The Well-Being Implications of Urban Natures among Black Urban Dwellers in the Eastern Cape

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BY Lindsey Walsh

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Department of Anthropology

Rhodes University, Makhanda

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Abstract

Throughout the world, urbanisation is at an all-time high. It is estimated that two-thirds of the global population will be living in urban centres by 2030. The highest urban growth rates are currently found in sub -Saharan Africa, however, approximately 70% of urban residents in Sub-Saharan Africa reside in informal settlements. Such processes have resulted in reduced areas of natural space and biodiversity. While the benefits of exposure to and experiences of nature to human well-being and quality of life are increasingly being acknowledged, these links are largely understood through a western lens, where nature and culture are dichotomised. The implications of this are that the types of nature(s) that are made available in urban areas are designed to provide opportunities for urban residents to only engage in recreational and relaxation activities within such places. However, among indigenous and non-westernised communities, culture is a dynamic and holistic entity, deeply rooted in the constructions of nature. Very few studies from the global south have entered this dialogue. In response, this study, conducted amongst Xhosa speaking urban residents living in two medium-sized towns, was undertaken to explore the connections and meanings they attributed to nature(s) and how their engagement in such places contributed to their sense of well-being. This study found that strong connections and meanings to nature still exist. Many of these relate to personal experiences which are given meaning through local understandings and associations which are deeply embedded within cultural practices and rituals. Engagement and or memories of such are strongly associated with a sense of well-being often only experienced in rural areas. In such contexts, well-being is also understood as a holistic concept that is underpinned by these nature-culture connections. Within an urban context, the benefits of such connections are hindered by the types of nature(s) found in these areas as well as high levels of crime and the poor management of such places.

Keywords: Apartheid, Colonial, Decolonisation, Urban nature, Well-being, Quality of life, Urban dwellers

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Declaration

I, Lindsey Sara Walsh, hereby declare that the work described in this thesis was carried out in the Department of Anthropology, Rhodes University under the supervision of Prof. Michelle Cocks and Prof. Charlie Shackleton. The various components of the thesis comprise original work by the author and have not been submitted to any other university.

Lindsey Walsh

Chapter 1

Introduction: Nature and Well-being Within International and Local Urbanism

1.1 Global Urbanisation

Since the industrial revolution in the 19th century and the subsequent escalation of urbanisation, the global landscape has been drastically altered (Tacoli et al., 2015). Urbanisation is considered a global, multidimensional process (Ernstson et al., 2010), that is intricately interlinked with ideological processes of modernisation, industrialisation and rationalisation (Gries & Grundmann, 2018). Cities, as a result, are viewed as agents of development and change promoting capitalistic ideals of forward-thinking and innovation (Jayne, 2005). The global north and its western ideals, are deemed the front-runners of these processes (Bouteligier, 2013) and have and continue to define what constitutes development in the context of urbanism in cities (Lewis et al., 2019). Such assumptions have had a significant impact on what constitutes urban liveability, and have contributed significantly to how urban natures are conceptualised and the kinds of well-being benefits that are derived from such spaces.

The term "Eurocentricity" is increasingly used in academic works and discourses to explain the widely accepted socio-economic and political divide between countries which tend to be geographically defined, the global north and the global south. Countries in the global north are characterised by high Gross Domestic Product (GDP) indices and democratic processes. This, contrasted to countries in the global south which predominantly have lower GDP indices, developing infrastructure and are intricately connected to colonial and neo-liberalist struggles (Adams & Mulligan, 2003; Satterthwaite & Mitlin, 2012). The term global north was coined in 1914 when the First World War broke out to promote the political agenda of the developed world through propaganda and othering of opposing countries (Reuveny & Thompson, 2007). The term has since become synonymous with "western culture" (Mehmet, 2015).

The Eurocentric dominance of culture and economies has affected not only academic literature and politics but also visions of human relationships and dependencies on nature. This has been carried into urban design plans which fail to account for the diversity of human needs and experiences within urban areas (Arrighi et al., 2003; Lawhon et al., 2014). The disconnect between western perspectives and practices and the needs of societies in the global south has prompted the need to recognise where theory is located, especially contemporary theory around cities (Pieterse, 2013). This recognition of the locatedness of urban theory has revealed how urban scholars and theories are largely Eurocentric (Lawhon et al., 2014).

In response to the recognition of the Eurocentric dominance of urban theory, an attempt to reject the inherent assumption that lived experiences and thoughts should be shaped by western scholars have been made (Comaroff & Comaroff, 2015; Jackson & Hogg, 2010; Lawhon et al., 2016). "Southern" Urban scholars have sought to reframe the establishment of cities and their histories outside of a European lens, despite such attempts, Lewis et al., (2019) state that the success and failure of cities continue to be measured according to broad principles that are based on quantitative indicators from the west. These indicators have been used to influence and justify development in the global south and have had an impact on the way health care, education and housing issues are approached, as well as how societal well-being is measured and understood (Diener & Lucas, 2000). By globally defining development according to measures and criteria constructed solely through a western lens, cities and their natural spaces continue to be planned according to these norms (Comaroff & Comaroff, 2015; Lawhon et al., 2016).

1.2 Portrayal of Well-being Benefits from Nature

Russell et al. (2013) state that nature provides key building blocks for human well-being. Such services are mediated through tangible and intangible connections. Research across disciplines such as anthropology, environmental psychology, urban ecology and quality of life studies indicate that knowing and experiencing nature makes humans generally happier and healthier (Bell et al., 2001; Brymer et al., 2019; Chiesura, 2004; Martin et al., 2020; Sanesi & Chiarello, 2006; Thwaites & Simkins, 2005; Vujcic et al., 2017). The way nature is understood effects how urban nature and

its well-being benefits are viewed (Green, 2013). Understandings of the concepts of both nature and well-being are expanded on in this chapter, which discusses how current views of these two concepts have been shaped and influenced by western ideology.

1.2.1 Nature

Nature is increasingly recognised as serving essential social, psychological, cultural, economic and ecological functions within urban areas (Chiesura, 2004; Forsyth, 2003; Gerstenberg & Hofmann, 2016; Hartig et al., 2013; Martin et al., 2020; Tyrväinen et al., 2005; Van den Berg et al., 2007; Ward et al., 2010). Countries situated in the global north have attempted to improve experiences and living conditions in urban areas by providing access to more natural spaces (Chiesura, 2004; Ojala et al., 2019; Sanesi & Chiarello, 2006). Within such contexts, access to additional natural spaces has been included in urban planning, increasing the amount of green space being made available for urban residents. Consequently, developed countries have moved towards the inclusion of nature to promote the sustainability and liveability of urban environments. These urban greening efforts seem to view natural areas as "spaces" that are primarily removed from cultural and heritage contexts (Fairhead et al., 2012; McAfee, 1999). However, due to the increased density of people living in urban areas in Western cities, easily accessible large urban natural spaces are a limited resource. Many urban residents live in city areas where long distances to urban natural spaces make frequent use challenging (Fischer et al., 2018). Increasing prescriptions of amounts and distribution of nature stem from western cultures' continuation of both cognitive and material domination over nature. Historically nature has mainly been considered separate from both culture and humanity, creating clearly demarcated boundaries of where nature should and should not be established (Castree, 2013; Markwell, 2018). Its recreational functions remain central to how urban natures are perceived and appreciated in countries dominated by western ideological values. Within such a context it is perceived as offering places to retreat from the busyness of urban living and recognised as providing places for reflection, relaxation, exercise and recreation (Gerstenberg & Hofmann, 2016; Lee & Maheswaran, 2011). Such values are increasingly being legislated for in developed countries, to preserve, provide and maintain natural spaces and infrastructure to improve the liveability and quality of life in urban areas (Chiesura, 2004; Sanesi & Chiarello, 2006). For example, In Sweden the right to access nature for all has

been legislated for within the right of public access laws, which includes the freedom to roam, in practice, this law gives citizens public access to roam, forage, cycle and walk within Swedish nature (Swedish EPA, 2020).

Globally, the recognition of these values are present in the East where China has implemented environmental laws alongside the National Human Rights action plan which directly stipulates that environmental rights namely access to quality natural space are an important part of all citizens economic, social and cultural rights (Mu et al., 2014). Despite this global recognition of environmental rights and values, urban nature within many Westernised countries remains domesticated, tamed, moderated and mediated through the disciplinary practices of horticulture, landscape architecture and urban planning (Markwell, 2018).

More recently, some attempts to understand and accommodate the needs of non-Western communities living in cities in the west have been made (Jay et al., 2012; Seeland & Jena, 2008). These attempts are a response to the large influx of migrant communities now living in many cities in developed countries. Calls have been increasingly made to incorporate and reflect culturally appropriate features of all ethnic groups within natural areas. For example, in the Netherlands, the Dutch government is attempting to facilitate inter-ethnic interactions by funding more public green areas and parks (Jay et al., 2012). These spaces included elements that were conducive to relaxation and socialisation as well as a design that reflected the wishes of all local inhabitants. It however should be noted that although western and non-non-western conceptions of nature are often viewed as binary opposites, this is many cases is not true, globally, expressions and understandings of urban natural space vary throughout the world despite falling under “Western” or “Non-Western” governance. For example in Europe programmes promoting community gardens and urban agricultural spaces are increasing in order to encourage migrants to establish a sense of familiarity by engaging in gardening practices brought over from their home countries, these gardening initiatives enhance communality and bring together different nationalities (Elands et al., 2020). Further to this in many European countries urban forests remain valuable parts of urban natural spaces, these areas are considered integral to wellbeing not just for their recreational assets but the wild nature of these spaces and the opportunities they provide to be in solace (Ordonez-Barona, 2017). Urban natural spaces are also valued for their sacred spiritual natural sites, such as a sacred

river in Canada and Native American hole in Florida (Jackson & Ormsby, 2017). Illustrating that each country in the world displays varying levels of complexity and nuance when it comes to their understandings of various cultures needs within urban natural spaces.

Such attempts have been introduced to ensure that local residents are not marginalised from using such spaces (Seeland & Jena, 2008), and that well-being is enhanced for all residents. Such interactions form a vital part of cities dynamic and evolving cultural heritage and identity (Elands et al., 2015). Recognition of such processes has resulted in the Florence Declaration, which gives appreciation to "the vital importance of cultural and biological diversity for present and future generations and the well-being of contemporary societies in urban settings" (UNESCO, 2014). These attempts are generally limited to European countries. It was found in America, for example, that little changes have been made in their implementation and accommodation of urban natures for either sustainability or the inclusion of other cultures (Beatley, 2012), including first nations Americans.

1.2.2 Well-being

Since the 1970s, the concept of well-being has been used as a development indicator and has quantitatively categorised well-being in terms of material wealth or lack thereof (Agarwala et al., 2014). Measures initially used within global comparison indicator studies included standard of living, income range, employment and service delivery as indicators (Camfield & McGregor, 2005). However, these indicators are based on domains from research on well-being stemming largely from the global north. As a result, many researchers have stated that well-being has become a tool to measure how well individuals or groups function or maintain themselves within a Eurocentric framing (Abdi, 2020; Adams & Mulligan, 2003; Veenhoven, 1999).

It has, however, become increasingly recognised that an increase in GDP does not necessarily result in increased levels of happiness (Büchs & Koch, 2019; Diener, 1994; Diener et al., 2018). For example, one could rank low on a happiness scale due to momentary emotional distress while still ranking high on a well-being scale, as a result of being fulfilled in other domains (Veenhoven,

1999). Another explanation is that most communities experience hedonic adaptation; as a result, financial and material increases fail to improve well-being when normalised by their immediate community (Büchs & Koch, 2019). Recommendations are progressively being made from quality of life studies to include subjective appraisals of how individuals assess the positive, holistic condition of their own life (Wang & Wang, 2016) and how they define their well-being (Camfield & McGregor, 2005). Such approaches illustrate the need to include intangible domains that contribute to establishing a happy and well-balanced life when measuring well-being. These domains have been identified as biological, emotional, physical and psychological (Gilbert et al., 2016). Attempts have been made to measure such domains in relation to specific contexts and how these may contribute to quality of life.

Contemporary literature has increasingly included studies around the well-being benefits derived from nature which have been conceptualised as providing psychologically restorative properties to individuals. Attempts have been made to enhance the link between physical and mental health from nature (Barton & Pretty, 2010; Bratman et al., 2019; Buckley, 2020;). In a ground-breaking study, Ulrich (1984) found that patients staying in a hospital recovered more rapidly when they were looking out at natural elements compared to those who looked at a wall (Fuller et al., 2007). Furthermore, a recent study found that experiences of walking in nature significantly reduce rumination and activity in the brain linked to mental illness, when compared to the brain activities of people walking through urban environments (Bratman et al., 2015), more specifically urban nature has the potential to play a protective role in preserving mental health (Gascon et al., 2018).

Nature is therefore characterised as a means to enhance well-being by providing people with solace, a place to alleviate the stresses and busyness of everyday life, as well as enhancing social cohesion (Botzat et al., 2016; Cheesbrough et al., 2019; Peters et al., 2010). Nature is deemed so important for well-being that the European Environmental Agency, which aims to regulate and disseminate sound and independent information around environmental matters, recommends that all urban dwellers should have access to public urban nature within a 15-minute walking distance (Barbosa et al., 2007). This idea of visitation epitomises the dualist epistemology of nature constructions, which implicitly defines nature as separate from the human condition (Descola, 2013; Zylstra et al., 2014).

1.2 South African Urbanisation Context

Globally it is estimated that by the year 2030 more than two-thirds of the population will be living in urban centres, with the highest rates of urban growth currently being experienced in the global south, particularly in sub-Saharan Africa (Du Toit et al., 2018; UN-Habitat, 2006). However, due to South Africa's historical and political upheavals, there have been experiences of staggered urbanisation. Currently, two-thirds of South Africa's total population lives in urban areas, making it one of the most urbanised countries in Africa with 65% of its citizens being urbanised (Arndt et al., 2018). Urban areas are most negatively affected by this high influx of people, especially in neighbourhoods with lower socio-economic status (Adegun, 2018; Schleicher et al., 2018; Turok, 2012). This large influx has placed a significant strain on basic infrastructure and services within South Africa with little opportunities to consider the broader needs of residents, such as environmental sustainability and ecosystem services (Chiesura, 2004; Gwedla & Shackleton, 2015; Haase et al., 2014) which underpin well-being benefits (McConnachie & Shackleton, 2010).

Urbanisation in South Africa has been significantly influenced by processes associated with colonialism and Apartheid which has resulted in outcomes which differ significantly to other parts of the world (Posel, 2004; Rauch et al., 2016; Shackleton et al., 2014; Wilkinson, 1991). The increase in urbanisation is a relatively recent phenomenon. This can be attributed to policies implemented by the Apartheid government between 1948 and 1994, which deliberately controlled and designed to create impermanence among Black South Africans (Kok & Collinson, 2006; Mabin, 1990; Njwambe et al., 2019). Residents who migrated to cities were restricted to living in racially defined areas (Shackleton et al., 2014; Wilkinson, 1991), locally referred to as 'townships'. Townships were, for the most part, poorly serviced; with a high proportion of informal structures and widespread poverty. Such steps were taken to ensure that a cheap labour force was created to work in the mines and industries while unemployed family members were legislated to remain in densely settled rural areas (Kok & Collinson, 2006). High levels of circular migration became entrenched into the structure of South African society and economy (Collinson et al., 2006; Njwambe et al., 2019). Black urban families were formally only allowed to settle permanently in urban areas, post-1994, which resulted in a drastic increase in urbanisation. Most settled in

township areas of which historically were poorly developed and serviced in comparison to well-serviced, maintained and developed formally white-dominated suburbs (Bhorat & Kanbur, 2005; McConnachie & Shackleton, 2010).

1.2.1 Urbanisation and RDP Housing

The National Reconstruction and Development Program (RDP) which was initiated, post-94, addressed the backlog of housing and poor infrastructure created under Apartheid (Greyling, 2010) as well as provide sustainable housing for the urban poor (Department of Housing, 2007). This programme attempted to address the inequity between Black townships and previously white dominated suburban areas.

It is important to note that throughout this thesis the terms inequity/equity will be used and not inequality/equality. Within the South African context pursuits of equality advocate for "sameness" treatment, there is general recognition that South Africa needs to move away from this and advocate for equity, which refers to the recognition that those who have been systematically disadvantaged are deserving of resource and investment in order to account for the historical transgressions of the apartheid government. Equity also implies the acceptance of individual difference as well as the distribution of resource and aid to help each person to realise their personal potential (Spaull, 2019).

As such the RDP program which was based on six founding principles, attempted to provide equitable housing resource, therefore the programs principles included providing a better quality of life for previously marginalised groups (Manomano, 2013). However, substantive criticism of the RDP is that it has not adhered to its founding principles (Charlton, 2013; Manomano, 2013; Sutherland et al., 2013). The housing program took on a top-down approach and thus was not designed with community consultation or an understanding of African needs and perspectives on what constitutes a home and a liveable place (Wilkinson, 1991; Williams-Bruiders, 2012). Although the program implemented 74 million houses across South Africa in low-income areas, these houses were each built on stand. Each house is identical, RDP areas display rows upon rows of identical very small plots, which has resulted in limited opportunities to establish private

gardens and limited spaces for public social space (Shackleton & Gwedla, 2020). The social and environmental sustainability of the housing programme, as a result, has also been questioned (Shackleton et al., 2014). Such shortcomings have been described as not being conducive to placemaking, place attachment and fostering a sense of well-being amongst black urban residents (Manomano & Tanga, 2018; Williams-Bruiders, 2012). One study found that while these spaces do provide a place to live, they are often described as a house but not a home (Møller et al., 2015). Local cultural needs and understandings have also not been incorporated into the implementation of the RDP programme (Shackleton & Gwedla, 2020). Few attempts have been made by the democratically elected government to design and incorporate alternative ways of conceptualising how urban natures could be constructed to enhance notions of well-being, for the majority of urban residents in South Africa (Shackleton & Cocks, 2021; Shackleton et al., 2014).

A more inclusive understanding of how urban natures are experienced and the impact such experiences have on urban residents' sense of well-being is of crucial importance. South Africa provides an ideal opportunity to explore how such factors have influenced and continue to influence black urban residents' experiences and ability to experience nature in cities and towns. Particularly as black residents have experienced many types of oppression through Apartheids segregation policies and the lasting effects of the legacy of colonialism.

1.2.2. Access to Urban Nature in South Africa

During Apartheid, urban towns and cities were statutorily segregated along racial lines shaping the economic and social characteristics of urban areas (Christopher, 1995; Horn, 2019). Access to nature within urban areas has, therefore, been impacted upon by colonial and Apartheid processes (Moran et al., 2013). Such impacts included influences on the placement of planned urban natures for recreation and aesthetics as well as the quality of such areas were afforded.

Formally white-dominated suburbs were characterised by their low population densities, adequate infrastructure and regularly serviced formal green spaces, such as play parks and green verges. These suburbs have many types of natural elements, including well laid out leafy street trees, parks and larger botanical gardens that are regularly serviced and well-kept by local and municipal

services (McConnachie & Shackleton, 2010). Township areas, in contrast, were categorised by high population densities, poor infrastructure and poorly serviced public natures and have resulted in limited evidence of public greenery such as street trees, green verges or larger parks for recreational and aesthetic needs.

According to McConnachie and Shackleton (2010) considering nine towns of the Eastern Cape, the township areas and RDP sites had 18.9 m2 of public green space per capita which is below national standards of 40 m2 per capita. In addition, Kuruneri-Chitepo and Shackleton (2011) in three towns in South Africa, the township and RDP areas contained less than 5% of the street trees.

Despite the attempts to reform townships areas and the acknowledgement that nature is a basic human right (Adegun, 2018), post-1994, has shown little change, as townships remain characterised by small, privately-owned plots and the lowest proportion of trees and natural spaces (Gwedla & Shackleton, 2017; Kuruneri-Chitepo & Shackleton, 2011; McConnachie & Shackleton, 2010; Shackleton & Blair, 2013). Indeed despite some provision of public green space, the proportional area has declined in township and RDP neighbourhoods (Venter et al., 2020). Urban natures within South Africa have emulated the ideals of what Dutch and British colonial settlers valued, which included the creation of botanical gardens, public parks, churchyards and graveyards within the centre of town and formerly white-owned suburbs (Shackleton & Gwedla, 2020).

1.3 Research Aims and Objectives

The study aims to determine how the urban context influences associations and meanings isiXhosa- speaking residents have towards nature and how these may contribute to notions of place attachment and well-being. Understanding of these will assist in determining the types of natural spaces that are needed within township and RDP settlements to facilitate notions of place-making, belonging and well-being. This aim is embodied in four research questions:

1. What associations and meanings do urban residents attach to urban nature?
2. Do such associations and meanings contribute to notions of well-being and place attachment within the urban context?
3. Are there enabling or hindering factors to accessing urban natural spaces? If so, what are they and how can they be resolved or enhanced?
4. How does the current township context affect urban dwellers well-being and place attachment?

1.4 Synopsis of Chapters

This thesis is divided into six chapters: These include 1. Introduction: International and Local Urbanism 2. Research and Theoretical context. 3. Historical Context of Study Sites and their Urban Natures 4. Different Meanings of Urban Natures 5. *Impilo*: The Wellness of Life and 6. Conclusion

Chapter 1 provides an introduction to urbanism on both an international and local level. The chapter further explores how well-being benefits from nature are portrayed in international urban studies. Local South African urbanism is then discussed with particular focus on local residents access and to urban natures. The aims and objectives of the thesis are then outlined.

Chapter 2 provides a theoretical background and contextualisation for the proposed research. The chapter investigates the relationship between nature and well-being within a global south perspective with a particular focus on indigenous and local contexts. This chapter also gives insight into the research design used to answer the research questions. It outlines the methodology used, as well as the research design and research challenges experienced during the data collection phase.

Chapter 3 provides a historical overview of the Eastern Cape's political, economic and social histories. Each of the study sites researched-, Qonce and Komani, are explored by providing a socio-economic overview of each town with some historical context. This chapter then provides a description of the different urban natures that exist within the study areas and shows how the various historical, political, social and economic processes experienced in each town influenced the types of urban natures found within each.

Chapter 4 provides insights into the natural spaces that were found to be meaningful by isiXhosa speaking residents, living in the townships of Qonce and Komani. This is followed by descriptions of the associations and meaning attributed to natures visited, through these rich descriptions Providing clear answers to research question 1 which poses the question "What associations and meanings do urban residents attach to urban nature?" Further to this the descriptions given and subsequent discussion of chapter 4 also provides some insight into research question 3 " Are there enabling or hindering factors to accessing urban natural spaces? If so, what are they and how can they be resolved or enhanced?". The chapter also gives an overview of the demographic profile of residents who are visiting nature and the interactions they have with the urban natures visited.

Chapter 5 explores whether the associations outlined in the previous chapter contribute to notions of well-being. The exploration of this provides clarity on research question 2 "Do such associations and meanings contribute to notions of well-being and place attachment within the urban context?". This chapter also discusses the extent to which natural spaces in urban township areas enhance participants' subjective well-being. Providing further clarity for research question 4 "How does the current township context affect urban dwellers well-being and place attachment?"

Chapter 6 contextualises the findings of this research within a larger research and development nexus and gives further clarity to all research questions. It also considers the broader implications of this research in terms of both policy, transformation, research gaps and recommendations for further research exploration.

Chapter 2
Theoretical Context and Research Methodology

2.1 Well-being and Nature in Indigenous and Local Contexts

2.1.1 Nature

While the benefits of greening cities are increasingly being recognised as imperative at a global scale, limited research has been undertaken to understand this relationship in the context of cultures other than the west (Wynberg, 2002). Newly urbanised communities often include those from rural areas and may include indigenous groups (Neuwirth, 2016). It is in these communities where nature is experienced in significantly different ways (Russell et al., 2013).

It has been well documented that among many indigenous communities, nature is found to be indistinctive from the self (Croll & Parkin, 1992; Descola & Palsson, 1996; Schultz et al., 2004). Many indigenous groups state that nature is a part of who they are (Castree & Braun, 1998; Cocks et al., 2016; Cunningham & Stanley, 2003; Salmon, 2000). For example, in Hawai'i the rural community of Ka'upulehu view interactions with nature as a reciprocal relationship, these interactions are deemed as necessary as personal self-care, often stating "We are this land", showing little cognitive separation between people and their land (McMillen et al., 2017). Nature is also appreciated for the tangible benefits it provides, such as fresh produce through gardening, or medicinal plants for cultural practices (Jena & Seeland, 2016). The way in which nature is understood and experienced by such communities is of great relevance. This is because these benefits are not only considered as meeting subsistence needs but are seen as fulfilling cultural and spiritual needs (Garuba, 2013), as the use of such resources is intricately connected to peoples' identity, culture and psychological well-being (Caillon et al., 2017; Posey, 1999; Salmon, 2000).

Within urban greening research, there remains a general lack of recognition of differing cultural understandings and values attributed to nature in both research and urban planning (Duxbury, 2014). A major concern is that eurocentric approaches to urban greening overlook the different types of relationships and understandings of nature that residents from other value systems may

hold (Green, 2013; Schleicher et al., 2018). An example of this is that green space is a term commonly used in urban greening studies to describe urban natural areas within urban literature. The term invokes a notion of spatial separation, creating a delineation and separateness. These meanings have affected the physical constructs of urban nature which remain largely conceptualised by western ideals, often centralising the recreational values of such places (Gerstenberg & Hofmann, 2016; Lee & Maheswaran, 2011). Such understandings have influenced and informed the governance and planning of global south cities. These views have impacted the way in which urban nature located in the global south are conceptualised, influencing the well-being benefits derived from such spaces. This has resulted in urban natural areas within the global south, not being able to fulfil all the needs that such communities living in urban areas have (Garuba, 2013). This has been acknowledged as having a negative effect on the subjective well-being of residents, as residents are unable to connect with urban natures (Chatty & Colchester, 2002). What continues to hinder this understanding is not only the domination of global north understandings of well-being but also the lack of cognisance of the important cultural and spiritual fulfilment that natural space has been shown to provide. This has resulted in the current paucity of appropriate methodologies available to assess subjective well-being that is sensitive to the importance of nature and culture among local and indigenous groups (Castree, 2013; Russell et al., 2013).

2.1.2 Well-being

Much like research concerning urban nature, well-being literature remains dominated by western value systems (Diener & Biswas-Diener, 2005) which places emphasis on materialistic and individualistic criteria as key indicators. Studies are revealing the problematic nature of materialistic assessments, as per capita income ranges are increasingly not able to predict where an individual will rank on the well-being scale (Diener & Lucas, 2000). Such criteria fail to give recognition to the complex and intricate ways that culture shapes a person's view of their own life (Diener & Suh, 2003; Tov & Diener, 2009) and how intangible factors bring meaning and satisfaction to peoples' lives (Davidson, 2016). Recommendations include creating new methodologies to reveal the nuances of well-being, particularly in non-western cultural contexts

(Camfield & McGregor, 2005; Diener & Lucas, 2000; Lambert et al., 2020; Møller & Theuns, 2013).

The cross-cultural applicability of well-being methodologies has been debated for many years (Diener & Suh, 2003). The recent inclusion of subjective well-being (SWB) as a way to measure and understand the experiences of individuals' life satisfaction has increased in popularity (Boarini et al., 2012; Cho, & Tay, 2015; Church et al., 2013; Diener et al., 2017; Diener & Suh, 2003). SWB is broadly classified as a person's evaluation of their life quality (Diener & Suh, 2003). Factors monitored include frequently held pleasant emotions, infrequent unpleasant emotions, and general life satisfaction (LS) (Tov & Diener, 2009). The positive relationship between cultural engagement and SWB is increasingly recognised (Dockery, 2011; Reyes-Martínez et al., 2020). Suh (2002) notes that culture is not just an indicator that can help point researchers towards what constitutes an element of well-being; it is also an important lens through which to understand SWB. Culture provides a structure and shape to the self, which affects how people respond, think and feel about various aspects of their lives. Culture is, therefore, fundamental to how SWB is constructed. It is important to understand that culture is intricately connected to specific values that are derived from cultural traditions (Lu & Gilmour, 2004).

SWB, therefore, provides an important tool through which to understand well-being within varying cultures because it is context-specific and individual (Diener & Seligman, 2004). While studies concerning culture and SWB state that some types of well-being indicators are consistent across cultures, there remain unique patterns of well-being in societies that are not comparable across cultures (Tov & Diener, 2009). For example, self-esteem and identity consistency are less powerful indicators of SWB in collectivist cultures compared to that of individualist cultures in Europe, America or East Asia (Suh, 2002). However, most studies on well-being are presented from Western or Asian perspectives (Lambert et al., 2020; Lu & Gilmour, 2004). These perspectives dominate current views of culture; one that is often rooted and influenced by colonial histories. Such influences are historically constrained to the iconography and dichotomisation used by Christian religious influences (Amoah & Bennett, 2008) and as such these dichotomies are firmly established on the highly individualistic principles upon which western society thrives (Suh, 2002).

Such perspectives fail to disaggregate and understand the deeply intimate implications that traditional and cultural practices have for the well-being of some peoples and cultures and remain dichotomised against nature (Caillon et al., 2017). As a result, policy and constitutional rights are not fully inclusive of cultural and traditional practices (Amoah & Bennett, 2008; Dockery, 2011). For example, work among indigenous communities in Australia revealed that urban policies and well-being scales were not inclusive of indigenous peoples values and often encouraged western assimilation. Despite this, cultural attachment to nature among these communities continued and was found to be a significant indicator of achievement, enhanced personal positivity and SWB (Dockery, 2011).

Within South Africa, African cultures and practices are constitutionally recognised. Despite this, cultural practices are eclipsed by secularist belief systems (Amoah & Bennett, 2008). According to African belief systems, good health is holistic and extends to the person's social environment (Ajima & Ubana, 2018; Amoah & Bennett, 2008). However, within well-being literature, objective material aspects are prioritised and do not encompass the intangible factors that bring meaning to people's lives and actions (Davidson, 2016). It is, therefore, imperative that specific cultural contexts are acknowledged and understood (Lawhon et al., 2014). The implications of not understanding and catering for such needs have negative effects on residents' sense of place and belonging among both local and indigenous communities living in urban areas.

2.1.2.1 Place Attachment

Sense of place and place attachment are concepts that are used to describe the connections people have to particular places, based on the thinking that places are not just physical spaces but contribute towards people finding meaning and purpose in communities, society and the world (Anton & Lawrence, 2016; Brown & Raymond, 2007; Cheng et al., 2003). Several disciplines have attempted to examine how a place becomes socially constructed, how place meanings develop, and how people become attached to place (e.g. Altman & Low, 2012; Behrens & Watson, 1996; Cross, 2015; Raymond et al., 2017; Sebastien, 2020). Early research on placemaking tended to ignore the role the physical and natural environment played in creating place (Stedman, 2003). Only recently has it been shown that the natural environment and elements thereof, plays a

significant role (Kudryavtsev et al., 2012) and affects how people interact and connect with the places they attach value to (Fuller et al., 2007; Meskell & Scheermeyer, 2008; Stedman, 2003). Understandings of place attachment now aim to incorporate these interactions, including how specific visual or cultural aspects within an environment influence a person's or group's feelings of belonging towards a particular space (Bernardo & Palma-Oliveira, 2016).

Access to nature has also been used as a tool to enhance place attachment and well-being amongst migrant communities (Peters et al., 2010). Such attachments to natural space have alluded to the ability to encourage intimate and personal connections to physical places and spaces through heritage, culture and recreation. This connection to nature is not only associated with place attachment but also the positive effects that nature has in improving the well-being, liveability and the overall experiences of urban residents (Shackleton et al., 2014). These kinds of attachments to nature can be seen throughout the world in both urban and rural environments and are grounded in an implicit assumption that humans are a part of nature (Ives et al., 2017; Schultz et al., 2004).

In order for attachment to natural spaces to take place, the meanings associated with these areas need to be considered. Such meanings are context-specific and are shaped by sensory, narrative, historical, spiritual, ideological, commodity and material processes of attachment (Cross, 2015). These meanings generally encompass cultural, spiritual, utilitarian, social and recreational domains.

2.1.2.2. Cultural

Cultural meanings refer to values attributed to cultural features that include objects, places, or cultural structures that are preserved and passed down despite situations of change. Cultural activities specifically refer to any long-established and habitual activity relating to culture and interactions with various cultural features (Graburn, 2000). Cultural place attachments are among the strongest attachments made to place. Cross (2015) presents six types of cultural attachments made to nature: those formed through participation in cultural events like religious ceremonies, those linked to family and places of origin, those linked to storytelling, attachments forged through upheaval and migration, economic attachments to workplaces or homes as well as cosmological

links made to religious or sacred sites. Cultural associations to nature foster persistent and meaningful connections. Memories and recalled experiences are important in shaping current place meanings (Marcus, 1992 in Stedman, 2003).

2.1.2.3. Spiritual

Spirituality is defined as a process of discovering purpose and meaning in life (Unruh & Hutchinson, 2011). Spiritual meanings, although intertwined with religion and culture, are innately personal and empowering. Spiritual experiences include enduring feelings of belonging to a particular place (Cross, 2015). These meanings are fostered through deep reflection and connections with the self or ancestral spirits (Taylor, 2001).

Spiritual attachments are commonly associated with rural or secluded natural areas. However, studies are increasingly revealing that spiritual associations are also made towards urban natures as they are imbued with meanings relating to belonging, attachment, beauty and spirituality (Cheng et al., 2003). For example, park users in Amsterdam acknowledged feeling spiritually attached to urban parks they frequently visited (Chiesura, 2004). In India, important spiritual experiences take place in the act of tree worship; these spiritual connections are towards urban trees in which deities are thought to exist (Keswani, 2017). Similarly, a study in the UK used a bio-psycho-social-spiritual perspective to explore the benefits of green space across a rural-urban gradient and found that the spiritual benefits of nature were realised regardless of the area. Interviewees reported that urban natures enhanced spiritual well-being as much as rural natural areas (Irvine et al., 2013). In South Africa spiritual connections usually associated with rural areas in Xhosa culture are more frequently emplaced on urban natural space due to urbanisation, where residents feel connected to ancestral spirits in urban natures, these connections are an important experience that fosters belonging towards their cultural roots (Cocks et al., 2012).

2.1.2.4. Utilitarian

Material dependence on a place that provides and satisfies utilitarian needs creates attachment to places (Cross, 2015). Nature meanings within a utilitarian context are defined as elements

associated with a sense of value and are attributed to plant and or animal species (Trudgill, 2001). Utilitarian benefits derived from harvesting natural elements such as firewood or medicinal plants are seen as one of the most important benefits in urban areas (Bertram & Rehdanz, 2015; Buchel & Frantzeskaki, 2015; Langemeyer et al., 2015; McPhearson et al., 2015; Voigt & Wurster, 2015). However, utilitarian benefits derived from nature remain intricately intertwined with cultural associations (Cocks et al., 2016). This is because some urban residents attribute spiritual, cultural, educational, aesthetic, place-based, and other nonmaterial values toward specific utilitarian activities (Kremer et al., 2016). These utilitarian meanings among urban residents should not be understood in the context of its functionality but also for the well-being benefits derived from the personal empowerment and cultural fulfilment such provisions and activities enable (Bhatti & Church, 2001).

2.1.2.5. Social

Social connections made to a place are termed place dependence, i.e. being individually dependent on the social needs and values a place fulfils compared to other places (Cross, 2015). Nature provides an environment where social cohesion is encouraged; this social attachment and group forming can, in turn, encourage place identity. For example, immigrants in the Netherlands, who visited natural spaces have increased social cohesion and enhanced social ties, urban residents who had access to urban parks were more inclusive than residents who did not have access to urban parks (Peters et al., 2010). Natural urban spaces are considered meaningful as feelings of mutual caring, and connectedness is often created within them (Cloete, 2014; Wilkinson, 1991). In the former instance, the park assisted in facilitating interactions among migrant and non-migrant communities as residents were able to bond over their experiences shared in nature (Peters et al., 2010). For example, urban parklands often offer places for quiet refuge and solitary reflection as well as platforms for social interaction, by making spaces available for gatherings and sociability with family, friends, and neighbours (Svendsen et al., 2016).

While specific practices may be culturally differentiated, it has been well documented that access to urban parks supports prosocial behaviours contributing to social well-being for both migrant and non-migrant communities. Such findings reflect the adaptability of personal connections with

nature within native contexts as well as its importance within a larger global reality (Baum & Gleeson, 2010).

2.1.2.6 Recreational

Recreational meanings created through urban natural space refer to activities that are sought for purposes of enjoyment, amusement or pleasure. Recreational associations made to nature are among the most popular usage of urban natural spaces. As a result, many urban natures are also often planned to cater for nature-based tourism and recreational activities that target the positive effect that "getting out" can have on mental health (Markwell, 2018), emphasising both the aesthetic and experiential elements of nature (Markwell, 2018). Historically, recreation in nature has been an activity reserved for the social elite only and later developed into activities catered to the urban middle class, with some urbanists continuing to regard human nature interactions as a privilege (Quilan & McCarthy, 1995; Taylor, 2001). However, recent literature examining ecosystem services and quality of life regard time spent in nature an inalienable human right for all, regardless of social and economic class (Adegun, 2018).

In urban areas, nature is constructed as spaces that can promote well-being through largely recreational pursuits (Markwell, 2018). However, the above theoretical contextualisation has illustrated the limitations of such highly westernised perspectives. For instance, the result of urban natures that do not take cognisance of the cultural heritage of its visitors as well as existing methodologies that fail to adequately quantify well-being cross-culturally has the potential to negatively impact well-being and notions of place attachment (Tov & Diener, 2009). Particularly for local and indigenous groups living in urban areas. As such, recognition needs to be given to the histories and meanings of culturally loaded environments. These environments often encompass values rooted within a historical memory that represents a way of life and identity (Elands et al., 2015). Urban nature cannot be constructed from one ideology or cosmology and needs to be understood not only beyond a single lens but also as interconnected with well-being and culture (Wynberg, 2002).

2.2 Methodology Approach

In response to the theoretical understandings of well-being and nature, this study adopted a micro-ethnographic approach to elicit an understanding of the types of associations and meanings that Xhosa speaking urban residents attributed to the different types of nature's found in two medium-sized towns in the Eastern Cape province. A micro-ethnographic approach was chosen as it attempts to understand the cultural systems and expressions that exist among certain groups of people by collecting data that documents participants' realities. This approach is, therefore, sensitive to participants' interactions with the environment (Garcez, 1997). A micro-ethnographic approach differs from other more objective research paradigms which position the researcher as the "all knower" (Groenewald, 2004). In contrast, the researcher becomes empowered by the knowledge they acquire from the people they seek knowledge from and the context around them. Meaning is thus created through what the researcher understands it to be within that specific context (Bryman, 2012). Ethnography is, therefore, able to represent and understand the views of a community and learn the different ways of being and living within cultures different from our own (Hammersley, 2002).

By encouraging participants to describe their culture, the researcher can build a picture of the language, rituals and relationships within a given community (Hammersley, 2002). Although verbal descriptions form a large part of ethnographic data collection, these descriptions alone do not necessarily present a 'true picture' as people do not always do what they say they do (Agar, 1980). Data is therefore collected through an intensive period of discussion as well as observation. An ethnographic approach can also include quantitative research methods that increase the range and depth of study (Sherman & Strang, 2004).

Quantitative and qualitative research methods are not antithetical to one another, but each method provides different means and points of departure in understanding phenomena and answering the research questions (Marvasti and Marvasti, 2004). Qualitative methods have been identified as being particularly useful when probing subjective and intangible phenomena; such as the personal opinions, perceptions and lived experiences of people (Gelo et al., 2008). Whereas quantitative methods provide the means to interpret how extensive such opinions and experiences are and

provide a structured account of qualitative phenomena (Bryman, 2012). Such a strategy make it possible to generalise the findings and themes observed in the qualitative interviews (Bryman, 2012). The integration of both stories and numbers have also been described as contributing to the understanding and production of unbiased research (Sherman & Strang, 2004). Such an approach is critical for this research as it attempts to rigorously analyse not only the effect that intangible research findings such as emotions and attachments towards urban natural spaces have on the well-being of urban dwellers but also how current environmental and contextual circumstances impact this relationship. This integration gives concrete evidence to the subjective capacity of the work. This was achieved by uncovering findings that were reflective of the lives of participants from a subjective capacity as well as concrete numerical evidence to account for such findings (Davidson, 2016).

2.3 Research Design

A research design details the progress and sequence of events the research undertook. The study opted for a sequential exploratory strategy which involved the collection of qualitative and quantitative data. The collection of qualitative data through in-depth interviews took place between October 2016 and February 2017. Focus groups interviews were conducted between March and April 2017. The quantitative phase of survey data took place between May and June 2017.

2.3.1 Qualitative Methods

The qualitative research methods used were in-depth interviews and focus groups. In-depth interviews are often the main methods of data collection in qualitative research (Mears, 2012). These kinds of interviews are purposeful interactions that aim to understand what a person thinks, feels, knows and experiences about a certain topic (Mears, 2012). "Black South Africans have a rich history of oral testimony" (Adegun, 2018; Furniss & Gunner, 2008), making interviewing a suitable strategy to employ in this study which seeks to understand the experiences of black township dwellers. The information collected during the in-depth interviews was used to inform the focus group discussions.

2.3.1.1 In-depth Interviews

The first step in the qualitative process was conducting in-depth interviews. The interviews started out with the purposeful selection of households. Households selected included those that showed signs and no signs of gardening or the presence of cultural artefacts such as tethering pole[1], makeshift kraal [2]as well as culturally relevant plants and trees (including medicinal plants) within their gardens and yards. Such a strategy was employed as it is well documented that many local Xhosa cultural practices and customs make use of plants when such practices are being carried out (Alexander, 2011; Cocks & Wiersum, 2014; Dold & Cocks, 2012; Mogano, 2012). The presence of such artefacts or plants alluded to possible connections to nature and cultural practices by household members.

Twenty participants were selected for the in-depth interviews; ten at each study site (see Chapter 3 for a description of the study sites). Such an approach was adopted to determine how consistent the findings were and to increase the generalisability of the study (Schofield, 2002). The in-depth interviews in themselves were unstructured, which allowed for freedom of expression from the participant. A number of techniques were used during the interviews to foster rich conversation; including tracing participants' life histories, as well as encouraging them to describe the "best and worst" periods in their lives. The collection of life-history allows the participant to recall their life story subjectively and has many interdisciplinary applications (Atkinson, 1998). The technique is also recognised as allowing participants to open up and build rapport quickly. Asking participants to share the best and worst periods of their lives provided a means to understand the kinds of personal and physical tools participants used to cope during the lowest times of their lives as well as what they drew upon during their happiest periods. This established if interactions with nature

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[1] The tethering Pole is referred to as *Ixhanti* in Xhosa. It is a permanent structure in the centre of a *ubuhlanti* (kraal), to anchor an animal during sacrificial ceremonies. It is a symbolic artefact that provides direct contact with the Ancestors (Dold & Cocks, 2012, p 67).

[2] The makeshift kraal is an important cultural artefact referred to as *ubuhlanti*. They are used to not only house cattle but as a sacred place in which important traditional ceremonies are performed, often being described as a temple for the Ancestors (Dold & Cocks, 2012, p 66).

played any role during both negative and positive periods of their lives. Interviews made use of an isiXhosa translator; were audio-recorded and transcribed. The duration of these interviews lasted from 30 minutes to two hours.

To further understand the meanings and witness the emotional connections associated with natural places, I accompanied participants on walks in natural places identified by three participants as being meaningful to them. Such areas and activities included walking on the local commonage behind participants' homes, informal natural spaces, and parks. Walking with participants encouraged them to relive the feelings encountered in natural spaces that are significant to them. This technique has proved to be an effective tool to spark conversation about nature, the feelings experienced, and the personal connections towards nature (Cocks et al., 2012). However, many participants were reluctant to take me to such places for fear of crime, or the associations attributed to such places were too personal to share. For instance, some male participants refused to show me natural spaces important for them as it was an area in which they were initiated[3]or where other initiates were taken. A female participant stated these areas provided her sanctity and escape, and she wished for it to remain private. Other participants were simply no longer visiting such places within the urban areas in which they lived.

2.3.1.2 Focus groups

Focus groups are defined as an informal, semi-structured, group meeting, moderated by a facilitator that aims to collect rich, detailed data (Carey & Asbury, 2016). A significant amount of information was gathered during the 20 in-depth interviews; the themes covered were diverse. It was subsequently decided that through focus group discussions, it would be possible to capture participants' perceptions around core themes that emerged in the initial stages of data collection. These themes included current life satisfaction, subjective perceptions of what contributes to or

[3]Initiation in amaXhosa traditions is the coming of age ceremony when Xhosa boys become men. This ceremony involves a process of leaving their family to stay in secluded place within nature, during this time the circumcision operation is preformed, which in isiXhosa it is referred to as "ulwaluko" (Mahalo, 2009, p 22).

hinders this satisfaction, as well as natural space and participants' perceptions of nature in urban areas.

The themes selected were used as a tool to stimulate discussion amongst each of the groups. The kinds of questions asked were; how hindering or enabling factors affect their relationship with nature, in both local spaces and further afield? What role do natural spaces play in their lives? How does urban nature affect participants' perceived quality of life? i.e. how would they feel without access to natural spaces? Questions were also asked around general "Kasi" life[4] and how activities associated with nature fits into this context.

The focus group interactions were found to yield richer information than individual interviews with the same participants. This is because they occur within a familiar social context (Rothwell, 2010). Similar findings have been recorded by others such as Gill et al., (2008), who found that conversation was able to flow among participants in a more natural way and as such yielded the richest and most authentic results. Focus groups were also found to produce a more in-depth understanding of a topic because it provides a social context for people to build on each other's statements (Romm, 2017). As such participants in a focus group cannot be considered independent of one another, the responses from one participant cannot be considered separate from the social context in which it was collected (Hollander, 2004). Six focus groups discussions were conducted. Each focus group contained four to six members. The size of each focus group was purposefully selected to ensure that quieter participants were not left out of the discussion (Bryman, 2012; Tang & Davis, 1995). Respondents selected included participants from the in-depth interviews as well as additional participants who were selected through chain referral sampling. The groups were split according to age and gender. In each of the groups, there were three different age cohorts (18-35; 36-55; 56+). The duration of the focus groups ranged from 1.5 to two hours.

Two to three focus group meetings were conducted per age group. The focus groups were conducted in the home language of the participants (isiXhosa). Through the assistance of a

[4]Kasi Life is a colloquial term for township life. Deriving from the historical term for the township which was "the location" in Afrikaans "Lokasie" has been shortened into "kasi".

translator, each session was recorded, these interviews were then transcribed and translated. The focus group interviews allowed me to gain clarity on how the experiences within nature contributed to notions of well-being. These findings assisted in the design of the well-being questionnaire, which was implemented in the final phase of the research.

2.3.2 Quantitative Methods

Quantitative data is the collection of information through numbers (Punch, 2013). A method commonly used during the quantitative data collection phase is administering a questionnaire. Questionnaires have been identified as providing the means to investigate and understand characteristics, behaviours and opinions of a group of people (Coon & Mitterer, 2010).

2.3.2.1 Questionnaire

The questionnaire was designed to elicit factors which may or may not contribute to a sense of well-being (see Appendix A). Section A included questions about nature, well-being and life satisfaction. Section A aimed to understand the kinds of connections made to nature and how urban natures were used, as well as the factors that contributed to notions of well-being and life satisfaction. Section B included perceptions of nature within the township setting and aimed to understand what kinds of natures were deemed important for township dwellers. Section B also attempted to establish the significance nature holds for the participant in their everyday lives as well as elements that enable or hinder participants' interactions with nature and natural resources. The third section included demographic questions. The questionnaire consisted of categorical and Likert type scales for statistical analysis as well as open-ended questions for personal commentary.

The questionnaires used in this research were face-to-face, in-depth interviews. Unlike other questionnaire techniques, interviews allow for face-to-face interaction and follow up questions pertaining to the types of questions being asked. This technique encourages engaged responses. The questionnaire was piloted in Makhanda amongst 20 respondents. This was used as an opportunity to train the field workers who would assist in administering the questionnaire. Time was spent on ensuring that each fieldworker administering the questionnaire used the same

terminology when translating the questions during interviews with respondents. Each fieldworker also received training in interviewing techniques to ensure rapport was built with their respondents. Training around capturing information as accurately and detailed as possible was also given. The pilot phase also provided the opportunity to observe if any inconsistencies were apparent in the questionnaire, as well as checking if the field workers were administering and recording the questionnaire correctly.

Over 100 participants were selected per study site using cluster sampling. This sampling technique is a two-step process in which the entire population is divided into groups (Acharya et al., 2013), in the case of this research the population was divided according to different geographic areas within each study site's township settlements that had RDP housing. The clusters or streets were then randomly selected. Cluster sampling is very useful when the population is widely scattered (Acharya et al., 2013). In total, 215 participants were interviewed in Qonce and Komani. Three field workers were used in each study site, and I rotated between each while they were administering the questionnaire. This was done to ensure that they were implementing the questionnaire correctly and to probe to obtain more in-depth anecdotal data when deemed appropriate.

2.4 Data Analysis

The data analysis phase took on different forms because of the different methods used. The qualitative data was analysed according to an interpretive paradigm. The analysis tool was able to investigate, understand and present the experiences of the participants (Gray, 2013). To understand the data, descriptive statistics were run using the survey data, preliminary data analyses (descriptive statistics) were conducted using Microsoft Excel (2010). The demographics of the study population were organised into frequency counts and tables. Statistica data analysis program allowed me to test for significant differences between the means of well-being scores, demographic variables and nature visitation. More specifically Mann-Whitney tests were conducted on the satisfaction scores of participants. Multivariate techniques such as principal components analysis were used to emphasise variation between participants who interacted with nature and those who did not, as well as identify strong patterns in well-being scores and nature

visitors within the dataset. Chi square (χ^2) tests were conducted on the categorical variables to test for associations between nature visitation rates, type of natural space, gender, education, employment status and household income. T-tests were conducted on continuous variables such as age and well-being scores.

2.5 Research Challenges

Most research is a nonlinear process that often involves dealing with messiness and irregularity (Bryman, 2012). For the purposes of this study, it is important to outline the challenges faced while conducting and interpreting the research.

2.5.1 Logistical Issues

When engaging in the in-depth and focus group interviews, the main logistical issues I encountered were getting participants to commit to the interview times. This was particularly challenging when conducting focus groups, as not all participants would commit to the arranged time. I attempted to resolve this issue by collecting participants directly from their residence and providing incentives such as lunch. For all methods of data collection issues of sobriety were also encountered. I had many instances of participants being drunk or under the influence of other substances. In most cases, I attempted to reschedule the interview time.

All interviews were carried out through a translator. This meant that the nuances and understanding of the deeper linguistic meanings of words were sometimes lost. Often the array of words used by the translator at the moment of the translation does not convey the true meaning conveyed by the informant (Temple & Edwards, 2002). To overcome this issue, I took extensive notes and communicated with my translator before and after interviews. Discussion took place around his experience and interpretation of the information acquired and the words he chose to describe their experiences and what his understanding of the information was. This was an attempt to understand the deeper linguistic nuances of the stories and information given.

2.5.2 Racial and Cultural Barriers

Within South Africa, there are many cultures. Diversity has largely been segregated along racial lines because of South African political history and continues to be perpetuated. Such realities proved a research challenge when working and interviewing individuals of colour. As a white researcher from a privileged background, I felt it was imperative to be cognisant of the innate biases and prejudices that I may have internalised. There were also assumptions made about me by participants. I was often met with caution and assumed to be affiliated with municipal authorities and to be investigating cases of corruption that exist in acquiring RDP houses. This made it difficult for me to build rapport with some participants. This is because issues of power between the researcher and the researched, already exists, this coupled with the race dynamic of me being a white person it was important to acknowledge the power dynamic in interactions with myself and research participants. Being someone who was not a first language Xhosa speaker and who had limited knowledge of Xhosa culture I felt like an outsider, with many challenges to gaining rapport and insight from respondents, this was because I was viewed as outside of the culture and setting. However, being an outsider does not always hinder research, it is important to consider that insider/outsider dynamics do not necessarily work against the researcher but could be appreciated for adding nuance and ambiguity to research (Adeagbo, 2021).

In terms of cultural barriers, I felt that I was at a disadvantage due to my lack of knowledge of the Xhosa language and culture. I felt that I missed out on the nuances and colloquial language and general cultural norms, and in some cases came across as insensitive by not knowing how to conduct myself in certain situations. However, I rejected what many perceive to be the colonial mentality or 'positional superiority' ingrained in the psyche of western researchers (Prior, 2007). Instead, I positioned myself as an agent of knowledge collection. My need for knowledge allowed participants to feel empowered as they were sharing their daily lives with me and teaching me about their cultural practices and knowledge.

2.5.3 Personal Biases

Reflection on my personal biases and assumptions was a difficult but necessary process that I sought to undertake in order to improve and grow as both a researcher and a citizen within a diverse nation such as South Africa which has many complex racial and social dynamics. It was important for me to recognise that my entire academic journey has been through a colonial lens (Mutua & Swadener, 2004). There is no way of completely removing the observer from their naturalistic setting (Gergen & Gergen, 2000). This means that the research and interviewing techniques I have learnt are largely from a western perspective and were more than likely influenced by dominant power systems (Vandenberg & Hall, 2011). It was challenging to be made aware of this and enter the interviewing space with as little bias as possible. For instance, the questions I asked and language I used shaped the kind of interaction I got, as well as my interpretation of such data which is affected by the colonial lens in which I have been taught. I attempted to overcome such barriers by understanding decolonisation and attempting to take a more critical stance towards the information and techniques I chose to use (Prior, 2007). I attempted to be rigorously reflexive of my interpretations and understandings of the data collected (Patton, 2005).

2.6 Ethics

The research process aimed to be respectful and considerate of the welfare of human subjects. This includes sensitivity to the physical and psychological safety of its human subjects. All precautions were taken in line with the Rhodes University ethical standards policy.

The sensitive nature of conducting field research with participants in an ethnographic setting means that there is a risk as a researcher to have a negative impact on participants well-being, especially when dealing with topics that participants have deep emotional connections to. To ensure minimal negative influences among participants' consent forms were provided, which stipulated the aims, research terms and conditions of the study, and an explanation of their role in the research was also included. These forms were explained by a translator (Appendix B). This was to ensure that each participant fully understood the terms and nature of the research. Each participant was assured of confidentiality and anonymity of the data collected. Findings used in

the research changed participants' names so they could not be identified; recordings were destroyed after analysis. Participants were informed that they had the right to withdraw from any of the interviews and questionnaires for whatever reason even if they had stated commitment to the data collection process.

Chapter 3

Historical Context of Study Sites and Their Urban Natures

3.1 Introduction

This chapter provides a broad historical account of the Eastern Cape region and the historical, environmental and socio-economic profiles of the study sites' researched -Komani and Qonce. This gives insight into the living conditions and experiences of Xhosa speaking township residents. It contextualises the different types of urban natures available to urban residents within both of these towns, which this chapter investigates.

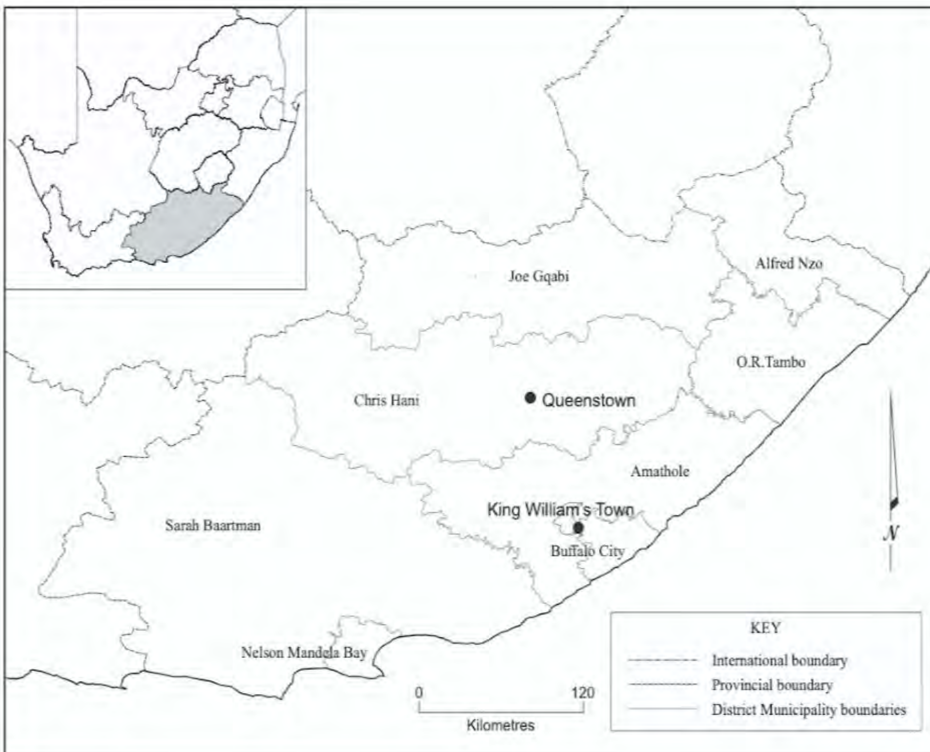

Figure 3.1. Location of Two Study Sites Komani (Queenstown) and Qonce (King Williams Town).

3.2 History of the Eastern Cape

The original inhabitants of Southern Africa were the San and Khoi Khoi. They lived in bands that inhabited the whole of Southern Africa all the way north to Angola. Archaeological evidence dates their occupation within the southern and Eastern Cape to 100AD (Hammond-Tooke, 1993). Many clans cohabited with the San and Khoi Khoi; As a result of these two clans living close to one another, there were many skirmishes between the San and Khoi Khoi over hunting and grazing lands (Bute & Harmer, 2016). Nguni-speaking populations who occupied the Eastern Cape included the amaXhosa who consisted of chiefdoms of Gcaleka, Ngqika and Rarabe (Hammond-Tooke, 1993). The Xhosa formed part of the South Nguni cultural group, who originated from the central lake districts and migrated south from as early as the 1300s (Giliomee & Mbenga, 2007). Dutch settlers who arrived in the Cape in 1652 and migrated east and English settlers who settled in the Eastern Cape in the 1820s (Beinart & Bundy, 1987; Hamann & Tuinder, 2012; SAHO, 2016) confronted both the San, Khoi Khoi and Xhosa. Tensions between the Xhosa and the English and Dutch settlers continued for many decades. The Cattle Killing in 1857 marked a pivotal blow to the Xhosa resistance and illustrated the turmoil that living under colonial powers created among the Xhosa (Peires, 1989; Stapleton, 1991). A Xhosa prophet Nongqawuse convinced her people to slaughter all their cattle and burn their crops as a sacrifice to the ancestors. She believed that this would liberate the Xhosa from British domination. Historians estimated that nearly a third of the Xhosa population died from starvation during this time (Peires, 1989).

In 1902 when colonial powers made up of both British and Dutch settlers united and took control of South Africa, racial domination and discrimination began to escalate in the Eastern Cape (Hamann & Tuinder, 2012). The Union supported discriminatory laws against indigenous Black people to ensure that a cheap labour force was created to meet the growing demand for labour to mine diamonds and gold in northern parts of the country, after their discovery in 1867 and 1886, respectively (Richardson & Van Helten, 1984).

In rural areas, the most notable and influential of the discriminatory laws implemented included the Native Land Act of 1913. Black Africans were forced under this Act to occupy only areas referred to as "homelands" (Butler et al., 1978). The Act prevented Black Africans from purchasing

or owning land outside the ethnically defined "Bantu homelands". This resulted in Black people, who made up more than two-thirds of the population, restricted to occupying and residing in 7.5% of the land available in South Africa. This was in contrast to white minorities, who occupied and resided in 92% of the land (Cousins & Kepe, 2004). Policies which led to the further displacement and upheaval of Black families included the implementation of "betterment schemes". These schemes were introduced in 1939 under the guise of improving rural development (De Wet & McAllister, 1983; Letsoalo & Rogerson, 1982). Betterment schemes did away with the traditional system of landholding and communal grazing lands and were replaced with fixed residential plots and fenced areas for arable and grazing land. Each family was allocated a portion of land considered sufficient for a subsistence livelihood (Letsoalo & Rogerson, 1982). For many families, this meant a massive reduction of lands which they could plough and graze livestock on. These interventions ultimately contributed to growing landlessness amongst Black people, many of whom were then forced into selling their labour to earn a wage within urban areas and on the mines (Kahn et al., 2003).

In the 1950s racial segregation was cemented through the passing of the Bantu Authorities Act. The Act aimed to relocate Black people into areas designated for Black people (Baldwin, 1975), which included the homelands or 'bantustans" (Baldwin, 1975; Bornman, 2014). In the Eastern Cape, two homelands were created: the Transkei and Ciskei for the amaXhosa (See Figure 3.2). By confining Black populations to 'homelands', most of which were rural, the Apartheid government was able to control the movement and employment of Black people. Farming became increasingly non-viable, and as a result, Black males were increasingly forced to become labourers in mines and growing industry. Their families were restricted by law from following them and were forced to remain in densely populated homeland areas (Collinson et al., 2006).

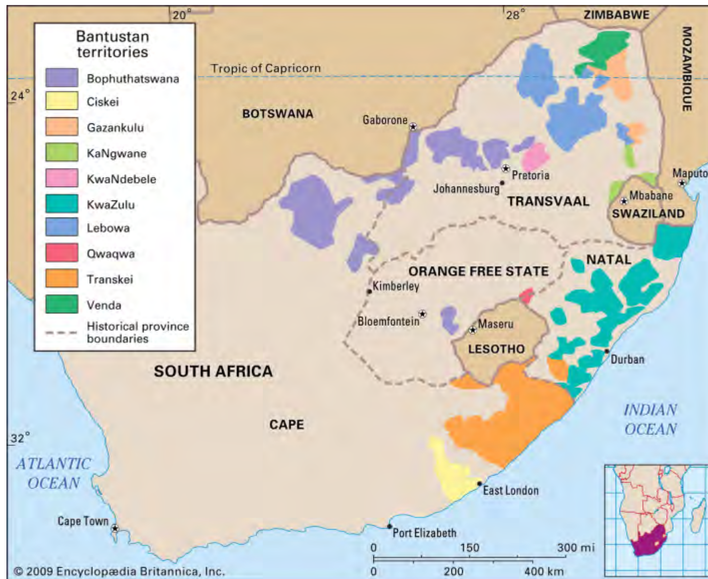

Figure 3.2. Location of Bantu Territories During the Apartheid Period 1948-1994 (Bantustans [online image], 2009).

In urban areas, policies were implemented to control the movement of black people. Influx control was achieved through the Natives Law Amendment Act of 1937, which made it illegal for Black people to move into cities without special permission. The Natives Law Amendment Act stipulated that land was set aside in urban areas for Black residents to inhabit but not own. Such areas became what we term today as townships (Davies, 1981; Wentzel & Tlabela, 2006) and were typified by overcrowding, poverty and underdevelopment (Bank & Minkley, 2005). The Group Areas Act of 1950 made it illegal for different racial groups to live in the same residential areas and illegal for Black people to purchase land outside of townships (Davies, 1981). In response to this legislation, many Black residents retained their home base in rural areas.

Consequently, circular migration between rural areas and urban centres became entrenched in the structure of South African society and economy (Kahn et al., 2003). These restrictions resulted in residents unable to cement themselves permanently in one area. As a result, the urbanisation of Black people has been significantly staggered. Apartheid laws also limited many black residents from acquiring land affecting their ability to own and acquire land in urban areas.

In the 1990s significant political changes came about due to the abolition of Apartheid and the subsequent removal of legal race classifications. Homelands became reintegrated into post-

Apartheid South Africa, and racial segregation was abolished (Hamann & Tuinder, 2012). However, the effects of past legislation continued to manifest itself through urban segregation. To address the inequalities and disparities between townships and previously white suburb areas, the RDP housing programme was introduced by the first democratically elected government in 1994. The programme aimed to address the backlog of housing and poor infrastructure created under Apartheid (see Chapter 1 for more details). Despite these attempts, inequity and disparities still exist between former white-only suburbs and township areas with most Black urban residents still living in underdeveloped townships with poor service delivery (Mabin, 2020; Francis & Webster, 2019). The governance of a previously white racist government through legal means that racially defined communities despite being dismantled in 1994 means that white people are still able to preserve their privileges through economic means (Barchiesi, 2011). Even though black people are given the same means of freedom physical be it educational or spatial, the generational segregation and poverty embedded by the apartheid government has made the systematic inclusion of people of colour in present day South Africa an almost impossible feat (Barchiesi, 2011; May, 1998; Wilson, 2011). This means that despite the governance of South Africa being a majority black representation the system within which the government attempts to govern remains deeply ingrained in not only a colonial context but one that acts within the interest of white persons (Mabin, 2020; Francis & Webster, 2019). As a result, it remains one of the most unequal countries in the world (Francis & Webster, 2019).

3.3 Study Sites

The study conducted in Qonce (King Williams Town) and Komani (Queenstown) were medium-sized towns, with centralised and well-established CBDs, affluent suburbs and township areas situated on the outskirts of these towns. These townships had old and newer sections.

3.3.1 Qonce (King Williams Town)

Qonce is a part of the Buffalo City metropolitan municipality. It is located 389 m above the sea at the foot of the Amatola Mountains and receives a mean annual rainfall of 717 mm annually (Radebe, 2018). Its population is 34,019 inhabitants (Statistics South Africa, 2011). Qonce's urban

natures amount to 712,2 ha. These natures are distributed disproportionately across its three suburb areas, 57,6 % is distributed among township areas, 34,8% are located in affluent suburban areas, and 7,6 % in RDP areas. The town's biome is characterised by low thicket and open savannah vegetation, namely, Cape Thorn Veld, Acacia Natalia and Albany thicket (Radebe, 2018).

The town of Qonce was historically named King Williams town. It was colonised during invasions led by the British in the 19th century. Local Xhosa residents attempted on numerous occasions to take back the city. One particularly notable skirmish resulted in burning down all evidence of British establishment. In 1847, the town was re-established permanently on both sides of the Buffalo River (Randles, 1984). It served as military headquarters for German settlers who settled in British Kaffraria in 1857 (Zituta, 1997). It also served as an administrative hub and wool processing centre for many of the surrounding farming districts in British Kaffraria and Adelaide (Hirsch, 1986).

In the 1930s Black residents who owned properties in the CBD of Qonce were removed to designated township areas. In 1943 the Apartheid government came to power. Racially discriminatory Acts were enforced through the ideologies and legislation of the then Apartheid government. These Acts resulted in the town centre, becoming a white-owned residential area (Zituta, 1997). Two informal areas of Ginsberg and Zwelitsha became zoned as townships for black residents of Qonce.

In the 1950s areas surrounding Qonce were expropriated by the South African government and local Black residents were forced to live in villages surrounding Qonce. These villages were later incorporated into the Ciskei homeland (Bank & Minkley, 2005). The implementation of these policies resulted in the area experiencing massive upheavals. Textile mills and tanneries were later established in and around Qonce to employ families who had been displaced through the creation of the Ciskei homeland (Zituta, 1997).

Housing for workers in towns initially only included hostels for single men in townships. Only later were four-roomed houses built for families to move into (Zituta, 1997). Throughout the Apartheid period, the local government failed to provide sufficient housing to supply the demand

that existed. By the 1990s 75% of household residential plots in Qonce townships contained informal backyard shacks for residents seeking accommodation. These figures were virtually double the numbers planned for service delivery (Zituta, 1997).

The town of Qonce was central in many political revolts. The city's role in the liberation struggle has been well documented. It is renowned as the birthplace of the Black Consciousness leader Steve Biko. Many protests demanding improved education and living conditions were held during this time, the most famous being the Bisho Massacre. This protest resulted in the deaths of 28 residents and an unconfirmed number wounded in the Bisho stadium on 7 September 1992 (History of King Williams' Town, n.d.). The massacre was initiated by the Ciskei Defense Force who tried to contain residents who were demanding the resignation of Oupa Ggozo who was at the time president of the Ciskei Republic (History of King Williams' Town, n.d.). The revolt became a pivotal spark of unrest across the country (SAHO, 2016).

In present-day Qonce has a high prevalence of poverty within the area; this has led to a heavy reliance on government social grants; currently, 45% of the residents are unemployed (Miti, 2013). Many residents originate from surrounding villages such as Keiskammahoek and Dimbaza who have migrated to Qonce in search of employment. RDP housing was implemented in the townships of Ginsberg and Sweetwaters and on the outskirts of Zwelitsha to address the housing backlogs. Sweetwaters is the only township that contains only RDP houses, both two- and four-roomed (see Figure 3.3).

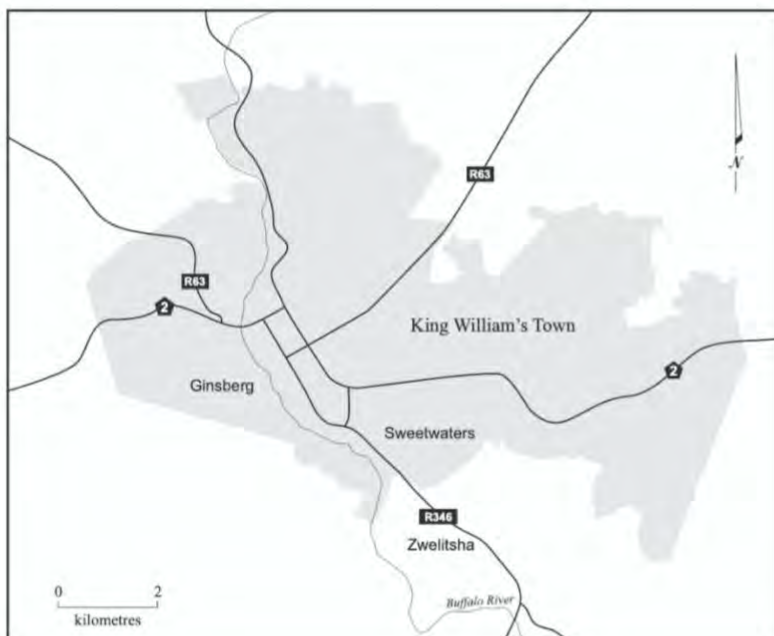

Figure 3.3 Location of Qonce's CBD and Surrounding Township Areas.

3.3.2 Komani (Queenstown)

Komani lies within the Lukhanji municipality and is under the jurisdiction of Chris Hani district municipality (Ward & Shackleton, 2016). The population density is 48 971 (Statistics South Africa, 2011), but has expanded considerably in the last seven years. Komani is characterised by open expanses of grasslands and other savanna vegetation, Acacia Savanna *Acacia Savannah* and Tambooki Thorn *Eruthina Acanthocarpa,* which is unique to the Komani area. The town receives a mean annual rainfall of 751 mm annually (Radebe, 2018). The town has 451,5 ha of total urban greenery. Komani's affluent suburban areas account for 74.1 % of its natural greenery, with township settlements making up only 24.9 % and newly developed RDP suburbs accounting for just 0.9% of the town's natural space (Radebe, 2018).

Komani was proclaimed a colonial settlement by George Cathcart in 1853. It was originally named after Queen Victoria after being colonised by the British empire. It was officially renamed from Queenstown to Komani in 2016 (Department of Arts and Culture, 2016). The town was originally intended to be a military outpost to protect the British settlers from attack during the Frontier Wars.

The town is designed in the shape of a central hexagon which was built for white residents to use as a laager during times of trouble. The hexagon was never used for its intended purpose but remained a distinguishing feature of the town to this day.

In 1880, a railway line between East London and Komani was built, which enhanced its economic growth (Burman, 1984). Komani became a regional centre of industry, commerce and education that boasted sophisticated infrastructure. Such developments were restricted to the CBD and white residential suburbs. In contrast, Black residents were restricted to peripheral parts of town that became increasingly overcrowded with declining infrastructure and housing standards (Lukhanji IDP, 2009). Mlungisi township was established in 1959 south of Komani CBD (Wotshela, 2009a), to accommodate the growing number of Black urban residents. Numbers increased drastically after 1948 when white-owned farms were bought by the state to create the homelands of Transkei and Ciskei. Due to the lack of employment possibilities that existed in the homelands, many fled to Mlungisi to seek employment. Housing to accommodate the expanding population remained inadequate, and Mlungisi became a slum.

In the 1950s a new residential settlement called Ezibeleni was created to alleviate the pressures of the growing Black population of Mlungisi. Residents from Mlungisi were forcibly removed and relocated to Ezibeleni (ECSESS, 1999). Ezibeleni was located ten kilometres outside Komani within the former homeland of Transkei, and currently accommodates a population of 26 937 people. In 1984 Mlungisi and Ezibeleni were officially incorporated into Komani (Figure 3.4).

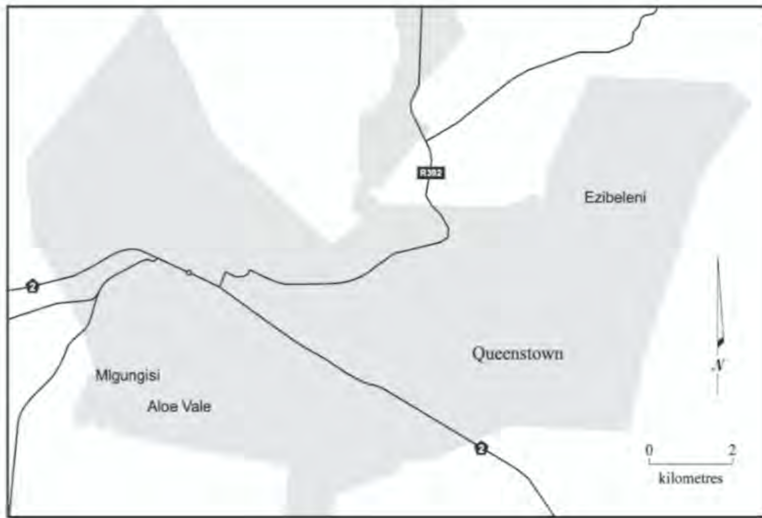

Figure 3.4 Komani CBD and Surrounding Township Areas.

Many political revolts against the Apartheid struggle were initiated in Mlungisi, one of which was a demonstration by residents in a consumer boycott in 1985. Local Black residents demonstrated their unhappiness by boycotting white-owned shops to illustrate the extent to which white-owned businesses relied on the Black working class. This escalated tensions between the Apartheid government and people of colour (Skinner, 2017). In November of the same year, a meeting was organised at Nonzwakazi Methodist church in Mlungisi to initiate a protest against the atrocious living conditions that Black residents experienced in local townships. The police aimed to break up any forms of resistance and stormed the church. The attack on residents became known as the Queenstown Massacre. Eleven unarmed residents were killed. To this day it is remembered with the slogan "Bullets will not stop us". Many of the residents who took part in the protest continued with the national struggle for liberation (Cawe, 2015). In 1994 Apartheid was abolished and the first democratic government was elected. New RDP housing projects were initiated within the Komani townships and 7 000 hectares of commonage land were redistributed to Mlungisi and Ezibeleni residents (Wotshela, 2009a). Despite these initiatives, Komani remains affected by its historical segregation as township areas remain underdeveloped and continue to experience high rates of unemployment and social inequity in contrast to the town's CBD which has continued to flourish (ECSESS, 1999; Ward & Shackleton, 2016).

In present-day, most Komani residents still reside in the township in RDP housing and informal shacks. Eighty-one percent of the population are Black South Africans, and 75% are isiXhosa speakers (Statistics South Africa, 2011). The numerous shacks reflect the high unemployment of the region, which is a staggering figure of 43% (Fröden, 2009). Issues of inequity, systematic historical oppression and forced removals still characterise the town.

The historical profiles of the larger Eastern Cape, as well as each of the study sites researched, have provided insight and context into the many political and social process that have impacted the urban natures within each study site, the following section will attempt to further investigate the types of urban natures available within each of the towns studied in relations to types, quality and distribution.

3.4 Types of Urban Natures

Within urban areas, an array of different types of urban natures exist which have been conceptualised and influenced by political and social histories of the area. The above section has provided a closer look into the historical context of the study sites and has illustrated how various political and social processes have impacted their landscape. This section investigates how these processes have influenced the types and quality of urban nature found within each of the towns and the type of accessibility that residents have to different types of urban natures.

During the colonial era, natural public spaces created included commonages, botanical and memorial gardens, parks, planting of street trees and the establishment of flower and vegetable gardens within private spaces. Each of these emulates experiences and needs that colonists were accustomed to experiencing in the "mother" country.

Such ways of conceptualising urban natures continued to be supported by the Apartheid government and later by the newly democratically elected government in 1994, which led to the establishment of parks and memorial gardens within townships areas. The implementation of urban natures also included attempts to plant trees along certain streets within townships. The subsequent sections will provide an overview of the types of urban nature found within Qonce and Komani.

Illustrating how these factors have influenced the types of urban natures found in public formal and informal spaces in South Africa — highlighting how broader social and political factors have influenced the establishment and maintenance of such in formal and informal public spaces.

3.4.1 Urban Natures in Formal Public Spaces

Botanical gardens were established as centrepieces within both Qonce and Komani. The botanical garden in Qonce was established in 1849. It was managed by a Mr Sim, who was born in England and studied at Kew University within the department of the Royal Botanical Gardens (Botanical Gardens in South Africa, 1895). The garden also housed a conservatory, erected in memory of the settlers who were killed in the Ninth Frontier War of 1877-78 (Picton-Seymour, 1977). The garden was laid out with pathways and benches for users and was renowned for its display of jacaranda trees. The botanical garden in Komani was established in the 1900s and was named after the park manager Walter Everitt. The style adopted was a sunken garden which is of Victorian origin (Strong, 2000). Local British authorities supported the planting and maintenance of street trees within both towns. Trees planted included oak and jacaranda species (McConnachie et al., 2008).

In 1880 the British authorities established the British Soldier Memorial to commemorate all the soldiers who died during the Ninth Frontier War (Figure 4.7) in Qonce. A memorial garden was also established in Komani, the Central Hexagon Garden. The garden radiates out from a central point like the spokes of a wagon wheel. The centre was used as a marketplace (Favretti, 1971).

To pay homage to histories previously denied representation and heroes of the liberation struggle memorial gardens were established post-94 when the first democratically elected government began to govern South Africa. This meant that concerted attempts by the new government were made to rectify the physical and emotional disparities implemented by the Apartheid government. For example, the Cattle-Killing Memorial was established directly behind the British Soldier Memorial in Qonce. The former holds a plaque of Bison horns (Figure 3.1) which pays tribute to the many Xhosa people who starved to death after the infamous Cattle Killing in 1857. The memorial was erected by the Amathole District Municipality in 2006. Such tributes have not resulted in such areas being taken care of by local municipal authorities. The site is usually littered

with refuse, the grass is overgrown, and weeds are irregularly removed. Paths to the memorial have also not been maintained. Graffiti has been painted over the memorial. A journalist for the "Sowetan Live" described the neglect as a tragedy that paid tribute to a painful past (Khumalo, 2017).

Figure 3.5 Cattle-Killing Memorial

In 1997 King William's Town municipality erected a memorial stone to commemorate Steve Biko's contribution to the liberation struggle. At the time Steve Biko's family requested that the entire graveyard be upgraded and be maintained as a garden of remembrance in recognition of the contribution of others in the fight against Apartheid. Today the garden is maintained by the Steve Biko Trust and is open to the general public. People who lost their lives in the Queenstown massacre have been commemorated by the erection of the Queenstown Massacre Memorial (Figure 3.2). Ironically both areas reflect similar conceptualisations of memorial gardens that are symbolic of colonial and Apartheid histories (Marschall, 2010; Martin, 2004). This is evident in their structured layout, the presence of mostly alien plant species as well as their consistent location in or close to CBD areas only. These green areas closely reflect the historical Christian values of the population that established them (Christopher, 1995).

These values were further instilled within formal urban natures through the presence of Christian iconography throughout Qonce and Komani cemeteries. These areas represent a more painful experience of historical segregation in South Africa, as the African population was segregated into separate graveyards for virtually the entire history of colonial settlement, (Christopher, 1995), which remains largely unchanged to this day. Within both towns, stark disparities are evident among previously white cemeteries and cemeteries located in the township for people of colour. For example, cemeteries located in the affluent suburbs of both towns remain surrounded by trees, grassy landscapes and diverse shrubbery. These elements were historically included in the plans for white cemeteries (Christopher, 1995). In contrast, the Komani cemetery in Mlungisi township and cemeteries in Ginsberg and Zwelitsha located in Qonce has no trees, and the ground is dry and arid. To date, there are currently no cemeteries in the newly developed RDP suburbs of Sweetwaters. Unsurprisingly township cemeteries make up no more than 2% of urban green space within both towns (Radebe, 2018).

Figure 3.6 Queenstown Massacre Memorial

Commonages were the first type of regulated urban nature that urban residents were given access to. Commonages were established on the outskirts of most towns, including Qonce and Komani as pasture areas to keep transport and draught animals (Atkinson et al., 2005; Kepe et al., 2015). Once mechanised transport became the norm, poor and working-class white families were allowed to keep livestock on the commonage (Anderson & Pienaar, 2003).

Post 94 saw local municipalities attempting to reform access and use of local commonages; this reform included increasing black urban residents' access rights. This led to the signing of the White Paper on South African Land Policy of 1997, which stipulated that 'poor people need to gain access to grazing land and small arable or garden areas to supplement their income and to enhance household food security' in urban areas (Department of Land Affairs, 1997). As part of the redress initiative, 7 000 hectares of commonage land was redistributed to Komani local municipality (Wotshela, 2009b) and is used for grazing and the collection of wild resources. Commonages are recognised as contributing significantly to the household economy of many black, urban residents (Davenport et al., 2012).

Despite the significant contribution of commonage land, the legacies of Apartheid have made the sudden reversion back to commonage land a cause for concern as many municipalities have little financial and management skills to manage such a large amount of commonage land. This, coupled with recently increased urbanisation rates, staggered by urban segregation policies, have resulted in a poor urban population that remains highly reliant on commonages for subsistence — resulting in the current land degradation of many municipal commonages we see today (Puttick et al., 2011).

In Qonce, the commonage is located on the edge of Ginsberg, Sweetwaters and Zwelitsha Township and consists of low-lying thicket vegetation (Mucina & Rutherford, 2006). In Komani, the commonage consists of grasslands and some *Acacia savanna* and *Eruthinaacanthocarpa*, which is unique to the Komani area. These areas have become prime dumping sites and are littered with refuse as featured in Figure 3.7 below. This degradation is most noticeable on the common areas situated closest to the densely populated townships and residential settlements. Despite this, the Ginsberg commonage in Qonce shows evidence of being regularly used for livestock grazing. Cattle were observed grazing and pigs being raised in pig pens for resale and slaughtering purposes.

Figure 3.7 The Start of Komani Commonage

The recent drive of local municipalities to support and manage parks and gardens by allocating funds to maintain play structures, benches and braai facilities for relaxation and recreation has solidified discrepancies between the township and suburban green areas (Venter et al., 2020). For example, in 2015, the local municipality in Qonce provided funding to include braai facilities within the botanical garden for local residents to use (Buffalo City Metropolitan Municipality, 2016). Parks found within the new RDP settlement of Sweetwaters were also equipped with playground facilities similar to those found in parks located within the CBD of Qonce. These parks provide little to no greenery when compared to parks in affluent suburbs. This is because parks within RDP settlements and township areas are considerably smaller, the ground is sandy or rocky, and maintenance is limited. Similarly, the parks in Zwelitsha are also not regularly maintained, broken infrastructure and play equipment are not regularly repaired or replaced. The fencing around these parks has often been destroyed. Few attempts have been made by the local municipal authorities to green these parks by planting grass or new trees and plants (Figure 3.4), and when attempts are made to green these areas, it is often damaged by roaming livestock (Njwaxu & Shackleton, 2019). In Komani similar disparities were displayed; no parks providing green space were found in the township or the new RDP areas. Parks in the suburban areas account for 53% of all urban natural space found within the town (Radebe, 2018). These parks continue to support the colonial ideals of those who planned and implemented them originally. The most notable park is one on Shepstone Street close to the CBD, and it is surrounded by oak trees and is laid out in a circular style with flower beds.

This lack of attention given to formal urban natures in township areas has led to huge disparities in terms of the amount of space allocated to such and the maintenance thereof. This can be seen in the servicing and maintenance of parks within township areas which continue to receive considerably less attention than those located within the CBD and formerly white-owned suburbs.

Figure 3.8 Example of lack of greening Township Park

These disparities were found to be present even among riparian areas despite the fact that the post-Apartheid government attempted to rectify these disparities by making access to water more equitable through the development of the National Water Act (Chikozho et al., 2017). Dams continue to represent the pervasive link between our colonial past and the oppression of Black South Africans. These colonial influences were ever-present in the 1956 Water Act, which was largely influenced by English law (Tewari, 2009). Through this Act the governing party was able to gain complete ownership of the use of water within South Africa by making a distinction between publicly owned water sources and privately owned water sources, favouring individuals under this system, namely white colonists (Stein, 2006).

As a result, riparian spaces remain historically reserved for the recreational benefit of white people (Chikozho et al., 2017). Not only have the establishment of dams remained exclusionary for Black South Africans attempting to access quality riparian areas for recreation. The original

implementation of these dams has often been to the detriment and destruction of natural water sources such as rivers (Nel et al., 2017), in which many indigenous and local black residents would frequent.

As a result of these historical influences, both Qonce and Komani dams are located close to the affluent suburbs of each town, making access to these areas for township residents costly and time-consuming. The disparities in the quality of previously white established urban natures when compared to township natures as illustrated above is further shown in the regular maintenance of dams, for instance, Bonkolo dam in Komani was recently upgraded by the Department of Tourism. This dam is the main water source for Komani residents and is used for recreational activities such as fishing and water skiing. To further marginalise lower-income residents from these recreational spaces, a fee is now charged to enter the area. Comparatively, in the township areas of both study sites, there are no dams, riparian areas such as publically available rivers have been degraded. For example in Qonce the Buffalo River and its tributaries are overused and seldom maintained, they are littered with refuse, posing a serious health risk for its users (Department of Water and Sanitation South Africa, 2019). The Buffalo River in Qonce has recently been found to be significantly polluted by local dams and resulted in the death of many fish (EOH, 2016; River Health Programme, 2004).

3.4.2 Informal Public Urban Natures

Most informal and wasteland areas in South Africa are found in townships. They are defined as Unused lands where plants grow without human agency (Radebe, 2018). For instance, although Qonce was one of the few towns in the Eastern Cape where the township accounted for more urban natural space than in affluent suburban areas, 57,6% and 34,8% respectively, 22,6% of this natural green space was made up of wastelands. In Queenstown, the townships accounted for only 24,9% of the entire towns urban natures, of which 12.5% was wasteland area (Radebe, 2018).

Historically and in the present day, township areas are not given the necessary infrastructure and funding to create and plan for recreational green areas (Shackleton et al., 2018). Although post-94 saw concerted attempts to incorporate urban greening into township areas, urban townships, in

general, remain underfunded and poorly serviced- some informal areas have become dumping sites for building refuse leftover from the RDP programme (Figure 3.4.).

Figure 3.9 Informal Wastelands Komani

Township areas continue to bear the brunt of historical racism in urban planning which resulted in the displacement of many black South Africans into areas located on the periphery of towns and cities. As such, access to quality urban green areas remains a difficult, expensive and time-consuming activity. For many untended verges and wastelands have been repurposed in many different ways to fulfil the functions of formal natural spaces. For instance, residents in both Qonce and Komani use these areas to burn rubbish not collected by the municipality. On larger unused pieces of land, canvas tents are erected for church ceremonies, funerals or other recreational activities. For example, in Aloe Vale township in Komani, large informal areas exist between the RDP houses. One such area includes Sabata Dalindyebo Street, which is used as a shortcut onto the main road as evident from the desire lines. This wasteland, as shown in Figure 3.5, is also used as a makeshift soccer pitch.

Figure 3.10 Informal Area, and Soccer Pitch

3.5 Discussion

This chapter has revealed that the Eastern Cape landscape has been greatly influenced by centuries of tensions and skirmishes between the amaXhosa and colonial powers. The domination of colonial ideals was further enforced through the Apartheid system. This system used policies of separate development such as the natives land act to manufacture spatially and economically separate South African cities along racial lines. Evident in both the socio-economic and spatial inequalities (Wotshela, 2009b) that pervade the South African urban landscape today (Maylam, 1995). This is illustrated by the disparities between developed and well-maintained suburbs and township settlements, particularly in relation to distribution, quality and types of urban natures available to Black urban residents (Shackleton et al., 2015).

The domination of colonial powers influenced the establishment of both Qonce and Komani as is evident in their original town names (King Williams Town and Queenstown). As a result, both study sites were planned to suit the usage, needs and culture of the colonists who established them (Bewell, 2017). Township areas bear the brunt of historical inequality, which has resulted in limited service provision and a lack of development of basic infrastructure (Jürgens et al., 2013; Venter et al., 2020). Many of these areas limit the types of connections and activities that take place for Black urban residents. Inequalities created by this domination have shaped the types, quality and location of urban natures within many South African towns (Venter et al., 2020; Visser, 2019).

The types of urban natures available to urban residents across both study sites have revealed that the prominence of certain types of urban natural spaces such as parks, botanical gardens and memorial gardens perpetuates the colonial legacy. In both Qonce and Komani, memorial gardens remain overly planned and designed. Further to this, memorials with colonial histories are referenced. This is particularly evident in the stark differences between the lack of maintenance towards the Cattle killing memorial and the British war memorials located in Qonce, in which the war memorial was continually maintained. Memorial gardens also pay tribute to our painful colonial past by romanticising the struggle of colonial war heroes (Vivian, 2020). These areas are regularly maintained and are of markedly higher quality than areas commemorating the political struggle of Black residents. In other public natures, the types of walkways, flowerbeds and structures present reflect colonial norms of beautification. In both study sites, the domination of colonial plant species has affected the way residents experience the types of urban natures available to them. For instance, street trees and plant species found in botanical gardens and parks remain dominated by alien tree species there were planted by English settler populations, such as oak or jacaranda, as do the street names within these towns (Shackleton et al., 2018). The types of urban natures available to urban residents remain entrenched in inequity, as many of these natural spaces bear little significance to amaXhosa culture while symbolising an often painful connection to their colonial past. Research suggests that many countries have failed to acknowledge the significance of varying nature types in urban dwellers' lives, especially for residents from lower socio-economic backgrounds, indigenous or migrant communities (Ferguson et al., 2018; Shackleton & Cocks, 2021; Venter et al., 2020). For example, indigenous Australians have voiced feelings of disconnection for urban cities due to their inextricable link to their colonial legacies and continual exclusion of indigenous cultures from urban planning policies (Potter, 2020).

In reviewing the types of urban natures available to residents across both study sites, further inequity is evident in the variation of quality among urban natures. The findings of this chapter have shown that township and RDP settlements have significantly more wasteland areas. Although residents living in township and RDP settlements have closer access to commonage areas, these spaces are badly polluted, as is shown in Komani commonage (Figure 3.3). Most parks and informal natural areas situated within township areas were also found to have high levels of

littering. It is therefore not surprising that residents living in poorer areas in South Africa such as townships voice higher dissatisfaction about the quality of natural public spaces available to them compared to residents living in affluent suburban areas (Shackleton & Blair, 2013; Shackleton et al., 2018). The poor quality of urban natures throughout township areas are a result of lack of maintenance in these areas, which is typical of the limited-service delivery that occurs in townships. As a result, many urban natures available to residents in townships have been destroyed by over spillage of waste as refuse is not consistently collected or illegal dumping of building refuse.

This research has shown that there are significantly more formal urban natures in suburban areas than in township and RDP settlements. This is reiterated across all types of nature in both study sites which were significantly less in township areas. These inequalities in urban nature distribution between historically white spaces such as affluent suburban areas and townships are evident. This is largely due to the reality that many townships and RDP settlements have and continue to be built on the periphery of towns and cities, making access to any public urban nature challenging. This inequity in urban nature distribution was also seen in Shanghai where empirical studies have shown that residents living on the further periphery of cities are likely to fall within lower economic brackets and have access to fewer types and variations of urban greenery when compared to affluent urban dwellers (Zhang et al., 2020).

In both Qonce and Komani, many of the botanical gardens used for recreation and leisure were both located in the centre of town closer to affluent suburbs and far away from township areas. In the case of Qonce, a resident of Sweetwaters would have to travel 5, 2 km to access the local botanical garden which is located just 1 km from the town's affluent suburban areas. Local research has found that the distribution of urban greenery within South African towns is disproportionately higher in white-dominated suburbs which have 11% more tree coverage and 8.9% higher vegetation, residents living in these suburbs also live approximately 700m closer to public parks than residents of colour (Venter et al., 2020).

3.6 Conclusion

This chapter has provided an overview of how the broader historical, political and socio-economic processes have impacted the types, quality and distribution of current urban nature found within each of the towns. This outline has provided a deeper understanding of Xhosa-speaking township residents' everyday experiences of urban natures and the disparities experienced when accessing these spaces. Such findings give context to the following chapter, which aims to investigate the meanings given to natures by urban residents.

Chapter 4

Different Meanings of Urban Natures

4.1 Preface

This chapter investigates the various meanings attributed to natures found in urban areas. This is achieved by outlining the findings from the survey and in-depth interviews which show that the dominant associations and meanings attributed to each type of nature can be broadly categorised as reflecting the meanings outlined in chapter 2 which include cultural, spiritual, social, recreational and utilitarian meanings. Although utilitarian meanings associated to nature remain an important component to connections with nature, this particular meaning did not occur as a recurring theme within the in-depth interviews, and as such were not included the survey questions. The other four meanings have been presented through individual accounts gleaned from both the in-depth interviews and focus group sessions. These categories were coded from recurring themes found in the interview transcripts. They portray the depth and context of the type of association and meaning attributed to various types of urban natures. This chapter also provides results on "who" is visiting the different types of nature found within urban areas and how often such places are being visited.

4.2 Meaningful Urban Natures

The survey found that ninety-four percent of residents attributed both cultural and spiritual meanings towards nature, which the highest proportion residents attributed these meanings to nature. Recreational associations were also important to 90% of residents (Table 4.1). Only 55% of residents stated that they attributed social associations towards urban nature.

Table 4.1 Meanings Associated with Urban Nature

Meanings	N=215	%
Spiritual	204	94
Cultural	204	94
Recreational	193	90
Social	120	55

Out of all the different types of urban nature found in urban areas (Chapter 3), only seven types were mentioned by participants as being frequented and of importance. These included nature found in rural areas, *ihlathi lesiXhosa* (forested areas found on the commonage), commonages, domestic gardens and yard spaces, informal green spaces, parks and dams. The in-depth interviews alluded to the significant attachment participants felt towards natural spaces in rural areas. This was because many residents had grown up in rural areas and subsequently migrated to urban areas, or they regularly returned to rural areas to visit their ancestral home. The latter included many who had been living in the urban areas for a long period of time as well as those born in urban areas.

4.2.1 Rural Nature

Cultural values attributed to nature in rural areas included *ihlathi lesiXhosa*, which is botanically recognised as indigenous forest (see Chapter 1 for details). *Ihlathi* was valued for providing resources that residents needed to carry out cultural and religious practices, as well as a place that embodied one's ancestors. Acts of engagement within *ihlathi* were also perceived as holding positive meaning as reflected by JZ, who is a 68-year-old resident born and raised in the township. He currently lives with his wife and three daughters. They regularly return to his ancestral rural home to perform cultural and religious practices. JZ expressed great pride in his ability to be able to teach his daughters about their culture and the wonders of rural living and nature. For him, nature in the rural areas provides the appropriate place for him and his family to perform cultural practices. He explained: "*In the rural areas I can collect the fuelwood I need to perform a traditional ceremony. By collecting my own wood, I am carrying out my duties in the presence of*

my ancestors, who are located in the ihlathi." He felt it was not possible to carry out these duties in the township as he would have to hire someone to assist. Under such conditions, a traditional ceremony he deemed was not dignified.

Participating in cultural practices within nature in the rural areas also invoked memories of fun and recreation for many residents now living in urban areas. Many of these they recalled as taking place in nature, such as coming of age ceremonies. For example, JZ recalled: *"We enjoyed ourselves, we would gather for imitshotsho* – (stick fighting). *We would get up early in the morning and go and stick fight. We would also drink and flirt with girls".*

Strong spiritual meanings were also attributed to rural natures as reflected by Asanda. Asanda, JZ's thirty-year-old daughter, recently spent a month at her father's ancestral home to help a member of his extended family. Asanda assisted by working in the family's spaza shop. While she was there, she got the opportunity to go walking in the *ihlathi*. She recalls enjoying the sounds of the birds and sounds of water flowing in the river as she walked. Being there and hearing those sounds evoked a feeling of inner peace. While walking in the *ihlathi*, she would sometimes see rabbits (*umvundla*) and black snakes (*majola*). These sightings made her feel she was being sent a message from her ancestors which she described as evoking a sense of inner peace and contentment.

These memories act as powerful motivators for urban residents to revisit rural areas and to share and pass on their cultural knowledge to their children. Many spoke about how they would take their children with them when they returned to their ancestral home so that their children could experience what they experienced as children.

4.2.2 The Forest "Ihlathi"

Ihlathi lesiXhosa ('Xhosa forest') was identified by most as a place that one could find and access on the local commonage. Despite its location, many felt that it represented a different place to the commonage because of the strong meanings and associations attached to it. These included utilitarian, cultural and spiritual meanings.

Utilitarian meanings attributed to the urban *ihlathi* included the ability to collect natural resources. Kwanele, a twenty-six-year-old explained how he goes to the *ihlathi* to collect wood that he needs to construct and maintain their family *kraal*[5]which is situated in their yard. He also goes to the *ihlathi* to collect plants that he makes pastes from to heal people that are suffering from sickness[6].

Cultural meanings attributed to *ihlathi* included representing a place that boys went for initiation and a place where many aspects of Xhosa culture are carried out. Such meanings are attributed to *ihlathi* as it is felt that no other places provide the same kind of spaces to carry out such meaningful practices. Kwanele explains how he likes going to the *ihlathi* as this is the place where he can carry out practices that he associates with his culture. His uncle taught him how to perform certain cultural practices and rituals. He has been taught how to slaughter an animal to be sacrificed at rituals. He feels a great sense of pride in knowing how to perform this duty.

Many participants also attributed spiritual values to *ihlathi* as it is perceived as a place where one can encounter one's ancestors. Notinum, a thirty-seven-year-old woman explains: *"The ihlathi for us Xhosa-speaking people is important because we can be shown visions from our ancestors there"*. Kwanele also explained how he likes to go to the *ihlathi* to meditate and be close to the river. He obtains a great sense of comfort and inner peace from visiting the *ihlathi* and river on the commonage.

4.2.3 Commonages

Commonages, as outlined in Chapter 3, is situated on the outskirts of Qonce and Komani. Commonages are generally accessed by foot or donkey cart. Here too, utilitarian, and spiritual meanings were attributed.

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[5] The kraal is seen as a temple of male lineage and an aspect of male identity (Dold & Cocks, 2012, p 65; Cocks et al., 2010).

[6] Sicknesses here referred to STIs. Many men felt too embarrassed to go to the clinic and were happy to get naturally made medicinal pastes made by Kwanele.

Many residents from both Qonce and Komani frequent the commonage to access resources that they need. These resources include firewood or medicinal plants, for either personal consumption or cultural ceremonies. Mamsukweni, a pensioner who lives in an RDP house in Komani, explained. *"I can go to the commonage to collect firewood when I need. In this way I can provide for my family. By using fuelwood I don't need to buy electricity. Collecting fuelwood helps me".* Mamsukweni attaches great importance to the ability to harvest fuelwood from the commonage because she is supporting seven other family members from her pension.

Mamsukweni also identified a heightened sense of happiness when she is on the commonage. She explained how she enjoyed being there: "*it makes my soul happy....*". Other residents commented on how the commonage serves as a place for residents to come together. For example, Faka, a thirty-two-year-old man, who lives under severely economically strained circumstances, explained how community members in his neighbourhood come together when someone is experiencing difficulties. Acts of coming together include going to the commonage to collect fuelwood for them when they need assistance. For him, he sees their ability to go to nature (commonage) as a place "*that brings us together as a community*".

4.2.4 Domestic Gardens and Yards

Gardens and yards were identified as particularly significant and meaningful natural places for urban residents. Utilitarian and cultural meanings were attributed to gardens and yards.

Respondents attached great importance to the ability to establish home gardens within their yards. Mamsukweni has lived in Queenstown township for over 30 years. She started gardening as a young girl with her father and learnt everything she knows about keeping plants and their uses from him. She plants spring onions and lettuce to eat and medicinal plants such as *Ivendrithi (Ruta graveolens)." I share my produce from the garden with my neighbours and grandkids. It feels good to look after myself and those around me, and it is very economical. I like to mix all my fresh veg".*

Utilitarian practices relating to activities in gardens also elicited feelings of pride, self-worth and agency. For example, Shepherd, a middle-aged urban resident, grew up in the village of Mdingi. His fondest memories of growing up are of working in their garden, ploughing their fields and planting maise and pumpkins, with his mother and siblings. Most of his adult life he worked for a big company doing manual labour. Ten years ago, he fell and injured himself, making it impossible for him to continue his employment. He moved to King Williams Town and supported himself by making dog boxes, doing basic house repairs and growing vegetables. Shepherd grows lettuce, figs, plums, chillies and *Ivendrithi (Ruta graveolens*) in his garden. Gardening has become a central part of his life. His garden not only aids him financially, but it also gives him meaning and pride, even in the darkest of times. He shared the following sentiments about his garden: *"I am very happy with my garden. It is important to have a garden because it feeds us and keeps me happy and energetic, especially when the plants start to sprout, it makes me very proud...it has always been important for me to have a garden. Even growing up, we survived and ate from that garden"*.

Gardens and yards also held significance because of the various plants that had been planted and features that had been placed in them by their owners. Plant species cultivated in home gardens often include species that are used for traditional ceremonies, for bringing good fortune and offering spiritual protection. Commonly mentioned species included *Impepho, (Helichrysum odoratissimum)* a medicinal herb which is used as an incense to protect and purify the spiritual and physical bodies. *Umnquma,* Wild Olive (*Olea europaea subsp. africana*) which is planted by many urban residents for use in rituals[7]. *Itswele Iamlambo,* Wild Garlic *(Tulbaghia violaceae*) is planted to deter snakes. *Intelezi (Tillandsia*, *Haworthia attenuata*) is planted to protect households from lightning.

A range of a*mayeza* (medicinal plants) plants were cited as being planted to make medicinal home remedies. Such remedies included the mixing of home-grown chillies and garlic with sugar for

[7] The wild olive leaves are used in traditional ceremonies to serve the meat slaughtered during a ceremony. In the township, it is only the elders that are served meat in this way (Dold & Cocks, 2012, p 77).

stomach problems or planted *Umhlonyne,* Wormwood *(Artemisia afra*) as a treatment for colds and coughs and *Wynruit,* Rue (*Ruta graveolens*) for upset stomachs.

Yards were also described as providing the space for residents to display cultural artefacts that they attached importance to. Such artefacts included an *ubuhlanti – kraal*[8]. Those who did not have the means or space to build and or maintain an *ubuhlanti* erected an *ixhanti*- tethering pole, which is generally located in the centre of the *ubuhlanti*. *Ixhanti* is constructed out of either *umthathi,* Sneezewood, (*Ptaeroxylon obliquum)* or *Umnquma*. *Ixhanti* serves as an anchor for the sacrificial animal when a ritual is being performed and is a symbolic point of contact with the ancestors. The horns of the sacrificial beast are attached to it in reverence to them (Dold & Cocks, 2012).

Women respondents also spoke about the importance they attached to maintaining an *igoqo* (wood-pile) in their yards. The gathering of fuelwood (*ukutheza*) and the creation and maintenance of the wood-pile (*igoqo*) in the yard space serves an important part of traditional ceremonies for women. The wood-pile within a yard is symbolic as it represents a strong Xhosa woman, and the ability to provide for the family. In the township, wood was consistently collected regardless of whether a ceremony was taking place, and was an important source of pride and subsistence. However, only one participant collected and maintained an *igoqo*; other women collected wood for later use, but it was not purposefully stacked or maintained in a way that can be considered *igoqo.*

The cultivation of a home garden is also tied to cultural identity by some, as illustrated by Kwanele. Kwanele was born in Aloevale township, in Queenstown. He lived with his mother and two brothers. His mother, whom he describes as a reserved and very traditional woman, recently passed on. This brought him great personal anguish as he has been left to support his younger siblings. He started gardening after his mother's passing. He planted *Umnga* (*Acacia karroo*), *Madabula* and *Impepho (Helichrysum gymnocomum).* He acquired the plants from

[8] In Xhosa, culture *ubuhlanti* is considered a sacred place in which sacrifices of cattle take place during traditional ceremonies and is considered a temple in which ancestral spirits reside and watch over family members (Cocks, 2002).

family members in Whittlesea. He uses the plants for medicinal and cultural purposes. He shared the following sentiments about his garden: *"Cultural practices are a huge part of who I am. When I use imphepho or walk in my garden, I get that free feeling of peace of mind. All these things are important to me. It would not feel right to me* [if I did not do them] *it is important that everyone experiences this* [the peace of mind from nature].*"*

Kwanele's association of cultural practices with his identity invokes strong positive psychological feelings for him. Aphiwe, a twenty-four-year-old man, shared similar associations and emotions. Aphiwe grew up in a township in Queenstown. He migrated to Cape Town to pursue his boxing career. Aphiwe was brought up by his father and grandmother, and he attributes his successful boxing career to them. He is a reserved and humble person. He acknowledges the hardships of growing up in the township and the pressure he experienced from his friends to get involved in drugs. He, however, remained focused on pursuing a career in boxing. He acknowledges his father's teaching of being "A Xhosa man", as what helped him through difficult times. "*I was taught to be a traditional man, which meant I learnt how to carry a spear (the mark of a leader), how to conduct traditional ceremonies and revere my ancestors"*. Many of his father's teachings took place in his father's RDP house and yard. *"He taught me how to grow medicinal plants and the importance of building and maintaining an ubuhlanti"*. These teachings and memories he carried to Cape Town with him. While he was there, he bought *imphepho* to burn before a boxing match for good luck. He also regularly bought *ikhala*, Aloe (*Aloe ferox*) leaves to cleanse his system of negative spirits before a fight. He would also buy *umhlabelo* (*Talinum caffrum)* to tend to his injuries after a fight. He stated that when he becomes really wealthy, he dreams of returning to Queenstown to support his grandmother and open a boxing clinic so that he can guide boys away from the negativity of the township. When he returns home to Queenstown, he reconnects with his ancestors by visiting the family *ubuhlanti*, which was erected with his father before he left. When he is in his family's *ubuhlanti* he connects and "feels safe" with his ancestors and speaks to them. *"When I come back to the township from the city* [Cape Town] *I go into the ubuhlanti before I can even put my foot in the door or be welcomed by my grandmother, it is important for me to let the ancestors know that I am home."*

Bonsile, a 67-year-old man, considered his family home to be in the rural village of Dimbaza. He would return home to Dimbaza to conduct ceremonies and connect with his ancestors. He did not consider the informal shack he resided in as an appropriate place to establish an ancestral home (*KhayaKhakulu*[9]). It caused him great unease when many of his family members in the rural areas passed away, and his *khayakhakulu* was no longer inhabited. However, Bonsile was recently given an RDP house, giving him a huge sense of relief as he felt he could finally establish his own family home and conduct his ceremonies in his own space. *"I am thankful that I have my own home, I am getting older now, soon I will have no one to tie me to the village, I was worried that my ancestors would not be able to be brought here… but I have my own home now, it is important to keep your home warm with these traditions, now I can invite my neighbours to share in my* [traditional ceremonies]*"*.

4.2.5 Informal natural spaces

Informal natural spaces are found throughout the township. Such spaces are vacant areas that function as dumping spots or short cuts and are defined as "a piece of land close to a residential area that is undeveloped and has no building structure" (Radebe, 2018). Residents in urban areas stated that these spaces were used as a space for waiting or passing through to get to work or run errands in town. Despite the transience of informal space, residents attributed strong emotional attachment to some of these areas. These included spiritual and cultural.

Eunice, 47, a Queenstown resident, has lived in the township for many years and for most of this time she has lived in informal shack areas. Recently she moved into a new RDP house. As a result of her living situation, her busy work schedule and the location of her home, she has had limited access and opportunity to visit or be in a natural space. Because of their ease of accessibility informal areas offer her the opportunity to engage meaningfully in open natural space, as is reflected in the following sentiments: *"When I walk to work, the beautiful sounds of the birds make*

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[9] The establishment of "home" is an important concept in Xhosa culture. The family or ancestral home is commonly known as *khayaKhakulu.* It is where all family rituals are performed as it is considered where one's ancestors are located. A ceremony *(ukuzazisa)* is performed to invite and emplace one's ancestors into the home space (Dold & Cocks, 2012, p 65).

you relaxed and think of nice things, when I walk with friends, I feel relaxed, it gives me a reason to get out".

Interactions with informal natural spaces were also described as providing opportunities to connect to one's ancestors. Respondents explained that they could encounter animals or hear sounds of animals and birds, hear the rustle of wind and experience the shade of a tree. Encountering such sounds and experiences was described as forcing one to stop and think and be with one's ancestors.

4.2.6 Parks

Positive meanings and associations were also attributed to formal parks found within the township. These predominantly included recreational meanings; some also alluded to psychological associations they attributed to their experiences within parks.

Brenda is 37 and unemployed. She depends on her partner, Shephard, to provide for her. She did not complete secondary school. She has been heavily dependent on alcohol for some time. Her abuse of alcohol has resulted in her being ostracised by her family and church. She is also suffering from deteriorating health. Brenda does, however, have many fond memories of going to the park when she was younger with friends. The park provided her with a place to escape from home. *"When I was younger I had a naughty streak, we would go to the local park, and that's where I was introduced to 'the world of cans'* [alcohol]...... *we had a lot of fun there, I would sneak out, and when I got home, my mother would beat me."*

Unati, another young township resident also shared recreational meanings he attributed to the experiences he had in the park. These included going to the park with friends and smoking tik [10]and playing soccer. "*I am most happy when I am relaxing with my friends, sometimes we chill and smoke tik... I used to love going to or playing soccer at the parks; the park is no longer there; it is now a dumping place. It was good to clear my mind when I went there; it made me not have a groggy body".*

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[10] The South African street name for crystal methamphetamine (UN, 2008)

For others, access to parks provided them with an opportunity to personally reflect and foster a connection with the natural environment. Albert, an older township resident, was born in a rural village. He has lived in urban areas for most of his life. He described parks as being one of the few places that are not badly polluted by litter and "*bad elements*", which include criminals and negative spirits which he believes are strongly present in township areas. He enjoys going to a park to escape from the negativity in the township. For him, they provide him with a place to think and reflect.

4.2.7 Dams

Dams were identified by participants as important places to access nature in both Qonce and Komani. In both study sites, these are situated some distance away from the township. Komani has two dams, Berry dam is located north of the affluent suburbs of Komani, and Bonkolo Dam is located 5 Km outside of Komani. (See Chapter 3 for more details.) Qonce has one dam which is situated 22 km outside of Qonce on a hiking trail. Despite the distances to get to each of these dams, they remain well-used by township residents, particularly on weekends and public holidays. They are used by families and groups of friends as places to meet to socialise, braai and drink together.

Xola, a middle-aged family man who has limited finances, describes the fond memories he has of going to the dam during the holidays, particularly Christmas holidays. He would go there with his family and friends. *"My relatives from the rural areas would come and visit us, and we would all go to the dam to be together and drink."*

4.3 Nature Visitors and Interactions

The above section has given insight into the natural spaces that elicit deeper meanings, providing understandings of the role different urban natures play in the lives of urban residents. This section seeks to provide further insight into “who” is visiting the different types of nature found in urban

area and how frequently. This insight is done by understanding both the interactions residents are having with nature and the demographic profile of nature visitors.

The results show that a higher proportion of residents interviewed are visiting nature (see table 4.4). These visitation rates are proportionally higher than expected (See table 4.2: *Visitation Rates*). While there is an assumption that interactions with and visitation to natural spaces occur as part of rural-urban migration which often sees only annual visitation back to rural areas (Njwambe, Cocks & Vetter, 2019). The data indicates that this is simply not true, this is further reflected in the types of spaces being visited which include spaces present in urban areas and not just rural natural spaces (See table 4.2: *Place visited*). The data also indicates that these connections to nature and the propensity to seek out natural spaces is connected to historical experiences and memories of nature (Table 4.3).

4.3.1 Interactions with Urban Natures

Understanding the interactions residents have with urban nature included examining the current rates of nature visitation and types of places visited. These visitation rates were compared with residents' recollections of previous visitation rates when memories were made in nature.

Table 4.2 Nature Visitation Rates and Places Visited Among Urban Residents

Nature interactions		**N=139**	**%**
Visitation Rates	*Everyday*	*22*	*16*
	Most days	*21*	*15*
	3-4 times a week	*8*	*6*
	Once a week	*42*	*30*
	Monthly	*32*	*23*
	Yearly	*11*	*8*
	Missing	*3*	*2*

(Continues on next page)

Nature interactions		Subcategory	N=139	%
Places visited	*Commonage*		*78*	*50*
		Veld	*11*	*8*
		ihlathi (*Forest*)	*57*	*42*
	River		*14*	*10*
	Park		*20*	*14*
	Village		*11*	*8*
	Dam		*10*	*11*
	Missing		*4*	*3*

The area most visited by urban black residents is the commonage (50%); here over 42% visited the *ihlathi* (Forest) which is located on the commonage. It was found that 14% of the residents visit local parks. Dams and rivers on local commonages were visited in similar proportions by residents: 10% and 11% respectively.

Table 4.2 shows many residents visit natural spaces frequently, at least once a week (30 %), with others even interacting with nature more frequently. Sixty-three percent of participants visiting nature stated that they have vivid memories of being in nature (see Table 4.3).

Table 4.3 Vivid Memories in Nature: Nature Visitors and Non-Nature Visitors

Do you have vivid memories of being in Nature?	Visitors	Non-visitors %
Yes (%)	*63.4*	*30*
No (%)	*1.4*	*4.2*

Figure 4.1 below shows the responses of participants who were asked how frequently they visit nature currently compared to in the past. Aside from the participants who no longer visit nature

due to various hindrances, those who have continued to seek out natural space seem to do so at similar rates as in the past.

Figure 4.1 Nature Visitation Rates by Township Residents in Two Towns

4.3.2 Nature Visitors

Based on the survey (see Appendix A) conducted among 215 participants across two study sites, the results categorised nature visitors according to demographic variables. The demographics of nature visitors included the gender, age, area of origin, education and the subjective economic status of respondents

Table 4.4 Who is Visiting Nature: Nature Visitors and Non-Visitors Demographics

Attribute	**Class**	**Visitors**	**Non-visitors**	**Stats**
All respondents		*65.0*	*35.0*	
Gender (%)	*Female*	*52.6*	*50.7*	$\chi^2 = 0.08; p = 0.78$
	Male	*47.4*	*49.3*	
Childhood (%)	*Township*	*64.7*	*64.0*	$\chi^2 = 0.02; p = 0.88$
	Rural	*35.3*	*36.0*	
Age (mean $\pm$SD; yr)		*41.6 $\pm$ 16.8*	*42.4 $\pm$ 17.9*	$t = 0.32; p = 0.75$
Education level (%)	*None*	*3.0*	*8.0*	$\chi^2 = 44.5; p<0.0001$
	Primary School	*13.5*	*16.0*	
	Incomplete secondary School	*30.8*	*33.3*	
	Matric Diploma	*31.6*	*36.0*	
	College	*16.5*	*4.0*	
	University Degree	*4.5*	*2.7*	
SES (%) (Socio-Economic Status)	*Wealthy*	*0*	*1.3*	$\chi^2 = 11.8; p = 0.048$
	Very comfortable	*3.2*	*2.7*	
	Comfortable	*10.5*	*12.0*	
	Getting along	*52.6*	*49.3*	
	Poor	*16.5*	*26.7*	
	Very poor	*16.5*	*8.0*	

Table 4.4 shows that there is no significant difference between nature visitors and non-visitors in terms of gender or age. It was revealed that the mean age for residents to visit nature was 41.6 years of age. There is a significant difference with regards to education levels, with participants who visit nature being slightly more educated than non-visitors. The education level most residents held was either an incomplete secondary school qualification and matric certificate (30.8% and

31.6 % respectively) for the majority of nature users and visitors. However 16.5 % of nature visitors had a college degree which is notably more than residents not visiting nature.

There is also a significant difference in terms of SES (Socio-economic status), with non-nature visitors being slightly wealthier; however, this difference is very small. The majority of nature visitors ranked their socio-economic status (SES) as just getting along (52.6%) to poor or very poor (33%). Those who felt that they were "doing well" financially, i.e. (Respondents who selected the Comfortable or comfortable but with no luxuries option) made up only 12% of nature visitors (Table 4.4). Residents born in urban areas made up 64% of those who visited natural spaces, accounting for proportionally more than those who originated from villages or farms (Rural areas) (35%).

4.3 Discussion

Many associations and meanings are attributed to urban natures by black township residents. Cultural, spiritual and recreational associations and meanings were found to be the most important of these associations. Most of these associations and meanings are informed by a particular cultural context, and hence such associations and meanings are only attributed to certain urban natures and not others. These connections with natural areas invoke memories and feelings associated with culture and are enduring despite the limitations of the types of urban nature available. Natures such as the *ihlathi* are important for experiences with ancestral spirits.

Parks and dams, on the other hand, are not associated with cultural understandings and are less frequented. Many respondents also complained of the high levels of pollution found in each which contributed towards them not wanting to visit these green areas. Residents originating from rural areas are visiting nature less and are mostly dissatisfied with the types of urban natures found within township areas.

Cultural associations refer to meanings associated with natural spaces that are embedded in cultural traditions. In many societies, natural elements are perceived as integral for the fulfilment of important cultural practices and connections to ancestral spirits (Posey, 1999). Cultural

associations manifest through ritual and traditional knowledge, values and practices which play out through appreciation of the natural environment (Cocks et al., 2011). Among the respondents, culture was an important motivator in seeking out natural areas. The underpinning cultural context in which connections to natural elements are formed greatly influenced the preferences and values urban residents attributed to nature. For instance, domestic gardens were established to grow plants that residents attached specific meanings. The collection of firewood was considered meaningful as it was used when cultural ceremonies were held. Engagements in such activities provide an appreciation of nature and a preference for particular types of urban nature. Narratives received also revealed strong spiritual associations being made to certain types of natures as has been reported elsewhere (Adedeji, 2018; Cocks et al., 2016; Kamitsis & Francis, 2013). Spirituality is an important dimension of traditional knowledge, informing both perceptions and uses of nature. This dimension is embedded within a biocultural context that views spiritual interactions with nature as deeply meaningful experiences that foster both personal well-being and cultural identity. In which personal expressions of spirituality remain connected to the fulfilment of cultural practices through significant natural spaces or biocultural elements (Posey, 1999).

This chapter also showed that meaningful associations made with urban natures are fostered through positive memories and feelings (Berryman, 2000; Chawla, 1992; Elliott & Davis, 2004). Meanings and associations attributed to urban natures were fostered by activities such as the collection of medicinal plants, harvesting firewood or tending a private garden. These activities were established and motivated through positive memories, and associations passed down from relatives or through personal experiences relating to culture.

Studies investigating the meanings given to urban outdoor environments reinforce these findings, which revealed that urban natures have the potential to be meaningful and important areas in urban residents' lives (Jax et al., 2018; Miller, 2005). Such studies have, to a large extent focused, on the health benefits of natural spaces and prioritised the recreational and aesthetic value of urban nature (De Lacy & Shackleton, 2017; Roy et al., 2012), disregarding other dimensions such as heritage and spiritual values (Andersson, 2006). Parks were also the main focus of this literature, which neglect the role that other types of urban natures played in residents' lives. This focus also relied heavily on the assumption that "traditional" green spaces, like parks and botanical gardens, were

the only important urban natural spaces. My findings show that urban natures to which cultural and spiritual association and meanings are attributed include the *ihlathi* and commonage, gardens and yards and informal areas. The important connections residents have made to significant cultural spaces such as *ihlathi* is further reflected in the commonage as being the most frequented urban natural space. A dominant characteristic of these three places is that they contain indigenous vegetation which is not managed or maintained for "recreational purposes" by local municipal authorities. The important meanings residents attribute to these types of urban greenery are not considered in urban greening literature. For instance, Brenda alluded to spiritual associations fostered in informal spaces, and the potential in these areas to connect with ancestors. Studies that have considered the significance of informal green areas indicate their potential for important positive connections to nature (Pietrzyk-Kaszyńska et al., 2017; Shackleton & Gwedla, 2020; Twedt et al., 2016). This includes places for religious practices (Ngulani and Shackleton, 2019), some of which are considered the most sacred such as initiation rituals (Kepe et al., 2015). The findings of this research indicate that both informal natural spaces and commonage areas are also utilised for biocultural elements such as medicinal plants utilised in important cultural ceremonies. These natural elements derive significance because local knowledge concerning nature is often intertwined with many other dynamic knowledge systems, including social, ancestry and heritage, these intersections of nature and local culture is present among many non-western cultures (Caillon et al., 2017). The natural spaces eliciting the deepest connection and meaning among respondents in this research indicated that the cultural connections fostered in certain natures had significant effects on their mental state. This is because urban natures eliciting the strongest therapeutic effects are those that reflect the cultural and societal values of those interacting with them (Irvine et al., 2013; Wilson, 2003).

Cross's 2015 findings on place illustrate how processes of connection to place are made within a cultural context. She states that personal perceptions, values and experiences have a profound impact on residents' place preferences. Underscoring the role those intangible feelings of spirituality play in forming attachments to place (Cross, 2015; Cross et al., 2011). The cultural associations rooted in nature are, therefore, important when facilitating attachments to places, highlighting that places become meaningful through the experiences and perceptions given to them (Cross, 2015). It is both the physical and the personal that brings meaning to nature (Descola,

2013). For example, the cultural values attached to nature by respondents are shown to be formed through the presence and experience of rural areas. Rural areas are inextricably linked to cultural understandings of nature. Its importance, although underpinned by culture, also stems from the myriad functions it fulfils for residents' daily lives (Dold & Cocks, 2012). As such, urban natures derive their meaning from both rural areas and the functions they fulfil.

In the results, JZ speaks about the important cultural needs that certain natural areas fulfil as "*necessities needed to survive*" referring to both cultural and subsistence necessities. Many activities in nature were found to be multifaceted in their associations, fulfilling physical, social and cultural needs. JZ's negative experiences of paying for wood collection in townships compared to collecting wood himself in rural areas highlights the importance of the processes of collection and points to the importance of not only the physical elements derived from nature but also the experience of fulfilling such processes. These processes derive their importance from cultural knowledge. The activity of firewood collection strengthened connections to ancestral spirits. For example, Mamsukweni's need to harvest firewood, although necessary for subsistence, is directly linked to her cultural interpretations of what the wood-pile represents, namely her identity as a strong Xhosa woman. She describes the ability for such interactions with nature to *"make her soul happy"* which is largely due to the belief that ancestral spirits remain present in untouched green spaces. Many local urban residents attribute deeper meanings to natural spaces. These deeper meanings often go unnoticed by urban policymakers as natural elements are only considered important for the economic functions they fulfil within the household (De Lacy & Shackleton, 2017; Dold & Cocks, 2012). An example of this is that many women moving from a shack to an RDP house recognised an important mental shift that took place, that had little to do with material and economic benefits. For these women having a fenced yard and a stable housing structure meant that important cultural structures could be established. These structures signify dignity, pride and ownership towards the yard space.

The memories made in both rural and urban natures were found to contribute to the meanings that residents attach to urban natural spaces. Both positive and negative memories were found to be vivid and enduring (Carver, 2003). Mamsukwenis' reflections on the memories of gardening with her father, her continued practice of gardening activities as well as collecting firewood throughout

her life is testament to the persistence of making memories in nature. The memories made in rural areas explain why half of the respondents prefer to visit commonage and forest areas. In comparison, only 30% of respondents visit parks and dams and for purely recreational pursuits.

Surprisingly, younger residents between the ages of 18-45, with fewer memories of nature visited nature more than older residents. The in-depth interviews conducted also revealed that participants ranging from 18 years of age to 35 showed a keen interest and deep connection to certain natural spaces. However, the mean age for nature visitors ranged from 41 years of age for women and 43 years for men (Figure 4.2). The usage and connection to nature by young residents suggests that despite misconceptions about young township residents being uninterested in nature, interactions with nature remain an important activity. This is reflected in the consistency of visitation rates among those visiting every day to once a week. This has remained fairly consistent, as reflected by the past and present visitation rates (Figure 4.2). This conflicts with some findings that hypothesise that because globally, children have fewer opportunities and experiences in nature decreased contact and appreciation of the values of nature will occur (Soga & Gaston, 2016). However, Cleary et al., (2018) found that childhood experiences are not strong indicators of connections with nature later in life, as people with no childhood memories of nature were found to connect with and create values concerning nature as well as those with childhood experiences and were no more or less likely to interact with nature regularly. The narratives collected in this study highlighted this. For example, respondents born and raised in township areas displayed deeply spiritual meanings and associations towards rural natures. This is despite having little experience in these areas. This is because of the narratives and stories told about rural areas. In the case of Asanda, the stories told by her father and grandmother and the activities they carry out as a result of these experiences have shaped her perceptions of nature. Mamsukweni learnt how to garden from her father. Despite not going to the village, her activities in the yard are a product of the values learnt and attributed to nature. Kwanele was taught about cultural practices and the importance of the forest through stories told by his uncle. Such participants were most likely to stay connected and committed to visiting and interacting with nature through cultural means because of the practices passed down to them by an important family member. Cross (2015) found that interactional processes of place attachment are formed through the practice of telling cultural stories, which emphasise the cultural meanings of place. This speaks to the significant role that

generational knowledge passed down through narratives plays in connections to rural areas and associations with nature as some urban natures currently limit the types of connections and activities that take place for Black urban residents.

Many urban residents explained how they struggled to attach positive and meaningful associations to natures found in urban areas. This is because the types of nature's found in urban areas did not provide urban residents with places for meaningful associations and attachments to be made (See Chapter 1 for more details on this). Shackleton and Gwedla (2020) have revealed that issues of suitability of urban greenery were pervasive in South Africa as a result of its colonial history. These issues include availability, quality and need. As a result of these limitations, urban greenery does not contribute to a sense of belonging (Njwambe et al., 2019). For example, in King Williams Town, there are four parks less than 200 m from residential township and suburban areas compared to the commonage, which is 600 m. However, those who still had links with rural areas associated more positive associations with natural places found in the rural areas, compared to urban natures available to them. These preferences are largely a result of the lower standard of urban greenery when compared to rural areas. Urban greenery perceptions from several studies in South Africa point to negative feelings about public urban greenery due to poor maintenance and vandalism (Manyani, 2019; Shackleton & Njwaxu, 2021). When compared to rural areas, many urban residents stated a preference for greenery in rural areas (see chapter 5) this is because these areas are deeply connected to Xhosa culture (Dold & Cocks, 2012).

My findings revealed that the narratives pertaining to Xhosa culture and nature enhanced personal memories made in nature and functions associated with rural areas. These elements are what drew respondents to urban nature and were similar to those found in rural areas. Urban natures associated with deeper spiritual associations are those that are closer to the cultural needs of urban residents, i.e. commonages or forests. Despite such culturally embedded perceptions of nature, global perspectives concerning urban biodiversity are limited (Hanspach et al., 2020; Panelli & Tipa, 2007; Stålhammar & Brink, 2020). International research has been critiqued for concerning itself too much with how nature benefits affect human well-being, where the focus should rather be on how these urban greening benefits are manifested (Botzat et al., 2016). Such literature concerning urban greening associations misses the opportunity to explore the importance of the benefits

derived from the cultural underpinnings of nature (Sterling et al., 2017). However, the current degradation of urban natures in township and RDP areas do seem to have a negative effect on the quality of experiences that some nature visitors receive in these spaces. Little is known about the larger implication of these limitations. However, the literature suggests that they are not conducive to the fulfilment of important well-being benefits and place-making (Williams-Bruiders, 2012). Despite these limitations and the assumption that living in urban areas deter visitation (Fuller et al., 2007), 65 % of respondents interviewed still visit nature.

The findings show that currently available urban natures are not fully conducive to the specific cultural and spiritual needs of urban residents. This is because these areas are considered recreational natures that elicit purely recreational associations and many are poorly maintained and neglected. Memories formed in these areas often involved drinking or partying with friends. Brenda's memories of drinking with friends illustrate how recreational activities are void of cultural association in areas like parks that provide a social space away from home life with little deeper meaning. Dams and parks in some cases are easier to access as they are accessible by car or taxi, in the case of parks are often located in the centre of CBD areas or located just outside of suburban areas. These locations are often safer than culturally important areas such as commonages, rivers or forests which are only accessible by foot or donkey cart. As a result, current urban spatial planning in South Africa has not integrated important personal, symbolic and cultural meanings into their planning processes (Puren et al., 2006).

4.4 Conclusion

This chapter offers a general understanding of the meanings attributed to urban nature, highlighting the characteristics present in nature that are conducive to fostering important meanings and associations as well as increased interactions. In particular, it outlines the important cultural associations present in many interactions with urban natural spaces and the persistence of these despite certain hindrances. This chapter has also highlighted how strong cultural associations made to nature can be in motivating urban residents not only to seek out but to adapt to specific natural areas.

Chapter 5

Impilo: The Wellness of Life

5.1 Preface

There are many ways of measuring and quantifying well-being, as outlined in Chapter 1 and 2. These chapters illustrate how well-being and quality of life (QOL) had been extensively studied and understood from a developed world and global north perspective. Such viewpoints have failed to cater to all communities, particularly those living in the global south, where experiences of well-being differ significantly from that of global north understandings (Mathews & Izquierdo, 2008; Panelli & Tipa, 2007; White et al., 2014). As highlighted by Diener and Suh (2003), there are profound differences in what makes people happy (Suh & Koo, 2008). However, more recently, approaches to understanding well-being maintain that there are pancultural features of well-being (Lambert et al., 2020; Tov & Diener, 2009). The elements found to contribute to well-being in almost all cultural groupings were the prevalence of positive effect and a lack of negative effect (Tov & Diener, 2009). These universally comparable elements of well-being include positive human relationships, purpose in life, self-regard and a sense of control over one's life circumstances (Diener & Suh, 2003). However, culture moderates the extent to which these variables influence well-being and their relative ranking (Diener et al., 2003).

It has been well documented that the global north is more individualistic and places a strong emphasis on the important role that income and materialistic needs play in cultivating a strong sense of well-being (Adams & Estrada-Villalta, 2017; Lambert et al., 2020). These perspectives emphasise personal and individual functionality, agency, autonomy and self-actualisation. However, this is not a universal understanding. For instance, among more collectivist-based cultures, the emphasis is placed on relationships with others and their existing environment (Ahuvia, 2002; Geertz, 1984; Suh, 2002). Despite these differences, global well-being indicators continue to focus on financial resources and goal-setting. These indicators centre around the well-being effects that individualised actualisation have on the lives of individuals. There has been little

research into the well-being effects of an individual's larger social community and physical environment (Oishi & Diener, 2009).

As a result, very little is known about well-being in collectivist African contexts (Wissing & Wissing, 2013). Most research concerning collectivist cultures remains limited to East Asian contexts which are generally considered reserved in temperament (Wissing & Wissing, 2013). These discrepancies in experiences of well-being have warranted a call for more understandings of well-being across cultures (Tov & Diener, 2009). To address these discrepancies, subjective well-being (SWB) scores have been developed to provide a tool to understand and quantify both culture-specific and universal factors of well-being. SWB measures well-being through people's self-evaluation of their own lives (both pleasant and unpleasant effects) and their life satisfaction. Most importantly, as Suh et al., (2008) note, these well-being "scores" should be contextualised within the framework of the culture in which the scores are acquired.

This chapter attempts to address these limitations in well-being research, particularly within collectivist culture, by exploring how well-being is conceptualised and experienced by isiXhosa-speaking township residents. This is achieved by exploring an "African-perspective" of well-being, which is understood as a state of *impilo* in isiXhosa (Chapter 1). *Impilo* is recognised as being achieved through a delicate synthesis of healthy relationships with God, one's ancestors, other people and nature (Edwards, 2011), which in turn is recognised as being a part of a collective psyche and communal spirituality (Edwards, 2015; Ngubane, 1977; Oosthuizen, 1989). Such an understanding of *impilo* has largely been collected from traditional and spiritual leaders (Edwards, 2015; Ngubane, 1977; Oosthuizen, 1989). Very few attempts have been made to investigate how *impilo* is understood and experienced by local urban residents in their everyday lives, particularly in relation to urban residents whose access to nature has been altered. In an attempt to address this lack of understanding, 12 participants living in Qonce and Komani were asked to explain how they understood and experienced *impilo*.

The second half of this chapter attempts to contextualise township-dwellers' experience of urban nature and its contribution to the different dimensions of *impilo* as identified by respondents. This is achieved by examining both the narratives from in-depth interviews as well as findings from a

survey that attempted to determine the Personal Wellbeing Index (PWI) scores of urban residents across the two study sites. The PWI measures subjective well-being by asking questions concerning satisfaction, directed at how participants feel about themselves and their living situation (International Wellbeing Group, 2014). While most items on the PWI were deemed important, findings from the qualitative research have highlighted that nature and issues relating to Xhosa cultural identity were also vitally important. Questions were, therefore adapted to the themes that emerged from focus groups and interviews.

5.2 Understandings of *Impilo*

Words used by respondents to describe a state of *impilo* included having a "sense of life", "spiritual peace", "a strong mental and spiritual body", "mental freedom", "happiness" and "a healthy relationship with ancestral spirits. "A "sense of life" was described as being physically and mentally "strong" and spiritually "whole". Being spiritually "whole" was described by some as being able to connect to one's ancestors and maintain a strong, healthy relationship with them. This was achieved by recognising their presence and communicating with them on a regular basis. Their presence was felt in certain places and through dreams.

A sense of life was described by some as being achieved by being in nature. For example, Linda, a 30-year-old resident of Komani, states: *"Impilo is ubumo* [life], *nature gives us life, without the forest or medicinal plants or the food that we grow we would not live".* Others articulated how the ability to experience the tangible and intangible elements of nature contributed to a state of *impilo* for them. For example, Mamsukweni described how being in nature helped her to feel happy: "*my happiness remains connected to nature".*

For others, achieving mental restoration and relieving stress was identified as being achieved within a natural environment. For example, as illustrated by Eunice: "*When I walk to work, the beautiful sounds of the birds make* [me] *relaxed and think of nice things. When I walk with friends I* [also] *feel relaxed".* Others also included how the eating of freshly grown vegetables and using medicinal plants to cure and cleanse their bodies also contributed to a heightened state of *impilo* for them.

A heightened state of *impilo* was also identified as being achieved by being in places where certain activities could only be carried out. Such places included the *ihlathi*, the river or commonage as well as one's garden. For example, Mamsukweni who likes going to the *ihlathi* on the commonage to collect firewood described how the ability to do so was able to make her soul happy (see chapter 4 for more details). Others also mentioned how the possibility to engage in certain activities allowed them to feel connected to a shared sense of cultural identity, which many also associated with an ability to feel connected to one's ancestors. For example, JZ commented: "*if you don't take time to sit in the forest and connect with your ancestors that's when you will go to the mental hospital or simply die."*

Respondents described certain kinds of nature as providing a place to evoke a deeper sense of mental freedom. For example, one young respondent had the following to say about his experiences in nature: *"When I am coming from the township...to be able to walk through nature clears my mind".* Some mentioned how being in nature helped to evoke strong positive memories which they in turn described as also contributing to their state of *impilo*. For example, Lumka, 67, described how being in her garden "*brings* [her] *great joy..., it reminds me of my childhood"*. The ability to evoke positive memories was also described as contributing to a deeper sense of life purpose and meaning.

Engagement in activities was linked to nature, and their ancestors were also described as offering psychological and physical benefits which in turn were interpreted as helping them cope better with the challenging and harsh realities of life. For example, as illustrated by Lumka: *"To grow them* [medicinal plants and vegetables] *means to look after yourself".* This makes her feel *"good"* about herself. Kwanele described how growing his own medicinal plants meant that he did not need to go to the clinic, and this also made him feel positive as he was not reliant on outside care. These experiences in nature were understood as contributing to a sense of agency that many saw as aiding them in overcoming personal hardships and enhancing their ability to deal with the struggles of everyday life. These contributions to well-being include financial savings as well as knowing that they were providing themselves and their family with nutrition and

nourishment. Bra Whitey, a 58-year-old resident, felt that "*Nature is a big part of me….it feeds me and keeps me energetic, without it I would pay to cook my food and buy veg"*.

It is also important to recognise that experiences within nature were identified as having a profound impact on some individuals' lives. This is illustrated by Bonisile: *"Who I am as a Xhosa man is because of nature, if I didn't have my initiation I would not be a man, I still go there* [forest]... *even the forest in the township because sometimes it reminds me of my traditional roots".* Dumisa recalls an experience he had while being in prison, which altered his life. Dumisa lived in extreme poverty for most of his life and was sent to prison for attempting to make money through illegal means. "*I was so angry at my situation, and I don't know if I would have changed. One day I looked at the sky and saw birds flying. I saw trees and nature. I wanted to feel that free and happy again. I cried when I saw the birds. I told myself that when I was released, I would never take that for granted... that's how I know nature is important for me [to be happy]"*. His narrative illustrates how the significance of nature and animals in Xhosa culture was able to encourage a positive mental shift.

Many of the interactions within nature are strongly linked to cultural associations and meaning. For example, the presence of certain birds is perceived as being sent a message from one's ancestors. Maintaining a healthy relationship with the ancestors is considered important as they can offer guidance during difficult times and even help secure important resources for one's livelihood, as demonstrated by JZ: "*...it is the forest* [through my ancestors] *that will call you and tell you how to get money*." The associations and experiences expressed by JZ offer feelings of control over one's life and provide a deeper sense of purpose and life. All the above narratives show that the factors relating to *impilo,* both physical and spiritual, tangible and intangible, are what contribute to a generalised sense of well-being.

5.3 Adaptation of PWI Domains to Incorporate Notions of *Impilo*

The previous section illustrated that current well-being measurements do not encapsulate the experiences of all cultures and highlighted a need to model culturally sensitive methodologies. In response to this, some scholars have employed participant-focused, culturally specific conceptions

of well-being. Ingersoll-Dayton et al., (2004) state that by building up definitions and indicators of well-being that are derived from, and meaningful to, the population studied, well-being indicators will be more realistic. The findings from this research provided a meaningful definition of *impilo* that encapsulated how well-being is understood and experienced by Xhosa urban residents. The narratives of respondents clearly show the important role that culture and the natural environment play in contributing to a sense of *impilo*. These narratives show that meanings and associations attributed to engagements in nature are embedded in a particular cultural understanding. This highlights that traditional understandings and measurements of well-being do not fully encapsulate the experiences of Xhosa citizens. The understanding of *impilo* and its domains were incorporated into an adapted version of the PWI.

Traditionally the PWI consists of seven domains (International Wellbeing Group, 2014): feelings about the self, standard of living, physical health, sense of community, being accepted by family and friends, future security and safety. Additional optional items include general life satisfaction and spirituality (International Wellbeing Group, 2014). The question regarding future security was omitted. This question was deemed unimportant to respondents as it spoke to individualistic values of personal goal-setting and monetary assets (Adams & Estrada-Villalta, 2017; Diener & Oishi, 2000; Kleinman, 1978; Triandis, 1989). Section 6.1 revealed that such domains do not reflect collectivist values. Collectivist cultures tend to prioritise relationships with the wider environment and its impact on the collective well-being of society (Panelli & Tipa, 2007). As a result, the question regarding future security was replaced with a question regarding satisfaction with access to natural space. Two additional domains regarding general life satisfaction and spirituality were incorporated into the questionnaire. The item addressing spirituality was included as a permanent domain and adapted to: "How satisfied are you with your engagement in traditional practices?" This was because traditional practices were a strong indicator of spiritual engagement. Practices and limitations to traditional practices were directly linked to connections with deeper spiritual entities (see Chapter 4). The general life satisfaction question: "Thinking about your life and personal circumstances, how satisfied are you with your life as a whole?" is not a part of the PWI and is added to test its construct validity (International Wellbeing Group, 2014). The seven or eight domains can either be summed to yield an average score which represents "Subjective Well-being" or the item scores can be used at the level of individual domains. The data is converted to a standard

form rated on a 0-100-point scale (International Wellbeing Group, 2014). This section evaluates how the local context of Qonce and Komani and the urban nature found within the two towns influences residents' ability to achieve a sense of *impilo*.

5.3.1 Domains of *Impilo*

The well-being scores collected from the urban residents surveyed revealed that their average well-being score was 66. The mean well-being scores of the respondents were 4 points lower than the normative range for western means (see Table 5.1). This range is between 70-80 points (International Wellbeing Group, 2014). This is in line with statistics from the Organisation for Economic Cooperation and Development (OECD) which found that well-being is lower in areas with lower GDP because current well-being measures are positively related to income and economic development (OECD, 2011). As a result, developed societies offer better ways of improving QOL through environmental and social conditions (Hoxhaj & Hysa, 2015).

The lowest rates of well-being were recorded for domains that are not included within global well-being measurements. These domains were specific to urban residents within this study and related to culturally specific notions of *impilo*. Each of the adapted domains has been highlighted with an asterisk (see Table 5.1).

Table 5.1 Personal Well-being Index (Adapted)

Survey Questions	***Mean N=212***	***±SD***
How satisfied are you with your relationship with your family members?	*8.3*	*1.9*
How satisfied are you with your health?	*7.5*	*2.1*
How satisfied are you with feeling part of a community in your area?	*7.4*	*2.0*
*How satisfied are you with the quality of your local natural environment in Your area? **	*6.5*	*2.0*

(Continues on Next page)

How satisfied are you with your standard of living?	*5.9*	*1.9*
How satisfied are you with how safe you feel in your area?	*5.1*	*2.3*
*How satisfied are you with your engagement in traditional practices? **	*5.0*	*1.8*
Total Well-being "score"	*6.6*	
Thinking about your life and personal circumstances, how satisfied are you with your life as a whole?	*6.4*	*1.9*

A PWI score out of 10 was recorded, residents rated their satisfaction with "quality of your local natural environment in your area" as 6.5 (SD= 2.0). Feelings of dissatisfaction were expressed about the natural environment found on the commonages and municipal dams. Factors identified as contributing to their dissatisfaction included the high level of pollution found on the commonage and at the dam. Lwando described how he no longer goes to the forest because "*even the ihlathi is polluted."* He finds this painful as he considers the *ihlathi* to be a sacred place. The high levels of rubbish found at municipal dams also prevent residents from using these natural environments. Yonela explains *"we can't go there* [dam] *the dam is polluted".* This saddens him as he recalls fond family memories being made when they used to go to the dam. He no longer goes there because of the rubbish *"it's not the same"* place it once was for him.

Further to this, the distance of natural environments also contributed to the dissatisfaction of the respondents. Lawando explains *"we don't have rivers here* [townships]...*well we do, but it is not close to us like in the village, so I don't go".* Linda, an older resident, used to go to the *ihlathi* on the commonage frequently. She now feels the distance is too great for her. She explains: *"nature in the township is too far... I am too old to walk to the ihlathi now".* Similar sentiments were shared by Eunice. Eunice works full-time to support her family. She would like to go to the commonage more regularly, but she finds it difficult to do so. *"*[In] t*he township it is difficult* [when it comes

to visiting nature]. *It is far to walk. I am working, and it is hard. I walk past informal areas* [which have some nature], *but it never* [feels] *like the forest"*.

The high levels of crime experienced in the township have also contributed to some residents' dissatisfaction as they fear becoming a victim of crime when venturing into the commonage to collect plants or to simply be in nature. This is reflected in respondents' low PWI satisfaction score of 5.1 (SD =2.3) when asked: "*How satisfied are you with how safe you feel in your area?"*. Eunice said: "*It is not safe there* [in the forest] *you can get attacked*". Xoliswa, a middle-aged resident, alluded to the important role that going to nature used to play in her life, "*It* [used to] *make me so happy to collect wood in the commonage outside my house. My son was attacked there* [commonage] *last week for his cell phone. I am fearful of going there alone now".* As a result of this, she fears going to the commonage to collect firewood. This was an activity which brought her a sense of peace as she enjoyed being in the *ihlathi*. *"It doesn't feel good to be scared while you do the things you love"*. The constant state of fear of crime was described by some as resulting in feeling *"your body is* [always] *stressed"*. Feelings of fear mean that children are often deterred from interacting with nature by their parents and guardians: *"We can't go there* [forest and commonage], *because of crime...children just go missing, that's why people keep their children inside and lock the gate"*.

The high levels of crime and pollution have also limited many urban residents' ability to fulfil important cultural ceremonies as they can no longer access the commonage as regularly as they would like. These limitations have contributed to the low levels of satisfaction with engagement in traditional practices among participants (PWI=5 SD= 1,8). This was a culturally specific domain found to contribute significantly to the well-being of residents. Both Chapter 4 and Section 6.2.1 highlighted its important role in notions of *impilo*. Eunice explains *"nature there in the forest* [in the township] *is not right so you must buy all the things you need* [for traditional ceremonies]*"*. Many also felt that the degraded condition of the commonage meant that they could no longer find the resources that they needed. Some residents also expressed concerns about the feelings of unease or feeling *"not right"* which they associated with the inability to maintain their spiritual health. For example, some residents felt that their ancestors were *"not happy...because of the bad*

things in the township", others even felt that their ancestors were not present in the township. The lack of ability to feel their presence and communicate with them resulted in not feeling "*right*".

Many residents also mentioned how the commodification and monetisation of life in the township impacted negatively on their well-being. Linda explains how she used to go to the commonage to collect firewood for her family. She used to find this activity *"peaceful*". She is no longer able to go to the commonage because she feels too old and she doesn't have enough money for the taxi fare to take her there. Such inabilities have evoked a sense of helplessness among residents who are struggling financially, as many felt that a sense of their agency had also been taken away from them. Nonutanto explains, *"I was taught to look after myself and provide for my family… here* [RDP house in which she lives] *I cannot survive on my own… that's why the township is hard".* Nonutanto explains further: *"I have the knowledge and skills to find and collect firewood to cook for my family; find medicinal plants to help my family when they are sick and grow food for them"*. She finds it difficult to make use of these skills and knowledge she has in the township. "*Here you have to rely on money. The only way that things will be right for you is when you have money. Living in the township means that you must have money all the time."* A PWI score of only 5.9 (SD=1.9) was recorded for "how satisfied are you with your standard of living?" (see Table 5.1).

5.3.2 Impilo and Urban Nature

To gain a deeper understanding of the relationship between urban nature and well-being, the well-being scores of those who visit urban nature and those who don't are compared (Table 5.2). It was found that those visiting nature had an overall lower well-being score than those not visiting nature (p= 6.4 and 7.1, respectively). The domains of well-being that scored low for those currently visiting nature included satisfaction with: personal life achievement, their current standard of living, satisfaction with the quality of local natural environment and feelings of safety. However, Mann-Whitney tests only one of the comparisons was statistically significant, namely for satisfaction with community, for which non-visitors gave a higher rating than visitors. For all other scores, there were no significant differences between users and non-users. It is important to note that both the culturally specific domains of *impilo* (engagement in traditional practices and

satisfaction with the natural environment) have derived normal levels of satisfaction among the respondent group as a whole and both nature visitors and non-nature visitors. Most notably, satisfaction with safety was higher among nature visitors when compared to the scores of non-nature visitors. However, this derived no statistical significance.

Table 5.2 Well-being Scores of Nature Visitors and Non-Nature Visitors

Domains	***Visitors*** (N=138) Mean= 6.4	***Non-Nature Visitors*** (N=76)Mean =71	***Stats***
Life as a whole	*6.4 ± 1.87*	*6.5 ± 2.16*	*Z = 0.50; p = 0.61*
Standard of living	*5.8 ± 1.70*	*6.1 ± 2.14*	*Z = 1.08; p = 0.28*
Health	*7.7 ± 1.99*	*7.1 ± 2.35*	*Z = 1.62; p = 0.11*
Daily activities	*6.5 ± 1.93*	*6.6 ± 2.25*	*Z = 0.52; p = 0.61*
Relationships	*8.2 ± 1.84*	*8.4 ± 2.15*	*Z = 1.15; p = 0.25*
Traditional practices	*7.2 ± 1.98*	*7.7 ± 2.13*	*Z = 1.56; p = 0.18*
Community	*6.9 ± 1.94*	*7.7 ± 2.16*	*Z = 2.84; p= 0.0046*
Safety	*5.9 ± 2.19*	*5.7 ± 2.53*	*Z = 0.04; p = 0.96*
Quality of nature	*5.0 ± 1.85*	*5.2 ± 1.83*	*Z = 1.01; p = 0.31*

The data collected revealed that most urban residents who visited nature in urban areas originated from the township (65%). Only 35% of respondents who identified a rural area as their place of origin visited urban nature (Table 5.3). The reasons for this relate to expectations that residents place on such places. For example, Eunice, a middle-aged resident who was born in a rural village alludes to the expectations she has of nature. *"The nature I want to visit should be beautiful. I am*

used to visiting the forest freely when I am in the village. [The nature at my home] is *where my ancestors and traditions are, it* [nature] *doesn't interest me here* [the township]*"*. Jafanye shared similar sentiments: *"In the village is where you would find them* [ancestors]*, and you can just be yourself."* Such sentiments were not shared by residents who were younger and had been born and grown up in the township. For example, Yonela, a young urbanite who was born and grew up in Komani, shared his feelings about his experiences of urban nature: "*All nature is good… here in the location because I live around here, every day is noisy, every day, it's killing us...so even if you live in the township, the nature you find here is good"*. In contrast to Eunice, Yonela enjoys walking on the commonage as it provides a place for him to escape the busyness of township life. As he states, *"When you are there* [nature]*, you are away from those bad things, everything is quiet, and you can think and sleep nice."* Despite the higher visitation rates and well-being scores among younger residents these were not statistically significantly higher than for older residents.

Table 5.3 Respondents Area of Origin and the Effect this has on Current Nature Visitation Rates, Satisfaction with Current Nature Quality and Subjective Wellbeing

***Area of Origin** (%)*	***Nature Visitors N=133***	***"I am satisfied with the current quality of nature in my area"***	***SWB Score***	***SD***
Township	64.7	*34*	*6.0*	*1.1*
Rural	35.3	*9*	*5.9*	*1.3*
***Age** (%)*	*Visiting Nature N=138*			
18-35	*62*	*17*	*6.1*	*1.6*
36-45	*24*	*4*	*5.9*	*0.7*
46-59	*30*	*4*	*5.7*	*1.2*
60+	*22*	*3*	*6.0*	*1.2*

5.4 Discussion

The sentiments shared by many respondents reveal a complex relationship with nature and the role it plays in enhancing notions of well-being or what isiXhosa speaking residents refer to as *impilo.* My findings show that residents define well-being through a cultural understanding that remains intricately connected to their identity. Many local and indigenous cultures often view their relationship with nature as inseparable from who they are (Cocks et al., 2016; Descola & Palsson, 1996). This is encapsulated by Mamsukweni's explanations of her cultural identity, which is defined by the activities and practices she carries out in nature. These practices contributed to a heightened sense of well-being for her. For others, a sense of well-being was achieved by maintaining spiritual and physical health. This was deemed possible by maintaining a healthy relationship with one's ancestors. Such relationships were integral to feelings of happiness and mental freedom. The personal reflections that were given by residents also revealed how cultural associations with natural resources and elements are vital for the maintenance of *impilo*.. The inclusion of socio-cultural and environmental dimensions to measure well-being therefore provide a more culturally appropriate framework to well-being that highlights the diversity of other cultural understandings of mental health.

Notions of *impilo* were evoked or enhanced through interactions with certain types of nature as well as through the usage of certain natural resources and the cultivation of plants which are informed by a cultural understanding. The ability to actively enhance one's sense of life was also described as positively contributing to well-being This ability fostered feelings of agency, autonomy and empowerment. This understanding of *impilo* provided a deeper insight into the variability of well-being and highlighted the subjectivity of well-being domains across cultures. This unique construction of well-being is found in other local and indigenous cultures across the world. Among Peruvian Amazonians' well-being is constructed as a balance of various domains of life which include connection to their tribe, their spiritual lives and the physical environment (Izquierdo, 2005). In New Zealand Maori indigenous populations well-being are linked to their culture and practices occurring within natural environments (Panelli and Tipa., 2007). The narratives exploring *impilo* have illustrated the experiences of respondents and elements that play a significant role in their happiness. This provided a deeper context in which to understand the

findings of the well-being survey. For instance, the reference to *impilo* and its inherent connection to nature as *"giving life"* highlighted how important nature is in maintaining a sense of *impilo* despite the fact that this domain was not originally included in the PWI. The addition of new domains that are representative of the people it attempts to understand is imperative to determining if well-being measurements accurately align with how communities view themselves and their well-being (Lambert et al., 2020).

The quantitative findings revealed that well-being for all respondents was lower than the global average. There was a clear distinction between the well-being scores of questions in standard well-being domains and culturally specific ones that were added in relation to the domains of *impilo*. For instance, satisfaction with traditional practices and the natural environment was significantly lower among the general respondent group and nature and non-nature visitors. The narratives show that this is largely due to dissatisfaction with the quality of the local natural environment, not only in terms of the physical pollution of the area but also because of the limitations these spaces imposed when attempting to connect with important cultural elements and practices. For example gardens on RDP plots show limited attempts to incorporate important cultural artefacts or provisions for such elements as gardens are often too small or arid. RDP areas also have limited street trees to foster nature appreciation (Shackleton & Gwedla, 2020). As a result, well-being scores were higher among respondents not currently visiting nature compared to those who do.

The differences in satisfaction with the natural environment according to age can be explained by shifting baseline syndrome (SBS). Soga and Gaston (2018) state that younger populations have fewer opportunities and interactions with nature or what Botzat et al. (2016) term "extinction of experience". This negatively affects people's engagements in biodiversity and has altered younger people's expectations of what kinds of natures are considered desirable (Raudsepp-Hearne et al., 2010). Within the context of this study, younger residents are visiting more urban nature as these environments are familiar to them. This is due to their limited experience of nature and what they consider to be normal (Soga & Gaston, 2016). Yonela's' contentment with nature in the township is a prime example of this. Growing up in the township, for him any kind of escape from the busyness of urban living is considered beneficial to his well-being. Considerations of cultural

applicability are not as stringent as older, more traditional residents. This means that younger residents' perceive nature and its cultural associations differently compared to older residents.

The results also revealed that older residents often make comparisons between the type of nature they grew up with compared with the nature found in township areas. Younger residents described how being in nature in the township helped contribute to their experiences of mental freedom, whereas older residents experienced nature negatively in urban areas. Many stated that nature in urban areas is *"not the same"*. This is because the environmental values of people living in rural areas differ significantly from those living in urban contexts (Nordlund et al., 2017). These values make adapting to township natural spaces challenging. Mulcahy and Kollamparambil (2016) reflected such sentiments when their study explored rural-urban migration in South Africa and the impact it had on the well-being of migrant residents. The study found that migrant well-being scores dropped by 8%. Connections to cultural elements and ancestors are difficult to foster in urban areas due to current perceptions of pollution within township areas, in many cases, negatively impacting residents well-being (Adegun, 2018). This degradation of township areas has resulted in the feeling that urban natures quality and the types of nature found within the township are *"not dignified*" for the fulfilment of important cultural activities.

This degradation of urban townships has limited the cultural applicability of natural spaces available to urban residents. This is expressed through biophysical elements, such as tree species and the planning styles of public nature, most of which reflect colonial legacies of South Africa (Shackleton & Gwedla, 2020). This inability for natural space to meet the diversity of cultural needs of black urban residents limits ownership and attachment to place (Makakavhule & Landman, 2020). As such Xhosa residents, while having a strong appreciation for nature find they are unable to foster sufficient well-being benefits from all urban natures.

5.5 Conclusion

Well-being for many isiXhosa speaking urban residents is enhanced by having access to particular types of natures that are informed by local understandings and meanings. Current understanding of well-being prioritises individual actualisation with little emphasis on how being part of a

particular culture and access to nature may have contributed to a sense of well-being. This points to a consistent prioritisation of western values that are manifested in the limited attention given to cultural attachments to nature and the intangible values associated with them. Many studies continue to challenge and critique these limitations and applications of cultural understandings within the area of urban nature (Botzat et al., 2016; Chan et al., 2012; Haase et al., 2014). Despite this, current literature in both the areas of well-being, quality of life studies, and urban planning have limited understandings from different cultures perspectives. To date, limited research exists that seeks to understand the cultural values that residents from different cultural contexts may have towards nature. This absence is reflected in how the current constructs of urban nature fail to contribute to well-being needs that many residents living in townships have. These insights have contributed to a deeper understanding of the role that culture plays in the lives of the residents interviewed and how current well-being indicators fail to capture the experiences of urban residents.

Chapter 6

Conclusions

6.1 Chapter Overview

This chapter contextualises the findings of this research within a broader research and development nexus. The research results have been summarised into three core research propositions which are explored in this chapter to synthesise and contextualise the research. The first proposition summarises findings from theoretical Chapters 1 and 2. The succeeding two propositions iterate the results of this research, which include: the types of associations urban dwellers give to urban nature and the role culture plays in these associations (proposition 2) and how well-being is conceptualised by Xhosa speaking residents living in the towns of Qonce (King William's Town) and Komani (Queenstown) and how interactions within nature are perceived as enhancing notions of well-being (proposition 3). This is followed by a section exploring the broader implications of the research and recommendations for better interventions. Finally, the identification of research gaps and recommendations for further research exploration is given. A reflection on the value of the chosen methodological approach used in this study is also presented, which highlights the successes and hindrances experienced. These reflections are provided to challenge and evaluate how my personal biases intersected the application of the research methodology chosen. It also considered how this influenced the overall research and its presentation.

6.2 Propositions

6.2.1 Proposition 1: Urban natures within South Africa continue to perpetuate colonial and Apartheid histories, these histories are reinforced by the Eurocentric dominance of concepts and understandings

Chapter 1 examined the way urban natures have and continue to be dominated by Eurocentric understandings, despite the abolition of Apartheid in 1994. Chapter 3 revealed how the disparities perpetuated by colonial and Apartheid histories are still present in urban natures to this day and

has effected the location, planning and implementation of urban natures largely along racial lines. It found that parks and botanical gardens were consistently located much closer to affluent and previously white-dominated suburbs compared to township areas. This disparity also reflected the inequity between the quality of urban natures situated between the two regions. Townships showed dominance in wasteland and informal green spaces and significantly less formal urban natures, such as parks or botanical gardens. These results are not surprising, considering that townships are regularly planned and implemented on the outskirts of South African towns and cities (Horn, 2019). Previously white suburban areas were likely to be located closer to the CBD and had a higher proportion of natural recreational spaces such as botanical gardens, and tree-lined streets. South African research has concluded that residents living in towns in former homeland areas are exposed to a lower quality of nature than non-homeland areas or wealthier parts of towns and that these natures were often situated further away (Shackleton & Gwedla, 2020). This research has revealed that not only are residents in township areas exposed to fewer opportunities to connect with nature but that the spaces available are of lower quality.

The perpetuation of South Africa's painful political past was made even more apparent through the findings of this research which revealed that there are memorials which continue to commemorate and romanticise the colonial struggle in public urban natures, in some cases, these memorials take precedence with regards to maintenance and location over memorials commemorating the Apartheid struggle. One specific study found that painful colonial histories dominate memorial sites in Africa (Ndletyana & Webb, 2017). This shows that urban natures symbolise South Africa's colonial legacy in many ways (Gwedla & Shackleton, 2017; McConnachie & Shackleton, 2010; Venter et al., 2020). Findings from this study have revealed differences in the quality of the locations where each of these histories are displayed. For example, the war memorial in Qonce was well kept and maintained, whereas the Cattle-Killing Memorial, was badly degraded and difficult to access (see Chapter 3). As a result, South Africa's Apartheid and colonial memorials remain powerful vehicles of ideology that continue to immortalise harmful symbols of ownership and segregation for many (Vivan, 2017).

Further to this, it was possible to observe how these colonial influences have hegemonised natural public spaces, more specifically the types of biodiversity found in botanical gardens, public

gardens and street trees on road verges. Much of the local research examining South African biodiversity has concluded that alien plant species dominate South African urban natures (Grove, 1987; Kuruneri-Chitepo & Shackleton, 2011; Shackleton & Gwedla, 2020; Zengeya et al., 2020). These findings are not surprising considering that chapter 3 showed how alien plant species, many brought over by the English during the colonial era dominate public parks.

Proposition 1 has provided clarity to the third research question “Are there enabling or hindering factors to accessing urban natural spaces? If so, what are they and how can they be resolved or enhanced?” By showing that there remains a continued presence and often domination of colonial and Apartheid elements within urban natures in South Africa, which in many ways hinders visitation and access to these spaces. This presence is a result of not only South Africa's divisive political history but has endured because western values and Euro-American experiences continue to hold considerable influence within the broader global context. This influence affects many developing countries and more specifically, African cities (Ernstson et al., 2014). Chapter 2 illustrates this clearly by showing the extent to which many of the values, conceptual tools, statistics and indices used to plan cities remains embedded in a Global North narrative. Resolutions and enhancements to accessing these urban natural spaces are given in section 6.3.

6.2.2 Proposition 2: Associations and meanings given to urban nature by urban residents are informed by cultural contexts and constructs

Discourses around the use of urban natures have been dominated by recreational use (Gerstenberg & Hofmann, 2016; Lee & Maheswaran, 2011) as highlighted in Chapter 2. However, there are many intangible meanings that residents give to various sites that are personal and symbolic (Puren et al., 2006). This research has shown that the meanings given to particular aspects of urban nature by many isiXhosa urban residents are strongly associated with a particular cultural understanding and context. Highlighting that people's perceptions of the world are grounded within their cultural background (Voigt & Wurster, 2015). These cultural understandings remain present in natural spaces among Xhosa residents, even in urban areas (Cocks et al., 2016; Cocks et al., 2020).

A survey on the meanings and experiences of nature was conducted to answer the first research question “What associations and meanings do urban residents attach to urban nature?” Particularly that of isiXhosa speaking residents. The strongest types of meanings that urban dwellers attributed to urban nature were cultural and spiritual meanings, 94% for both, higher than recreational associations (90%) and social meanings (55%) of the respondents. Utilitarian associations were also attributed to urban natures; although not included in the survey, these associations were mentioned continuously within the focus groups and in-depth interview discussions. Chapter 5 revealed that these various meanings and associations were not given to all types of nature’s found in urban areas. The areas that were considered meaningful to urban residents included rural homesteads, *ihlathi* , commonages, domestic gardens and yards, informal natural spaces, parks and dams.

A significant portion of urban residents attributed meaning to nature in rural areas. For example, rural nature for many was considered to hold strong spiritual value. Many urban residents could recall memories of times they had spent growing up in and or visiting nature when they returned to their family homes in rural areas. This is a result of the role that natural environments have played in the lives of many isiXhosa speaking residents lives by providing access to sacred places such as the forest and the river and important resources such as fuel-wood, food plants and medicines (Dold & Cocks, 2012). Chapter 5 reveals that nature in the rural areas is idealised and that residents attempt to seek out natures in urban settings that mirror their likeness.

The majority of visits residents make to nature in urban areas included visits to commonage, of which 90% were to *ihlathi* (The forest) on the commonage. These findings demonstrate that the commonage is not only used for subsistence purposes and to supplement household incomes (Anderson & Pienaar, 2003; Davenport et al., 2011; Ingle, 2006), but also provides a place for many to connect spiritually with nature. These results clearly show that commonage land is not restricted to solely subsistence and utilitarian functions but plays an essential role in fulfilling deep cultural and spiritual needs for urban residents. These needs vary from the collection of physical natural elements such as medicinal plants for traditional practices to significant rites of passage such as initiation. These functions serve as both an important transition between life phases and the reinforcement of important values and meanings held towards personal cultural views.

Domestic gardens and yards also accounted for some of the meanings attributed to nature. For example, domestic gardens were described as providing the space to grow plants that many urban residents found meaningful. Plants selected to grow included those that respondents had grown in their rural homesteads or watched their parents cultivate as a child (Chapter 4). Respondents perceived yards as providing the space to emplace cultural structures made out of natural resources that they could attach meaning to. Gardens hold much significance in the way residents express their culture, which is often reflected through elements such as the design and plant species chosen (Davoren et al., 2016). Residents also described the natures found in their gardens as being more readily accessible compared to the natures found on the commonage or the forest. Residents described a fear of crime and long walking distances as preventing them from visiting nature such as parks or public gardens which were often located in the centre of town (Chapter 5).

Gardens and yards also symbolised a place of togetherness for many, particularly in relation to feeling a part of the community building. The opportunities urban spaces provide are often closely linked to social connection and a sense of community (Botzat et al., 2016; Peters et al., 2010). This research has shown that within urban areas, gardens and yards are used to host traditional ceremonies, which is not unlike the practices that occur within the rural homesteads of Xhosa peoples (Dold & Cocks, 2012). Gardens and yards are, therefore, important spaces that provide opportunities to celebrate shared experiences of culture. These experiences, therefore, encouraged prosocial and recreational behaviours.

Urban residents also described nature found in informal areas as eliciting meaning. For example, some alluded to how they found it possible to connect to their ancestors within the nature found in informal areas, while others described finding solace while visiting such places (Chapter 4). Such examples provide evidence of the significant role that informal natural spaces play in residents' lives and their connection to Xhosa culture, especially when compared to formal natural spaces where deeper meanings and cultural associations are poorly fostered. These results show that opportunities to elicit spiritual connection in nature are vitally important to residents well-being and have adapted to all kinds of spaces to suit these needs.

The results from the survey and narratives from the in-depth interviews demonstrated the important role culture and memories of cultural experiences play in the lives of most urban residents. Answering the second research question of this study "Do such associations and meanings contribute to notions of well-being and place attachment within the urban context?" The results clearly illustrate how past experiences and associations to nature shape many urban residents' sense of identity and place attachment, in many cases enhancing their sense of well-being (proposition 3 gives an in-depth account of the ways these associations enhance notions of wellbeing). The research demonstrates that experiences of such are significant in childhood and adult life. Due to the emotions tied to such memories, the meanings attached are persistent and enduring. These memories included helping their parents cultivate a medicinal plant garden as a young child and also served as a memory of being given cultural knowledge. Authors such as Cross (2015) and Harrington and Sullivan (2008) have described how interactions with particular spaces are culturally informed. For many of the men interviewed in this study, their coming of age ceremony in the *ihlathi* represented a significant memory of being in nature for them and a time that connected them to their cultural roots. Other memories of being in nature included attending traditional ceremonies during which time some were shown by elders how to carry out particular activities performed during the ceremonies. Attachments to nature are created through interactions with nature and carried through the memories that are created from such interactions. These attachments, as described by Stedman (2003), can form an integral part of residents' sense of identity and sense belonging to a particular place. This research highlights that interactions with a specific area do not occur in a vacuum, but are cultivated through ritual, tradition and symbols.

6.2.3 Proposition 3: Nature is identified as an important contributor to notions of well-being (Impilo)

The findings from this study indicated that interactions with nature enhance residents' well-being. However, well-being was only found to be enhanced when understood from the perspective of *"impilo".* Within such a context, particular types of experiences within nature are considered as contributing to notions of *impilo* (Chapter 5).

Understandings of *impilo* gleaned through the in-depth interviews were multifaceted and was described as being achieved by having fulfilling relationships within one's community, the natural environment and spiritual entities. This perspective of well-being is not unlike those experienced in other local and indigenous communities that are viewed as "collectivist" cultures (Wissing & Wissing, 2013). For example, amongst Maori communities, notions of well-being are reliant on positive environment-culture relations. Interaction on Maori tribal land even for Maoris living in urban centres is seen as imperative to their spiritual life and well-being that maintains their connection with their cultural belonging (Panelli & Tipa, 2007). Within such perspectives, environment-cultural relations often form a crucial component for positive experiences within nature; for respondents in this study, these experiences were particular in carrying out activities relating to their culture. This included performing certain cultural practices, cultivating medicinal plants that contributed to a healthy body and mind as well as harvesting natural resources that could be used for cultural and spiritual purposes. The collection of the latter was perceived as contributing to the cultural identity of being umXhosa which many described as enhancing their well-being.

The survey was informed by the narratives collected through the in-depth interviews. The results revealed a clear distinction between the well-being scores of questions from the standard well-being domains and culturally specific ones that were added in accordance with the understanding of *impilo*. For instance, low levels of satisfaction were recorded among respondents with regards to their ability to involve themselves in traditional practices in their urban environment as well as with the quality of their local natural environment. These findings indicated that current subjective well-being measurements had missed potentially important indicators when measuring levels of well-being amongst residents whose well-being is met through the fulfilment of other domains. These findings speak to the need that transferring elements of well-being (like autonomy or happiness) from one culture to another culture poses a risk of serious misrepresentation. These misunderstandings have been raised by Christopher (1999), who critiqued researchers' attempts to create a "culturally free" measurement of well-being, stating that well-being is embedded in culturally prescribed domains that are simply clustering of cultural values and assumptions. However, it should be noted that research regarding well-being has over recent years become increasingly mindful of the role that culture plays. While some studies continue to utilize

traditional well-being tools, the usage of well-being index's on diverse cultural groups have continued to add diversity to the global data around well-being experiences (Stern & Seifert, 2017; Taylor, Hahs & Hochul, 2018). Other studies have used similar approach's to this study by triangulating in-depth research findings with quantitative results in order to portray the nuances experiences of wellbeing among various cultures (Tay et al., 2019). As such there is increasing literature around the world that shows a concerted attempt to understand the nuanced experiences and diversity of meaning with regard to well-being in other cultures (Uhlmann, Lin, & Ross, 2018; Verchuuren et al., 2014).

The well-being scores of the Xhosa speaking residents of Qonce and Komani were lower than the global average. Further to this, residents visiting nature in urban areas in both study sites exhibited lower well-being scores. Within such a context the narratives collected explain that those who do visit nature are dissatisfied with the poor quality of the urban natures found in the areas they lived (Chapter 5), as well as the types of urban nature (Chapter 4). Adegun (2018) corroborates this through findings from informal settlements in South Africa, concluding that the high degradation of essential ecosystem services and negative perception of these areas, negatively impacted residents' well-being. In answering research question four "How does the current township context affect urban dwellers well-being and place attachment?". To surmise, the quality and types of urban natural spaces available to residents have an impact on their well-being both negatively and positively, the above shows that the embeddedness' of culture in nature, does effect place attachment however, with a lack of cultural inclusion in nature significantly effects the depth of attachments made to some urban natures.

6.3 Implications of Research Findings

The current experiences that urban township residents have of urban nature within Qonce and Komani have important implications for their well-being and quality of life. Key recommendations and implications of this study are described below.

6.3.1 The inclusion of culture in well-being domains

This study has shown that culture plays a vital role in the maintenance of well-being and has a significant impact on the domains of well-being that are important for many Xhosa speaking residents. Through such findings, this study has further highlighted that little acknowledgement has been given in South Africa to how activities performed in nature and resources collected from nature fulfil intangible needs relating to cultural identity.

To improve how well-being is enhanced through experiences of urban natures, clearer and more in-depth understandings of well-being in different cultural groups are needed (Lambert et al., 2020). This can be achieved by adopting the approach used in this study which first attempted to understand how well-being is conceptualised within the cultural group studied. This was followed by developing an understanding of the types of activities and experiences that contributed to enhancing notions of well-being. Further to this, the well-being survey implemented within the study attempted to capture these notions by including domains that were inclusive of these experiences. Such an inclusion allowed the study to determine the impact such scores had on their overall levels of satisfaction.

It is evident from these results that well-being within the study context is experienced in vastly different ways than western societies (Lambert et al., 2020). In this research well-being associations linked to nature indicated that the cultural benefits experienced from such interactions were strong motivators to interact with nature. However, Panelli and Tipa, (2007) warn that documenting variation in experiences of well-being is insufficient on its own and that researchers need to recognise the implications of cultural variation for research design and methods. Therefore, it is proposed that a deeper understanding of well-being within different cultural contexts is needed. These insights need to be included in the way well-being is conceptualised and measured. In the South African context, further well-being research is also needed to understand the effect that painful colonial histories and political segregation have on how well-being is understood and fulfilled. These understandings have the potential to address some of the effects that many decades of marginalisation of black cultures have had on local communities well-being. Meskell and

Scheermeyer (2008) point out that this kind of recognition can serve as a form of therapeutic upliftment to communities that have been previously marginalised.

6.3.2 Designing urban spaces beyond the colonial lens

The planning and design of urban natural spaces in South African townships have important implications for the well-being of urban dwellers. At a local level, municipal managers, urban planners and designers need to be cognizant of the various meanings and needs that urban residents have of nature in urban areas. Such insight can assist in determining the different types of urban nature that are needed at the local, town and city level. By providing access to urban natures that are appropriate, urban natures can also assist in facilitating notions of place-making, belonging and well-being. For example, Geek and Vietnamese migrants in Sydney see the importance in the inclusion of trees that were symbolic to their homelands in public gardens. Since these interventions, the gardens have seen an increase in the frequency in their use and fostered a sense of belonging among these migrants towards their new urban environment (Graham & Connell, 2006). Similarly, Wang et al. (2019) studied urban natures and residents' interactions with these spaces in Helsinki Finland and found that parks displaying traditional, well-designed structures were considered "Emotionally empty". In comparison, residents claimed to be deeply bonded to local urban forests, and necessary for their well-being.

Urban natures need to be planned with the goal of spatial and cultural equity in mind. This includes an acknowledgement that urban natures specifically memorials need to go beyond the facade of social justice (Meskell & Scheermeyer, 2008); instead, attempts should be made to provide residents with natural spaces that provide equitable access as a basic human right (Venter et al., 2020). While still recognising that urban green spaces should include elements that are mindful of the ever-changing and adapting cultures within the South African landscape. Such insights can be acquired through consultative processes with residents that have an input in the formulation of spatial planning proposals in urban areas, something that rarely happens (Shackleton & Njwaxu, 2021).

On a national scale, a deeper understanding of how urban natures are affected by institutionalised racism is needed (Venter et al., 2020). Such understandings can create new perspectives and theories that reconceptualise the design and implementation of natures within African cities (Ernstson et al., 2014).

6.3.3 Managing and minimising the hindrances residents experience from existing urban nature

This study has offered concrete insight into both the negative and positive experiences of urban nature by urban residents. For example, it has revealed that experiences of urban natures are negatively affected by the quality of urban nature found within the towns of Qonce and Komani, which have the potential to negatively affect urban resident's well-being (Adegun, 2018). Many grievances were expressed around the amount of litter found within public parks, memorials, gardens, informal green areas and commonages. These grievances are largely a result of poor service delivery and inadequate infrastructure, which disproportionately affect township and RDP areas (Adegun, 2019; Shackleton & Gwedla, 2020). Residents in this study limited visits to urban natures found within their neighbourhoods as they feared becoming victims of crime. A fear that has been reiterated within other South African studies (Manyani, 2019). At the same time, due to the lack of accessibility and availability of urban natures in previously marginalised areas (Adegun, 2019; Anderson et al., 2020). Other respondents felt that the location of some urban nature was too far away from where they lived.

While changes in how urban nature is designed in the future are needed, experiences in current natural spaces can be improved by improving the management of local green areas. This includes more funding for the maintenance and beautification of local parks but also informal green areas, in which a concerted effort should be made to include indigenous plant species. An increase in the maintenance of urban natural spaces will also improve the safety of urban areas as low maintenance of nature is often associated with safety concerns and low visitation rates (Manyani, 2019). An increase in visitor rates will, therefore, not only raise safety perceptions but will make urban natures safer to visit.

The study also revealed that urban residents regularly visit commonages and the important role they play in these resident lives. As a result, there remains a need to focus on better management of local commonages. This should include consistency in local municipal services such as the collection of refuse. This is because refuse and litter were found to contribute significantly to the degradation of commonage areas and the negative perception of these spaces.

Finally, this study has also highlighted how the planning of urban natures should include the community in which it serves. As such, the inclusion of community members in the design and upliftment of local urban natures is an essential strategy that will ultimately create a deeper sense of attachment and ownership towards local natural spaces (Shackleton & Njwaxu, 2021).

6.3.4 Contribution to the literature

This research has made a meaningful contribution to the international discussion of the important role culture plays in urban residents' experiences of nature. This study has highlighted the multiplicity of associations and meanings given to urban natural spaces and how these contribute to urban residents' well-being.

Through these processes of understanding, this research has contributed to well-being literature, giving a more in-depth insight into the relationships between well-being, culture and nature. This study has reinforced the argument that culture cannot simply be considered an interchangeable domain within which we attempt to measure well-being but forms the very core of residents' identity (Christopher, 1999; Wissing & Wissing, 2013). Chapter 5 showed how Xhosa culture informs the domains through which residents derive fulfilment in nature.

The study has also highlighted that the types of urban nature provided is important (Chapter 3). These results have shown that merely supplying access to natural spaces within urban areas is not sufficient (Chapter 5), hindrances when accessing urban natures can negatively impact the well-being of residents accessing these natures. It is therefore suggested that natural spaces need to contain elements that residents find meaningful. Further to this, the opportunity to engage in such places that they find meaningful should be prioritised within urban planning. Gwedla and

Shackleton (2015), report that there needs to be communication between key role players and the larger community so that urban planners can understand the issues pertaining to the provision of urban natures that meet people's needs.

The study has also highlighted the importance of providing residents with space to create their own home gardens and emplace cultural artefacts which they find meaningful. RDP housing plots have provided such opportunities for many urban residents who previously were denied such an opportunity. However, for many, the plot sizes are too small (Haynes et al., 2018).

It is recommended that more research be conducted on culture and nature from a Global South perspective. This is to develop further culturally inclusive literature that can better inform the types of urban natures specific to these areas. Many countries in the Global South have vastly different outlooks on culture and well-being, many of which are vastly different from those in the Global North. This study shows that investigation into the experiences and cultures of communities within the Global South are very valuable and offers insight that varies significantly to the experiences and opinions held by reports from the Global North.

6.4 Reflections on the Study Approach and Research

Due to the embedded nature of the study, the adoption of an ethnographic approach proved invaluable. This approach made it possible to investigate how cultural contexts influence the types of relationships that individuals may have with nature and the meanings that are attached to these spaces. The research approach further revealed the complexity of these meanings, which included spiritual, recreational, social and utilitarian attachments and showed how each was interwoven into the cultural associations' respondents made with nature and the role they played in enhancing and maintaining well-being.

The qualitative and quantitative methods included in the study made it possible to collect rich ethnographic case material as well as quantitative data. The quality of the information collected was further enhanced by the sequence of data collection. For example, the data collected during the qualitative phase added depth to the findings and revealed the motives behind nature visitation

rates through in-depth interviews and focus groups. These insights influenced the type of data collected during the quantitative phase, as it informed the questions asked in the surveys. I was able to determine the extent to which urban natures are visited, the demographics of the visitors, the types of spaces nature visitors preferred, and the well-being scores of urban residents. I could also glean deeper insight and context into why these natural spaces were preferred and the emotional effect that urban natures have on the well-being of its residents.

It is, however, important to acknowledge that the findings of this research are dependent on my observations and interpretations and reiterates that observer bias is almost impossible to eliminate. Despite these apparent limitations the very act of reflexivity proved an important component to the research approach itself because, although ethnographic research speaks to being an objective observer, it should be understood that researchers are humans with inherently subjective stances. This also involves the opportunity to personally reflect on my own beliefs and judgements during the research process. Such reflections highlighted to me that even my reactions to certain incidences and the questions I chose to probe were more than likely tainted by my personal subjectivity as well as the larger context of South Africa in which this research took place.

Reflexivity also influences not only how we interacted with research data but what we do with this knowledge (Johnson & Duberley, 2003). As such the very nature of the research, which involved critically deconstructing the systems in which we understand nature and spiritually was enhanced by the use of Ethnographic research methods. This process of reflexivity not only captured the nuance of the findings but offered many opportunities to reflect on the ways western understandings have influenced the very data and the research we are attempting to collect. For instance the adaption of the domains of the PWI in chapter 5 shows how reflexivity within ethnography facilitates critical reflexivity and influences the measurement tools used in data collection.

The research conducted within this thesis such as in-depth interviews warranted large amount of both personal and academic reflexive examination, although my personal position to the research was well considered deeper reflexivity helped me to consider the wider context of both the research itself as well as the research participants experiences within the research process (Hammond and

Wellington, 2014; Johnson & Duberley, 2003). This process was integral to understanding and clearly defining the research problems. Upon reflection of the overall research I have come to appreciate the importance of rigorous reflexivity in forming the research questions and goals and how they helped to clearly articulate this research project.

Despite this reflexivity, the limitations of this thesis is seen in the adaption of the research to local cultural understandings. As a result the study may lack transferability to a global context as the complex histories and experiences of Xhosa residents are confined to South Africa alone. However, the study does provide a catalyst of indication and criticism of the lack of cultural sensitivity and nuance in well-being and urban ecology research at an international level.

6.5 Conclusion

South Africa has been deeply affected by its political histories that have shaped how urban residents experience urban natures, both physically and emotionally. This study has shown that historical political and spatial segregation has been influential in many areas of urban planning and implementation in South Africa, affecting both the design and use of urban natures.

Key findings of this research reveal that despite assumptions that connections to nature in urban areas are being destroyed through processes of urbanisation (Soga & Gaston, 2018), these connections do exist; however, many of these connections are fostered through cultural ties and traditional associations made to natural space (Cocks et al. 2012; Cocks et al. 2016). In many cases, these associations are fostered through memory making that takes place in either rural areas or older areas of the township. Well-being and place attachment was shown to be positively affected by cultural associations given to nature. However, well-being was significantly impacted due to the various constraints township residents encounter when accessing nature. Similarly, place attachment was also significantly stunted by the various hindrances and poor quality of much of the urban nature. As such, there remains untapped potential to enhance the intangible services that nature provides to improve both physical and spiritual well-being in South Africa.

These findings have further revealed the significant role that nature and culture play in the well-being of local urban residents. Within the broader literature, it has further highlighted the stark differences between how we measure well-being globally and how it is actually experienced within different cultures—revealing the limitations that exist in capturing the well-being domains in all cultural groups—further illustrating that non-western cultures experiences continue to be marginalised specifically in the areas of well-being.

In closing, it is essential to reframe the theoretical perspective through which we attempt to understand the lived experiences of residents in the Global South. This study has attempted to bridge the gap between well-being and nature among local cultural groups. It gives credibility to the importance of continued examination of the human-nature-culture paradigm within the Global South.

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Appendices

Appendix A

Survey 2017

Well-being and Nature: Perceptions and Interactions within Urban Townships

This survey is being conducted as part of a research project with Rhodes University. The survey seeks to understand how urban township dwellers current perceptions and attachment to natural spaces effects their overall well-being. The survey will take about 40 minutes of your time, questions of a personal nature will be asked. You are under no obligation to answer anything you don't want to, but your full co-operation is highly appreciated. All the findings from this survey will remain confidential and anonymous.

Name of Interviewer:		Date of Interview:	
Town:		Location:	
GPS Co-ordinates			

SECTION A
Nature, Well-being and Life Satisfaction:

1. Memories and Nature
In this section we will be trying to understand your personal history with natural spaces and how regularly you visited these spaces.

1.1 Do you visit natural spaces?	Yes		No

1.1.1 If yes, where do you go?

1.1.2 How often do you visit these natural spaces?

1) Every day		2) Most days		3) 3-4 times a week	
4) Once a week		5) Monthly		6) Yearly	

1.1.3 Who do you go with to these places?

1.2 Do you have any vivid memories of being in natural spaces when you were younger?	Yes	No

1.2.1 If yes describe one that comes to mind.								
1.2.2 Do these memories make you miss natural space?			Yes			No		
1.2.3 If yes, what elements do you specifically miss? (Tick more than 1)								
1) The freedom of open space		2) The forest		3) The river		4) Sounds of nature		
5) Having direct access to medicinal plants				6) Other (specify)				
1. How often did you visit these natural spaces? (tick one only)								
1) Every day		2) Most days		3) 3-4 times a week				
4) Once a week		5) Monthly		6) Yearly				

2. Well-being
In this section we are interested in knowing what things add to your current contentment with life and how you currently view your current well-being.

2.1 How do you feel about your life? [Ukwaneliseka]			
Very Content	Content	Neutral	Discontent
2.1.1 What things make you discontent?			
2.1.2 What things make you feel content?			

2.2 Please tell us if you agree or disagree with the following statements					
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I feel good about myself on a regular basis					
I often feel overwhelmed by my living situation					
I am satisfied with my physical health					
I have friends and family that make me feel supported					
I don't feel satisfied with what I am achieving in life					
I don't feel like I am part of a community					
I am satisfied with my involvement in traditional practices					
I feel fulfilled by my daily routine					
I am not satisfied by my standard of living					

3. Traditional and Spiritual Practices		
3.1 Do you acknowledge the presence of the ancestors?	Yes	No
3.2 Do you attend church?	Yes	No

3.3 Please tell us if you agree or disagree with the following statements			
	Strongly Agree	Agree	Neutral
I don't perform or attend traditional ceremonies because it is against my			

religion (If yes, please go to section 4)				
Traditional practices are a fulfilling activity to me				
Money has never been an issue when it comes to holding a traditional ceremony				
I feel closer to my ancestors after a traditional ceremony regardless of where it was held				
Living in a township makes it harder to perform traditional ceremonies				
What the community thinks about my traditional ceremony means a lot to me				
These days traditional ceremonies are places to get alcohol and food				
Traditions are being lost in the township				
I am unable to carry out all the traditional practices I want because it is so expensive				
3.4 How happy are you when you attend a traditional ceremony in the township?	Very Happy	Happy	Neutral	Unhappy

3.5 How happy are you when you attend a traditional ceremony in a village?	Very Happy	Happy	Neutral	Unhappy

3.6 The dignity of traditional ceremonies are being lost when they are performed in the township	Yes	No

3.6.1 If yes, why? (please tick the options that apply)
There is not enough space to have a traditional Kraal
People do not attend the ceremonies in the right attire
Drinks other than Umqombothi are being served
People do not attend ceremonies for the right reasons anymore
There is not enough space to have a dignified slaughtering
I don't earn enough money to properly conduct a traditional ceremony
Other (Please specify)
4. Perceptions of Wellbeing and Nature

4.1 Is nature and natural spaces an important part of your life?	Yes	No

4.2 Please tell us if you agree or disagree with the following statements

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Being in any natural space makes me feel free					
I don't enjoy being in or around any natural places					
I find the sound of nature relaxing eg. Singing birds					

Nature is a part of who I am					
Being in a natural space is a fun recreational activity					
I feel good about myself when I am in nature					

5. Life Satisfaction In this section we are interested in understanding how satisfied you feel with certain aspects of your life.
Could you please indicate how satisfied you feel in your current life situation in relation to the questions asked?
Questions
5.1 Thinking about your life and personal circumstances, how satisfied are you with your life as a whole?
5.2 How satisfied are you with your standard of living?
5.3 How satisfied are you with your health?
5.4 How satisfied are you with the daily activities you carry out?
5.5 How satisfied are you with your relationship with your family members?
5.6 How satisfied are you with your engagement in traditional practices?
5.7 How satisfied are you with feeling part of a community in your area?
5.8 How satisfied are you with how safe you feel in your area?
5.9 How satisfied are you with the quality of your local natural environment in your area?
SECTION B **Perceptions and Priorities of Nature in the Township:**
6. Perceptions of Nature

6.1 How satisfied are you with the quality of natural spaces in your area?	Extremely Satisfied	Satisfied	Neutral	Unsatisfied

6.2 How important is it for you and your family to have quick and easy access to natural spaces?	Extremely Important	Important	Neutral	Unsatisfied

6.3 Having no close and easy access to natural spaces makes me feel? (Tick one or more that comes close to how you feel when you have no access to natural spaces)				
1) I feel frustrated		2) It doesn't affect me		3) I feel isolated from my beliefs
4) I feel happy that I live in an urbanized area		5) I feel depressed		6) I haven't really thought about it
7) It is not applicable to me, I have close easy access to natural spaces		8) Other (Please specify)		

6.4 How important are the following aspects to your current surroundings					
	Very Important	Important	Neutral	Not Important	Extremely Unimportant
A low crime rate in my community					
Having working parks in my area					

The quality of the roads					
The quality of the houses					
Having trees in my road					
Living close to the forest (Ihlati)					
Having easy access to any open natural space					
Living near a tavern					
Having access to recreational centres					
Having a low prevalence of drugs in my area					

7. Barriers in accessing Nature

In this section we are interested in the elements that stop you from physically being in nature or wanting to be in nature

7.1 Please tell us if you agree or disagree with the following statements

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Disagree
My life and daily activities are affected greatly by crime					
Where I live makes it difficult to be in any natural place, because it is too far					
I have never been a victim of or witness to crime while in a natural space					
I don't visit natural places because these places don't interest me					

Crime is the largest reason why I don't visit any natural space					
I don't visit rivers and/or parks because they are polluted					
Street trees are dangerous places for criminals to hide in.					
It does not apply to me, natural spaces are close enough for me to visit everyday					
I don't let my children play in natural places i.e parks because of crime					
I feel safe walking in natural spaces alone					
I feel safe walking in natural spaces with friends					
7.2 Please tell us how safe you feel in the following areas					
	Very safe	Safe	Neutral	Unsafe	Very Unsafe
Township streets					
The forest					
A dam					
By the taxi stop					
In town					
A park					
My home					
In the tavern					
Open Wastelands [Etimini]					

8. **Spiritual, recreational and traditional interactions with nature**					
8.1 Please rate the following statements					
	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
Nature is an important part of my traditions					
If it weren't for traditional practices, I would never visit natural places					
I feel connected to my ancestors when I am in a natural space					
Natural spaces are important to have because it allows me to relax					
If I didn't perform traditional practices, nature and natural spaces would still be important to me					
Nature offers me many fun activities					
I don't like to do anything in natural spaces					
I like to go to natural places to braai and drink with my friends.					

8.2 What places allow you to truly focus and reflect on yourself and what you want from life? (Tick more than 1 that is applicable) [Ukuzibheca- to look in on yourself]			
1) A park [Ipark]		2) My home	
3) The forest [Ihlati]		4) Being in town	
5) Church		6) Walking around the township	
7) Outdoor sports areas [Ibolo]		8) Walking in wastelands [Itapini]	

8.3 What activities help you have a fun and enjoyable time? (Tick more than one that is applicable)					
1) Being outside in natural spaces		2) Visiting the park		3) Going to a tavern	

4) Visiting a friend's house		5) Going to church		6) Being around friends
7) Other (Specify)				

8.4 How important are the following activities to you?					
	Very Important	Important	Neutral	Not Important	Extremely Unimportant
Drinking					
Attending church					
Going to a public braai area					
Relaxing in natural spaces					
Going to my friend's house					
Staying at home and watching TV					
Being in the forest [Ihlati]					
Attending societies or groups					
Attending traditional ceremonies					
Other (Specify)					

9. Demographic Questions			
9.1 Name:			
9.2 Gender:	Female	Male	9.3 Age:
9.4 Home language:			

9.5 Where did you grow up? (specify location below)	Township	Village

9.6 How long have you been living in this RDP house?			
9.7 Where do you consider your family home to be?			
9.8 Highest level of Education (Please tick):	No formal education		Primary level education
	Incomplete Secondary		Matric
	College/ Technicon degree		Higher tertiary degree
9.9 Position in your Household:	Head		Wife
	Son/Daughter		Other (Specify)
9.10 Marital Status:	Single		Married
	Living together		Divorced
	Widowed		Other (specify)
9.11 Subjective Economic Status Would you say your family are:	Wealthy		Very comfortable
	Comfortable but no luxuries		Just getting along
	Poor		Very poor

Appendix B

CONSENT FORM FOR PARTICIPANTS TO COMPLETE PRIOR TO THE INTERVIEW.

I (participant's name)   agree to participate in the research project of Lindsey Walsh on greenspaces and their hindering or enabling factors in place attachment and well-being for urban dwellers.

I understand that:

1. The researcher is a student conducting the research as part of the requirements for Master's degree at Rhodes University. The research project has been approved by the relevant ethics committee(s), and is under the supervision of Dr. Michelle Cocks and Prof. Charlie Shackleton in the Anthropology Department at Rhodes University.

2. The researcher is interested in the effects of green space or lack thereof on individual's well-being and place attachment.

3. My participation will involve completing an in-depth interview as well as a "walk in nature" with the researcher. The interview will last an hour to two hours.

4. I understand that the interviews and techniques used will be recorded for the purposes of transcribing later and that these recordings will be destroyed as soon as the information has been transcribed and analysed.

5. I may be asked to answer questions of a personal nature, but I can choose not to answer any questions about aspects of my life which I am not willing to disclose.

6. I am invited to voice to the researcher any concerns I have about my participation in the study, or consequences I may experience as a result of my participation, and to have these addressed to my satisfaction.

7. I am free to withdraw from the study at any time – however I commit myself to full participation unless some unusual circumstances occur, or I have concerns about my participation which I did not originally anticipate.

8. I am aware that confidentiality and anonymity will be maintained throughout the research and that any personal information given will be changed so that I cannot be identified.

Signed on (Date): ______________

Participant: ___________________________

Researcher: _____________________________