



UNIVERSITY OF CAPE TOWN

# The Housing Conditions of Township Neighbourhoods: Assessing Housing Performance in Langa, Cape Town

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## **Abstract**

The shortage in the provision of housing is one of the most urgent needs facing the majority of South Africans. The provision of proper housing has shown the stark difference in equality within the post-Apartheid housing landscape of South Africa. Much of the Apartheid regime had led to racial segregation through the forcible displacement of people from their places of employment and residence to government created peripheral townships neighbourhoods (Dewar & Uytenbogaardt, 1977:4). This had resulted in people of colour living within neighbourhoods with poor and subpar access to resources such as education, sanitation, employment, and critical opportunities for growth such as employment. These disadvantages had led to a major decline in the housing conditions associated with these township neighbourhoods.

This dissertation set out to explore the housing conditions of township neighbourhoods within South Africa through the means of establishing a conceptual analytical framework. This provides a basis in which to assess township neighbourhoods throughout the country, through a shared history, which has shaped the housing conditions of township neighbourhoods. The conceptual analytical framework is based upon the performance criteria previously established by Dewar & Uytenbogaardt (1977). This dissertation aimed to provide a basis for which further research into housing conditions could be conducted. The main research question was focused on the physical and anthropological lens of housing conditions, and a recommended direction for further research could be that of the political and financial aspects surrounding housing condition within township neighbourhoods.

The conceptual analytical framework had centred around the criteria of liveability, affordability, and sustainability, which is encapsulated by housing performance within township neighbourhoods and its relationship with scale, built form, elements of neighbourhood design, and activities. The conceptual analytical framework had been used as the basis of this dissertation to highlight the intricacies of housing conditions within township neighbourhoods as well as providing insights as to the various components surrounding it such as tenure options, housing environment and services and facilities associated with these neighbourhoods. It has also provided an understanding of the importance of the historical and contemporary interlinkages associated with housing conditions to be highlighted due to its immense impact on township neighbourhood residents' way of life.

A number of research methods and techniques had been implemented when conducting this dissertation. Namely guided site visits, interviews, and case study research. They had been conducted within the chosen case study example of Langa. The neighbourhood had been chosen due to it being the first established township neighbourhood in Cape Town. The research showed that when comparing Langa's overall housing conditions with the conceptual analytical framework that the housing conditions were of poor quality and that historical disadvantages can still be felt within present day.

There is a crucial need for the improvement of housing conditions within township neighbourhood. The established conceptual analytical framework could be used as a foundational element in which to improve housing conditions through the means of the improvement of housing forms and space, introducing and improving existing mixed-use zones, creating employment opportunities, instilling proper collaboration between governmental bodies and residents, and promoting integration of activities which in turn would allow for cohesive township neighbourhoods.

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# Chapter 1: Introduction

## 1.1 Background.

The provision of housing remains as one of the most contested and urgent infrastructural needs for the majority of South Africans. There has been a massive shortage of housing, and this can be traced back to historic neglect by the colonial and Apartheid authorities in South Africa. The provision of housing remains a major developmental issue due to the exponential growth rate of rural-urban urbanization and within the post-apartheid landscape (Wilkinson. 1998: 215). The lack of provision of adequate housing has played a crucial role in understanding the housing condition of black and “coloured” residents trapped in townships in South Africa. The Apartheid regime coupled with subsequent large-scale urbanization has resulted in the establishment of substandard township neighbourhoods, located upon the periphery of cities, with poor and subpar access to education, health, employment, and other critical opportunities and lacking suitable resources due to general overcrowding conditions, both of housing and of township neighbourhoods (Ross, Bowen & Lincoln, 2010: 434). When viewing housing within the historic context of South Africa, it is apparent the amount of people that have been displaced due to governmentally imposed racial classification and their socio-economic status. The Apartheid regime played a massive role in the atrocities experienced by people of South Africa and almost thirty years later, can still be felt. Most people of colour had been forcibly removed from their central places of employment and residence to government created township neighbourhoods on the city periphery (Dewar & Uytendogaardt, 1977: 4). These peripheral neighbourhoods experience a lack of infrastructure, services, and space, while white neighbourhoods thrived. These privileged neighbourhoods were given access to proper facilities and services such as sanitation, green public space, good quality housing plots, access to the full range of utility services as well as a range of sport and recreational amenities. In contrast the main infrastructural focus for poorer peripheral neighbourhoods was on providing basic housing, sanitation, and electricity (Willemse, 2012). This resulted in poor housing and living conditions as well as neighbourhoods exceeding their intended population capacities. This led to these areas being underserviced and marginalized, often times leading to the formation of informal settlements as a last resort for shelter. Informal settlements are defined by what they lack, informal housing is usually characterised by the absence of durable structures, service provision, sufficient living space, improved water supplies and secure tenure (Kiddle, 2010: 882). If

one of these important characteristics is absent then a settlement is considered to be informal (Kiddle, 2010: 882). Most informal settlements lack many of these characteristics and in the past, it has often led to conflict with the state and mass protests, with the demand of proper provision of housing, access to services, health, education, transport, and crime prevention being the goal (De Juan & Wegner, 2017: 32).

This dissertation focuses on the housing conditions of township neighbourhoods in South African cities in relation to performance criteria such as affordability, liveability, and sustainability. To fully understand this research dissertation, a brief description for 'housing conditions' is considered. Rojas & Medellin (2011: 3) provide a basic description that this can be defined as a standard liveable space in which housing services are provided. If these services are not provided, housing conditions are seen to be infringed upon. Housing conditions further pertain to a broader sense of community and connection between people and space. This broader definition of housing conditions includes the level and quality of access experienced by people within their neighbourhood, such as public transport, employment opportunities, shopping, recreation, socializing, sporting, and other daily activities and how these are supported by quality public spaces, facilities, and services (Dewar & Uytendogaardt, 1977: 3).

This research aims to further explore and possibly expand upon this definition by including the housing environment and built environment. The housing environment can be defined as the environment which encompasses the housing typology and its private area, while the built environment is the connection between housing, people, and the infrastructural environment it is situated within.

Langa was used as a case study within this dissertation through the application of a qualitative research methodology in which to view housing conditions. Langa has a deep-rooted spatial and political history, being Cape Town's first township. It was established in 1927, initially as a home for black migrant workers (Coetzer, 2009: 1). When first established, the neighbourhood of Langa was seen to be on the periphery, this is due to Cape Town being much smaller than it is within the present day (Coetzer, 2009: 2). It meant that many residents were forced to travel outside of their neighbourhood for employment opportunities. Langa has many different housing typologies, such as barracks, hostels, zones, apartments, complexes, stand-alone houses, and the newly formed N2 Gateway rental houses. This provides a complex and intricate housing system with its own set of conditions. Each typology, although extremely entrenched in history, would be too detailed to study fully, thus this dissertation has decided to view the effects of housing conditions as a whole on liveability, affordability, and sustainability. The need for the study of housing conditions allows for a deeper understanding of what it is like to live within township

neighbourhoods and provides key examples through a performance criterion that has been established. These performance criteria inform a multitude of facets surrounding housing conditions.

## 1.2 Problem Statement

There is a sharp contrast between the importance of housing and housing conditions within developing countries (Grimes, 2012). There is often a direct correlation between housing conditions and income, often resulting in many people turning to informal housing within low-income neighbourhoods, in which conditions are cramped, crowded and unsanitary (Grimes, 2012). The housing fabric and related public realm can be seen as the foundation of what makes a good neighbourhood. When housing conditions are compromised, the factors relating to what makes a good neighbourhood in turn also are affected.

The root cause of poor housing conditions within township neighbourhoods in South Africa stems from Colonialism and the Apartheid Regime and its effects can still be felt within present day. Although many initiatives and projects have been implemented since 1994 by the democratic state, as a way in which to reduce inequalities from past regimes, housing conditions for the majority of residents remain poor. There are key challenges that continue to impact on the state of housing in these neighbourhoods.

This can be attributed to the massive demand of housing in relation to the supply, inadequate provision of utility services, limited state resources, and maladministration, amongst a myriad of other challenges. The state of housing conditions is impacted upon by challenges such as the demand for housing, income, socio-economic status, crime, and state capacity. An example of the provision of affordable housing by the state within the present-day context is the N2 Gateway project in Cape Town, a flagship as well as a highly contentious development. This is due to the development of this housing project displacing residents of informal settlements, leaving them in a worse position (Satge & Watson, 2018: 69). This perpetuates the cycle of poverty for residents that were relocated to areas further away from both the neighbourhood and the established parts of the city, dramatically reducing their access to housing, social and economic opportunities. Although it had been said that housing subsidies would be provided to displaced residents, this had ultimately not been realised for many of them, thus increasing the amount of homelessness and poor housing conditions for the poorest (Jordhus-Lier, 2014:70).

Housing conditions as a concept constitutes more than just typologies of houses within the neighbourhood, it also encompasses the housing and built environment as well as the linkages between people and space. This in turn impacts on infrastructural ecosystems that exists within each

neighbourhood, where interlinkages play crucial roles and if there is a break in one part, it affects the entire ecosystem. This shows the significant impact of housing conditions and tenure options have on, liveability, affordability, and sustainability within township neighbourhoods. It provides a crucial understanding of the neighbourhood as a whole. This dissertation will not be directly addressing one overarching problem but, rather, a subset of inter-leading problems that may inform the way in which to tackle issues related to housing conditions. These issues are informed by performance criteria that has been established as a framework for tackling housing conditions in township neighbourhoods in Cape Town (Dewar & Uytendogaardt, 1977: 3). This is due to many of these neighbourhoods sharing commonalities such as displacement of residents from their original homes as well as the lack of infrastructure and the marginalization of both residents and neighbourhood. The performance criteria provide an in-depth analysis into the problems associated with housing conditions. It initially sets the scale which allows for an understanding of housing conditions within the neighbourhood and segment thereof, but also establishes linkages with the sub-district and broader Cape Town metropole through overarching themes. It moves on to elements and activities which promote available space and facilities in which humans may interact or participate in, this ties into housing conditions through the access to services and employment opportunities. Another criterion is that of performance which clarifies the performance of both housing conditions and the surrounding built environment and how this may affect people. Built form also addresses layout, street pattern and tackles housing conditions within this regard. Lastly the anthropological lens is important in helping to understand poor housing conditions as experienced by residents. It reaffirms the relationship established between people and place, through the lens of the need of people and the extent to which housing conditions affect them. The performance criteria have used Dewar and Uytendogaardt's model as a basis, by which some changes had been implemented in order to fit to the blueprint of township neighbourhoods.

### 1.3 Case Study Methodology

This dissertation will use the qualitative case study methodology as a way to understand and uncover the challenges and opportunities with housing and associated conditions in townships in South Africa. Langa has been chosen as the case study site for this research due to its deep-rooted political history which has been widely documented. It is also home to many different forms of housing typologies, which in turn leads to an array of housing conditions which can be well-documented. Though the findings within the case study of Langa may be different to other township neighbourhoods, many of these neighbourhoods

share a similar history and realities which allows the data collected from this case study to be used as a steppingstone to inform other township neighbourhoods. Langa may be used as a means to an end. This dissertation will not be delving into the inner workings of the financial and political aspects surrounding housing conditions within the neighbourhood but rather focus on the physical and anthropological aspects. The main focus of this dissertation is to provide information pertaining to township neighbourhoods as a whole through the stated performance criteria.

## 1.4 Research Questions and Objectives

### 1.4.1 Main Research Question.

1. What are the housing conditions of township neighbourhoods in South Africa when assessed in relation to housing performance criteria such as liveability, affordability, and sustainability?

### 1.4.2 Subsidiary Research Questions.

1. What are the housing conditions of township neighbourhoods in South Africa?
2. How does township neighbourhoods perform in relation to housing performance criteria such as liveability, affordability, and sustainability?

The first subsidiary question includes considerations of the specific elements of the built environment that already exist within township neighbourhoods.

The second subsidiary question includes consideration of the performance criteria, liveability, affordability, and sustainability and how the quality of the built environment within township neighbourhoods effect access to opportunities for residents. The research question aims to understand the linkages between housing conditions, the built environment, and the surrounding environment. The evaluation and assessment are undertaken through an anthropological lens in order to uncover the relationship between neighbourhood form and structures and housing conditions, and their impacts (on liveability, affordability, and sustainability) within township neighbourhoods.

## 1.5 Objectives

This dissertation aims to contribute toward an important component within planning, that of housing. It aims to dissect the impact of housing conditions and neighbourhood form and structure on the livelihood of township communities, Langa is used as a case study. An anthropological lens will be adopted to allow for this niche to be more strongly represented within planning. This lens will allow for an in depth look at the relationship between people and space, through the means of the housing environment and the built environment surrounding it. This dissertation will adopt the ideas presented by Lynch (1984), Dewar and Uytenboogaardt (1997), Western (1981) and Jacobs (2000\*). These important works have been engaged in order to provide a more holistic view on neighbourhood and housing conditions and thereby develop a more in-depth understanding of township neighbourhoods. The use of a qualitative case study research method provides a constructive means to further explore the performance criteria inspired by the work of Dewar & Uytenboogaardt (1997). The performance criteria have been tailored to township neighbourhoods as to provide a proper indication of important factors when considering the housing and built environment of these neighbourhoods. The overall objective of this dissertation is to view the different forms of housing conditions within the case study of Langa and relate these to the earlier theory on performance criteria.

Chapter one is the introductory chapter, providing background to the study and the importance of the impact of housing conditions within township neighbourhoods. It also provides a problem statement that informed the research question and objectives.

Chapter two provides a review of the literature on township neighbourhoods including Langa, which is used as a case study within this dissertation. It explores the major themes that will be discussed and that are relevant when exploring aspects of housing and neighbourhood living conditions. It provides insights as to the importance of the conceptual framework in the form of performance criteria within the built environment of township neighbourhoods. This ultimately informed the research moving forward.

Chapter three unpacks the research methods and techniques that have been used when undertaking the data collection. These methods and techniques consist of site visits, guided tours, and interviews from the case study example, thus allowing for a comparison to be made between data collected and the academic literature pertaining to township neighbourhoods.

Chapter four provides a detailed look at the synthesis of data that has been collected and aims to interpret the case study findings. It unpacks and integrates the data collection process from interviews with

residents and guided tours of Langa in a manner to extrapolate the physical and social experiences of residents within the neighbourhood. The research remains consistent throughout and explores the key findings around the role of housing conditions within township neighbourhoods. It has been developed through the lens of liveability, affordability, and sustainability in relation to the conceptual analytical framework.

Chapter five consists of further research and possible future recommendations, tying all the information that has arisen, together. This chapter aimed to identify limitations and constraints, providing recommendations and ways forward, emphasizing this dissertation and conceptual analytical framework as a starting point for finding solutions and providing suggestions for future research.

Chapter six is the conclusion and research limitations which ties all the information that arose together. It identifies limitations and constraints, providing recommendations and ways forward as well as emphasizing the conceptual framework as a starting point for finding solutions and providing suggestions for future research.

# Chapter Two: Literature Review

## 2.1 Introduction

The previous chapter noted the background and problem statement on which this dissertation is based. It stated the research objectives and questions; namely to understand the function and importance, quality of housing conditions and the impacts on the livelihoods of township neighbourhood residents. This chapter provides a literature review firstly, of the housing conditions of township neighbourhoods and secondly, how these neighbourhoods perform in relation to conceptual analytical framework such as liveability, affordability, and sustainability.

This chapter is focused on reviewing a wide variety of literature, both from local and international authors, in order to understand major themes that have arisen throughout other forms of research. The research that has been used contains older documents that still maintain relevance within this sphere of planning. It provides historical accounts, which allow for an in-depth analysis and deep-rooted understanding of the dissertation topic. It also contains work that pertains to the current era of urban planning which provides a modern dimension to the dissertation as well. Scale plays a crucial role in providing the different layers of context for this dissertation, starting from a broader context, and zooming into a local concentrated layer in which to allow for analysis, making sense and building understanding. The review looks at understanding housing conditions through definition and context. It provides a review of housing conditions through the means of performance criteria, which has been built on the framework introduced by Dewar & Uytendboogaardt (1997). This performance criteria forms the basis of the literature review due to it tackling the fundamentals of the housing and built environments associated with township neighbourhoods. It then provides a deeper understanding through the means of an anthropological lens which proves to be important when dealing with the relationship people share with space. Within the context of this dissertation, it looks at the relationship shared between residents and the housing and built environment which surrounds them.

## 2.2 The Historical Context of Housing Conditions

Housing conditions and neighbourhoods within the context of South African townships are rich in political history. It is important to note the historical context for housing conditions within the country. Colonialism and the Apartheid regimes has an immense impact on housing conditions and performance of housing within South Africa. Colonial rule and administrations have influenced a multitude of different facets of life including planning and architecture (Gwedla & Shackleton, 2021). Through the establishment of colonialism, provision of housing had been determined through race and skin colour, this had led to differences in access to resources, activities, elements, and housing. The introduction of Apartheid promoted segregation whereby people of colour were forcefully relocated to the periphery of the city. Different housing typologies were established for white neighbourhoods, in comparison to black and coloured neighbourhoods. Privileged white neighbourhoods were provided with green open spaces and larger public spaces, often accompanied by low-density residencies.

The typologies and conditions were different to that of the township neighbourhoods, which were designed for the clustering of a maximum number of residents, within, blocks of poorly designed flats and semi-detached housing, were limited, provided with substandard utility service, while open spaces that were provided, remained unkept and derelict. These neighbourhoods had also been built with limited consideration for community, family, an individual, but more so guided by the fear of white residents as well as their safety, ensuring township residential areas have only few entrances to enable control by the security apparatus of the apartheid state during periods of unrest. Formal economic opportunities and better public facilities were located outside townships. This form of urban and neighbourhood planning, and the historical context played a crucial role in the housing conditions associated with these township neighbourhoods.

The political history and housing conditions had demanded an important form of mapping of the neighbourhood, not in the traditional sense but more as a set of criteria in which to view the vast number of interconnected factors that provide a basis for the understanding of township neighbourhoods. Many other factors had been collected such as lack of services, housing typologies, crime, safety, resources, and access. These factors had spurred on the creation of housing performance criteria (Dewar & Uytendogaardt, 1977: 6).

### 2.3 Conceptual Analytical Framework

To fully understand housing conditions, it is important to view them in tandem with the set of performance criteria. The use of this set of performance criteria to assess housing conditions was explored by Dewar & Uytendogaardt's (1977) in their publication "Housing: A comparative evaluator of urbanism in Cape Town".

This dissertation used this conceptual analytical framework as a point of departure and adjusted these in relation to contemporary challenges facing housing conditions as well as the author's understanding of the factors that determines and impacts on how housing conditions are experienced by residents. The conceptual analytical framework was used to navigate through the extensive literature on urbanism, neighbourhoods, and performance criteria. It allows for a robust exploration of the connected nature of the different factors impacting on housing and the relevant housing performance criteria. The proposed performance criteria provided a key understanding as to the interrelated nature of housing conditions and its effects on liveability, affordability, and sustainability within township neighbourhoods. The performance criteria consist of key factors that are connected as seen in Figure (2.1).

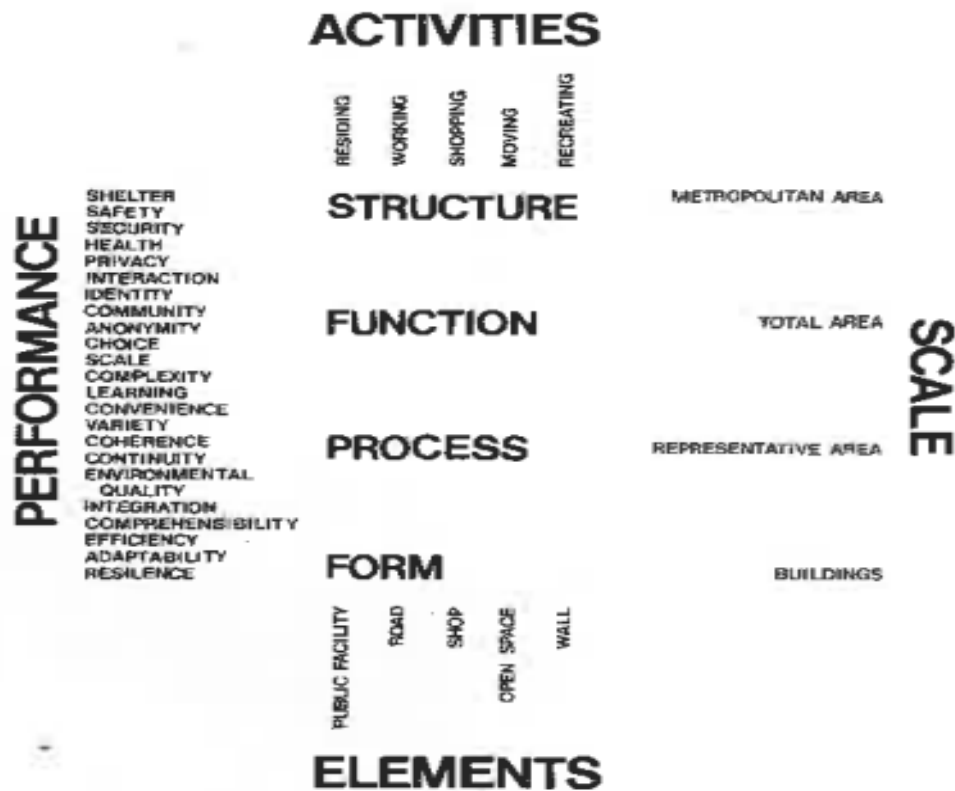


Figure 2. 1: Performance Criteria/ Conceptual Framework (Dewar & Uytendogaardt, 1977: 6).

These factors encompass the necessary scales to view a township neighbourhood, in the context of Cape Town as a whole as well as the different housing conditions and environment within the case study example of Langa as well.

Key to further developing the Dewar and Uytendogaardt analytical framework is first understanding the lenses that will be applied to the main criterion. The first being the anthropological lens. The anthropological lens provides a layered view and approach of the performance criteria. This criterion adds a deliberate human layer within the establishing planning tools. It promotes for a people centered understanding of how resident interact with spaces and their ability to mold these spaces toward their specific needs at any given time. The relationship between human and spaces is important and the extent to which changes occur is dependent on each other. The ability for these spaces to be molded by people often depends on the space itself. Within township neighbourhoods, the ability for human change of space is difficult due to how these

spaces were conceived and provided historically by the apartheid state and the factors that are intrinsically linked to it. These factors can be defined as the poor infrastructure and resource management in township neighbourhoods, in comparison to white middle-income suburbs, and how this ultimately led to a stagnation and decline of poor communities when looking at the neighbourhood as a whole. Stagnation ties directly into the concept of safety within this context. The ability to maintain safety through an anthropological lens is crucial due to its direct effect on humans. Space plays a pivotal role in increasing and decreasing the levels of safety. Youth empowerment through the provision of facilities and opportunities allows for a different form of anthropological change in which the use of amenities may allow for change within humans, thus providing the narrative of spaces having the ability to change people. The interwoven connection between planning and anthropology in which the actions set up by governmental bodies impede upon the rights of people through the means of the planning process as well as shifting the dimensions of housing conditions, are both physically connected through residence as well as socially connected through political and social status.

### 2.3.1 Understanding Housing Conditions and the Performance Criteria.

Housing conditions play an intrinsic role when describing neighbourhoods and townships. Housing conditions in the scope of this dissertation is an all-encompassing concept which involves all components of the built and natural environment, i.e., housing typologies, utility services, public facilities and services, and its surrounding host community. Housing typologies is a key concept which also needs to be defined. The description for this concept will be considered in relation to its conceptual components, which, once put together will aim to provide a holistic understanding of the concept of this dissertation. The literature reviewed explored, contains a distinct understanding of housing in relation to its built form; activities residents engage in, neighbourhood design elements, scale of the area and the anthropological lens.

### 2.3.2 The Importance of the Performance Criteria.

The aim of the performance criteria is to evaluate and assess the different forms of the environment. The environment is made up of the housing units, the living environment, and the built environment. A good housing environment will provide the ability to gauge how different housing conditions perform, as well as to what degree the housing performs within a living environment. This encompasses the ability of people to do a range of activities within a certain vicinity of their homes as well as their safety.

The intersecting factors and criterion associated with the performance criteria allow for a full view of the housing experience through scale, elements of neighbourhood design, built form, activities, and an anthropological lens. These crucial factors and the performance criteria as a whole allow for a detailed and in-depth view as to the extent to which affordability, liveability and sustainability play a crucial role within township neighbourhoods. It is important to note when looking at figure 2.2, the placement of performance in relation to the other criteria. This is strategically placed to show the interlinkages between each criterion and housing performance. It is also important to note that these criteria impact liveability, affordability, and sustainability accordingly. The performance criteria may be adopted as a model in which to provide a basis of understanding for township neighbourhoods, through the different criteria.

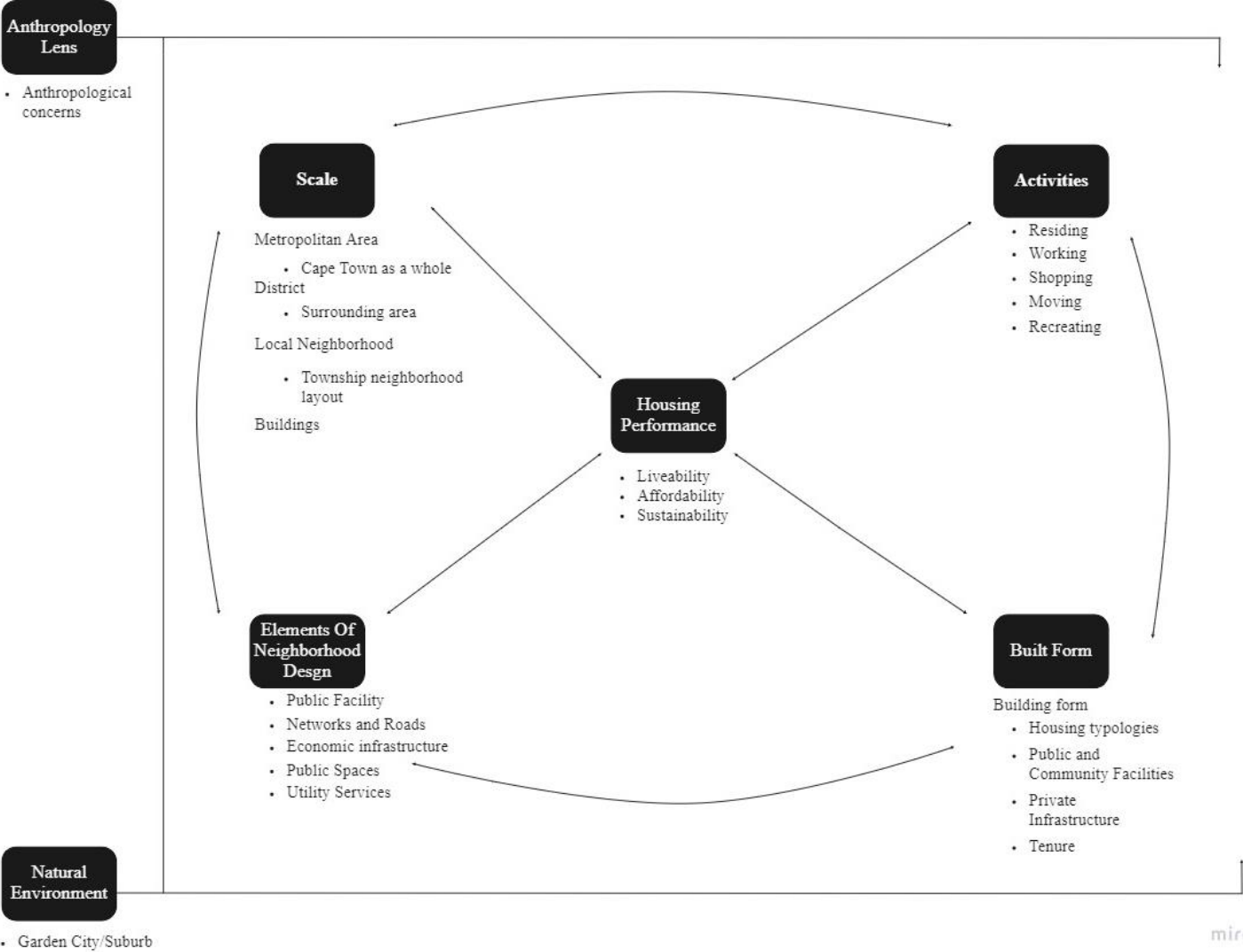


Figure 2. 2: Conceptual Analytical Framework based on Dewar & Uytendogaardt’s performance criteria (1977:6).

### 2.3.3 Scale

Scale plays a crucial role when viewing township neighbourhoods and the performance criteria. It is important to set the scale within this dissertation as to cater to the qualitative nature of the research. It also provides a key understanding of the neighbourhood and the area of research. Scale has been broken up into four crucial sub-sections. The first being the Metropolitan Area which represents Cape Town as a whole over time (Dewar & Uytendogaardt, 1997: 6). This scale provides an understanding of Cape Town and when viewed through an anthropological lens, political history and segregation plays a crucial role in the shaping of the city, which before 1948 was seen as one of the least racially segregated cities in Southern Africa (Western, 1981: 3). This scale affects housing performance through the means of transport capabilities as well as situating housing through location, which in turn affects liveability, affordability and sustainability of residents and their needs.

The second sub-section would be that of the district scale. It details the performance of each area as an entity. This identifies the different forms of township neighbourhoods within Cape Town and provides clarity of the standard set of characteristics that are associated with these neighbourhoods (Dewar & Uytendogaardt, 1997: 8). Though they may be situated within different areas. Many are associated upon the periphery which entails a lack of services and resources, ultimately hindering the liveability of residents through access as well as decreasing affordability due to the need for residents to outsource resources and services they lack. This ultimately ties into sustainability due to the inability of township neighbourhoods to provide these resources. This in turn has resulted in poor networking, communication, and poverty overall. These characteristics provide a general fit to all township neighbourhoods allowing for the validity and fluidity of the other factors pertaining to the current performance criteria discussed, as well as providing assurance for qualitative research methods to be upheld within this dissertation. The concept of neighbourhoods had largely been defined by scale and the meaningful nature of physical size in relation to the local unit. This has resulted in people being personally acquainted with each other by proximity and size, as well as other key features such as social homogeneity, street patterns and boundaries (Lynch, 1984: 246). These factors were said to play a crucial role in promoting control, but only fit a certain model of neighbourhoods. It was later debunked due to the intricacies and multi-faceted nature of the structure of neighbourhoods around the world (Lynch, 1984: 246). These models neglected not only the physical formation of certain neighbourhoods but also did not provide any context for the political nature surrounding neighbourhoods. Lynch (1984:246), had also stated that planning theorists

that had been reassured by their organic models of neighbourhoods had picked up on the notion of neighbourhoods being the basic building blocks of a city. In which it had been portrayed as a defined spatial unit, free of through traffic and self-sufficient in daily services as possible.

Jane Jacobs (2012: 51) shares a different sentiment toward the concept of neighbourhoods, stating that they are harmful to city planning due to its attempt at warping city life into imitations of town or suburban life. This implies that though neighbourhoods may be far from city life, they maintain ties toward city life. If it is stated that neighbourhoods are building blocks of cities, the form of identity crisis through warping may lead to confusion in terms of the needs of residents. This coupled with the lack of infrastructure and resources associated with township neighbourhoods leads to the degradation in provision of residential needs. When looking at scale, there should be no set model or size for neighbourhoods but rather the extent to which services and activities are capable for providing residential needs. This dissertation acknowledges the sentiments of the concepts of neighbourhoods shared by Jane Jacobs but within the context of this dissertation will not follow the basis for the concept due to it not incorporating the political and historical contexts of neighbourhoods. Examples such as the location of neighbourhoods at the periphery of cities, which may have little access to the city, thus the incorporation of city life is not a main focus. It will rather rely on how scale of neighbourhoods should not be measurable toward cities but rather by the fulfillment of residential needs in terms of services and activities.

The third subsection would be that of the Local Neighbourhood scale, which provides a more refined and detailed segmented part of each township neighbourhood. It is a segment taken out of each Neighbourhood Area (Dewar & Uytendogaardt, 1997: 6). It provides an accurate indication of general conditions at the street scale within the neighbourhood (Dewar & Uytendogaardt, 1997: 6). This allows for the view of the neighbourhood in its entirety as well as within parts to create a sense of interlinkages within the other performance criterion factors, thus allowing full view of the housing and built environment. This scale will be implemented within the dissertation to contribute toward ultimately providing a key area for the dissertation to be conducted.

The final subsection within scale is Building, which focuses on the relationship between buildings and the street and the relationship to each other and the site (Dewar & Uytendogaardt, 1997: 6). Building's scale will look at the key housing forms which impact sustainability, affordability and livelihoods within township neighbourhoods as well as provide relation to the streets, what activities take place, and what resources and services are available within its immediate proximity.

As this criterion has highlighted, scale is important for understanding the neighbourhood within different spatial contexts. The range of viewing the neighbourhood in relation to the greater Cape Town area, the different forms of neighbourhoods and their associated characteristics, and smaller, more focused points of the neighbourhood, such as streets and nodes, allows for a crucial and holistic understanding of the spatial place in which this dissertation is set. It tackles different issues in the form of spatial needs such as the definition for neighbourhoods and what scale should be implemented. It provides a key understanding as to how neighbourhoods should be measured, not through actual size but its ability to fulfill residential needs. Other scales such as the local neighbourhood area and the building area provide a deeper look at the neighbourhood through the way in which its roads and streets provide linkages and develop a relationship between building infrastructures and housing typologies and its surrounding environment. It is also important to view scale in terms of the conceptual analytical framework in which scale is tied to performance through the means of it providing a basis and framework in which to measure how other criterion are affected as well as how it affects Liveability, affordability, and sustainability. It also provides different scale areas in which to view the extent to which criterion affect the performance factors.

### 2.5.3 Built Form

Built form provides a key linkage between the different factors of the performance criteria through the means of housing, street, and neighbourhood form (Dewar & Uytendogaardt, 1997: 6). Built form is associated with the layout of a neighbourhood. This includes the reasoning as to why certain forms of housing is located within specific parts of the neighbourhood. It encompasses aspects of housing conditions as well as the built and surrounding environment associated with housing, the different transport nodes associated with it, the location of mixed-use zones and recreational and public space facilities.

Housing conditions make up a large part of the overall layout and form. It also plays a fundamental role within the performance criteria due to it forming the basis of living space for residents within township neighbourhoods. It establishes the different forms of housing through not only the narrative of typologies within township neighbourhoods but also the conditions within which these forms of housing are situated. This includes the built environment surrounding it. Housing conditions encompass a broader framework which includes housing typologies and the built environment. Housing typologies provide key insights into the political and social history of Cape Town through the different forms of housing. A key definition

should be provided to fully understand housing typologies. Housing in its most basic form, is regarded as a unit within which it is occupied or intended for occupancy as separate living quarters, as well as without having direct linkages in the form of living with other persons within the structure and contains direct access from the outside through a common hall (Smith, 2014: 2). This elementary description provides an initial understanding of housing and can be understood in relation to different housing typologies, such as flats, houses, and barracks. However, a distinction should be made between housing and houses, in which the most common understanding refers to a single built structure that serves as a dwelling for a single household, usually at a low-density. It will not be used within this dissertation as it provides a limited understanding of a living quarter due to it disregarding different forms of high-density housing such as apartment buildings or barracks (Smith, 2014: 2).

Typology can be defined as an approach which isolates formal attributes, of identifiable qualities that tie the city together through form, into a single or number of principles (Pfeifer & Brauneck, 2007: 8). This single principle is called type. It describes the commonalities of a series of different, but historically concrete models (Pfeifer & Brauneck, 2007: 8). The is prevalent within this dissertation through which the principle of type encompasses the different forms of housing that each household occupies. These two definitions complement each other and provide a threaded understanding as to how units of occupancy, though different in form, all share a commonality of residence. Typologies are represented by the built form, which provides a broader sense of building types created by humans for shelter and to protect activity (Lawrence & Low, 1990: 454). It includes plaza's, streets, landmarks, sites, and refers to specific built elements such as doors, windows, roofs, walls, and floors (Lawrence & Low, 1990: 454).

The built environment can be seen as the product of human building activities, whereby within its broadest sense refers to the alteration of the natural environment through construction by humans (Lawrence & Low, 1990: 454). Housing typologies being a section of the built form provides the necessary linkage of typologies with the built environment through human activity and creation. The built environment and anthropology are inextricably connected due to anthropological concern with the built environment being as old as the first formalization of theories of cultural evolution during the 19<sup>th</sup> century (Lawrence & Low, 1990: 454).

It is important to clarify the differences and connections established when mentioning housing conditions and the extent to which it encompasses housing typologies and the built environment. It highlights the relationship between housing and people whereby it is clearly seen that housing conditions as a factor of

performance criteria speaks directly to its importance upon affordability, liveability, and sustainability within the neighbourhood. Going as far as saying that some forms of typologies impede on the ability of others to live within the area. Many of the different housing conditions and its surrounding built environment speak to the different ways in which many residents afford to live in the neighbourhood and provides an in-depth view as to the how these conditions affect residents.

In presenting the concluding remarks of form, a crucial issue to note is that the form and layout of township neighbourhoods within Cape Town have been often times created by governmental bodies as a means of control and segregation. These have been due to the historical atrocities that had been present within the time of the neighbourhoods planning. Many of the constructed neighbourhoods have underperformed when compared to organically occurring neighbourhoods due to their lack of infrastructure, layout planning and resources. This is ultimately due to Apartheid spatial planning and the notions of segregation. Housing conditions have been viewed as part of built form through a zoomed in scale, allowing for the understanding of the effects of form upon people in personal capacities, whereas layout refers to it in a broader capacity. A key focus on the manner in which humans have to cope with stressors presented from both capacities of layout are important in showing their sustainability both within a physical and socio-historical context.

#### 2.5.4 Elements of Neighbourhood Design

Elements of neighbourhood design are identified as the space where a range of activities can be done within a small proximity (Dewar & Uytenbogaardt, 1977: 6). Ideally this should advocate for mixed-use zones and prevents dormitory and stagnant environments. This performance criterion contains public facilities such as libraries, police stations, taxi ranks, and shopping centers which allow for access to resources and services. Streets forms part of elements due to it providing connectivity within neighbourhoods. It is used as a thoroughfare, which allows for connection between neighbourhoods into the greater Cape Town area. Connectivity through streets and roads as well as the general layout of the street network is seen to be one of the most essential and important aspects of neighbourhood design (Stangl & Guinn, 2011: 285). According to Rudd & Mutai (2019), there are three distinct categories of public space, which are identified as streets, open spaces, and urban facilities. Streets and roads maintain the role of means of connectivity, movement, and public interaction (Rudd & Mutai, 2019). It is important to provide distinction between streets and roads. Streets are seen as spaces in which accommodates

multifaceted human activities such as informal trade, social and play spaces for communities and human interaction (Todeschini & Dewar, 2013: 5). Roads are defined as channels of movement that connect settlements to the countryside and its main function is for vehicular travel (Todeschini & Dewar, 2013: 5). Appropriately designed shopping areas can contribute to mixed-use zones as well and provides resources through the means of purchased goods. Open space and public space play a crucial role in elements due to it contributing to a sense of community through social interactions with neighbours and instilling safety through a constant form of motion. Public spaces are defined as the space that is publicly owned by the state and is accessible to everyone without incurring significant costs (Rudd & Mutai, 2019). According to Mandanipour (2010) spaces can only be classified as public, if they are managed by public authorities, and access is available to all members of the public. Public spaces play a crucial role within elements as well within the broader housing conditions of a neighbourhood. It encompasses many factors such as a place for social interaction, recreation, social and community relations and an exchange between people (Jacobs, 1961). Lastly, walls play a crucial role with regard to elements due to its intersection with safety whereby it offers both privacy and protection, thus creating separation between public space such as the street while also including privacy of residence. The harmony between privacy and public space is important due to it not only affecting elements but also factors of activities within the neighbourhood. Schools are also an important element. It is deemed as being one of the most important institutions and facilities for youth.

Elements of neighbourhood design are a crucial aspect of the performance criteria due to it inhabiting the space in which activities are done. They highlight key aspects of the neighbourhood such as public facilities, roads and streets, shops, public space, and walls. Clear definitions and understanding of these elements help in establishing key forms of activities that take place within these spaces and allow for the means in which these vital activities take place. The relationship between elements and activities cannot be understated, due to it intrinsically effecting housing conditions. The interlinkages between elements of neighbourhood design and the anthropological lens within the context of the performance criteria is of crucial importance due to it providing the space in which human activities are completed and allow for the highlighting of anthropomorphic space, whereby the need for space in which to conduct activities are essential in establishing liveability, affordability, and sustainability within a neighbourhood.

When presenting the concluding remarks for elements of neighbourhood design, it is crucial to note the importance of public space within the layout of neighbourhoods. Public space in the form of streets and roads, open spaces and urban facilities make up the fundamental layout of neighbourhoods and are key in

creating a sense of safety, security, and connectivity. These different forms of public space accommodate for these factors. Elements of neighbourhood design are also important due to the relationship it shares with both activities and the anthropological lens, whereby it caters for the space of human activities to take place.

#### 2.5.5 Activities

Activities are directly interrelated to elements of neighbourhood design through access. The quality of elements effects the performance of facilities, roads, shopping centers, public spaces and walls which directly influence the actions and activities that are able to take place within in them. These activities are important because it allows for access and a form of ecosystem to be established through the means of transactions between humans and space. The activities within neighbourhoods provide a distinct characteristic to the neighbourhood and contribute to the overall appeal and function of neighbourhoods in general. Lynch (1984: 248) mentions that if barriers to movement and activities are erected or if people are directed to shop in one place and work in another, or to use a particular service, then access and adaptability decline. This will have a direct impact upon the performance of the neighbourhood as a whole due to the barricade of access to activities impeding on residents' ability to sustain their lives as well as incurring additional costs, which may result in a decrease in sense of affordability and liveability. This is evident in many residents already having to use income earned for transport, due to the peripheral location of township neighbourhoods, which means that there should not be any further strain on residents' financial costs. Two key aspects will be mentioned within this section, which is shopping in the form of food security and working in the form of economic opportunities within the neighbourhood. These have direct correlation to the housing conditions associated with the neighbourhood due to it being activities that are integral in daily life and affect the quality of living of residents. It is important to note that there are other forms of activities but due to the interrelated nature of the performance criteria, have been mentioned within other criterion. These specific two factors have been chosen not only to avoid this dissertation being repetitive but also to ensure that there are clear interlinkages between the topic of this dissertation and this performance criterion as well as providing key connections between the other criteria.

Activities in terms of food security and shopping have been a topic of much debate within township neighbourhoods. This is due to the establishment of larger shopping centers within the neighbourhood. The rapid expansion of shopping centers and supermarket franchises have limited the access to food security and products for the urban poor. The lack of financial access has been a key reason for the strain

on food security within the neighbourhood (Pulker, 2016: 4). There is a misconception that to combat food insecurity, there needs to be an increase in the availability of food, which encourages the creation and production of more food and supermarkets, when in fact it is not about the availability but more the economic access to food (Pulker, 2016: 31). Large supermarket franchises and shopping centers have also impeded on important activities within the neighbourhood such as the informal trade networks that have been a mainstay with regard to livelihood and affordability of many residents (Pulker, 2016: 4). Though it may be argued that the establishment of these franchise supermarkets and shopping centers may contribute to important activities such as employment opportunities it has resulted in the loss of important informal trading employment positions which often times are the only source of income for certain residents. This in turn perpetuates poverty whereby the increase in supermarkets have resulted in not only direct competition between formal and informal trading but also have resulted in residents not being able to afford food resulting in an increase in urban food insecurity. It is seen that these supermarkets echo the very sentiments Lynch (1984: 248) has been against due to it both reducing employment opportunities, directing consumers to shop only at larger supermarket franchises and corporations resulting in a clear decline in both access, activity, and adaptability within the area, which may ultimately reduce living and housing conditions within the neighbourhood due to many people not being able to afford and access food (Lynch, 1984: 248).

Through the means of Apartheid spatial planning, many cities have been burdened with the legacies with an overly regimental approach to infrastructural planning and allocation of urban land-use (Yacinthe & Jasmine, 1998: 2). This top-down approach has adopted the form of an upside-down tree when viewing these city structures (Yacinthe & Jasmine, 1998: 2). This furthers the understanding of how daily activities within South African cities are segregated, inaccessible and non-functional (Yacinthe & Jasmine, 1998: 2). This is an important context when understanding employment opportunities and working within township neighbourhoods. The Apartheid regime had massive economic implications upon the residents of township neighbourhoods, whereby many male laborers who had been forced into the space, who were separated from their families, had to find work in other areas due to the lack of economic opportunities within the neighbourhood (Yacinthe & Yasmine, 1998: 2). It is crucial to note that within many Black communities, formal commercial development had been prohibited and many activities had been monitored and had designated times. These prohibitions had perpetuated poverty within these areas. Many black communities had been designed with a lack of access, they did not have the same forms of mixed land use zoning as white communities, which allowed for a progression of economic activities

resulting in sustained growth (Yacinthe & Jasmine, 1998: 3). Another key aspect was the prohibition of formal commercial development, this put economic development at a large disadvantage. This land use mechanism put township neighbourhoods and communities at a disadvantage and had forced them into shopping in predominantly White or Coloured-owned supermarkets, as well as working for white or Coloured establishments (Yacinthe & Jasmine, 1998: 3). These remnants of conditions of activities and work, which had been part of Apartheid spatial planning can still be seen in present day township neighbourhoods, whereby many people still have to commute long and expensive distances to work. There has been almost no economic development within these neighbourhoods since the abolishment of Apartheid. Large supermarket franchises have been expanding in some township neighbourhoods, which has created job opportunities, but it only provides low paying opportunities for a limited number of residents, displacing informal economic activity, while not solving the glaring issue of the difficulty to create meaningful employment opportunities due to the lack of educational skills, entrepreneurial and broader economic development within these areas.

An overarching theme when considering activities in township neighbourhoods is safety. It is an important aspect when regarding the quality of activities present within township neighbourhoods. Safety is seen to be interwoven between many of the performance criteria, and different aspects of it has been adopted within each context. Safety is crucial within the context of standard activities such as residing, working, and moving. This is due to the increasing petty and serious crimes that have been increasingly prevalent within township neighbourhoods due to the poor financial and economic opportunities available.

Many forms of activities within township neighbourhoods such as shopping, and working, are resultant of the political history associated with the neighbourhood. These activities have directly been influenced by the past political decisions to exclude these from townships and the impact that housing conditions both directly and indirectly have within the neighbourhood. The impact of being able to shop within the neighbourhood as a consumer as well as an entrepreneur has been affected by larger corporations which have a direct impact on the quality of life through the means of creating and hindering economic opportunities within the area. Counter efforts such as the implementation of urban renewal through activities, namely the township socio-economic initiatives and activations have allowed for the creation of different avenues of revenue and income within the township neighbourhood. This may be applied to other township neighbourhoods and provide a key understanding of its ability for dismantling of top-down governmental approaches while encouraging local and community led bottom-up approaches at social cohesion and activity growth (Massey, 2019: 277). Urban renewal allows for the reimagining of space and

in turn residents ability to conduct activities within them (Massey, 2019: 278). It plays a crucial role in allowing planners to in part dismantle Apartheid spatial planning remnants, thus creating new images for the city, starting on smaller yet significantly important scales such as neighbourhoods. Though many points of contention and positive initiatives have been happening simultaneously, often leading to a form of confusion of access and activity availability. It needs to be stated that initiatives put in place, such as the township socio-economic activations has been of tremendous help within the activity sector, often positively influencing other sectors, allowing for an increase in housing performance within the entirety of the neighbourhood.

#### 2.5.6 Performance

The six subsections pertaining to performance have provided key linkages between the previously mentioned activities criteria. It can be noticed that performance is interwoven into the fabric of the performance criteria, which has resulted in an interdependence of each criterion thus resulting in a codependent criterion whereby each criterion cannot function without the other. The first subsection is safety, which is viewed through the lens of performance. It plays a crucial role in not only the tenure options of residents but also the aspects of liveability whereby residents may not feel safe in their community and opt to move out of the neighbourhood.

When dealing with safety it is important to view it in tandem with crime. Crime has been of major concern within Cape Town for a number of years, especially within township neighbourhoods. Many reasons have led to the rampant increase in crime. When looking at crime, an overarching factor when considering it, is the concept of social cohesion and the lack thereof. Social cohesion has many definitions, it can be defined, within the period of post-Apartheid South Africa, as the need for unity amongst South Africans within the crucial point of nation building and reconciliation (Langa et al, 2016: 41). It has often times been related to race relational issues which interconnects with another definition, whereby, “The lack of social cohesion is associated with high rates of crime and violence in South Africa and can be ascribed to Apartheid, which has led to social disintegration and erosion of social values in black communities.” (Langa et al, 2016: 41). Within an international context, many scholars have used the term to understand the intersectionality between social exclusion, poverty, and inequality in a global scale (Langa et al, 2016: 41). Though these definitions provide in-depth understanding of the many possible contexts in which social cohesion can be used, a key definition may be used to understand it in a broader sense. This broader

understanding allows for it to be looked at in different scales, allowing for the addressing of crime and ultimately the increase in safety measures to be implemented adequately. Social cohesion may also be defined as a form of common purpose shared amongst community members, organizations, and neighbourhoods. It encompasses aspects of social control and social order between different spheres of people, groups, and places (Langa et al, 2016: 42). It also emphasized social interaction within communities and families as well as an overall sense of belonging to place (Langa et al, 2016: 42). An increase in social cohesion within township neighbourhoods may lead to a more community driven neighbourhood, this would reduce rates of crime and violence. Through the means of organizations, NGO's and community projects, an increase in job creation may also occur which has an indirect effect on crime. Through job creation, many individuals will not have to turn to a life of crime, and will keep people busy and not bored, which often times is a deterrent of potential criminal activities (Langa et al, 2016: 42). Many initiatives have been started by community organizations such as recreational activities including soccer programs involving younger men of communities who, as research has indicated, are most likely to be involved in criminal activities (Langa et al, 2016: 44). Other initiatives have also been implemented, in the form of the recruitment of ex-offenders as public speakers, speaking out against crime and helping in anti-crime campaigns to raise awareness (Langa et al, 2016: 44). Another key recommendation would be the implementation of crime reduction principles by environmental design, this is defined as the upgrading and proper provision of housing, safety precautions and fencing (Kakaza, 2009: 47).

Other subsections that should be noted is that of community, whereby the intrinsic nature of neighbourhoods is to foster housing and social interactions between residents. Sense of community can be found within the different housing typologies, such as flats and hostels whereby a cluster of residents live in a separate yet shared space. There is less of a sense of community within single standing housing but can be reached through other factors such as activities. Community can also be shared on a larger scale through the neighbourhood itself as well as within a microcosm of the neighbourhood in the example of streets. With regard to liveability, many people stay in areas due to the sense of community, which also allows for safety. Community in terms of sustainability and resistance has also been a major influence and has had great impact in the neighbourhood. Specifically in terms of the opposition of the construction of the N2 Gateway megaproject. Though the N2 Gateway has been successfully constructed, the unity surrounding its opposition is what has been chosen as the main focus within this subsection (Jordhus-Lier, 2014: 169). Community participation also is a key factor when considering housing conditions. (Jordhus-Lier, 2014: 170). Convenience is also another crucial subsection in which access to activities promote

liveability. Convenience has been expanded on within the elements sub-section. Environmental quality through the form of public space is crucial within the context of liveability and sustainability. Township neighbourhoods have poor environmental quality due to poverty and low maintenance of these areas. This ties into the political history associated with them. Environmental quality may also be seen within the context of recreational facilities such as parks and sports fields. These facilities are often left derelict and can be hotspots for crime. Lastly the subsection of sustainability also can be seen within many contexts. The first being yet another factor of the political history associated with township neighbourhoods whereby overcrowding, poor maintenance, lack of services and resources are all present yet people within the neighbourhoods are able to sustain themselves at certain costs which portrays a sense of sustainability amongst residents.

Performance encapsulates key subsections such as safety through crime prevention and makes mention to an important concept which is social cohesion. It aims to help reduce crime and provides an interlinkage to activities in which the reduction of crime allows for daily activities to be completed without the risk of petty crime, it also improves safety. It has also made mention to privacy and community, that when balanced allows for a harmonious sense of liveability within the community. It also ties into convenience through the means of shopping and food security which has been a growing problem within the neighbourhood. Lastly it speaks to environmental quality and sustainability in which public and open space play crucial roles in both activities and elements. It introduces the sense of sustainability of residents which may be seen as a point of contestation to dismiss the conditions of many of the township neighbourhoods found in Cape Town. This disregards the degree of sustainability and does not allow for the dialogue of if they were awarded the proper services and resources, it would allow them to regain a higher standard of living as well as implementing resilient methods of living.

### 2.5.7 Tenure Options

Tenure options can be seen as a way in which the different lenses and performance criterion are stitched together. It is an underlying effect which may naturally occur due to it affecting different factors of housing performance and conditions at varying scales. There are evident interlinkages in each of the performance criterion. This section allows for a cohesive understanding of tenure options aiming to avoid repetition of tenure interwoven from other performance criteria. Township neighbourhoods have different housing typologies and tenure options associated with them. This section will provide a brief

understanding of it to provide clarity on the housing conditions of these types of neighbourhoods as well as how it fits within the performance criteria.

Tenure can be defined as the right of all individuals and groups to effective protection from the State against forced eviction (Kiddle, 2010: 883). Within many township neighbourhoods, the lack of secure tenure has put many residents in precarious circumstances due to how common evictions have been taking place (Kiddle, 2010: 883). Examples of this would be the number of informal settlements established both within township neighbourhoods as well as with different areas of greater Cape Town. This often was the result of evictions as well as the financial inability for individuals to find proper housing forms.

## 2.6 Addressing the Issues of Housing Conditions

When addressing issues of housing typologies upon affordability, liveability, and sustainability, it is important that there is a crucial housing problem that must be considered. This dissertation does not aim to address or solve issues of housing but rather to observe it, which may lead to solutions through the application of this writing. It is important to note that the total housing problem is much more than merely the provision for housing, rather it is the provision for total living environments (Dewar & Uytenbogaardt, 1997: 13).

It should be fully stated that these deep-rooted issues within housing typologies and the built environment within township neighbourhoods is due to Western concepts of planning that had been established prior (Satge & Watson, 2018: 63). These concepts had been imposed upon the South without the context of the environment and needs of residents. This fundamental problem can be traced to a silo approach of planning that may be devoid of human well-being and interest. The colonial propaganda that has been imprinted upon planning values, laws, and practices within post-colonial African cities, and within this context South Africa and its township neighbourhoods, should be examined (Satge & Watson, 2018: 63). These planning tools informed by colonial measures have been a key reason for the disconnect of successfully established neighbourhoods. Stage & Watson (2018) have argued that planners who hold a southern view of planning, which entails that they aim to promote planning with the understanding of their city and communities' context, promote the rethinking of accepted wisdoms within planning theory (Satge & Watson, 2018: 63). Deborah Pellow (2002: 262) also shares a related sentiment, in which King establishes that the first language for planning theorists is metaphor and verbal utterances, which informs

their second language of built form. Allowing for different ways of seeing and reading as integral in allowing for a holistic pursuit of new planning and design (Pellow, 2002: 262). King also states that the most urgent change may be in the way in which architects and planners are taught (Pellow, 2002: 262). Within this regard, the different manners in which to see and read in terms of planning can benefit by adopting different lenses, specifically an anthropological lens. This may benefit in both aspects of developing the first language stated by King, whereby public participation and planners framing themselves within the context of communities may help to understand and fulfill their needs through the medium of planning their built environment as well as positioning themselves within the context of these communities, thus reducing the theories imposed on by colonial Northern rule. This may provide an integral solution into issues dealing with housing typologies and thus completely change the landscape associated with township neighbourhoods to be more inclusive, safer, and tailored to needs of residents.

## 2.7 Defining Sustainability, Affordability and Liveability in the Context of Township Neighbourhoods

It is necessary to clarify the definitions of sustainability, affordability and liveability, and the relations these terms share within the context of this chapter, to allow for clarification of how they relate to the conceptual analytical framework. This research will be looking at the definitions of sustainability, affordability, and liveability in relation to the conceptual analytical framework which shows the housing performance criteria. It has adopted both an infrastructural and anthropological lens in order to understand the relation. When looking at sustainability, it is important to establish that this dissertation will be looking at sustainability of human settlements, which by extension includes housing (Choguil, 207: 145). It is important to note that this form of sustainability has only been implemented within recent times, even though the rapid rate of urbanization has resulted in residential areas and housing in general have generated the most forms of waste and pollution. Thus, resulting in the need for the application of sustainability within these areas (Choguil, 2007: 145). Sustainability can be defined as the achievement of the sustainable use of renewable and replenishable resources as well as the minimization in the use of non-renewable resources and meeting basic human needs (Choguil, 2007: 145). The meeting of basic human needs differentiates this form of sustainability from the generic use of the term presented by the Brundtland Commission when establishing the sustainable development goals (Choguil, 2007: 145). This provides a human aspect to sustainability and creates the narrative that the needs of human are

inherently part of this form of sustainability (Choguil, 2007: 145). Affordability is defined as an experience of people within the means of social and material expenses (Stones, 2006: 151). It highlights the balance of costs of actual and potential housing with non-housing expenditure within the constraints of income for housing (Stone, 2006: 151). Liveability is defined as a sense of satisfaction in the context of personal housing and neighbourhoods, in which complex trade-offs are made in choosing where to live (Haarhof et al, 2016: 2). Liveability also includes the accessibility of services, public space, and the overall satisfaction of neighbourhoods in terms of the ability for people to live within it.

It is important for these three definitions to be connected, allowing for an integrated understanding of how housing conditions affect these factors. Sustainability is linked towards affordability through the means of minimizing the use of non-renewable resources and the meeting of basic human needs within the balancing of non-housing expenditure and costs of actual and potential housing within the constraints of income for housing. Therefore, entailing the maintaining of a level of income earned by individuals, which would result in the fulfillment of their basic needs, while minimizing their level of pollution and use of non-renewable resources within the constraints of balancing the cost of housing. Liveability is also tied to affordability in which the standard of liveability of many residents are linked to the typologies and conditions of housing they are able to afford. These factors form part of the complex trade-offs, which often result in residents settling for what they are able to afford when it pertains to housing conditions. Lastly sustainability and liveability are interlinked through the intersecting of previously mentioned complex trade-offs of choosing where to live and the ability of people to meet of basic human needs as well as access to services which encompasses both replenishable and non-renewable resources. This may take the form of residents choosing to stay within informal settlements, often trading services such as access to sanitation facilities and water for insulated housing and road infrastructure, which are associated with this form of housing

## 2.8 Conceptual Analytical Framework Synthesis

The conceptual analytical framework forms the basis of the main research question and is integral in understanding this dissertation. It comprises of the relationship between the performance criteria

established, and liveability, affordability, and sustainability. This section will highlight the relation between the performance criteria and these three factors providing an integrated explanation of how they intersect as well as the importance of this relationship in understanding township neighbourhoods as a whole. It will be used as the framework in which to assess housing conditions for all township neighbourhoods in South Africa.

### 2.8.1 Liveability

When looking at scale in terms of liveability it is necessary to view it through the district scale whereby this scale represents the different forms and characteristics of township neighbourhoods. This scale impacts on liveability due to many township neighbourhoods being located upon the periphery, resulting in a lack of access to resources and services, ultimately hindering the liveability of residents through access. This directly impacts on the satisfaction and quality of living for residents. It is also evident when zooming into the built form of township neighbourhoods, in which housing condition and typologies affect the sense of liveability for residents. Though there is already a lack of services, as mentioned when dealing with scale, housing conditions are negatively impacted by built form due to the complex trade-off's individuals have to undergo both physically and financially when living in township neighbourhoods. This often stems from lack of access to proper housing conditions such as proper roofing, walls, and the immediate surrounding housing conditions such as proper roads and transport networks.

When looking at elements of neighbourhood design, it consists of the spaces in which activities take place, which includes streets and roads, public and open spaces, and public facilities. Infringement upon these facilities and spaces result in a decrease in liveability due to barriers of access as well as overcrowding, which is the catalyst for poor housing conditions. There are also aspects of safety in which overcrowding may lead to an increase in crime and a decrease in the differentiation of public and private space, thus drastically affecting the sense of liveability within the neighbourhood. Community plays a crucial part in liveability as it both affects social and safety trade-offs, often times being the reasoning for residents continuing to stay in neighbourhoods. When looking at activities, it is prevalent that it also provides a view of the characteristics of township neighbourhoods and contribute to the overall appeal and function of it, which directly affects liveability. Lynch (1984: 248) had stated that if barriers to movement and activities are blocked, or people are directed to shop or use a particular service in one space and work within

another then access and a sense of liveability decreases. This directly affects the performance of the neighbourhood due to it impacting on the ability residents have to sustain their lives. If there is a constant need to travel or shop within particular places, the financial impact of these activities reduces the sense of liveability within neighbourhoods. This is often the case due to the lack of services and activities within township neighbourhoods. Informal trade is also an important factor for liveability within these neighbourhoods due to it allowing for the diversification of food security as well as adopting the dual role of producer and consumer, thus directly impacting the livelihood of all parties involved.

### 2.8.2 Affordability

The impact of scale upon affordability is similar to that of liveability. When looking at the district scale, the peripheral location of township neighbourhoods plays a key role in access, whereby the lack of access and resources has impacted residents' level of liveability and resulted in a decrease in affordability due to the need for residents to outsource the resources and services they lack. The direct impact of affordability and income often dictates the housing conditions in which people live, which is also evident within township neighbourhoods. The different housing forms and conditions as well as surrounding environment in which residents live is indicative of the affordability of residents in these neighbourhoods. Thus, providing a crucial linkage between the built form and affordability. A key example would be the different forms of housing and rental agreements present in township neighbourhoods, in which there are different levels of affordability when looking at housing such as flats, free standing homes and informal settlements.

Informal trade plays a significant role in understanding the relationship between elements of neighbourhood design and affordability, whereby the occurrence of informal trade within streets has advocated for increased affordability. Streets have taken the role of being spaces that accommodate multi-faceted human activities, often rooted in cultural heritage in which traditional township cuisine is sold. Informal trade also allows for the intersection between activities and affordability through the means of providing inexpensive goods and services. It provides alternatives to shopping within shopping centres. Affordability is directly affected by the accessibility of activities, which is evident if barriers of movement are established, redirecting residents to shop in certain places and work in others. It results in the level of affordability within neighbourhoods decreases. This is due to the large portions of their income being used on transport to conduct activities in other spaces as well as the standard of living being poor due to

activities of shopping being restricted within the neighbourhood. This, ultimately, results in it becoming a dormitory suburb.

### 2.8.3 Sustainability

Scale plays a crucial role when looking at sustainability. When looking at the district scale, lack of access to resources has resulted in the decrease of a people-centered approach to sustainability thus exacerbating poverty. When looking at the building scale, the political agendas behind the construction of township neighbourhoods has resulted in the reactionary creation of substandard housing forms such as informal settlements. It is stated that the very poor have no other option other than to degrade the environment through unsustainable forms of living (Choguil, 2007: 144). This ties directly into the interrelation between built form and sustainability in which different forms of housing provide insight into the fulfillment of basic human needs as well as representing built form. When viewing it more in-depth the sense of privacy is also a common factor, in which built form represents it through walls, doors and roofing which is also elements of basic shelter as well as the need for privacy (Zulu, Maphosa & Sobantu, 2019).

It is noted when viewing elements of neighbourhood design in terms of sustainability, that space plays a crucial role in meeting the basic human need of housing. Township neighbourhoods often had been established with a fixed amount of space due to segregation and neighbourhood borders. The lack of space has had a ripple effect in the creation of proper forms of housing. This resulted in the creation of informal settlements whereby as many residents as possible are housed within a finite amount of space, often reducing the quality of living of these residents. Informal settlements do not fulfil living and housing needs. The design associated with these homes impact sustainability due to many residents not having adequate access to natural resources such as water and green space (Winston & Eastaway, 2008: 211). The quality of activities also affects sustainability within township neighbourhoods. This is seen through food security and shopping. A key example of this would be the growing of vegetables and fruits as a means to sell to residents, in some cases community residents give away produce to those who cannot afford within the neighbourhoods. The growing of produce represents the sustainable use of replenishable resources in the form of food.

## 2.9 Synthesis of Literature Review

The established interlinkages between the conceptual analytical framework and liveability, affordability, and sustainability have formed the basis in which to synthesize data and academic resources collected within the literature review to understand the main research question of this dissertation. The synthesizing of data allowed for cohesive connections and interrelations to be made. These connections and interrelations provided insight into what are the housing conditions of township neighbourhoods in South Africa through common threads found within the conceptual analytical framework and liveability, affordability, and sustainability. Examples of these themes are the definitions and importance of different housing typologies and how it relates and informs housing conditions, the role these different housing typologies play when looking at affordability, and informal trade which had taken a dual role in providing economic livelihood and opportunities for residents, impacting livelihood, as well as being an inexpensive manner in acquiring food resources, thus increasing affordability, reducing food insecurity and catering to sustainability through the means of replenishable resources and fulfilling aspects of basic human needs. Another key theme is space and its effects on a variety of other factors such as spatial location, whereby the lack of access to resources affects liveability, affordability, and sustainability. Space is also crucial when looking into township neighbourhoods, in which housing forms and environments have to adapt and conditions may vary considering the finite amount of space associated with these neighbourhoods. Lastly through the means in which space provides opportunities for activities to take place resulting in an improvement in overall environment. These factors play a huge part in understanding that space is crucial in creating better housing conditions through liveability, affordability, and sustainability.

The interlinkages between the conceptual analytical framework, liveability, affordability, and sustainability as well as the themes that have emerged has allowed for a cohesive understanding of the different factors at play when looking at what are the housing conditions of township neighbourhoods in South Africa. The cohesive and integrated factors associated with housing conditions within this context has resulted in a connected framework whereby if there are issues surrounding any factor it impacts the entire framework.

## 2.10 Conclusion

This chapter explored a wide array of literature from many different sources and time periods, that spoke to housing conditions within township neighbourhoods in South Africa. Overall, it provided key understanding of the conceptual analytical framework through the means of its performance criteria. It allowed for the understanding of different theoretical ideas and bases in which to contest the validity of the criteria. The criteria included scale, built form, elements of neighbourhood design and activities. Overall, the main themes that had emerged throughout was around the importance of safety, the relationship between people and place and by extension the anthropological nature of housing within township neighbourhoods, the importance of access to resources and services, economic opportunities, the connectivity of space, and the interrelated nature of township neighbourhoods through the lens of the conceptual analytical framework established. It has also established the importance of the interlinkages between the conceptual analytical framework and liveability, affordability, and sustainability which has created a cohesive framework for the understanding of housing conditions in township neighbourhoods. These key themes and frameworks informed a quality form of living for residents as well as providing a starting point in which to solve the glaring issues of housing conditions within township neighbourhoods.

The intention of this chapter is to inform the rest of the dissertation, including the application of the theory and the conceptual analytical framework established in order to provide clarity of the main research question as well as for being the theoretical basis for the case study chapter. This theory will also be carried through into potential recommendations for housing conditions within township neighbourhoods, resulting in a starting point in which to better housing conditions through planning tools and the Anthropocene.

# Chapter 3 – Research Methodologies

## 3.1 Introduction

The literature review reflected on the intersectionality of housing conditions in relation to housing typology, the built and natural environment, the surrounding neighbourhood, and the wider urban context when looking both at ecological and anthropological lenses. This chapter will be focusing on the methodology through the means of qualitative research as well as detailing the techniques implemented. The conducting of interviews and site visits aims to establish a key sense of anthropological fieldwork in which to make comparison between the literature review and the processes of fieldwork to ultimately allow for a two-dimensional look at the case study example.

The research is therefore aimed to investigate the role and perceptions of housing conditions and to what extent it affects sustainability, affordability, and liveability, exploring Langa as a case study.

## 3.2 Case Study Research Approach and Strategy

### a) Case Study

A case study approach has been used in order to provide an understanding of housing conditions within township neighbourhoods both from a contextual historical and contemporary standpoint. The case study approach was adopted for this research due to its ability to complement and provide linkages with other forms of research methods (Yin, 2006: 1). Yin (2009: 2) notes that case study research fulfills the need to illuminate or highlight a particular situation, to provide an in-depth and first-hand understanding of it, within the context of this dissertation, is the main research question. This provides a basis for the connection identified between case studies and fieldwork, in particular site visits and interviews. The case study method allows for the collection of data and facilitates observations within the natural environment, instead of relying on 'derived' data (Yin, 2006: 2).

Within this dissertation, these three conditions are met. The first being the how or why question which consists of how housing conditions impact sustainability, affordability, and liveability which both is explained through the literature review and the case study research. The second being the amount of control of events by investigators. This ties in with the theories put forward by Flyvbjerg (2006: 235), in which it is stated that researchers may pose a bias toward confirmation and allow for preconceived notions to steer research. The amount of control is relinquished through the form that researchers may form biases if the information is there but ultimately, if it is not, they cannot make the information suit their desired outcomes. There is a relinquishing of control when forming a basis which may not hold true according to case study research. The third condition is that of focusing on contemporary phenomenon, however, it is important to delve into the past, to provide an accurate account of the formation and understanding of the research question.

Case studies as a research methodology have the potential to hold a plethora of information pertaining to both the historical and current factors associated with housing conditions in township neighbourhoods. This is the converse opinion many scholars hold, whereby there is an assumption that case studies uncover a shallow, single, and vague view on literature (Flyvbjerg, 2006: 220). This is a common misunderstanding of case studies.

Flyvbjerg (2006: 219) has established five misunderstandings pertaining to case studies, the first being that context-independent knowledge, which is defined as knowledge that informs the basis of textbooks is held up as more credible and valuable than context-dependent or practical knowledge. These claims are not true. It is important to conduct field research because it may inform case study material. Practical knowledge is important in informing patterns thereby enhancing theoretical knowledge with proof within reality (Flyvbjerg, 2006: 223).

Another misunderstanding would be the generalisation of information on the basis of a single case (Flyvbjerg, 2006: 224). There is a need for a neutral and unbiased approach when looking at case study data, if case studies provide favourable outcomes to dissertations, then it is acceptable, but if it is found to be false then there should be no generalisation (Flyvbjerg, 2006: 226). This provides the understanding that case studies could be used as the potential starting point for research. Allowing for the basis of a single case to be used to inform research.

A third misunderstanding is that case studies should be used to generate hypotheses in the first step of a research project (Flyvbjerg, 2006: 229). This is incorrect due to the nature of case studies, in which they

are often extreme, critical, and exclusive. They may carry different perspectives and conclusions according to how they are viewed and interpreted (Flyvbjerg, 2006: 233). Case studies are able to inform different parts of research and should not be limited to the first step of a research project.

The fourth misunderstanding is the accusation of maintaining bias toward verification, in which there is a tendency to confirm researcher's preconceived notions which may throw doubt into the scientific values of the claims (Flyvbjerg, 2006: 235). Case studies should be used as a tool in which to inform the verification of a bias through hypothesis and establishing whether it is correct or proven wrong (Flyvbjerg, 2006: 235).

Lastly there is a misconception about the difficulty to summarize and develop general propositions and theories on the basis of specific case studies, more accurately, though there is difficulty and undesirability associated with the summarizing of case studies, they contribute to the cumulative development of knowledge (Flyvbjerg, 2006: 241).

These misunderstandings and misconceptions provide an approach as to what mistakes are usually made when looking at case studies and how it may apply to Langa. Through interviews and guided tours, as well as keeping these misconceptions in mind, this will provide further context as to why Langa is a suitable candidate for case study use. The dynamic and complex nature of both the residents' circumstances and life experiences as well as the neighbourhood as a whole will speak to the importance of using it to inform housing conditions. There will be no generalization or bias to verification of initial hypotheses when looking at Langa, which will allow for it clarify the complexities of housing conditions within the neighbourhood and its impact on liveability, affordability, and sustainability.

## b) Qualitative Research Approach

This chapter adopted a qualitative form of research, in which interviews with residents from the case study example was used to allow for an in-depth discussion and insights. It maintained a qualitative nature due to the snowballing method of referrals, incorporating residents that live and have previously lived within the case study areas. A number of site visits were conducted as an effort to fully grasp the neighbourhood as well as providing key insights into the typologies and housing conditions associated with it. Lastly, the selection of participation was implemented in which qualitative measures were adopted to

ensure a broad range of participants are engaged, looking at different ages, genders, experiences and if they live or lived within the area.

It is vital to establish the reasoning behind a qualitative approach within the research. It has been implemented to further understand and values the input of research participants within the context of the dissertation and main research question (Clark & Jack, 1998: 845). It also provides the understanding of the nature, strengths, and interactions of variables. This can be seen through the interlinkages of experience and common neighbourhood shared by participants within the interview process (Epidemiol, 1994: 425). It aims to answer the 'what' question wherein it provides a holistic perspective aiming to preserve the complexities of human behaviour (Epidemiol, 1994: 425). The qualitative method is beneficial in circumstances where the subject of the study cannot be controlled or is poorly defined. This allows for the capacity to reveal what is going on but do not attempt to measure how often an event or associated occurs (Epidemiol, 1994: 425).

It is important in understanding that the qualitative methods veer toward providing insight as to more factors driven and diverse data sets and research, while being part of fieldwork. It allows for interlinkages between fieldwork and academia to be strengthened due to it shifting away from numerical value to an understanding of complexities and humans.

### c) Langa as Case Study

Langa is a township located on the Cape Flats in Cape Town. It was chosen as the case study due to its rich political history, being affected, like many other townships after being established, by the Apartheid regime. Langa is also considered to be the first township in Cape Town, in which many other township conditions were based on. This provides a key sense of commonality between townships, and this allows for it to be presented as a typical example of a township for the case study method. Another key reason would be access for the researcher due to the ability to conduct fieldwork due to it having a bustling tourism industry. This has allowed for key information to be shared through tour guides and museums as well as allowing for fieldwork such as interviews and site visits to be frequently conducted.

The historical context informs its contemporary, through the form of historical accounts and conditions being perpetuated into the current situation due to the long-standing detrimental effects instilled by the

Apartheid regime. Though abolished the remnants of these effects can still be seen within contemporary Langa.

This dissertation had been conducted over a short number of months, which made it more beneficial to explore many of Langa's housing conditions on a surface level through guided tours, with prior case study knowledge, and to focus on interviewing individual residents living in different housing typologies which would contribute to research concerning the overall housing conditions of the neighbourhood.

A key critique of case study methods proposed by Yin (2009: 3), which is echoed by Flyvbjerg (2006: 224), is that there is an inability to generalize findings from a single case. The basis in which case studies cannot be used to provide a generalization of findings is incorrect. Though it must be noted that Flyvbjerg (2006: 226), has mentioned that a neutral and unbiased approach to case study data should be maintained, and researchers should be true to the data whether it provides favorable or unfavorable outcomes to their research. The objective is rather to generalize to theoretical themes and propositions and not to populations or universes (Yin, 1994: 2003).

An example of this would be the evaluation of the appropriateness of the performance criteria in relation to the case study. It can be used as a criteria in which to assess housing conditions in other township neighbourhoods beside Langa.

### 3.3 Research Design, Data Collection Methods, and Research Instruments

This step involved approaching various residents, of different ages and experience, living and formerly living within the area to understand residents' perceptions and experiences of the current housing conditions, as well as providing a historical account of the changes in conditions. There will also be the collection of data from residents about their perceptions of sustainability, affordability, and liveability upon a backdrop of the current housing conditions and environment. The mentioning of ways to improve and suggestions from a bottom-up approach will be implemented within this dissertation to allow for a wholistic view.

## a) Interviews

In order to delve deeper into the perceptions and the impacts the housing performance criteria has upon liveability, affordability, and sustainability within township neighbourhoods, it was important to use the case study neighbourhood of Langa. Interviews provided context to what present day Langa is, and the feelings associated with the neighbourhood. This, coupled with the literature review and case study analysis provided a key understanding of Langa and its housing conditions. Langa was used as a basis, and to find out the full extent in which to answer the research question, in-depth individual questions were conducted. This technique was implemented as a means to gather the personal experiences of residents' lives, which may further explain in-depth perceptions from those who may have different backgrounds and life experiences, but all experienced within the same neighbourhood. The on-site research included contacting a tour guide from Langa, and through the snowballing technique, provided contact with his other colleagues. The researcher initiated the process by contacting a tour guide from Langa, who in turn introduced other colleagues. The tour guide has personal ties to the area, growing up in it for the larger part of his life. He was my first interviewee. The interview with the tour guides were intentionally open-ended, to allow for a natural flow and progression of conversation, seen to be guided by the research questions. This form of interview was conducted in order to extract high quality data pertaining to the sub-topic at hand, in turn contributing to the gathering of information for the overall research question. The tour guides were able to answer the questions with ease and was informative. Tour guides reported a wide array of information on housing performance, facility accessibility, income levels, tenure options and overall well-being and life within the neighbourhood. The interview was extremely important in informing the way in which the data collection process continued.

The tour guides played a vital role in the interview process as they enabled key linkage with various other residents and officials within the area, as well as putting me in contact with them. In total, six people were interviewed, all of whom had different titles and played different roles within the neighbourhood.

The interviews were only conducted once ethical clearance was obtained from the University of Cape Town (UCT) and consent was given by the interviewees for recording. They were semi-structured to allow for prepared questions as well as follow up questions on topics that arose as the interview progressed. A key advantage when implementing this method is that it allowed for an in-depth understanding of the interviewee as well as their lived experiences and perceptions, displayed through the conversation. This form of interviews allowed for a more nuanced understanding of the information collected, which may be difficult to articulate through other forms of research techniques such as questionnaires or surveys. The

recording of interviews was extremely useful, this sentiment is echoed by Roulston et al (2003), in which it is noted that within the transcribing process, information can easily be picked up that has previously missed, as well as when looking at the interaction outside from being in it, it allows for different perspectives and understandings to be noticed. It was also noticed that recordings such as voice recordings allowed for a focus on participants speech patterns and personal nuances to shine through which added another layer of information (Yin, 2009). These are important micro intricacies which contribute to the overall understanding of housing performance and once the information is synthesized, adds a personal layer from residents to the overall housing performance criteria.

#### b) Guided Suburb Tours/Site Visits

To objectively analyse the impacts of performance criteria upon township neighbourhoods, site visits of Langa were necessary. These visits comprised of walking through different areas of Langa, many having specific historical linkages. An example of this would be the barracks and governmental hostels. Other forms of housing that had been visited was the colloquially known Beverly Hills housing which are free-standing-resident owned homes, the informal settlement, the N2 Gateway housing, Hamilton Naki apartments and the zoning flats.

Various sections of Langa had been visited through guided tours by the tour guides. These sections included what they colloquially phrased as the Beverley Hills section, which are homes that are owned by residents, the informal settlements, often commonly referred to as the shanty houses, the N2 Gateway houses, which were informal settlements, now newly renovated freestanding plots which have been subsidised by the government for residents who are unable to afford to pay rent.

The opportunity to participate in a number of guided tours was presented, which focused on each of the different sectors. This allowed for a more in-depth look at each of the sections of Langa. The first guided tour was an introductory tour to allow for a sense of familiarisation of the area. It was more generic and is usually the type of tour given to tourists. This was helpful in the sense that it covered a large range of sections, and cultural elements such as the herbalist and traditional beer makers. The subsequent tours were more in-depth, focused on one sector at a time. The first sector was the informal settlement. The intention of visiting this sector of Langa was view the housing conditions and performance. It was interesting in the sense that many of the residents had free reign to construct their homes, which are often made with corrugated iron. Applicable building standard rules dictating space and building size for

plot, were generally ignored. Safety had been an initial concern for the researcher, but the tour guide, who had established contacts had assured my safety as well as allowed for me to conduct an interview with his contact.

The second site was the N2 Gateway which converges with the informal settlement. This sector had previously been informal settlements but funding from the state and tourism had allowed for the improvement of these spaces and created a new form of housing, ultimately improving the housing conditions. Many of these houses are subsidized while if residents are able to, then they must pay rent. The guided tours and interviews have shared a different perspective of the N2 Gateway houses, compared to that of the literature. It is regarded as a vital part of housing which has allowed for easier access to activities, increased safety, and an upgrade in building form for residents previously living in informal settlements.

The third sector encompasses the historical and governmental barracks and hostels. This sector consists of many of the oldest buildings within the neighbourhood. The condition of these hostels and barracks are poor and they are often used as a means of halfway housing, while residents are waiting on approval of new housing. These forms of housing are government provided which entails that many of the residents pay forms of rental. There are services rendered from the government for these forms of housing, which fall under the rental agreements.

The last sector is the free-standing homes, which are colloquially known as Beverley Hills. These houses range in both size and price and are owned by the residents that occupy them. It was important to visit this part of Langa to provide a holistic understanding of every sector of the neighbourhood as well as viewing the stark difference associated with it and the informal settlement. A key commonality between Beverley Hills and the informal settlement, is the free reign in which to construct your house upon your designated plot. While a commonality between Beverley Hills and the historical barracks and hostels is the governmental services provided such as water, electricity, and refuse.

The intention of these guided tours was to establish a differentiation between the different sectors of Langa as to allow for insights on the housing conditions and providing clarity on the housing criteria set out within the literature review. These site visits have also been important in establishing a visual comparison toward the gathered literature. Though much of the literature has been based upon a collection of different authors, many holding different perspectives, guided tours have allowed for a cohesive understanding of the neighbourhood within present day through reliable people from the neighbourhood.

### c) Non-Participant Observations

Through this technique of data collection, an outsider framing had been adopted. This was due to the lack of familiarity with the way in which to conduct the tour as well as with the area. The company of a local tour guide proved to be invaluable. It allowed for a sense of security and safety, and access to areas and residents, which would otherwise be unobtainable. There had also been a key unlocking of the innerworkings and culture of Langa, only accessible through the means of a local resident. There was a sense of familiarity and comfortability when approaching or talking to residents' while being alongside the tour guides, this factor undoubtedly contributed to the quality of interviews and guided tours as a whole.

### d) Selection of Participants

The selection of research participants was used through the snowballing method, in order to conduct qualitative research methods. Participants were engaged with the intention of providing a wide array of backgrounds and experiences of the housing conditions of Langa. This dissertation aimed to analyze the different forms of housing conditions and performance within Langa and thus it was decided to conduct interviews with people representing housing conditions within the different sections of Langa. These sections provide different forms of housing. Many of the residents have prior housing experience in different sections but have settled within their current housing form. Though at first glance it might seem redundant to interview different participants, knowing that many have experienced the different housing conditions. It had been found useful when comparing their housing experiences against other forms of housing conditions as well as the combination of the varying housing conditions and experiences. The residents engaged within the snowballing process represented the experiences of the general housing conditions within each section thus allowing for the maintenance of high-level consistency within the qualitative interviewing processes.

The snowball effect, which entailed the access of participants referred to by the preceding participants. The example of this was through tour guides, who had provided connections and facilitated interviews with other residents, as well as establishing connections with during the data collection process. The tour guide's input was invaluable and had allowed for the assurance of quality interviewees within this process. Qualitative measures had been put in place, such as living within different sections, different backgrounds

and occupations. These criteria for interviewees had been imparted and carried out by the tour guides to ensure fruitful candidates for the data collection process.

### 3.4 Research Criteria

The research instruments used form part of the research criteria. It is important to state how the proposed research instruments meet the criteria necessary for the conducting of research. The reliability of these methods is ensured through the designs and data collection methods. Case studies are used to inform fieldwork and provide a basis in which to conduct interviews and site visits. It is important to note that to meet reliability and validity within the data collection process, a form of data analysis had been conducted in which comparisons are made between case study material and interviews and site visits conducted (Yin, 2006: 5). This allowed for the comparison of research methods as well as providing clarity on the appropriate methods which need to be considered. The established interlinkages between case study methods and data collection methods correlate through the means of biases created through the framing of a research question. This establishes a sense of validity, wherein it is ensured that these research methods complement each other.

### 3.5 Positionality of the Researcher

Throughout this dissertation, a form of neutrality and objectivity has been maintained. This is due to the outsider status that has been adopted. Though, participating in guided tours has allowed for an established connection between residents and researcher through the mediation of a local tour guide.

### 3.6 Ethical Issues

The ethical considerations were set up during the beginning of the dissertation process. It consisted of providing an in-depth description of the ethical actions taking place pertaining to this dissertation. This included providing clarity on the type of information extracted from participants, the anonymity clauses surrounding this dissertation as well the protection of interviewees through the means of comfortability, such as anonymity as well as stopping the interviewing process if interviewees were uncomfortable. An in-depth ethical clearance was submitted and approved by the University of Cape Town before any

interviews were conducted. This process ensured the legitimacy of ethical considerations provided by the researcher and is used to provide accountability of the researcher and this dissertation.

When conducting interviews, each interviewee was given a consent form and had read it before the actual interview process had started. It had ensured that their anonymity remained intact as well as ensuring their understanding that the interviews were recorded for quality purposes and for the extraction of vital information that may be missed while conducting the interview. It also allowed for a platform in which to contrast and compare the different interviews from each interviewee. The recordings are to be deleted after the completion of this dissertation to uphold anonymity clauses set forth by both the University of Cape Town and the researcher.

### 3.7 Conclusion

This chapter provides an overview of the research and had been instrumental in establishing the methods and techniques in which fieldwork data was collected. A crucial factor in both the decision of what methods and techniques were to be used, as well as informing the qualitative nature of the interviews, formal and informal engagements, and field observations, where the anthropological lenses and research methodologies adopted, allowing for the key understanding of fieldnotes and the appropriate way in which to carry it out. It was necessary to formulate working definitions of affordability, liveability and sustainability, and the relations these terms share, before the fieldwork to allow for the developing an understanding and clarification of how they relate to the methods and techniques which had been chosen. The case study research technique is a key relating factor due to these interrelated definitions being applied to existing literature. These definitions provide as filter in which to view case study data and had allowed for a bias to form. Much of the literature had been put through these filters and had accounted for the bringing together of related and related-adjacent case studies which inform each other as well as overall research question. The case studies used had informed the historical theories necessary to understand the research question as well as providing information through the means of layout, access to services within a historical and generalized lens, thus allowing for interviews to provide a contemporary understanding of the neighbourhood. Interviews are connected within a contemporary manner through the means of interviewees providing a personal and present form of information. The relating factor between the definitions and the interviews is through the manner in which interviewees engaged and perceive these definitions within their personal lives. In conclusion the methods and techniques carried

out had allowed for the gathering of information pertaining to the main research question as well as its subsidiary questions. The methods in this chapter, namely case study methods allowed for the gathering of historical data, while as the techniques implemented provided a sense of understanding, contemporary data, and personal experience garnered through interviews and guided tours.

# Chapter 4: Langa Case Study Research

## Findings

### 4.1 Introduction

The previous chapters, which were the literature review and methodology chapters had provided a basis and plan of implementation in which to tie both academic literature as a resource and the methodology and necessary theoretical elements of fieldwork as a means for the implementation of a case study example. The theory surrounding the previous two chapters are precursors in establishing a suitable case study example.

This chapter will explore the housing conditions associated with the case study example of Langa. This dissertation has chosen Langa as the case study example in which to view township neighbourhood and its impacts on liveability, affordability, and sustainability. It will be providing relevant information for the context of Langa to be understood as well as evaluating the housing conditions and synthesizing the neighbourhood in relation to the conceptual analytical framework established within Chapter two.

It is imperative to fully understand the context of Langa as well as the reasoning and suitability behind the neighbourhood being the case study. Langa was established as the first township in Cape Town in 1927. It is the oldest township within Cape Town, resulting in it being the “blueprint” for other township neighbourhoods to be based on, which is a key reason for it being the chosen case study. Many of the original residents of Ndabeni and other parts of the greater Cape Town had been forcibly removed to Langa. Cape Town, prior to 1948 had been deemed as one of the least racially segregated cities in Southern Africa (Western, 1981: 3). This sentiment had been shared within the fieldwork, in which residents have said that they were originally born in Langa, but their parents and grandparents had previously lived in Ndabeni, other parts of Cape Town or had been the family of migrant laborers (personal communication, 2022: October 20). Langa was initially established as a suburb for the housing of migrant African workers and later allowed for the introduction of the labourer’s families, which had resulted in a rapid population growth. Langa had historically been situated upon the periphery of Cape Town, but within present day context is considered to be a township that is easily accessible to the central business

district of the city. The rapid growth and Apartheid spatial planning had led to both overpopulation and segregation within the neighbourhood resulting in a lack of space and the establishment of Joe Slovo Informal settlement. This has resulted in it being difficult to accurately gauge the population which impacts the socio-demographic profile of the neighbourhood.

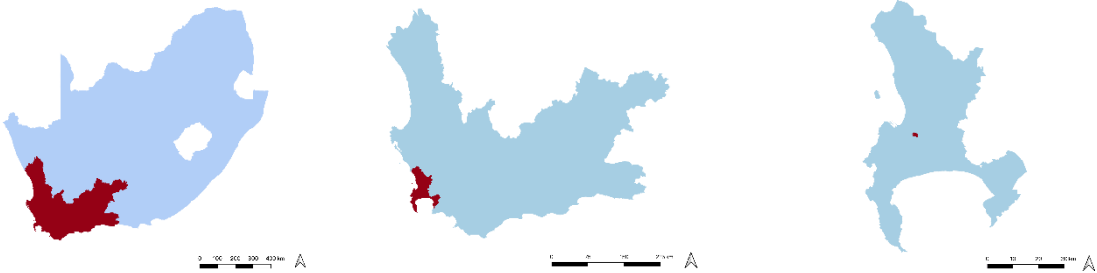


Figure 4. 1: Maps of Langa in context of South Africa, Western Cape and Cape Town



Legend

- – Informal settlement
- – N2 Gateway Housing Project
- – Zones
- – Beverly Hills
- – Hamilton Naki Apartments
- – 99-year Homes
- – Government Hostels

Figure 4. 2: Map showing relevant housing typologies within Langa

#### 4.1.2 Socio - Demographic Profile of Langa

The following data has been extracted and collected from the City of Cape Town 2011 Census, the 2012 Western Cape Informal Settlement Status, The Community Survey in 2016, the Pinelands, Langa, Bonteheuwel Precinct Study conducted in 2013, and The Table Bay District SDF 2022. It will be looking at the socio-demographic profile of Langa as a township neighbourhood, in which to allow for a holistic understanding of it through the means of statistics provided. It will also be providing the key spatial development framework (SDF) of Langa in which to understand the five/ten-year plan for the neighbourhood. It is important to note that this dissertation does not focus on the political aspects of housing conditions but rather the socio-economic, physical, and anthropological aspects. According to the 2011 Census, Langa has a population roughly estimated at 52 401 residents and a total area of 3.09 km<sup>2</sup>. Langa is separated into different wards, in which Ward 51 includes free-standing homes and newly built flats as well as government hostels, while Ward 52 is found parallel to the N2, encompassing the N2 Gateway Housing Project, the informal settlement and half of the Zones (Small, 2017). It is important to note that between 2011 and 2017, Langa has experienced a population increase of nearly 40%. This would increase the population to roughly 73 400 residents (City of Cape Town, 2022). There is a total number of 17 400 households which leads to an average household size of 3.01 persons per household (de Beers, 2013: 24). From the 2011 Census data up until 2022, Langa has seen a large increase of the number of households of 43% (City of Cape Town, 2022). There is a total of 58% of households living in formal dwellings and there is a total of 58.4 gross dwellings per hectare, while it has a population density of 170 persons per hectare, providing evidence as to the high poverty levels and overcrowding of Langa, which provides context as to the low levels of housing conditions (City of Cape Town, 2022). This is evident when viewing that 72% of households earn a monthly income of R3200 or less, which is an indicator for the eligibility of subsidy housing. Langa also experiences the highest unemployment rate within the Table Bay District, based off of the 2011 Census, the neighbourhood's rate is over 40% (City of Cape Town, 2022). These statistics may vary due to the increase in residents since the Census was last conducted as well as the exponential growth associated with the informal settlement. According to the Western Cape Informal Settlement Status (2012), the Joe Slovo informal settlement located within Langa had a population of 7946 while having a total number of households of 2748. This has led to the average household size being 2.89 (Western Cape Informal Settlement Status, 2012). It must also be stated that there are a total number of

3100 house families (CORC, 2009). There are extremely high densities within the informal settlement, often resulting in cramped living quarters, such as three families sharing a 20 m<sup>2</sup> shack (CORC, 2009). This provides key evidence of housing conditions in relation to liveability, affordability, and sustainability. This population number cannot be accurately described due to the increase in number of births as well as the rapid rate of in-migration due to people trying to find work in urban areas.

When looking at the dwelling profile of Langa, the 2011 Census had portrayed the number of residents within different housing forms. It is seen that a total number of 10 004 residents live within formal housing units while 6969 residents live in informal housing, comprising of shacks in backyards as well as the informal settlement, while there is a category of other, which accounts for the remaining 427 types of dwellings (Census, 2011). The total number of types of dwellings is 17 400 (Census, 2011). Figure 4.1 provides a graph pertaining to the types of dwellings in Langa. It provides clarity on if these dwellings are formal and informal as well as other. The number and percentage of residents is divided into races and shows the percentage of races living in the different types of dwellings. Langa is seen as a predominantly Black African Township, whereby the ratio between formal dwellings and informal dwellings is 57.6% and 40% respectively, while the total is 57.5% and 40.1%. This ratio provides a numerical understanding as to the state and types of dwellings within Langa. The data provides key evidence as to the issue of housing and the conditions in which residents live within the neighbourhood. It must be noted that shacks in backyards are of higher housing conditions due to it not being directly part of the informal settlements, thus resulting in a more private form of housing. It also maintains a higher level of hygiene compared to informal settlements due to less dumping and higher-level access to toilets and sanitation. It should also be noted that when looking at tenure options, most resident are renting while a large number are occupying homes, rent free through subsidy housing. This shows that the income levels are low due to the inability of residents being able to afford renting. A key example of these homes are the N2 Gateway Housing Project and the government established hostels.

### Dwelling Profile – 2011 Census

Langa Type of Dwelling	Black African		Coloured		Asian		White		Other		Total	
	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%
Formal Dwelling	9 928	57.6%	30	66.7%	8	61.5%	12	92.3%	26	31.3%	10 004	57.5%
Informal dwelling / shack in backyard	2 236	13.0%	12	26.7%	3	23.1%	0	0.0%	41	49.4%	2 292	13.2%
Informal dwelling / shack NOT in backyard	4 658	27.0%	1	2.2%	2	15.4%	1	7.7%	15	18.1%	4 677	26.9%
Other	424	2.5%	2	4.4%	0	0.0%	0	0.0%	1	1.2%	427	2.5%
<b>Total</b>	<b>17 246</b>	<b>100.0%</b>	<b>45</b>	<b>100.0%</b>	<b>13</b>	<b>100.0%</b>	<b>13</b>	<b>100.0%</b>	<b>83</b>	<b>100.0%</b>	<b>17 400</b>	<b>100.0%</b>

Table 4 1: Dwelling Profile from 2011 Census. (Census, 2011: 5).

Langa	Population	Households	Household size	Households living in formal dwellings	Gross dwellings per hectare	Household that has a monthly income of R3200 or less	Population race
	52 401	17 400	3.01	58%	58.4	72%	Predominantly Black African.

Langa	Piped Water	Flushing Toilets Connected to Sewer	Refuse Removal at Least Once a Week	Electricity for Lighting
	67%	76%	94%	98%

Table 4 2: Langa Demographics (The Pinelands, Langa & Bonteheuwel Precinct Study, 2013).

When looking at Langa in terms of services, 67% of the total population of the neighbourhood has access to piped water, while 76% has access to flushing toilets connected to sewers (de Beer, 2013). When looking at the Joe Slovo informal settlement, it has no individual toilet blocks while there are 896 community toilet blocks. When looking at the total number of residents within the informal settlement, it is calculated that there is an average of 9 people per toilet (CORC, 2009). Many of the toilets are left in bad states due to poor maintenance, overuse and vandalism, and there are no ablution facilities resulting in residents having to bathe themselves in the open (CORC, 2009). This highlights the dire need for proper forms of sanitation and toilets within the informal settlement (CORC, 2009). Waste removal at least once a week is at 94% and electricity for lighting is at 98% (de Beer, 2013: 25). This entails that there is a high rate of provision of waste removal and electricity within the neighbourhood, though the distance from the informal housing and the peripheral refuse points are far, leading to waste dumping and unhygienic conditions (CORC, 2009). There is no further information for Joe Solve informal settlement concerning these services, though it is assumed that many of the residents within the informal settlements do not have full access to these services, due to it being part of the most urgent needs for the settlement (COCR, 2009).

## 4.2 Case Study Methodology of Langa.

This chapter comprises of applied academic theory, methodology and a key understanding of the conceptual analytical framework when applied to Langa. These elements will explore the suitability of the conceptual framework and its relations with liveability, affordability, and sustainability within a real-world township neighbourhood. The methodology that has been used is that of guided tours and site visits, case study material and other forms of academia, and interviews. This form of methodology encompasses a wide array of sources of information to allow for a complete understanding of the conceptual analytical framework and its relation to liveability, affordability, and sustainability.

### 4.2.1 Interviews

All interviews had been conducted within Langa, often starting near the home of the interviewee as a way in which to immerse the interviewer into the environment of the participant as well as enhancing the interview process through a visual component. All interviews had also been accompanied by guided tours by tour guides and interviewees of their area of residence. The total number of interviews conducted were

6. A routine of two interviews a week had been scheduled but had been subject to change due to availability of interview participants. This was to allow for qualitative research to take place, in which the focus was on the lived experiences of residents and their perceptions of liveability, affordability, and sustainability according to their housing conditions within Langa. The participants lived within different parts of Langa as to ensure that there was a difference in their background and lived experiences. This ensured a sense of qualitative measures were maintained.

#### 4.2.2 Site Visits

Site visits and guided tours had been conducted in tandem with interviews. The interviews conducted had prompted a further analysis of the housing conditions through the form of site visits. Site visits allowed for an immersion into the sections or parts of Langa, providing first-hand experience of the streets and full view of the different housing conditions present within the neighbourhood. Tours had been accompanied by tour guides due to safety concerns as well as providing access to specific parts of Langa that would otherwise be unreachable. An example of this would be the informal settlements, traditional beer making and cultural leaders practicing healing.

Site visits had also established an understanding of the layout of Langa, whereby many of the different housing forms intertwine with one another, leading to a form of disorientation to outside people upon first experience. Though it is learnt that the housing forms provide a historical account of time frames in which different housing forms were built within the neighbourhood. Many of the different sections overlap and thus results in difficulty to discern where one section ends and where another begins. Though the housing conditions are distinctly different, the overlapping of the housing forms at first glance may lead to an oversimplification of general housing conditions within Langa. This discernment is important when relating the conceptual analytical framework to liveability, affordability, and sustainability, due to there being differences in the access to resources, space, and employment opportunities within the neighbourhood.

#### 4.2.3 Case Study

The case study method has been important in understanding Langa in the context of the conceptual framework and liveability, affordability, and sustainability. Case studies have the capability of both

complementing and providing key linkages with other forms of research methods and academic resources as well as an established relationship with fieldwork through the form of data collection and observation within the natural environment or field. It has been an appropriate tool in catering both to academic and fieldwork research resulting in a cohesive understanding of Langa in which to assess the main research question (Yin, 2006: 2).

Case study methods had been implemented in helping to understand Langa and the theoretical assumptions and conditions associated with it, in which it is also able to inform the fieldwork that has been conducted, in the form of guided tours, site visits and interviews. Case study methods has been a critical part of testing whether Langa as a case study example is suitable in providing clarity and answering the main research question.



Figure 4. 3: Image of Government Hostels of Langa (Author's Own, 2022).

## 4.3 Liveability within the Context of Langa

### 4.3.1 Scale and Liveability

It is important to look at scale in terms of liveability, especially within the context of Langa. The different scales play crucial roles in understanding how Langa is affected by the framework and the liveability factor, as well as how it affects it. Liveability with regard to scale had been affected as far back as the creation of Langa, in which its peripheral location had been established as a means of segregation, in which the reasoning was due to the discrimination against black Africans carrying a plague (Coetzer, 2009: 1).

When viewing it through the metropolitan scale, which represents Cape Town as a whole over time, thus showing where Langa is situated as well as how it is able to interact with its surrounding neighbourhood and other parts of Cape Town. It is crucial to note that the location of Langa, upon the periphery, when it had first been established had resulted in it being unable to fully integrate into the city due to segregation and its inability to connect to the city through transport measures. Lynch (1984: 246) stated that that the concept of neighbourhoods warping city life may lead to the confusion of residential needs. Though it must be stated that the lack of access to resources as well as residents being confined to their neighbourhoods has led to them to be perpetually disadvantaged. The tour guide had stated “Langa has a lot of activities and shops and sports. During Apartheid it kept us from going outside the neighbourhood. “(Personal communication, 2022: October 24). Within present day context, it has had more success within transport facilities due to the overall expansion of Cape Town. Langa borders Pinelands, Epping Industria and Bonteheuwel (Field, 2015: 584). Liveability has been heavily affected through the means of transport due to the Covid-19 Pandemic. It had halted public transport such as trains and taxi’s due to the mandate of residents staying indoors and working from home. This has highly affected residents of low-income neighbourhoods who engage in employment opportunities outside of their neighbourhoods and require travel. It resulted in them not being able to access public travel through rail and taxi and in many cases losing employment opportunities.

When looking at the district scale, Langa is important due to it representing the model of township neighbourhoods within Cape Town and it established a standard set of characteristics that are associated with these types of neighbourhoods (Dewar & Uytenbogaardt, 1997: 8). To understand Langa at this scale, it is important to note that it had borrowed elements from its neighbouring suburb Pinelands, which was

Cape Town's first Garden City (Coetzer, 2009: 1). The first houses within Pinelands had been modelled after English cottages and applied to planned white neighbourhood with already abundant trees which were incorporated into the landscaping, emphasising the importance of green public space (Letchworth Garden City Heritage Foundation, 2022). Though it had been modelled after this garden city, Langa had only retained a few components to allow for the comparison to be made. Its failure to be established as a proper garden city was due to poor planning and implementation of the concept within an African context. There had also been a lack of commitment of public funding for the completion of Langa's garden city vision (Coetzer, 2009: 1). This had resulted in a mixture of components being developed within the neighbourhood, thus being the catalyst for the already disadvantaged neighbourhood's struggle. Further evidence of this is paralleled within the theoretical concepts of garden cities, suburbs, and villages. The strength of Ebenezer Howard's concept of garden cities had become so widespread, it had been applied within the context of South Africa. Though it had subsidiary levels due to lack of funding, this was the reasoning for the creation of garden suburbs, but when these ideals failed, the concept of garden villages had been formed (MacFayden, 1933: 127). It is important to provide the definitions for garden cities and villages to provide clarity in how it relates to the relationship shared between scale and liveability within Langa. Garden cities can be defined as a self-contained town, which has been planned as a whole, occupying land sufficient to provide garden-surrounded homes for at least 30 000 residents, as well as a wide belt of open fields (MacFayden, 1933: 127). Garden villages are viewed as garden cities in a miniature form, but depend on neighbouring suburbs for water, light, and drainage (MacFayden, 1933: 127). Garden cities and villages had catered more for low-density housing with an abundance of greenery, Pinelands had no plans for low-cost housing, which had set a bad precedent for the suburb in which Langa had been based on, due to it being needed within Langa and the reason the township to be established, as a dormitory suburb for black migrant workers and later their families. The lack of scale and form, and its ability to cater for residential needs through housing had not been realized and had highly impacted the sense of liveability as well as resulting in a lack of access to resources due to the interweaved apartheid spatial planning within the garden city concept. The peripheral location and garden city concept has failed in providing proper housing conditions for residents, while poor planning of scale has not accounted for the number of residents, resulting in the neighbourhood being unable to expand due to major physical barriers, including railway lines, freeways, and rivers.

Liveability and scale are inextricably linked within Langa through different factors, stemming from issues that have been present since its establishment as well as within present day issues such as the halting of

the trainline transport system due to the Covid-19 pandemic. It is clear that for housing conditions to improve there is a need for the rectifying of housing conditions within the district scale, which would allow for the increasing of access to resources as well as access to transport facilities allowing for travel.

#### 4.3.2 Built Form and Liveability

When looking at the relationship between built form and liveability within Langa, key factors that need to be considered is layout, and housing forms and typologies associated with the neighbourhood. The context of Langa's layout should be provided to understand the importance of built form upon liveability. The layout or form of Langa was initially set out for 5000 residents with the capabilities of expanding to 10 000 (Coetzer, 2009: 7). At a later stage, the range was then changed to 8000 with the capacity of expanding to a further 12 000 (Coetzer, 2009: 6). According to the 2011 Census, Langa is currently home to 52 401 residents (CoCT, 2013). This stark difference in the number of residents plays a crucial part in understanding the limited infrastructure, layout designs and resources initially catered for the neighbourhood. The layout of Langa had followed a Garden City approach which had been conceptualised by Ebenezer Howard and adopted by A.J Thompson. The main-roads had been established in an east-west and north-south direction (Coetzer, 2009: 8). Another key feature was the location of the railway line which had been pushed to the periphery of the township so that there would be no need for traffic to cross it (Coetzer, 2009: 8). Langa had also been established with a single entry and exit point, which had been created to establish control and promote segregation between Langa and the rest of Cape Town (Coetzer, 2009: 13). This was in favour of allowing for efficient police control. The police station was located within the middle of the neighbourhood by design. It was to allow for officers on duty at the tower to have full view over the entire neighbourhood, as well as officers within the central square of Langa, having a panoramic view from end to end and the ability to investigate each of the compounds created for residence. Lastly it allowed for police patrol on the roads running from north and south having immediate view of east and west down all roads and open spaces (Coetzer, 2009: 9). Control of space and form has also been established within the overall spatial layout of Langa. The neighbourhood had been established upon the Cape Flats which is far away from historical areas of Cape Town, often times where many of the residents and their families had originally lived. Its location was set adjacently between White and Coloured communities thus resulting in it being a separated island which has no ability for outward spatial growth (Yacinthe & Jasmine, 1998: 4).

The lack of outward growth impacted upon the spatial layout of the neighbourhood as well as affecting factors of space. Interview participants stated the need for the establishment of more flats and the need to build upward, quoting that “There isn’t any more space for houses in Langa but there is a lot of real estate in the sky”. (Personal communication, 2022, October 24). The need for more flats would allow for the reduction in the extremities of overcrowding within Langa as well as providing better housing conditions for residents, through rental agreements or subsidy housing.

Liveability ranges within Langa due to the many different housing typologies associated with it. It consists of different sections, as confirmed by interview participants. These different sections have slightly differentiated proportions of liveability associated with it. Interview participants as well as academic sources have been enlisted to identify the different housing forms associated with Langa. The first being the free-standing homes, which were established at different times within the first 50 years of Langa’s existence. These homes were given to residents by the government, and they had to pay a fixed amount for 99 years. This meant that rent and utilities were passed down through generations. The 99-year rental rule had been abolished after Apartheid and resulted in residents being able to renovate and change the housing forms within the parameters of their plots. There is also housing forms colloquially known as the Beverly Hills, which are also free-standing housing owned by residents. These housing forms are family houses catered to large families. Interview respondents had said that there were no exact dates to when they were constructed but they are some of the most modern homes in Langa. These housing forms are safer in terms of their high walls and proper roofing.

Another housing form is the government hostels and barracks, which were created as the initial form of housing for Langa. This form of housing comprised of four hostel types, namely the Main Barracks, the North Barracks, the Special Quarters, and the Spinster Quarters (Langa Museum, 2022). They had initially been intended to house male migrant workers who would use the house as a dormitory until the end of their contracts and return to their homes (Langa Museum, 2022). The conditions within these barracks had been cramped and hostile, often having to share a kitchen and ablution facilities (Langa Museum, 2022). Within present day, conditions have worsened due to poor maintenance and overcrowding. Many residents reside within the barracks awaiting a new form of housing and rent is said to be R300 per house. Another housing form is the Hamilton Naki apartments which is the newer form of flats within Langa. It was established in 2015 (CoCT, 2016). The flats consist of 463 two-bedroom units, which are 40 m<sup>2</sup> (Property Wheel, 2017). The flats range from three to five stories and had been uniquely designed with buffers and shading for tenants (Property Wheel, 2017).

The informal settlement is located upon the periphery of Langa and has existed for almost three decades (Sustainable Energy Africa, 2014: 4). Residents experience cramped living conditions, and many shacks are built on top of each other to maximize the space given, shacks range between 6 m<sup>2</sup> and 20 m<sup>2</sup> (Sustainable Energy Africa, 2014: 4). This maximization of space has resulted in irregular housing patterns as well as no formal layout being followed, often resulting in the lack of access for emergency and police vehicles, due to the limited points of entry within the housing space (Sustainable Energy Africa, 2014: 4). The N2 Gateway Housing Project was started in 2005 with continued construction until 2019. It stretches along the entirety of Langa, parallel to the N2 highway. The first phase of the N2 Gateway project consisted of the building of 705 rental units which had a ranging size from 30 meters squared to 48 meters squared (Sustainable Energy Africa, 2014: 3). The second phase consisted of a further 567 mortgaged houses which bordered the first phase of housing. The third phase of housing had aimed to construct a further 2886 housing units on the remaining 27 hectares of land (Sustainable Energy Africa, 2014: 3). It aimed to replace and subsidize most of the informal settlement. It occurs in sections due to the clearing of land and allocation of residents to temporary settling areas (Sustainable Energy Africa, 2014: 3). Construction was halted due to the Covid-19 pandemic, and it is unclear when it will recommence at the time of writing this dissertation.

The context of layout and built form as well as the different housing forms provide clarity as to the difference in housing conditions associated with built form and liveability. Examples in the difference of liveability can be seen when comparing any of these housing forms. It is seen through the characteristics of built form such as proper roofing, windows, walls, flooring, and the immediate surrounding housing conditions such as roads. A key example of the intersection of built form and liveability through housing forms is seen within the N2 Gateway Housing Project whereby it was created to address housing and development needs adjacent to the N2 highway, which formed part of the still existing informal settlement. These needs had been accelerated with the 2010 Soccer World Cup due to its visibility along the N2 highway on route to the airport. It is an important artery in connecting clusters of work opportunities and public facilities and helped to combat city-wide spatial inequalities of Apartheid spatial planning (Satge & Watson, 2018: 69). According to Jordhus-Lier (2014: 170), the project provided housing opportunities catering to different sections of the housing market within the neighbourhood, through the means of housing for families that can afford mortgages, rental opportunities and claims of fully subsidized homes for the previously informal settlement dwellers. It had been proposed as a way in which to reduce informal settlements, by establishing affordable housing units, but was met with complex conflicts (Satge

& Watson, 2018: 70). This is due to the displacement of residents of the informal settlements, thus perpetuating the cycle of poverty and reducing the sense of liveability within the neighbourhood as a whole. Though if realised it would drastically increase the sense of liveability at the neighbourhood scale, the displacement of residents decreases liveability and does not conform with scale and built form, whereby the duration of time and displacement of some informal residents to less desirable peripheral parts of the city, thus resulting in it not being a viable solution.

#### 4.3.3 Elements of Neighbourhood Design and Liveability

The intersection of elements of neighbourhood design and liveability stem from space within Langa, and the multiple facets it occupies. Elements of neighbourhood design are deemed as the space in which activities take place in (Dewar & Uytendogaardt, 1997: 8). This includes the many amenities associated with the neighbourhood such as recreational and sporting facilities, libraries, the police station, taverns and shebeens, and museums. However, most of these are substandard and are not adequate in terms of number and extent of facilities, given the population size of Langa. Important spaces when regarding liveability are streets and roads, urban facilities, and public spaces. These spaces are all interconnected and have the ability to be used as placeholders for one another with varying degrees of success. Within the context of Langa, both roads and streets are important elements of liveability due to their links to connectivity, while streets advocate for both informal trade and linkages for activities within the neighbourhood. Roads are crucial in establishing transport connections between Langa and Cape Town, they are especially important due to the trainline not being operational, resulting in the increased use of minibus taxis as the main form of transport. Streets are also used as public space in terms of a public facility due to other open spaces not being accessible or some spaces not being safe (Todeschini & Dewar, 2013). This has resulted in a decrease in a sense of liveability for residents, due to the unsafe nature of public spaces such as park. Many parks are situated within hidden sectors of Langa, and this has made them hotspots for drug use and crime. Though streets are advocate high visibility for those who occupy it, they should not be used as places for children to play, it could result in car accidents or damage of property. Many interview participants have expressed their disapproval for the advocating of children occupying streets due to it being unsafe as well as the damage of elements of built form such as walls and housing structures.

Another key public space which impacts liveability is that of education facilities and associated amenities. Langa consists of 8 schools, but since these schools have been created during Apartheid, it is commonly accepted that based on racial prejudice, there was a lower standard of education within these types of schools compared to their middle-class counterparts (Fataar, 2010: 43). Though Apartheid has been abolished and the education system has changed, allowing for the same form of schooling throughout the country, the effects of this prejudice are still prevalent as well as these schools lacking the funding for maintenance and upgrading. It should also be noted that only 40% of Langa's population, 20 years old and older have completed grade 12 or higher (de Beers, 2013).

Key manners in which to improve and optimize existing liveability through neighbourhood designs is through the sense of community as well as access to facilities. These two factors can be assessed in tandem. Interview participants have stressed the importance of instilling sport and fitness into their children and by extension the younger generation. This has preventative measures in reducing gangsterism and keeping the youth of Langa out of trouble. This is a key factor due to youth often not being stimulated outside of learning institutions, which coupled with free time and lack of parental guidance, due to parents being at work, has resulted in theft and vandalism. Interview participants have stressed the importance and abundance of sporting facilities within Langa, which have been newly constructed and according to respondents have instilled a sense of community through sport matches taking place and the involvement and support of residents (Personal Communication, 2022: October 16). Other interview participants have stated that sporting was a large part of their youth, in which sporting was conducted in a multitude of different spaces, but older children had the preference of using the sporting fields available at the time. Patches of grass, open spaces and the street had been places in which the youth played sport. With the increase in sporting facilities, the youth are now able to access different sporting facilities as well as staying off the street (Personal communication, 2022: October 16). An interview participant stated, "When I was younger, I would have to walk far to play sports, sometimes there are people playing so I couldn't, so I would play sport in the street." (Personal Communication, 2022: October 16). This shows the multifaceted use of streets and roads within township neighbourhoods. They play a crucial role in the category of public space (Rudd & Mutai, 2019).

Safety also plays a crucial role within liveability and elements of neighbourhood design. This is evident when looking at housing conditions through streets, roads, and public spaces. When conducting fieldwork, Langa stood out in terms of safety, though there are incidents of crime, residents often noted that they did not have concerns of safety due to the Langa Patrol. Residents view them as being a step above the police

services due to their quick response times and their abilities to navigate the layout and design of the neighbourhood. Residents have also stated that many petty crimes are solved, and items are returned due to the Langa Patrol. Though this may not be the case for all township neighbourhoods. Within many other township neighbourhoods, safety is of big concern especially when considering open spaces. Todeschini & Dewar (2013) had stated that streets have been used as forms of public or open spaces due to safety concerns, for the reasoning that it is always busy and that activities occur within them.

#### 4.3.4 Activities and Liveability

Activities and elements of neighbourhood design share key connections, in which activities are implemented and conducted through the design of the neighbourhood. This entails that if design elements are being hindered, it may have a direct impact of the quality of activities being conducted. The access to activities plays a crucial role within Langa due to it allowing for an increased sense of liveability. When looking at Langa, it is seen to be divided into different building environments each having different housing forms and conditions. Though due to the political history of the neighbourhood, there is a shared level of access to activities, due to governmental bodies aiming to promote segregation and keep residents in the neighbourhood. When conducting fieldwork, it was noted that the different sections of housing forms often blended into one another. This had resulted in many informal traders strategically finding spots in which to cater to the maximum number of residents, this was also done within public spaces (personal communication, 2022: October 24). This provided evidence as to the shared level of access to activities as well as promoting liveability through activities.

The ability to conduct activities within the neighbourhood, especially through the form of shopping and employment opportunities are vital when understanding the liveability within the context of a township neighbourhood. In many instances, township neighbourhoods have been dormitory suburbs in the past, resulting in no forms of employment opportunities as well as no forms of shopping. Though Langa had already been a dormitory suburb, which expanded exponentially due to the migration of migrant laborers families, many residents today have still had to travel outside of the neighbourhood for employment opportunities. This has resulted in a barrier of movement and activities, which in turn has resulted in people being led to work within other spaces resulting in a decrease in not only the performance of the neighbourhood but also the liveability of it (Lynch, 1984: 246). Residents must spend a substantial amount of their incomes of transport. These barriers reduce the level of liveability within Langa.

Interview participants have stated that there is a need for greater employment opportunities within Langa. There is a need for the utilization of the neighbourhood itself as well as creating opportunities for residents in which they do not have to spend portions on their income to reach their employment opportunities. Barriers to activities have resulted in different forms of self-employment and entrepreneurial ventures being implemented, such as tourism and the heritage surrounding Langa. A key example of this is that of the Langa Quarter which had aimed to activate a certain area of Langa through the form of social tourism in creating job opportunities and business growth and development (Massey, 2019: 276). The key objective of the Langa Quarter is to facilitate employment opportunities, be a catalyst for the reduction in poverty, enhance existing assets and empower the community as well as become a 'responsible' tourist destination promoting both enterprise development and social cohesion (Massey, 2019: 276). The initiative allowed for an increase in tourism through the means of the presentation of culture, history, and jazz music, which took the form of urban street cafes, music venues and showcasing of art (Massey, 2019: 276).

The organizational founder of IKhaya le Langa, had partnered with non-governmental organizations, the government, the private sector, and the community to allow for the development of at least one form of enterprise in each of the 350 houses within the Quarter (Massey, 2019: 276). The initiative had successfully found a medium in which to appeal to tourism and provide employment opportunities as well as community participation within Langa. The Quarter had been home to many different forms of smaller businesses, which allow for the creation and options of new activities, such as newly established coffee shops, bars, hair salons, craft markets, an increased emphasis on informal trade, and local takeaway outlets (Massey, 2019: 277). This allowed for the diversification of trading and employment opportunities, focusing on entrepreneurial pursuits. Many smaller businesses thrived through this initiative and access to activities had increased. A key example of this would be tourism, in which the concept of township tourism had become a large factor in activities through Langa (Ebrahim & Muresherwa, 2021: 599). It provided a different side of traditional tourism within Cape Town and allowed for the showcasing of the cultural heritage of Langa (Ebrahim & Muresherwa, 2021: 599). These guided tours included cultural attractions such as museums, art galleries, theatre, and festivals as well as shebeen trails, struggle trails and dark tourism, which highlighted the living conditions and sense of liveability of Langa, and by comparison other township neighbourhoods, to the rest of the world (Ebrahim & Muresherwa, 2021: 599).

Different forms of tenure also exist within this activity. Provision of accommodation for tourists by local residents has also been prevalent within the Langa Quarter. It forms a crucial manner in making money as

well as introducing people to township life beyond guided tours and visits (Massey, 2019: 276). Other tenure options have been put in place, implementing a separated hotel system in which tourists are able to rent out rooms within 15 different households, thus contributing income to the aforementioned homes (Massey, 2019: 277). Airbnb accommodations have been introduced and has garnered much international attention, thus allowing for a different avenue of tourist income within the area (Massey, 2019: 277).

#### 4.3.5 Scale and Affordability

The overall lack of access to resources and services within the district scale of Langa has impacted on liveability, affordability, and sustainability. Within this sub-section, the relationship between scale and affordability will be discussed. It parallels the relationship between scale and liveability, but through the lens of economic value and living conditions.

The affordability factor within the district scale is due to the lack of access to resources and services, although it does not affect the entirety of the neighbourhood, almost half of the population lives within informal living conditions, which has resulted in a lack of access to resources such as sanitation and ablution facilities as well as being overcrowded (de Beers, 2013). This ties into affordability, in which residents are forced to share toilets and with insufficient access to piped water. Though it is also stated that 76% have access to toilets, these toilets are often shared, and the sanitary conditions of these facilities have been poorly managed (de Beers, 2013). These conditions are directly correlated to the affordability of residents within Langa and often the lack of access to resources and facilities have perpetuated states of poverty, thus resulting in a cycle of poverty within the neighbourhood. Although it may be able to be fixed through provision of resources, the low income of residents coupled with the lack of maintenance by governmental bodies and the inability for a significant number of residents to afford these needs, have hindered the ability to access these basic resources.

A key example to note with regard to affordability when viewing the intersection between fieldwork and the conceptual analytical framework, is that residents have had to fulfil their own needs within the confines of the neighbourhood of Langa. This had resulted in many residents turning toward informal trade and the procurement of resources such as food to cater to those who are unable to afford bulk forms of buying, provided by larger supermarket franchises located in the neighbourhood.

#### 4.3.6 Built Form and Affordability

The intersection of scale and affordability provided clarity on the lack of access to resources within township neighbourhoods as well as the conditions in which residents have to live. It had also made mention to the poor housing conditions through the means of a lack of services due to the scale and placement of these peripheral township neighbourhoods. The sentiments between built form and affordability share similar sentiments, though focusses on the different housing forms, housing conditions and surrounding built form speaking to the different manners in which residents are able to afford to live in the neighbourhood.

Through the analysis of site visits, it has been noted that many of the different sections of Langa are blurred into one another, comprising the landscape of the neighbourhood with different forms of housing. It provides a key understanding as to the relationship residents share with built form and affordability. It was evident when speaking to interview participants, stating that although different residents experience dissimilar conditions of Langa, there is a sense of comradery as well as residents living in more affordable housing forms aspiring to live in the Beverly Hills section of the neighbourhood. Interview respondents had also stated that there were no forms of discrimination between residents based on housing forms or living conditions.

The difference in the living conditions of residents have been indicative of the affordability standards they are able to uphold. The different housing forms within Langa range within rental prices. Though some housing forms are owned by residents such as the free-standing homes and homes situated within Beverly Hills, most of the housing forms are being rented. There are ranges of rental agreements depending on the housing form, while housing projects such as the N2 Gateway Housing project consist predominantly of subsidy housing. There are different forms of housing agreements depending on the financial capabilities of residents. These are all dealt with through the housing deeds office located in Langa. As a researcher, it has been difficult establishing the nature of the rental and housing agreements associated with the informal settlement. Through site visits and interviews, conversations about informal settlement rental agreements were not fruitful. Though through personal communication it can be said that there are informal rental agreements between residents and governmental bodies of the neighbourhood. Further evidence is in the form of the access to electricity and running water within the informal settlement.

Built form encompasses the broader layout of the neighbourhood and allows for an understanding of affordability through the different forms of housing. The surrounding environment and living conditions

have been beneficial in understanding the way in which residents of Langa have been living as well as the quality of housing and life.

#### 4.3.7 Elements of Neighbourhood Design and Affordability

A key factor to consider within the discussion of elements of neighbourhood design and affordability is the importance of informal trade within Langa. Through site visits it has been apparent in viewing the different forms of informal trade, which had been situated on many different streets within the neighbourhood. Langa's streets have become multi-faceted forms of function in which it facilitates a range of activities. The design of the neighbourhood has also accommodated for this, through its large public spaces, which have dual use through the means of informal trade. Informal trade has advocated for an inexpensive alternative to larger supermarket distribution franchises and allows for an entrepreneurial aspect of the neighbourhood to be highlighted. Informal trade is important in catering to residents who may lead precarious states of living in which they are only able to afford daily necessities. It had been noted within site visits that there are smaller independent supermarkets within each section, catering to the section as well as having other smaller supermarkets within the vicinity. The tour guides mentioned that it is not difficult to apply for independent supermarket tenders in which there is the ability to convert part of their homes, mostly the garages, into makeshift supermarkets to cater for the public.

Different forms of activities have implemented Langa's design into its location and formula for success. Residents have bought containers from which to conduct informal trade. These containers are used as hair salons, barbers, shoe cleaner, cellular device repairs and smaller supermarket stores. They are located strategically in public spaces due to the amount of foot traffic within the neighbourhood and this has resulted in a significant increase in entrepreneurial opportunities for residents. Interview participants have stated, "On weekends there is a lot of people in and around the container businesses and they sit outside," (Personal Communication, 2022: October 20). Container businesses have attracted more people to open and public spaces, often times creating a sense of community and allowing for socialization. The main roads have been designed to cater for smaller businesses, although many have closed down or chosen to move to different locations due to the design of Langa. This was due to the Covid-19 pandemic, in which residents were encouraged to stay indoors, resulting in these businesses closing down. Langa's formal and informal trade has also experienced the spreading out of business clusters, whereby trade has been conducted within public spaces and within residential areas. The urban design language of Langa has been

geared towards the non-motorised movement of residents, thus locations for informal trade have been strategically positioned within sections to accommodate both walking as well as convenience. The affordability aspect of neighbourhood design is evident when looking at the types of informal trade as well as the location of these public trade spaces. It often results in smaller clusters of businesses centred around providing goods and services to residents through the means of convenience and cost-effectiveness. It has also allowed for the generation of income allowing residents to afford living within the area both as a producer and consumer.



Figure 4. 4: Informal trading containers located in public spaces. (Author's Own, 2022).

#### 4.3.8 Activities and Affordability

This sub-section will be similar in it dealing with that of the relationship shared between activities and liveability. A fundamental and connected issue when looking at activities with regard to both liveability and affordability is the barrier to activities within Langa. This is understood through employment and shopping. Although Langa has a large informal trade economy as well as shopping centres, there is still a need to travel for shopping for different forms of resources such as clothing, shopping centres such as Vangate Mall are found in the adjacent neighbourhood. It must also be noted that many of the interview participants site travelling outside of the neighbourhood for work, in which they also make use of their time outside of Langa to shop due to them being in the vicinity. This has resulted in many residents

spending money elsewhere outside of the neighbourhood resulting, which has had a rippling effect on both the ability for resident to afford food resources as well as spending money on travel.

#### 4.3.9 Sustainability

Sustainability is an important aspect when looking at the conceptual analytical framework as a whole. It interrelates to the conceptual analytical framework by the means of introducing humans as part of sustainability. It is defined as the achievement of the sustainable use of renewable and replenishable resources, as well as the minimization in the use of non-renewable resources and meeting of the basic human needs (Choguil, 2007: 145). The inclusion of human needs has resulted in the establishment of humans being key to achieving sustainability through the means of implementing sustainable measures upon the environment as well as sustaining themselves within the process. If humans are to die out, then sustainability cannot be fully achieved (Choguil, 2007: 145).

#### 4.3.10 Scale and Sustainability

When looking at sustainability in terms of scale it is important to note that it intersects within both the district scale and the building scale. Within the district scale, many of the sentiments shared for sustainability coincide with that of liveability and affordability. This ultimately ties into the peripheral location of Langa, whereby sustainability has not been achieved, according to its definition, due to the lack of access to resources and services. The historical disadvantages associated with Langa has resulted in low levels of sustainability, due to basic human needs not being met through resources such as toilets, sanitation, and ablution facilities as well as housing forms in which basic needs of shelter are not being met due to the financial inability of residents. This has an effect on the environmental aspects of the neighbourhood and the surrounding environment associated with housing forms which are in poor conditions. This encompasses services such as proper roads, transport facilities, and electricity provision. It also has major impacts on the environment surrounding Langa. A key feature in which to note is the lack of greenery and open spaces within the neighbourhood. This may be due to the prior dormitory nature in which the neighbourhood was established and the present large population of Langa. These factors directly tie into the lack of service delivery and housing needs not being met. The environment itself has been degraded through overuse and overcrowding. This can be seen within the building scale as it intersects with sustainability through the means of the degraded forms of housing such as informal

settlements. The low level of sustainability is directly impacted by the increase in pollution and non-sustainable use of resources and scale. Many residents within informal settlements degrade the surrounding environment through the pollution of water, the dumping of waste and the illegal means of electrical connections. Interview participants have maintained that due to the overcrowding of the informal settlements, the epicentre of pollution has come from there, this is due to the sheer number of residents faced with poor maintenance of services and resources.

The provision of resources within this space would be the catalyst in improving both housing and living conditions within the informal settlement of Langa. This can be said for township neighbourhoods within Cape Town as well. The need for the provision of resources, especially to precarious residents will have direct benefits on their sustainable practices as well as their housing conditions but will also indirectly impact the entirety of Langa through the means of better living conditions.

#### 4.3.11 Built Form and Sustainability

Sustainability through built form has provided context in understanding the key aspects of housing forms through the means of meeting the basic human needs for shelter, privacy, and the protection of activities. It has promoted the key understanding of the intricacies of layout in relation to residential needs. The smaller factors within built form such as proper walls, doors, and roofing are often overlooked within a theoretical basis but is an important factor due to many residents with Langa not having proper access to it, thus resulting in the lack of fulfilment of the human need for proper shelter. A key example of this would be informal settlement, in which an interview participant from the informal settlement had mentioned that the extreme weather seasons such as Summer and Winter are the worst possible times of the year to live in the informal settlements. Summertime is dangerous due to the high probability of fires starting and spreading rapidly because of the overcrowded nature of the informal settlement as well as many of the informal housing forms being placed right next to each other. This often times leaving residents with no housing and having to rebuild. It had resulted in them losing their informal plot they had once lived upon due to their not being any designations of housing space. An interview participant mentioned the devastating nature of the most recent Langa fire, which had destroyed 260 informal structures had left 767 residents vulnerable, losing homes and businesses (IOL, 2022). Winters have also been detrimental to sustainability of residents, whereby the flooding of the informal settlements has become a massive problem due to its large impact on residents and their housing conditions. An interview

participant from the informal settlement had stated that due to the poor conditions of roads and certain parts of the settlement only being dirt roads, the rain results in large amounts of mud deposits often hindering the activities that take place within the roads as well as access to housing. In some instances, residents have had part of their housing flooded with mud during the middle of the night resulting in them having to leave their homes as well as having property damaged. Mud deposits have also shifted debris and waste throughout the informal settlement and within other sections of Langa resulting in an increase in pollution and overall decreasing the living conditions of the neighbourhood.

There is a need for the increase in sustainability measures put in place, when looking at the built form of Langa. This provides a key connection between built form and sustainability as well as liveability and affordability. These factors in tandem with built form will ensure in a better quality of life within the neighbourhood through the means of a people-centred approach of planning, which is a necessity in different township neighbourhoods, as a means to eradicate the spatial disadvantages associated with Apartheid spatial planning.

#### 4.3.12 Elements of neighbourhood design and sustainability

To fully understand the extent to which elements of neighbourhood design affects sustainability, a key understanding of these elements should be provided as context. It is viewed as the space where a range of activities can be done within a small proximity (Dewar & Uytendogaardt, 1997: 6). It encompasses public facilities, streets and roads and open and public spaces. These spaces are seen to have become interchangeable with each other but had initially been created for strategic purposes. The purpose of Langa was to be a migrant dormitory suburb with the aim of reducing contact of its residents with the greater Cape Town unless through contracted employment. It had resulted in both the formation and the design theory associated with Langa. It is noted that when looking at the design of Langa, the use of borders, open spaces and roads have been established to create a permanent form of separation. This could be seen in the form of Vanguard Drive which was established as a hard boundary (Field, 2015: 584). Other boundaries like this exist such as the open space situated between Langa and its neighbouring suburb Pinelands, which includes a section of Jan Smuts Drive and the Langa Cemetery. Another hard boundary is the train lines which separate the neighbourhood from Pinelands and Epping Industria. The N2 highway forms another hard boundary (Field, 2015: 584). These boundaries had created a boxed-in feel of the neighbourhood.

It is important to note when considering the immense impact of Apartheid, that the formation of Langa initiated with the removal of residents from Ndabeni to Langa was different to the forced removals from working class neighbourhoods such as Woodstock and Salt River. Many African people had been forcibly removed and absorbed into the fledgling neighbourhood of Langa while other neighbourhoods had been shattered due to people being forcibly removed, this had resulted in an inorganic manner of growth associated with Langa (Field, 2015: 584).

When looking at the inner design theory of Langa, the influences surrounding design are easily noted and identified. The elements of Langa's design provide clarity upon its impacts on sustainability for residents as well as the sustainability associated with the neighbourhood itself. When describing the connections and influence of neighbourhood design with sustainability in terms of Langa it must be stated that the historical context is extremely important. The application of neighbourhood design theories has been rooted mostly within the United Kingdom and the United States of America and applied within a South African context during and after Apartheid (Madell, 2021). There are two key design theories that are interrelated within the case study example of Langa. Within the first comparison, the context of the grid design theory should be given as well as the example associated with it. Grid theory had originated from early European planning theories and settlements from the 1600's onwards and was designed to facilitate the circulation of pedestrians and road-based transport (Madell, 2021). When it was adopted in Africa, namely in the neighbourhoods of Cape Town such as Salt River and Woodstock, there was a need for the warping of the grid theory in response to the local topography, in which to accommodate to the steep roads and mountainous terrain associated with the Cape (Madell, 2021). Woodstock and Salt River have also had public facilities located along more active movement routes, which had instilled a sense of mixed-use within these neighbourhoods (Madell, 2021). Langa in contrast, adopted designated commercial services established in a single location as a means to enable viability (Madell, 2021). This is associated with the garden city design theory. Though the neighbourhood did not have enough space for this, and instead should have had established smaller clusters of mixed-use zones found among housing at accessible points, which would advocate both safety and integrated space.

When looking at Langa through the means of street design, a comparison between Langa and Pinelands should be provided. Langa displayed a more rigid disposition due to it being modelled off of a grid design theory, while it had implemented elements of garden city design theory as well. Within the comparison, it was noted that Pinelands maintained a web-like layout accommodating cul-de-sacs, which promoted irregularity in street design dictated by greenery, while Langa had taken elements of a warper grid layout

associated with Woodstock and Salt River though it was located upon the Cape Flats. This had resulted in the implementation of a semi-grid patterned layout with attempts of greenery within the neighbourhood, leading to confusion of design compromising on effective space, ultimately resulting in the optimal use of street functions and facilities not being realized. The lack of sustainability stems from the overarching flaw in design theory, that being of the combination of grid and garden city design theory, which has had ripple effects in causing a lack of space as well as proper housing forms, which then crippled the suburb both economically and spatially.

Design and the optimal use of it has direct linkages toward sustainability. Langa had not realized a fundamental principle associated with sustainability, in which the fulfilment of human needs and a people-centred approach to spatial design is important in allowing for humans to sustain their lives. The lack of sustainability had been implemented by the Apartheid government through the means of segregation rather than allowing for an integrated approach of planning, which would result in the needs of residents being met as well as integrated forms of living, through transport.

#### 4.3.13 Activities and Sustainability.

Practicing activities that promote sustainability within Langa are crucial in allowing for better living conditions. A key focus is providing activities that minimize the use of waste and pollutants, as well as reducing the use of non-replenishable resources. It is also key in allowing for the meeting of basic human needs. These factors could be translated into activities such as shopping whereby food drives could be held by big supermarket franchises, in which to help residents that may not be able to afford enough groceries to sustain themselves. This will provide a sense of food security within Langa as well as providing the sustainable management of food production. Another key activity is that of informal trade whereby the support of informal trade allows for the sustainable use of replenishable resources as well as allowing of the flourishing of economic opportunities through this form of trade.

Lastly residents have advocated for greener spaces in which to grow produce and other vegetables. A key example of this would be the vegetable gardens found outside government hostels, which are used to sustain families as well as excess being given to those within the informal settlement. An interview respondent had provided a first-hand example of larger produce gardens, situated behind the Hamilton Naki apartments. These gardens are public property and patches had been cornered off by name labels to allow for space for residents to grow their vegetables. They had also mentioned attempts at securing

larger spaces for bigger garden patches, which would allow for informal settlement residents first preference on growing vegetables and fruit. This allowed for a way in which to provide replenishable forms of food through activities while maintaining sustainable standards.

#### 4.4 Synthesis of Case Study

The relationship between the conceptual framework and liveability, affordability, and sustainability in relation to the case study example of Langa has provided deeper insight in whether the theory established in the literature review, coupled with the conceptual framework can be applied to an existing township neighbourhood, in which Langa had been chosen. Langa as a case study example has shown that many of the theoretical framework established within the literature review can be seen within this case study through different forms. It has established a common thread of access to resources within scale and throughout liveability, affordability, and sustainability. It has also highlighted the importance of informal trade which has both been highlighted within the literature review and within Langa. It has made apparent that the historical context of township neighbourhoods is important and are detrimental factors in causing barriers for growth in terms of housing conditions. It has also made known the importance of conducting fieldwork research in which to gauge the validity of theoretical claims, in which to provide clarity on the main research question.

# Chapter 5: Recommendations and Possible Interventions

## 5.1 Introduction

The previous chapter was focused on the findings of the case study material gathered from Langa. It was focused on analysing and developing an understanding of Langa in relation to the conceptual analytical framework derived from the literature and through the lenses of liveability, affordability, and sustainability through the means of both academic literature and fieldwork such as interviews, site visits and guided tours. Key case study findings had emerged which were associated with the lack of access to resources within the neighbourhood scale, the lack of integration between Langa and its neighbouring suburbs as well as the greater Cape Town. The research considered the impact of informal settlements on liveability, affordability, and sustainability for Langa residents as a whole, in which it had hindered the performance of different criteria associated with the conceptual analytical framework. The key historical issues associated with the initial layout of township neighbourhoods and how this has resulted in predisposed disadvantages of space were considered.

## 5.2 Recommendations

The analyses and synthesis of this data from an academic and case study perspective allowed for the identification of factors and issues relating to the housing conditions that had arisen. These have implications for recommendations and possible interventions, in order to improve the housing conditions and in turn allow for the improvement of liveability, affordability, and sustainability of the living conditions of residents residing in township neighbourhoods. These recommendations deal with creating space through

### 5.2.1 Recommendations 1: The Creation of Space Through Housing.

As mentioned throughout the dissertation, space is an important issue as many township neighbourhoods are located upon the periphery, away from cities. Throughout time many other suburbs and neighbourhoods have been built around it, potentially reducing its attempts and opportunities for expansion. Historically, the state used planning and design methods of segregation methods in order to maintain the scale of township neighbourhoods as well as to control the ability of residents in accessing social and economic opportunities in more established parts of cities.

When applying this theory to township neighbourhoods in general, the lack of opportunity for horizontal expansion due to hard boundaries is therefore a significant impediment to improving the living conditions of residents. This coupled with the need for the accommodation of housing for the growing population, supports proposals for the concept and implementation of vertical expansion of built fabric. The idea of building more flats to accommodate for residents is seen as an innovative manner in which to solve poor housing conditions. There is also a need for the upgrading of existing flats, in which levels of housing could be added thus creating more space upon already existing housing forms.

It is evident within present day township neighbourhoods, that the provision of some public open spaces was provided when these neighbourhoods were initially established. However, many of these spaces were not formally developed by the authorities and limited planning had been put into the process of considering the rate of expansion, coupled in with the impact of segregation. This had resulted in the establishment of a number of township neighbourhoods, that are overcrowded and in turn has directly impacted on both housing forms and elements of neighbourhood design, in the form of layout. Much of the layout of township neighbourhoods had been set since they were first established. There have not been opportunities to expand or plan infrastructural layout of sections of neighbourhoods, beside within recent housing projects, which often had not reached completion. The creation of well-planned high-rise flats within derelict spaces are the most viable option when targeting liveability, affordability, and sustainability. Part of these housing forms should be subsidized while other rental opportunities should be provided, thus resulting in proper opportunities for the reduction of overcrowding. The provision of housing is seen to be a catalytic factor for the total upgrade of informal settlements.

The transformation of derelict spaces and older flats should also be considered. This attempt at utilizing already existing space will tackle the problem of lack of space as well as in turn the upgrading of existing

housing forms, which will allow for residents to have a higher standard of housing as well as resulting in an increase of housing throughout the neighbourhood.

Though many of the historical aspects of these housing forms may be lost, the potential for greater more effective housing will improve the overall conditions within the neighbourhood as well as promoting higher levels of liveability, affordability, and sustainability.



Figure 5. 1: Government Hostels. (Author’s Own, 2022).



Figure 5. 2: Informal Settlement. (Author's Own, 2022).

### 5.2.2 Recommendation 2: Mixed-Use Development as a transformative measure of Dormitory Township Neighbourhoods

Township neighbourhoods are deemed as dormitory suburbs, in which residents have always had to travel to employment and other opportunities elsewhere in South African cities. This has been historically accurate since the establishment of the first township neighbourhood, Langa. Often neighbourhoods would be used solely for housing, with transport routes to and from places of employment. This system has been echoed until present day in which there is still a key emphasis on transport nodes and routes. Theoretically providing easier forms of travel to places of employment. In order to allow for the thriving of the area, key measures should be put in place such as the investment in more formal businesses through the establishment of mixed-use zones within the neighbourhood in order to allow for an increase in employment opportunities. There is a clear need for the attraction of more businesses within township neighbourhoods, through the means of decentralising economic activities and providing key opportunities to these types of neighbourhoods in an effort to boost both employment opportunities and the mixed-use housing.

Integration remains of key concern for planning within all township neighbourhoods due to multiple boundaries surrounding them. Neighbouring businesses should be utilized as the catalyst in establishing township neighbourhoods as more mixed-use zones. Less stringent boundaries should be adopted for both integration of township neighbourhoods, which would provide access to employment opportunities and resources thus reducing township neighbourhood's statuses as dormitory suburbs.

When looking at the inner workings of township neighbourhoods, the large amount of derelict and open spaces has been utilized through informal trade and informal housing. Many of the existing housing forms are in poor conditions, which have resulted in the lack of space utilization. It is imperative for these spaces and housing forms to be upgraded into stable and suitable housing forms which may accommodate mixed use. This will allow for more economic and employment opportunities to thrive, thus reducing the lack of housing and optimizing the use of space in which both formal and informal trading may occur. It will also allow for a greater sense of social cohesion to take place in which social interactions and business may thrive. Rental opportunities for residents operating businesses and living within the same housing form may provide a key avenue in which governmental capital gain may occur thus providing a greater sense of

economic value to the neighbourhood. The increase in smaller clusters of mixed-use allows for economic nodes to form within the neighbourhoods allowing for a sense of cohesion to occur as well as providing key employment opportunities for residents within their neighbourhoods, resulting in a flow of income and expense throughout the neighbourhoods.

### 5.2.3 Recommendation 3: Collaboration between Governmental Bodies and Residents

Apartheid and subsequent spatial planning have been synonymous with the top-down approach to planning, often not considering anthropological aspects such as quality of living within township neighbourhoods or proper access for transportation resulting in residential needs not being met. There is a clear lack of meaningful collaboration between governmental bodies and residents, often not catering for what is truly needed by residents. Within the context of housing performance and conditions, governmental services such as health, education or basically utilities services have not been adequate within neighbourhoods, leading to poor housing environments. Throughout the data collection process, it had become apparent that there had been minimal collaboration and engagement with residents and local community leaders by government officials. Officials would often time join initiatives once it had already been set in motion by community leaders, thus advocating for collaboration at the tail end of the process, rather than initiating meaningful dialogue and communication with residents through collaboration. Within other contexts, government officials have planned initiatives without the consultation of residents, and it has only been brought to the attention of community leaders and residents at the tail end, when decisions have already been made, reinforcing a top-down approach to planning. Government has been known to follow within the footsteps of countries within the Global North, often adopting or mimicking inappropriate planning and development ideas as a form of standardizing, upon a global scale, what should be done within neighbourhoods, failing to consider the unique solutions that are needed for context specific problems. This entails that there should be the catering of the needs of residents within a local context rather than adopting global concepts.

There should be adequate provision of financial resources and public services presented by government, as well as establishing relationships with community leaders in order to provide dialogue and understanding of neighbourhood needs. This could be in the form of frequent and ongoing engagements and meetings in which updates could be made from both parties, as to what needs should be met and how far along in the process they are to being met or alternative measures.

When looking at it within the earlier stages, surveys and tours should be conducted, in which tour guides and community leaders are able to show governmental bodies and planners what is needed within the neighbourhood and provide understanding of the state of housing conditions and performance, stating a case for residential needs to be met. This may help develop a working relationship between government and residents as a way in which to promote a bottom-up approach to planning.

Ultimately this recommendation will allow for the promotion of bottom-up planning allowing for critical conversations and implementations of residential needs. Interviews with residents should also be done, which may allow for a holistic understanding of the need of residents. This process will advocate for the cultivation of relationships sparked from conversations as well as leading to better housing conditions overall and a greater sense of quality of living throughout the neighbourhood.

#### 5.2.4 Recommendation 4: Integrating Proper Forms of Activities, Allowing for a Cohesive Township Neighbourhood.

The ability for conducting a wide range of livelihood activities within township neighbourhoods are important due to these providing a cohesiveness and flow within daily life and encompasses different aspects all relating to housing performance and these include working, residing, shopping, moving, and recreating activities (Dewar & Uytenbogaardt, 1977: 6). When looking at the overarching theme of integration of activities within this recommendation, it is important to discuss the many different aspects that form part of it. These sub-themes are function, interrelation, and complexity and multi-functionality. It is also important to note the interrelations shared between activities within the context of housing performance. For housing conditions and performance to improve, there is a need for the integration of activities, which will show that these different activities have an added social aspect toward them. It is also important to note that scale does play a crucial factor in how activities are integrated. Activities have more impact when looked at in a smaller scale, this means that within the context of a neighbourhood, the integration of activities are fundamental and often take upon different roles (Dewar & Uytenbogaardt, 1977: 13). It is crucial to allow for integration as it may have the potential of activating different aspects of activities resulting in them becoming both multifunctional and interrelated (Dewar & Uytenbogaardt, 1977: 13).

An understanding of the interrelated nature of activities benefits entire neighbourhoods due to the intersections of resources, services and activities allowing for high quality housing and living conditions.

Activity integration allows for the promotion and support of each by the others. The example's being used were adopted from the diagram presented by Dewar and Uytendogaardt (1977: 6), in which it is seen that working, takes the form of employment opportunities. Employment opportunities within both the formal and informal sectors of township neighbourhoods, benefit residents through income as well as providing products and services through the form of shopping. Access to different shopping facilities within the neighbourhood promotes economic development as well as allowing for the reduced travel for shopping needs. This creates a web of interconnectedness, in which those residing within township neighbourhoods are able to fulfil their needs easier and it allows for a better living environment, whereby needs such as shopping and employment opportunities are within near proximities. Moving encompasses activities such as the ability to move within housing environments, in which residents are able to live in different housing forms, each accompanied by their own surrounding environments but with the same form of access to resources and services. It also encompasses walking and travelling both within and outside of the neighbourhood. Recreating is understood as the access to sporting facilities, which may take the form of fields, parks, halls and often times the street. These public recreational facilities allow for a multifunctional use of space and emphasize the multi-functionality of activities.

A key recommendation within township neighbourhoods is differentiating and maintaining the functioning of activities, which will also allow for the integration of these activities. A key balance should be established between the housing and surrounding environments, in which activities may take place. This can be seen in the form of the function of activities, whereby within housing and subsequently residing, its function is maintaining a high level of privacy from the public and allowing for a space in which activities may start and end from. While shopping and places of employment need high levels of public exposure and activity in order to function. Though this recommendation is seen as very complex especially within the context of township neighbourhoods, which are often lacking in fundamental aspects of activities, it is not about the number of activities and facilities present within these neighbourhoods but rather the complexity and integration of different uses and types which will help it thrive. This ties into the aforementioned recommendation, whereby mixed-use zoning will promote a sense of flow within the neighbourhoods. There is a need for the balance between private and public to be established, in which mixed-use zoning may accommodate housing but also the employment opportunities and businesses.

It is also important to note the complexity and multi-functionality of activities within township neighbourhoods. This can be seen when using scale, when viewing it from a local neighbourhood scale it is evident that there is a need for many different types of activities within a small vicinity. This is due to past

racial injustices such as segregation, often hindering the access to needs being met both within the neighbourhood as well as residents attempts at accessing them outside of the confines of the neighbourhoods. The access to activities is needed within neighbourhoods and outside of it. A key quote from Dewar & Uytendogaardt (1977:13) provides a summary for the need of activities, in which they state, “Thus socializing does not only occur in ‘social facilities’ but in the street, in shops, at work and the like; ‘living’ does not only occur in the house – it is integral to all man’s activities.” Once more, when adopting scale, shifting from the local neighbourhood scale to the district and the metropolitan area scale, there is a need for the integration of activities transcending that of just the neighbourhood and allowing access of activities within the greater Cape Town area. This may be accomplished with transport nodes as well as tourism, in which residents are able to participate in activities both inside and outside township neighbourhoods. This allows for a larger scale of cohesion to be achieved and allows for the integration of neighbourhoods through the means of activities. Tourism is a key source of activities that allow for the acceleration of integration to take place, due to people entering township neighbourhoods and diversifying its economy.

### 5.2.5 Conclusion

This chapter had provided key recommendations based on the emerging issues found within the previous chapters. It had aimed to build upon the theoretical framework and fieldwork conducted in order to establish a basis in which to provide further research. It is imperative to know that this dissertation may be used as a means in which to catapult further studies in housing conditions or adjacently situated topics within planning. An important aspect of the recommendations section is to note that they are all interconnected and though can be implemented separately, for proper results they should theoretically be implemented together. It had been recommended that due to the peripheral location, coupled with the overcrowding of resident, that township neighbourhoods manage space through the means of building up rather than trying to expand the neighbourhoods in different directions. In addition, another recommendation had proposed a further emphasis should be established for mixed-use zones, which would shift away from the dormitory status of township neighbourhoods and allow for a more cohesive feel toward these neighbourhoods as well as providing both housing and employment opportunities. Thirdly, there is a distinct need for the collaboration between governmental bodies, including planners, and residents. Governmental bodies had established a top-down approach to planning and housing performance in which there had been the adoption of Global North methods, which has meant that there

had not been much collaboration on residential needs. This recommendation states that communication and collaboration should take place in order to establish a bottom-up approach to planning resulting in the fulfilment of both residential and housing needs. Lastly, the final recommendation puts emphasis on the integration of activities, which comprises of sub-themes of functionality, interrelations, and complexity and multifunctionality. Allowing for access of activities, resources, and service for residents both within and outside of the neighbourhood. It also established the interrelated nature of activities and how they have many different functions such as housing forming part of private activity while shopping and employment opportunities forming part of public exposure, ensuring that there is balance and integration between activities in general. Moving into the future, these recommendations applied cohesively, may increase the housing performance within township neighbourhoods thus resulting in better forms of liveability, affordability, and sustainability within these neighbourhoods as a whole.

# Chapter 6: Conclusion

## 6.1 Conclusion

In conclusion this dissertation aimed to find out “What are the housing conditions of township neighbourhoods in South Africa when assessed in relation to housing performance criteria on liveability, affordability, and sustainability?”

In order to fully explore this, multiple subsidiary questions were established, namely:

- 1) What are the housing conditions of township neighbourhoods in South Africa?
- 2) How does township neighbourhoods perform in relation to housing performance criteria such as liveability, affordability, and sustainability?

The intention of this research dissertation was to find out the different housing conditions within township neighbourhoods when assessed with the interrelations established between the conceptual analytical framework and liveability, affordability, and sustainability, and how this impacted residents when viewing it through an anthropological lens. A conceptual analytical framework had been established to provide a gauge as to the extent to which residents are affected. These criteria are scale, built form, activities, performance, and elements of neighbourhood design. They had formed the basis of the literature review in which to establish it in grounded academic articles as well as providing a sense of interconnectedness between each criterion. It then allowed for the comparison of these criteria with regard to liveability, affordability, and sustainability in which to relate it to the main research question as well as providing an anthropological lens to this form of planning. The literature noted that the criteria formulated are in response to the legacy of Apartheid spatial planning and the perpetuation of poverty during the current era of planning, in turn it has influenced all aspects of township neighbourhoods, such as, layout, housing conditions and its surrounding environment, the natural environment and residents themselves. The literature review had established direct linkages to that of the case study chapter, in which Langa had been the township neighbourhood model as a means to understand and grasp general housing conditions.

When conducting fieldwork, the aim was to expand on the performance criteria presented for township neighbourhoods by Dewar and Uytendogaardt (1977), in which to create an overall criterion to assess township neighbourhoods. While in the field, many of the criteria and the academia relating to it had been

noticed. This provided the basis in which to conduct semi-structured interviews with residents as well as site visits, both facilitated by a tour guide.

Through interactions and engagement with residents and the neighbourhood itself, interlinkages between academia, site visits, and interviews allowed for an understanding of Langa within the context of the case study chapter. This chapter had developed the interlinkages between the conceptual analytical framework and liveability, affordability, and sustainability through the context of Langa. It had established whether the academic resources within the literature review inform a case study of an existing township neighbourhood. These chapters provided key examples in which to apply both academic literature and fieldwork. The first being scale in terms of liveability, whereby it provided the importance of the metropolitan scale in providing an understanding in the lack of optimal transport connectivity within Langa and how it impacts liveability. It also provided clarity on the standard set of characteristics associated with township neighbourhoods through the neighbourhood scale, whereby a commonality had been seen throughout all township neighbourhoods in which a lack of access to resources are a key problem due to the peripheral location of township neighbourhoods with Langa being a fitting example. It had also dealt with built form in terms of liveability in which the conditions of housing affect residents differently through the manner in which housing provisions exist. This constitutes built form through the means of windows, walls, flooring, and the immediate surrounding housing conditions such as roads. It had also delved into the relationship shared between elements of neighbourhood design and liveability in which space for activities play a crucial role. It included consideration of the multi-faceted nature of space and the importance space is when considering if a neighbourhood is liveable or not. It also makes mention to sense of community and education which are key factors when considering the liveability of a neighbourhood. Activities and liveability are also important due to it providing an understanding of access to activities and the implications it has on liveability if it is blocked or controlled.

It also constitutes the relationship between affordability and the conceptual analytical framework, in which it provides an example for scale and affordability in which the peripheral location of Langa and other township neighbourhoods has affected access to resources. Thus, incurring costs for the provision of resources often resulting in residents having to outsource or travel outside of their neighbourhoods for these resources resulting in a decrease in affordability. When mentioning built form and affordability the connecting factor of different housing conditions and their surrounding built environment speak to the different ways in which residents afford to live, whereby in Langa the different sections represent the different housing forms and conditions. When looking at elements of neighbourhood design and

affordability, informal trade is a big part in establishing a sense of affordability whereby it accommodates for the different levels of affordability of residents as well as highlighting streets and open spaces as multi-functioning design aspects. Activities are also crucial due to the ability to conduct activities such as shopping and working within the neighbourhood provides insights as the means of affordability.

The last crucial intersection between conceptual analytical framework, is that with sustainability, which is important in maintaining a people-centred approach to planning. Scale is represented through the district and building scale in which resources impact the sustainability of residents and ultimately has the ability to increase or decrease rates of poverty. The building scale is impacted by pollution and pollutive housing forms, which in turn affect the entire neighbourhood through violation of sustainable practices. Built form is represented through the meeting of basic human needs of shelter and the manners in which these are delivered. Elements of neighbourhood design is impacted by the planned design theory used within Langa and other township neighbourhoods resulting in an established disadvantage of neighbourhoods from the start and the way in which these should be tackled. Lastly, it provides an understanding of activities, which is viewed through food security and employment and the need for sustainable activities such as informal trade which provides relief financially for both producer and consumer as well as allowing for the sustainable use of replenishable resources in the form of food.

Through the academic literature and fieldwork collection process, this dissertation was able to concisely interlink all facets of research and data collection into a cohesive set of themes which provide a holistic understanding of township neighbourhoods to allow for the assessment of housing conditions through an established conceptual analytical framework. Ultimately, providing a basis for further research through recommendations and theory for steps to move forward. Thus, allowing it to be an insightful starting point in tackling housing conditions and housing as a whole within the South African township neighbourhood context.

## 6.2 Research Limitations

A limitation within the research process would be the few months in which it needed to be completed in. This had led to a shorter interview process, though concise and informative, the inability to spend longer hours within the case study neighbourhood would allow for a richer understanding of the living conditions as well as creating connections with residents as a means in which to extract data. Though the data is

sufficient to allow for an understanding of the topic, a longer time frame would have yielded a more in-depth attempt at the research question.

Another key limitation that had is a factor of time constraints would be the interview schedule, in which the conflicting schedules of interview and interviewee played a crucial role in. A number of interviewees had cancelled due to scheduling and not having enough time to conduct an interview due to working hours and daily life commitments. Though the tour guide's help was invaluable, many potential interviews had not been materialized due to this reasoning. With more time, there would've been opportunity for more interviews as well as aligning schedules with interviewees.

Langa is an ideal case study example within the context of township neighbourhoods, due to it being one of the first township neighbourhoods as well as fitting the conceptual analytical framework. A limitation would not be providing other examples of township neighbourhoods as comparisons against it. Though they share similar basis, there are other advantages and disadvantages associated with different township neighbourhoods. When looking into further research methods, it could be ideal for the comparison of different township neighbourhoods to be established to create a larger field and sample in which to test the housing conditions of township neighbourhoods in South Africa in relation to the housing performance criteria of liveability, affordability, and sustainability.

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# Addendum



UNIVERSITY OF CAPE TOWN  
IYUNIVESITHI YASEKAPA - UNIVERSITEIT VAN KAAPSTAD

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2022/09/21

CHED/02022/2022

RE: Research Ethics Committee Project Approval

Letter Dear Zayd Gool,

Your application for ethics review of your project titled:

The Relevance/Impact of Housing Typologies on Tenure. Affordability and Livability in Working-Class  
Neighbourhoods: The Case of Langa, Cape Town

has been reviewed and evaluated by the

APG: School of Architect, Planning & Geomatic Research Ethics Committee (REC).

Based on the information supplied your application has been successful and is approved.

You may proceed with your research project titled:

The Relevance/Impact of Housing Typologies on Tenure. Affordability and Livability in Working-Class  
Neighbourhoods: The Case of Langa, Cape Town

Please note that should:

- (i) any serious or adverse effects to participants occur and/or,
- (ii) aspect(s) of your current project change and/or
- (iii) any unforeseen events that might affect continued ethical acceptability of the project occur then you should immediately report this to the approving REC. You may be required to submit an amendment to this application, in order to determine whether the changed aspects increase the ethical risks of your project.

Please note the following additional conditions associated with this

approval: (i)

Regards,

APG:School of Architect, Planning & Geomatics

Research Ethics Committee

## Consent form

### **INFORMATION SHEET & CONSENT FORM –**

Participant: .....

### The Relevance/Impact of Housing Performance on Affordability, Livability, and Resilience in Working Class Neighborhoods: The Case of Langa, Cape Town.

My name is Zayd Gool, and I am conducting research towards a master's degree at the University of Cape Town. My supervisor is Cecil Madell. I am researching the relevance of housing performance in working class neighbourhoods. I will be providing case study and interview analysis on the different forms of liveability, affordability, and resilience within these neighbourhoods, looking at Langa in Cape Town as a case study. I would like to invite you to participate in this dissertation.

The project is about providing a key understanding as to the different forms of housing and space within working-class neighbourhoods. An Anthropological lens will be adopted to look at the close relationship between people and place. An important focus is on the built environment which provides key linkages to the main research question of the dissertation. An understanding of the built environment allows for a magnified view of the liveability, affordability, and resilience within Langa. This will allow for a holistic view according to an established performance criteria within the dissertation whereby key liveability, affordability and resilience can be viewed in terms of criteria such as performance, scale, function and elements. I would like to interview people to provide personal experience in terms of this criteria which would inform the anthropological aspect of this dissertation.

This dissertation requires prior consent with participants, which will be handled through informal meetings or other means of communication such as phone calls. Please understand that your participation is voluntary. The choice to participate is yours alone. If you chose to participate or not, there will be no negative consequences. If you chose to withdraw from participation, you are free to do so at any time with without negative consequences. However, I would be grateful if you would assist me by allowing me to interview you as this will provide key insights and information for my research, in providing a human aspect to a predominantly infrastructural orientated degree. In terms of factors of engagement with participants, the interviews will form part of case study research, which is qualitative in nature and will allow, from the sample of participants, to provide an understanding of how housing typologies impact liveability, tenure and affordability within Langa.

The process of engagement will be in the form of an interview whereby you are asked to share your story and answer subsequent questions. The interviews and questions are structured not to be insensitive to any participant and comfort of participant will be maintained throughout. The participants also have the right to remain autonomous whereby they are not required and should refrain from providing or exposing any sensitive or personal information. The interviews will vary in time but will not be dragged out for extended periods of time. There will be no costs incurred by interviewee. Recording of the interview will take place unless the interviewee is not comfortable with being recorded. There will not be any direct benefit for the participant of the interview, but their input and information are important in furthering this research dissertation.

The process of participants sharing their stories in relation to housing typologies could evoke emotions. Please indicate at any point within the interview whether you are uncomfortable with this, as your withdrawal at any time will be understood and the contents will be erased.

The use of photography and video will also be carried out within a diligent manner, through which care will be taken with photographs and video that individuals cannot be identified, unless consent is obtained or provided. Care will also be taken when interviewing surrounding communities where vulnerable people are present as to not impede on their sensitivities.

The information acquired from these interviews as well as any media, in the form of photography or video will be managed in a diligent manner as to not allow for any sensitive information to be presented knowingly or unknowingly to the public. Data will be held within secure storage, in a password protected manner, and disposed of after usage to fully ensure anonymity.

Further state if you will be comfortable to participate and form part of this research process. The information gathered from the interview process will inform my research and there is no intention of sharing of this sensitive information. Confidentiality will be maintained throughout this process. Feedback on the process of the research will always be shared with the interviewee to maintain a participatory research project.

Thank you for your participation and time.

Name of participant .....

Date .....

Signature of participant .....

Contact Details:

Student Email: [zaydgool@gmail.com](mailto:zaydgool@gmail.com)

Supervisor Email: [Cecil.Madell@uct.ac.za](mailto:Cecil.Madell@uct.ac.za)

Questionnaire

**Interview Schedule/Questionnaire.**

**The Relevance/Impact of Housing Typologies on Tenure, Affordability and Livability in Working Class Neighbourhoods: The Case of Langa, Cape Town.**

My name is Zayd Gool. I am conducting research towards a master's degree in City and Regional Planning at the University of Cape Town. I am researching the relevance of housing performance in working-class neighbourhoods and how they inform a good living environment. I will be identifying and evaluating performance-criteria which will inform what is an affordable, liveable and resilient environment. An anthropological lens, which allows for an intrinsic view of people and their relationship with space, will also be considered within these criteria to allow for a diversified view of the relevant factors. The performance criteria will include different factors, each providing insight as to answer the main research question. It is broken up into five key factors which are scale, neighbourhood design elements, housing performance, activities and built form. These factors cover a range of subsections such as activities that are capable of being performed by residents, e.g., access to resources such as shopping spaces, transport, youth facilities, sport, and recreational and public facilities as well as education and health amenities and services. An important research question is: How does the physical environment impact on the living standards of local residents? Langa will be used as a case study to allow for the extraction of information pertaining to the degree in which different housing typologies impact on local area performs. I would like to invite you to participate in this research dissertation as a step towards providing a new layer of perspective to city planning through an anthropological lens.

This dissertation is about providing a key understanding as to the performance of housing and its adjacent factors within the built environment. The provision of the anthropological lens will provide a human factor in which to view the built environment as well as highlighting the close relationship between people and space. These questions will allow for a general sense of understanding of the human experience of the housing within Langa as well as obtaining a greater understanding of the built environment of Langa to provide full clarity on the dissertation topic.

I would like to interview people who would like to share their memories and experiences of Langa. I would also like to know about their lifestyles and how their living standards are influenced by their surrounding built environment.

Interview: What are the effects of housing performance on liveability, affordability, and resilience within working-class neighbourhoods? Langa as a Case Study.

1. How long have you lived in Langa? What has it been like growing up in Langa? (If they have grown up in the neighbourhood) Can you tell me about the form of housing you live in and what it is like living in this form of housing and this kind of environment?
2. Now looking at Langa as a whole, can you tell me what it is like living in Langa as a neighbourhood? What are your feelings toward Langa as a neighbourhood?
3. What are your thoughts of Langa as a community?
4. From where you live, is there proper access to services and activities? e.g., shops, places of work, public facilities (libraries, utility places, clinics, transport nodes) public spaces, sporting facilities, open spaces? What is your experience of these local facilities and amenities?
5. Do you work in Langa? If yes, do you travel to work?
6. What are your thoughts of Langa in terms of safety and security?
7. Do you think Langa is an affordable place to live in? How would you describe Langa in terms of affordability?
8. Do you think there is enough housing and infrastructure to support all the residents in Langa? Should there be more proper housing?
9. Do different types of housing and the areas those houses are in effect access to services within Langa?
10. How important is open space and public space within Langa? Is there a difference between active open spaces like spaces used for sport versus just open space?
11. Is there a sense of community/social relations within Langa? How does it affect your liveability within the neighbourhood? Are there organizations that hold events for you to socialize? Are there meeting points in Langa where people can socialize? What are the places you go to, to socialize/meet with friends? Do you meet people when playing sport (if they do so)? Do you socialize in bars? How do you meet people or how have you met people in Langa? Do you socialize at church/mosque?

12. Have you lived in different housing areas? (e.g., barracks, hostels, informal settlements).  
What are your experiences living in different housing areas? Is living in Langa in terms of housing areas different from other areas you are familiar with and how are they different to each other?
  
13. Do you think there is a difference between Langa and the areas surrounding it like Pinelands and Bonteheuwel?