUSP** (Bolnick, et al., 2012: 63,66; personal communication, iKhayalami, 5 April 2018).

The reblocking was initiated by iKhayalami (personal communication, iKhayalami, 5 April 2018), and was led by NGOs affiliated with the South African SDI Alliance (**SASDI**), namely CORC, ISN and iKhayalami. iKhayalami obtained funding from the Chilean funder, Selavip, for the first phase of the project, involving the reblocking of 38 shacks in the flood-prone 'wetlands' section. Thereafter the NGO was responsible for the implementation of the second phase (South African Alliance of the SDI, 2013). The initial funding was complemented by the development of the first informal settlement savings scheme in Gauteng, the Community Upgrading Facility Fund (CUFF) (Molaba & Khan, 2016: 207), a concept resonating with the SDI's promotion of development through community-based savings schemes. Through CORC, this instrument was used to fund the second phase, reblocking a further 96 shacks (South African Alliance of the SDI, 2013).

The initial phase of the project involved sixteen students from the Faculty of Architecture at the University of Johannesburg, working together with eight appointed community members, who came to be referred to as '**community architects**'. During a seven-week design studio, the students and the 'community architects' worked together to map out the existing layout of the Ruimsig settlement (personal communication, iKhayalami, 11 April 2018). Learning from one another, they mapped the existing settlement with its essential features as a basis from which the long-term project plan could be informed. The new layout was to improve the general safety of the settlement and improve the living conditions for all residents (South African Alliance of the SDI, 2013). Together, the students and community members developed a new layout, using the principle of reblocking to de-densify certain areas and open up space for wider streets, allowing access for emergency vehicles and for the city to service the settlement (personal communication, Ruimsig community leader, 11 April 2018).

In developing the new layout, community members generally agreed on resizing all stands to between 100 and 150m^2 (Personal communication, Ruimsig community leader, 11 April 2018). In the new layout, the students and community architects tried to minimise disruptions to the existing layout while incorporating specific formal town planning requirements, such as road widths, as preparation for any future formalisation (personal communication, iKhayalami, 5 April 2018). In incorporating formal town planning requirements, this reblocking veered from a true *in situ* upgrade according to the UISP, which allows settlements to be upgraded without conforming to all planning regulations, to facilitate minimum disruptions (Adegun, 2016: 138). In creating a layout that would provide stands for all residents, the Ruimsig reblocking departed from the practice of previous reblockings in which each shack made up an entire plot. Since Ruimsig is located in a peri-urban area, and the settlement was not densely built across the entirety of the site, the location allowed for the provision of stands (personal communication, iKhayalami, 5 April 2018).

After the conclusion of the university studio, the layout process was completed and drafted by a local architectural firm, 26'10 South Architects (personal communication, iKhayalami, 5 April 2018), funded by the Goethe Institut in Johannesburg (Adegun, 2016: 138). iKhayalami provided technical assistance for the implementation, the procurement and installation of the new shacks (South African Alliance of the SDI, 2013). The implementation itself was carried out by community members, together with members from iKhayalami's technical team, who came to Johannesburg to assist and teach the community members to assemble their new shacks (personal communication, iKhayalami, 11 April 2018).

Partnership meetings with the municipality (CoJ) were facilitated by the ISN (South African Alliance of the SDI, 2013). Initially, the City of Johannesburg saw the project as a strategy to sidestep future protests and possible litigation for substantive intervention by the Ruimsig residents. The municipality considered the development a test model for incremental upgrading. They wanted to look into improving the poor's livelihoods and living conditions where they were, without using the UISP or the National Upgrading Support Programme's (NUSP) interpretation of incremental upgrading (Adegun, 2016: 140). NUSP became involved in the Ruimsig reblocking and subsequently became the most active government body participating in the project, assisting in facilitating some engagements between the municipalities of the City of Johannesburg and Mogale

City (South African Alliance of the SDI, 2013). According to iKhayalami, this project was important in its introduction of pro-poor approaches to development in informal settlements to government officials of all levels in the Gauteng province (iKhayalami, 2018b).

From the City's side, however, the incremental upgrading from reblocking onwards has remained only a theory, while the community themselves have worked towards improving their living conditions in the interim period, developing improved, fireproof structures. The project managed to become an 'exceptional' one, despite the initial scepticism of City officials. The City found it prudent to relax certain stringent policy requirements in the Ruimsig project, which could otherwise have made this community-led development impossible (Molaba & Khan, 2016: 207). The City essentially recognised the residents' desire to implement *in situ* improvements in their settlement. However, they were not prepared for the long-term commitments involved in UISP implementations. Therefore, the City's engagement with the community and the NGOs, and the declaration by the Mayor that Ruimsig was an 'exceptional' pilot project for alternative upgrading in Johannesburg, were not supported by any kind of commitment to long-term intervention or development (Adegun, 2016: 140).

The Ruimsig development committee was responsible for the overall mobilisation of the community and for steering the project (South African Alliance of the SDI, 2013). The community wanted to use this project to show the country that it is possible to meet the NUSP development objectives, by demonstrating these in action in their settlement upgrade. Through the direct involvement of the community in improving their households, the capacity of the poor was advanced (iKhayalami, 2018b).

The community, represented by eight members, played significant roles in the process. These eight 'community architects', three men and five women, participated in the design studio held by the UJ Faculty of Architecture, providing their input as locals to influence and inform the new layout (personal communication, iKhayalami, 5 April 2018). The studio, as well as weekly meetings held by the community, every Sunday from July until September 2011, created space for discussion and participatory decision-making. The residents thus had a voice in the planning and implementation of the improvements in their settlement (Adegun, 2016: 140).

The community further participated in financial contributions (personal communication, Ruimsig community leader, 11 April 2018). Each household receiving a sponsored new shack had to contribute at least ZAR 500 (About € 33,50) towards the CUFF fund (Molaba & Khan, 2016: 207), amounting to about 16% of the cost of the 17,5m^2 structure (South African Alliance of the SDI, 2013). In an attempt to accommodate all, residents were encouraged to put down the first half of the amount as a deposit and pay the rest at a later stage (personal communication, Ruimsig community leader, 11 April 2018). However, not all households were able to afford this sum when it was due (South African Alliance of the SDI, 2013), displaying the exclusionary nature of the savings-based model promoted by the SDI.

Residents also contributed sweat equity, working together with their neighbours in tearing down shacks and assembling the new ones (personal communication, Ruimsig community leader, 11 April 2018). Reblocking allows for the design and implementation to be driven and carried out by communities. In the process, shacks are dismantled in the same day that upgraded dwellings are built, all within the settlement (iKhayalami, 2018a). The building took place on weekends when residents had time away from their jobs. Each shack was assembled in one day, the erection taking only a few hours. The process of reblocking the settlement took place in increments, as the building could not be done every day as a single consecutive process (personal communication, Ruimsig community leader, 11 April 2018).

With the passing of time, participation dwindled, as residents seemed to lose their initial interest in the process. Misunderstandings arose among certain community members about the nature of the development, and some residents said that they could not participate in this way and that they could not work for free (Adegun, 2016: 141). Despite this loss of interest, the community's involvement served to skill several residents (personal communication, Ruimsig community leader, 11 April 2018). 80 shacks had been reblocked by early 2013, following the new layout planned for the 'wetland' and 'church' sections of the settlement (South African Alliance of the SDI, 2013). Residents living in the dense, flood-prone 'wetland' area were relocated to the newly set out stands in other parts of the settlement, where they installed new 17,5m^2 shacks in blue and white (personal communication, Ruimsig community leader, 11 April 2018).

Figure 3.9 Ruimsig upgraded shack, resident upgraded the yard with a fence and garden

Figure 3.10 House completely rebuilt by resident, in plastered brick

Figure 3.11 Upgraded shack with added roof to create a shaded veranda for outsie living space

Figure 3.12 Upgraded shack with additional structures in corrugated iron and brick

Challenges involved in the reblocking

As stated before, the reblocking process corresponds to the development principles outlined in the UISP programme, yet does so without any guarantee of final implementation of *in situ* upgrading and consolidated housing. In the Ruimsig case, there was no apparent commitment from the City (CoJ) to any long-term development. Various actors considered the Ruimsig reblocking as a model, or even a test, for future practice in the Johannesburg area. The development was initiated and implemented through NGOs and community organisations. However, along the course of the process, the project lost momentum, and only two of the four sections have been reblocked (personal communication, iKhayalami, 5 April 2018). The halting of the project can be attributed to certain hurdles encountered during the process.

At the time of planning and reblocking, the settlement was considered to be situated on the boundary of two municipalities: Ward 23 of Mogale City and Ward 97 of the City of Johannesburg. These wards had separate responsible councillors. The contestation of the area meant councillors and city officials posed particular challenges to the community and the planned development (South African Alliance of the SDI, 2013; Molaba & Khan, 2016: 206). Subsequently, the settlement was demarcated to Ward 28 of Mogale City (Roodepoort Northsider, 2018). The Ruimsig community leader stated that both he and the community considered the situation a 'political game'. The ambiguity at the time of the reblocking led to councillors from both municipalities being invited to discussions about the project. According to the community leader, both councillors were willing to accommodate the development of the area. With the official demarcation, the community now understands their settlement to fall under Mogale City, although according to the leader they are still being serviced by the CoJ. Historically, the CoJ provided limited municipal services of water, sanitation and waste collection to the settlement. Service provision has improved since the reblocking started (personal communication, Ruimsig community leader, 11 April 2018). The unnecessary disagreements about which municipality the settlement falls under provided an excuse for the state to delay or avoid their constitutional responsibility of gradually realising the right to housing (Adegun, 2016: 143).

A further hindrance to reblocking the entire settlement was a lack of funds. iKhayalami obtained funding to erect new upgraded shacks for 100 households. Not able to receive further funds for the remaining 260 households (numbers after the 2010 enumeration),
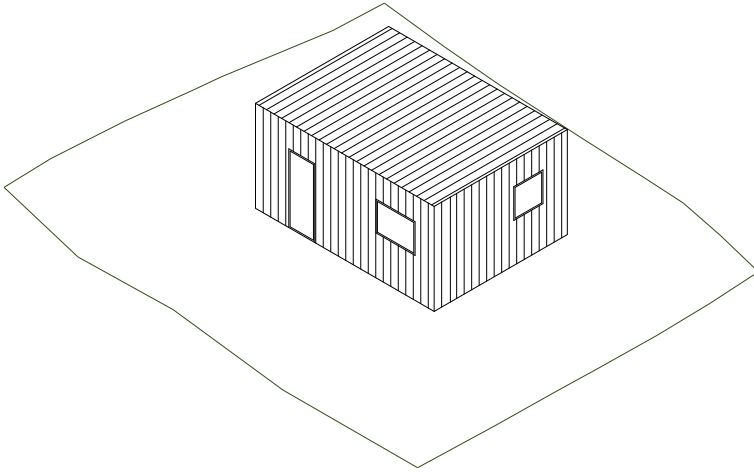
Figure 3.13 Resized stand in the newly laid out settlement with upgraded shack
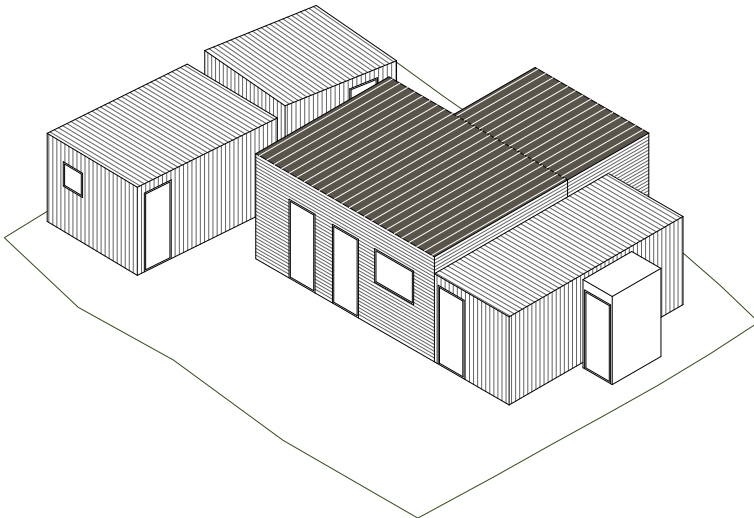

Figure 3.14 Shack rebuilt as brick house with brick extension and backyard shacks

only two sections of the settlement were reblocked (personal communication, iKhayalami, 5 April 2018). Without further financial support, and without the full buy-in from the state, the project could not be taken further. Stopping the project has left an uneven spread of upgraded shacks among residents, and despite 'self-help' development taking place after this partial reblocking and implementation of shack upgrades, a portion of the community still reside in old zinc shacks, and certain sections of the settlement are extremely densely built.

The Ruimsig North Home Owner's Association (RNHOA), representing the residents from the neighbouring upmarket Ruimsig residential area, objected to the reblocking, playing out the 'not in my backyard' principle. According to the Ruimsig community leader they were resistant to seeing the area developed. Together with the NGOs and city officials, the neighbouring residents came to see the benefits offered by *in situ* improvements to the settlement. The association took an interest in the reblocking, realising it would not expand the settlement and could support a better relationship between the neighbouring communities (personal communication, Ruimsig community leader, 11 April 2018; Molaba & Khan, 2016: 209). Following the halted reblocking, concerns were raised once again, with association members worried about the impact the settlement, which is once again growing, could have on crime in the area and their property values. Concerns of this nature often promote the eradication of informal settlements (Adegun, 2016: 144).

Resistance by individual community members further hampered the implementation of the reblocking. In the new, de-densified layout, all stands were to be between 100 m^2 and 150m^2. The size was generally agreed upon. Nevertheless, where a large group of people are involved, a certain amount of resistance is inevitable. Residents from the very dense areas of the settlement would gain significantly from the reblocking. Those with larger stands, however, were not all happy with the idea of having their stands reduced, which in many cases would also mean losing some of their backyard accommodation, forcing tenants to move (personal communication, Ruimsig community leader, 11 April 2018). Understandably, these residents were concerned about the effects the changes would have on their livelihoods.

The challenges mentioned here relate to the development and implementation of the project. A number of these contributed to the project being stopped before the entire settlement was reblocked. Additionally, some of these challenges faced during
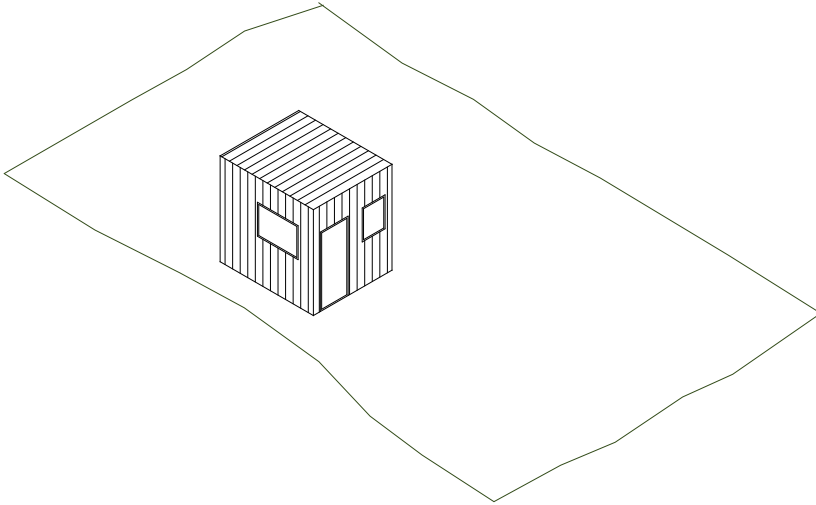
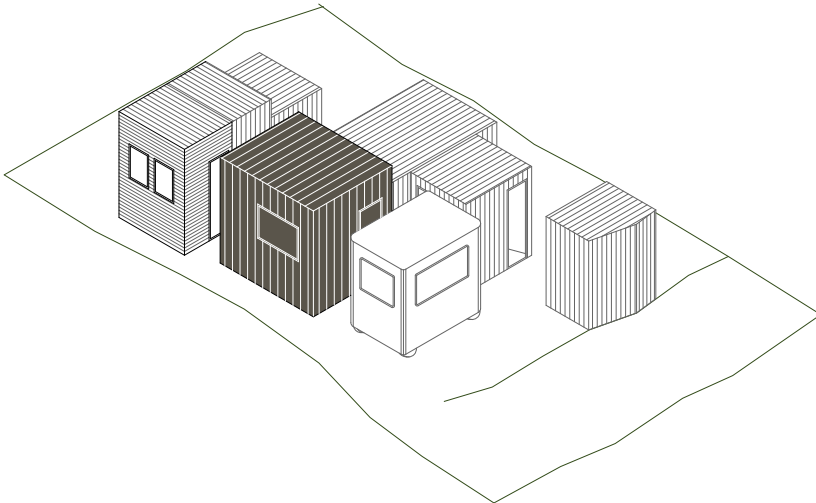Figure 3.15 Resized plot with small upgraded shack

Figure 3.16 Extended shack with multiple backyard units of different materials added

development and implementation went on to challenge the residents in living in the partially upgraded settlement.

Restricted development in Ruimsig

The previous chapter showed the primary restrictions, both legal and otherwise, related to low-cost housing provided through a state subsidy. A number of these restrictions apply to all low-cost housing, or to South African housing in general. This section will point out these restrictions as well as show the unique challenges faced by the residents living in the partially reblocked Ruimsig settlement.

Those residing in the Ruimsig settlement do so informally. As mentioned earlier in the chapter, the land belongs to the state. The CoJ has a regularisation programme to facilitate the upgrading of settlements. The programme understands informal settlement upgrading as the provision of interim essential services and temporary security of tenure for residents while they await the permanent upgrading of their facilities or relocation to a permanent settlement (Huchzermeyer, 2011: 199). However, this does not apply in the Ruimsig case as the settlement has not yet been regularised. Without any form of tenure security, no permanent construction is legally permitted. The Ruimsig community leader remarked on this, in telling about his trip to Brazil with the SDI to learn about savings schemes in favelas. He described the houses people were building there, "houses rather than shacks", going on to say that this was not a viable option for Ruimsig, as the settlement was not formalised, and the community was not allowed by city officials to construct permanent structures. They were permitted to build shacks, and upgrade their existing living conditions by building the new shacks with better material, namely Cliplock sheets rather than the usual corrugated sheets (personal communication, Ruimsig community leader, 11 April 2018).

Since the upgraded shacks were completed in 2014, Ruimsig residents have begun expanding and upgrading their own homes, many using brick and mortar. The community leader remarked on this, saying that the improvements in the settlement, namely a better layout, increased services, and larger stands, gave the people a sense of empowerment. Through their involvement in the planning and implementation of the reblocking, the residents realised that they could improve their lives themselves. People began building brick houses to raise their living standard and "to stay much better than in a shack". The community leader mentioned that he too planned to build himself a brick house, saying:

"I can't stay in this shack forever" (personal communication, Ruimsig community leader, 11 April 2018).

However, it should be noted that this empowered building is being done illegally. The community leader commented on this, saying that the permanent construction is an act of resistance towards the state. Those building brick houses for themselves have decided to do what is best for themselves, rather than waiting for government intervention (personal communication, Ruimsig community leader, 11 April 2018). It is clear from this case that formal development for the lower classes in South Africa is not possible, or at the very least a long, tedious process, when working without assistance from the state. In Ruimsig, the community has taken a 'self-help' approach toward improving their lives. However, such an approach cannot wholly succeed without the support of the state. The previous chapter discussed the numerous restrictions on building in a formalised context, showing that building for oneself is always coupled with risks.

In the Ruimsig case, residents are not in possession of the land on which they are building, and therefore the threat of eviction or demolition is all too real, albeit ignored in this situation. Another restriction applying to all housing forms is that of building regulations and plan approvals. Where this could be considered a necessary step in any government, it does overlook the realities faced by the poor section of the population.

While reblocking does echo many of the ideas of the UISP programme, it does not involve all four of the development phases. The Ruimsig reblocking received no guarantee of further development from the government. The City (CoJ) did improve the servicing of the settlement following the reblocking, but the settlement has not received sufficient infrastructure, either temporary or permanent, from the municipality. The provision of infrastructure, first temporary interventions allowing for initial improvements, followed by permanent provisions, make up the final two of the three initial UISP phases (Department of Human Settlements, 2009d: 43). Only once these have been implemented can the fourth phase be initiated, in which those qualifying for state subsidies can receive houses, or top structures, from the state. This could be viewed as a limitation of the programme itself, and the overarching housing policies in South Africa. Despite the provisions being made for *in situ* interventions, and slowly partnering with communities in development projects, the result is still expected to be consolidated housing to form a formal township.

Conclusion

Even though to date the Ruimsig settlement has not been fully reblocked, and not all households were able to receive upgraded shacks, the intervention does appear to have had a positive effect on the community. This chapter has used the case of the Ruimsig reblocking to show the impact co-produced *in situ* interventions can have on the livelihoods of residents. The Ruimsig case showed how an *in situ* intervention, by initiating the process of uplifting living standards, can encourage residents to continue this upward path by their own devices. This is not generally true for all such cases, and as shown it does not go without its inherent risks.

This case shows how policies and tools for upgrading informal settlements are lacking in certain areas, still focusing on rigid results. Opportunities for altered approaches can be found by considering the challenges and potentials in the Ruimsig intervention. In this case, the practice attempted to address the most pressing issues faced by the residents. However, various obstacles, including official structures, prohibited this intervention from being taken to completion. Discussion of the challenges of the process demonstrates that realising an inclusive intervention is never straightforward. Informal settlements, like any neighbourhood, are not homogenous in either population or desires. These differences led to some of the challenges, and can further be seen in the different ways households have gone about living in their upgraded settlement, from extensions of varying quality, to residents entirely rebuilding larger, 'permanent' brick houses for themselves. In this case, many residents believe themselves to have been empowered through the intervention, to continue advancing their own lives. This could, however, become problematic in the future due to the legal status of the continuous development taking place in the settlement.

The short-term reblocking project portrays benefits that could emerge from *in situ* interventions. Longer-term, and more thorough interventions of this nature could have a more significant impact on the quality of life of communities. Where an entire settlement is reblocked, incorporating the formal provisions as seen in the development of the planned Ruimsig layout, further formalisation could follow.

Figure 4.1 Empower Shack phase two under construction

Chapter 4
A design intervention in an informal settlement:
The Empower Shack

Introduction

The Empower Shack project presents a progression of the basic concept of reblocking, as discussed in the previous chapter, falling into the *in situ* intervention framework. However, in this case, the nature of intervention differs very much from that of the previous case study, showing a stronger design influence, and in furthering the incremental development approach to housing.

Incremental development of housing formed part of the RDP housing concept, where houses provided through the housing benefit were delivered as '**starter**'- or '**core**'-**houses**, intended for future upgrading by beneficiaries (Huchzermeyer, 2003: 596). The evolution of this concept was discussed in the introduction to this thesis. The Empower Shack presents a different variation on the incremental upgrading approach. The project provides an opportunity to analyse the effects of an *in situ* upgrade, building on the basic concept of reblocking shown in the Ruimsig case, incorporating a formal design in collaboration with the municipality (the City of Cape Town). In line with the concepts of *in situ* upgrading, this project was to some extent developed together with the community and aimed at incorporating structures to support livelihoods, as seen in the K206 project in Alexandra.

This chapter introduces Khayelitsha as the background onto which this new incremental upgrade is being developed. The chapter continues to describe this approach to low-cost housing provision, through considering the actors involved and their respective roles, and considering how the project responds to the issues faced by residents. The case study considers the limitations imposed on residents through policies and intervention practices. The chapter then considers the influence of these limitations, and the potentials created by the intervention, on the residents' livelihoods and the way in which they interact with their dwellings.

A brief look at Khayelitsha

Khayelitsha, Cape Town's largest township, is located in the Cape Flats, about 25km south-east of Cape Town. The township was established during the Apartheid era and is today a partially informal township, arguably the largest and fastest growing in the country. The name of the township, Khayelitsha, is Xhosa for 'new home', referring to the context of its establishment (South African History Online, 2018b).

Cape Town was late in implementing the segregated residential areas stipulated in the Group Areas Act[4] passed in 1950. The city only declared its first segregated 'Group Areas' in 1957. In its late implementation, Cape Town took segregation to a new level, becoming the most segregated city in South Africa by the mid-1980s (Saff, 1998: 85). The then prime minister, P.W. Botha, began negotiations with residents of Crossroads to upgrade their settlement or provide alternative accommodation to the overcrowded areas, promising black residents in urban areas fair treatment. This promise did not last. Initially, brick houses were built at the New Crossroads and rented to those able to pay. However, by 1983 the Minister of Cooperation and Development, Dr Piet Koornhof, announced that the 'legal' residents in existing townships or squatter settlements of the Cape Peninsula would be rehoused in a newly proposed 3220-hectare site between the N2 freeway and False Bay, Khayelitsha (South African History Online, 2018b).

The Khayelitsha township was established to house residents from informal settlements in the Cape Flats. The initial housing in the settlement formed a tented town. Khayelitsha was envisaged by the government as a relocation point in which all 'legal' residents from the Cape Peninsula would be accommodated, whether from informal settlements or existing townships. People were classified as legal when they had resided in the area for a decade or more. According to the initial plan, the settlement was to consist of four towns, each housing 30 000 residents in brick houses. The government wanted to move all 'illegals' to a 'homeland'[5] in the Transkei, in the Eastern Cape Province, resulting in many fights in the townships, and many people being forcibly moved to Khayelitsha. The township proliferated after its establishment (South African History Online, 2018b).

4.Group Areas Act (1950) refers to three acts of Parliament, under the apartheid government, that assigned racial groups in South Africa to different areas, excluding non-Whites from areas restricted for Whites

5. homeland, also referred to as 'Bantustan' or 'Black homeland'. These were territories set aside by the Apartheid government for the black residents of South Africa, aiming to concentrate members of different ethnic groups (South African History Online, 2018c).

Figure 4.2 Locating Khayelitsha, Site C in relation to Cape Town

Figure 4.3 BT Section in Site C Khayelitsha

Figure 4.4 BT Section 2007

Figure 4.5 Empower Shack phase two in BT Section 2018

When the 'Colour Labour Preference Policy'[6] was dropped in 1984, and the government conceded that Khayelitsha residents could apply for 99-year leaseholds, around 100 000 'illegals' were repatriated to their Eastern Cape homelands. Sites B and C in Khayelitsha were developed with **site-and-service plots**, as well as the development of 'core houses' on 150m^2 plots. The core houses were small brick structures, provided with the idea that they could be further extended into larger houses. Site B was developed with 99-year lease houses as well. When influx controls were revoked in the 1990s, migrants from the Eastern Cape province arrived in search of work. By the mid-1990s, Khayelitsha's population had grown to over half a million people (South African History Online, 2018b). The ordered, 'formal' township was not built for such large numbers, and many new migrants used tin, wood and cardboard to erect their shacks.

The overcrowded conditions in current-day Khayelitsha are a cause of great concern. The Empower Shack project, originally conceived as a reblocking project, aimed to address these conditions in a small community within Khayelitsha. The BT section in Khayelitsha was selected for the Empower Shack project for three reasons. Firstly, as a result of the commitment of community leader, Phumezo Tsibanto, to the idea of a double storey shack upgrade, after seeing what could be done in participating in a previous project of iKhayalami. Secondly, Phumezo is the leader of a social network, and thus upgrading his settlement would reach beyond that single community. Thirdly, the BT section is relatively small, therefore a realistic choice when obtaining funding for and implementing a new approach (personal communication, iKhayalami, 5 April 2018).

An incremental *in situ* approach

The Empower Shack was initially conceived as a double storey shack upgrade. The project stemmed from a collaboration between iKhayalami and ETH Urban-Think Tank (U-TT), two organisations advocating their 'out-of-the-box-thinking', collaborating to strengthen their work (personal communication, iKhayalami, 5 April 2018). They developed a project aiming to employ innovative design and organisational models to develop a sustainable and comprehensive upgrading strategy. This strategy focused on

---

6. The Colour Labour Preference Policy refers to policies by which people classified as 'coloured', referring to those not falling into either the 'white' or 'black' racial groups, received less privileges than 'whites' but remained better off than 'Africans'. The government implemented these policies to ensure that the 'coloured' people remain in this buffer (South African History Archive, 2018).

Figure 4.6 BT Section prior to the initiation of the Empower Shack project
with reblocking strategy

Figure 4.7 Empower Shack phase two plan

developing a double storey prototype dwelling, integrating programming for livelihoods in the urban structure, implementing participatory spatial planning and incorporating ecological landscape management (U-TT, 2017). Previously, iKhayalami's rudimentary reblocking had involved the reconfiguration of a settlement layout together with a very rudimentary shack upgrade, as seen in the Ruimsig reblocking. The NGO felt that they should venture into more formalised approaches, incorporating a formal footprint in the reconfiguration of a settlement. The initial intent of the project was to follow this route and to develop a double storey shack upgrade as a prototype. The brief stipulated a shelter that should be quick to erect; the structure had to be flood and fire resistant and raised from the ground to accommodate wetland areas. The upgrading framework was set up drawing on the findings of on-site research and workshops, where the development opportunities of updating single storey living units into double-storey units were found (personal communication, iKhayalami, 5 April 2018).

The Empower Shack project aimed to consider the design of the house itself as well as the development of the infrastructural and community aspects of the settlement. The project looked for a simple solution, focusing on affordability, where housing is to become a building block in the larger organisation of settlement infrastructure, creating a foundation for the community to build their livelihoods and improve their living standards (Brooks, 2014). The initial brief included considering a permanent footprint in laying out the settlement, allowing residents the possibility of morphing the typology into a permanent one at a later stage (personal communication, iKhayalami, 5 April 2018). The master plan uses the reblocking principle in reconfiguring the informally developed neighbourhood to improve circulation, incorporate public space, and allow the opportunity for individual homes to be incrementally adapted and expanded as households may require it (designboom, 2018). The project is densifying the settlement's built area with the view to improve infrastructural efficiency. The design provides new financing opportunities through the possibility of rental space or sales (Brillembourg, Klumpner & Kalagas, 2017).

The Empower Shack project was developed through a design-and-build workshop held by U-TT in Cape Town, working with ETH students and iKhayalami. The first prototype, built in 2013, transformed a single storey shack to a double storey wood frame structure with a watertight metal-clad exterior and an independent electricity supply. This economical construction system would allow residents to construct homes themselves with the

required adaptations for each household. The second iteration of this initial prototype, combined brick and corrugated iron (Sebambo, 2016). This prototype was adapted for the second rendition of the project, combining brick with the corrugated iron into the construction, creating a housing unit even more adaptable to the needs of individual users, even allowing for the possibility of extending up to three storeys.

The first prototype was built at the end of 2013 and remained on site until June 2017, when it came down in preparation for the 'main' project. Implementation of the project began in 2015, with the first four units built by iKhayalami in BT South. Construction of the second phase began mid-2017, and the 16 units were being completed in early April 2018 for residents to move in (personal communication, iKhayalami, 5 April 2018).

Developing the Empower Shack: actors and influences

The Empower Shack project evolved quite significantly from its original concept to its current form, a much more formally designed project. The initial concept, based on iKhayalami's reblocking process and rudimentary shack upgrades, went through a number of iterations from the first prototype built in 2014 up to the construction of the first phase in the BT South in 2015. The first prototype remained on site until June 2017, when it came down in preparation for the 'main' project. Implementation of the project began in 2015, with the first four units built by iKhayalami in BT South. The design underwent a few more changes before the construction of the second phase commenced in mid-2017. The influences driving these design changes came from the different actors involved in the project. These influences included iKhayalami's experience in designing and building shack upgrades, the input of the community on what they did and did not want, U-TT's concepts and design ideas, and importantly, the constraints and recommendations set by the government (personal communication, iKhayalami, 5 April 2018).

U-TT's interest in understanding the effects of economic inequality on spatial configurations (Brillembourg, Klumpner & Kalagas, 2017: 129) brought them to Cape Town in 2012, to research the local informal settlements and the issues relating to low-cost housing provision in South Africa. Partnering with iKhayalami, they organised a collaborative research project with a design-and-build workshop in Khayelitsha (personal communication, iKhayalami, 5 April 2018; iKhayalami, 2018e). The workshop culminated in the Empower Shack project, aiming to define an alternative approach to the upgrading of informal settlements (personal communication, iKhayalami, 5 April 2018).

Figure 4.8 Phumezo's house, the first prototype of the Empower Shack built in 2013

Figure 4.9 Empower Shack, BT South, built in 2015

Figure 4.10 Empower Shack Phase two, BT North, completed in 2018

U-TT, together with their research team, acted as the lead designers on this project, aiming to develop and implement innovative measures to incrementally, yet rapidly, improve the living conditions of the urban poor (Frearson, 2014). Brillembourg stated U-TT's interest in "...bridging a hybrid between formal and informal housing" (Sebambo, 2016). U-TT's aims with the project are to provide design and technological innovations for low-cost housing, as well as to address the economic, social and political structures shaping people's lives, through providing infrastructure and configuring the urban space within which the houses are located (U-TT, 2017). After their initial visit to Cape Town, U-TT identified iKhayalami's approach of reblocking informal settlements and shack upgrades to work with in developing an intervention. The collaboration between iKhayalami and U-TT began with the design-and-build workshop, held in Cape Town with ETH Zurich students, culminating in the construction of the first prototype of the Empower Shack (personal communication. iKhayalami, 5 April 2018).

iKhayalami's involvement in the local townships contributed in moving the project from the initial prototype to its further development and implementation in a settlement of 72 households in the BT section of Khayelitsha (iKhayalami, 2018e). After the construction of the first prototype, U-TT and iKhayalami continued collaborating to further the design to be implemented on a larger scale. According to iKhayalami's vision they "don't do things in isolation", choosing the more holistic approach of looking at an entire settlement or area over working on individual prototypes. Their aim had always been to implement a double storey shack upgrade at settlement level (personal communication, iKhayalami, 5 April 2018).

It was upon a recommendation from the City of Cape Town that the nature of the project changed from a double storey shack upgrade to a formal project consisting of row houses. The city (strongly) suggested the use of concrete block walls as fire breaks (personal communication, iKhayalami, 5 April 2018). The city wanted to try a new typology, one that could lend itself to the development of proposed future typologies and methodologies. They approached iKhayalami with their idea of taking a formal structure and working with it in increments, wanting to provide people with a superstructure that they could incrementally upgrade as they become able to do so. This structure consists of a slab or foundation footing, and parting walls on two sides. The facades of the houses, the front and back walls, would be of a 'temporary' nature (corrugated zinc sheeting walls), which could then be filled with a 'permanent' material (a conventional brick wall) by each

household. The City (CoCT) aimed to see how well this idea could work, whether the provision of a partial formal structure would encourage people to live formally instead of going back to their old shacks (personal communication, CoCT official, 15 May 2018).

A Memorandum of Understanding (MoU) between the City of Cape Town and iKhayalami set the requirements and parameters for the formal upgrading envisioned by the City (personal communication, CoCT official, 15 May 2018). After signing a MoU, the City of Cape Town became responsible for all aspects of the layout of the project prototype and the approval of the new settlement. The City did the earthworks and the underground infrastructure for the project, namely water, stormwater, sewage as well as the sanitary installations in the top-structures45 themselves (personal communication, CoCT official, May 2018). Based on the re-blocking policy, they agreed to supply each dwelling with its own water and sanitation connection (iKhayalami, 2018d). The city funded the installation of infrastructure in the settlement (personal communication, CoCT, 15 May 2018).

According to the MoU, iKhayalami became responsible for facilitating the upgrade and implementation of the Empower Shack project and handling community engagements (iKhayalami, 2018d), functioning as the intermediary between the designers, the state and the community. The NGO always protected the interests of the community, looking out for their interests on every level, from the design to social issues, socio-technical aspects and financial matters. They were involved in developing a financial model for the project, together with U-TT, where residents financially contribute a certain percentage towards their new dwellings (personal communication, iKhayalami, 5 April 2018).

ETH and iKhayalami acted as partners, going through all the aspects of the design together. The micro-financing was also done together by these two actors (personal communication, iKhayalami, 5 April 2018). The top structures were built through a tender process to guarantee active community participation. The financing scheme requires each household to contribute a percentage of the cost of their dwelling to iKhayalami (personal communication, City of Cape Town, 15 May 2018; iKhayalami, 2018c).

The community leader, Phumezo, became the representative of his settlement. Having shown interest in a double storey shack upgrade, for himself and his community, a few years before, he was chosen as the candidate to receive the prototype dwelling which emerged from the design-and-build workshop. The construction of the prototype became the starting point of the community's involvement and participation, awakening

interest in the project among residents. The community was involved in informing the design through the workshops. These workshops considered the spatial reconfiguration of the settlement, as well as the unit sizes. It became clear that the residents prefer single houses rather than apartments, having the two floors as a single dwelling. They rejected the proposal of U-TT's economist to have apartment units on different floors, and ultimately each double storey unit became a single dwelling (personal communication, iKhayalami, 5 April 2018).

The project has been dragging on much longer than initially foreseen. Over time the initial interest and participation shown by the community began to dwindle. After a drawn-out collaboration, and numerous design developments and iterations of the first prototype, the community finally said: "Don't bring us around a table again". They were tired of being consulted, and of the process in general. Therefore, the current layout became mostly the work of U-TT and iKhayalami. After collaborating with iKhayalami on the design, ETH handled the nuts and bolts of the project. A local architectural firm, Design Space Africa, was employed to draw up the plans for municipal submission (personal communication, iKhayalami, 5 April 2018).

Hurdles in the development

The Empower Shack project faced a number of challenges along the course of its development and implementation. Most notably were the challenges stemming from changing the nature of the project, from double storey shacks of wood and zinc, to the 'formalised' structures. In following a reblocking route as used before, the process could have been significantly shorter, by sidestepping the need for statutory approval. iKhayalami embarked on their reblocking approach in order to provide an immediate solution to assist people, aiming to provide something quick and easy, which would provide people with access to basic services without going through bureaucratic loopholes and regulations. In this project, they stepped from the intermediary realm of the shack and into the formal, where all the hurdles of zoning and regulations had to be overcome (personal communication, iKhayalami, 5 April 2018).

One of the regulations was the rezoning of the land. In an informal project, this would not have been necessary, however with the introduction of formal structures, the land on which the settlement is located had to be rezoned accordingly (personal communication, CoCT official, 15 May 2018). The area was initially zoned for 'Parks and Community',

for the development of social functions such as churches, and had to be rezoned for 'housing' (personal communication, iKhayalami, 5 April 2018). The formal project required extensive plans to be drawn up to municipal standards for approval (personal communication, CoCT official, 15 May 2018), a step which significantly lengthened the process. In an informal reblocking minimal plans are needed (personal communication, iKhayalami, 5 April 2018).

In moving away from a reblocking project in its true nature, the costs of the development increased astronomically. Where iKhayalami and U-TT had been able to obtain funding for shack upgrades, they could not do so for the entirety of the project in its current state. Initially, the government was to provide infrastructure while the NGO would provide the top structure. SwissRe funded around 32 dwellings, providing for the first two of the four project phases. If the project is to be replicable in any way, the government subsidy quantum would have to be drawn in (personal communication, iKhayalami, 5 April 2018).

In a project where multiple stakeholders are contributing to the design and development, disagreements are inevitable. These disagreements complicated the process of developing the Empower Shack, but also added to its richness. In working on their first formal project, where designers had a prominent role, and the NGO did not act as the primary driver of the project as they had done in previous projects. Conflicts arose about design decisions and the role of the community. In building the four units in BT South, iKhayalami employed 25 community members to do the construction work together with six members from the iKhayalami staff. Leading up to the construction of the main phase of BT, a disagreement between iKhayalami and U-TT ended with the appointment of a contractor to the project, rather than having the NGO work with the community to construct the dwellings. After quality problems in BT South, the argument was for speed and better quality. However, the construction of the 16 units ended up taking ten months, and only six community members were employed (personal communication, iKhayalami, 5 April 2018).

Legislation and limitations on future incremental upgrading

In entering the realm of formal housing, the project had to fulfil additional legal prescriptions (personal communication, City of Cape Town, 15 May 2018), dragging the upgrading process on a number of years more than anticipated (personal communication,

Figure 4.11 Empower Shack unit variations

Rental/ commercial space
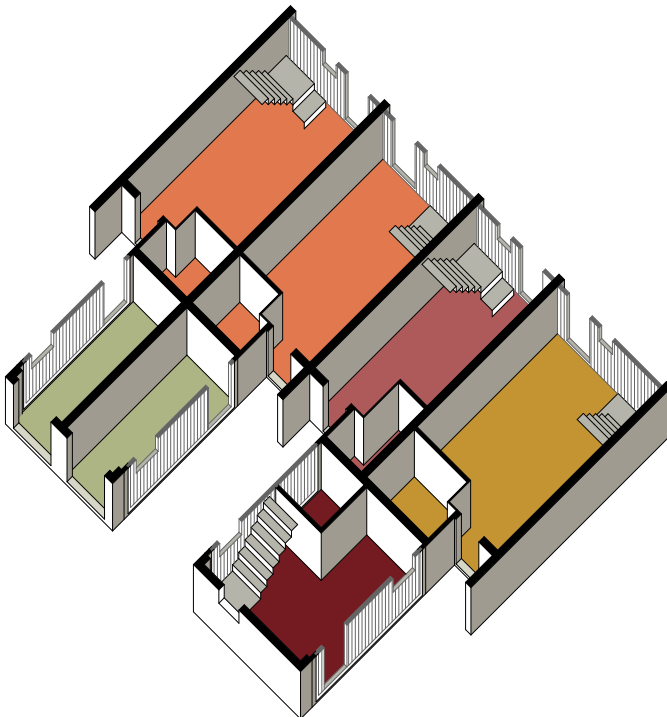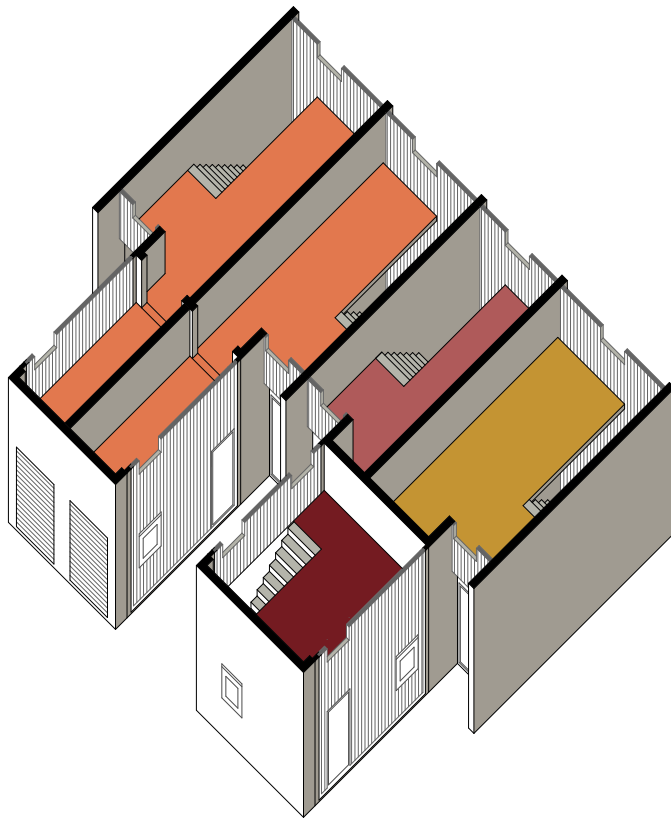
Unit variations

Rental/ commercial space
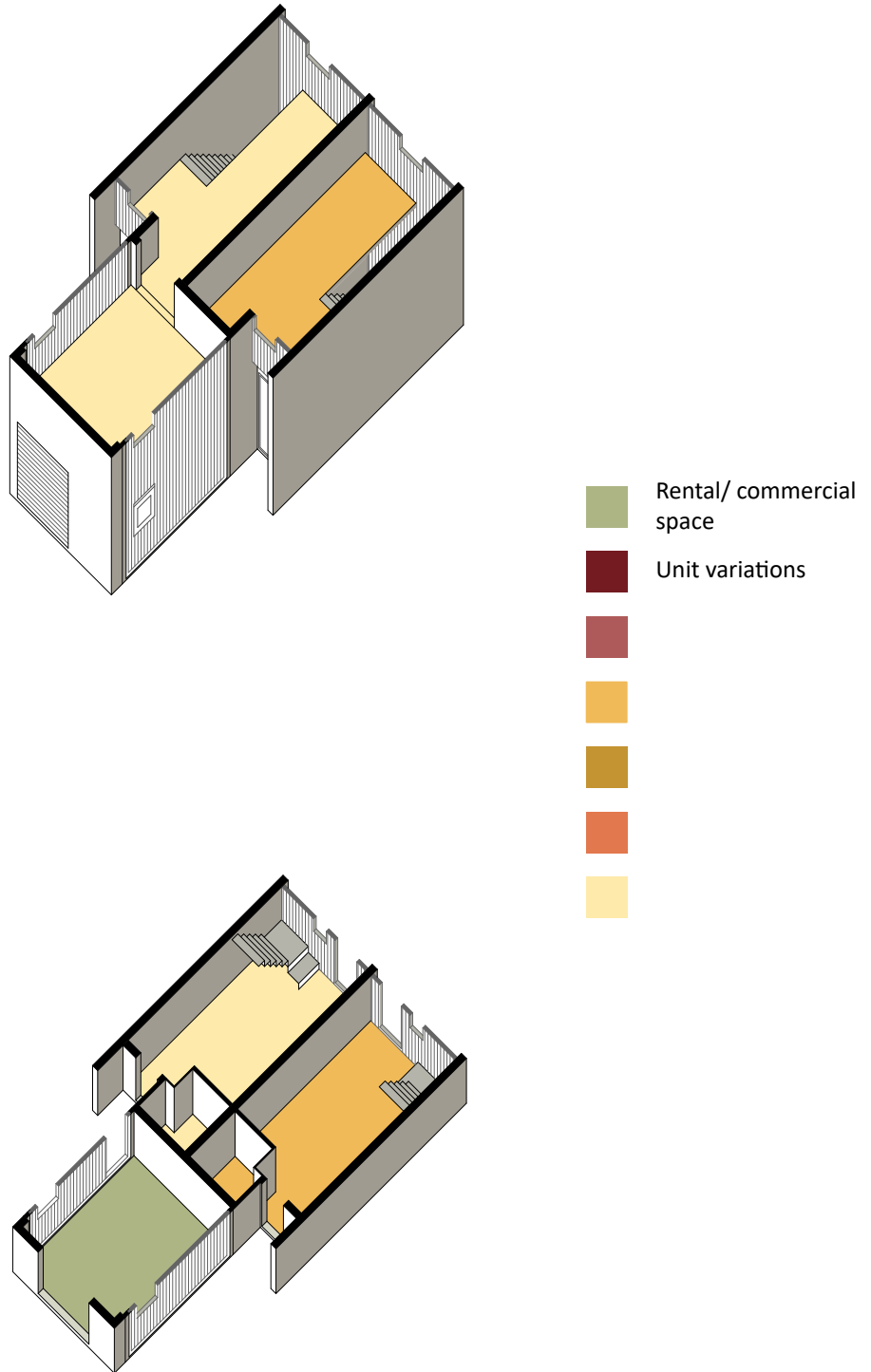
Unit variations

Figure 4.12 Empower Shack unit variations

iKhayalami, 5 April 2018). However, the design alterations causing these delays add to the incremental nature of the project, as well as adding further upgrading or subdividing possibilities for residents (iKhayalami, 2018e).

Meeting the municipality's requirements added significantly to the project timeline (personal communication, iKhayalami, 5 April 2018). The impact of these requirements extends beyond the initial project development and construction. As in the first case study, formal projects are constricted by building regulations and the conditions on the initially approved plans, which also apply to all future alterations and extensions (personal communication, CoCT official, 15 May 2018). These restrictions include the materials that could be used, and the National Housing Code requires construction to be undertaken by a registered homebuilder (Deparment of Human Settlements, 2009b).

Extensions to dwellings require going through the proper channels of submitting plans for approval (personal communication, CoCT official, 15 May 2018). These restrictions were discussed in the first case study and equally apply here. In the Alexandra case, it was seen that these restrictions do not hinder people from adding their own unapproved extensions to their homes or building additional structures on their stands, for either residential or commercial purposes. 'Self-construction' outside the legislative requirements is at risk of being torn down. However, the fact that it continually occurs shows that people need more than is provided for, or permitted by the state. In the Empower Shack, space has been provided for commercial activities or rental. In this case, the space provided is limited, and not all residents have access to these spaces. According to iKhayalami, unit sizes were selected by community members and approved by the BT leadership according to what each household could afford and their ability to meet commitments (iKhayalami, 2018c).

The National Housing Code, as well as the Home Builder's Manual, stipulate strict regulations regarding the materials to be used in constructing a house (Department of Human Settlements, 2009b: Part B; NHBRC, 2018). These regulations apply to the construction of all houses and are a prerequisite stipulated in the National Housing Code for a housing subsidy (Department of Human Settlements, 2009b). The Empower Shack is made up of a concrete block shell, with the back and front façades as fill in walls of corrugated iron, intended for future upgrading to a permanent material (such as bricks) to comply with the building code. The structure in its original built state meets the requirements of a 'fit for purpose certificate'. Residents qualifying for a subsidy could

use the capital to upgrade their dwellings to comply with the building code (personal communication, CoCT official, 15 May 2018; Brillembourg, Klumpner & Kalagas, 2017).

The city (CoCT) does not have any specific requirements for extending tenure, other than meeting the requirements of Housing Code to qualify for subsidies. The project is not funded by the state, but by an organisation working through U-TT and iKhayalami, and residents are responsible for contributing a percentage towards the cost of their home. Once these contributions have been paid in full through monthly stipends, the city could consider a type of tenure for the residents (personal communication, CoCT, 15 May 2018). U-TT stated their support for tenure in the form of sectional title deeds, holding the land on a long-term lease from the state (personal communication, U-TT, 22 June 2018). In accordance with the conditions outlined in the National Housing Code, subsidy qualifiers would be entitled to receive their house, upgraded to comply with the building code, through the subsidy mechanism. Households that do not qualify for the subsidy could receive tenure in the form of a 'right-to-stay' certificate, or possibly be given the option of buying the sectional title deed subsidy qualifiers receive from the State (personal communication, CoCT, 15 May 2018).

Living in an Empower Shack

The design and typology of the Empower Shack present certain spatial and physical limitations which influence the incremental upgrading possibilities of the dwellings, touching the lives of households and impacting possible future alterations and extensions, affecting their livelihoods. The previous case studies both pointed out a few physical aspects affecting residents, the first case more so than the second in that it dealt with a formally designed project. The Empower Shack shares a number of these restrictions and introduces additional restrictions through the unique design.

Certain dwellings of the Empower Shack have some uncomfortable, oddly sized rooms. Accommodating three dwellings on an **ERF** resulted in some rooms, and the 'commercial space' beneath it being only two meters wide. The limiting size came about as a result of fitting the row house typology onto small plots which would still allow for future subdivision (personal communication, iKhayalami, 5 April 2018).

In the chosen row house typology, two to three houses are built on each stand (personal communication, iKhayalami, 5 April 2018) of 90m². The policy regulations determining plot sizes, and the number of dwellings to be allocated to each, were stipulated by the

city (iKhayalami, 2018c). Developed in tandem with the city, the layout does lend itself to future subdivision. Residents will have tiny plots, and the rowhouse typology means that very little space remains unused on each stand (personal communication, CoCT official, 15 May 2018). With the varying unit sizes, subdivided plots will also vary in size.

As mentioned before, a number of differently sized units were designed according to the sizes of households and what they had before the upgrade (personal communication, CoCT official, 15 May 2018). The varying sizes accommodate what each household can afford, considering their required contribution to their dwelling (iKhayalami, 2018c). The approach applied in the Empower Shack project could be seen as an improvement on the savings scheme in Ruimsig where all households had to contribute the same fixed amount. The Empower Shack financing financially accommodates all households, and in creating differently sized units allows all residents of the informal settlement to maintain their place in the upgraded settlement. The small and varied sized plots which will come out of the future subdivisions will leave residents, some more than others, with small pieces of land, thus limiting their possibilities of extensions.

The row house layout of the settlement does not allow significant space for extensions or the addition of 'backyard shacks'47. According to a city official "...it is very difficult for people to build things that they are not allowed to. I think the space is very limited". With the row houses, structures fill the stands, stretching from ERF boundary to ERF boundary, leaving perhaps a little space for an extension to the back of the dwelling. Essentially each stand is made for a single unit, with structures promoting vertical living (personal communication, CoCT official, 15 May 2018). While the construction of 'backyard shacks' is not legally permitted, and the inability to build these could be considered positive by the state, these additional dwellings often provide a vital source of income to households. The effects of this new typology on the livelihoods of residents remain to be seen.

Conclusion

It is important to mention the principal limitation in this case study. Since it is a new project, with only the first of its four phases in existence, and one only having been completed by early 2018, at the time of research for this thesis, it does not allow for in-depth evaluation or reflection on how residents lives are affected by living there over time. The second phase is under construction at the time of writing. Residents in the previous case studies have in both cases been living in their RDP homes or upgraded

shacks for a few years, and the influence on their lives and the adaptions they have made are visible. However, considering the design intents and the outcomes seen in the first phase, along with the known legal restrictions and the identified physical restrictions, provides a valuable portrayal of an alternative approach to low-cost housing provision.

This chapter used the Empower Shack project to demonstrate how an *in situ* intervention approach, such as that in the Ruimsig case, can be taken to a new level. The design produced an inclusionary typology, providing different dwelling sizes to accommodate households of different financial levels. In both the provision of various dwelling sizes, as well as the spaces provided for commercial activities, something generally restricted on housing stands, the design aimed to respond to the needs of the residents. However, in this case, not all residents have access to additional spaces. The development of differently sized units, which will in future be on correspondingly sized plots, responds to the existing conditions of the site, as well as the circumstances of different households. While the design of the project aims to provide spaces responding to residents' needs, the typology leaves minimal space for future extensions, which could impact future livelihood opportunities.

This case is not without its restrictions to the lives and livelihoods of residents. In a way, this case presents aspects of both previous case studies and presents certain possibilities and potentials that could be built upon.

Chapter 5
Three approaches to housing: Comparing the cases

Introduction

The case studies presented in the previous chapters presented and analysed the findings from some of the different approaches to low-cost housing in South Africa, considering settlements in Alexandra, Ruimsig and the Empower Shack project in Khayelitsha. This chapter builds on the findings of the case studies, identifying some of the realities and primary challenges faced by residents of informal settlements. In discussing issues across the three case studies, the chapter links issues found in the analysis with relevant positions in literature and the framework of evaluation in this thesis. This analysis allows an exploration of what the possibilities and limitations in the current approaches to low-cost housing provision are.

While these case studies are not representative of the full spectrum of informal settlements in the country, or either of the cities, they do portray certain realities of living in informal settlements. A study of these realities, and how they are handled in current housing approaches allows an exploration of the limitations as well as the potentials within these approaches. The analysis and comparison of these studies do not offer straightforward answers as to a single perfect approach, rather showing that the different solutions each contain aspects lending themselves to some form of better-worse comparison. However, these cases present a chance to contrast the situations and outcomes of the three respective approaches, presenting an opportunity to point out the limitations as well as the potentials of the different approaches used in the cases considered in this thesis. This chapter establishes some of the factors that restrict the livelihoods of the poor, and those that provide potentials for future development. This analysis allows for the suggestion of changes to be made in practice and policy to better respond to the issues faced by residents of informal settlements, in the development of sustainable, inclusive housing. These suggestions will be presented in the next chapter.

In situ interventions vs relocation

The nature of an informal settlement intervention, whether it is an *in situ* intervention or one relocating residents to a new development, has implications on the resultant expression housing and its effects on the lives of residents. These different approaches further impact the sustainability and inclusivity of the development and outcome, each with its consequent effects on those living there. The case studies considered in the previous three chapters allows for a comparison between the different approaches. The studies included one relocation project and two *in situ* interventions, each approach portraying different outcomes, showing the differences between *in situ* and relocation, as well as the variations within *in situ* approaches.

The three approaches of the case studies are shown alongside one another in table 1, showing how the nature of the development, the parties contributing to the development and the approaches taken all contribute to the diverse outcomes of housing developments found in informal settlements. This comparison shows that despite the various translations of housing provision, each with its possibilities and limitations, certain factors are present in all, demonstrating some of the intrinsic realities faced by the urban poor.

Residents of Ruimsig have commented that they prefer reblocking to RDP projects, which involve relocation, stating that this is not a solution. Reblocking allowed them to remain in the area to which they have become attached. The residents have become used to the environment and everything within it, stating that once a person is taken to a new location, there is interference with the status quo. The process involves a certain emotional impact, while a certain understanding is maintained when people are left in their environment (Adegun, 2016: 202).

The case study of the RDP housing in Alexandra, on the other hand, gave some insight into the way that households live and interact with their subsidy houses. It has been found that beneficiaries have complex interactions with their state-provided housing, and despite the limitations and flaws presented by these houses and the developments in which they are provided, beneficiaries have a certain attachment to their houses. Charlton (2013) also discussed the state's limited insight into the intricacies in the way in which people live in RDP townships, and thus they hold contradictory opinions on the unexpected outcomes of the programme.

	Alexandra RDP-housing	**Ruimsig Reblocking** NGO-led, co-produced intervention	**Empower Shack** Designed project, participation between Designer, NGO and State
Project nature	Relocation to new development	*in situ* intervention	*in situ* intervention
Nature and quality of intervention	Top-structures on individual plots. Criticism of structure quality	New layout with re-sized plots (100-150m2). No permanent structures, ne 'better quality' shacks	Variation of a top-structure, designed for incremental improvements to comply to building code
How do implementation practices respond to residents needs?			
Inclusivity	Housing provision limited to subsidy-qualifiers. Ext.9 combines subsidy units with state-provided rental rooms - inclusive aims, yet remains under state control.	The diversity of the settlement was maintained - All Ruimsig residents were included in the intervention, including rural migrants and non-South African citizens.	the *in situ* project and densifying urban concept allows all residents of the original settlement to stay. Varyingly sized dwellings to facilitate different household needs and means.
Participation	Top-down, state-led intervention. Minimal participation and input from the beneficiaries during the development process.	Co-production meant that residents were actively participating in making decisions, planning and implementing the project - the arrangement was dominated by SDI-affiliated NGOs.	Resident participation was facilitated by the NGO, primarily working through the community leader. Community participation varied with different phases of the project.
Empowerment in implementation	The ARP allows commercial activities on stands, unlike many RDP housing developments	sustained links to existing livelihood sources and social networks, in-and-outside the settlement. Residents acquired new skills through their involvement in the planning and implementation of the reblocking and construction of new shacks.	provides spaces for commercial or rental purposes. The *in-situ* intervention allowed the continuation of links to existing livelihood sources and social networks, in-and-outside the settlement. The project also strengthened some community networks.

Table 5.1

Limitations on usage and livelihoods			
Spatial justice	All beneficiaries receive standard, equally sized houses on equally sized stands. Residents have equal opportunities, irrespective of their previous situation	Resized stands - all residents provided with equal space, taking away from some residents to provide for others, attempting to create a fair situation as agreed upon by most residents.	Different sized dwellings to accommodate the financial means of different households. Plot sizes and opportunities will differ
Disruption	Relocation disrupted the social networks existing in the informal settlements. Over time new networks have formed in the RDP developments - layout of K206 promotes	Social networks in the settlement were retained - the existing sense of community was advanced	Social networks in the settlement continue into new development
Spatial opportunities	Equal opportunities - each beneficiary household received a standard subsidy house on an individual plot	With the resized stands some residents now have more space while other lost space	Row-house typology with three houses on a stand leaves little space for future extensions or development on stands. Sub-division will leave residents with tiny plots.
Nature and usage of backyard units	Formal and informal High density of units. Mixture of residential and commercial usages.	Formal and informal. Varying densities. Predominantly residential, scattered sommercial units	New development - limited spatial opportunities for backyard units.
Commercial opportunities	Land use regulations allow for commercial activities. Informal nature of business and premises remains frowned upon.	Scattered small enterprises run from residents plots in 'informally' constructed units.	The project provided spaces for commercial or rental purposes.
Role of rental	Ext. 7 - abundant backyard units, for rental or families Ext. 9 - state provided rental units provided adjacent to each subsidised unit, as well as a large number of additional backyard units.	Backyard units of varying construction quality used as room for rental.	Spaces provided for rental and commercial purposes. Limited space for the construction of additional backyard units.

Table 5.2

Table 2 shows that, compared to the RDP case, the Ruimsig intervention fulfils more of the principles of human and social quality, confirming the speculation that the *in situ* approach, adopted by the UISP, offers a more just approach compared to subsidised housing requiring relocation. The same is true for the Empower Shack project, where the project allows all current residents to continue living in the upgraded settlement. With the added dimension of a more formal design, the community was not as involved in this case as the Ruimsig community was in their reblocking. In this aspect, the project lies closer to the delivery methods of state subsidised housing. The bureaucratic nature and the scale of housing developments provided by the state do not allow much scope for participation or interaction between the parties developing and the beneficiaries.

Limitations on incremental upgrading

The overarching approach to low-cost housing in South Africa is the once-off capital subsidy to deliver core- or starter- houses to beneficiaries. The idea, therefore, is that these units will subsequently be incrementally upgraded by the owners as they become able to do so (Huchzermeyer, 2003: 596). The housing benefit providing these top-structures was discussed in more detail in chapter one. It was further shown, and reaffirmed through the analysis in the case studies, that to provide residents with any form of tenure security, an intervention in an informal settlement (such as through the UISP) should culminate in the provision of housing top-structures (Department of Human settlements, 2009d: 44).

The case studies in this thesis have shown how all the interventions incorporate some form of incremental development. In the case of RDP housing, it is the expectation that beneficiaries would gradually upgrade their subsidy house, to government expectations and requirements. The case of Alexandra showed that this expected and acceptable upgrading rarely occurs, and residents adapt their dwellings outside of the expectations and legal requirements. The Ruimsig intervention provided an example of a non-governmental intervention acknowledging some of the formal layout expectations as found in formal township developments, with the idea that the settlement could in future be formalised and residents' houses further upgraded to meet formal standards. The case showed that without the support of the state this formalisation and further development would not take place, and consequently, residents are indefinitely left in a temporary situation, with any 'self-help' development taking place outside of legal requirements.

The Empower Shack project can be said to incorporate the *in situ* reblocking ideas and the top-structure concept of RDP housing. This case shows dwellings constructed to meet minimum requirements to receive a right-of-stay, with the idea that residents can in future, through either a capital subsidy or their own means, upgrade the dwelling and materials to comply with the building code.

Incremental development forms part of all these approaches, forming an integral part of low-cost housing in South Africa. However, the process of reaching the desired standards and appearance of the structure and use is filled with many hurdles. Residents are restricted by these requirements, thus resorting to other methods of realising their needs relating to the expansion and upgrading of their dwellings and further development on their plots.

A focus on formalisation and standardisation policies

The Alexandra case study shows the state's expectations regarding the outcomes and usage of RDP housing, and places it alongside the realities. Charlton (2003:42-3) discusses how this preoccupation, together with literature showing how 'bakyarding' undermines the intentions of the state and similar issues with development outcomes reflected in international literature, influences what the state focuses on in evaluating improvement interventions. The areas of focus pointed out are: practices of informality and the order and aesthetics of informality, whether the targets of 'improvement' behave appropriately (a desire for control of actions), and the extension of social and political control.

These points are reflected in the expectations and limitations discussed earlier. Informal settlement interventions should culminate in the establishment of a formal township with subsidised dwellings. The fixation on this aim limits the potential for smaller or alternative interventions, which could otherwise be used as a starting block for further development by the residents themselves, or with the help of state tools or structures to facilitate such development. The potential of such interventions will be further discussed in the suggestions made in chapter six.

The different approaches considered in this thesis each demonstrate how different concepts of the planning and layout of the settlement, and the design of the dwelling units, have to conform to these formal expectations to provide residents with a secure living situation. A clear difference can be seen between the two cases developed with the state, and the reblocking of Ruimsig done by NGOs, which despite adhering to certain
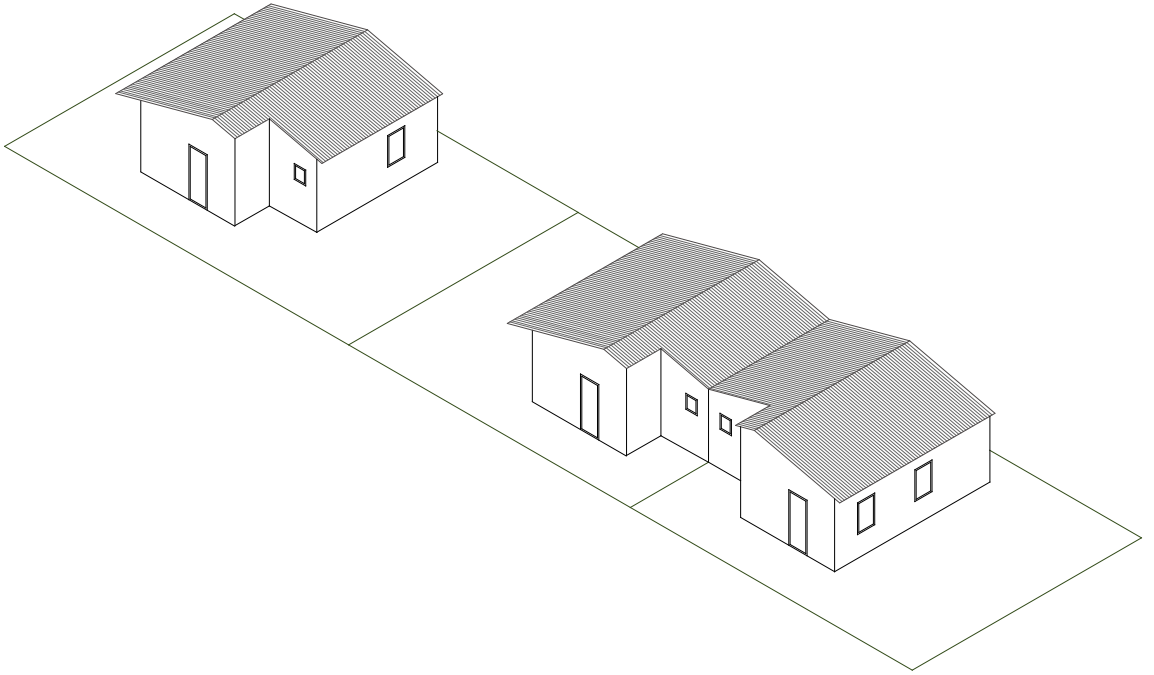
Figure 5.3 Alexandra Ext. 7 Formal developed expectations
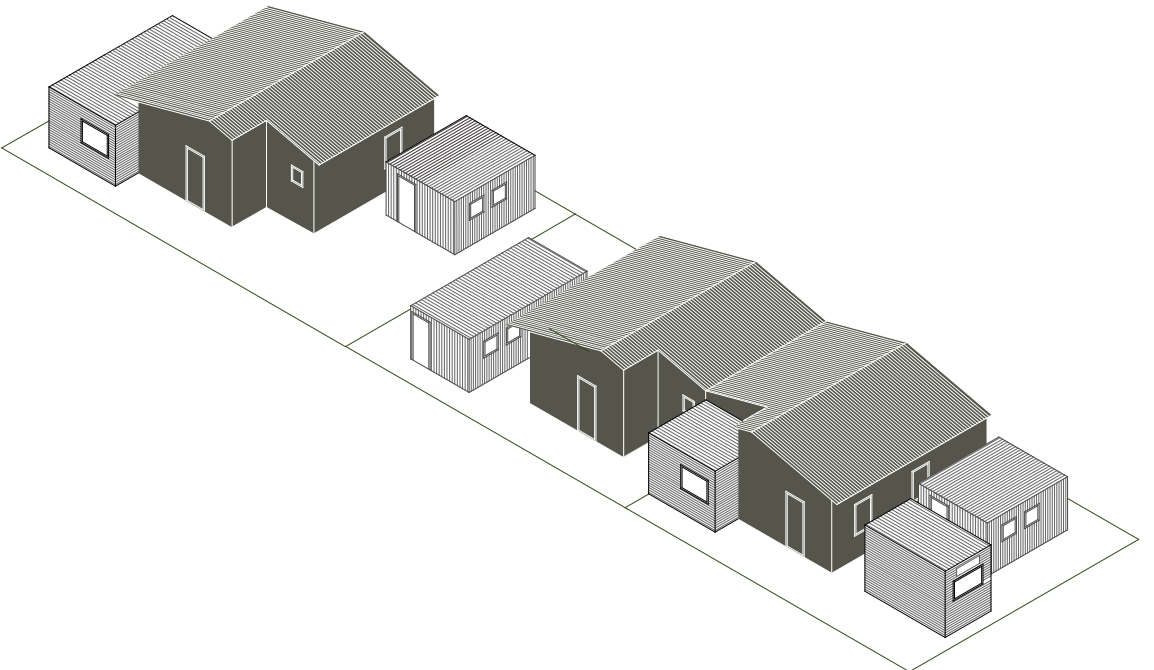
Figure 5.4 Alexandra Ext. 7 User reality
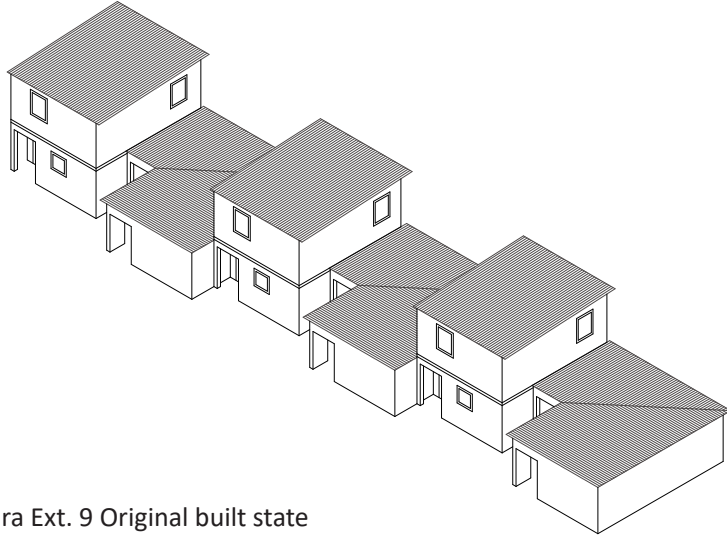
Figure 5.5 Alexandra Ext. 9 Original built state
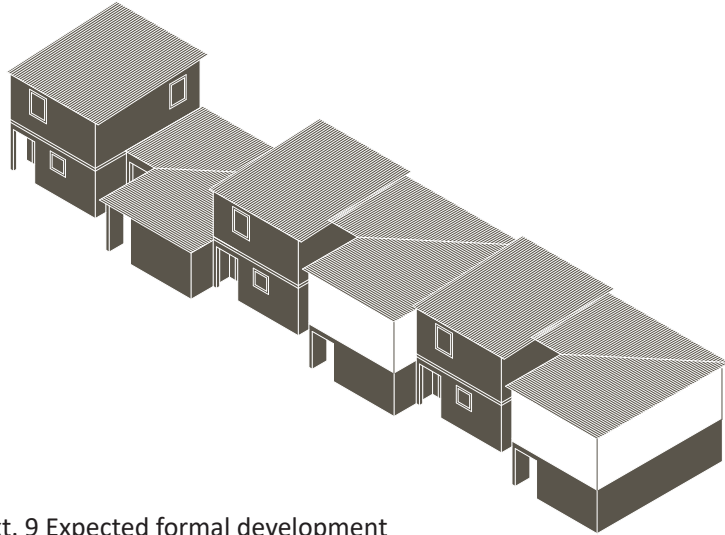
Figure 5.6 Alexandra Ext. 9 Expected formal development
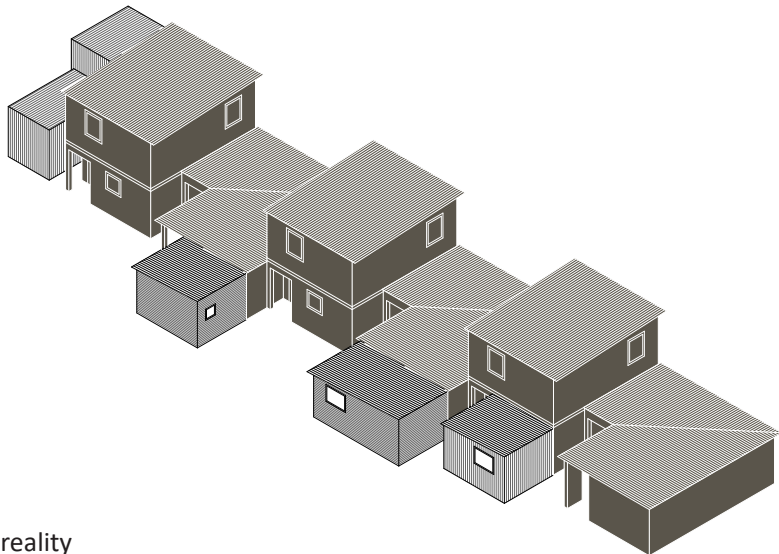
Figure 5.7 User built reality

formal layout requirements cannot provide the residents with secure tenure without the assistance of the state in regularising the area and developing formal houses. Table 2 shows how these different concepts, and the accompanying expectations, impact the way in which residents live in their houses, and the possibilities, or lack thereof, of adaptions and extensions available to them. The following sections discuss the impact these 'formal' expectations and regulations have on the livelihoods of residents.

Limitations on livelihoods: the complex role of renting in the low-income housing market

While the focus of housing provision has been on houses for ownership, the need for rental accommodation was still officially acknowledged. The RDP document advocated the provision of 'sufficient affordable rental housing stock' for 'low-income earners who choose this option' (ANC 1994: 24; Charlton, 2013: 136). The Housing White Paper envisaged a rental housing component, through 'social' or 'institutional' housing (RSA, 1994; Charlton, 2013: 136). Over time, a social housing sector has developed, however, in 2007 the stock of this housing was less than 2% compared to RDP housing. The main flaw of this sector is the failure to provide affordable accommodation for the very low-income beneficiaries, except for a small number of exceptions, rental housing has not been available to the market targeted by RDP-housing (Charlton, 2013: 136,137). The limited stock of affordable rental options is driving the backyarding sub-market, along with the inadequate supply and low affordability of housing for sale. Additionally, there also exists a demand, by choice, to access readily available, relatively well-located and more affordable backyard accommodation. This demand is driven by the high migration rates into cities, as well as the shrinking household demographics. A significant portion of the housing backlog consists of one- and two member households. These people seek more affordable accommodation and tenure options that are more flexible (Gardner & Rubin, 2016: 82).

It has been argued that the current housing policies in South Africa have indirectly been encouraging backyard accommodation. Contrary to the intentions of the policies, it has in fact contributed to augmenting informality in the urban areas (Lemanski, 2009: 473; Gardner & Rubin, 2016:82). Both the cases of Ruimsig and Alexandra show, in the widespread presence of backyard structures, the significant role that backyarding plays in the affordable rental market. Despite this role, backyard rental has suffered from a
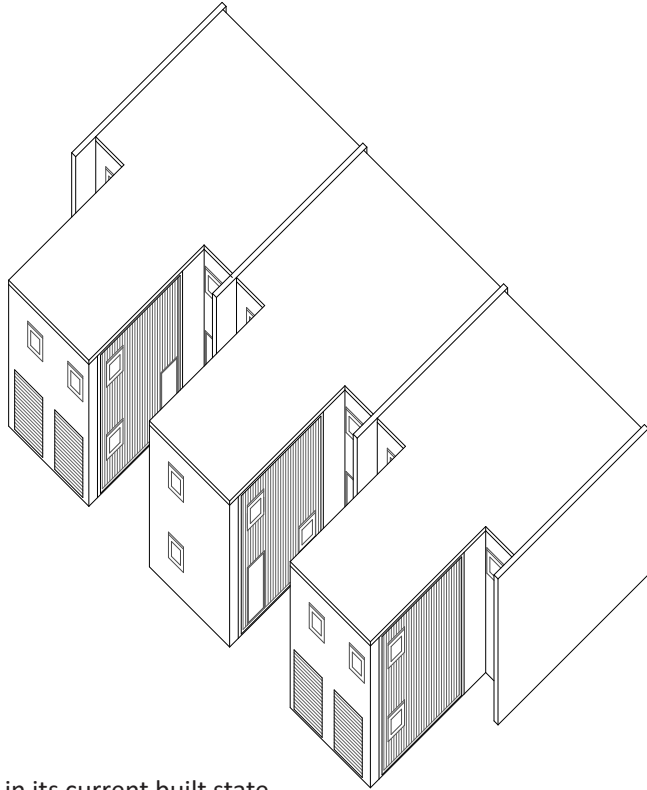
Figure 5.8 Empower Shack in its current built state
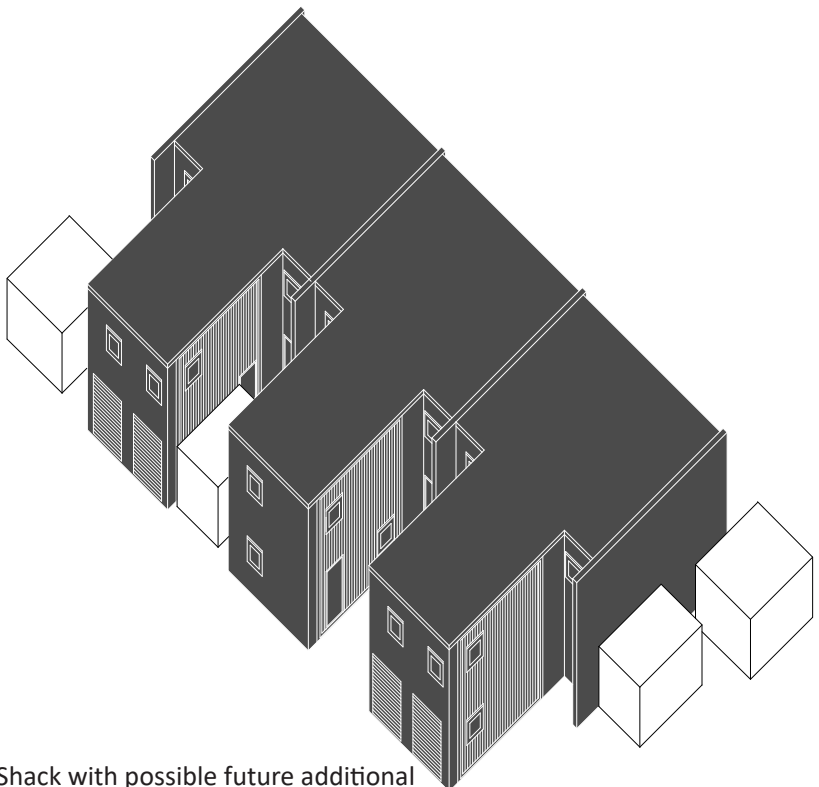
Figure 5.9 Empower Shack with possible future additional
structures built in the limited space available

notorious reputation (Gardner & Rubin, 2016: 81). The greedy landlord stereotype, of the owner building sub-par accommodation and renting it out for maximum profit, is widely held. Landlords are also perceived as 'shack farmers', constructing the maximum amount of backyard units on their property, for maximum monetary gain. Although exploitation and poor relations between landlords and renters do exist, backyarding is a very fragile and complex, yet still a normally functioning housing sub-market (Gardner & Rubin, 2016; Lemanski, 2009; Charlton & Shapurjee, 2013).

The complexity of this market is demonstrated in the case of Alexandra, where the K206 project provided rental units along with each subsidised RDP house. This concept aims to incorporate these rental units as a livelihood structure to support residents in an area that was limited in other RDP developments. As discussed in chapter two, this strategy only considered a single part of the role backyard rental plays in the lives of the urban poor. While the project provides RDP residents with a source of income, they are left powerless as to the occupants of these units. Many have argued for the acknowledgement of the role of rental and backyarding in low-cost housing; this acknowledgement should go beyond the acceptance of the structures and existence of such a market. As with any factors in informal settlements, this market is complex and goes beyond income generation to forming part of the integral social structures of communities.

Limitations on livelihoods: Informal trading

Concerns about informality go beyond appearance; the concern with imagery extends to income-generating activities. Certain municipalities have policies in favour of locally based income generating activities, in practice, however, the informal look of these practices clash with expectations, and are even seen as 'inappropriate'. Policy trends introduced in the 1990s supported the income-generating activities of the poor, however, by the end of the decade, the trend turned towards an aim of creating more sanitised, orderly cities to facilitate formal growth (Charlton, 2013:44, 45).

The discussion of each case study confirms these contradictory opinions on informal trading. In the case of Alexandra, land use regulations allow trading from the RDP house, an allowance not present in all RDP developments. However, the structures in which informal trading, and renting, takes place is considered undesirable by the state (personal communication, ARP official, May 2018). The Empower Shack project provided spaces to be used for income generating activities, showing an acknowledgement of the

role these activities of trading and rental play in the livelihoods of the urban poor, while limiting these activities to a predefined urban planning framework. Ruimsig Residents also have their trading and rental units, however, in this case, the entire settlement remains informal, and while these activities are an important factor in the settlement, the concern here is more for the return to overly dense areas, and not the appearance concerns found in formally developed townships.

The presence of both backyard rental units and other forms of income-generating activities across the different cases demonstrates the vital role these activities, and thus the accompanying structures play in the lives of residents. The expectations of visually acceptable formal townships should be revisited, especially in light of the concept of incremental upgrading of dwellings by the residents themselves.

Conclusion

In bringing together these three case studies, this chapter shows the complexities of livelihoods among the urban poor, expressed similarly regardless of the nature of the intervention. Each case attempts to deal with the issues of informality differently, yet the aim of creating 'modern' settlements through the provision of 'formal' housing remains constant. These cases have shown that providing residents with a modern settlement and new houses does not change the needs of those who have to live there, and that expectations are often contrary to the realities of the complexities faced by residents. Contrary to the emergence of 'neat', modern neighbourhoods, the expected outcome of low-cost housing provision, the reality of the outcome often perpetuates the growth of undesired informal conditions.

Comparing the case studies further shows that *in situ* interventions prove to be more inclusive and provide increased opportunities for communities to participate in the process of development and implementation, in comparison to projects relocating residents to subsidised housing built on greenfield sites. However, these cases also show that *in situ* interventions do not solve everything, and certain policies and expectations remain present across all methods of intervention. While this cross-case analysis highlights the difficulties and challenges in finding sustainable, inclusive solutions responding to the needs of people, it also provides potentials which can be built on in working towards inclusive interventions. This analysis provides the base for the conclusion of this thesis, suggesting potential interventions created from the findings in these studies.

Chapter 6
Conclusion and suggested changes to the practice of housing delivery and informal settlement interventions

Introduction

Having discussed and analysed the findings from the cases of Alexandra, Ruimsig and the Empower Shack project in the framework of the livelihoods and living conditions of residents in dwellings and settlements, this final chapter provides a summary of the findings, drawing conclusions and providing suggestions. A Residential area finds its character in its formation. The design of a single house does not provide much information about the layout and character of an area. Modern residential areas, however, tend to consist of a sequence of repeated dwellings, arranged in generic forms (Easterling, 1999: 130). This condition can be seen in the low-cost housing in South Africa, demonstrated by the case studies in this thesis. While only one of the cases dealt with RDP housing, the widespread approach to housing delivery in the country, the effects of the principles and expectations of this approach can be seen across all the cases. These effects were a primary concern of this research, and each case study discussed the impact that the respective interventions had on the lives of the residents. This research reaffirmed the findings that the housing policy framework dealing with interventions in informal settlements, reduced to the delivery of standardised units, has not been appropriate in dealing with the realities in informal settlements (Huchzermeyer, 2004: 227).

This chapter revisits the research questions and objectives of the thesis, showing how these were considered through the case studies and cross-case analysis. The chapter goes on to discuss the primary issues identified in the analysis in the previous chapter, discussing the factors in the South African housing practice that could be improved to better respond to the needs of the residents affected by the practices. Suggestions are made to improve policy or housing practice in order to better address the issues faced by those receiving the new dwellings.

Revisiting the objectives and research questions

The research set out to understand the impact of housing interventions in informal settlements on the lives of the urban poor. This thesis used three case studies to show how low-income residents, in both *in situ* upgraded as well as in new housing developments, live and interact with their new dwellings and the various aspects of their new neighbourhoods. Each case study considered a different approach to housing provision in an attempt to portray the effects these have on the livelihoods of the urban poor. This study set out to explore expectations and value associated with housing in South Africa, considering the expectations of the different parties involved in housing delivery, from the state, to the residents, and various NGOs. The research question was posed as follows to achieve these aims:

> How do the practices and policies of housing interventions in informal settlements impact the lives of the urban poor, and how do residents interact with their new/upgraded houses and neighbourhoods? Moreover, what impact do these interventions and the resultant interaction have on the livelihoods of the residents?

This question was further developed into three sub-questions, guiding the research. These will be revisited here, identifying the aspects of the case studies answering each of them and contributing to the overall research question.

> How do the aims and expectations of the policies and the housing programme influence the practice of housing delivery and informal settlement interventions?

Chapter one provided the background of the South African housing benefit, along with the aims and outcomes of housing policy. The expectations of the overarching mechanism for housing delivery, the mass delivery of RDP housing, was discussed in chapter two, in the discussion of the Alexandra case. This case portrayed how the state goes about developing housing to fulfil their expectations. One of the extensions in Alexandra demonstrated the mainstream housing development, providing single-storey detached houses on individual plots, to realise the expectations of formal, modern neighbourhoods. The case study discussed how the state expects the provision of formal, modern neighbourhoods should encourage and assist residents in becoming the ideal tax-paying citizens. It is expected that the provision of a subsidised house would provide households with an asset, assisting them in improving their lives and generating income. This image of modern, formal neighbourhoods guides the delivery of housing.

In all three case studies, and in the case of Alexandra especially, the disjuncture between expectations of housing provision and utilisation, and the reality of how dwellings are being used including self-construction and expansion, was seen. The case of Alexandra discussed the differences between expectations and the reality, found in the measures residents take to maintain their homes, families and livelihoods. These same measures are seen in all three case studies, however, in Alexandra, the distinction between expectation and reality is the most visible in the RDP housing developments with their abundant presence of backyard units. These findings show that the housing programme is being implemented according to expectations set up without thorough consideration of the complex realities of the lives of informal settlement residents.

> What are the limitations imposed on residents through policies and intervention practices, as well as the possibilities created by interventions? Moreover, how do these limitations influence the way in which residents engage with their dwellings, and impact their livelihoods?

The limitations imposed on residents, and their influences on the lives and livelihoods of residents, were discussed in each case study and compared in the cross-case analysis in chapter five. The limitations found stemmed from both policy restrictions on residents themselves, as well as from the limiting conditions policies create in the development of housing.

The restrictions on housing development were best demonstrated in the cases of Ruimsig and the Empower Shack project, two interventions falling outside of the general practice of state delivered subsidised housing. In the case of Ruimsig, the intervention was undertaken and funded by NGOs, working together with the community. While the state was included in all discussions around the project, they were never directly involved in the development, and no future development or formalisation was guaranteed. Despite observing similar objectives to the Upgrading Informal Settlements Programme (UISP), this development did not take place within the programme and consequently could not go beyond a certain point. The development was therefore restricted by the lack of policy accommodating continued incremental development outside of the defined phases of the state's incremental UISP. In this case, the development that took place empowered the residents to continue developing their settlement without outside assistance. However, this development is taking place outside of policy requirements. The case study

showed that policy provisions do not fully appreciate the realities of informal settlement dwellers, or their ability to take upgrading further without state assistance, thus limiting their potential of upgrading their own situations.

The Empower Shack project, on the other hand, was developed together with the state. In this case, the different stakeholders negotiated certain requirements. The case study presents numerous limitations imposed on the project by the state. The number and nature of changes that the project underwent to become a formal project, with units that could in the future be provided to the residents through the subsidy mechanism, demonstrates the stringent nature of the housing programme. Here units had to be sized to fit onto prescribed plot sizes, these were adapted after negotiations, but posed limitations on the project nonetheless, restricting the sizes of units. However, the typology of this project and the confirmation by the city (CoCT) that plots can be subdivided to provide each household with a unit on an individual plot portrays a positive potential for future developments. This potential will be further discussed in the suggestions made later in this chapter.

Limitations on livelihoods were found across all three case studies. These are best demonstrated in considering the expected use and impact of the housing programme, as discussed under the previous question. In certain aspects, these expectations are enforced through legislation, limiting the use of a house. The case studies considered here showed that there is a degree of disjuncture between policy and practice. It is expected that the provision of a house should improve the lifestyle and living standard of a household, and become an asset assisting them in generating income. However, the expectation remains for the house to be used primarily as a place of residence, and many income-generating activities, if not entirely unpermitted, are frowned upon. In certain cases, policies expressly permit income generating activities taking place from the RDP house, or another low-income house, yet the way these activities take shape proves to change the settlement into something too 'informal' to match the established expectations.

The case studies in this thesis portray how current practices of informal settlement interventions and housing delivery do not meet the realities faced by the recipients of these programmes. The three studies considered different intervention approaches, showing problems present across the intervention spectrum. In comparing these three approaches and their resultant living conditions, it becomes clear that the expectations

placed on the effects of housing programmes are much higher than the positive impact generally seen. It can also be said that the nature of housing delivery and the accompanying expectations do not truly assist residents in advancing their livelihoods and improving their living situations, but rather augment precarious conditions, thus, in a way perpetuate informality. This finding confirms what Huchzermeyer (2011: 23) stated about the bureaucratic attitude towards the challenge of informal settlements, stating that the reigning attitude towards this 'challenge' remains focused on the visible manifestation of the problem rather than the causes. Mainstream practice continues to work towards eliminating these symptoms, focusing on the delivery of housing. Alternative intervention methods struggle to take hold without official support and outside of the main intervention frameworks. Therefore, the nature of these interventions, in not addressing the problems, brings with it inherent limitations to residents.

How might interventions better meet the requirements of residents' livelihoods?

This final question will be considered in the following sections of this chapter. The cross-case analysis in chapter five brought together issues from the three different case studies, establishing issues found across different approaches to housing delivery. These issues will be revisited in the following section, and suggestion of changes to policy and practice will be made to address these issues.

Having considered the effects that the current policies and practice of housing delivery has on the lives of the urban poor, this chapter will suggest a path forward. The suggestions will aim to address the limitations identified in the case studies, and build on the potentials found in comparing and analysing the cases. As a point of departure, any responses should move away from the current practice of modernising interventions. The housing programme and the government's approach to interventions is rooted in their constitutional obligation to provide adequate accommodation for their citizens. The findings in this thesis lead to the suggestion that the potential of these citizens developing or continuing to develop accommodation and home enterprises through their own means should be acknowledged for the contribution it can have towards reducing the backlog and providing people with a sense of ownership. The findings from the case studies lead to suggestions lobbying for enabling policies, acknowledging the positive outcomes of residents' practices such as backyarding. The following sections will discuss these findings, leading to suggestions building on the identified potentials and attempting to counter some of the primary limitations found in this research.

Widening the incremental intervention framework

Where recent policies have been changing to allow for more incremental intervention practices, these mechanisms still expect the creation of a formal township as the end-product of informal settlement interventions. The previous chapter discussed how this focus hinders the effects of any smaller or alternative interventions from being seen. Creating the opportunity for carrying out interventions outside of the current restricted framework could provide residents with the tools and vision to continue developing their settlements themselves. The potential of such an approach is demonstrated in the Ruimsig case, where the intervention itself was not a rebuilding of the settlement to create a formal township, but a smaller-scale intervention de-densifying the settlement and allowing for improved services and infrastructure. Despite the comparatively small scale of this intervention, it has had an empowering effect on the community, and development in the settlement has continued after the intervention.

In discussing the reconfiguration of the Ruimsig settlement and the resizing of its plots, it was mentioned that this project observed more formal planning guidelines than are generally required in an informal settlement upgrading through the UISP . This policy framework does allow for the adaption of certain planning measures to facilitate *in situ* upgrades. However, the policy does not accommodate interventions taking place outside of the programme and its established phases. This was demonstrated in the Ruimsig case, where the reblocking echoed the principles of the UISP, but did not take place through the programme, and did not have any guarantee from the municipality that the settlement would be further upgraded and formalised after the completion of the reblocking process. Interventions are therefore limited to those being done strictly in conjunction with the state. The findings from the case studies in this thesis lead to an argument for a widening of the policy framework to facilitate interventions of more varied natures.

The typology of the Empower Shack project shows a further deviation from the standardised, formal township. Here varying sizes of the row houses show a definite move away from the standardised dwellings on equally sized plots. The Ruimsig case study mentioned that the UISP framework allows for variations from certain standard practices in order to provide for all the residents within their existing settlement. The Empower Shack project, developed together with the state, negotiated new plot sizes together with the possibility of future subdivision once residents have been able to receive

ownership of their dwellings. The variation in unit sizes and the accompanying resizing of plots shows the potential for future replication in informal settlement upgrades. These variations allow the development of the settlement to provide enough space for all its current residents to remain.

In the case of the Empower Shack, the different unit sizes allowed all residents to contribute towards their dwellings within their financial means. The contributions point to the issue of income brackets, which guide the allocation of subsidised housing. There are some issues with this approach, in that residents do not always remain within the same income bracket. The division of income brackets for those who qualify to receive subsidised housing, and those who don't, should also consider the fluctuation of incomes, as situations relating to jobs, commuting and household sizes could be continually changing. While this issue falls outside of the spatial analysis of this thesis, it does point to the need for a more thorough understanding and acknowledgement of the intricate lives of the urban poor. The issues related to these complexities are discussed in the following section.

Acknowledgement of livelihood structures

The findings from the case studies in this thesis show that housing programmes need to acknowledge the multifaceted livelihood structures of residents living in informal settlements. This acknowledgement also calls for a recognition that the provision of a house, or upgrading of a settlement, alone cannot change the realities of the residents' lives. The provision of 'adequate shelter' is key to alleviating poverty and improving living conditions, as are the accompanying infrastructural and service improvements or provisions. In many cases, houses do form important assets contributing to residents' lives and welfare. However, current restrictions and expectations regarding the use of a state-provided house place various limitations on the realisation of the full potential such an asset could have.

Housing programmes should recognise the existing social and livelihood structures in communities. They should further recognise the process of change, expansion and incremental development present in informal settlements. Development programmes should seek to promote these processes, and assist in improving livelihoods and prospects for progressive upgrading of lifestyles. Built forms should accommodate, and not limit,

change and growth. Policies and expectations need to be refocused in order to allow and facilitate the processes of self-improvement currently taking place outside of legislation.

The processes found in the cases considered in this research can be defined by two categories, namely adaptions made to houses to accommodate a growing household, and additional structures built, enabling a household to generate income, either through commercial activities or by renting out units. While not all these practices are strictly forbidden, they remain frowned upon for their 'informal nature' >> refer to Chapter two, p…. However, despite the restrictions and limitations surrounding informal rental and trading, and the construction of backyard units or 'informal' extension of houses, these practices are widespread in low-income neighbourhoods. These findings contribute to the existing knowledge that current housing practices, and the policies prohibiting these activities that persist nonetheless, do not acknowledge the needs of the people. Rather than improving the lives of the poor according to the expectations laid out by the state, these housing programmes are perpetuating informality. This finding leads to the argument that the housing programme should acknowledge the nature of the lives for whom they are intended, providing houses that accommodate their adapting needs rather than attempting to eradicate any form of informality.

Moving towards an improved intervention model

Following these findings regarding the limitations on interventions and the livelihoods of residents in RDP developments or upgraded settlements, this section introduces changes for moving towards an improved intervention model. The point of departure of this research is moving away from the concept of 'eradicating informality' towards an approach seeking to understand and navigate informality. The government has the constitutional obligation of ensuring that all households affected by interventions are left off better than they were before (Republic of South Africa, 1996). The results found in the cases considered in this thesis present a different outcome. The widespread presence of and continual construction of additional structures points to the reality that interventions have not truly improved residents' lives to a degree where they can maintain themselves with simply the dwelling provided by the state, or by another intervention. In most cases observed, receiving a house intended as an asset does not fill every gap in a household's needs. In many instances a formal house coupled with the accompanying formal expectations, while improving certain aspects of life in a household, adds an additional layer of complexity.

This research leads to the suggestion of expanding the informal settlement intervention framework beyond the focus on housing as a product. It suggests adapting policies and incorporating intervention tools that could support the upgrading of informal settlements beyond the UISP, to facilitate various stages and forms of incremental interventions. The UISP was created to assist municipalities in fast-tracking the provision of basic municipal services and amenities in informal settlements, as well as to provide security of tenure, with the aim of empowering residents in taking control of their relevant housing development. In its current state, the UISP facilitates the upgrading of informal settlements in four phases, of which the final stage is housing consolidation in a formal township (Department of Human Settlements, 2009d: 44). The expectation that all interventions under this programme should culminate in consolidated housing makes the programme a very limiting tool. This focus stems from the constitutional promise of providing every household with adequate housing. However, given the length of the waiting period and the knowledge in certain cases that this promise cannot always be fulfilled, at least not soon enough, finding households in informal settlements that use their own means to incrementally upgrade their dwellings and living situations is not

uncommon. This was seen in the Ruimsig case, where households continued upgrading their own houses, and even completely rebuild their houses with 'permanent' materials, after the intervention by outside actors.

Support is therefore needed for intervention programmes dealing with the multiple aspects and stages of development during *in situ* interventions. This support framework should be implementable without the guarantee that the intervention would culminate in the consolidation of a formal township containing 'formal' houses. The support framework for incremental *in situ* interventions should be expanded to provide financial and other government assistance to communities without this guaranteed outcome, providing assistance for smaller scale interventions. As was shown by the Ruimsig case in this thesis, the initial stages of upgrading a settlement, such as de-densifying areas and providing infrastructure and basic services can give residents a sense of empowerment to continue developing their settlement themselves. Such empowerment is not necessarily true in every case. However, in certain instances, such as Ruimsig, where the community is involved in the development process, the development is likely to continue, irrespective of outside involvement. Creating the tools to encourage this kind of development and providing these residents with tenure security is therefore suggested.

Widening the policy framework to accommodate and assist in more varied interventions calls for further adjustments to the practice of housing delivery. The findings of this research can be translated into suggestions regarding the spatial aspects of interventions. This research analysed policies in housing practice and informal settlement interventions, showing the real effects these have on settlements and interventions. Spatial analysis was used to illustrate these effects of policy seen translated into developments, and the resulting effects on residents and their livelihoods. The suggestions stemming from the findings of this research apply architectural thinking on a policy level. The findings of the case studies showed that buildings as such will not solve the issues faced by the urban poor in their daily lives. However, the analysis of the different interventions demonstrated that architectural thinking has a role to play in overcoming these challenges. The following suggestions address the spatial practices of interventions in informal settlements, touching on aspects that can be translated into the adaption of policies to accommodate a broader intervention spectrum. These concepts are also

applicable to individual development designs in an improved, broader framework.

1. Pre-emptive planning for residential and non-residential settlement growth. Housing developments should include additional spaces, or partial structures, that could be filled in over time by residents, for commercial, rental or other purposes.

It is vital to consider the inevitable future growth of settlements, starting in their initial planning. This early consideration will allow for better facilitation of the various aspects of the lives of informal settlement dwellers in an upgraded settlement or new residential development. The circumstances of individual households, as well as communities, change over time, leading to growing communities, whether by growing families requiring additional living space, or by households renting out rooms on their property as a means of income generation. Irrespective of their nature, these changing circumstances require adaptions to houses, yards and community infrastructure. These changes are not well regarded under the current policy framework. Pre-emptive planning for adaptions and future growth of dwellings will allow this continual development to occur in a more orderly manner. This provision will cater for more of a household's needs than a house alone would be able to, aiding residents in their livelihood practices, and doing so in a more orderly manner than the often haphazard growth found in settlements.

Two projects considered in this thesis provide examples where provisions for non-residential purposes were attempted to a certain degree. These are the K206 project in Alexandra, which provided subsidised RDP houses along with additional rooms for rental and the Empower Shack project which includes spaces for commercial or rental purposes. In both these cases the limitations of these provisions were discussed; however, the concept does have the potential to support residents' livelihoods. These findings support the suggestion of incorporating spaces for non-subsidised residential use, as well as spaces for non-residential purposes, into the planning of housing developments.

Incorporating spaces for uses beyond the pure, subsidised residential purpose of most
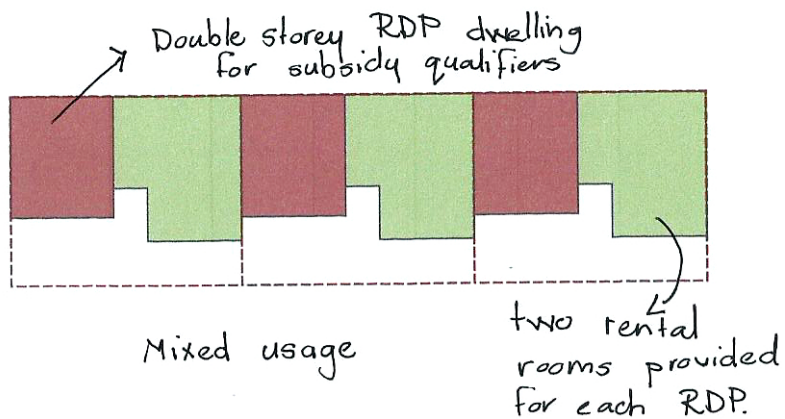
Figure 6.1 Usage distribution in the Alexandra K206 project
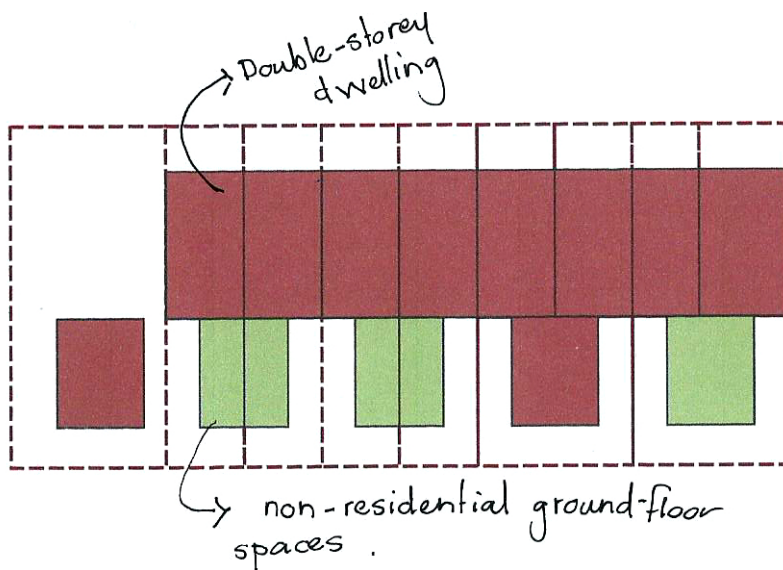
Figure 6.2 Usage distribution in the Empower Shack project

housing developments can take various forms. These spaces could be completed structures, such as those provided in the case study examples. Allowance for growth can also be made in the form of structural frames that could be filled in by residents over time according to their needs and means. Irrespective of the form in which such provisions are made, it is important that it is done without the stringent limitations currently found in projects, and rather with scope for residents to use the spaces to fulfill their individual needs. Allowing space for continual development should enable this growth to take the shape necessary to meet the needs of a household or community. This was not the case in the Alexandra project, where the additional spaces provided by the state came with strict prescriptions, not necessarily meeting the needs of the residents. For a provision of this nature to realise its full potential the limitations attached to the project should be loosened, allowing a wider range of applications.

2. Proactively guiding self-development, including house adaptions or extensions and backyarding, using urban management techniques and design strategies in new planning frameworks.

Gardner and Rubin (2016: 93) suggested the use of urban management instruments to proactively guide backyarding. They specified using these instruments in the creation of land and planning frameworks. Here, the suggestion of proactively guiding development is being applied to informal settlement interventions as well as to new housing developments. This is intended to be a tool for facilitating densification in housing delivery strategies. A potential example can be found in Alexandra Ext. 9, although 'illegal' structures are abundant in both extensions considered for the case study, different layouts led to different appearances of extensions and backyarding. The nature of these structures remains the same, as does their stigma. However, under close spatial inspection, the different typologies guided, or did not guide the development of additional structures in different ways. It can be argued that the row-house typology of the Empower Shack project has the potential to guide further development in a similar way, where space allows. In these projects the design not only allows for income-generating activities, but in comparison to freestanding houses on individual plots, the typologies of these projects can be seen to stem some 'undesirable' informal growth. It is, therefore, possible to plan settlements in a way that will guide future extensions and additions allowing for positive densification, rather than randomly spaced structures resulting in odd, narrow gaps, creating many additional problems.

The proactive guiding of 'self-development' requires the strategic spatial design of an intervention, as well as the implementation of support mechanisms through which local governments can, alone or in partnership with other actors, encourage optimal development. This development could also be facilitated through direct or indirect subsidy instruments, financially assisting residents in upgrading their houses or expanding for income-generating purposes. Investment in new or upgraded infrastructure networks is also necessary to support the desired positive densification through extensions and backyard additions. The infrastructure should optimise the development of accommodation and utilisation of municipal resources (Gardner & Rubin, 2016: 93).

The two rowhouse typologies analysed in this study show the potential of spatial layout in guiding the continual development of a settlement. Spatial restrictions prescribe where
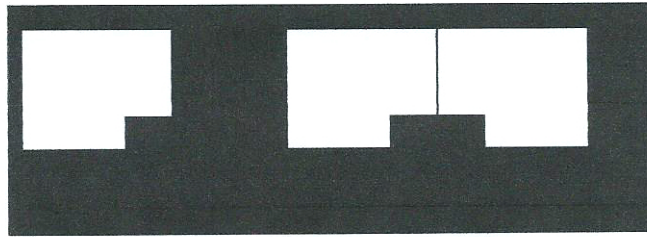
Backyard units built in all
open spaces surrounding units.
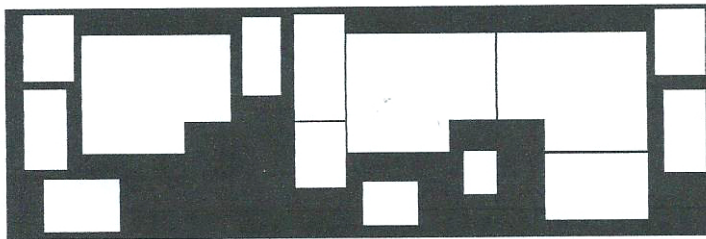
Figure 6.3 Alexandra Ext. 7 Original built state to current state with
widespread, randomly placed backyard units
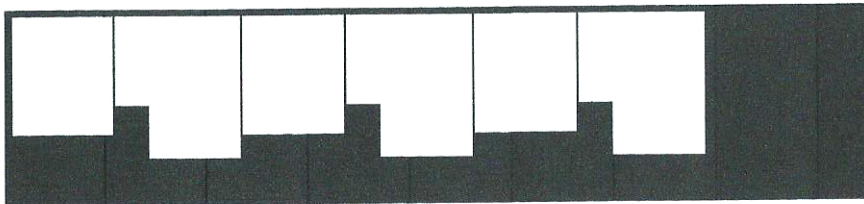
In its limited space the row typology
guides the further development of
the neighbourhood.
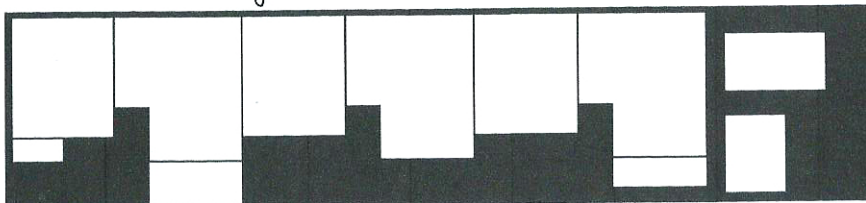
Figure 6.4 Alexandra Ext. 9 (K206 Project) Original built state to current state with
extensions and backyard units partially guided by the typology of the project
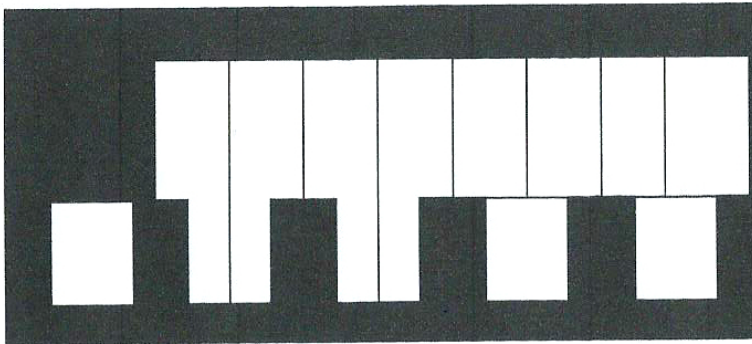
Limited space left around the units (will) restrict and guide the construction of further units / additions.
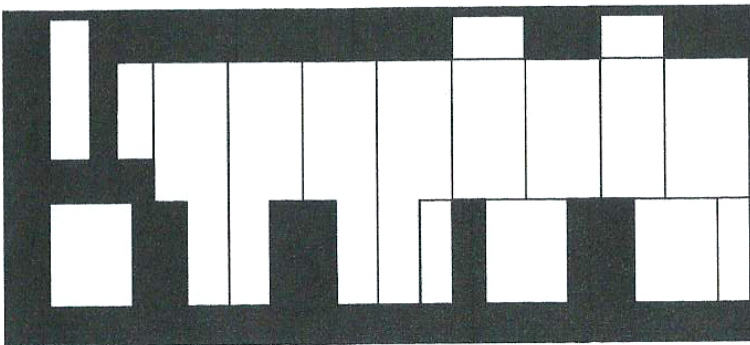
Figure 6.5 Empower Shack project in current built state to possible extensions guided by the typology and site limitations of the project

additional structures can be built, limiting the haphazard layout of backyard units found surrounding free-standing RDP houses. In this way, development can be guided to occur more optimally, avoiding the creation of additional complications, such as health and safety risks. To further optimise this potential, it is suggested to not only use the layout of an intervention to guide future building, but to include the necessary infrastructure and services into the planning to facilitate such growth. This includes strategic planning of materials and entrances to the originally planned houses. Providing bathroom facilities or plumbing that could be used by outside units will also assist in creating healthy development potential. Pro-actively guiding self-development requires consideration of the various aspects involved in both the physical structures and its development, as well as the needs that additional structures will create when they are used.

3. Planning to accommodate diversity in developments. A shift away from the standardisation practices in current policies to the accommodation and incorporation of variations in sizes and layouts.

The Empower Shack project provides an example of introducing diversity into a settlement upgrade. The other two case studies followed the mainstream practice of providing homogenous sites and units, although the *in situ* nature of the Ruimsig intervention included inherent differentiation. Informal settlements have a richness stemming from their intrinsic diversity and creativity, adding to the life in neighbourhoods and communities. Moving residents to homogenous, mono-functional housing developments, strips them from all these attributes (Williamson, 2017). As a resident in Ruimsig stated, moving people to a new settlement interferes with their existing social structures and status quo's, rendering all residents the same (Adegun, 2015). Informal settlements grow according to individual households' means and needs. Carrying these variations over into an upgraded settlement not only maintains a certain diversity, but ensures that each household is capable of maintaining their house and their lifestyle while living there. As stated before, providing a household with a dwelling does not change everything about their lives, and in cases where households are not able to maintain, let alone improve, their living standard this leads to the deterioration of the house and the perpetuation of informal conditions in constructing further inadequate structures.

Interventions should consider the role of diversity in settlements. This diversity includes variations of dwelling and plot sizes, as demonstrated in the Empower Shack project. The diversity should also be translated into the range of uses and activities planned for in a settlement. This suggestion ties to both of the preceding suggestions, however, these both focused on physical planning aspects. This suggestion emphasises the programmatic distribution of functions that could be incorporated into the previous planning considerations. Both the provision of additional spaces together with subsidised housing, as well as planning for self-development should take into consideration the various possible uses. This consideration is important in providing sufficient infrastructure to accommodate residential and non-residential uses.
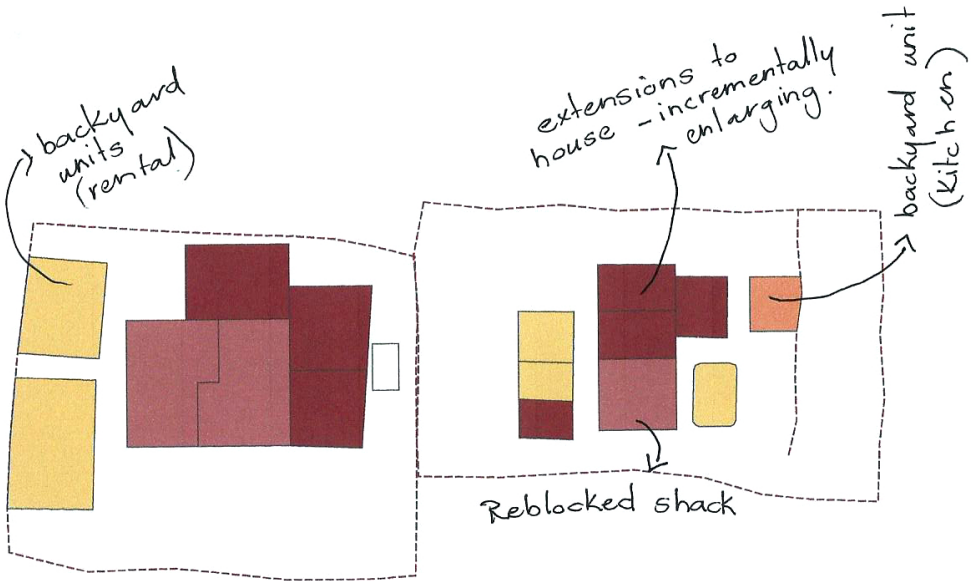
Figure 6.6 Programme diversity in Ruimsig, dwellings built during the reblocking and xtensions and additions built by residents
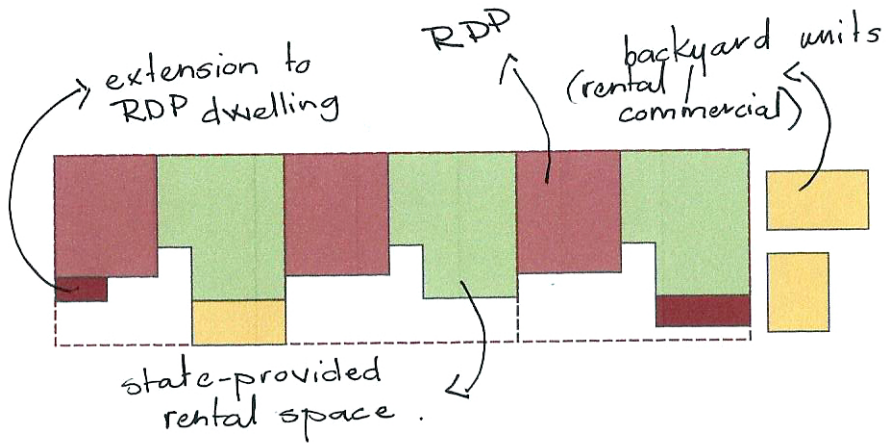
Figure 6.7 Programme diversity in the K206 project, provided by the project and extensions and additions built by residents
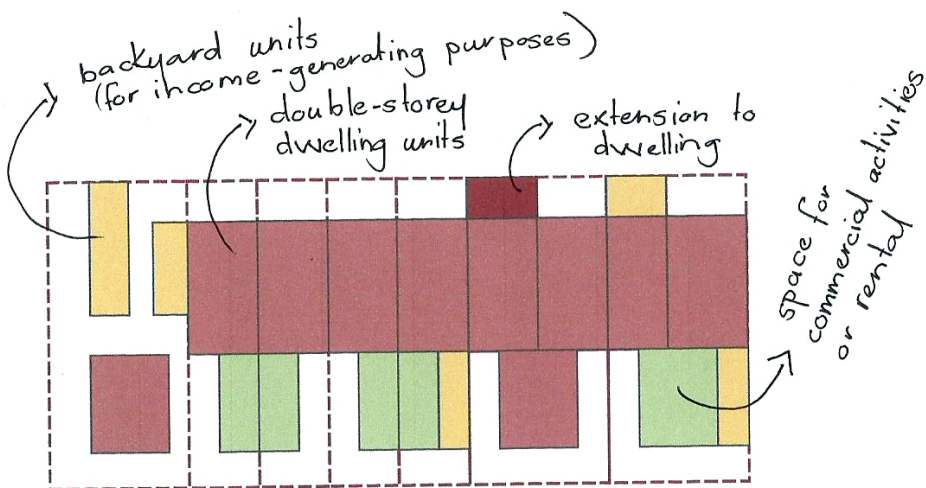
Figure 6.8 Programme diversity in the Empower Shack, provided by the project and projected future extensions

Guiding future interventions

The suggestions provided in this thesis are not presented as a single design proposal. The findings of this research show that an understanding of the lives in the affected settlements is necessary to reach solutions that would continue to positively affect residents. The finding that a house alone does not solve the complex problems in the lives of the urban poor has been reiterated throughout this thesis. Therefore, the spatial analysis of the case studies singled out the limitations and potentials in the different approaches which guided the suggestions made in this chapter. These suggestions drew from architectural thinking to address the problems brought on by the isolated solution of buildings.

The findings of this research suggest changes to the existing housing policies and intervention practice, towards an improved model responding to the conditions in informal settlements and the needs of the residents. While these changes address policies, they are drawn from the physical form of interventions. The analysis used illustrates the connection between policy and the resultant effects manifested in the material forms of interventions. The changes discussed in this chapter suggest improvements that address the policies creating these situations. These suggestions can then be applied in guiding future housing interventions. The spatial aspects they address should be considered and used as a guide in the design of informal settlement interventions. The suggestions therefore approach the issues in current interventions through architectural analysis of the spaces, intending firstly to address the underlying principles leading to these outcomes, and then to guide interventions within a new framework.

pulling apart the row house typology
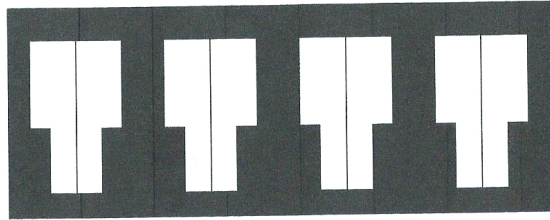
extensions will fill up typology, guiding
the densification of the neighbourhood.

7 dwellings.   extensions

non-residential
use
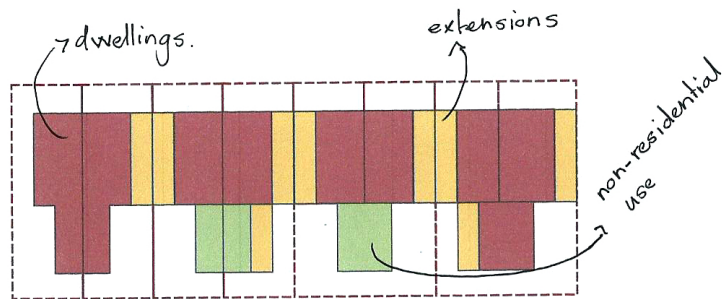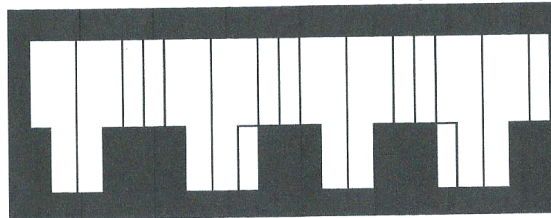
including mixed uses and varying
sizes into the development

Figure 6.9 Suggestion - pulling apart row house typology to allow expansion
to fill up typology and densify the settlement
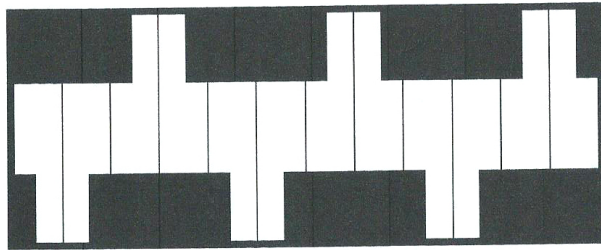
Rotating units allow different spaces for extensions to the back and front of each dwelling.
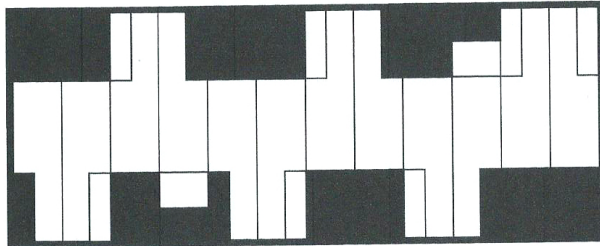
Rotated unit orientation - creating different spaces for additions - adding to the density
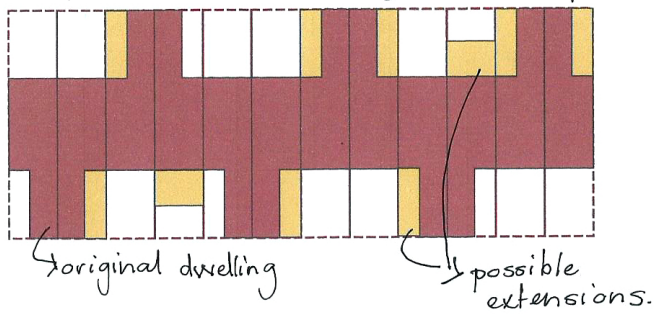
↳original dwelling   ↳possible extensions.

Figure 6.10 Suggestion - mirrored units creating a typology guiding extensions and allowing for services to be planned into original project to accomodate these extensions
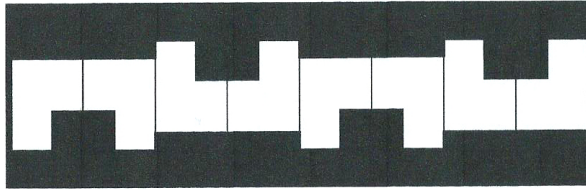
Rotation and unit shape dictating
a number of extension possibilities.
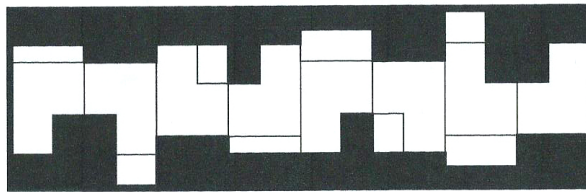
Additional/extensions slowly fill plots,
densifying a neighbourhood.

possible extensions
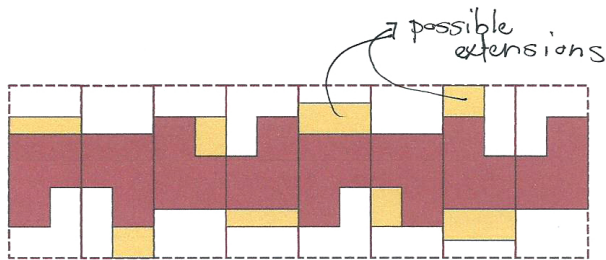
Different unit sizes and uses.
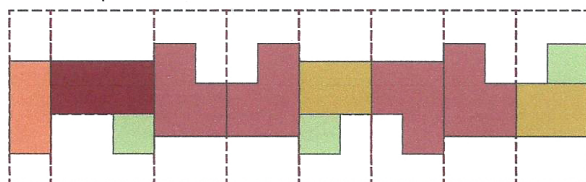
Figure 6.11 Suggestion - typology guiding extensions and allowing for diversity of unit sizes and uasga distribution

Concluding remarks

This thesis reaffirms that the current framework for low-income housing provision is lacking in its grasp of the complex lives of the urban poor. The difficulties in the lives of informal settlement dwellers do not go away simply with the provision of an adequate house. Expectations of this nature have led to the continuation of the practice of using housing provision as a tool for poverty alleviation, with outcomes often being the opposite, augmenting precarious positions rather than eliminating them. This research shows that careful consideration of the interaction between residents and their homes and environments is necessary for finding interventions that could provide residents with a lasting improvement in their lives. It is vital to acknowledge the role that 'informal' practices play in South African settlements. Without the additional accommodation provided by backyard rental units, space for the family to live together, and the income garnered from informal trading and backyard rentals, the majority of households will suffer greatly. Eliminating these elements, as improbable as it appears to be, will result in numerous sprawling, mono-functional, low-density subsidised housing developments. The suggestions made in this chapter address intervention practices limiting diversity and the development practices of residents to accommodate their lifestyles and livelihoods. These suggestions intend to move the South African intervention practice away from the rigorous framework that remains in place despite the introduction of more accommodating policy objectives. As was included in the original objectives of government housing delivery, interventions should improve the lives of the residents they affect. The findings in this research suggest that moving towards policies that accommodate the needs of the people, rather than restrict various facets of the lives of residents and their potential for upgrading and adapting their surroundings, is key to ensuring improvement to their lives.

Glossary

This glossary defines the terminology relating to South African housing and informal settlements, and briefly explains the relevant organisations and programmes.

ARP (Alexandra Renewal Project) – an urban renewal project initiated with the aim to fundamentally change the physical, social and economic environment of Alexandra.

'Backyarding' – a distinctly South African phenomenon in which structures are erected in backyards, either for income generating purposes such as rental units or commercial activities, or to accommodate extended family/ kin.

Backyard dwellings (or backyard shacks/ units) - the structures erected in backyards for housing or commercial purposes, varying between informal units or shacks and formally built units.

BNG - Breaking New Ground, the local name for the Department of Housing's 2004 policy amendment, emphasising the creation of human settlements as opposed to building new housing developments.

'Community architects' – term coined through reblocking projects, referring to community members participating in the planning and development of a settlement upgrade (personal communication, iKhayalami, 5 April 2018).

CORC (Community Organisation Resource Centre) - an NGO of the SASDI made up of a mix of professional developers, grassroots activists and local project workers to collectively take action and use their abilities and resources to mobilise themselves (SASDI, 2012d). Their work has been described as mainly policy-oriented, compared to FEDUP's implementation focus (Huchzermeyer, 2011).

'Core' house – also referred to as a starter house (see entry). A basic or 'core' structure provided through the once-off capital subsidy, intended to subsequently be incrementally upgraded by the house owner (Huchzermeyer, 2003: 596).

DH (Department of Housing) – renamed the Department of Human Settlements in 2009 (see DHS entry).

DHS (Department of Human Settlements) – established by the first democratic government in 1994 and has the responsibility to progressively work towards the realisation of the "right to have access to adequate housing" (DHS, 2018; RSA, 1996).

Erf - The legally demarcated area of a plot of land (Charlton, 2013: 397).

FEDUP (Federation of the Urban Poor) – an NGO of the SASDI built on a collaborative approach towards urban transformation (SASDI, 2012c), working as a national social movement made up of women's savings schemes mobilising on issues relating to poverty, homelessness and access to land (Fieuw & Mwau, 2016: 185).

Freehold property - having the title absolute, owning both the building and the land on which it is built.

Homeland – also referred to as 'Bantustan' or 'Black homeland'. These were territories set aside by the Apartheid government for the black residents of South Africa, aiming to concentrate members of different ethnic groups (South African History Online, 2018c).

Hostel – provided accommodation for male migrant workers for over a century. Housing development - the establishment and maintenance of stable, sustainable and habitable residential developments, ensuring viable communities and convenient access to economic activities, and to educational, health and social amenities for all citizens (Department of Housing, 1997).

Housing Act (1997) - the Act lays down the broad principles of housing development across all governmental spheres and defines the functions of the various levels of government regarding housing development (Department of Human Settlements, 2018).

Housing 'backlog' – the number of households considered in need of decent accommodation. The number is derived from estimates and counts of the people living in inadequate circumstances (Charlton, 2013: 146).

Housing database – or the 'waiting list', refers to the list of households waiting to receive their government-subsidised house.

iKhayalami – An NGO aiming to address the immediate needs of informal settlement dwellers in their interventions.

ISN (Informal Settlements Network) - a bottom-up agglomeration of community-based urban poor organisations seeking to bring together community, leadership committees and state councillors (Fieuw & Mwau, 2016: 185-6), engaging with settlement-level leadership structures to assist and equip community groups to mobilise around all their development issues (SASDI, 2012b).

Joburg - nickname for Johannesburg

NHBRC (National Home Builders Registration Council) – a regulatory body in the South African building industry, with the goal to protect and assist housing consumers exposed to substandard delivery by contractors (National Home Builders Registration Council, 2018).

National Housing Code (2009) - lays out the underlying policy principles along with guidelines, standards and norms applying to the different housing assistance programmes (Department of Human Settlements, 2018).

National housing programme – the national policy framework created to facilitate 'housing development'. This includes housing assistance measures, to assist those who are not able to fulfil their own housing needs, to facilitate housing delivery, and to upgrade or rehabilitate existing housing stock along with infrastructure and municipal services (Department of Housing, 1997).

NUSP (National Upgrading Support Programme) - NUSP's purpose is providing municipalities with the technical support to plan developments together with communities. The programme advocates 'best practices' to build municipal understanding of and capacity to better meet the needs of residents during informal settlement upgrades (NUSP, 2017).

Pre-emptive clause - the clause in the title deed of an RDP house prohibiting the sale of the house for a specified period, usually eight years (Charlton, 2013: 397).

RDP (Reconstruction and Development Programme) - is a manifesto introduced by the ANC in 1994 for post-apartheid repair (Charlton, 2013: 132), as "an integrated, coherent socio-economic policy framework", seeking to eradicate apartheid and build a democratic, non-discriminatory future (ANC, 1994).

RDP housing - the unofficial nickname given to what became the primary thrust of the SA low-income housing programme – individual houses constructed on serviced plots of land, which the government gives to qualifying households for 'free' (Charlton, 2013: 132).

Reblocking, or blocking-out – a community-driven design and implementation process in which a settlement layout is reconfigured to allow for demarcated roads, and service and infrastructure provision (iKhayalami, 2018a).

Rollover upgrading – a common practice of informal settlement upgrading in South Africa in which all shacks are removed from the land and temporarily reconstructed on nearby land, while the settlement is being laid out and provided with infrastructure following the procedure used in conventional greenfield developments (Smith, 2016: 39; Huchzermeyer, 2004b: 75-76).

SDI (Shack/ Slum Dwellers International) - a global network of community-based urban poor organisations acting on national, city and community levels. They work with federations among the urban poor committed to savings to mobilise communities (Huchzermeyer, 2011: 185; SDI, 2016).

Site-and-service plots – these schemes provide plots of land prepared with the bare minimum of infrastructure essential for habitation, either on land lease tenure or for ownership (Srinivas, 2018).

SASDI (South African SDI Alliance) – the SASDI, and their support NGOs, the Federation of the Urban Poor (FEDUP), the Informal Settlements Network (ISN), and the Community Organisation Resource Centre (CORC), and for a short period iKhayalami, pioneered initiatives for people-centred development.

Shack – a small house or building that is not put together well.

Shebeen (or tavern) - an (illegal or unlicenced) drinking establishment (Merriam-Webster, 2018), often run from a house (Charlton, 2013: 397).

Spaza (shop) - a small, unofficial (or unregulated) stall in a township (oxford dictionary, 2018), often trading in foodstuff (Charlton, 2013: 397).

Stand – Local terminology referring to a plot of land.

'Starter house' – often a single room structure of about 12m^2 with a 'wet core' (a room containing plumbing connections for a basin and toilet). The nature of these structure varied, but the intention was that the owners would improve and extend their house over time (Charlton, 2013: 138).

'Top structure' – a term used by housing practitioners in the 1900's to distinguish between engineering infrastructure and that which was being built on top of the land (Charlton, 2013: 151).

Township - South African townships refer to underdeveloped areas or suburbs of predominantly black occupation. These areas were officially designated for non-whites under apartheid legislation (Oxford dictionary, 2018; Pernegger & Godehart, 2007: 2).

UISP (Upgrading Informal Settlements Programme) - aims to cater to the special development requirements of informal settlements (DHS, 2009).

List of figures, maps and tables

Bibliography

Abbott, J. (2002). An analysis of informal settlement upgrading and critique of existing methodological approaches. *Habitat International*, 26(3), 303-315.

Adebayo, P. (2011). Post-apartheid housing policy and a somewhat altered state role: does incremental housing still have a place in South Africa? *The Built Environment Review*, 4: 3-16 (special issue 2).

Adegun, O. (2016). *Informal Settlement Intervention and Green Infrastructure: Exploring Just Sustainability in Kya Sands, Ruimsig and Cosmo City in Johannesburg.* PhD. University of the Witwatersrand, Johannesburg.

African National Congress (ANC). (1955). *Freedom Charter.* Kliptown:

African National Congress (ANC). (1994). *Reconstruction and Development Programme.* Johannesburg: Umnyano Publications. Retrieved 15 January 2018 from:

Alexandra Renewal Project (ARP). (2018) [online] Available at: www.alexandra.co.za [Accessed 18 April 2018].

Alexandra Renewal Project (ARP). (n.d.) *Alexandra Renewal Project.* Johannesburg: The City of Joburg. [Leaflet obtained from ARP employee], 23 Apr. 2018.

Bolnick, A., Community Organisation Research Centre and iKhayalami (2012). Transforming Minds and Setting Precedents: Blocking-out at Ruimsig Informal Settlement. *Putting Participation at the Heart of Development//Putting Development at the Heart of Participation.* pp. 62-67

Brillembourg, A., Klumpner, H. & Kalagas, A. (2017). Seperation Anxiety: Inequality and Exclusion in Athens and Cape Town. *Perspecta, 50.* pp.121-130.

Brooks, R. (2014). *Urban-Think Tank's Empower Shack Could Reshape the Face of Slums Across South Africa.* [online] Inhabitat.com. Available at: https://inhabitat.com/urban-think-tanks-empower-shack-could-reshape-the-face-of-slums-across-south-africa/ [Accessed 10 Mar. 2018].

Cirolia, L., Görgens, T., van Donk, M., Smith, W. and Drime, Scott. (2016) Upgrading informal settlements in South Africa: An introduction. In: Cirolia, L., Görgens, T., van Donk, M., Smith, W. and Drime, Scott., ed. *Upgrading Informal Settlements in South Africa: A partnership-based approach,* 1st ed. Cape Town: UCT Press, pp. 3-25.

Charlton, S. (2013). *State Ambitions and People's Practices: An Exploration of RDP housing in Johannesburg.* PhD. University of Sheffield.

Charlton, S. & Kihato, C. (2006). 'Reaching the poor?' An analysis of the influences on the evolution of South Africa's housing programme'. In: Pillay, U., Tomlinson, R & Du Toit, J. (Eds.), *Democracy and Delivery: Urban Policy in South Africa.* Cape Town: HSRC Press.

Charlton, S. and Shapurjee, Y. (2013). Transforming South Africa's low-income housing projects through backyard dwellings: Intersections with households and the state in Alexandra, Johannesburg. *Journal of Housing and the Built Environment,* 28 (4): 653-666.

Charlton, S. and Klug, N. (2016). Pressures on practice: How 'RDP housing' and other factors have shaped informal settlement upgrading in eThekwini municipality. Smith, W. (2016). Informal settlement upgrading: International lessons and local challenges. In: Cirolia, L., Görgens, T., van Donk, M., Smith, W. and Drime, Scott., ed. *Upgrading Informal Settlements in South Africa: A partnership-based approach*, 1st ed. Cape Town: UCT Press. pp. 56-76.

Council for Scientific and Industrial Research (CSIR) and Shisaka Development Management Services. (2006). *Research Report: Consolidated Analysis of Research into Small Scale Landlords and Home Based Entrepreneurs.* Prepared for the National Department of Housing, Social Housing Foundationn, FinMark Trust and Nedbank.

Daniels, C., Kruger-Fountain, L., Geretto, M., Irrgang, B. and Steyn, A. (2016). 'Public structure': A starting point for incremental upgrading. In: Cirolia, L., Görgens, T., van Donk, M., Smith, W. and Drime, Scott., ed. *Upgrading Informal Settlements in South Africa: A partnership-based approach,* 1st ed. Cape Town: UCT Press. pp. 130 – 144.

designboom | architecture & design magazine. (2018). *urban think tank introduces the empower shack to the slums of western cape.* [online] Available at: https://www.designboom.com/architecture/urban-think-tank-empowershack-slums-western-cape-382014/ [Accessed 10 Mar. 2018].

150

Department Of Housing. (2000). *National Housing Code.* Pretoria: Department of Housing.

Department of Housing (DH). 2004. *Comprehensive Plan for the Development of Sustainable Human Settlements: Breaking New Ground.* Pretoria: Department of Housing. Retrieved 30 January 2018 from http://abahlali.org/files/Breaking%20new%20 ground%20New_Housing_Plan_Cabinet_approved_version.pdf.

Department of Human Settlements (DHS). (2009a). *The National Housing Code – Simplified Guide to the National Housing Code.* Retrieved 5 May 2018 from http://www. dhs.gov.za/content/legislation

Department of Human Settlements (DHS). (2009b). *The National Housing Code – Technical Guidelines.* Retrieved 5 May 2018 from http://www.dhs.gov.za/content/ legislation

Department of Human Settlements (DHS). (2009c). *The National Housing Code – Integrated Residential Development Programme.* Retrieved 5 May 2018 from http:// www.dhs.gov.za/content/legislation

Department of Human Settlements (DHS). (2009d). *The National Housing Code – Upgrading Informal Settlements Programme.* Retrieved 5 May 2018 from http://www. dhs.gov.za/content/legislation

Department of Human Settlements (DHS). (2018). *Overview.* [online] Available at: http://www.dhs.gov.za/content/overview, [Accessed 10 January 2018].

Easterling, K. (1999). *Organization Space. Landscapes, Highways and Houses in America.* Cambridge, Massachusetts: The MIT Press.

Escobar, A. (1997). Planning. In Sachs, W (ed) *The Development Dictionary. A Guide to Knowledge as Power.* (pp.132-145). Hyderabad: Orient Longman Limited.

Fieuw, W. and Mwau, B. (2016). Creating 'urban commons': Towards a sustainable informal settlement upgrading paradigm in South Africa. In: Cirolia, L., Görgens, T., van Donk, M., Smith, W. and Drime, Scott., ed. *Upgrading Informal Settlements in South Africa: A partnership-based approach*, 1st ed. Cape Town: UCT Press. pp. 181-198.

Frearson, A. (2014). *Urban-Think Tank develops housing prototype for South African slums.* [online] Dezeen. Available at: https://www.dezeen.com/2014/03/07/empower-shack-urban-think-tank-housing-south-africa-slums/ [Accessed 10 March 2018].

Gardner, D. (2003). *Getting South Africans Under Shelter: An overview of the South African housing sector.* Report for the Housing Finance Resource Programme.

Gardner, D. and Rubin, M. (2016). The 'other half' of the backlog: (Re)considering the role of backyarding in South Africa. In: Cirolia, L., Görgens, T., van Donk, M., Smith, W. and Drime, Scott., ed. *Upgrading Informal Settlements in South Africa: A partnership-based approach*, 1st ed. Cape Town: UCT Press. pp. 77-95.

Ghertner, D. A. (2012). Nuisance Talk and the Propriety of Property: Middle Class Discourses of a Slum-Free Delhi. *Antipode.* 44(4), 1161-1187.

Gilbert, A. (2002). "Scan globally, reinvent locally": Reflecting on the origins of South Africa's capital housing subsidy policy. *Urban Studies*, 39 (10): 1911-1933.

Glaser, D. (2001). *Politics and Society in South Africa.* London, Sage Publications Ltd.

Goodlad, R. (1996). The Housing Challenge In South Africa. Urban Studies, 33(9), 1629-1646.

Huchzermeyer, M. (2001). Housing For The Poor? Negotiated Housing Policy In South Africa. *Habitat International*, 25(3), 303-331.

Huchzermeyer, M. (2003). A Legacy of Control? The Capital Subsidy for Housing, and Informal Settlement Intervention in South Africa. *International Journal of Urban and Regional Research*, 23(7), pp. 591-612.

Huchzermeyer, M. (2004). *Unlawful Occupation: Informal Settlements and Urban Policy in South Africa and Brazil.* Eritrea: Africa World Press, Inc.

Huchzermeyer, M. (2011). *Cities with ‚Slums': From informal settlement eradication to a right to the city in Africa*, Cape Town: UCT Press.

Huchzermeyer, M. and Karam, A. (2016). South African Housing Policy over two decades: 1994-2014. In: Kepe, Y., Levin, M. and van Lieres, B. *Domains of Freedom: Citizenship and Social Change in South Africa.* Cape Town: UCT Press., pp. 85-104.

iKhayalami. (2018a). *Re-blocking.* [online] Available at: http://www.ikhayalami.org/activities/Re-blocking/, [accessed 30 January 2018].

iKhayalami. (2018b). *Ruimsig Re-blocking.* [online] Available at: http://www.ikhayalami.org/news/ruimsig-re-blocking/, [accessed 30 Jan. 2018].

iKhayalami. (2018c). *Participative Design, Final Choices and Micro Finance.* [online] Available at: http://www.ikhayalami.org/news/participative-design-final-choices-and-micro-finance-for-BT-Re-blocking-project/, [accessed 30 January 2018].

iKhayalami. (2018d). *Signed MOU With City of Cape Town.* Available at: http://www.ikhayalami.org/news/signed-mou-city-cape-town/, [accessed 30 January 2018].

iKhayalami. (2018e). *iKhayalami Empower Shack nominated for Prestigious Royal Institute of British Architects Award.* Available at: http://www.ikhayalami.org/news/Ikhayalami-Empowershack-nominated-for-prestigious-Royal-Institute-of-British-Architects-Prize/, [accessed 30 January 2018].

Isserow, M & Everatt, D (with Yanta, M & Schneider, M) (1998). *'Determining our own Development'. A Community-based Socio-Economic Profile of Alexandra.* CASE: Johannesburg.

Jochelson, K (1990). Reform, Repression and Resistance in South Africa: A case study of Alexandra Township, 1979-1989. *Journal of Southern African Studies*, 16 (1): 1-32.

Johannesburg Development Agency (JDA), (2014). Alexandra Renewal Project improving residents' lives. [online] Johannesburg Development Agency. Available at: http://www.jda.org.za/index.php/latest-news/news-2014/151-june/1544-alexandra-renewal-project-improving-residents-lives [Accesed: 18 April 2018].

Jones, G. & Datta, K, (2000). Enabling Markets To Work? Housing Policy In The 'New' South Africa. *Habitat International*, 25(3): 303–31.

Lemanski, C. (2009). Augmented informality: South Africa's backyard dwellings as a by-product of formal housing policies. *Habitat International*, 33, pp. 472-484.

Li, T.(2005). Beyond "the State" and Failed Schemes, *American Anthropologist*, Vol. 107, Issue 3, pp. 383–394.

Massachusetts Institute of Technology (MIT)., (2018). *Alexandra Township, Johannesburg, South Africa.* [online] Available at: http://web.mit.edu/urbanupgrading/upgrading/case-examples/overview-africa/alexandra-township.html [Accessed 18 April 2018].

Migdal, J. (1997). Studying the State, in Lichbach, M. and Zuckerman, A. (eds.) *Comparative Politics: Rationality, Culture, and Structure.* Cambridge: Cambridge University Press.

Molaba, T. and Khan, Z. (2016). 'Development from within': Advancing a people-centered, partnership-based model for informal settlement development in the City of Johannesburg. In: Cirolia, L., Görgens, T., van Donk, M., Smith, W. and Drimie, S., ed., *Upgrading Informal Settlements in South Africa: A partnership-based approach*, 1st ed. Cape Town: UCT Press, pp. 199-211

Muyeba, S. and Seekings, J. (2012). Homeownership, privacy and neighbourly relations in poor urban neighbourhoods in Cape Town, South Africa. *South African Review of Sociology*, 43 (3): 41-63.

National Home Builders Registration Council (NHBRC)., (2018). *About Us.* [online] Available at: https://www.nhbrc.org.za/ [Accessesed 30 May 2018].

Osman, A. (2016). *Shaping the Future: Sustainable Building Transformation in the South African Housing Sector.*

Oxford Dictionaries | English. (2018). *English Dictionary, Thesaurus, & grammar help | Oxford Dictionaries.* [online] Available at: https://en.oxforddictionaries.com/ [Accessed 10 May 2018].

Patel, K. (2015). Sowing the seeds of conflict? Low income housing delivery, community participation and inclusive citizenship in South Africa. Urban Studies, 53(13), pp.2738-2757.

Pernegger, L. and Godehart, S. (2007). *Townships in the South African Geographical Landscape – Physical and Social Legacies and Challenges.* Published by the Training for Township Renewal Initiative, p2.

Rigg, J. (2007). *An Everyday Geography of the Global South.* Oxon, Routledge

Roodepoort Northsider. (2018). *Mogale City responsible for Ruimsig informal settlement | Roodepoort Northsider.* [online] Available at: https://roodepoortnorthsider.co.za/256304/mogale-city-responsible-for-ruimsig-informal-settlement/ [Accessed 12 April 2018].

Republic of South Africa (RSA). (1996). *Constitution of the Republic of South Africa, Act 108 of 1996.* Accessed 15 December 2017 from: www.info.gov.za/documents/constitution/index.htm.

Republic of South Africa (RSA). (1997). *Housing Act (No. 107 of 1997).* Pretoria: Government Printer. Accessed 20 January 2018 from: https://www.gov.za/sites/default/files/a107-97.pdf

Republic of South Africa (RSA). (1999). *Public Finance Management Act*

Robins, S. (2002). 'Planning "suburban bliss" in Joe Slovo Park, Cape Town.' *Africa: Journal of the International African Institute*, 72 (4): 511-548.

Rust, K., Zack, T., and Napier, M. (2009). How a focus on asset performance might help 'Breaking New Ground' contribute towards poverty reduction and overcome the two-economies divide. *Town and Regional Planning* No. 54, Special edition: reflections on the unfolding of South Africa's 2004 Housing Programme 'Breaking New Ground'.

Saff, G. (1998). *Changing Cape Town: urban dynamics, policy, and planning during the political transition in South Africa.* University Press of America. p. 85.

Scott, J. (1998). *Seeing Like a State. How certain schemes to improve the human condition have failed.* New Haven: Yale University Press.

Sebambo K., (2016). *Alfredo Brillembourg is the Rebellious Architect Tackling South Africa's Housing Crisis.* [online] Available at: http://www.designindaba.com/articles/creative-work/alfredo-brillembourg-rebellious-architect-tackling-south-africa%E2%80%90s-housing, [accessed 28 Feb 2018].

Serageldin, M. (1990). The Development and Morphology of Informal Housing. In: Powell, R. *The Architecture of Housing.* Singapore: Concept Media/ Aga Khan Award for Architecture.

South African SDI Alliance (SASDI), (2013). *Ruimsig.* [online] Available at: http://sasdialliance.org.za/projects/ruimsig/, [accessed 25 Feb 2018].

Smith, W. (2016). Informal settlement upgrading: International lessons and local challenges. In: Cirolia, L., Görgens, T., van Donk, M., Smith, W. and Drime, Scott., ed. *Upgrading Informal Settlements in South Africa: A partnership-based approach*, 1st ed. Cape Town: UCT Press. pp. 26-48.

Socio-Economic Rights Institute (SERI). (2015). *[Litigation Update] Relocation of Taylor Road residents begins today* (29 January 2015). [online] Available at: http://seri-sa.org/index.php/38-latestnews/320-litigation-update-relocation-to-fleurhof-housing-development-29-january-2015. Accessed 15 April 2018.

South African History Archive. (2018). *Tomorrow it's going to be you.* [online] Available at: http://www.saha.org.za/nonracialism/tomorrow_its_going_to_be_you.htm [Accessed 10 February 2018].

South African History Online. (2018a). *Alexandra Township.* [online] Available at: http://www.sahistory.org.za/places/alexandra-township [Accessed 18 April 2018].

South African History Online. (2018b). *Khayelitsha Township.* [online] Available at: https://www.sahistory.org.za/place/khayelitsha-township [Accessed 30 March 2018].

South African History Online. (2018c). *The Homelands.* [online] Available at: https://www.sahistory.org.za/article/homelands [Accessed 10 February 2018].
Srinivas, H. (2018). Sites and Services. [online] Available at: https://www.gdrc.org/uem/squatters/s-and-s.html [Accessed 10 February 2018].

Tipple, G. (2000). *Extending Themselves. User-initiated transformations of government-built housing in developing countries.* Liverpool: Liverpool University Press.

Urban-Think Tank. (2017). *Empower Shack.* [online] Available at: http:u-tt.com/project/empower-shack/ [Accessed 20 December 2017].

Wilson, M. (n.d.). *Alexandra Township and the Alexsan Kopano Research Centre.* University of the Witwatersrand [online] Retrieved 18 April 2018 from: https://www.wits.ac.za/media/migration/files/cs-38933-fix/migrated-pdf/pdfs-5/unescoalexbkg.pdf.

UN-HABITAT. (2011). *Quick Guide 2: Low-income Housing. Approaches to Helping the Urban Poor Find Adequate Housing in African Cities.* Nairobi: UN-Habitat.

Zack, T. and Charlton, S. (2003). *Better Off, But…: Beneficiaries' Perceptions of the Government's Housing Subsidy Scheme.* Johannesburg: Housing Finanace Resource Programme.

Personal Communication

The interviews conducted as part of the research included participants from the Alexandra Renewal Project (ARP) in the City of Johannesburg (CoJ), residents in the Alexandra Extensions visited, Ruimsig community members, NGO members from CORC and iKhayalami, and an official at the City of Cape Town (CoCT).

Annexures
Appendix 1

Participant Information Sheet

Dear Sir/ Madam

This letter serves to introduce myself, Hilette Lindeque, a Masters student in Architecture at the Technische Universität Graz in Graz, Austria.

As a part of my Master treatise, I am researching interventions and housing in informal settlements. The aim of this research is to analyse the methodologies and the resultant interventions and housing solutions, by looking at interventions in two informal settlements for case studies. I will use the findings of this analysis in the development of my own conceptual interventions or an intervention methodology.

As part of the research, I would like to invite you to participate in an interview. This will be a semi-structured interview, of about 20 to 30 minutes, involving questions about your/ your organisation's involvement in the Ruimsig reblocking project. With your permission, I would like to record the interview using a digital recording device.

This study is solely for academic purposes and does not include any promise of intervention. Participation in this study does not include any direct benefits or payment, from me or anyone else. Participation is voluntary and there are no disadvantages or penalties for choosing not to participate. Please let me know if you should like to withdraw from the interview at any time, or if you choose not to answer a question, should you feel uncomfortable or choose not to do so. Your identity will be kept anonymous, I will not mention your name or position in my writing unless you give me written permission to do so, or should you prefer me to do so. Reference will be made to your affiliated organisation with the use of any information or quotes obtained from the interview. The information I receive from this interview will be confidential, it will be used only for this study, and will not be made available to anyone else, for whatever purpose.

Should you have any questions about this research afterwards, feel free to contact me with the details provided below.

Yours sincerely,

Hilette Lindeque

Contact:

Researcher: Hilette Lindeque, h.lindeque@tugraz.at, +4368120859194

Supervisor: Assoc. Prof. Daniel Gethmann

<div align="right">

Technische Universität Graz
Institut für Architekturtheorie, Kunst- und Kulturwissenschaften
Technikerstraße 4/III
8010, Graz
Austria

Tel: +43 (0) 316 – 873 6276
Fax: +43 (0) 316 – 873 6779

</div>

Appendix 2

Participant Consent Form

Informal settlement intervention and housing

I _____ agree to participate in this study. I confirm that I have read and understand the information sheet for the above study and have had the opportunity to ask questions.	YES | NO
I understand that my participation in the study is voluntary and that I am free to withdraw at any time, without providing a reason and without resulting in any negative consequences. I further understand that I am free to decline answering any questions if I should wish to do so.	YES | NO
I agree for this interview to be digitally recorded using. I understand that this audio recording will be used for analysis only, and that extracts from the interview may be used in the thesis developed from this research study. I understand that the recording will not be used for any other purposes without my written consent and that only the researcher will have access to the original recording.	YES | NO
I agree that anonymous quotes from the interview may be used in the thesis developed from this research study.	YES | NO

_____   _____

Signature of Participant   Date

_____   _____

Signature of researcher   Date

* When completed, 1 copy for participant & 1 copy for researcher site file

Technische Universität Graz
Institut für Architekturtheorie, Kunst- und Kulturwissenschaften
Technikerstraße 4/III
8010, Graz
Austria

Tel: +43 (0) 316 – 873 6276
Fax: +43 (0) 316 – 873 6779