An ethnography of the Mandela Peace Park senior citizens food garden in Mamelodi Township, Tshwane: A social critique of the economism in contemporary urban agriculture policies and projects

by

Olipa Phiri

A dissertation submitted in fulfillment of the requirements for the degree

MSocSci Development Studies

in the Department of Anthropology and Archaeology at the

UNIVERSITY OF PRETORIA

FACULTY OF HUMANITIES

SUPERVISOR: Dr. Detlev Krige

December 2018

Declaration

I declare that the dissertation I submit titled, 'An ethnography of the Mandela Peace Park senior citizens food garden in Mamelodi Township, Tshwane: A social critique of the economism in contemporary urban agriculture policies and projects', for the degree of MSocSci in Development Studies in the Department of Anthropology and Archaeology at the University of Pretoria, is my own work and has never been submitted by me for a degree at this or any other university. Secondary material used in the dissertation has been properly acknowledged and referenced in accordance with university requirements. I am aware of University of Pretoria's policy and implications regarding plagiarism.

Signature:

Date: December 2018

Abstract

This dissertation examines one community garden situated in Mamelodi in the City of Tshwane Metropolitan Municipality. Using qualitative research methods, including participant observation and interviews, the dissertation presents a descriptive account of the history and functioning of the community garden as well as the motivations and benefits that gardening at the community garden offers the research participants. The five research participants were all senior residents of Mamelodi who had volunteered to join the community garden at various points since its inception in 1997. Furthermore, the dissertation makes use of the life history method to present the lives of the five research participants, thereby situating them as actors within an unfolding history. The research presented in this dissertation is then situated within the current scholarly debate in Development Studies about the role of urban agriculture in addressing food insecurity on the one hand and achieving food sovereignty on the other. In doing so the dissertation reviews the relevant literature and debates while taking community gardens as one instance of urban agriculture. Community gardens are receiving much attention in the literature on urban agriculture and it is lauded as an important mechanism through which poverty and food insecurity among the urban poor can be addressed, while also offering the promise of providing urban households with a source of income as wage labour seems to be on the decline. This dissertation presents a number of findings based on an analysis of the data regarding the non-economic aspects of urban gardening. In the process the dissertation speaks to the importance of gardening and the garden as a site for the expression of belonging, a right to the city, nostalgia and learning. In this the dissertation builds on a growing scholarship pointing to the personal, symbolic and social aspects of urban agriculture. The main contribution this dissertation makes is to offer a critique of the economism inherent in some of the scholarly literature and development policies concerning urban agriculture which continues to neglect the centrality of the social aspects entailed in growing and exchanging fresh food produce.

List of acronyms and abbreviations

AFSUN	African Food Security Urban Network
CBD	Central Business District
CSA	Community Supported Agriculture
CTMM	City of Tshwane Metropolitan Municipality
FAO	Food and Agriculture Organisation
FTFA	Food & Trees for Africa
GAD	Gender and Development
GCIS	Government Communication and Information System
JNF	Jewish National Fund
JNFWSEC	Jewish National Fund Walter Sisulu Environmental Centre
MGC	Mamelodi Greening Committee
NGOs	Non-Governmental Organisations
NIHSS	National Institute of Humanities and Social Science
OECD	Organisation for Economic Co-operation and Development
SACN	South African Cities Network
SASSA	South African Social Security Agency
SCP	Sustainable Consumption and Production
SLOW	Social Life of Waste Art Network
TVET	Technical and Vocational Education Training
UA	Urban agriculture
UNDP	United Nations Development Programme
USA	United States of America
WID	Women in Development
WSEC	Walter Sisulu Environmental Centre
WTO	World Trade Organisation

Dedication

To Jaylin and Kefilwe.

To Mr Botho, one of the research participants, who, although no longer with us, continues to inspire my understanding of gardening in the city.

Acknowledgements

I extend my deepest gratitude to my supervisor, Dr. Detlev Krige, at the University of Pretoria, for his expert guidance and constructive critique. Thank you for your invaluable support throughout my Master's studies and for sharing your passion for anthropology with me. You have contributed greatly to my learning through your kind affirmation and encouragement.

My research also benefited from the support provided by the National Institute for the Humanities and Social Sciences (NIHSS) in the form of the Social Life of Waste/Art Seed Grant (CRP01619). In particular, I would like to extend my gratitude to my colleagues and friends affiliated with the Social Life of Waste Art Network (SLOW), with whom I shared this incredible journey.

I would like to thank my research assistant and interpreter for his hard work, insights and friendship during the fieldwork. The fieldwork was easy with your assistance. I also want to recognise the support and friendship of the staff at Walter Sisulu Environmental Centre (WSEC) during the research process.

Most of all, I am deeply grateful to the senior citizens at the community garden who gave their time and knowledge and invited me into their garden spaces and homes to help me understand gardening, their relationships with the garden plots, and urban agriculture in Mamelodi, City of Tshwane. While I cannot list you by name, I thank you for generously contributing to my personal and professional development.

I want to thank my family for the support and prayers. I am grateful for all the support from colleagues and friends, including Wedzerai and Eunice. I am also thankful for the support from Moruti Pitso, and Tholoana Mofolo who spent their valuable time listening to the voice transcripts and translating them from IsePedi/Sotho into English.

Table of Contents

Declaration i
Abstract ii
List of acronyms and abbreviations iii
Dedication iv
Acknowledgements v
Table of Contents vi
List of figures viii
Chapter 1: Problem statement and research methods 1
1.1 Introduction and background to urban agriculture 1
1.2 Problem statement 3
1.3 Research objectives 5
1.4 Clarification of key terms 6
1.5 Importance of the study 8
1.6 Limitations to and scope of the study 9
1.7 Chapter outline 9
Chapter 2: Research design and methodology 13
2.1 Theoretical foundations of the study 13
2.2 Design and techniques 13
2.2.1 Sampling and sample size 14
2.2.2 Data collection: Participant observation and observation 15
2.2.3 Data collection: Interviews and focus group discussions 16
2.2.4 Data analysis: Grounded theory 16
2.2.5 Life histories 17
2.2.6 The use of interpreters 18
2.2.7 Ethical considerations 18
2.3 Conclusion 19
Chapter 3: Literature review and conceptual approach 21
3.1 Introduction: Urban agriculture and urban food research 21
3.2 Relevant literature on urban agriculture 21
3.2.1 Urban agriculture 21
3.2.2 Community gardens 23
3.3 Relevant literature on urban food systems research 25
3.3.1 Food politics 26
3.3.2 Food justice/sovereignty and food security 28
3.3.3 Food deserts 30
3.4 Key analytical concepts 31
3.4.1 Community 31

3.4.2 Exchange 33
3.4.3 Economism 34
3.4.4 Gender and power 34
3.4.5 Learning and knowledge in the household 36
3.4.6 History and the 'right to the city' 37
3.5 Conclusion 38
Chapter 4: Study setting: The WSEC community garden 40
4.1 Introduction 40
4.2 Mamelodi township 40
4.3 The history of the Centre 42
4.4 A description of the Centre 43
4.5 The history of the community garden 44
4.6 A description of the community garden 45
4.7 Organisation of the community garden 48
4.8 A typical day in the life of a gardener at the community garden 49
4.9 The food environment in Mamelodi 52
4.10 Policies and by-laws in Tshwane 53
4.11 Conclusion 55
Chapter 5: Gardening in the City 57
5.1 Introduction 57
5.2 Mr Botho: Decline in the garden, friendship and exchange 57
5.3 MaMillicent: "The garden talks to me" 60
5.4 Mr Mulaudzi: Reciprocity in a family of gardeners 66
5.5 Social distortion caused by Apartheid 68
5.6 Expressions of nostalgia 70
5.7 Narrative of decline 71
5.8 Conclusion 72
Chapter 6: Exchanges and relationships 76
6.1 Introduction 76
6.2 MaLesedi: "The garden is like a baby to me" 76
6.3 MaThato: "Because to give [vegetables from my garden] is my gift" 82
6.4 Themes and data analysis 89
6.4.1 Heterogeneity in relating to plants/garden 89
6.4.2 Knowledge exchange 91
6.4.3 Walking and talking 93
6.4.4 Competition 96
6.5 Conclusion 98
Chapter 7: Conclusions 100

7.1 Introduction 100
7.2 The importance of retaining a historical perspective 101
7.3 Cooperation, competition and conflict 103
7.4 Gender in the garden 104
7.5 Economic and social exchange 105
7.6 Affect and health benefits 108
7.7 Learning and education 109
7.8 Further study 111
Bibliography 114
Appendix 1: Interview schedule 130
Appendix 2: Informed consent form 133
Appendix 3: Permission to conduct research 134

List of figures

Figure 1: Different areas of UA activity and assessment 23

Figure 2: Mamelodi Township 41

Figure 3: Showing distance between WSEC/Tsakane and supermarkets 42

Figure 4: Showing WSEC in Mamelodi 43

Chapter 1: Problem statement and research methods

1.1 Introduction and background to urban agriculture

In recent years, governments, international donors and non-governmental organisations (NGOs) in sub-Saharan African countries have discovered that urban agriculture offers some potential for improved resource utilisation and improved food availability for growing urban populations. As a result, urban agriculture (UA) has received considerable attention both from policy makers and researchers. There is of course a longer history to urban agriculture, and the renewed attention to urban agriculture is not limited to sub-Saharan African countries. Urban agriculture is typically operationalised in the form of, and covers a wide array of community gardens, small urban farms, permaculture farms and gardens, allotment gardens, backyard gardens, street landscaping, greenhouses, rooftop gardens, green walls, vertical gardens, and various forms guerrilla gardening (Battersby & Marshak 2003; Mougeot, 2000; Trees for Africa, 1999). UA practice also includes animal husbandry, aquaculture, agroforestry, urban beekeeping, and horticulture (Mougeot, 2000; Mbiba, 1994, p.9; Slater, 2001). These practices form part of a wide array of UA policies, activism, and development projects that have been widely disseminated and adopted around the world since World War II.

In South Africa, UA covers a wide range of agricultural activities in cities such as Johannesburg, Cape Town and Tshwane. These agriculture activities range from full-scale commercial farming such as the Ukuvuna Urban Farm in Midrand and Oudeberg Permaculture Farm in the Klein Karoo to small-scale food gardens on rooftops, backyards and community gardens in townships and informal settlements. Typically, in South Africa, development aid and interventions focus on community gardens in townships and informal settlements. The common model is the one in which communities in townships and informal settlements are encouraged to participate in the management of parks and pavements, household gardens, factories, business areas, mine dumps, transmission lines, flood plains, taxi ranks, rooftops, schools, clinics and churches (Food and Trees for Africa, 1999). In the context of Tshwane, where research for this dissertation was conducted, community gardens are central to urban

agriculture and food security development interventions. In local government policy in South Africa, community gardens usually also feature as the primary site for development interventions in relation to food security, and as such is often the focus of many NGOs and corporate social investment programmes (Haysom, 2016). Community gardens in South Africa then is an important site for investigating development interventions in the field of UA.

The research on which this dissertation is based was conducted in a community garden in a former African township called Mamelodi, one of the townships that fall within the municipal area of the City of Tshwane Metropolitan Municipality (CTMM). This community garden was established in 1997 as the Mandela Park Peace Garden. It was initiated by the Walter Sisulu Environmental Centre (WSEC) and supported by the then Department of Water Affairs and Forestry's National Urban Greening Strategy (WSEC, 2016). From the outset, the community garden was to focus on developing permaculture practice and to target senior citizens. The broader aim of the project was to address food insecurity and problems associated with rapid urbanisation and the resultant impoverished and hungry city dweller (WSEC, 2016; Wills, Chinemana & Rudolph, 2009).

The broader aim of the project was informed by local and wider trends and realities regarding food insecurity that remains an important development issue in urban South Africa. Research suggests that 70% of poor urban households in South Africa live in conditions of "significant" or "severe" food insecurity (Frayne, Battersby-Lennard, Fincham & Haysom, 2009, p.5). Given this dire situation, it is no surprise that development projects aimed at community gardens project attempt to preserve the welfare and survival of poor urban households by facilitating access to land, water and seeds (Food and Trees for Africa, 1999; Haysom, 2016).

The establishment of the Mandela Park Peace Garden reflected not only concerns about food insecurity, but also the growing interest among public authorities and aid agencies in taking a more participatory and "bottom-up" approach to development. Unlike most other agriculture interventions, UA theory and practice emphasises increased production, systematic changes and food justice. UA

scholars has documented the success of UA as an effective development strategy to grow one's own food, create independent consumers, 'heal the land', produce productive citizens and provide social-political, nutritional, emotional and spiritual benefits (May & Rogerson, 1995; Mougeot, 2000; Slater, 2001; Van Averbeke, 2007; Lavid, 2013; Sandbrook, 2014). Furthermore, UA projects such as the Mandela Park Peace Garden seek to address issues such as ownership and access to urban land for food production, all of which is said to enhance inclusive and participatory development. This in turn is one response to the explosive growth of human populations in urban settings that have become home to increasing numbers of hungry city dwellers with no access to or ownership over urban land for food production (May & Rogerson, 1995; Klasen, 2000; Frayne et al, 2009; Rossi, 2012). This then is the background to this study, which is an ethnographic investigation of one instance of a UA development project in the City of Tshwane, one which is nearly 20 years in existence.

1.2 Problem statement

Scholarly literature has shown that there is often a mismatch between the policy objectives of development projects initiated by planners or NGOs and the experiences of development actors who participate in these projects (Mosse, 2005; Ferguson, 1999; Slater, 2001). Mosse (2005, p.17) for one argues that despite the fact that the logic of practice routinely contradicts policy models, development discourse tends to promote the view that development activities are the result of the implementation of official policy. In *Cultivating development: An ethnography of aid policy and practice*, Mosse (2005) argued that "interventions in development are important for establishing, promoting and defending significant interpretations (of actions and events), and moreover, that this is social as much as conceptual work" (2005, p.xii). With this in mind, knowing how official policy interacts with every day activities in development projects is crucial to any study of development project and programmes.

The WSEC, like many other NGOs in the Global South that implement and manage development projects, is not in a position to mobilise much local resources to finance project expenditure (WSEC.org). To finance its projects - the senior citizens community garden is but one of many projects it runs - it has to resort to external financial and donor assistance. In the process it has to

embrace and include aspects of development policy and practice that form part of donors' institutional objectives, such as environmental education and food security. But, and the literature shows this, it is often very difficult for donors to enforce a systemised body of knowledge, as development projects inevitably and continuously change during the later stages of projects (Garner & Lewis, 1996; Leahy, 2009). Furthermore, the literature also shows that development interventions often has unexpected and unintended consequences over and above the failure of such interventions, which many include enhancing state capacity, expanding bureaucratic power, producing hierarchies of knowledge, objectifying the poor and depolarising development (Crewe & Harrison, 1998; Garner & Lewis, 1996; Leahy, 2009; Mosse, 2005). There is indeed a growing literature that is critical of aspects of, or certain kinds of development interventions.

One such scholar, anthropologist James Ferguson (1990), drawing on the work of Michael Foucault (1981), have argued that development can be seen as a mode of thinking and a set of discursive practices that have been produced and reproduced within particular historical, political and economic contexts. He suggests that there is a need "to understand how development knowledge is not one single set of ideas and assumptions" (Ferguson, 1990, p.9). Ferguson's critical take on development as a powerful technical discourse that may actually lead to a form of anti-politics that takes power and agency away from the targets of development interventions, has also been applied to UA. Leahy (2009) Evans and Miewald, (2013), Weissman (2013), and Perry (2013) for example have warned scholars and policy makers about the ganders of treating agriculture and food security interventions as purely technical solutions, while underplaying the political, cultural and social aspects of UA interventions.

A related assessment of development interventions, one that is echoed in this dissertation, is the established critique of economism articulated as far back as 1995 by Brohman (1995) who warned development researchers and practitioners of the dangers of economic reductionism in framing questions of development. He pointed to the importance of not neglecting socio-cultural and political relations in how we think about development, and the importance of the intersubjective realms of

meanings and values in thinking about development (Brohman, 1995). For Brohman (1995), there was much danger in reducing development to the economic while neglecting the social.

Some scholars working in the field of UA have taken heed of this critique of economism and have shifted their focus away from only documenting the economic benefits of UA to focusing directly on the multiple social functions, benefits and contributions of UA to households and communities (Slater, 2001; Marshak, 2008; Van Averbeke, 2007; Dunn, 2010). On one hand, scholars are exploring the extent to which UA policy that focuses on food harvesting as the main driver for increased food security, tackling youth employment and reducing poverty shapes the relationship between UA and its practical application. While on the other hand, scholars now acknowledge the shift in focus in the UA literature away focus a sole focus on the economic benefits of UA. Nonetheless, there is much room in the literature, especially literature dealing with the Global South, to offer further critiques of the economism inherent in much UA policy and practice.

It is in this field of debates and contestations that this dissertation seeks to make a contribution to the existing literature. On a broad level it is concerned with the much acknowledged disjuncture between policy objectives or development project aims and the experiences of those at the receiving end of the interventions. More specifically, the problem it grapples with is how to highlight and theorise the non-economic benefits and contributions of UA to poor urban households, individuals and communities. In order to address these concerns the study adopted an ethnographic research method (DeWalt & DeWalt, 2002). Through the use of participant observation and qualitative interviews (Spradley, 1980; Morrison, 2002), data was collected and produced by the researcher. This is described in more detail in Chapter Two. Lastly, I followed Glaser and Strauss (1967) in using grounded theory to analyse the data.

1.3 Research objectives

In recent decades, scholars have started to acknowledge the varied motivations and benefits, including non-economic ones, of growing food in urban contexts (Møller, 2005; Slater, 2001; Dunn, 2001,

Guitart, Pickering and Byrne, 2012; Colansanti and Hamm, 2013; Lavid, 2013; Weissman, 2013). Yet, as Battersby & Marshak (2013) pointed out, research on the comprehensive motivations and benefits of community gardening is still in its infancy. A primary objective of the research presented in this dissertation is to contribute to the literature focusing on the non-economic benefits of UA by documenting and analysing the experiences of those citizens who garden in the Mandela Peace Park community garden. This entails an investigation into the motivations of those who garden in the community garden, including developing an understanding of why they garden in the community garden as opposed to other spaces such as their home, pavements or public spaces. The dissertation further explores the disjuncture between the objectives of the development project, with its economistic aims shaped by outside donors, and the experiences of those citizens who garden in the community garden. This disjuncture is also framed in terms of the benefits that gardeners, as development beneficiaries, highlighted in the course of the research process.

The specific objectives of the study then include:

1. To highlight the assumptions that inform theory and practice of urban agriculture policy and related development interventions and projects, particularly in relation to its supposed benefits;
2. To explore the motivations and experiences of those senior persons who garden at the community garden;
3. To document the economic and social aspects and benefits of gardening practice as an instance of urban agriculture so as to understand and theorise the complexities of the development process.

1.4 Clarification of key terms

In this section I offer a brief overview of key terms used in the dissertation, namely urban poverty, urban agriculture, food gardens, senior citizens, ethnography, and social critique.

Urban poverty in this study describes a situation where individuals or households are not in a position to meet their basic needs such as food, shelter, water and other essential resources and services. While poverty is widespread in rural communities where it is more directly linked to seasonal cycles (Klasen, 2000), in urban areas poverty is caused by both low or irregular income and structural issues such as unpredictable and dramatic fluctuations in food prices, high expenditure on other non-food items such as heating, housing, social relations and health services (Frayne et al, 2009).

Urban agriculture refers to the growing or cultivation of food in urban areas that offers the potential to address unconnected economic, nutritional and social-political challenges related to urban poverty. For instance, in their study on urban agriculture projects in Cape Town, Battersby and Marshark (2010) argue that urban agriculture cannot be viewed as a response to a single challenge in isolation, despite the fact that the municipality has framed urban agriculture policy through one set of benefits. Battersby and Marshark (2010) found that participants in their study articulate their motivations for engaging in UA and the benefits they derive from it in multiple and symbiotic ways.

Food gardens in this dissertation refers to urban plots of ground where vegetables, flowers, herbs and/or fruits are grown with the purpose of enhancing access to fresh food for individual homes, schools, churches, business or communities.

Senior citizens in this dissertation refers to the elderly men and women who are retired from full time paid employment or who receives old age pension.

Ethnography refers to the social science method of collecting and analysing a phenomenon, culture, places or society (Coleman & Simpson, 1998; DeWalt & DeWalt, 2002). As a qualitative approach to research and data production, ethnography typically offers insight into the daily experiences of research participants while also enabling, in theory at least, the research participants to guide data collection and even co-create research findings (Tomkins, 2014).

Social critique in this dissertation places emphasis on the primary importance of social relationships, social worlds and sociality in approaching questions of development, including economic

development. It takes as its starting point the theoretical position that development is about humans as social beings rather than taking the position that humans are or should be framed only as economic agents, or consumers, or producers (Bourdieu, 1993). Social critiques aim to unlock, provoke, and/or catalyse social change by revealing realities of the social world, by highlighting the mechanisms of domination and demystifying dominant ideologies such as economism (Boltanski, 2009 cited in Znepolski, 2010).

1.5 Importance of the study

This research project builds on and is in conversation with other scholarly efforts to construct a more comprehensive framework for the study of urban agriculture in South Africa. Scholars have asserted that the development of the field has been frustrated by conflicting definitions (Battersby & Marshark, 2013; Tomkins, 2014); lack of scientific support on connections between the practice in seemingly different areas (McClintock, 2013); and lack of scholarship that directly focus on both social and economic benefits (McClintock, 2013; Battersby & Marshak, 2013). This dissertation seeks to contribute to the wider debate on community gardening and urban agriculture projects. I am not alone in making this argument even if the social aspects of urban agriculture remains understudied. Scholars such as Kahn (1990) and Brohman (1995) have offered critiques of economism and how it frames research on urban agriculture and community food gardens (cf. Slater, 2001; Colansanti & Hamm, 2013; Evans & Miewald, 2013; Hallworth & Wong, 2013; Lavid, 2013; Sandbrook, 2014; Weissman, 2013). By highlighting the importance of the personal, symbolic and social aspects of urban agriculture for the gardeners I worked with I hope to contribute to scholarship that is critical of the assumption that the development process is ultimately only about economic outcomes and benefits.

The significance of such scholarship is that a better understanding of the non-economic benefits of urban agriculture could possibly shed light on current and future sustainable development practices. As countries start to implement the post-2015 development agenda, with its emphasis on issues such as poverty eradication, promotion of sustainable consumption and production (SCP) and protection of

natural resources, development studies should revisit some of its core policies and practices of sustainable development strategies such as urban agriculture, livelihood strategies and household survival strategies.

1.6 Limitations to and scope of the study

The fact that the study investigated only one community garden, and one in which senior citizens worked, is a limitation. We cannot extrapolate the findings of this research to all community gardens and to all kinds of people who engage in urban agriculture. But, while the study investigated only one garden and the gardeners ethnographically, the literature reviewed in the study cover experiences of gardeners in other parts of South Africa and worldwide. I am not fluent in local languages and this implied that full participant observation was precluded. Yet I was able to hire a local resident to act as an interpreter and field assistant. From the beginning of the research I was aware of the potential problems posed by translation and that translation is a social act with political implications (Rubel & Rosman, 2003; Agar, 2011; West, 2005, cited in Conrad 2014). With this in mind I discussed issues of translation with the interpreter at the beginning of field work and during my time in the field. As a result, I do not believe this impacted negatively on the quality of information collected since I developed good rapport with my research respondents. Moreover, as I discuss in more detail later, my position as a women from Malawi who is also a mother, and as someone with knowledge of gardening, and my willingness to participate in the daily routines of gardening with research respondents in the community garden, all contributed to the development of open and trusting relationships between myself and the gardeners.

1.7 Chapter outline

In Chapter One, I discussed the background to the study, offered the problem statement and research objectives, while I clarified some key terms. I also discussed the importance of the study and the limitations of the study.

In Chapter Two I discuss the research design and the theoretical underpinnings of the study by providing a detailed discussion of the methodology used, including sampling techniques, data collection methods, data analysis methods and the ethical considerations I had to deal with conducting the research.

In Chapter Three I discuss two bodies of literature that this dissertation is contributing to and in conversation with. On one hand, there is *urban agriculture research* that deals with urban agriculture, community gardens and permaculture. On the other hand, there is *food research* that deals with food security, food sovereignty, food justice and food politics. In the chapter, I also discuss key concepts that will be used in the dissertation as a way of understanding food production and exchange as a practice that involves personal, social, economic and symbolic dimensions with its associated functions. These concepts include exchange; gender and power; household, learning and knowledge; the right to the city; and food economism.

In Chapter Four I introduce the various sites where fieldwork was conducted. These include the former African township of Mamelodi where the community garden is situated and where all the research participants reside. I also discuss the history of the Jewish National Fund Walter Sisulu Environmental Centre (JNFWSEC), the hub where the community garden is situated. Of particular importance in this history are the changes that took place between the inception of the community garden in 1997, and the present, as told through the voices of the research participants. Furthermore, the chapter offers a description of the community garden, including its rules, the rights and obligations of those who are members, and the procedures that govern the individual members and garden work.

In Chapter Five I discuss the shift in expectations among the gardeners I interviewed at the community garden. I also offer a historical view of the community garden at the Centre and the food growing practices as relayed to me by the gardeners. In the chapter I also document the life histories of some of the gardeners before offering a thematic analysis of the life histories that highlight histories of social

dislocation resulting from apartheid, the expression of nostalgia by gardeners and a narrative of decline.

In Chapter Six I offer some further life histories of research participants. The themes that emerge from my analysis of these life histories include the multiple functions and benefits of urban agriculture, knowledge exchange among gardeners, and walking as a daily routine that produces belonging in the city. In sum, it tackles the question as to why gardeners engage in food production and exchange in the community garden and in the wider community.

Chapter Seven is a concluding chapter in which the findings of the research is related to the objectives and main research questions. I provide a summary of findings and a reflection on the findings. In the chapter I discuss themes that point to the importance of the social relationships, social worlds and sociality in the garden. I discuss aspects of the dynamics and relations that gardening creates between the participants and their kin, each other, neighbours, plants and the garden plots. I conclude with a section on further study and recommendations following this research.

Chapter 2: Research design and methodology

2.1 Theoretical foundations of the study

This research project used ethnography as its main research method, which included conducting participant observation and interviewing. Usually ethnography offers the potential for participatory research methods that offers in-depth description of social relations, human culture, places and people. There is a vast ethnographic literature that deals with food and food production: food growing practices as performance (Richards, 1989), farmer's experiences (Dunn, 2010), or affective encounters (Archambault, 2016). There are also several examples in the UA literature of scholars using participatory research methods (Møller, 2005; Dunn, 2010; Slater, 2001; Battersby & Marshark, 2013). My choice of using ethnographic research is therefore well established. In conducting ethnographic research in the community garden and the Centre I tried as far as possible to provide research respondents with the opportunity to guide research and data findings. This was also based on Clavin's (2011) description of community gardens as sites in which people create multiple and on-going narratives that are "ever-changing, non-rigid and user-led … to be multifunctional" (Calvin, 2011 cited in Tomkins, 2014, p 27).

2.2 Design and techniques

As is evident, this study is rooted in the qualitative paradigm of social science research and incorporates elements of applied anthropology. The study makes use of ethnographic research methods such as participant observation and interviewing to collect data and life histories. The study did not use key informant interviews which often go hand-in-hand with participant observation as there were few research respondents with "expert knowledge" (Jimenez, 1985; DeWalt & DeWalt, 2002) about growing and distribution of food. Based on the objectives of the study, the type of information needed and the setting, participant observation and life histories were adopted as main techniques as they allowed producing data from a group of research respondents about the research questions I wanted to investigate.

2.2.1 Sampling and sample size

I used snowball sampling in the course of my research to build a sampling frame that would allow me to make the most of its strength of the already existing personal networks among research respondents who gardened in the community garden. Goodman (1961) defines snowball sampling as a non-probability sampling technique where existing study research respondents recruit future research respondents from among their acquaintances. There were also elements of purposive sampling. During the course of my research I interviewed ten senior citizens and I attempted to secure an equal representation of both male and female, also trying to interview both present and former members of the community garden. My research assistant is also a staff member of the WSEC, the NGO where the community garden is located, and assisted me in identifying the first set of research respondents. The first set of research respondents I interviewed then helped me in identifying other members of the community garden who had or had not participated in permaculture training. Further snow ball sampling also helped in identifying senior citizens who have halted their participation in the community garden due to ill-health or other reasons.

After a second set of respondents was interviewed, I recognised that several of the research respondents have never had permaculture training. One of the research questions this project was concerned with from the start was to examine why senior citizens at WSEC were reluctant to adopt permaculture design and practice as an urban food production strategy. As mentioned before, I realised during the course of fieldwork that few of my research respondents had participated in permaculture training and that I was unable to locate a sufficient number of people who had. Most of the senior citizens who were trained in permaculture design some years ago were no longer active in the garden due to old age, while others had passed on. So I had to drop this particular research question yet continued to investigate the social aspects of community gardening that were evident at the WSEC. With this in mind, and with the approval of my supervisor and the relevant committees at the University, I slightly altered the focus of my research design by dropping my inquiry into permaculture. This meant that during interviews I no longer asked questions about permaculture but

continued inquiring into the experiences and social and other aspects of working in the community garden by doing life histories and semi-structured interviews.

All in all I collected the life histories of six senior citizens during the period of May, June and July 2017. The research respondents were all aged 57 and older at the time of research, had varying experiences of city and township life, and had joined the garden at different points in time.

2.2.2 Data collection: Participant observation and observation

The use of participant observation as a data collection method is well established in the discipline of anthropology and has become popular in recent years in disciplines across the humanities and social sciences. Nearly fourty years ago anthropologist, James Spradley (1980) wrote that participant observation entails learning by doing so as to generate a living understanding of the culture or social context being studied. The use of participant observation in qualitative research helps researchers to uncover, explore, and describe existing and new behaviours (Spradley, 1980; Morrison, 2002). This data collection method often means that 'the field' may bring new and unanticipated questions to the researcher. It also means that the research design framed around answering specific hypotheses may change during the course of fieldwork, as happened with in this project. The practice of participant observation thus continuously nudges the researcher to remain open to new research questions and new and unanticipated behaviours (Morrison, 2002). Participant observation can range from no participation, on the one hand, to becoming a full member of the group being studied on the other. In my daily participation at the community garden, I created a balance between being involved in actual gardening and observation. I spent time every day learning gardening activities through observation, walks in the community, and participation in activities such as gardening and workshops. During these observations and walks I interacted with senior citizens on their garden plots and in their homes. On the garden plots, I participated in clearing the soil, watering and planting. In particular, I learned significant lessons about gardening as a physically challenging activity. I also participated in the less physically demanding tasks, such as the mulching of newly planted trees, weeding or watering. For the days that I was at the community garden, the research respondents' routine became part of my daily

routine, such as working on the plot, harvesting vegetables, walking together, dropping vegetables at a neighbour's house, or accompanying them and helping them wash and deliver vegetables. The qualitative data I collected using participation as a tool was indispensable to contextualising the relationships between what I saw in the garden - the practice of those seniors who garden at the community garden - and the assumptions that inform the literature and practice of urban agriculture policy and projects. It also pointed me to the social benefits of urban agriculture.

2.2.3 Data collection: Interviews and focus group discussions

With regard to interviews I can note that in-depth interviews focused on research respondents' childhood experiences and schooling, family histories, their reasons for joining the garden, their current gardening activities, and the permaculture application and training they received or not. During interviews, I used an interview schedule with open-ended questions that allowed research respondents to share their narratives. These interviews were typically recorded if approval was granted by the respondent and would last between 20 and 40 minutes. I conducted focus group discussions in the community garden or at the Centre. These focus group discussions usually comprised of a minimum of three respondents. I also conducted one dyadic interview that share some similarities with focus group discussions. A dyadic interview creates a conversation between two research respondents, such as a couple, or between immediate family members such as parents, or between children or friendship pairs (Allan, 1980; Lowe, Eliot, Gorman & Morgan, 2016). During the one dyadic interview I conducted I could see that the involvement of other family members influenced the type of responses - as they discussed the questions and their responses to the question. This helped the research respondent to effectively recall information that might have been lost during a one-on-one interview. In this regard, I came to realise the point made by Zvi Eisikovits and Koren (2010) that the essence of qualitative research is that a living reality is a picture created by perceptions and that the more perceptions and variations we are able to identify, the wider and deeper the picture becomes.

2.2.4 Data analysis: Grounded theory

In analysing my data I followed the grounded theory approach suggested by Glaser and Strauss (1967). Grounded theory refers to a set of systematic inductive methods for conducting qualitative research aimed at theory building (Glaser & Strauss, 1967). The term 'grounded theory' denotes two referents: (a) a method consisting of flexible methodological strategies and (b) the products of this type of inquiry (Charmaz, 2006). Interviews with the participants were translated and transcribed after each interview. Then, a write up of the participant stories was generated to allow for the familiarity of all the details provided as stand-alone cases – these are presented in this dissertation as the life histories of the participants. Subsequently, the detailed stories were searched for patterns and consistencies which formed the basis of the initial themes – such as the family, the garden and community and others. This was followed by an iterative process of data coding, which revealed similarities across the participants' descriptions, experiences and narratives. Theron (2015) argues that qualitative data coding does not constitute the totality of data analysis, but it is a method to organise data so that underlying messages portrayed by the data may become clearer to the researcher. From the codes that were created, predominant themes emerged. The themes provided a larger set of themes relating to gardening at the community garden which I then interpreted through conceptual frameworks relating to the body of scholarly writings on food and urban agriculture. These emergent themes become prominent in Chapters Four and Chapter Five in my presentation and analysis of the life histories.

2.2.5 Life histories

Life history as a tool for data collection, and a method of presenting data, is often used in historical and anthropological research and is increasingly utilised by researchers in development studies to provide more holistic and qualitative representations of the complex lives of respondents (Slater, 2001). As argued by Slater (2001, p 641), the "adoption of life history research in development studies results largely from a rejection of quantitative based research that dominated development research in the 1960s". The life history tool is a well-established research technique in qualitative research. It is

also used increasingly in research in South Africa (Keegan, 1988; Krige, 2015) and in research on urban agriculture (Dunn, 2010; Battersby, 2013).

2.2.6 The use of interpreters

I did not grow up in South Africa and have limited knowledge of local languages. This is the main reason for why I employed a research assistant who assisted me with interpretation during the fieldwork process. Apart from working as an interpreter, who could translate Sotho, Pedi and Tswana, into English and the other way around, he also helped with facilitating entry into the community of gardeners at the Centre. Since I knew from the onset that I, as a relatively young student yet a mother, would be speaking to older men and women, I tried to find an interpreter that would be older than me. I was unable to find an elderly research assistant who is fluent in both English and local languages, especially one who could be available during the time of research. I was also aware that using an assistant who has a working relationship with the NGO who runs the project will be difficult, but could not find a way around that. Despite these methodological challenges that shaped by relationship to the project's research respondents, I develop good rapport with the gardeners and the people working at the Centre.

2.2.7 Ethical considerations

During fieldwork for the study, I exercised the utmost precaution in safeguarding the rights and well-being of the research respondents in accordance with the guidelines set by the American Anthropological Association. The American Anthropological Association (2009) states that "in both proposing and carrying out research, anthropological researchers must be open about the purpose(s), potential impacts, and source(s) of support for research projects with funders, colleagues, persons studied or providing information, and with relevant parties affected by the research". The University of Pretoria (UP) code of ethics and procedures also outline the principle of respect for personal autonomy as one of the fundamental guideline for responsible research. To sustain the standard of excellence and ethics proposed by the American Anthropological Association and UP code of ethics,

during this research, I obtained permission to conduct research at the community garden from the Centre and NGO. At all times during the research process, I ensured that research respondents were well informed about the research objectives and the reason for why I was doing observations and interviews. Throughout this process I followed a dynamic informed consent approach in that all research respondents would consent to the research at various phases of the research process. The translator was briefed in full about the research and assisted me in reading through the informed consent and recruiting potential research respondents. In the end, all the people who participated in this research did so voluntary and were not forced in any way to participate in the research. During the proposal writing phase of this project I realised, after reading through relevant literature, that senior citizens are sometimes sick and frail (cf. Harris & Dyson, 2001) and that I had to be cognisant of this fact.

2.3 Conclusion

In this chapter, I described the main tenets of qualitative reason and offered a justification for why I used qualitative research methods in this project. I provided a detailed discussion on the methodology I employed which sections on sampling techniques, the use of participant observation, interviews and life histories, my data analysis strategy, and the ethical considerations I had to be aware of whilst conducting this research.

Chapter 3: Literature review and conceptual approach

3.1 Introduction: Urban agriculture and urban food research

In this chapter I offer a review of the literature relevant to my research question and research objectives: that is urban agriculture research (urban agriculture, permaculture design and community gardens) and urban food research (food politics, food justice/sovereignty vs. food security, and food deserts). I also discuss key concepts that will be used in the dissertation. These concepts include exchange; economism, gender and power; household, learning and knowledge; history and the right to the city; and the fresh food path.

3.2 Relevant literature on urban agriculture

3.2.1 Urban agriculture

The history of UA practice dates back to World War II. Scholarly definitions of UA "started to emerge in 1957 when John Thompson wrote of the expansion of Japanese cities causing the development of a distinctive type of extremely intensive agriculture" (Thompson, 1957, p. 224 in Tomkins, 2014, p. 23). Urban agriculture has been featured as a subject of research and advocacy the late 1980s and early 1990s (Slater, 2001). In 1996, the UNDP formally adopted the term in its publication *Urban Agriculture: Food Jobs and Sustainable Cities* (Smit et al, 1996; Charles, 2009 cited in Tomkins, 2014). Unsurprisingly there are divergent definitions of UA and different scholars emphasise different aspects and benefits of UA.

McClintock (2013, p. 152) shows that some scholars "extol UA's potential contributions to development in terms of food security and food justice, public health, environmental sustainability, green jobs, education, and community-building, both echoing and creating discourse widely embraced by activists and other stakeholders". Scholars who emphasise justice issues tend to be more interested in activist and advocacy research. Other scholars are more interested in how UA may promote the growth of markets and resultant economic development. Van Averbeke (2007) and May and Rogerson (1995), for example, demonstrate how UA promotes economic development, primarily by creating

small urban farming businesses focused on growing and selling food. They also point to how UA creates ancillary enterprise opportunities such as food transport or delivery services, compost production, seedling propagation or sale of value-added food products like medicines or dried herbs.

Another body of literature tends to focus its research on developing a critical perspective on the supposed economical or market benefits of UA by arguing that UA should not be incorporated or taken over the corporate agri-food system. Scholars such as Slater, (2001), Marshak, (2008), Dunn, (2010) Sandbrook, (2014) and Archambault, (2016) are particularly interested in the social relations that make possible and that are fermented by UA. This camp includes the work of scholars who demonstrates the multiple and varied benefits defining from UA in the form of nutrition, social, sociological, and environmental terms. These scholars are more interested in exploring and understanding the actual motivations of urban farmers and gardeners than assuming that urban farming is only and primarily about economic development and economic growth. I would situate my own work in this dissertation in this camp.

In developing countries or economies, "interest and support for UA from government and NGOs began earnestly in the early 1980s" (Slater, 2001, p. 637). Urban agriculture also developed a reputational risk as both the general public and city officials tended to associate farming with rural dwelling or livelihoods and lack of infrastructural development. In her work, Slater notes that increased industrialisation created a shift in people's involvement from farming in rural areas to industrial or manufacturing (non-agricultural) activities in urban areas (2001, p. 637). This complex history contributed to the varied definitions of UA and the multiple experiences of people who garden and officials who implement UA projects. Nonetheless, city officials, police, and media in developing countries continued to associate UA with rural development. Several scholars have documented this association which have led to a kind of resistance when public health concerns around cholera and malaria are linked to the use of wastewater for and from farming activities (Simatele & Binns, 2008; Hovorka, 2008; Drakakis-Smith, Bowyer-Bower, & Tevera, 1995, cited in Battersby, 2013). This is true to some extent for South Africa. Newspaper articles and local television soap operas refer to

gardeners, derogatorily so, as people with "green fingers" (dirty fingers) and associated farming with "rural life" or a kind of subordinated labour in urban society (Phashe, 2017; Slater, 2001; also see green fingers job listings in Gauteng: http://www.yellowpages.co.za or www.jobvine.co.za).

By way of summarising, Duchemin, Wegmuller and Legault (2008) provide a useful overview of the various kinds of activities that can be categorized under UA, their benefits, and potential long-term impact on society and the economy.

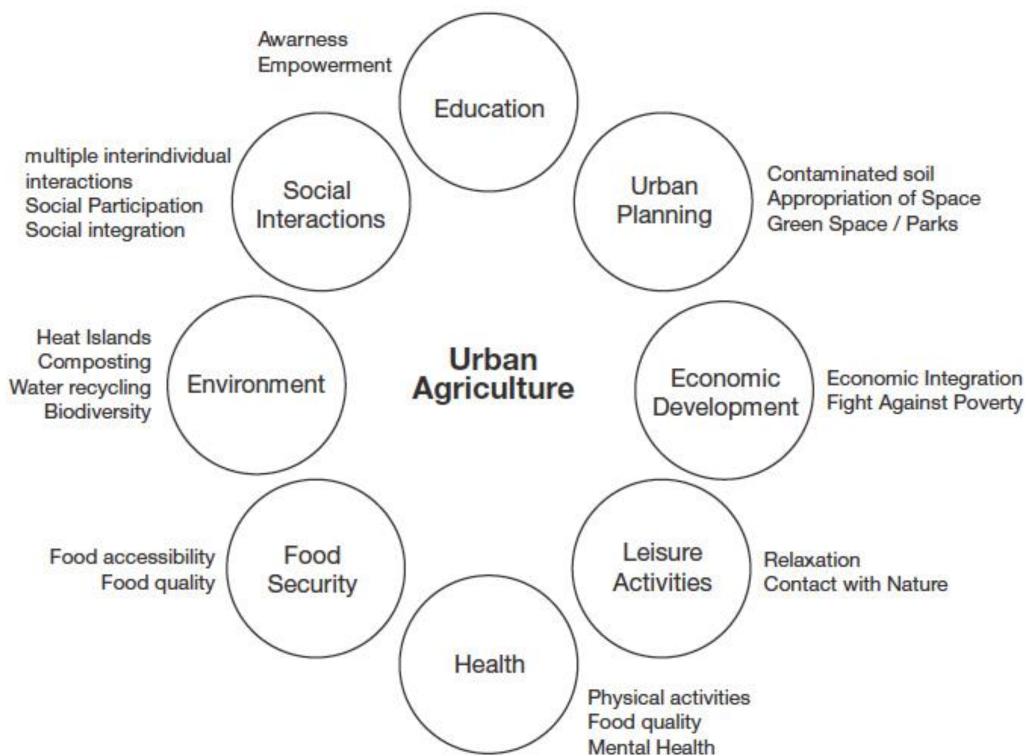

Figure 1: Different areas of UA activity and assessment related to economic, social, and environmental development (Duchemin et al, 2008)

3.2.2 Community gardens

In this dissertation I will refer to community gardens as one instance of urban agriculture. Community gardens typically refer to plots of ground which are managed and operated by members of a locally defined community on which food, vegetables, flowers and herbs are cultivated (Guitart et al, 2012).

There are different types of community gardens. Individual-plot community gardens, also known as allotments gardens, are garden in which individuals 'rent' plots from a central authority that owns the land (Flachs, 2010). The rent money is typically used to buy communal seeds, mulch, soil, tools, and other garden necessities (Flachs, 2010). In such community gardens, individuals grow their own food crops alongside other gardeners while the garden itself grows communal products such as fruits and medicinal trees. The community garden this dissertation focuses on is also an individual-plot or allotment garden.

In their study on the social and economic benefits of urban agriculture in Cape Town, Battersby and Mashark (2013) documented two types of benefits deriving from community gardening. They argue that UA has the potential "to address both economic and social challenges in an integrated manner" (Battersby and Mashark, 2013, p. 1). Firstly, they identify *individual benefits* suggesting that community gardens can "alleviate some of the alienating aspects of modern lifestyles, restoring a sense of place to the urban context" and relieving stress (Hall, 1996, p. 18 cited in Battersby & Mashark, 2013). Likewise, other scholars have documented UA benefits such as enhanced health, increased access to fresh foods, improved saving or income, and greater access to education as individual benefits (Kingsley & Townsend, 2006; May & Rogerson, 1995). Other scholars have linked improved emotional health, as well as increased opportunities to the enjoyment of nature and relaxation with UA (Relf, 1992; Jensen & Turner, 1996; Battersby & Marshark, 2013; Archambault, 2016). These individual benefits linked to UA are documented in the growing literature on the physical and psychological benefits of community gardening.

Secondly, they identify *social and community benefits* whereby scholars link UA with the potential to "connect people to each other and to connect people and places" (Battersby & Marshak, 2013, p. 5). In the literature, these potentials offer benefits that include greater social cohesion, reduced crime and increased safety, greater environmental sustainability, enhancement of cultural heritage, improvement of transnational social ties, and improvement of life satisfaction (Glover, 2004; Van Averbeke, 2007; Leahy, 2009; Guitart et al, 2012; Slater, 2001; Tomkins, 2014). As Slater (2001) has noted, it is not

always that simple and straightforward to identify and prove the social and community benefits of UA. This is particularly true of studies of improved nutrition due to increased vegetable intake, increased biodiversity, environmental equity or the empowerment of women.

Despite the fact that we can distinguish between individual and social benefits of UA, the literature shows that there is great correspondence in terms of the motivations for why people partake in community gardening (Tomkins, 2014; Battersby & Marshark, 2014). Broadly speaking, and following Guitart et al, we can define a motivation as the desire to achieve something while 'the benefit' is the actual achieving or realisation of the desire (Guitart et al, 2012, p. 367). Multiple yet corresponding motivations for engaging in community gardening have been recorded in the literature: desiring greater access to fresh food; wanting to increase income by selling produce grown; desiring to save money used for purchasing fresh food on the market by rather growing it; wanting to eat food from one's own garden (Wills et al, 2009; May & Rogerson, 1995).

Over and above these economic reasons, scholars have also documented motivations ranging from participating in community gardening because of a desire to engage in collective and group activity; to realise and cultivate networks of mutual aid; to improve social development and social cohesion in a community; to desiring greater physical and mental health (Wills et al, 2009; Glover, 2004; Kingsley & Townsend, 2006; Slater, 2001). Glover (2004) and Slater (2001) have also emphasised the benefits of knowledge sharing and enhancement of cultural practices that may go hand in hand with community gardening. Importantly, community gardening can also function as a political tactic for accessing land (Wills et al, 2009). Furthermore, community gardening could in theory enable empowerment, increase employment and enhance environmental sustainability (Slater, 2001; Glover, Parry & Shinew, 2017; Wills et al, 2009). Finally, community gardening is said by some scholars to enhance political practice, thicken social networks, produce places of creativity and reduce social alienation (Slater, 2001; Van Averbeke, 2007).

3.3 Relevant literature on urban food systems research

In this section I discuss literature on urban food systems relevant to my research. Discussions around this topic are informed not only by scholars and researchers but also by policy makers, activists and the general public. As with the discussion on urban agriculture above, I found that there are multiple and competing arguments and theoretical perspectives deployed in this body of research. My particular interest in reviewing this literature is to understand the contestation around the economic and the social aspects and benefits of growing and distribution of food in urban contexts.

3.3.1 Food politics

In this dissertation, food politics refers to the ethical, political, and ideological concerns that affect food decision-making by urban planners, food producers and consumers of food. The term is used by Flachs (2010) to suggest that everyday food choices regarding the production and purchasing of local or organic food could be read as an instance of food politics, suggesting that everyday decisions regarding food is deeply political in that they either support a system of farming that keeps money in the community, eschews the use of chemicals, and promotes environmental sustainability, or they support a system that does the opposite. Food choices might be the result of pragmatism and convenience, but scholars who emphasize the political dimensions of food system argue that food choices are also ideological choices. Scholars who write about food politics also emphasize the economic dimensions of choices. For urban food producers, growing food is a way of contributing to household income and subsidising food expenditure, thus helping producers save money (Van Averbeke, 2007; May & Rogerson, 1995). But as Slater (2001) and Thornton (2008) have argued, economic reasons do not tell a complete or even sufficient story. Even though recent research points to the shortcomings of scholarly work that seeks to only point to the economic benefits of urban food production, Wills et al (2009) write that governments, non-governmental agencies and philanthropic groups continue to call for communities to produce food for themselves thus entrenching an economistic perspective on development. It is important then to point out that studies conducted on guerrilla gardening in cities, for example, as well as gardening in allotment gardens and adopting permaculture, suggests that these assist people in reconnecting with nature, even in urban contexts

(Rossi, 2012; Breetzke & Breed, 2013). In addition, scholars have discussed how urban community gardening can serve communities in terms of nutritional, economic, environmental, social and emotional benefits. For example a study by Theron (2000, cited in Van Averbeke, 2007), identified a 17% stunting rate among children aged 12 to 24 months in Concern and Phomolong, two of the five informal settlements of Atteridgeville, Pretoria. The study recommended provision of land for people living in low income areas to grow vegetable for home consumption as an obvious way of addressing dietary deficiencies the area.

The literature on food politics has also contributed to our understanding of the impacts of growing food on local and community level politics and power dynamics. Leahy (2009) and Olivier and Heinecken (2017) have shown how urban gardening strategies to save money has caused tensions between gardeners in low-income communities and the 'greater environmental movement'. Much of this tension derives from the challenges that come with environmental movements calls for the implementation of organic farming and permaculture practices which are usually labour intensive and typically more expensive. Race and class have also been raised as a source of tension because in the USA at least low-income gardeners tend to be older, women, people of colour or poorer, while gardeners in environmental movements practising permaculture tend to be young, men, white or wealthier (Engel, 2008 cited in Kelly & Metelerkamp, 2015). In the South African context, Battersby (2013) has argued that community gardens are raced in particular ways. Battersby (2013) argues that the practice of growing food in urban low-income communities is often seen as a way to reap food or to make a wise investment. In affluent communities, however, the same practice is interpreted as a tool to negotiate power and as an agent of transformation. Battersby (2013) is arguing then that similar practices of urban food growing are interpreted differently depending on the context in which these are performed. The economism inherent in much UA discourse frames similar food growing practices as an economic issue in low-income communities, suggesting that low-income communities are not interested in the social or psychological benefits of urban food growing. In wealthier communities, however, urban food growing practices are interpreted as furthering an environmentalist agenda

(Battersby, 2013; Flaschs, 2010). The evidence I provide in this dissertation, will I hope counter some of the consequences of the economism of UA by showing the social and political benefits that senior citizens in the community garden derive from their food production.

3.3.2 Food justice/sovereignty and food security

In South Africa, as Kroll (2016) has pointed out, food security refers to households' access to food, its utilisation of food, and the resulting food resilience or not. Food security projects therefore attempt to preserve the welfare and survival of households by facilitating access to land, water and seeds (Food and Trees for Africa, 1999; Haysom & Battersby, 2016). The food security discourse, as critics have pointed out, also serve neoliberal market demands in the same way that the Green Revolution catchphrase of "doubling food to feed nine billion by 2050" served agri-business (Cadieux & Slocum, 2015). For this reason food justice activists and some researchers are critical of the attempts by agri-business to tackle food insecurity by increasing food production through technological change (Patel, 2008). They are also critical of the deployment of the food security discourse in relation to community gardens as they see that the solutions that are offered for food insecurity inevitably suggests a liberalized trading environment for agricultural commodities that will favour agri-business (Patel, 2008; Cadieux & Slocum, 2015). Patel (2008) points out that when Miguel Rodríguez Mendoza, the then Deputy Director-General of the World Trade Organisation (WTO), suggested in 2002 that national food security strategies should be premised upon international trade as regulated by the WTO, he effectively proposed that producers should be tied to and incorporated into global capitalism (Patel, 2008).

Those scholars who are critical of the food security approach typically favours an approach that puts justice before security. These food sovereignty scholars point out that the world produces plenty food yet not everyone has access to affordable, healthy food (Patel, 2008; Cadieux & Slocum, 2015; Kroll, 2016). Food justice refers to an approach to reveal and overcome the injustices and inequities inherent to 'the corporate food regime' (Battersby, 2013, p. 4). The food sovereignty approach, then, prioritises production for local and domestic markets, demands fair prices for food producers, and emphasises

community control over productive resources such as land, water, and seeds (Cadieux & Slocum, 2015). Food justice discourses are also associated with activist movements in developed countries, whereas food sovereignty discourses are deployed in advocating the rights of rural, small-scale and indigenous farmers in developing countries. Theoretically, food justice and food sovereignty discourses opens up links to conceptual frameworks that draw on the literature on democracy, citizenship, social movements, and social and environmental justice.

There is not always an easy fit between food justice and food sovereignty discourses as realities in South Africa. Yet, as Van Averbeke (2007) has argued "the majority of urban farmers in South Africa produce food as part of their survival strategy and their farming activities are not expansionist enterprises", thus creating fertile ground for concerns around food justice. One aspect of the food justice literature that has to be mentioned here is the tendency for justice oriented scholars to underplay or overlook the importance of conflict and competition in UA. Aptekar (2015) demonstrated this blind spot in food justice approaches in her study of a community garden in New York in which she writes about the personal aspects of conflicts, prestige and status in the garden. She argued that less privileged gardeners were able to destabilise hierarchies and defend their vision of this public space through relationships built across dramatic lines of class, race, and immigration difference (Aptekar, 2015). Similarly, Dréze and Sen (1989) argued that hunger is linked to all kinds of social, political as well as biological dynamics, not just food production. Dréze and Sen's book, *Hunger and Public Action,* is devoted to the description and evaluation of development interventions attempting to prevent famine and chronic hunger. Dréze and Sen (1989) were particularly interested in discussing the position of women in famine and hunger and studies the factors disadvantaging women, both in the household and outside household relationships. It is important to note that Dréze and Sen also advocated for an understanding of what they called Dréze a basic feature of social relations such as 'cooperative conflict'. Cooperative conflict is a framework for conceptualising households and society and is composed of sometimes complementary and contradictory interests (Dréze & Sen, 1989,

p. 11). They argue, as this dissertation does, that in social relations congruence and conflict of interests coexist, providing grounds for cooperation as well as for conflict and disputes.

3.3.3 Food deserts

The term 'food desert' describes impoverished food environments where it is difficult to access nutritious food due to the lack of outlets offering healthy foods (Kroll, 2016). In her study about the spatial context impacting on food security, Battersby (2012) argues that the geographies of food retail and the broader geographies of urban areas impact on households' ability to access adequate affordable, nutritious and culturally appropriate food. This is an issue not restricted to urban Cape Town, where Battersby conducted her study. In South Africa it is reported that the poor and food insecure households increasingly live in urban contexts and data shows that most city dwellers rely on markets as a source of food (Crush et al, 2011; AFSUN, 2008, cited in Kroll, 2016). As a result, the migration of supermarkets from the cities to the suburbs and the rapid 'supermarketisation' of the food system has resulted in food deserts (Flachs, 2010; Battersby, 2012; Kroll, 2016). As a concept 'food desert' emerged from UA research in developed countries that explore the link between environments and food (Gittelsohn & Sharma, 2009). In this research, barriers to accessing healthy foods include availability of food, cost of foods in consumer food environments, and the spatial aspects of food environments. Kroll (2016) argues that even though the concept has expanded the understanding of food security in developed countries, its application to developing countries and the African context is still in its infancy. Kroll made this argument in his study on food deserts in Orange Farm and the inner city of Johannesburg. He argued that the concept of food desert fails to reflect the diversity of food actually available and accessible through informal livelihoods and markets and that scalar network models of food geographies offer a better conceptual framework. Kroll's study broadly agrees with Battersby and Crush (2014), who offered a revised definition of the concept food deserts in developing countries and Africa that pointed to "Poor, often informal, urban neighbourhoods characterised by high food insecurity and low dietary diversity, with multiple markets and non-market food sources but variable household access to food" (Battersby & Crush, 2014, p. 143, cited in Kroll, 2016).

Kroll's (2016) study demonstrates that the distribution of supermarkets in urban South Africa entrenches spatial inequalities and constrains access to food distributed through formal value chains. It also exposes the spatial and temporal patterns of informal food retailing which provides diverse food retail outlets clustered around public transport access points, along with high traffic pedestrian routes, and distributed throughout residential spaces (Kroll, 2016). As is well established, poverty in urban South Africa is concentrated in low-income and informal settlements, which are nearly exclusively occupied by black people (Martin et al, 2000 cited in Van Averbeke 2007 p. 337). It is in these settlements that spatial inequalities are most visible and where problems of formal value of the type discussed by Kroll (2016) occur most often. In my reference to food deserts in this dissertation, I refer to the definition provided by Battersby and Crush (2014) above in recognising the importance of informal retail and other non-market sources of food in South African urban food systems.

3.4 Key analytical concepts

In this section I define and discuss the following concepts which are central to the analysis of my data: community; exchange; economism; gender and power; learning and knowledge in the household; history and the 'right to the city'; food paths.

3.4.1 Community

The attempt to easily and consistently tie urban agriculture, food justice and community gardens together is complicated because community itself is an elusive term. Not only is the term used to mean very different things, but the term is invoked in different countries and contexts for different purposes. On a very basic level, Leahy (2009) has written that "community projects" generally have the following characteristics: only some people in a village or town are members; the people who join are not all relatives; and typically, a community leader links up with a funding body to get this kind of project moving and recruits other people

In South Africa, the term has a long and complicated history as Thornton and Ramphele (1988) argued some time ago. When they wrote about the use of this term in South African political discourse, before

the end of Apartheid, they noted that the term ‘community’ has come to stand as a cypher for people who are excluded from mainstream power. Thornton and Ramphele’s aim was to move away from essentialist definitions of community (and race and identity) and to demonstrate how the concept ‘community’ is used and abused in political discourse in South Africa. They argue that the concept is often poorly defined in the literature, and in practice is variously used by development professionals or apartheid government planners who assume that communities exist as real and stable entities that are homogenous. Most controversially, in South African at least, the notion implicitly connotes class, status and race. For example, at the time of their writing, and arguably still today, the term ‘community’ often refers to poor, black urbanites, and is even more loosely used to describe residential entities such as the township or refers to people who should be seen as ‘targets’ of development projects (1988, p. 30). Taking Thornton and Ramphele seriously in the South African context means not using the term to denote an essentialist version of identity, not to assume homogeneity, and not to assume a kind of group identity that is characterized by like-minded individuals who working together in the absence of conflict, politics and power.

This has been recognised by UA scholar such as Glover et al, (2017). They basically argue that community gardens are less about gardening than they are about community building. Community garden project cannot assume the existence of stable, homogenous communities. But projects may form part of the creation of a sense of community, in as much as projects may result in conflict and fragmentation. They argue that participants’ willingness to share resources in a community garden is often only enhanced by the social connections gardeners make during their participation in the shared act of gardening and other activities. The point is that we should be clear what we mean by community. In this dissertation, I do not impute to the term ‘community’ an image of coherence, a group in which individuals live in harmony, interact and offer support to each other. By using the term I do not want to ignore the existence of a possible asymmetry of goals and I do not want to blur issues and concerns about conflict, competition, status and prestige.

3.4.2 Exchange

As much as this study explores the growing of food in the community garden, it also looks at what happens with fresh food that has been produced in the community garden. In other words, it also looks at the distribution and exchange of food, if not its consumption. I had expected the selling of fresh produce by the gardeners to be of great importance but discovered that market exchange was not central to their practice and indeed their reasons for engaging in gardening. The gifting and distribution of food was more important. In order to analyse this I turned to the anthropological literature on exchange, specifically the literature inspired by writing on exchange by Marcel Mauss (1969). Mauss, in his book *The Gift* (1969), examined gift-giving ceremonies among tribal and archaic societies. Mauss' book is a study of the institution of the gift in primitive and archaic cultures and he argued that gift exchange has varying economic importance, often concealed in symbolism (Mauss, 1969). Food exchange in this dissertation is recognised as an important component of UA. I distinguish between market exchange and gift exchange, and recognize the importance of exchange in terms of creating political alliances, fulfilling or rejecting social obligations and as a central mechanism for redistribution of goods and services. In both industrial and non-industrialised societies exchange exists, but in industrial societies market exchange tend to be based on choice whereas in non-industrial societies exchange tends to be embedded in social ties marked by obligations (Mauss, 1969; Patel, 2008).

Exchange as an analytical concept has been used in UA research to explain exchange, power relations and social relationships. For instance, Sonnino (2014) employs exchange theory to highlight the role of food exchange nodes and of governance coordination in the design and implementation of more effective food security strategies. In his work on urban food strategies, Sonnino takes data on the places where food exchanges occur as evidence of the degree of connectivity within a food system (2014). By employing the exchange framework, Sonnino (2014) began to address the effects of exchange networks, the process of exchange, and the outcomes of exchange in UA. In using the concept of exchange in this dissertation, I do not refer to individualistic forms of dependency

relationships in reciprocal gift exchange or even neoclassical economics, but “the socially richer ones” (Ferguson, 2013). I also do not imply that participants are opportunistic when it comes to the creation and maintenance of relationships resulting from the exchange of food and other products.

3.4.3 Economism

This dissertation brings together various strands of the existing UA literature and, presenting new data, offers a critique of the economism inherent in much UA policies and projects. Economism is a theoretical position that emerges from within market societies, one that reduces all social relations to market logic (Brohman, 1995; Norgaard, 2015). While the term has an older history (cf. Norgaard, 2015), its use on contemporary development studies signals a critique of neoclassical economics and neoliberal policies. The term is used to point out that supply and demand considerations in the planning, implementation and evaluation of development interventions tend to outstrip and silence other issues such as sociocultural and political relations, the intersubjective realm of meanings and values in development, and the environment and issues of sustainability (Kahn, 1990; Brohman, 1995; Norgaard, 2015). Kahn (1990, p. 233) are critical of economism as a project that are “pushing us towards an ever-deepening entanglement in the world of commodities and exchange-values”.

Brohman (1995) notes that economism as economic reductionism strips development processes of possibilities for variation and change based on individual motivations and beliefs, as well as the influence of historically constituted societal structures and relations. Brohman argued that the common problem with neoliberalism and economism is its dependency on positivist research methods that restrict research to the narrow empirical world of observable events and phenomena (Brohman, 1995). Hence other components of reality, such as social relations, values, meanings and interpretations, are excluded from serious consideration (Brohman, 1995).

3.4.4 Gender and power

A theoretical openness to examine social relationships, race, gender and power is implied in the critique of neoclassical economics, positivism, and economism. In earlier work, Connell (1987) has

argued that there are three major social structures that shape the gendered relationships between men and women in society: the sexual division of labour, the sexual division of power, and the structure of cathexis. In her work on urban agriculture in Zambian urban spaces, Rakodi (1988) has expressed a critical stance towards urban planning's dependency on official statistics as opposed to everyday experiences. This position, she argues, results in "biasing its policies in favour of the formal sector and against unrenumerated economic activities", which in the urban African context, often means disregarding women and women's work (Rakodi, 1991, p. 544). In her study of UA, Rakodi (1988) found that to overcome the high cost of land, physical availability of land, and the distance which had to be travelled to access land, Zambian women form networks of social relations within the household, kinship group, or neighbourhood. These are especially important in contexts such as Zambia where state-provided services for women to engage in UA are limited or non-existent. Her work shows the importance of understanding UA in African contexts by also examining social factors and practices, offering another critique of economistic development approaches. We cannot assume, she says, that measuring the food quantity produced and the income gained though UA will provide us with an adequate picture of the benefits and the motivations for engaging in UA.

Admittedly, more and more researchers are taking note of the arguments and recommendations made by feminist scholars such as Rakodi. In development studies, broadly two approaches have emerged in relation also to food and agriculture: (1) documenting women's roles and experiences in terms of 'gender in development' (GAD); and (2) 'women in development' (WID). The WID approach often refers to a description of the *status quo*, where women's roles are separated from those of men, where they are treated differently and in isolation of each other (Kabeer, 1994, cited in Slater, 2001). Typically, WID approaches favour a neo-liberal model of development in which economic growth is equated with human development even as human rights and gender inequality is highlighted in the disempowering of women (Painter, 2005). Slater (2001) refers to a study conducted by Freeman (1991) as an example of scholarship in UA that takes on the approach. Freeman's study reported that 64.2 per cent of urban farmers in Nairobi are women, but did not devote much time to document the

experiences of women in UA. Even though women are presented as the majority of urban farmers, they are separated from what is presented as the UA 'norm' (Slater, 2001). Even though there are examples of studies on food and agriculture moving from the WID framing and employing alternative views, there is a need for a growing consideration on gender within UA. The GAD approach, as an alternative to WID, maintains that "to focus on women in isolation is to ignore the real problem, which remains their subordinate status to men" (Moser, 1993, p. 3 cited in Slater, 2001). In this dissertation, I favour the GAD approach to analysing gender.

3.4.5 Learning and knowledge in the household

The realization that UA is also a household issue dates from the 1980s. In her work, Slater (2001) moves away from focusing narrowly on a household's involvement in income intensification or food outcome only by also exploring UA and households in the context of social aspects and process. For Slater (2001, p. 639), the term household in the UA literature often "carries a stamp of neoclassical farm household economics". Households are often presented as quite similar to individual market actors that seek to maximize their utility. Following Slater (2001), I am interested in understanding households as sites of gendered and aged power and sociality, not only as sites of income generation and wealth accumulation.

UA scholars who write on households includes Battersby (2013) who make the argument that food insecurity is conceived predominantly at the household scale and that this often turns food insecurity into a poverty issue rather than a systems issue. Battersby demonstrates this framing of UA in her work on urban agriculture and race in South Africa, where she argues that - unlike in the developing countries - social aspects of cultivating food in urban areas are emphasised in developed countries. This means that we need a different conceptualization of the household in developing countries. UA research tends to focus on the individual household's access to food and its ability to maximise utility. But this obscures the wider politics of food and prevents the questioning of the wider food system (Battersby, 2013). In addition, the framing of UA as a household issue also has led to the construction of what Battersby (2013) calls the 'African urbanite'. This concept speaks to the reasons for why

urban agriculture is promoted over other food security strategies, namely the persistent construction of the African urban citizen as rural. As a result of this construction and stereotype, UA is viewed by planners as a vehicle for transferring agriculture knowledge and experience. Learning and knowledge is a common theme in the literature on UA. But the persistent framing of urban food producers as recent migrants from rural areas with experience and knowledge of farming is problematic. Dunn (2010), found that many of her research participants exhibited a lack of gardening knowledge and faced structural barriers in urban agriculture in Hout Bay, Cape Town. Dunn's study demonstrates the noticeable gaps in UA literature: a lack of information on the history of the practice of UA and a relative lack of information on the social benefits of UA. One of her participants in the study said that "despite coming from rural areas and growing food there, it never occurred to her to garden in the city until introduced to an urban agriculture project some forty years later" (Dunn, 2010, p. 87). In this dissertation then I frame the household not only as a site of income generation but also as a site for learning.

3.4.6 History and the 'right to the city'

The histories of colonialism and apartheid significantly shaped and continue to shape the settlement patterns of South Africa's urban poor. In South Africa, as Demissie (2007) has argued, housing was used as a means to control and to civilise. The historical injustice in city planning holds profound implications for the realisation of the constitutionally enshrined rights of the vulnerable and poor city dweller, including their rights to access the city and the make lives in the city. The literature on the 'right to the city' has been substantially developed by different scholars since first appearing in the works of Lefebvre (1991). Currently, the concept appears in studies on rights of appropriation and participation and reclaiming public spaces amongst other issues. For instance, it includes how guerrilla gardeners have reclaimed the commons by cultivating highway medians and vacant lots, an act of transgression of normative conceptions of urban space that situated UA, at least in its guerrilla gardening form, within broader power struggles (McClintock, 2013). Read from this perspective, other UA types, such as community gardens, backyard gardens, rooftop gardens or gardening along river

banks, also potentially involve the commons and struggles over public space. In the context of UA, the 'right to the city' becomes the as of yet unrealised right of urban inhabitants to collectively produce, manage and govern urban centres.

There is a growing body of literature on this very issue in relation to UA. Shillington (2013, p. 2) for example writes of the urban poor in Managua, Nicaragua, where growers in patio gardens "simultaneously challenge their exclusion from urban spatial practices and address the increasing insecurity of access to food". Shillington argues that "through the practice of urban agriculture, households create particular ecologies that assist in asserting their rights to the city, or more specifically, their right to urban metabolism" (Shillington, 2013, p. 2). Given the limitations that colonialism and apartheid placed on black people's right to live and work in urban South Africa, large sections of which were declared as "whites-only" spaces during Apartheid (Demissie, 2007), it is perhaps unexpected that UA should relate to contemporary forms of claiming a 'right to the city'.

3.5 Conclusion

In this chapter I discussed the two bodies of knowledge in contemporary research on a community gardens and UA to which this dissertation contributes. In my review of the literature I pointed to key concepts and arguments developed in developed countries and how they are used or not in the context of developing countries, including contexts in Africa. I have also sought to highlight aspects of the UA literature that have in common a critical approach to power: both in relation to how we frame households, communities, gender, and the benefits of and motivations for engaging in UA. As such, I am interested in approaches that place local contexts in larger contexts, not ignoring structural issues of power. I was also interested in literature than expands our concepts of benefits over above the economic, while being critical of aspects of food justice approaches that neglect issues of power, and conflict and at times demonizes market exchange and entrepreneurialism.

In the next chapter, I will move to a discussion of the sites where fieldwork was conducted. I also offer a brief history of the WSEC, the hub where the community garden is situated. A description of the

organisation of the community garden including its rules, the rights and obligations of those who are members, and the procedures and actions that govern, define members and everyday garden work, is included. I also discuss the food system in Mamelodi that include sources and types of food and by-laws that govern gardening in public spaces.

Chapter 4: Study setting: The WSEC community garden

4.1 Introduction

In this chapter, I introduce the sites where fieldwork was conducted. This includes the former African township of Mamelodi where the community garden is situated and where all the research participants reside. The chapter also discusses the history of the WSEC, the hub where the community garden is situated. Of particular importance are the major changes that took place between the inception of the community garden in 1997 to the present, told through the voices of the gardeners. Furthermore, in the chapter, I provide a description of the organisation of the community garden including its rules, the rights and obligations of those who are members, and the procedures that govern the individual members and garden work. I also discuss the everyday gardening activities of gardeners at the community and how their gardening activities link to a discussion of food politics and urban agriculture. Lastly, I briefly discuss the wider food system in Mamelodi, including sources and types of food and by-laws that govern gardening in public spaces.

4.2 Mamelodi township

The low-income, peri-urban 'township' communities on the periphery of South Africa's major urban areas are home to urban gardeners who are often, but not exclusively, unemployed women and senior citizens (Battersby, 2012; Van Averbeke, 2007; Slater, 2001). In some of the low-income township areas such as Khayelitsha in Cape Town, Msunduzi in KwaZulu Natal, Soweto in Johannesburg and Mamelodi in Pretoria, between 70 percent to 87 percent of the population reported being food insecure, according to a food survey done by Frayne et al, (2009, p. 5; see also Battersby, 2012). Yet, very few low-income households in South Africa, and specifically in township areas, grow their own food (SACN, 2016; Battersby, 2012). Encouraging township residents to produce more of their own fresh food is, therefore, one of the arguments and policy suggestions made in the literature on addressing food insecurity (Orton, 2009) and food sovereignty (Beuchelt & Virchow, 2012).

Mamelodi Township is situated in the City of Tshwane Metropolitan Municipality (Pretoria) in the Province of Gauteng. The township is situated in the north-eastern part of the municipality, 16

kilometres north-east of Pretoria CBD [Google Maps, see Figure 2]. The residents of the township are predominantly black, of very low to middle socio-economic class, with high rates of poverty and unemployment (Orton, 2009).

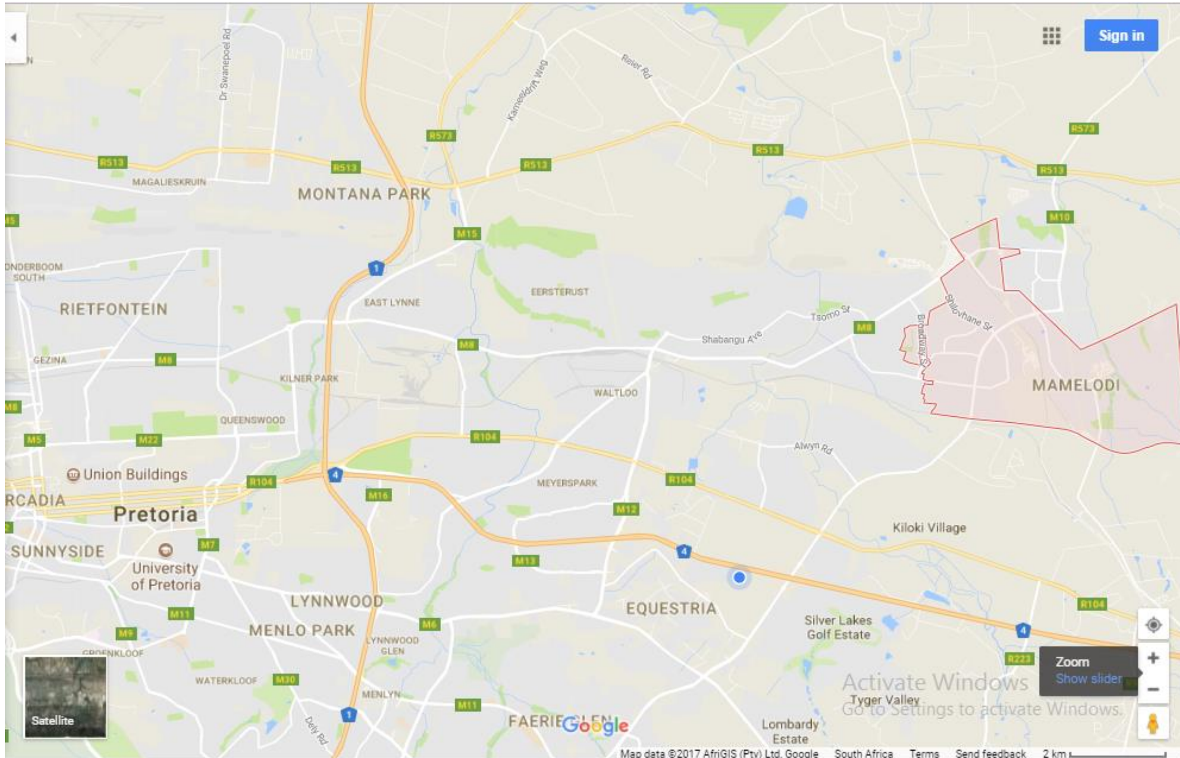

Figure 2: Mamelodi Township in the City of Tshwane Metropolitan Municipality (source: Google Maps, 2018 -a)

A study by Orton (2009), provides a sense of income levels and the potential for urban agriculture Mamelodi townships. In his study on urban agriculture in Mamelodi, Orton writes that more than 58 percent of the people in the township have 'no income' and rely on activities other than wage employment to support their families (Orton, 2009). In the study, Orton documented income generating strategies such as gardening which are typically flexible and also difficult to record.

Mamelodi is home to some small-scale formal and informal industries and street markets. The majority of people in the township spend as much as 50 per cent of their income on food (Orton, 2009). The closest supermarket with affordable and fresh food to the neighbourhood where most of my research participants live is situated at Denneboom Mall, a distance of approximately four kilometres (De Beer, 2015), [see Figure 3]. There is a smaller Spar supermarket in Tsakane, which

among other items, stocks fresh vegetables. Authors such as Abrahams (2011), Flachs (2010) and Battersby (2012) have argued that in food desert areas, such as Mamelodi and other South African townships, oligopolies have caused lack of competition, which leads to unavailability of quality and affordable fresh food in the area. Since there are nearly no state-sponsored and public initiatives to provide fresh food to low-income urban communities, and residents do not grow their own food, poor residents are forced to engage in a market exchange in order to source fresh food (Battersby, 2012).

The climate in Mamelodi favours urban agriculture. Mamelodi’s temperature is generally high with a high average rainfall per year (Orton, 2009). The monthly relative humidity is 59 per cent and there is a high-water table, therefore, making the area suitable for agriculture activities (Orton, 2009; WSEC.org).

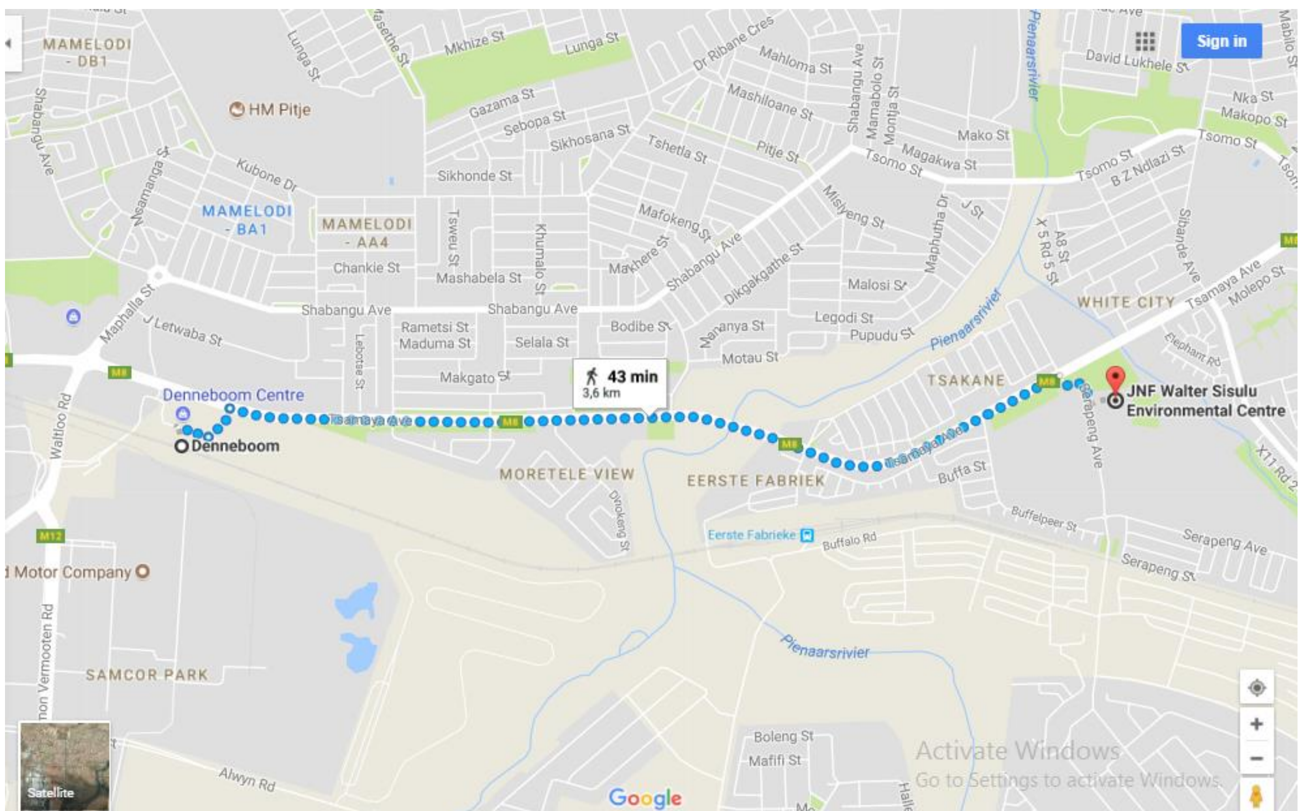

Figure 3: Showing distance between WSEC/Tsakane and supermarkets in Mamelodi (source: Google Maps -b)

4.3 The history of the Centre

Founded in 2004, the Jewish National Fund, WSEC in Mamelodi is an initiative of the Jewish National Fund (JNF) of South Africa (Breetzke & Breed, 2013). On 14 September 2004, the late

Albertina Sisulu opened the Centre. The aim of the Centre is to develop long-term sustainable development projects on behalf of the Jewish community in South Africa (WSEC.org, 2017). The Centre was designed by Paul Asquith under the International Institute for Energy Conservation's "Green Professionals" project to address issues such as water harvesting, insulation, passive solar orientation and water saving (WSEC.org, 2017). It was also established to act as an example of environmental best practice, as well as, a hub for environmental education (Rossi, 2012). The JNF continues to sponsor the WSEC financially while the Gauteng Department of Environmental Education runs a project with the Centre through which they offer environmental education to approximately 10 000 learners from 186 schools in and around Mamelodi area each year (Rossi, 2012).

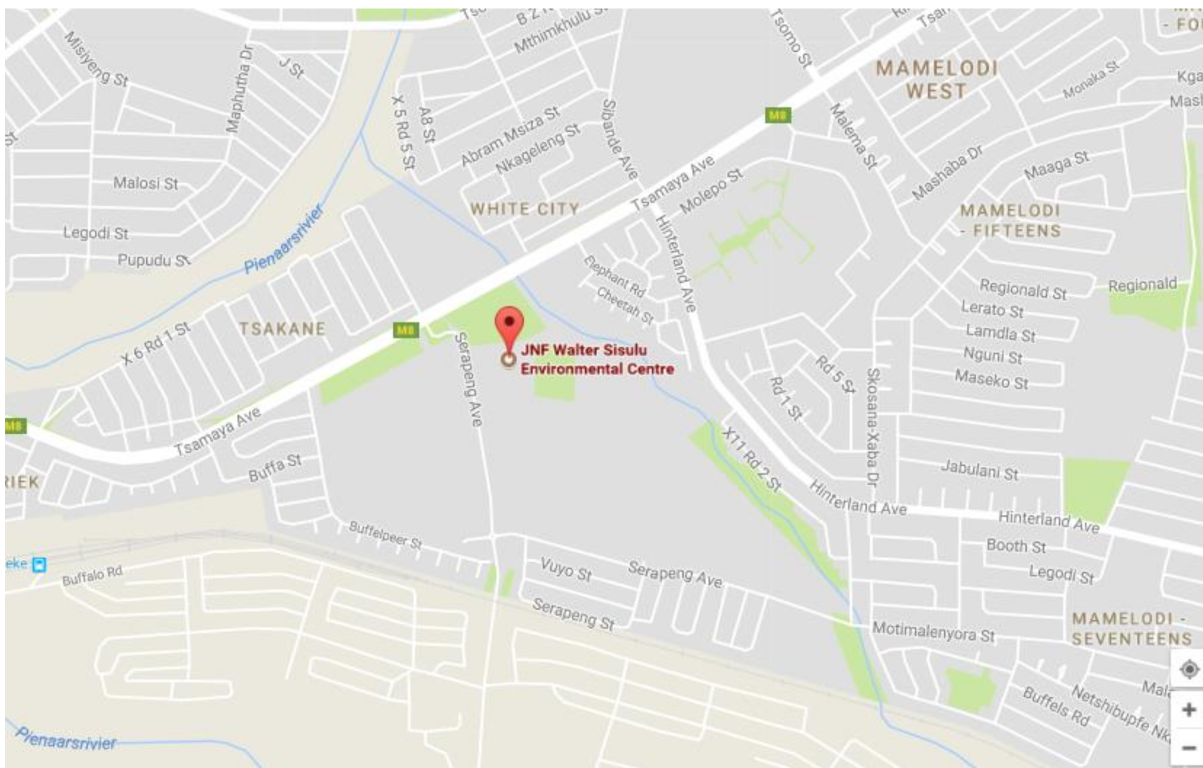

Figure 4: Showing WSEC in Mamelodi (Source: Google Maps, 2018 -c)

4.4 A description of the Centre

The WSEC referred to as 'the Centre' in this dissertation, is situated between a public hospital, a technical college and behind the Nelson Mandela Park, on the west of Moretele Spruit (Pienaarsrivier). Inside the main building are an auditorium, administration office, computer room,

water-wise ablution facilities and environmentally themed rooms focusing on water, biodiversity, waste and energy. Outside the Centre, on the perimeter, but within the property, is a tree nursery, permaculture demonstration garden, recycling station, wetland and an allotment community garden, officially known as the Mandela Peace Park senior citizens garden.

The Centre forms a detached part of the public park but a toleration agreement has been reached that the Centre is accessed by members of the community with special permission. Only the community gardeners and employees of the Centre are permitted to enter the Centre at any time. When I first visited the Centre, I noticed security personnel stationed at the main entrance gate. The Centre is fenced off by a green aluminium security fence, which marks the territory of the community gardening and Public Park. On entering the gate, visitors are usually obliged to go through a quick security check-in, conducted by the security staff employed by the Centre.

The Centre is not so much an administration centre, but more an educational centre with an ideal demonstrative feel. Throughout the Centre's space, visitors are guided by pathways and educational signposts that animate and narrate the garden, trees, ecosystem and the medicinal and nutritional value of plants. Huge trees and the mesh of dead wood and hedges block out the sound of traffic and the noise from the park as well as the sight of the township buildings. The Centre opens weekdays only and is closed on weekends for all other activities, except, of course, gardening.

4.5 The history of the community garden

In 1997, the one hectare of community food garden for senior citizens was started by the members of Mamelodi community themselves, before the opening of the Centre (Rossi, 2012). In 2004, the community garden was integrated to become part of and to be managed by the Centre staff. The integration was the second project of the Mamelodi Greening Committee (MGC), established by the Jewish National Fund, in a partnership with the British High Commission, the Department of Water Affairs and Forestry, and Food & Trees for Africa (FTFA) to oversee the greening of Mamelodi Township (WSEC.org). The main aim of MGC is to curb "problems such as overpopulation,

environmental illiteracy, soil erosion, drought, silting of rivers and desertification" (WSEC.org, 2017), while recently also endorsing food security (Rossi, 2012).

In 2004, FTFA trained a group of 45 senior citizens from around the Centre for permaculture food gardening for the first time. It was this permaculture training initiative that led me to the Centre, as I also wanted to research the adoption of permaculture among urban gardeners. However, I soon found out that permaculture practice is no longer implemented in the community garden by the gardeners, even among those who attended the first training.

The Centre also developed garden allotments of about 20 to 25 square metres to be rented to tenants at R10 in 2012, and R20 after 2017 (Rossi, 2012; WSEC.org, 2017). Later, FTFA secured more funding from the Robert Niven Trust to provide further support to train new members, purchase plant materials and install additional water tanks and stands and irrigation systems (SA Irrigation, 2006). Over the years, members have dropped out due to age and poor health, while others have passed on. This has meant that there have been opportunities for new members to join the garden. At the time of writing, the community garden comprises seventeen members, most of whom are women and senior citizens who in many cases are the sole income providers in their households through the government monthly old age pension that is currently R1 530[1].

4.6 A description of the community garden

The community garden is situated on the eastern side of the Centre, within the boundaries of WSEC. The community garden is surrounded by a green aluminium fence, marking the boundaries of the garden from the rest of the Centre. The big trees along the garden fence and the grass growing in some patches of the garden makes it almost impossible to see the activities in the garden from the outside. Only gardeners and employees of the Centre are allowed to enter the garden, while visitors require

---

[1] R1 530 is the maximum amount paid to senior citizens by The South African Social Security Agency (SASSA) to senior citizens who are over the age of 75 years of age. Available online: http://www.gov.za/services/social-benefits-retirement-and-old-age/old-age-pension

permission. The opportunity to enter the garden means that visitors have the chance to experience the healing elements of feeling the earth and the brisk and calming effect of green vegetation.

The style of a community garden is an individual-plot garden, where individuals ‘rent’ plots from the Centre, often through verbal agreement. Every month the senior citizens pay a monthly contribution which is a kind of rent. The Centre uses this money to buy communal resources such as seeds, manure, compost and mulch. Individual gardeners grow their own food alongside other gardeners. The garden also has communal plants such as peach trees and other trees parts of which is used for medicinal purposes.

Upon entering the community garden, the fresh air inside is woody and distinctively sweet, as it has been mixed with the smell of cut grass, herbs and onions. Plants are neatly planted, on most of the plots. A shipment container that sits next to the entrance gate and used as a storage room, provides a visual distraction from the neatly planted garden plots. Apart from the containers, shades below the big trees in the garden are used for temporary storage sites for garden supplies and personal materials. The garden is a swale garden and drip irrigated from the drill-borehole-system and rainwater harvested off the rooftops of the Centre. At the time of writing, there are two 5000 litres Jojo water tanks in the garden used for storage of irrigation water. At the Centre, various irrigation systems are used, including a borehole, the use of hosepipes, watering cans, sprinklers and drippers. It was not an aim of the dissertation to calculate the investment in water technology at the Centre, but the gardeners did talk about the actual practices of irrigation in the community garden and problems of vandalism or theft of watering equipment.

As I observed it, visitors to the Centre such as researchers and officials from different organisations were typically outside of Mamelodi and not much involved in actual gardening activities. I did not see many young people from the community coming to visit, except school children on educational visits but did observe several older women and men looking at, or studying, the plants in the garden from the outside. Often though visitors to the garden would express an interest in buying spinach; when this

happens, the visitor is given a knife and has to cut his or her own vegetables there and then, directly buying such fresh produce from the relevant gardener.

In the community garden, gardeners have ways to handle weeds, pests, birds and roaming dogs, prevent erosion and decelerate evaporation. Particularly, they are concerned with limiting toxic pesticides, not only because of the negative effects these have on the environment, but also because of the pragmatic concern of affordability. Gardeners are concerned about pests and insects eating vegetables, but also animals like rabbits and birds enjoy fresh vegetables and could destroy a garden if given the opportunity. To keep birds away, gardeners often erect mannequins made from tree branches and paper and fashionably dressed in human clothes. Initially, I mistakenly perceived the mannequins as human beings. There are also plastic two-litre bottles filled with water, within and surrounding the boundaries of some of the garden beds and plots, which are used to scare off dogs and prevent soil erosion.

On some plots, vegetable beds are raised. Some vegetable beds are covered with nets and mulch to protect new seedlings from the sun's heat and to decelerate water evaporation. In the community garden, gardeners grow cabbage, spinach, onions, beetroot, spinach, pumpkins, herbs, beans, green beans, Chinese spinach, kale scotch, cucumber, groundnuts, sorghum, millet, carrots, tomatoes, eggplants, lettuce and maize (referred to as *mealies*).

A wide variety of vegetables and herbs that are grown in the community garden also reflect the variations in the cultivation activities across different seasons. I started fieldwork during the end of the long winter season, a time which, unfortunately, limits the number of vegetable species grown in the garden but increase the need for watering plants. Gardeners were waiting for the start of the wetter, summer growing season when participants plant a variety of crops such as maize, ground nuts; and herbs that intensify the weeding and mowing labour.

Perhaps one of the most significant challenges of gardening in the city is that even though the participants have lived in Mamelodi for many years, they do not have years of experience of gardening

in the area's climate. The times for planting and harvesting, the amount of sun the plants are receiving and soil types, are quite different to what residents who grew up gardening or farming in the northern part of South Africa, for example, are used to. Such changes tend to create frustration and some failures in the community garden. In addition, most gardeners work in their garden plots in the morning to avoid the heat from the sun at all times. Thus, the everyday gardening practices of gardeners at the community garden represent what Perry (2013, p. 118), in his study of rural Xhosa homesteads, refers to as the "rhythms of the garden", which most people who practice indigenous farming methods comprehend, yet they are not wholly incorporated socially or economically into global sustainable development strategies. To understand the entrepreneurial spirit of some of the participants in the communal garden, we need to place it in context. It takes three to four weeks for vegetables such as spinach or kale scotch to grow during the rainy season, which starts in November and lasts until April. Therefore, if a participant, who already has another garden plot along the river bank as she does, finds a plot at the community garden, her possibilities for making money increases, in addition to the opportunities for socialisation and support from alliances formed at the community garden.

4.7 Organisation of the community garden

The behaviour of individuals in the community garden and the community garden itself as part of an institution [the Centre] is embedded within social and organizational structures as well as cultural values (Luccarelli & Bergmann, 2015). To understand these structures and values I often asked the senior citizens, mostly while socialising out in the garden, "who is in charge of the garden?" Or, I would ask them about who they consider to be the best gardener. The latter question was answered straightforwardly, as everyone pointed at the same person as "a good gardener (*sehwai se hlwahlwa*)". It was more difficult for them to answer the former question, about who is in charge of the garden. This was despite the fact that the garden has a committee that mostly oversees operations such as collecting contributions for a sick friend, funeral or other social activities. Meetings are scheduled to be held on every week and all members of the community garden are expected to attend. The

coordinator of the community garden, who is also an employee of the Centre, is the one who is at the core of all the extra-gardening activities that are held in the community garden or which are organised among the community gardeners.

Apart from contributing towards the purchase of seeds, the money that is paid by the gardeners every month to the Centre as contribution or rent conveys much of a symbolic and organisational value that is communicated daily as the community garden coordinator visits each garden plot. It is difficult, however, to immediately understand how the gardener's monthly contributions advance the politics of access to land, seeds and knowledge. It only through close inspection of the monthly contributions, for example, that it becomes apparent that the Centre does not discipline defaulters. It does not increase the amount of the contribution much and as such membership fees are not used to exclude people or increase the vulnerability of individuals from low-income households. Rather the focus is on inclusion; on the collection of monthly contributions during seasons that the garden is productive and not during dry spells and floods.

Among the gardeners, friendships and alliances are also made, but not only based on standards of sameness such as age or between people who grow the same plants or who work on neighboring plots. I can use the case of a group of senior citizens who have recently joined the garden to illustrate this point. This group named themselves as *mafsa* - an Pedi/northern Sotho term that means 'newcomers' - as a way of constituting themselves and naming their relationship with each other. Building and maintaining these emergent relationships is hard work and an achievement, given that the gardeners are subjected to periodic natural or man-made disasters such as heavy rains and vandalism that could destroy not only their common resources but also the possibility of alliance-making.

4.8 A typical day in the life of a gardener at the community garden

It is essential to understand the participants' definition of the garden so as to understand a typical day in the life of a gardener at the community garden. As such, we need to follow the way that participants talk about gardening as *tshebetso serapeng* in Sesotho or *lema*, a Sepedi direct translation which

means “to plough” or “to farm”. During participant observation, we discussed gardening as an activity that includes one or more of the following activities; sowing, watering, cleaning soil, planting, weeding, pruning fertilizing and/or harvesting. Often, the participants talked about gardening as a dichotomy between the embodied everyday activities on the garden plot and absenteeism.

The community garden is situated approximately between three kilometres from Tsakane, a part of Mamelodi where most of the research participants reside. For most gardeners, a gardening day starts with the morning walk while conducting conversations with people along the way. Upon arrival at the community garden, gardeners usually change from their day clothes into working outfits, such as industrial overalls or domestic worker uniforms. Typically, during the hot or dry season at least, participants water (*ho nwesetsa*) plants to provide moisture to the soil on their scheduled day. Participants told me that watering (*ho nwesetsa*) is a critical activity for the first days of plant development, and during the period when edible parts of the plant are developing. Whenever I offered to help with hand-watering, most participants told me to wet the soil around the plant base, as overhead watering provides moisture which is beneficial to insects and spiders, especially during the hot, dry season. Seeds for leafy vegetables are sowed on separate beds and then seedlings are transplanted to other beds, keeping in mind spacing requirements. Crowded seedlings, especially for plants such as carrots and onions, are removed as soon as possible to give the remaining plants enough space to mature.

Daily work includes participants removing weeds (*lehola*) as soon as they appear. Participants are aware that weeds compete with garden plants for water and nutrients and may harbour insect and disease pests. Thus, they hand pull young weeds, usually when the soil is wet; after watering (*ho nwesetsa*) or rain. Strong weeds are removed using a hoe with a sharp edge. Participants also mow around the beds to prevent the spreading of weeds (*lehola*) to other beds. They make sure not to leave bare soil exposed, as weeds are likely to germinate and fill that space. On any day, one could find participants spreading mulch made of grass clippings, newspapers, shredded leaves or compost around plants and on bare soil, to prevent new weeds from germinating. Apart from preventing weed growth,

mulch is spread on the vegetable beds to moderate soil temperature, conserve soil moisture, and add organic matter to the soil as they rot.

One could also observe participants raking leaves that fall from the trees in the garden into a loose pile to be used for mulching later. The leaves are often cut into small pieces to ensure that they are not blown away by the wind when they are spread on the plot. Gardeners monitor plants regularly for pests, weeds or water problems. Once in a while participants also clean up the debris, for instance, rocks, papers and diseased or insect-infested plants. They remove this type of debris, to reduce disease problems for next year's garden. Debris in the form of dead and unproductive plants are added to compost piles on the garden plot.

For plants that have nutritional needs, such as maize, tomatoes, eggplants and lettuce, gardeners usually add compost or fertilizer after planting, while some plants such as maize, require additional fertilizer or compost later in the growing season. Gardeners also place and monitor mannequins to protect plants from birds. As mentioned, plastic bottles filled with water are placed on the edge of the vegetable gardens to mark the plot territory and to keep dogs away. In addition, sometimes participants work in their fellow gardeners' plots. As per the logic of reciprocity, they water or weed other gardeners' plots when the owners are away or are sick. A garden plot is not supposed to be idle for too long or else gardeners risk being perceived by fellow gardeners as *botswa,* an IsePedi term that means being lazy.

During gardening, the participants also attend to visitors and customers who occasionally come to buy vegetables. They socialise, chat, gossip and share ideas, experiences and resources. When they are satisfied that the day's work is done, gardeners will harvest some of the vegetables for the household, and for sharing with friends and family. They pick vegetables when these are young and tender – these have the best flavour they say – and to make sure that the plants continue producing. Leafy crops such as lettuce, spinach, and scotch kale are harvested by cutting leaves from the ground upwards to

encourage young and new leaves to grow. Root crops such as onions and beetroot are pulled when needed for meals or for sale as soon as they reach an edible size.

The garden chores are not over when the vegetables are picked and all the crops harvested. Putting the garden to bed in the autumn after summer and a rainy growing season gives the gardeners a leap into winter and a dry growing season. The jump includes clearing permanent vegetable beds or making new garden plot beds for the new growing season.

4.9 The food environment in Mamelodi

Food environment as a concept refers to the sources and types of food available in the physical settings through which people move in the course of their daily lives such as homes, schools, stores, restaurants, community gardens, soup kitchens, food banks and other places (Kroll, 2016). While I was primarily interested in understanding the activities and dynamics at the community garden, I had to develop an understanding of the wider food environment in Mamelodi. However, given the constraints placed of research time for a Masters degree, I could not examine this directly. During interviews, participants narrated three different categories of sources of food in Mamelodi, including supermarkets, street markets and family and friends.

Most of the participants mention that they purchase food at a Spar supermarket branch at some point, which generally stocks manufactured or packaged foods, vegetables, sweets and cooked meals. This finding concurs with African Food Security Urban Network (AFSUN) data and the work of AFSUN affiliated students which shows that most city dwellers (>79% in 11 Southern Africa cities), purchase food from supermarkets at least once a month (Frayne, Crush & McCordic, 2017). The Johannesburg study done by Kroll (2016) demonstrated that, contrary to the standard food desert arguments that apply in developed countries, supermarkets are moving closer to and becoming more accessible to poor urban consumers even as these supermarkets are usually clustered in wealthy areas. Kroll's study found that supermarket locations are, however, usually located close to busy transport routes and in areas where profit margins are higher, making them difficult to access without private motorised

transport. When supermarkets do enter poorer areas, foods stocked are likely to include a smaller range and fewer healthy options (Kroll, 2016). So access to food for poor people remains a concern.

Over and above the supermarket, my participants also purchase daily or weekly food supplies from informal markets and shops, including local *spazas*, street vendors, and takeaway joints. These food outlets offer packaged vegetables and sweets and cooked meals. Prepared meals in the form of takeaways, as opposed to sit-down meals, are also bought and consumed. To analyse informal food markets, Gittelsohn and Sharma (2009) address - and draw valuable conclusions from - minority and vulnerable communities in diverse settings. There are good reasons for why people source food in this manner. Gittelsohn and Sharma (2009) argue that informal traders or street markets are selling food in new ways, offering more affordable package sizes, flexible credit options, have extended opening hours and are geographically accessible.

Lastly, participants told me they also source food from friends and neighbours through the sharing of vegetables, mealie meal, rice and other packaged and prepared food. In her survey, Battersby (2012) found the same among poor households in Cape Town. Her survey shows that a large proportion of the population in townships acquired food from neighbours and other households through sharing meals, eating food provided by others, and borrowing food, while a smaller amount received food as remittances. This point is important as it shows the importance of social relationship and non-market actors and institutions in how some people access food.

4.10 Policies and by-laws in Tshwane

In the metropolitan context, community gardens as represented by the City of Tshwane Municipality as UA and food security initiatives. Elsewhere in South Africa, urban agriculture and food security initiatives are also the focus of many NGOs and corporate social investment programmes (Haysom & Battersby, 2016). The guidelines for food security for individuals and communities are articulated within CTMM policies and by-laws as part of the wider food and nutrition security sector in the South

African context. The focus of the national policy on food and nutrition security is “to streamline, harmonise and integrate the diverse food security programmes” (Department of Agriculture, Forestry and Fisheries, 2013). Such food security programmes include food fortification, food transfer programmes such as school feeding programmes and rural home-based gardens and the establishment of gardens attached to clinics and schools (Wills et al, 2009).

First of all, gardening in public spaces in CTMM is guided by bylaws relating to streets, public spaces, and prevention of noise, air quality and prohibition of dust from land tilling (Gauteng Department of Agriculture, Conservation and Environment, 2010; Green Gazette, 2016). Secondly, the Public Amenities By-law regulates municipal facilities to ensure that they are used in a safe and orderly manner and contribute to the well-being of people and the environment (Green Gazette, 2014). The by-law prohibits anyone from entering or attempting to enter any enclosure, plantation, garden or walkover, or to stand on or recline in any flowerbed. But, individuals require admission to garden within a public amenity, such as any land owned by a municipality to which the public has access, with or without payment (Green Gazette, 2016; CTMM, 2010). Thirdly, relations to gardening in public spaces, other aspects of gardening, such as exchange of food, are also guided by by-laws that may allow or prohibit the participant to sell such food.

What about the sale of food produced through UA? The Business Act allows the municipalities to regulate certain types of businesses to ensure that the community's health and safety are protected (CTMM, 2010). Item three of the Act states that hawking in meals or perishable foodstuffs, selling any foodstuff in the form of meals or any perishable foodstuff such as fruits and vegetables, requires a license (Green Gazette, 2016). Lastly, CTMM also introduced the City of Tshwane Street-trading by-law which aims to regulate and manage street trading in a manner that promotes a safe and orderly city (Green Gazette, 2016). The restrictive by-laws of CTMM imply an absence of a food lens and entail the closing down of non-compliant food traders who do not have street-trading permits and who have to pay levy fees. A study by Kroll (2016) reported that informal traders, including fresh produce traders, are often removed from the streets. There have been allegations of exploitation and

persecution by the City of Tshwane Metro Police, who were observed raiding and extorting food traders.

4.11 Conclusion

Mamelodi, the township where the community garden and Centre is situated, is described in the literature as a low-income residential area and the majority of the residents is unemployed and struggle with the reality of impoverishment. Many individuals and households depend on government forms of social protection such as social grants, support from friend and family. Many households struggle to access fresh and nutritious food. The Centre is isolated from the residential areas, and it acts as an educational site, at the same providing an opportunity to a small number of interested residents, mainly senior citizens, to grow their own food in the community garden. Since its inception in 1997, there have been significant changes at the Centre, such as the integration of the community garden into the Centre; the introduction of permaculture food gardening and the occurrence of extremely bad weather, all of which impacted on participants' everyday cultivation. Lastly, the chapter discussed the sources of food in Mamelodi, including supermarkets, street markets and family and friends. Lastly, the chapter discussed the policies and bylaws that relate to gardening in public spaces and exchange of food.

In the next chapter, I offer a historical perspective of the community garden through a discussion of shifts in expectations among the gardeners I interviewed. I also recount the life histories of some of the research participants and then offer an analysis of themes that emerged from the life histories: social dislocation resulting from apartheid, expressions of nostalgia and a narrative of decline.

Chapter 5: Gardening in the City

5.1 Introduction

In this chapter I present the life histories of four research participants, Mr Botho, MaMillicent and Mr and Mrs Mulaudzi. They are all roughly of the same age and generation and are all members of the community garden. The narratives they tell about their lives, including schooling and childhood, reveal important themes from their own lives, their experiences of gardening as children and as members of the community garden. It shows some of the ways in which apartheid impacted on the participant's lives and educational opportunities and the social dislocation many of them experienced. Some gardeners talk about gardening as hard work and others berate a younger generation for their unwillingness to garden. I attempt to analyze the nostalgia some of the participants expressed for an earlier period in their live and I develop an argument about the narrative of decline some expressed in relation to the community garden.

5.2 Mr Botho: Decline in the garden, friendship and exchange

Mr Botho, 70 years old when I interviewed him, was born in Venda, in today's Limpopo Province. Growing up in rural Venda, his parents had a farm on which they grew crops such as maize, pumpkin and sweet potatoes. He has had a passion for gardening ever since. However, his family was displaced from their farm in the 1950s at the onset of apartheid and since then Mr Botho has not had a chance to pursue this passion. Mr Botho told me that while he attended secondary school, but he did not finish: "I studied for one and a half years and [then] my father had to leave the farm". As a young man, Mr Botho joined the African National Congress Party. Partly as a result of his political participation and connections, he managed to secure a job at a steel plant in Thohoyandou town in the then Venda homeland. He worked at the plant for eight years before he moved to Tsakane, Mamelodi. While in Mamelodi, he joined a timber plant and worked there until his retirement. Mr Botho is a married man and has three grandchildren, two daughters and sadly, two sons who are now late.

Mr Botho explained that when he started residing in Mamelodi, he had been wanting to rekindle his farming passion and got the chance to do so when the community garden at WSEC started its

operation. He said; “After I retired and got my pension, I did not want to just sit, so I decided to start planting vegetables”. At the time of my fieldwork, Mr Botho had been working in the community garden for ten years. “Our work here is tough,” he told me, “We plant beetroot, onions, spinach and pumpkin”. He told me he remembers the time a few years ago when people from different organisations used to come to the community garden and take the gardeners to meetings in different places such as Johannesburg. One of these meetings was a permaculture training course. During these meetings, the gardeners used to receive uniforms and input such as seeds and manure. But according to him, this no longer happens and community gardeners have not been given an explanation for why this is the case.

Mr Botho further informed me that he has been working on the same plot ever since he started gardening at the Centre. His appreciation for having access to a garden is evident and he said; “I love to plant and always wanted to have a food vegetable garden”. Among other versions about how the community garden was started, and as one of the first gardeners in the community garden, Mr Botho remembers the community garden being started by a white lady who had gathered some senior citizens from Mamelodi together in order to cut down the trees and clear the land for gardening. They were later asked to attend the permaculture training where they were taught to plant and hoe and take care of the cleared garden space. Mr Botho told me that when they started at the community garden, they were told that they would be able to sell the vegetables and make enough money at the end of the year. At the beginning of his gardening activities, Mr Botho did indeed make some money from selling fresh vegetables. However, recently things have not been going well and they do not sell a lot. He claims this is because the gardeners do not have enough manure to fertilise the soil.

When I asked Mr Botho how important the garden and the practice of gardening is to him, he told me that it provides him and his household with fresh food such as spinach, onions and tomatoes. The garden helps him to live comfortably. He sells some of the vegetables from his garden to people who are willing to buy from him in the community garden. There he sells the vegetables at R10 a kilogram.

But the price changes, depending on the harvest and the number of vegetables he has available for sale. As a paying member of the community garden at the Centre, Mr Botho usually obtains seeds from the Centre. I asked Mr Botho to tell me about where he gets the seeds and he said. "Sometimes we buy seeds from the Spar supermarket. Unfortunately, you cannot save it [those seeds] for next year. Next year you just buy [again]", he added.

Mr Botho also explained that he usually gardens by himself. And when I asked him what his children think about his gardening passion, he said that his children do not care about the gardening: "They just leave [home] and go to their respective places wherever they want to go, but definitely not the garden." From our conversations, it is clear that his children do not share his passion and sentiment regarding gardening work. Mr Botho is of the opinion that his children are 'lazy', while the children think that gardening is for 'senior citizens'. This reflects generational differences in attitudes towards gardening work in South Africa. This is discussed in the literature on South Africa. For instance, Møller's study showed how in a small town in the predominantly rural Eastern Cape Province of South Africa, senior citizens attributed mainly negative attitudes to the younger generation that aspires to a modern lifestyle which excludes food gardening (Møller, 2005).

When it comes to the significance of the garden and gardening in shaping social relationships, Mr Botho explained that it has helped him form and maintain friendships with the people he started the community garden; "When we have time, we visit one another at our homes, we slaughter animals and eat and chat about our lives and how we can improve them". The garden has helped him form friendships and neighbourly relations to such an extent that he has in the past invited other gardeners to social and ritual events at his home. His friendships with other gardeners have also created a community of peers, similar to what Krige (2011) has described for *stokvels*, Ellison and George (1994) for praying groups, and others for sporting associations (Skinner, Zakus & Cowell, 2008). Together with his gardening friends, they discuss ways of finding manure and finding out, for example, who has a good truck to help them get manure to the community garden. Spending a lot of time on his plot at the community garden provides Mr Botho with an opportunity to learn new things,

especially the better ways of planting and vegetables that grow well in the Mamelodi. "I learn how to plant spinach, tomato, onions, but the one which is difficult and does not grow is potatoes", he said during one interview.

When it became clear to me, after spending time in the garden doing participant observation, that the garden functions as a unique space where senior citizens meet and display their skills, I wanted to know from Mr Botho about the reputation of individual gardeners. In response to a question about who has a reputation for being a good gardener, he told me that Mr Seloane looks like the one who "beats" everyone at the community garden: "His garden is nice, it is usually clean and it is progressive".

According to Mr Botho, the garden plots in the community garden are like shops in the marketplace. "When we sell, it does not take long for customers to stop coming but Mr Seloane's shop is always busy", he said. "You can tell that this shop is very busy, and when he [Mr Seloane] plants, we can see that this man is alright", he added. According to him, competition among the gardeners is not a priority. What is important, he said, is to grow fresh vegetables and sometimes sit and relax. However, keeping up with being a good gardener rarely translate to the absence of conflict and struggle among the gardeners and has resulted in the occurrence of a set of prohibitions in the community garden. The prohibitions are for instance, that there is to be no hiring of manual labour by the gardeners.

5.3 MaMillicent: "The garden talks to me"

Sometimes, when MaMillicent is working in the garden, clearing soil, planting or weeding on her plot at the community garden, onlookers passing by the garden watch her toil. What they do not know is that MaMillicent is not "toiling" — she is working hard. In fact, she is doing what she loves; gardening. The day I met MaMillicent, she was watering her garden and I offered to help her with watering. She agreed and we got to know each other. Since then I have conducted several interviews with her and together we walked to the street market and shared cold drinks at her house. MaMillicent's plot is situated next to the boundary of the community garden next to a pathway

running through the Nelson Mandela Peace Park, located in the northeast of WSEC in Mamelodi. The plot forms a rectangle nestled between the boundaries of the community garden and a stream that meanders through the garden in its journey to the Molereta River.

In 2013, I was told, the same garden plot was lying idle, covered in weeds and debris as a lady who used to work the plot had passed away. When I asked MaMillicent how she started gardening on the plot, she told me that it started one day when she was walking around the community and she spotted a woman carrying spinach and beetroot near the WSEC. MaMillicent called out to her and greeted her: "I asked her where she gets the vegetables and she said, "Come in through that gate there"". MaMillicent wondered why the Centre would allow the eyesore, a bushy plot, not to mention the waste of land which is an idle plot in the community garden. In 2014, MaMillicent acted on her longing to join the community garden. The same lady who showed MaMillicent the garden then showed her how to manoeuvre in the garden, grow green tea and to make tea from what she now grows on her plot.

When MaMillicent started working on her plot she was not sure whether she would be able to garden as at the time she was working a job elsewhere. But the lady who introduced her to the community garden helped MaMillicent settle down, telling me that "the lady told me to go to work during the week and come back to the farm and do the watering on Saturdays." That MaMillicent was gardening and working at the same time illustrates her passion for gardening.

MaMillicent was born in November 1957 in Piet Retief, in today's Mpumalanga Province. Her father, who was born and grew up on the farm, worked as a farm labourer. Her mother, who worked as a shopkeeper, together with MaMillicent's father, taught her how to grow fresh food. She grew up on a farm. And she told me the following: "I have known how to work with soil when I was very young." Her father had two wives and thirteen children. Growing up in Piet Retief, MaMillicent's father owned cows, pigs, and chickens and grew beans, spinach, beetroot, carrots, sweet potatoes, potatoes, onions and pumpkins on the land. He later became the induna (headman) of the area, selling what he was

growing and teaching the people how to farm. The household ate whatever they produced on their farm plot, but also bought vegetables, and fruits such as oranges, which they did not grow themselves.

After years of success at the farm in Piet Retief, the family's circumstances changed when her father experienced conflict with the whites on the farm. As a result, her family had to leave the farm and move to the town of Boksburg outside Johannesburg. MaMillicent told me that the white farmers, who owned the farm, became jealous that her father was doing business on the farm. In 1960s, MaMillicent's grandfather bought a farm in Oukasi, a township in Brits in today's North West Province and asked MaMillicent's father to move again from Boksburg and join him. In Brits, MaMillicent's father started doing the same business, was later chased away from Brits and his farm taken away from him. "They took the farm from them. I remember how hard it was in those days to go and report to the authorities", she said, suggesting at how difficult it was for black South Africans under apartheid to find recourse in the law when in conflict with white South Africans.

The family moved to Oukasi and then returned to Piet Retief where they stayed and started all over again. Due to the constant moving about, MaMillicent did not start school early and failed to finish secondary school because of the crisis faced by her family. "I started school when I was twelve years, I stopped at standard eight — it was called Form Three then", she said casually with a half-smile. MaMillicent's concerns are similar to the findings in Nkadimeng's (1999) study among the senior citizens of Bakgaga Bakopa community, who faced relocation from their former land in Maleoskop, during the forced removals. In this paper, Nkadimeng (1999) states that the constant movement by black South Africans made it difficult for a big segment of the community to become educated; it also left many powerless, with disrupted social networks.

In 1980 MaMillicent married and over time she gave birth to three children, one son who passed away later in life and two daughters. Today she is the proud grandmother of two grandsons, one is 23 and the other five years old. MaMillicent arrived in Mamelodi Buffer Zone in 1989. She worked at Edgars, the fashion retail store, for eighteen years. She later joined a furniture shop in Silverton where she

worked for eight years. She then got another job as a sales lady for a sewing shop in Pretoria Central Business District (CBD). When the shop went out of business in 2014 that marked an end to MaMillicent's working life as a wage labourer.

Ever since she started working at the community garden in 2014, MaMillicent has worked on her garden plot during every season. In rainy seasons she cleans and weeds the plot, while during the other seasons, she performs key tasks such as watering and planting mannequins. "During the rainy season, I only plant crops that are suitable for that season", she said. On her garden plot, MaMillicent grows Chinese spinach, maize, spinach, beetroot, cabbage, carrots, green pepper and beans. Whenever she has surplus money, she adds manure to improve the soil. She also demonstrated to me how to use fertiliser and manure on her plot. She usually uses cattle manure as opposed to fertiliser which is very expensive and very rare to find. "When I use this [fertiliser] I just put a little bit. If you put a lot it burns seeds and does not come out". She said.

Since becoming a successful gardener is often a process of trial and error, when I asked MaMillicent about the mannequin on her plot, she said "We cover the tree branches to scare the birds. I do not know. I just see people do it, I do not know whether we [do it] right or not. We are trying our luck." She also mulches the beds in the garden with old grass and nets to prevent the plants from being directly exposed to the sun. Some of her plants grow better when they are not directly exposed to the sun, while other plants such as green peppers grow without covering. By spending time in the community garden, MaMillicent has learnt that some plants such as cabbage do not grow if she plants them on her plot. "We used it [net] to protect cabbage but my hands are not good for cabbage", she said. Other gardeners have also complained to MaMillicent that vegetables such as Chinese spinach and groundnuts do not grow when they are planted on their plots. This learning from experience concurs with Schöley and Padmanabhan's (2017) work where they argue that it reflects the tight parameters of the social circles in which women procure their rice seeds, along with the shared information made available during the process, as they rarely seek advice from agriculture officers regarding handling and cultivation methods.

It became clear from spending time with her that the garden has great significance in her life. The garden plot also has a lot of benefits for MaMillicent, “I can say it is a privilege to find a place like this. I feel lucky”, she said. Among other benefits, the garden makes her feel healthy, keeps her busy and feeds her family. For example, she does not have to buy spinach for home consumption since she started gardening and thus it helps her save money. “We buy meat, milk and *Inkomazi* but vegetables; I get them here”, she proudly told me. MaMillicent also plans her day around gardening and told me that she likes gardening very much since it makes her happy, “Especially when I am around here I do not feel good if I did not go to the garden,” she said. She told me passionately about what happens when she does not work in the garden plot regularly, “Because when I am not around, two to three weeks the garden talks to me. You see!” She said she cannot walk in the garden plot when she stops working on the plot. But when she is working on it is very pleasant and the grass will not grow as big.

When I asked her about how she procures seeds, MaMillicent said she buys seeds such as spinach, beetroot, cabbage, carrots and beans from a shop. She obtains seeds for the other vegetables from the Centre. However, sharing of seeds is also common among the gardeners, as she explained: “But sometimes we share with each other when someone does not have since we are family”.

Unlike most of the other gardeners I interviewed, the younger members of her family are not entirely opposed to or disinterested in her gardening. So MaMillicent sometimes gardens with her 23-year old grandson and her niece. “I feel happy when we garden even though children are lazy and the only thing that they do when they are here is to water [plants on her garden plot]” she told me. But she also said she is still happy because while the children are watering the garden she can do other tasks. She also told me that when she started gardening, her children did not like it. In her words: “They used to fight me and now, they have become quiet that I have a garden and bring fresh vegetables home”. Her children were afraid of how her participation, and her going in and out of the community garden, would negatively affect the family reputation. Now when she brings vegetables home, her children will ask where she got them and whether she is still working in the garden. Her children have accepted

that she works in the garden even though they are not willing to go and work with her on the garden plot.

Apart from the way her children used to talk about the garden and their fear of the family reputation being ruined, I established in the course of my research that people who garden are stereotyped in the community where MaMillicent lives. People who garden in their township backyards are usually referred to as 'P*ortuguese'*, or the household is called a '*Portuguese place'*. This is due to the fact that people in the townships usually buy vegetables from the spaza shops owned by Portuguese nationals. People who garden in the township are also referred to as *people with green fingers* because they work with the soil. She said, "I do not know where that name comes from"... When I asked whether this perception has changed in the community, MaMillicent told me that at first, people would talk to her in the same way as her children, but that they have now become converted: "Me I can't, uh, me I can't. Now they are willing. Like uLeana [one of the gardeners], she was crying on my shoulder, she was happy she found a space at the Centre. She is very happy".

I was interested in the social dimensions of gardening so I asked MaMillicent whether she has made friends through the garden and through gardening. She replied: "I know everybody. I saw new people now, I greet them now. We are not friends but we treat everyone as colleagues at work. And we greet everyone." MaMillicent also told me that she has experienced how gardeners offer financial or physical support to each other during sickness and funerals. The relationships formed in the garden sometimes extend to outside the garden: "I remember this mama, the one who is sick, she asked all of us to come and pray at her house together with her church members. But that day, I was going home. If I was here I would have gone. It is good to support each other and something like that".

In addition to forming social relations, gardening also creates opportunities for learning. MaMillicent makes sure that the garden is always clean and always planted in all the seasons. She also told me that the gardeners teach one another gardening skills. But it has not been easy as it takes a long time for people to accept what you are doing until they see it for themselves, especially people who hold onto

stereotypes about gardeners: “I am starting from my family. Like my brothers do not care about gardening, even though they used to work on a farm. It is only me in my family that gardens.”

5.4 Mr Mulaudzi: Reciprocity in a family of gardeners

I was introduced to Mr Mulaudzi by my research participants, MaMillicent, who was watering for Mr Mulaudzi because he was not feeling well. The way in which fellow members of the garden helped each other out demonstrated part of the reciprocal practices among the gardeners which was reinforced during interviews when garden spoke of the garden as being a family.

Based on interviews that I conducted with him, I learnt that Mr Mulaudzi was born and grew up in Komatipoort in Nelspruit in today’s Mpumalanga Province. His father, a farm labourer, used to plant maize, pumpkins, wheat, beans and sunflower. Mr Mulaudzi did not attend school as a child but herded cows most of the time and helped on the farm. He does not exactly remember when he came to Mamelodi, in present-day Tshwane, but knows he was a young man when he arrived. He subsequently married and fathered seven children, one son and six daughters, who in turn gave him eleven grandchildren.

It was his wife who invited Mr Mulaudzi to join the community garden. He joined his wife to work on her plot and together they have been gardening on the same plot for years. His wife recently stopped gardening due to worsening health. Among other versions of how the community garden started, Mr Mulaudzi and his wife remember that the community garden was started soon after Mandela came out of prison between 1994 and 1997. “I remember we were taught by a white woman. She found us around here and she taught us how to farm spinach and other things,” said Mrs Mulaudzi. Mr and Mrs Mulaudzi were among the first people to join the community garden and told me that they took part in cutting down the trees and preparing the soil for gardening: “We cut a lot of trees so that we could plant and be able to take some of the food to their homes”. Mr Mulaudzi did not attend the first permaculture training but had been practising some of the things that his wife learnt during the training and practised on their plot. His wife shared with him whatever she learnt during the training

such as how to create garden beds, how to apply manure, planting different crops and reporting when equipment in the community garden is broken.

When I asked about how they obtain seeds, Mr Mulaudzi said that he gets seeds from the Centre and sometimes gets them at Spar Supermarket. He also told me that a lot of things have changed in the garden since he started out there. For example, when the garden started, there used to be only a few members and they had land lying empty yet now the garden has grown to accommodate more people. In the beginning, the Centre used to give them manure but now that does not happen anymore: "The soil is no longer good. It does not get nutrients. We used to get manure from the Centre. So now we cannot produce much". Mr Mulaudzi also said that there used to be a number of water tanks in the community garden. But the water problem has worsened: "When we get to the work on the plots and there is no water, we continue with our other business and go back to keep checking".

The worsening water problem is an effect of climate change and says a lot about the water situation at the Centre and in Tshwane and South Africa. In the case of the community garden at the Centre, various irrigation systems are used, including a borehole, the use of hosepipes, watering cans, sprinklers and drippers. However the recent episodes of El Niño' have led to an increase in the occurrence of storm water run-off and dry soil that is rendering the water pumps at the garden useless. The worsening water situation has negative implications for UA. Van Averbeke, for instance, argued that access to water for irrigation were the main constraints that affected participants in urban farming and that access to water, however, is more than just sustaining the plants (2007, p. 340).

Mr Mulaudzi gardens only with his wife, as the rest of his family are adults who are working in various organisations. According to him, it is difficult to garden on his own at the moment and be able to produce enough food for the household. Chipping in, Mrs Mulaudzi said: "There is a difference because he is now on his own and does not produce much". Gardening as a couple reflects possible links between tasks sharing between husband and wife and the gendered division of labour.

There are reputational risks for gardeners in the city, thus I asked Mr Mulaudzi what other community members think about their involvement in the community a garden. "They [people in the community] say that we garden because we are old", Mr and Mrs Mulaudzi said harmoniously. But the couple is not moved by this. "What they think does not bother us; that is their own business. We carry on and do what we want to do. They will say what they want alone, not here", Mrs Mulaudzi said.

Regarding the display of gardening abilities in the community garden, I asked Mr and Mrs Mulaudzi how they feel about gardeners hiring outside people to work on their garden plot. Mr Mulaudzi did not feel this to be wrong but only that the practice may make those gardeners look like they are good gardeners. "So doing the work by yourself can be the best. However, you cannot really say because when some of my fellow farmers are busy and have to be somewhere, they hire other people to help them", he said. He explained that devoting time to attend to your garden does make one a good gardener. Mr Mulaudzi's attitude towards hiring manual labour reveals the existence of competition and also ideas about group formation based on a distinction between older gardeners and newcomers. This is similar to what others have called a functioning network, "the original group is made up of community efforts for years, which would have made it difficult for outsiders to penetrate its membership and expect the same access to the resources it had at its disposal" (Glover, 2004, p. 161).

Mr Mulaudzi concluded by saying that recently more and more new members of the community garden have been using 'outsiders' to work in their gardens. What is important to him is that members are not supposed to trespass onto other people's garden plots as there have been incidents of stealing. "I only allow the fellow [gardeners] I started with to enter my garden (garden plot)". He said.

5.5 Social distortion caused by Apartheid

The first key finding that can be grasped from the life histories is the effect of apartheid on the participants' generation social and educational opportunities. Most of the participants revealed in their narratives that as children their family was in constant movement between places. This resulted, amongst other things, in most of them not being able to matriculate while others never attended

school. MaMillicent spoke of the conflict between her father as labour tenant and the white landowning farmer and how this conflict resulted in being forced to move around, negatively affected her schooling years and education. MaMillicent's life history does not only reveal how the apartheid system disrupted her education, but also how it caused social dislocation: "They took the farm from him [her father]. I remember how hard it was in those days to go and report to the authorities", MaMillicent said with a half-smile.

A study by Nkadimeng also found that the relocation of the Bakgaga Bakopa community from their former land during the forced removals of the 1950s and 1960s made it difficult for a big segment of the community to be educated (1999). As a result the Bakgaga Bakopa community, following their forced removal from their ancestral settlement of Maleoskop, experienced psychological and socio-economic suffering which has endured throughout their entire life (Nkadimeng, 1999). They way in which the gardeners talk about their fellow gardeners as a family, and the practices of reciprocity among them, suggests that gardening has also become a way for gardeners to cope with the effects of social dislocation they experienced as children. Talking about the talking to the gardeners suggests a very important relationship of care, suggesting that unlike their childhood, the garden had become a symbol of rootedness and stability.

Perhaps unsurprisingly, the life histories show that the community garden acts as an arena of multiple meanings and functions. Purcell and Tyman (2015) argue that the right to the city is, in its most fully developed form, a declaration by people that they intend to struggle for a city where inhabitants produce and directly manage urban space for themselves, through free activity. While I could not locate an explicit desire among my research participants to struggle for their 'right to the city', I do believe that the way participants gardened and talked about their gardening suggests something that resonates with Lefebvre's idea of the right to the city as cited in Purcell and Tyman's work (2015). The findings show that gardening helped senior citizens deal with lack of belonging they experienced as children, effectively giving them the chance to express their 'right to the city' through the practice of gardening. The gardeners became like family and the garden talks to gardeners; these are all

powerful kinship metaphors that express belonging and stability. The gardening activities facilitated the creation of a community of citizens and connections lost or ruptured during forced relocation and migration.

5.6 Expressions of nostalgia

Other than showing how gardening can be read as an expression of the right to the city, the life histories reveal expressions of nostalgia. Boym (2012) argued that nostalgia pertains to the belief that things were better in the past and that, on the basis of this perception, individuals might sometimes like to return to the past, even when they realise that it is impossible. In the community garden at the Centre, all of the participants grew up in peri-urban and rural or farming contexts and now live in the township; thus participants feel a sense of nostalgia for a rural past whenever they work in the community garden. In their study Tan and Neo (2009), demonstrate that other than the community gardened they studied being a space of leisure and education, some senior residents in the garden felt a sense of "*kampong* [Malay word meaning 'village'] nostalgia" while maintaining the garden. In this study, Tan and Neo argue that community gardens are also viewed by some as exclusionary spaces (2009). This is due to their close links with government apparatus and more broadly, it argues that constrained civic activism not only affects the extent to which these gardens can forge communal bonds, but they also challenge their integral spirit.

In the community garden where I carried out this study, as shown by the life histories, participants express nostalgia for aspects of their youth such as helping their parents and grandparents tilling the soil and harvesting. This was perhaps also a statement about the contemporary lack of interest among young people to engage in gardening. Nonetheless, Mr Botho spoke for other participants when he remarked that he wanted to rekindle his farming passion and got the chance to do so when the community garden at WSEC started its operation. He said; "After I retired and got my pension, I did not want to just sit so I decided to start planting vegetables". Such longing for replicating the life that was once present in the rural and farming context, or at least remembered as such, was also mentioned by MaMillicent, " When I joined I was working during the weekdays [as wage labourer] and come

back to the garden and water my plants on Saturdays." The participants viewed gardening as somewhat nostalgic and wished to (re)create a past, heeding back to childhood times. For the participants, the perception was that 'good food' is produced within the household. MaMillicent has a romanticised memory of her history on her father's farm plot when she recounts that "Together with my father, they taught me how to grow food…. I have known how to work with soil when I was very young. In our household, we ate whatever we produced on the farm plot but also bought some vegetables, fruits and such as oranges that we did not grow themselves."

The romanticised and intimate journey to the realisation of a passion for cultivating food that MaMillicent describes reveals a longer history of urban agricultural practice in South Africa. It also provides a historical perspective of cultivating food whereby most of the participants came to an awakening of cultivation through helping their parents and grandparents.

5.7 Narrative of decline

Another important theme in the life histories is a narrative that speaks about the decline in the fortunes of the community garden. This narrative reveals, amongst others, a shift over time in the expectations the participants had about the garden. The gardeners talk about this decline with reference to increased scarcity of gardening tools, scarcity of water and the depletion of the soil. Research participants who were part of the garden when it started were more likely to articulate this narrative of decline, also expressing cynicism, fear and a sense of disempowerment. In contrast, research participants who joined the garden later in its life seemed more hopeful and excited for the future. Mr Mulaudzi, one of the earliest members of the community narrated that "When we started there used to be few members and we had land lying and now the garden has grown to accommodate more people. The soil is no longer good. It doesn't get nutrients. We used to get manure from the centre and harvest a lot. So now we cannot produce much. Now the water problem has worsened. When we get to the work on our plots and there is no water, we continue with our other business and go back to keep checking until it gets back."

This narration reveals a narrative of decline and it is clearly related to the expression of nostalgic narratives. The findings suggest that the expectations, promises and benefits that were communicated have been unrealised. Some but not all gardeners also mention the promise of income benefits that were made when they started gardening at the Centre which did not materialise. Mr Mulaudzi, certainly saw the garden as a potential source of income and expressed his views on the past and future of harvest in the community garden: "When we started at the community garden we were told that we will be able to sell the vegetables that we cultivate and make enough money at the end of the year. At the beginning of we made some money from selling vegetables. Recently, things have not been going well, do not have enough manure to fertilise the soil. We do not sell a lot."

Participants' narrative of the decline can also be linked to the anthropological notion of the 'limited good' and that its integrating principle, accounts for much of the behaviour of participants in the community garden at the Centre, and how it may be related to food security (Foster, 1965). Foster suggests that based on the perception that goods and services are available in limited quantity; equal distribution would leave all with insufficient amounts (Foster, 1965). As a result, in economies characterised by scarcity, whether they be a peasant, primitive, urban or slum, we would expect individuals to become more protective of the overall distribution of resources, more specifically this protectiveness reproduces conflict, social exclusion or hierarchies and competition.

I agree with Foster (1965, p. 305) on the holistic explanation of scarcity as it stresses structural conditions, and insights which could take the form of gossip, slander, backbiting, character assassination, witchcraft or the threat of witchcraft, and sometimes actual physical aggression. In the community garden, amidst the narrative of decline, gardeners cultivate food without sufficient resources in terms of water, knowledge, manure and seeds. Yet they are still able to continue through creative means including the use of gossip, envy and informal rules.

5.8 Conclusion

In closing, in this chapter I introduced the life histories of Mr Botho, MaMillicent and Mr and Mrs Mulaudzi. It contains data on personal background of participants, the period of joining the garden; permaculture training and current gardening activities. Mr Botho emphasised a story of the decline of the community garden over time, but also reveals the issue of seeds, generational differences and the existence of market exchange and formation of social relationships including friendships in the community garden. MaMillicent is among those who were negatively affected by apartheid, which disrupted her education and led to social dislocation. Her story is a story of passion as she joined the garden while she was a wage labourer and had to make time for gardening. Her story reveals negative stereotypes, the reputational risk of gardening and learning to the garden through trial and error. Mr and Mrs Mulaudzi's story is about couples who share gardening tasks equally, challenging the stereotype that UA is the exclusive purview of women. Their story also speaks to the decline of the community garden over time and issues surrounding seeds and water shortages in Tshwane.

The second part of the chapter, I analysed the themes that emerged from the participants' life histories. The Apartheid legacy, especially the forced removals, affected the education of the generation of the participants. Constant moves resulted in most participants not being able to matriculate while others never attended school. The Apartheid legacy also caused social dislocation in communities that were deprived of dignity, and which experienced powerlessness, including disruption of social networks. In addition, the life histories reveal that participants feel a sense of nostalgia whenever they work in the community garden and express a narrative of decline, since working in the community garden offers a reminder of their younger days of helping their parents and grandparents with the tilling of the soil and harvesting. Romanticising the way most of the participants were introduced to gardening provides a historical perspective of cultivating food; most participants came to discover their passion for gardening through helping their parents.

Lastly, the life histories reveal a shift in expectations of the participants which suggests that people had a number of expectations when they joined the community garden but are apprehensive about the present state of the community garden. Linking the narrative of decline to the anthropological notion

of limited goods, I suggest that the participants become more protective of the overall distribution of resources and use gossip, envy and informal rules of other members to neutralise competition.

In the next chapter, I will discuss the second part of life histories of the research participants. The life histories in chapter six, discuss the meaning of food, and which relationships, networks, or alliances are made, represented, or reinforced through food exchanges in the community.

Chapter 6: Exchanges and relationships

6.1 Introduction

In chapter six, I continue my presentation and discussion of the life histories of the research participants. In the first part of chapter six I present a few more life histories and in the second part of the chapter I offer an analysis of themes that emerged from the life histories. These include heterogeneity in the functions and benefits of urban agriculture, knowledge exchange and walking as a daily routine that produces belonging. In sum, it is a review of why participants engage in food production and exchange in the community garden. In chapter six, I discuss two core issues; firstly, I contextualise the basic question asked of research participants which was: "Why gardening?" Secondly, I discuss some of the assumptions entailed in urban agriculture policy and how these assumptions relate with the experiences of the participants who garden at the community.

6.2 MaLesedi: "The garden is like a baby to me"

At the age of 63, MaLesedi will not rest her hands. Along the road that is her life, one that she admits has been tough, MaLesedi has accumulated a parade of lessons and achievements. Born in isolated peri-urban Riverside in then Lady Selbourne, Pretoria, MaLesedi is the sixth daughter of a Shangaan farmer and the only surviving member of his six children - four sons and two daughters. "Believe me, at 12, my father started teaching us that when you plant something this is how you plant it", she told me during one of the interviews. She also told me that her father taught her how to use spacing when planting so that when the plants grow they each have enough space between them to grow out "nicely"; "Like who would dream of making a living as a farmer at 12?", she wondered out loud.

I learnt that MaLesedi has always been excited about gardening, ever since her father used to grow mealies, pumpkin, spinach, carrots and cabbages in Riverside. She told me that she has been "hooked" on gardening ever since. In Riverside, her family owned cows and raised chickens, mostly for the eggs. The hill nearby their Riverside house used to be an orchard and doubled up as a grazing place for their cows. As a young girl, she enjoyed producing and eating vegetables, and recollects aspects of her childhood nostalgically: "My father did not want us to have meat because he loved us. He used to

buy us maize meal, he would let us have meat from time to time but he wanted our meals to always have vegetables".

In 1963, MaLesedi's parents moved to Mamelodi East in Pretoria - their move was not voluntary. They received a notice from the city officials to relocate from Lady Selbourne to the urban township of Mamelodi, one of the apartheid-era townships that were built to house Africans in then Pretoria. While the move may have been a difficult experience for her parents, MaLesedi was excited about hanging around in the urban township as opposed to living in an isolated semi-rural house in Riverside. Even though her family moved into a two-room house, she was happy to live surrounded by other people and the area was well suited to having a vegetable garden.

At the age of nine, MaLesedi began her schooling at a school called Zakhela in Mamelodi. The school was designated by the apartheid government as a school for people ethnically classified as Shangaan at the time. This was an aspect of Bantu Education and other policies that were aimed at propping up the ideology of 'separate development' (Nkomo, 1981). One consequence of this policy for MaLesedi was that the school was only open during the afternoons. She told me that "since the classes were starting at half-past one and ending at three o'clock, I had a lot of time to play and help my parents in the garden in the morning". Again, she remembers what is referred to an injustice – inadequate education for township children – as an opportunity to play and to reminisce about the garden with nostalgia.

After finishing her schooling years, MaLesedi attended a technical college in Mamelodi where she was trained as a chef. MaLesedi completed her training in 1976 and landed a job as a chef with a company that catered for students at the University of Pretoria. When MaLesedi moved to Tsakane, Mamelodi East from SNS Mamelodi West, in 1980, she was a wife, mother, and newly employed chef. Cooking food, she said, helped her to take care of her family. In Tsakane, MaLesedi raised three children and three grandchildren while working for the catering company for 24 years. Subsequently, the catering company lost their contract with the university and opened a catering shop in Helen Joseph (formerly Du Toit) Street, in Pretoria Central. However, the business did not operate for long

and this also marked an end to MaLesedi's full time paid employment, as she continued participating in unpaid labour in the household. In order to try and generate an income after the shop closed doors, she made and sold flower pots; sadly, this business was not sustainable.

I got to know MaLesedi at the community garden during several interviews with her, mediated by an interpreter and field assistant. Once, I also visited MaLesedi's house in Tsakane, Mamelodi, where she lives with her husband, three children and three grandchildren. MaLesedi's second daughter, now aged 33, finished her matric and works at a crèche near her house. Her last-born son, now aged 30, is a self-employed car mechanic, trained at Tshwane North Technical and Vocational Education Training College. The house is surrounded by a brick wall fence, with an iron steel gate, unlike many of the other houses that are fenced off with old wire. A concrete pavement surrounds the house on the outside in front, providing easy access into and around the house.

Hanging on the living room wall is a picture of her late mother. MaLesedi has told me quite a few times during our conversations that she loved her mother so much and that her mother played a huge role in helping her raise her children. Despite her confidence when it comes to motherhood, several times in her life MaLesedi has been left hopeless. MaLesedi was left in despair when her first-born daughter, now aged 35, suffered a physical and psychological trauma in her high school matric year as a result of an accident caused by a family dispute. "There are no words I can use to express the suffering I witness that day, as her uncle picked up a spade and hit her head because she is running around with boys in the streets", MaLesedi explained. The incident left her daughter mentally challenged and she provides and takes care of her.

Having a house surrounded by a concrete pavement means many things. It means you are, relatively speaking, well off, as a concrete pavement is a costly way to keep the dust at bay. But it also means that you do not have enough space to set up a garden in front of your house. "I would have loved to have a garden at my house as well, even though people gossip about people who garden", she said. I was surprised to encounter the many stereotypes around home gardening that exist in the Pretoria

townships. MaLesedi explained, how before she extended her house, people used to call her house "the Portuguese place". This is because she used to have space at the back of her house and plant groundnuts, onion and beetroot and it is often Portuguese people who grow and sell vegetables and necessities in the township. In the same way, she remembers her mother telling her that people who garden are called 'green fingers' because their fingers are dirty all the time.

There are a number of versions about how the community garden was started. MaLesedi's version is that the community garden was started in 2000 by 'a great man' called Mr Langa. She told me that the late Mr Langa - one of the senior citizens who used to garden at the community garden - felt that it was important to start the community garden because the place was a dump with rocks, and he used to see the place when passing by: "He was the great one here in this camp, owner of this place". MaLesedi and her mother, together with other 15 senior citizens, were called as the initial members to start working at the community garden. Together they dug the rocks and planted trees in the community garden. "A lot of people I dug with have died", she says, thus giving me a sense of how much time has passed since the inception of the community garden.

Even though MaLesedi was not a senior citizen by the time the garden started, she was among the group of gardeners attached to the WESC that attended the first permaculture training. For that, she received a certificate in permaculture design and herbal medicine. As mentioned, permaculture is a term used to describe an integrated, evolving system of perennial or self-perpetuating plant and animal species useful to man (Mollison & Holmgren, 1978). To MaLesedi, permaculture means medicinal and herbal gardening as well as the careful selection of plants to be used as natural medicine for human beings and as a technique used to keep pests away and enrich the soil of her garden plots.

During the permaculture training, MaLesedi learned about gardening techniques such as mulching and composting. MaLesedi acknowledged that the training empowered her with the knowledge to take care of the garden for a bumper harvest. For example, in 2008, she harvested huge pumpkins because the soil was very fertile and because she started mulching with newspapers. After the training,

MaLesedi was active in training other women pensioners at the Rakoma School's garden in Mamelodi West, as a way of sharing what she had learned and had been practicing.

In 2016, after years of gardening on her plot, MaLesedi's mother passed away at the age of 102. MaLesedi became the successor of her plot at the community garden and continued gardening. Today she works two plots and on her two plots, MaLesedi grows beetroots, carrots, spinach, cabbage, pumpkins, green beans and mealies. The question of seeds, including heirloom seeds, is an important topic in popular discussions concerning urban agriculture, so I asked MaLesedi about seeds. As a paying member of the community garden - active members pay R20 a month - the Centre provides her with seeds but sometimes she buys her seeds at Shoprite or U-Save Supermarket. "For plants such as spinach and pumpkin, I take out the seed, dry and store them, as we know that the following year we will plant it in the soil", she said.

Despite having received permaculture training, MaLesedi plots are undoubtedly created, tilled and maintained according to practices and knowledge passed down from her mother and supplemented by practices learnt during the permaculture training and from fellow gardeners. Her garden plot is clearly important in her life. She tells me that she plans her day around gardening and makes sure her plot always looks presentable. She plans her day so that she avoids the sun at all costs. "I garden early in the morning around six thirty and finish around ten or start late when the sun is setting – clear the bush and make it beautiful", she said. This everyday practice is an example of 'rhythms of the garden', that are understood by most people yet not wholly incorporated socially or economically into sustainable development strategies or programs (Perry, 2013).

Food is a central theme in the life story of MaLesedi, as well as growing food. Growing up, MaLesedi watched her parents work with the soil to produce food. She later joined the provisioning system, discussed by Polanyi (1968, p. 84) where he argues that "no transaction has a purely economic value; rather, the economic process itself . . . [is] . . . instituted through kinship, marriage, age-groups, secret societies, totemic associations, and public solemnities". I wanted to see and hear what happens with

the fresh food she produces from her two plots. I learnt that during harvest time, vegetables are used to supplement food supply and act as a source of fresh food in her home. “I feel very happy. Even my grandchildren enjoy the food and tell me that the carrot tastes nice….” she said.

Through cultivating plants, MaLesedi has learned a great lesson too, one that is important for poorer township communities in times of escalating food prices and the rising cost of living. “Gardening has taught me that, you can stop hunger (“*Temo e tla fedisa tlala”*). That even if you do not have much, you know that you will always have food to eat”. In this, she agreed with what most of the UA literature suggests. However, MaLesedi also encounters social pressure on a day to day basis. These are imperatives expressed by MaLesedi such as; “the garden (*serapa*) is like a baby to me”; and “it is of God that I do not buy spinach throughout the year”. Such expressions mean that MaLesedi feels some sense of accomplishment as a result of her hard work and harvest on her two plots, as well as, a higher social standing when she shares fresh crops.

Gardening has also been a source of income to MaLesedi, especially at times when money is scarce. For example, MaLesedi paid for her son’s tuition fees at a technical college by supplying vegetables such as onions and spinach to teachers at the college on credit. In return, she collected lump sum payments from the teachers every month end to pay for her son’s tuition. MaLesedi also sells some of the vegetables to her friends and other people. She takes the vegetables to friends and neighbours houses in the community, while some people would accompany her to her plot at the community garden and buy from her plot. Above the economic gains of selling vegetables, MaLesedi believes that she is serving her community well by supplying fresh vegetables at a lower price compared to the street market and supermarkets. She sells her spinach at R9 per bunch, a bunch twice as big as those sold at R9 in supermarkets or in the streets.

Gardening activities such as cleaning the soil of stones and debris have also created great value for MaLesedi. She supplies vegetables to her church in Ntokozweni where they feed orphaned children. Gardening as a religious act of piety brings a direct sense of achievement. “I believe that by gardening

every day, I am serving my Lord, who gave me this garden", she acknowledged. MaLesedi considers gardening as contributing to healthy living; also since gardening keeps her busy: "I feel very healthy waking up and working like this. If I do not work on the plot I do not feel okay, staying at home doing nothing makes me feel sick. But here I am training, I am doing everything, the exercise that they do run up and down. I am doing everything here".

Gardening is not only about the provisioning of food. It is also about a display of skills and knowledge. The social aspect of working in a community garden also has other dimensions, such as competition and envy. In a certain way, there is a limit to pursuing the goal of being envied since the display of excellence may cause conflict among the gardeners. To display her abilities as a gardener, MaLesedi is adamant in trying new plants even though they only play a small role in her livelihood. However, she has been warned by her fellow gardeners not to plant groundnuts and received criticism for doing so. "When I started coming here they told me, I should not plant these groundnuts (*zindluvu*), she said. "They say, do not take a chance… but I am trying and see what will happen". For MaLesedi gardening is a "try-and-error" process as there are so many things that happen that may reduce her efforts to nought. She also told me that sometimes her two plots are prone to weeds which prevent the seedlings from growing. In addition, pests eat the plants. Thus, she often comes to the community garden to attend to her plots and remove weeds and pests. "But I do not lose hope because I know that sometimes you can plant something and it does not come out. You must try again and then it will come" she said.

6.3 MaThato: "Because to give [vegetables from my garden] is my gift"

I was introduced to MaThato, 57 years old, by my research assistant, as she was walking towards her plot in the community garden centre one day. Even though MaThato is below the age of 60 and not eligible for pension, she became a gardener after she quit her full paid employment. Her life history is important in trying to understand why some older senior citizens may not undertake physically challenging tasks, also why the economic benefits of community gardening is not always the primary motivator for becoming a gardener. After meeting her, and introducing my research project to her, I

conducted both formal and informal interviews with her at her garden plot and at her family house in Mamelodi. After some time in the field, I had come to know MaThato as an entrepreneur and a free-spirited woman. MaThato had told me that she was born on a farm called Boschkop outside Pretoria, where her father worked as a farm labourer. Growing up on Boschkop, her parents had their own portion of land on which they cultivated pumpkins, sorghum, spinach and mealies. The fresh food they cultivated was for their family's needs.

MaThato is the third born of eight children, six females and two males. She attended Malutula Primary School in Nellmapius, Pretoria before her family resettled in KwaNdebele. They later moved from KwaNdebele to Hammanskraal after the forced removals that occurred between the 1950s and 1960s. So, from growing up as the daughter of a farm labourer in declared 'white' Pretoria, she was forcibly moved with her family to a homeland. Smith (1992) demonstrated how Pretoria displayed the apartheid pattern of ethnic segregation in the city. In his book, *The Apartheid City and Beyond*, Smith wrote that granting the homelands the status of 'independent republics' meant that individuals in the homeland were no longer the responsibility of the Republic of South Africa's government. Due to the constant moves which her family experienced at the hands of the apartheid system, MaThato did not finish her secondary education. In 1972, at the age of twelve, MaThato decided to move in with her uncle who had a house and was staying in Mamelodi, an apartheid township for Africans located closer to Pretoria than Hammanskraal. After her uncle passed away, MaThato stayed on in that house. The house became her home and when she later married, she continued residing there, together with her husband. She never had any children and in 1989 her husband passed away.

For a period in her life, MaThato worked as a domestic worker in the suburb of Faerie Glen, and other suburbs, in Pretoria East. When she was working in Faerie Glen, MaThato attended a night school at a church along Lynnwood and Rodericks streets in Pretoria. The night school was established to accommodate domestic workers who had not completed their secondary school; so, they could learn to read and write. She told me: "This school helped me a lot. I learnt how to write my name and address but stopped at grade five level". MaThato stopped attending the school because the family she was

working for in Faerie Glen had moved to another area. She later found employment at a fashion retail chain called Exact and worked there as a cashier for ten years. “Even when I tell people that I did not go to school, they say no, you can’t. At Exact I was a cashier and was never short or over [on cash] and they were wondering how I did it.” Eventually, she left the job at Exact because she was no longer in good health.

In 2009, MaThato got funding from the Department of Social Development to open a crèche at her house in Mamelodi. She told me proudly how the day care centre helps her. “The day-care now is the boss,” she said. “I am single and do not want to get married. I committed to these children [from the crèche]” she added. MaThato started the day care with only four children. By the time I got to know her, it had expanded to accommodate 45 children. Since she works hard, MaThato said, “The government saw that this lady [herself] is doing a great thing and started to help me”. The Department of Social Development, through the Children’s Amendment Act of 2007 and the National Family Policy, provides funding and training to service providers in the area of family services, helping with family preservation services and parenting/primary caregiving.

The goal of this programme is to improve and expand early childhood development provision across South Africa (GCIS, 2017). As part of their support, MaThato is provided with equipment for the children’s playground, a stove, a fridge and R100 000 cash that is to be used for running the day care. To make sure that the day care is sustainable, the Department advised MaThato to also buy gardening tools such as water pipes and a tank and to start a vegetable garden. In response to their advice, MaThato located a piece of public land along the Moreleta River; a distance of some 900 meters from her house. To date, she grows vegetables for the day care at this unused space. Because she was tied up with work at the day care centre, she later hired a person to work in this garden next to the river.

In 2016, MaThato approached the WSEC to give her access to a plot in the community garden in order to expand her gardening activities. The Centre agreed and MaThato employed the same person she had hired to work in her river garden to work the plot in the community garden. When I first met

MaThato, she had been gardening, with the help of her employed male-gardener, in the community garden plot for a few months. "I got that plot at the Centre last year. But I am so busy to do it myself, so this person I hire to work for me at the plot and I must pay him every month," she said. After gaining access to a plot at the Centre, MaThato restricted her use of the public space by the river bank for soaking seeds and starting seedlings and then transferring the seedlings to the plot in the community garden.

MaThato's gardening at the community garden did not last long; she participated in the community gardening for a year and then halted activities on the plot, then she stopped. MaThato, in one of the interviews I conducted with her at her home, explained that she stopped because the person she hired used to complain about water scarcity at the Centre. The person she hired also told MaThato that the other gardeners often gossiped about him [the hired person]. According to MaThato, other gardeners in the community garden disapproved of the fact that MaThato was not gardening on her own plot but instead was hiring someone to work on her plot. Responding to this charge, MaThato referred to the community garden as a "garden of N*azis*". She was clearly unhappy with the other gardeners: "I said okay when he [her paid gardener] told me he is not going there [to the Centre] anymore. I can't push him to go". At the time of our interviews, MaThato was working only on her garden situated along the river and had abandoned her plot in the community garden. "There is water there, he can water the plants until nine at night", she told me.

When I asked MaThato about her relationship with the person she had hired to work in her garden, she told me that he is neither family nor does she know him personally. But, she knows he likes his job and he always brings her spinach, carrots, tomatoes and lettuce. When MaThato started gardening (*ulema*) at the community garden she did not know that they would be faced with the problem of water scarcity and that people would disapprove of her hiring someone to help cultivate on her garden plot. As it turned out, the members of the community garden had an unwritten understanding that the 'owner' of a plot should work on it him/herself.

Responding to a question I asked her during an interview as to why she was gardening, MaThato told me that she gardened because she wanted to have enough vegetables for meals for the children at the daycare and be able to share fresh vegetables with the community. But at the end of last season, it became obvious that she and the other senior citizens at the community garden did not agree on the future of the expanded garden operation at the Centre.

When I asked her about how she plans to go ahead with gardening at the plot she secured at the community garden, MaThato told me that she is looking for money to buy another JoJo water tank and place it on her plot in the community garden so that she will not have to fight for access to the communal source of water: "It will be my water and I can water my plot as I want". In the eyes of some of the other gardeners, MaThato is seen as 'lazy' because she hired someone to work in her garden. This revealed to me that, at the community garden, gardening is not only about producing fresh food but also about showcasing one's abilities and one's values, such as hard work.

MaThato's response to such stereotyping was: "But, myself, I cannot garden all the time. I have high blood pressure and [I am] diabetic. When it is too hot I cannot go there but when it is okay I go there and take care of the weeds (*lehola*) and clean the garden (*ulema*)". Stereotyping and gossiping reveal that other gardeners in the community garden did not want anyone to 'stand out' from them. It is one of the 'unwritten rules' in the garden that no community gardener is to garden in ways that differed from their common ways of gardening. Gossiping and negative comments about MaThato can also be seen as intended to alienate her from the garden due to her seeming advantage as she earns a greater income than the other gardeners. Most of the gardeners depend on monthly pensions and state grants and so they are quite envious of her entrepreneurial skills and the income she derives from her daycare centre. Given this sentiment among the gardeners, it is likely that MaThato's plan to procure her own private water supply will also be met with resistance and disapproval from the other gardeners if she were to ever try and implement it.

During one of my visits to her house, I walked past MaThato's garden situated along the river and observed that there are no other gardens close to her garden along the river. In that sense, her idea of gardening along the river was quite unusual. While there are reports in newspapers that township residents in Alexandra, for example, garden along riverbeds (Mail & Guardian, 2017), I did not see any other such gardens in that section of Mamelodi. It is also not a practice mentioned in the scholarly literature on urban agriculture in South Africa. Elsewhere, however, gardening along the river banks is a common practice, regardless of not being recognised by government agriculture, water or irrigation policies. In my home country, Malawi, for example, a *dimba* is a garden that is situated close to the water source, such as rivers and dams to build up the irrigation practice. *Dimba* gardens are a widespread practice and considered as a productive way to use water and one that offers lasting economic prospects for urban dwellers (Njaya & Kalindekafe, 2014; Morris, 2016). Also, the literature shows that urban gardening along the rivers, markets and dumps in countries such as Cameroon, Zambia, Malawi, and Ghana comprise between 25 and 50 percent of all city gardening (Drechsel, Graefe, Sonou, & Cofie, 2006; Njaya & Kalindekafe, 2014). In Mozambique, the Maputo green belt is an example of market gardening and along the banks of the river various organisations employ up to 13,000 people, creating an urban green belt (FAO, 2012).

MaThato explained that the vegetables she grows along the river help with meals at the daycare and also shared with other people in the community. MaThato believes that she cannot only work at the daycare with the children, but she also wants to help the parents of the children she works with. By sharing the vegetables she grows along the river with the wider community, MaThato has gained immunity from vandalism and break-ins in her garden along the river. "There is only us gardening there. We grow the vegetables and I always tell him that when you saw them just give them the spinach and other vegetables," she said. So far it seems that this kind of giving and sharing has solved MaThato's security problems: "If we do not have, I will tell them that we do not have, and they will say, okay", she added. The only problem that MaThato faces at the garden along the river is that rats eat the vegetables, in turn due to the dumping of waste along the river.

One of the issues in the growing South Africa urban agriculture is the threat of theft of fresh garden food. Theft is an issue highlighted in the literature by Wills et al, (2009) where gardens are considered crime attractors. But this is not a problem everywhere. In my home country, for example, urban gardens are characterised with instances where a proportion of the maize, beans or other vegetables are harvested for consumption or to be sold before they are fully mature to avoid loss through theft. MaThato had addressed this issue through the sharing of fresh food. Moreover, she claims that she has made friends in the community because of her river and community vegetable garden and because she shares her vegetables. She told me that when people see the garden and fresh vegetables they talk to her and ask her if they can have fresh vegetables from the garden, "I will say 'yes', you can go and get the vegetables. Because to give, is my gift." She said. Giving food as a gift to neighbours safeguards her garden. Gifts of fresh vegetables also turn strangers into friends.

The idea of "giving back" to the community is also a sign of economic and social standing. In township communities in South Africa, "giving back" has become a sign of middle-class status since only those who have something to give have the ability to 'give something back'. It implies that one is not poor and at the receiving end of charity or hand-outs, but is in a position to give. As part of her mission to "give back", MaThato has identified households in her neighbourhood that are needy. This includes households of some of the children who are taken care of at her day care centre.

MaThato claims that she usually gives the children at the day care vegetables to take home after school. She also told me about an incident that happened to the family of one of the child she cared for at the day care. She told me that the mother of the child was raped when she was fourteen years and fell pregnant as a result. When the child was born, MaThato suggested to the family to bring the child to attend the day care at no cost. "I realised that if at fourteen she does not go school and have to take care of the baby, she will not be educated", she said. Up till now, every month end she claims, MaThato, buys basic foodstuff such as maize mealie, sugar and soap for this family because she noticed that even though the child takes the vegetables home, sometimes they are unable to have a meal because there is nothing to eat with the vegetables.

6.4 Themes and data analysis

Arjun Appadurai, in his edited book volume titled *The Social life of Things* (1986), argues that "commodity paths are carved out at points where interests coalesce and are maintained through the exertion of specific power relationships." Appadurai was interested in understanding how value is produced outside of the production process, including the contestations and politics that surround things, including commodities and gifts. While I do not explicitly follow the trajectories of specific foodstuff produced in the community garden, my data shows how food produced in the garden have many different trajectories. These trajectories also point to the importance of recognizing the non-economic benefits of gardening as the market exchange of foodstuff is not the most important way in which foodstuff gets around. My data show that importance of gift exchange, charitable giving and donations, as well as plant-human exchanges. These types of exchange are revealed mainly through the use of metaphors relating to plants/garden plots and coexist in the community garden. Exchange in the community garden connects gardeners to each other, to plants and other individuals in the community in different ways.

6.4.1 Heterogeneity in relating to plants/garden

My data reveal that the gardeners relate to their garden plots in different ways. Participants use various metaphors to discuss their relations to the process of production and exchange of fresh food. Participants use metaphors such as "the garden is like a baby" or "the garden is the boss" to talk about the affective aspects of relationships they have with the plants that they nurture and care for. On one hand, the life histories open up possibilities for thinking about the effects of entering into a relationship with 'things' such as plants; and on the other hand, reveal another key finding, that participants garden for different reasons.

This finding shows the relevance of Viljoen's (2005) work in *Continuous productive urban landscapes: designing urban agriculture for sustainable cities,* where he defines UA as a practice that takes into account productivity in both economic, sociological and environmental aspects, as opposed to the suggestion by some scholars on resisting market exchange. Participants such as MaLesedi refer

to her garden plot as "a baby" (*serapa*), or an infant (*lesea)*, which entails a relationship of care. MaThato refers to her garden as "the boss" which entails a different kind of hierarchy suggestive of entrepreneurship. What it shows is that there is no one way in which my research participants talk about the garden; they all have different relationships with their gardens.

Clearly, some aspects of care are entailed in MaLesedi's use of the metaphor, "the garden is like a baby to me". I suggest it shows the symbolic and emotional aspects entailed in gardening. MaLesedi's life history further suggests that her use of metaphor can be seen as a response to the effects of the dominant food industry, precisely because participants' possibilities of making an income are so constrained by the logic of the food industry, dedicated food activists, especially women, barely see other ways forward but for the human-nature relationships that provide social benefits. In addition, the metaphor is an expression of her experience with cultivating and the social exchange of food as an activity that requires nurturing, communication and attention. This, in turn, produces the ability to exercise, relax, the gifting of fresh food in the form of donations and the ability to form alliances with other people. On the other hand, MaThato refers to her garden plots using metaphors that reveal an entrepreneurial spirit - the garden is like "a boss". This metaphor suggests the importance of market opportunities that exist in gardening. This finding relates to the UA literature that favour market approaches that emphasise income as a remedy for the effects of institutional racism in the industrial food system and an important tool in attempting to create a local food system by and for low-income communities (Wills et al, 2009; Battersby, 2013).

Furthermore, Nathan McClintock (2013) argues that markets create opportunities for producers in UA but also create obstacles for its expansion. McClintock (2013) argues that agriculture arises from a protective counter-movement, while at the same time entrenching the neoliberal organisation of contemporary urban political economies through its entanglement with multiple processes of neoliberalisation. In the community garden, both economic and social aspects of UA exist. For instance, participants buy seeds for spinach, beetroot, cabbage, carrots and beans from shops and

obtain seeds for the other vegetables from the Centre. On the other hand, participants share seeds among each other most of the time.

6.4.2 Knowledge exchange

In the previous section, we established that participants are motivated to garden for different reasons, and that both market and social exchange exists in and around the community garden at the Centre. I found that the heterogeneity of the participants' vision for gardening produces another type of exchange; knowledge exchange. Participants in the community garden joined the garden with no professional experience of growing food, but through learning and the circulation of knowledge and skills on a daily basis between gardeners, individuals are able to become independent gardeners. As revealed in the life histories above, both MaLesedi and MaThato, among other participants, have lived at least 40 years of their adult life with no direct experience of gardening. This finding is a mismatch with UA policy assumption that most of the urban dwellers who participate in cultivation are new 'immigrants' from rural areas. As a result, UA planers and proponents tend to adapt rural programmes to meet urban food insecurity needs (Battersy & Haysom, 2016).

In the community garden at the Centre, the life histories show that both MaLesedi and MaThato, among other participants, have lived for so many years of their adult life with no direct experience of cultivating food. For instance, MaLesedi told me during one of the interviews, that before she was introduced to the garden by her mother, [that was before the garden was integrated to the Centre], she had no gardening skills. "My mother used to plants vegetables at my house [the house she currently resides in], and I had never really take part in gardening [*ulema*]". She said. In addition, MaThato, despite the fact that her parents farmed in Boschkop, had never gardened while in Mamelodi until officials from the Department of Social Development encouraged her to start a garden. After she received a plot at the community garden, access to these resources was contingent upon her upholding her duty according to the gardening arrangements that preceded her.

Dunn (2010, p. 87), in her study, also found that many of her research participants expressed a lack of knowledge about gardening and experienced structural barriers in urban agriculture. Dunn's study demonstrates the noticeable gaps in UA literature in respect of Cape Town: a lack of information on the history of the practice and a relative lack of information on the social benefits. One of her participants in her study said that "despite coming from rural areas and growing food there, it never occurred to her to garden in the city until introduced to an urban agriculture project some forty years later." For MaLesedi and MaThato, joining the community garden provided the opportunity to learn new skills and acquire knowledge in the field of agriculture as well as the skills needed to manage a crisis such as extremely dry soil or floods. Participants share gardening knowledge with each other and also teach new members in the community garden. Amid the knowledge transfer is the teaching of rules and arrangements that participants adhere to. Lessons on how to improve gardening skills are also communicated constantly.

Institutions such as NGOs are also implicated in sharing knowledge and practice through training and workshops conducted for community garden members at the Centre. Whenever the Centre is involved in knowledge sharing, costs and resources needed for such, are borne by the Centre. Conversation and practical lessons in the form of training and workshops are organised between the incoming organisations and the participants at the Centre or away. The Centre often acts as a medium for participants at the community garden to access this knowledge. Coplen (2010) argues that knowledge, ideas and skills, among other intangible resources, are central to the ultimate success of a community garden. In the case of the community garden at the centre, safeguarding gardening knowledge often depends upon members' ability to leverage the variety of resources they have such as information, facts, familiarity, awareness and skills related to gardening. Leveraging these resources among the community garden members takes the form of conversations among friends, alliances and networks which may include staff at the Centre and outsiders whom they can convince to support the community garden.

6.4.3 Walking and talking

This section will discuss social actions such as walking and talking not as abstract or routine activities but as human representations or symbols of belonging in a place. In the community garden I worked in, walking and talking formed part of the many and heterogeneous yet hidden functions of UA by offering personal benefits such as respectability and belonging in the township.

One day I accompanied MaLesedi as she went on her usual rounds to drop off vegetables (*meroho*) at the homes of her friends, just as she claims she has done every morning over the past fifteen years. By walking with her from home to home, I began to understand the significance of how fresh food creates connections among people and the possibility of relationships. I arrived at the entrance of WSEC, located twelve kilometres from my home. I was accompanied by my research assistant. He had told me not to be late as we had arranged to accompany MaLesedi on her rounds to drop off spinach and onions at her friend and fellow church member, who in turn was to take the vegetables to MaLesedi's church in Ntokozweni. MaLesedi is always in the community garden at 9:00, so we were there at 9:30, looking at the fast-paced traffic occupying the street between WSEC and Mamelodi Hospital entrances, trying to figure out how we are going to cross the street to Tsakane where MaLesedi and her friends that we were visiting, reside. Along the streets of Tsakane, we observe people getting ready for the day. Taxis were hooting, looking for customers. Street vendors, under big trees, were busy attending to customers and car bonnets were opened in several motor mechanic shops. There were more young men and women than elders in the streets, sitting in the corners chatting and playing cards.

In no time we arrived at the home of MaLesedi's fellow church member who is supposed to take the vegetables and deliver them to MaLesedi's church. Most of the houses are fenced and paved with concrete, limiting the chances of gardening. It is a beautiful peri-urban neighbourhood with decent houses, which can be described as compounds —comprising a main house and backrooms that accommodate two to four tenants or other family members. Other residents have built tin-houses on the boundaries of Tsakane and Moreleta rivers, stretching the community too close to the river. The

river has beautiful vegetation. However, there is no sight of a vegetable garden along the river. MaLesedi gestured to us to enter her friend's house. I take a quick glance at a picture frame of two small girls on her wall. Her friend saw us glancing and she explained that they are her daughters who are now grown up and have gone to work. Before we left the house, she told us that she used to have a space on the side of the house to start a small garden but she had to build a fence as people started erecting shacks next to her house and she started feeling unsafe.

MaLesedi handed me the blue plastic basin that we dropped at her fellow church member's house and headed towards the street market. As we walked towards the second house to drop the vegetables she explained to me that some people on the street sell a bunch of spinach for R9.00 per kilogram, while she decided to sell the same quantity at R4.00. The amount that she makes selling vegetable in a week ranges from R50.00 to nothing at all — not only because she shares most of it but because she is not producing much on the community garden plot. Walking from the house of the church lady to the next house we stopped three times while she conducted conversations with people along the street. It's almost 10:28 after dropping the vegetables at the second house, and the second plastic basin is empty. On our way to MaLesedi's house, we pass by a woman who MaLesedi rather bashfully describes as being "not well". I asked whether she is sick. She explained that she is mentally ill and has no-one to look after her. Apparently, no one in the neighbourhood is willing to take care of her but MaLesedi said that from time to time she gives her vegetables for her meals. As she asks rhetorically: "Who else would care?"

The experience of walking with MaLesedi has a physical, emotional, and cognitive effect. My experience with space where MaLesedi walks every day was not solely created by the visuals or sound in the township landscape but an embodied one. MaLesedi's walk from the community garden to friends' houses to share fresh food is a ritual activity of sorts. Walking involves changes in emotional and bodily placement in relation to the features in the landscape such as people's appearances, car movements and route finding; it is about showing the connections and dependencies on other people. De Certeau (1988) argues that understanding – 'reading' – a space has much to do with one's own

position in it. De Certeau's (1988, p. 97) formulation of walking as a 'pedestrian speech act", where he discusses the 'enunciative property' of function, is a useful way to unpack the story narrated by MaLesedi during our walk. DeCerteau (1988) argues that:

> "The act of walking is to the urban system what the speech act is to language or to the statements uttered. At the most elementary level, it has a triple enunciative function: it is a process of appropriation of the topographical system on the part of the pedestrian… it is a spatial acting-out of the place… and it implies relations among differentiated positions…" (p. 97).

And so MaLesedi walks from door to door to share or sell vegetables to friends, and thus making visible her social network which includes people from her church and regular customers. She walks along the streets of Tsakane and sometimes uses shortcuts. She refers to her everyday walking to distribute vegetables as 'visits'. In her work in Cape Town, Fiona Ross (2010) argues that visiting consists of eagerness or anticipation that forms the core of the task. Ross (2010) has also given a careful analysis of movements in a landscape and what mobility implies. Ross (2010) writes about the experience that she had when she and one of her informant Ponkies were 'going to see' [tour] the neighbourhood. She argues that movement - and I would argue walking as in the case of MaLesedi - implies cognition, emotion and action, and contains both a sense of the expected (that is, predictable) and of the uncertain. Thus, the complex sense of temporality inherent in walking contradicts the actual intent of the task at hand – to produce an immediate and clear representation (Ross, 2010).

In this case, one layer of MaLesedi's representation as a product of walking includes the fact that the landscape becomes her social space. The social space includes everyday path and shortcuts. On her path, she often hugs or offers handshakes to friends, customers and fellow church members. In her eagerness, she changes from her gardening work-suit into presentable clothing before embarking on the task of walking. You could tell from her clothing that she is anticipating engagements with people from her church and her social network. She is anticipating being seen in public by outsiders who

often assess character on the basis of appearance. According to Ross (2010, p. 37), minding how one looks in public implies outward signs of respectability – read from bodily disposition and comportment – and trigger 'respectable behaviour', behaviour that ultimately reproduces belonging.

6.4.4 Competition

The literature on UA is divided on the issue of competition. Some scholars completely ignore questions of competition among gardeners and others underplay it, preferring to write about cooperation and solidarity (Cadieux & Slocum, 2015). Some scholars in the food justice and food sovereignty camp tend to equate competition with neoliberal capitalism, despite evidence that competition, as Mauss (1969) had argued, is a universal aspect of exchange relations. And scholars favouring market approaches tend to applaud competition while leaving little room for cooperation. Urban agriculture literature in South Africa and elsewhere suggests that community gardens prevent heightened competition and promote conviviality in the way people routinely negotiate difference. A study by Glover (2004, p. 142) found that "social interactions facilitated by the community gardens can foster norms of reciprocity and trust—conventional forms of social capital". Also Shepard (2009, p. 293) suggests that ''the seeds of conviviality, of acknowledgement, of difference, grow roots in such spaces" [urban community gardens].

I have already shown that gardeners do cooperate by assisting each other in multiple ways - they talk about each other as family and tend to each other's plants when needed. Yet, as I want to emphasise here, competition also exists among the gardeners. At first glance, the community garden under study is, of course, a patchwork of neatly planted gardens tended to by diverse members. But beneath the healthy spinach and onions also lies a tangled history of conflicts borne out of competition and display of skills. Much of the data on competition and cooperation I produced was situated outside of the formal rules of the Centre and gardening community. There were informal agreements and arrangements when it came to reciprocating care or labour, knowledge exchange, and the sharing of garden tools and seeds among gardeners. Furthermore, gardeners are supposed to only water their garden plot on designated days. The issue of hiring outside manual labour for working on the garden

only became an issue once one gardener started hiring outside labour. These unwritten rules have been evolving as new members joined the community garden. More recent rules include restrictions on trespassing on other gardeners' plots. Such changes arose as a result of reported incidents regarding stolen tools and vegetables. In addition, the life histories I collected show that there exist competition among gardeners.

Competition among the participants in the garden was evident in their quest for prestige (see also Aptekar, 2015). One participant told me that there is only one gardener that looks like the one who "beats" everyone at the community garden: "His garden is nice, it's clean and it's progressive". Some participants were kicked out of the garden by members or they have halted their participation in the garden. In interviews with me, a former participant, MaThato, used the phrase, "the garden of N*azis*", when referring to the way in which the community garden members were trying to control her gardening activities. MaThato was ousted for hiring and paying for labour (*mosebeletsi*). In June 2016, MaThato, who already had a garden plot along the banks of the Moretele Spruit and also a dumping site, wanted to expand her garden from planting vegetables only to millet and groundnuts – both of which are labour intensive. To overcome the labour problem, and executing her entrepreneurial ambitions, she hired outside labour for her everyday activities at the garden. In return for the labour, MaThato makes a monetary payment every month to the man who provides the labour on her garden plot. Due to the disapproval of her hiring labour, along with claims of lack of water in the Centre and how the fellow gardeners were gossiping about her, MaThato halted her gardening activities at the community garden. In her eyes, every piece of the garden is an economic opportunity and not working it effectively means a loss. MaThato sees herself as an entrepreneur and a symbol of self-sufficiency in her community. When neighbours, schools and the church do not have vegetables to supplement meals they come to MaThato for help. In her case, being entrepreneurial and engaging in charitable giving ("giving back") come together seamlessly.

Furthermore the existence of a kind of prestige economy in the community garden does not mean that all wealth or social standing is viewed as a threat in the eyes of the participants. This is true also for

other documented community gardens. Kennedy (1966) argues that income and prestige also come from outside the community and has the potential to give people a chance to better their economic and social status. In his work on the idea of the 'limited good' among peasant communities like Tzintzuntzan in Mexico, in the Middle East or China, he suggests that these communities are not homogeneous; there is important economic and social differentiation within these societies and between them. Kennedy (1966) also notes that during times of scarcity, people tend to compartmentalize their perceptions of their resources into two neat boxes: in one there is the income earned within the community, which is fair game for envy and community sanctions. On the other, there are income and prestige derived from family members outside the community, which are somehow exempt from envy or from being perceived as a threat in the way local income is viewed (Kennedy, 1966). So while the hiring of outside labour by MaThato raised the ire of fellow gardeners, the deployment of labour by kin is not an issue.

There is no denying the existence of competition in the community garden. In fact it is a theme that is often underplayed in the literature which tends to portray community gardens as outright utopian collaborations of cooperation (Glover, 2004; Wills et al, 2009).

6.5 Conclusion

In this chapter I documented and discussed the life histories of two participants in the community garden, MaLesedi and MaThato. MaLesedi, a mother of three and a former chef, was introduced to the garden by her mother and often sells and shares fresh food. MaThato is an entrepreneur and considers herself a middle-class woman. She joined the community garden because government officials encouraged her to cultivate food as a way of supporting her daycare business. The life histories of MaThato and MaLesedi allow this dissertation to discuss how community garden participants garden for different reasons and exchange fresh food in different ways. These include both market and social exchange, as well as knowledge exchange. Social exchange includes the social and emotional aspects of gardening that are not covered in market forms of exchange such as embodied aspects like physical and emotional health; sharing food and resources like seeds, gift giving, and charitable giving. The

market exchange in the community garden involves selling fresh food for cash. Social actions such as walking and talking also reveal the social and emotional aspects of gardening. Participants such as MaLesedi, walking from the community garden to friends' houses to share fresh food, reproduce a representation of respectability and can be seen as an expression of agency and belonging. Competition among the participants in the garden was evident in their quest for prestige and it raises the wider question about the importance of conflict and competition in the making of 'community'.

In the next chapter, the concluding chapter, I provide a summary of findings, and a reflection on the findings.

Chapter 7: Conclusions

7.1 Introduction

In chapter seven, I revisit the objectives and research questions of this dissertation. In this chapter I provide a summary and a reflection on the findings. I discuss these in relation to the following topics: community, gender asymmetry, exchange, affect and learning and education. This dissertation presented fieldwork data on the motivations for and benefits of community gardening, taking community gardening as an instance of urban agriculture. I also discussed some aspects of UA policies and projects and echoed those scholars who have critiqued contemporary policies for its economism. The data I presented in this dissertation draws on interviews and participant observation with senior citizens of a community garden in Mamelodi. The community garden was started by the members of the Mamelodi community and was later integrated to be managed by an NGO alongside an environmental education centre, a permaculture demonstration garden, a recycling station, wetlands and a tree nursery. The community garden aims at providing senior citizens from poor and working-class surrounding neighbourhoods with access to land, water, seed and other resources to grow fresh food aimed at supplementing their food supply and income through the sale of surplus. The aim of the NGO in starting the community garden was informed by the growing literature on urban agriculture, permaculture, community gardens and food security.

As such, my dissertation wanted to also focus on the economic aspects of urban food gardening, or how the senior citizens are able to supplement food and household income through selling fresh produce that is grown at the community garden. However, my fieldwork produced data not primarily on the economic aspects of urban agriculture, and the importance of market exchange for household income, but on the social aspects of urban gardening. This is to say that the open-ended nature of ethnographic research allowed my research respondents to guide the focus of my research, and to change my mind. Specifically, my research participants highlighted the social dimensions of gardening such as the benefits of physical exercise and increased emotional wellbeing. They showed me that gardening acts as an outdoor space for exercise, while gardening allowed them space and

opportunity to express their right to the city and their views on food politics. They also showed me how community gardening provides people with an opportunity to form alliances between people and how it can contribute towards learning and sharing of knowledge.

Furthermore, I learned that conflicts and the quest for prestige should not always be seen as 'negative' but that these can play a role in creating relationships in a community garden and can produce positive competition. I was also confronted with the possibility that envy and gossiping could enhance both cooperation and competition while giving expression to communal rules. In addition, I discovered the existence of reputational risks and intergenerational stereotypes in urban gardening practice in Mamelodi, as well as how the daily routines such as walking the township could create the means for belonging to the city. What seemed like an insignificant practice of the sharing or giving of food to residents and neighbours turned out to be very important: it can minimise the threat of food security, it affords participants an opportunity to legitimise their social standing in the community, and it could reduce the threat of theft.

In thinking about these 'insignificant' and 'little' social aspects of gardening, I was struck by the contrast between how important these aspects were to my research participants and how unimportant these are in policy terms. Over time, I learnt that in contrast with the economic aspects of small-scale urban agriculture in common or public spaces are more applicable to personnel or individual households, the social aspects are very relevant to the gardeners I worked with. I also learnt that these social aspects are not unsurprising when community gardens in cities are seen as staging the grounds for expressing different visions, the ones held among participants and the ones held by city planners and the NGO. As such my dissertation agrees with a growing set of scholarly work that point to the central importance of the social aspects of UA and development interventions. Broadly speaking this is in line with scholars such as (Mougeot, 2000) who argue that development should not be reduced to or thought of only in economic terms.

7.2 The importance of retaining a historical perspective

In exploring the historical perspective, this dissertation examines the practice of urban gardening by recounting the life histories of six senior citizens as they participate in a community garden in Mamelodi. Having grown up in the rural or farm-based areas such as Piet Retief and peri-urban freehold areas such as Lady Selbourne, where their parents farmed and owned livestock, the families of most of the participants were later moved to Mamelodi. The relocations were part of the wave of forced removals that took place across urban South Africa in the 1950s and 1960s (Kgari-Masondo, 2008). The participants remember their homes of origin and their new home in Mamelodi with nostalgia, including highlighting the possibilities that existed for growing food. The senior citizens engaged in metalwork and wood processing, domestic work, clothing, textile and food processing and worked in provisioning companies before they became active participants in the community garden.

The findings reveal that the history of apartheid, especially the forced removals, drastically affected the educational opportunities of the participants. The constant movement their families and households experiences resulted in most participants not being able to matriculate, while others never attended school. The apartheid legacy also caused social dislocation in their communities depriving them of dignity and power, while disrupting social networks. By participating in the community garden, I argued, participants wanted to reclaim some sense of belonging and a 'right to the city'. The life histories reveal that participants expressed a sense of nostalgia for a bygone past when they work in the community garden. Working in the community garden offers a reminder of their younger days of helping out in their parents' and grandparents' gardens, tilling the soil and harvesting. The life histories also reveal a shift in the expectations of the participants about the garden itself. Although these expectations have changed over time, the community garden currently connects the participant to their desire for communal experiences, but the actual food cultivated in the garden nowadays is small and clearly not the most important reason for people wanting to keep gardening. The importance of situating the lives of research respondents and the wider question of UA in a historical perspective is that it allows us to view humans as multi-dimensional social beings and it allows us to view development as a multifaceted process that unfolds over time.

7.3 Cooperation, competition and conflict

Community gardens, as an example of UA, are often publicised as crucial in supporting harmonious teamwork among gardeners and building tolerance and coherence through the use of resources such as land, water and seeds, among participants (Mougeot, 2000; Duchemin et al, 2008; Anderson, 2011; Glover, 2004). In other words, it is often assumed that community gardening should exist or does exist without conflict, negative stereotyping, and competition and without individual reputations at stake. In a recent study that assumes that UA fosters tolerance and harmony, Duchemin et al (2008) argue that community gardens initiatives are socially inclusive, that is, they encourage diversity in the gardens and therefore avoid excluding or stigmatising certain groups of people.

In contrast to Duchemin et al (2008) argument, key findings from this dissertation show that community gardening involves risking individual reputation in the community. For example, MaLesedi, one of the participants, told me that when she started gardening, her children did not like it. In her words: "They used to fight me and now, they have become quiet that I have a garden and bring fresh vegetables home". Her children were afraid of how her participation and her going in and out of the community garden would do to their family's reputation. This finding is different to most other African countries where there is no (reported) stigma attached to gardening. There is also intergenerational stereotyping associated with community gardening, where young people view gardening as hard work. For example, Mr Botho told me that his children do not participate in the garden. "They just leave [home] and go to their respective places wherever they want to go, but definitely not the garden." From the interview conducted with Mr Botho, it is clear that his children do not share his passion and sentiment regarding gardening work. Mr Botho is of the opinion that his children are 'lazy', while the children think that gardening is for 'senior citizens'. This reflects generational differences in attitudes towards gardening work in South Africa.

Furthermore, despite the fact that a community garden is often lauded for building cooperation and tolerance in diverse settings (Duchemin et al, 2008; Anderson, 2011; Glover, 2004), the community garden at the Centre is a site of both cooperation and competition. The community garden is an arena

for conflict where collective ways of gardening and informal rules are used to sanction excessive entrepreneurialism. On the existence of conflict and competing visions, Aptekar (2015) demonstrated similar findings in her study on community gardening in New York City. Aptekar (2015, p. 220) argues that some members of a community garden access economic, social, and cultural capital in the form of the Parks Department and local politicians to advocate for their vision of a green and clean garden so as to clean up 'dirty' spaces in the city. Aptekar also notes that the green space advocates were also more likely to be highly educated, middle-class people who have dominated the garden steering committee (2015). They sometimes used legalistic language that served to intimidate and confuse, knew how to effectively engage city authorities, and facilitated meetings in a way that naturalized their agenda (Aptekar, 2015, p. 220). The kinds of conflicts documented by Aptekar (2015) demonstrate the centrality of conflict and different interests involved in UA projects. Development interventions that fail to acknowledge the existence and even potential of conflict and competition are likely to fail.

7.4 Gender in the garden

In this section I will discuss gender through the different ways in which men and women talk about the gardening and the way in which they talk about shifts in their expectations of the garden. Literature shows that women play an integral part in UA and that they make up the majority of Africa's urban farmers (Rakodi, 1988; Slater, 2001; Van Averbeke, 2007). However, the economic focus within the literature on urban agriculture is too narrow and its exaggerated focus on maximising economic efficiency often disempowers women (Slater, 2001; Olivier & Heinecken, 2017). This disempowerment is often shown, legitimated, maintained, and challenged in the different ways that women and men talk about production and exchange of food in the community garden. A recent study on energy research shows how the social aspects involved in the exchange of things may empower women. Banks (1997) argues that paraffin, with its special ability to encourage social networking, emerged as a distinctive social marker of domesticity in Duncan Village, East London, South Africa. Even though there electricity available, women refused to drop paraffin as a main source of energy for

households because it allows them to claim income from male partners who are the breadwinners and who are ignorant of the true price of paraffin, given that paraffin is associated with domesticity and motherhood. Also, the exchange of paraffin allows women to create feminised spaces of solidarity and support outside the control of men.

MaLesedi, for example, spoke about human-plant relationships in the garden in gendered terms. MaMillicent remarks that “the garden speaks to me” while other women refer to their garden plots as a baby or infant. On the other hand, men such as Mr Botho and Mulaudzi tend to refer to their garden plots with metaphors that are less intimate such as “a progressive garden is like a shop”. I suggest that for women, production and exchange of fresh food resonated more strongly with the act of caring. For men, exchange of fresh food may more strongly imply the masculinity ideals of financial duty and provisioning. That men and women speak differently about the act of gardening should not be surprising. Society in Mamelodi has a sharp division of labour between women and men.

7.5 Economic and social exchange

In exploring the exchange aspects entailed in being a gardener and producer of fresh food, I was forced to confront the participants’ view that the community garden is a place where both market and social exchange co-exist. Market exchange, as mentioned above, entails the buying and selling of material goods and services using money. Social exchange, on the other hand, takes into account exchanges such as gift giving, donations, sharing and charitable giving. Both market and social exchanges can have economic and social aspects and functions. Here I disagree with some scholars on urban agriculture who see no emancipatory role for markets. Alkon and Mares (2011) argue for wholly embracing a food sovereignty approach that would explicitly oppose neoliberalism and markets. In their study of the West Oakland Farmers’ Market and Seattle’s urban agriculture projects, Alkon and Mares argue that opposition to markets is paramount because neoliberalism constrains the ability of this market to provide fresh, healthy food to the low-income citizens they seek to serve.

For some members of the community garden I studied, the garden offered entrepreneurial opportunities, even if such entrepreneurialism was not encouraged by everyone. It is also true that the pensioners I studied emphasised the social aspects of gardening, including social exchanges of food, because the incomes from the sales of food produce were generally low or non-existent. Those who were interested in selling their produce through market exchange for money, struggled to find a market for their produce. Atkinson (2010), in a study on the historical background of urban agriculture, argues that even if the municipalities view UA as a potential source of income, the markets structures—both at global, national and local level—do not support the sustainable entry of products from these projects into existing markets (Atkinson, 2010). On a global scale, the approach adopted by the food justice movement is greatly complicated by the agricultural and trade policies of the rich, the Organisation for Economic Co-operation and Development (OECD) countries that engage in protectionist subsidisation of industrial agriculture favouring large producers over smallholders (Atkinson, 2010). At a national level, in fact, national policies and political disruptions, going back to the early 20th century, have led to national food crises—including famines in Russia, China, India and above all, Africa (Patel, 2008). With rising costs of fuel and agricultural inputs in the global market, globalization has become one of the prime causes of rising food prices everywhere (Abrahams, 2011). At the local level, the commodity market approach to developing agriculture often excludes urban gardeners as well as low-income earners (Atkinson, 2010).

MaLesedi, for example, was not able to significantly sell her harvest, despite that her produce was heavily discounted due to a lack of demand from customers. MaLesedi, during one interview, told me that when it is the middle of the month often her customers do not have enough cash to buy her produce. But, they prefer to get vegetables on credit and pay immediately after they get their wage payments at the end of the month. In addition, even though MaLesedi sells her vegetables at a subsidised price, her produce is still considered expensive compared to canned foods in the Spaza shops or fast food corners in the street market in the Township. As mentioned, the place of market exchange in urban agriculture is an important point of contention in the literature. Recent literature

illustrates the laudable functions of UA as a contributor to food justice. Cadieux and Slocum (2015) argue that food justice is associated with organising and pursuing labour relations that guarantee a minimum income and are neither alienating nor dependent on (the unpaid) social reproduction by women. Cadieux and Slocum (2015) argue that it is important for scholars and practitioners to be clear on how food justice differs from other efforts to seek an equitable food system. They disagree with the urban agriculture scholars who equate urban agriculture with the logic of the market. Yet food justice scholars tend to underplay the importance of the social aspects of urban gardening and at times can be very economistic. My research shows the varied and multiple social benefits of gardening, including social exchange. Often, when participants spoke about the benefits of their participation in the community garden, they rarely mentioned any food or monetary benefits. But participants spoke of social standing, exercise, security, care, and belonging. As the gardeners experienced obstacles to engage in market exchange, they emphasised other forms of exchange. We know that the exchange of goods or services as gifts create and maintain social relationships (Mauss, 1969). But giving gifts also acts as a way to lower potential risks, or to make friends. Here I can mention the practice of MaThato who explained to me that she does not experience problems of vandalism or theft at her garden along the riverside because she gives vegetables as gifts to the community. Giving is a way of neutralising the threat and ensuring security, thus revealing that calculation can also form a part of social exchange, not only market exchange.

My research participants also engaged in charitable giving of fresh food they had produced as a way of attaining respectability and prestige. Jensen and Turner (1996, cited in Ross, 2010) identify an assertion of respectability as an attempt to overcome individual challenges and to separate oneself from the negative constructions of the neighbourhoods in which people reside. In the community garden I studied, participants give fresh food in the form of donations to orphanages and school feeding programmes, while others give fresh food in the form of charity to people who are not well-to-do. Metaphors expressed by MaThato such as “because to give is my gift”, reveal elements of gift giving in the form of charity and typically, community patronage. Such metaphors reveal that she is

legitimising her social standing in the community as an entrepreneur and an upstanding woman of middle-class position through her charitable giving. Through metaphors of gift giving, MaThato legitimises her social standing, as a black middle class entrepreneur. Maintaining her middle-class standing requires MaThato to continue "giving back to the community", signifying in the process her own wealth and her entrepreneurship.

Lastly, sharing, gift giving and donating food and its benefits as examples of social exchange is important in thinking about participants' performances and the community garden as an arena. Metheny (2013) argues that food sharing, a cooperative social behaviour, is an important component of social network formation whether for the purpose of resource exchange or redistribution, the formation and maintenance of political alliances, or the creation and fulfilment of social and economic obligations. Metheny (2013) argue that food sharing is also performance — an enactment and reproduction of social relations among individuals, family members, kinsmen, and other groups. In the community garden sharing, gift giving and donating fresh food create forms of reciprocity and may surpass the feeling of abjection by allowing participants to form and maintain networks with friends and members of the community.

7.6 Affect and health benefits

Scholarly literature from psychology and social psychology suggests that gardening is indeed good for emotional and mental health. Relf (1992) argues that gardening acts as a source of spiritual renewal by entwining with the subconscious mind which is outside the awareness and control of the conscious mind. Relf (1992) argued for the concept that there is an affective theme to gardening which attracts individuals to the activity and aids in sustaining their interests. Community garden participants discussed the psychological and emotional benefits of urban gardening to me through the use of metaphors for the affective feelings they experienced as a result of the plants they nurture and care for. Affect, according to contemporary readings of Baruch Spinoza's 'Ethics', is the "power to 'affect and be affected'" (Massumi, 2015). Massumi wrote about affect in his work 'The politics of affect', where he argued that far from being enclosed in the interiority of a subject, affect concerns an immediate

participation in the events of the world (Massumi, 2015). Brennan (2004) also argues that a focus on affect addresses certain aspects of post-humanist critique by challenging the deep-seated view of the self-contained individual, itself a tenet of neoclassical economics. The definition was made in her book *The Transmission of Affect,* where she demonstrates the pathology of how the belief that the emotions and energies of one person or group can be absorbed by or can enter directly into another, for example, energies associated with the metaphor of walking in a room and 'feeling the atmosphere'. Brennan (2004) also argues that affect is based on constant communication between individuals and their physical and social environments. The definitions of affect provided by Massumi (2015) and Brennan (2004) open up the possibilities of thinking about the effects of entering into a relationship with 'things' such as plants.

At the community garden, participants use a different metaphor to reflect the interaction and experience they have with the garden plots. For instance, MaMillicent told me in one of the interviews, that "the garden talks to me", revealing an affective aspect of gardening, while MaLesedi refers to her garden plot as a baby (*serapa*), which entails care. And MaThato refers to her garden as "the boss" which possible entails an entrepreneurial view of the garden as a source of income. The life histories show how the use of metaphors can be read as a creation of response to the decline of potential profit margins from harvest and sales. MaLesedi's words reflect the common personal experience which participants have when interacting with vegetable plants in the gardens as opposed to only the harvest as a core of production and exchange of food, but also that fact that gardening is healthy not only in form of nutrition but as a form of exercising and relaxation. "It is the *gyming* [exercise]. Walking in the gardens and it is relaxing for me.", said MaLesedi. Also, MaMillicent told me during interviews that: "I can say it is a privilege to find a place like this. I feel lucky", she said. Among other benefits, the garden makes the participants feel healthy and keeps them busy.

7.7 Learning and education

Knowledge exchange among gardeners in the community garden allows for learning and education. It also involves the sharing of personal experiences, ways of preparing food and unique practices such as

how to plant, prune, water, weed and care for plants. McVey, Nash and Stansbie (2018) argue that community gardens grow much more than just food; they grow the ‘community’. McVey et al, (2018) demonstrate that community gardens can be a source of learning and education when food is viewed as a ‘medium’; suggesting that food is symbolic of the processes that underlie community garden participation. In the community garden participants learn from experience and over time, through trial and error. Trial-and-error and learning through doing usually go hand in hand with the exchange of knowledge and seeds. The participants rarely seek advice from agriculture officers regarding handling and cultivation methods for modern plant varieties and the use of pesticides and fertilizers. Participants do not obtain information from formal sources such as manuals or have access to laboratories the way commercial and large-scale agriculturalists have. Their science is based on the experience of trial and error and learning through mistakes but generally, they get information from other participants in the community garden. This reflects the parameters of the social circles in which participants procure their seeds, along with the shared information made available through the process of sharing. MaMillicent, a participant in the community garden, told me that she has learnt that some plants such as cabbage do not grow if she plants them on her plot. “We used it [net] to protect cabbage but my hands are not good for cabbage”, she said. Phrases such as ‘my hands are not good for growing…’ are cultural connotations that exist in this community garden. Even though such connotations cannot be verified from a technical point of view they may have prevent women from growing other types of commercial crops. Other gardeners have also complained to MaMillicent that vegetables such as Chinese spinach do not grow when they are planted on their plots.

Government and NGOs are also implicated in knowledge exchange (Delshammar, Partalidou and Evans, 2016). Delshammar et al, (2016) argue that urban allotments gardens are used as social innovations as they provide the potential to raise awareness and to shape people’s attitudes and responsible behaviours concerning nature and the resilience of cities facing ecological decline. On one hand, I agree with Delshammar et al, to some extent, because some research participants who attended training and workshops on permaculture and other ecological practices were able to demonstrate eco-

sensitive behaviours. Such behaviours include the sensitive use of water, mulching, crop rotation, the minimal use of fertilizers or pesticides and others that address future climate challenges as well as informed food choices.

The key point here is that as participants engage in eco-sensitive behaviours in the community garden, they also communicate the lessons learnt, and it is the exchange of such knowledge, amongst others, that creates ties in the community garden. Knowledge exchange of eco-sensitive behaviours also overflows to the general public in Mamelodi. The ability of participants to learn and educate others is shown by the participants' desire to pass on knowledge of gardening to the younger generation, spouses and other gardeners in the township. For example, after receiving a certificate in permaculture design at a workshop that took place at the Centre in 2004, MaLesedi expressed interest in teaching permaculture to other gardeners at a community garden based at a primary school in Mamelodi.

On the other hand, I disagree with Delshammar et al (2016) concept of 'another government innovation'. Teaching individuals how to run the community gardens may not sound different from the priorities of food justice that Alkon and Agyeman (2011) criticise. Where the food justice proponents in municipalities and NGOs fall short, as Alkon and Agyeman (2011) argue, is on questions of race and class. As Battersby (2013) has argued, questions of race and class remain central to the food justice movement in South Africa.

The life stories I collected revealed, to an extent, that local governments and experts are not the only apparatus for the transmission of desired cultivation knowledge. Currently, at the Centre, the participants offer perhaps an instance of decentralised learning with participants sharing their ideas, practices and history across generations.

7.8 Further study

Since gardening at the community garden at the Centre is an everyday activity, research should also be considered as on-going and not complete. Thus, while this dissertation has been able to show the different functions of UA in a given period of time in the lives of the senior citizens who garden at the

Centre, further study would be useful to examine whether the meaning of urban food production and distribution and agriculture work changes at the community garden over time. Such questions can only be answered by a longitudinal research perspective that looks at how social relations and practices change over time (Kingsley & Townsend, 2006, p. 525).

In this dissertation, I employed ethnographic research methods and my findings were shaped by these methods. As I mentioned, it allowed my research participants to shape the research process. Using ethnographic research in agriculture research is not new. It was notably pioneered by De Schippe (1965) on performance in African agriculture and effectively applied by an anthropologist, Paul Richards (1989), in his work on agriculture as a performance in Sierra Leone. Richards study demonstrates, how Mende farming communities continue to effectively manage agricultural genetic diversity, experiment on-farm with traditional and modern rice varieties and produce their own varieties whose performance is often better than those provided by extension services (1989).

In conclusion, in the dissertation, I recounted the life histories of six senior citizens as they participate in a community food garden in Mamelodi, a township in the City of Tshwane. Through the use of participant observation methods, I explored why the senior citizens garden in the community garden as opposed to their home or pavements or public spaces. I also explored the experiences of those seniors who garden at the community garden - and link these to the assumptions that inform the literature and practice of urban agriculture policy and projects. More broadly my aim was to explore the economic and social aspects of gardening practice as an instance of urban agriculture so as to understand and theorise the complexities of the development process. I showed that, at least in this community garden, both the economic benefits of community food gardens and the personal, symbolic and social aspects of such gardens exist. This finding may be related to the fact that only relatively older people worked in the garden. But it is not an isolated firing and argument; many scholars now make the same argument in relation to UA. Development interventions that focus solely on the economic dimensions of development are likely to fail as they misread the complex social, personal and economic assets of social life. Likewise, those in the food justice movement who ignore the positive aspects of

competition and entrepreneurialism are likely to produce representations of community gardens as utopian spaces. Community gardens and development interventions more generally, are not spaces separate from social life. As such they are arenas for the performance and display of cooperation and competition, solidarity and prestige, self-interest and caring for others, the formation of enemies and alliances, learning and education, social and economic exchanges, and the maintenance of all kinds of relationships between humans and plants.

Bibliography

American Anthropological Association. (2009). Code of ethics of the American Anthropological Association. American Anthropological Association. Available online: http://www.aaanet.org [Accessed on 07/04/2015].

Abrahams, Y. (2011). "Stop complaining about the price of bread! Start a bakery!": Colonial patriarchy as the cause of current high food prices. In Koen, K. (Eds). Proceedings of the feminist consultative conference on women and socially excluded groups bearing the social costs of the economic and social crisis. 20011. Athlone, Cape Town: GETNET, pp. 45-53.

Aistara, G. (2013). "Weeds or wisdom? Permaculture in the eye of the beholder on Latvian eco-health farms". In Lockyer, J. & Veteto, J. (Eds). *Environmental anthropology engaging ecotopia: Bioregionalism, permaculture, and ecovillages.* New York and Oxford: Berghahn Books, pp. 195-212.

Alkon, A. & Agyeman, J. (2011). *Cultivating food justice: Race, class, and sustainability*. Cambridge, Massachusetts: MIT Press.

Alkon, A. & Mares, T. (2011). "Food sovereignty in US food movements: radical visions and neoliberal constraints". In Alkon, A., & Agyeman, J. (Eds). *Cultivating food justice: Race, class, and sustainability*. Cambridge, Massachusetts: MIT Press.

Allan, G. (1980). A note on interviewing spouses together. *Journal of Marriage and the Family,* 42(1), pp. 205-205.

Anderson, E. (2011). *The Cosmopolitan Canopy: Race and Civility in Everyday Life*. New York: Norton.

Appadurai, A. (1986). "Introduction: Commodities and the politics of value". In Appadurai, A. (Ed). *The social life of things: Commodities in cultural perspective*. Cambridge: Cambridge University Press, pp. 3-63.

Aptekar, S. (2015). Visions of public space: Reproducing and resisting social hierarchies in a community garden. *Sociological Forum*, 30(1), pp. 209-227.

Archambault, J. (2016). Taking love seriously in human-plant relations in Mozambique: Toward an anthropology of affective encounters. *Cultural Anthropology,* 31(2), pp. 244-271.

Atkinson, A. (2013). Readjusting to reality. *City*, 17(1), pp. 85-96.

Bank, L. (1997). The social life of paraffin. *African Studies*, 56(2), pp. 157-179.

Bates, A. & Hemenway, T. (2010). From agriculture to permaculture. *State of the world 2010: Transforming cultures from consumerism to sustainability*. Washington D.C.: The Worldwatch Institute, pp. 47–53.

Battersby, J. & Crush, J. (2014). Africa's urban food deserts. *Urban Forum,* 25(2), pp. 143-151.

Battersby, J. & Marshak, M. (2013). Growing communities: Integrating the social and economic benefits of urban agriculture in Cape Town. *Urban Forum*, 24(4), pp. 447-461.

Battersby, J. (2012). Beyond the food desert: Finding ways to speak about urban food security in South Africa. *Geografiska Annaler: Series B, Human Geography,* 94(2), pp. 141-159.

Battersby, J. (2013). "Urban Agriculture and Race in South Africa". In Slocum, R. & Saldanha, A. (Eds). *Geographies of race and food: Fields, bodies, markets.* Farnham: Ashgate Press, pp. 117-136.

Beuchelt, T. D. & Virchow, D. (2012). Food sovereignty or the human right to adequate food: which concept serves well as international development policy for global hunger and poverty reduction? *Agriculture and Human Values*, 29(2), pp. 259-273.

Bourdieu, P. (1986). "The forms of capital". In Richardson, J. (Ed.) *Handbook of theory and research for the sociology of education.* New York: Greenwood, pp. 241-258.

Boym, S. (2001). *The future of nostalgia*. New York: Basic Books.

Breetzke, D. & Breed, I. (2013). Cultivating new meaning in the urban landscape: Increasing food security and social capital through urban ecology. *South African Journal of Art History*, 28(2), pp.18-46.

Brennan, T. (2004). *The Transmission of affect*. Ithaca, New York: Cornell University Press.

Brohman, J. (1995). Economism and critical silences in development studies: A theoretical critique of neoliberalism. *Third World Quarterly*, 16(2), pp. 297-318.

Cadieux, K.V. & Slocum, R. (2015). What does it mean to do food justice? *Journal of Political Ecology,* 22(1), pp. 1-26.

Campbell, B. & Veteto, J. (2015). Free seeds and food sovereignty: Anthropology and grassroots agrobiodiversity conservation strategies in the US south. *Journal of Political Ecology,* 22(1), pp. 445-445.

Charmaz, K. (2006). "Grounded theory". *The SAGE Encyclopedia of Social Science Research Methods*. London: SAGE Publications.

Cilliers, S. & Siebert, S. J. (2012). Urban ecology in Cape Town: South African comparisons and reflections. *Ecology and Society,* 17(3), pp. 3-33.

Colasanti, K. & Hamm, M. (2013). Increased productivity, role in alleviating food insecurity possible. *Journal of Agriculture, Food Systems, and Community Development*, 3(2), pp.15-16.

Coleman, S. & Simpson, B. (1999). Unintended consequences?: Anthropology, pedagogy and personhood. *Anthropology Today*, 15(6), pp.3-6.

Connell, R. W. (1987) *Gender and power: Society, the person and sexual politics*. Cambridge: Polity Press.

Conrad, A. (2014). We are farmers: Agriculture, food security, and adaptive capacity among permaculture and conventional farmers in central Malawi. Doctoral Thesis. American University. Washington D.C.

Coplen, A. (2010). Cultivating communities: Building cohesion and forging identities in New Haven's Community gardens. Available online: https://bit.ly/2tK4zna [Accessed on 01/03/2017].

Crewe, E. & Harrison, E. (1998). *Whose development: An ethnography of aid*. Zed Books: New York.

CTMM. (2010). City of Tshwane resident's manual on by-laws and legislation. Available online: https://bit.ly/2tBTcOS [Accessed on 13/02/2018].

De Beer, M. (2015). Eating anew: improving nutrition through environmental decision-making aids. Unpublished mini dissertation, University of Pretoria, Pretoria.

De Certeau, M. (1988). *The practice of everyday life*. Berkeley: University of California Press.

Delshammar, T., Partalidou, M. & Evans, R. (2016). "Building trust and social skills in urban allotment gardens". In Bell, S. (Ed). *Urban allotment gardens in Europe*. London; New York: Routledge, Taylor & Francis Group, pp. 342-364.

DeLuca, E. (2017). The household. *Correspondences, Cultural Anthropology website*, August 4, 2017. Available online: https://www.culanth.org/fieldsights/1125-the-household [Accessed on 03/03/2018].

Demissie, F. (2007). *Postcolonial African cities: Imperial legacies and postcolonial predicaments*. London: Routledge.

Department of Agriculture, Forestry and Fisheries. (2013). National policy on food and nutrition security. Available online: https://www.gov.za/sites/www.gov.za/files/37915_gon637.pdf [Accessed on 09/10/2017].

Department Of Water Affairs and Forestry. (2017). Urban greening strategy. Available online: https://bit.ly/2MuoGx9 [Accessed on 09/10/2017].

Dewalt, K. M. & Dewalt, B. R. (2002). *Participant observation: A guide for fieldworkers.* New York: Altamira Press.

Drakakis-Smith, D., Bowyer-Bower, T. & Tevera, D. (1995). Urban poverty and urban agriculture: an overview of the linkages in Harare. *Habitat International,* 19(2), pp. 183-193.

Drechsel, P., Graefe, S., Sonou, M. & Cofie, O. (2006). Informal irrigation in urban West Africa: An overview. Colombo, Sri Lanka: International Water Management Institute (IWMI Research Report Series 102).

Dréze, J. & Sen, A. (1989). *Hunger and public action*. Oxford: Clarendon Press.

Duchemin, E., Wegmuller, F. & Legault, A. M. (2008). Urban agriculture: multi-dimensional tools for social development in poor neighbourhoods. *Field Actions Science Reports*, 1, Available online: https://journals.openedition.org/factsreports/113#quotation [Accessed on 19/12/2017].

Dunn, S. (2010). Urban agriculture in Cape Town: an investigation into the history and impact of small-scale urban agriculture in the Cape Flats townships with a special focus on the social benefits of urban farming. Master's Thesis. University of Cape Town. Available online: file:///C:/Users/HP/Downloads/thesis_hum_2010_dunn_s.pdf [Accessed on 26/10/2017].

Eisikovits, Z. & Koren, C. (2010). Approaches to and outcomes of dyadic interview analysis. *Qualitative Health Research,* 20(12), pp. 1642-1655.

Ellison, C. & George, L. (1994). Religious involvement, social ties, and social support in a South-eastern community. *Journal for the Scientific Study of Religion*, 33(1), pp. 46-56.

Evans, T. L. & Miewald, C. (2013). Cultivating more than food: Where community gardens fit with what cities do. *Journal of Agriculture, Food Systems, and Community Development*, 3(2), pp. 19-21.

FAO. (2015). Growing green cities in Africa. First status report on urban and peri-urban horticulture in Africa. Food and Agriculture Organisation. Available online: http://www.fao.org/docrep/016/i3002e/i3002e.pdf [Accessed on 16/12/2017].

Ferguson, J. (1990). *The anti-politics machine: 'Development', depoliticization, and bureaucratic power in Lesotho.* Cambridge: Cambridge University Press.

Ferguson, J. (1999). *Expectations of modernity: Myths and meanings of urban life on the Zambian Copperbelt.* Berkeley: University of California.

Ferguson, J. (2013). Declarations of dependence: Labour, personhood, and welfare in southern Africa. *Journal of the Royal Anthropological Institute,* 19(2), pp. 223-242.

Ferguson, R. S. & Lovell, S. T. (2014). Permaculture for agroecology: Design, movement, practice, and worldview. *Agronomy for Sustainable Development,* 34(2), pp. 251-274.

Flachs, A. (2010). Food for thought: the social impact of community gardens in the Greater Cleveland Area. *UCLA Electronic Journal.* Available online: https://www.escholarship.org/uc/item/6bh7j4z4 [Accessed on 07/11/17].

Food and Trees for Africa. (1999). *An introduction to sustainable urban greening strategies: For local government and partnerships with local government* (Youth and Urban Development Programme of the Royal Netherlands Embassy). Pretoria: The Royal Netherlands Embassy.

Foster, G. M. (1965). Peasant Society and the image of limited good. *American Anthropologist*, (67), pp. 293-315.

Frayne, B., Battersby-Lennard, J., Fincham, R. & Haysom, G. (2009). *Urban food security in South Africa: Case study of Cape Town, Msunduzi and Johannesburg*. (Development Planning Division Working Paper Series No. 15). Midrand: Development Bank of Southern Africa.

Frayne, B., Crush, J. & McCordic, C. (2017). *Food and nutrition security in southern African cities.* London: Taylor & Francis.

Garner, K. & Lewis, D. (1996). *Anthropology, development and the post-modern challenge*. London: Pluto Press.

GCIS, (2017). Social development. Government Communication and Information System. Available online: https://bit.ly/2KvtstI [Accessed on 07/06/2017].

Gittelsohn, J. & Sharma, S. (2009). Physical, consumer, and social aspects of measuring the food environment among diverse low-income populations. *American Journal of Preventive Medicine,* 36(4S), pp. 161-165.

Glover, T. (2004). Social capital in the lived experiences of community gardeners. *Leisure Sciences, 26*(2), pp. 143-162.

Glover, T., Parry, D. & Shinew, K. (2017). Building relationships, accessing resources: Mobilizing social capital in community garden contexts. *Journal of Leisure Research,* 37(4), pp. 450-474.

Goodman, L. A. (1961). Snowball sampling. *Annals of Mathematical Statistics,* 32 (1), pp. 148-170.

Google Maps. (2018a). Mamelodi Township. Retrieved from https://maps.google.com/?q=Mamelodi%2C+Pretoria&ftid+0x0:0x831017ba520c79a [Accessed on 13/05/2018].

Google Maps. (2018b). WSEC/Tsakane and supermarkets in Mamelodi. Retrieved from https://maps.google.com/maps?saddr=Dennebom&daddr=JNF%201Walter%20Sisulu%20Environmen

tal%20Center&geocode=FvmOd_4dS2wASkAAAAAAAAADGYrQVWbvrhg%3D%3d%3BFTiUd_4dtumwASn_dxH2p1-VHjHSv2w9lqlpsw%3D%3D&dirflg=g [Accessed on 13/05/2018].

Google Maps. (2018c). Jewish National Fund Walter Sisulu Environmental Centre. Retrieved from https://maps.app.goo.gl/NY5DX [Accessed on 13/05/2018].

Guitart, D., Pickering, C. & Byrne, J. (2012). Past results and future directions in urban community gardens research. *Urban Forestry & Urban Greening,* 11(4), pp. 364-373.

Harris, R. & Dyson, E. (2001). Recruitment of frail older people to research: Lessons learnt through experience. *Journal of Advanced Nursing,* 36(5), pp. 643-651.

Haysom, G. & Battersby, J. (2016). Urban Agriculture - the Answer to Africa's Food Crisis? *Quest*, 12(2), pp. 8-9.

Haysom, G. (2016). 'Why urban agriculture isn't a panacea for Africa's food crisis'. *The conversation*. Available online: https://bit.ly/1YwI24B [Accessed on 15/12/2017].

Holmgren, D. (2002). *Permaculture: Principles & pathways beyond sustainability*. Hepburn, Australia: Holmgren Design Services.

Hovorka, A. (2008). Transspecies urban theory: chickens in an African city. *Cultural Geographies,* 15, pp. 95-11.

Jimenez, P. R. (1985). "Participant observation". In Bautista, M.L. & Go, S.P. (Eds). *Introduction to qualitative research methods*. Manila, Philippines: De La Salle University Research Centre, pp. 144-156.

Kahn, J. S. (1990). Towards a history of the critique of economism: The nineteenth-century German origins of the ethnographer's dilemma. *Man*, 25(2), pp. 230-249.

Keegan, T. (1988). *Facing the storm: portraits of black lives in rural South Africa*. Cape Town: David Philip.

Kelly, C. & Metelerkamp, L. (2015). Smallholder farmers and organic agriculture in South Africa. A literature review commissioned by the Southern Africa Food Lab and funded by GIZ. SI Projects, Sustainability Institute, Stellenbosch University, Stellenbosch.

Kennedy, J. G. (1966). Peasant society and the image of limited good': A critique. *American Anthropologist*, 68(5), pp. 1212-1225.

Kenner, R., Pearce, R., Schlosser, E., Robledo, M. & Pohlad, W. (2009). *Food inc.* Los Angeles: CA. Available online: https://www.youtube.com/watch?v=2Oq24hITFTY [Accessed on 21/12/2017].

Kgari-Masondo, M. (2008). "A home makes one *motho*" - the idea of "humanness", "home" and history in lady Selborne's forced removals, circa 1905 to 1977. *Historia,* 53(2), pp. 70-97.

Kingsley, Y. & Townsend, M. (2006). 'Dig in' to social capital: Community gardens as mechanisms for growing urban social connectedness. *Urban Policy and Research,* 24(4), pp. 525-537.

Klasen, S. (2000). Measuring poverty and deprivation in South Africa. *Review of Income and Wealth*, 46(1), pp.33-58.

Krige, D. (2015). 'Growing up' and 'moving up': Metaphors that legitimise upward social mobility in Soweto. *Development Southern Africa*, 32(1), pp. 104-117.

Krige, P. F. D. (2011). Power, identity and agency at work in the popular economies of Soweto and Black Johannesburg. Doctoral dissertation. Available online: https://bit.ly/2N4DmUU [Accessed on 13/09/2017].

Kroll, F. (2016). Deflating the fallacy of food deserts: Local food geographies in Orange Farm and inner City Johannesburg, Working Paper 38. Cape Town: PLAAS, UWC and Centre of Excellence on Food Security.

Leahy, T. (2009). *Permaculture strategy for the South African villages.* Palmwoods, Queensland: PI Productions.

Lowe, R., Eliot, S., Gorman, P. & Morgan D. (2016). Dyadic interviews as a tool for qualitative evaluation. *American Journal of Evaluation*, 37(1), pp. 109-117.

Luccarelli, M. & Bergmann, S. (2015). Reconsidering environment: Spatial Context and the development of the Environmental Humanities. *Spaces in-between: Cultural and political perspectives on environmental discourse*. Boston, Leiden: Brill, pp. 3-26.

Mail & Guardian. (2017). 'Gauteng has grasslands that are being developed for ecotourism'. *Mail and Guardian* (Special Report). Available online: https://bit.ly/2KeQhGe [Accessed on 20/01/2018].

Marshak, M. (2008). Creating a space for urban agriculture: Social benefits and transformation. Unpublished Honours Thesis. Cape Town: Department of Environmental and Geographical Science, University of Cape Town.

Massumi, B. (2015). *Politics of affect*. Cambridge: Polity.

Mauss, M. (1969). *The gift: Forms and functions of exchange in archaic societies*. London: Cohen & West.

May, J. & Rogerson, C. (1995). Poverty and sustainable cities in South Africa: The role of urban cultivation. *Habitat International,* 19(2), pp. 165-181.

Mbiba, B. (1994). Institutional responses to uncontrolled urban cultivation in Harare: prohibitive or accommodative? *Environment and Urbanization*, (6) pp.188-202.

McClintock, N. (2013). Radical, reformist, and garden-variety neoliberal: Coming to terms with urban agriculture's contradictions. *The International Journal of Justice and Sustainability,* 19(2), pp. 147-171.

McVey, D., Nash, R. & Stansbie, P. (2018). The motivations and experiences of community garden participants in Edinburgh, Scotland. *Regional Studies, Regional Science,* 5(1), pp. 40-56.

Metheny, K. B. (2013). Modelling communities through food: Connecting the daily meal to the construction of place and identity. *Northeast Historical Archaeology*, 42(9), pp. 147-183.

Mintz, S. (1985). *Sweetness and power: The place of sugar in modern history*. New York: Viking.

Møller, V. (2005). Attitudes to food gardening from a generational perspective. *Journal of Intergenerational Relationships*, 3(2), pp. 63-80.

Mollison, B. (1988). *Permaculture: A designer's manual*. Tagar: Sisters Creek, Tasmania.

Mollison, B. & Holmgren, D. (1978). *Permaculture one*. Morebank: NSW Australia Transworld.

Monsanto. (2009). Some food for thought. Monsanto Group. Available online: https://bit.ly/2lDOziF [Accessed on 05/08/2017].

Morris, B. (2016). *An environmental history of Southern Malawi*. London: Palgrave Macmillan.

Morrison, M. A. (2002). *Using qualitative research in advertising: strategies, techniques, and applications*. Thousand Oaks, California: SAGE.

Moser, C. (1993). *Gender planning and development: Theory, practice, and training*. London: Routledge.

Mosse, D. (2005). *Cultivating development: An ethnography of aid policy and practice*. New York: Pluto Press.

Mougeot, L. (2000). "Urban agriculture: Definitions, presence, potentials and risks". In Bakker, N., Dubbeling, M., Gündel, S., Sabel-Koschella, U. & De Zeeuw, H. O. (Eds). *Growing cities, and growing food: urban agriculture on the policy agenda; a reader on urban agriculture*. German Foundation for International Studies (DSE), pp. 1-42

Njaya, F. & Kalindekafe, P. M. (2014). "Towards defragmenting management of Lake Chilwa basin resources: issues and conflicts". In Mvula, P., Kalindekafe, P. M., Kishindo, E. B. & Njaya, F. (Eds). *Towards defragmenting the management system of lake Chilwa basin, Malawi*. Chicago: Institute for Poverty, Land and Agrarian Studies (PLASS), pp. 115-127.

Nkadimeng, N. R. (1999). The Bakgaga Bakopa community's experiences of forced removal from their ancestral settlement at Maleskop. Unpublished Master's dissertation. Rand Afrikaans University: Johannesburg, South Africa.

Nkomo, M. (1981). The contradictions of Bantu education. *Harvard Educational Review*, 51(1), pp. 126-138.

Nongbri, N. (2016). 'Plants out of place': The 'noxious weeds' eradication campaign in colonial south India. *The Indian Economic & Social History Review,* 53(3), 343-369.

Norgaard, R. (2015). The church of economism and its discontents. Available online: https://bit.ly/2KrVJBy [Accessed on 08/03/2018].

Olivier, D. & Heinecken, L. (2017). Beyond food security: Women's experiences of urban agriculture in Cape Town. *Journal of the Agriculture, Food, and Human Values Society,* 34(3), pp.743-755.

Orton, J. (2009). Urban agriculture: A community development project. Unpublished Master's dissertation. University of Pretoria, Pretoria. Available online: https://bit.ly/2tLzbER [Accessed on 22/07/2015].

Painter, G. (2005). Gender, Millennium Development Goals, and human rights in the context of the 2005 review processes. Report for Gender and Development Network (GADN), London: GADN, 2004.

Patel, R. (2008). *Stuffed & starved: From farm to fork, the hidden battle for the world food system*. London: Portobello Books.

Perry, A. F. (2013). Ethnographic insights on rural sustainability; homestead design and permaculture of Eastern Cape settlements in South Africa. *Africanus,* 43(1), pp. 115-125.

Phashe, N. (2017). Fingers turn green in Randburg. Randburg Sun. 6, November 2017. Available online: https://randburgsun.co.za/332656/fingers-turn-green-randburg/ [Accessed on 16/02/2018].

Polanyi, K. (1968). “The economy as instituted process”. In Dalton, G. (Ed). *Primitive, Archaic and Modern Economies: Essays of Karl Polanyi.* Boston: Beacon Press, pp. 139-174.

Purcell, M. & Tyman, S. (2015). Cultivating food as a right to the city. *Local Environment*, 20(10), pp. 1132-1147.

Råheim, M., Magnussen, L. H., Sekse, R. J. T., Lunde, Å., Jacobsen, T. & Blystad, A. (2016). Researcher–researched relationship in qualitative research: Shifts in positions and researcher vulnerability. *International Journal of Qualitative Studies on Health and Well-Being*, 11(1), pp. 1-12.

Rakodi, C. (1988). Urban agriculture: research questions and Zambian evidence. *Journal of Modern African Studies*, 26. pp. 495-515.

Ramirez, H. & Hondagneu-Sotelo, P. (2009). Mexican immigrant gardeners: Entrepreneurs or exploited workers? *Social Problems*, 56 (1), pp. 70-88.

Relf, D. (1992). Human issues in horticulture. *HortTechnology*, April/June 2(2). Available online: http://www.hort.vt.edu/human/hihart.htm [Accessed on 05/03/2018].

Rogerson, C. M. (2009). “Supporting urban small-scale manufacturers: The case of emerging black owned enterprises in Gauteng, South Africa”. In Sassen, S. (Ed) (2009). *Human Settlement Development,* (1), pp. 239-245.

Ross, F. (2010). *Raw life, new hope: Decency, housing and everyday life in a post-apartheid community*. Claremont, South Africa: UCT Press.

Rossi, D. (2012). Cultivating the city - A multifunctional landscape along the Walker Spruit, Pretoria. ML (Prof) dissertation. University of Pretoria, Pretoria.

SA Irrigation. (2006). Pensioners’ permaculture garden. *South African Irrigation,* 58(1).

SACN. (2016). State of cities report, 2011. South African Cities Network. Available online: http://www.sacities.net/ [Accessed on 09/11/2016].

Schöley, M. & Padmanabhan, M. (2017). Formal and informal relations to rice seed systems in Kerala, India. *Agriculture and Human Values,* 34(4), pp. 969-982.

Shepard, B. (2009). “Community gardens, convivial spaces, and the seeds of a radical democratic counterpublic”. In Gautney, H., Dahbour, O., Dawson, A. & Smith, N. (Eds). *Democracy, states, and the struggle for global justice.* London: Routledge, pp. 273-295.

Shillington, L. J. (2013). Right to food, right to the city: Household urban agriculture, and socio-natural metabolism in Managua, Nicaragua. *Geoform,* 44, pp. 103-111.

Simatele, D. M. & Binns, T. (2008). Motivation and marginalization in African urban agriculture: The case of Lusaka, Zambia. *Urban Forum,* 19, pp. 1-21.

Skinner, J., Zakus, D. & Cowell, J. (2008). Development through sport: Building social capital in disadvantaged communities. *Sport Management Review*, 11(3), pp. 253-275.

Slater, R. (2001). Urban agriculture, gender and empowerment: An alternative view. *Development Southern Africa*, 18(5), pp. 635-650.

Smith, D. (1992). *The apartheid city and beyond: Urbanization and social change in South Africa*. London: Routledge.

Sonnino, R. (2014). The new geography of food security: Exploring the potential of urban food strategies. *The Geographical Journal,* 182(4), pp. 190-200.

Spradley, J. (1980). *Participant observation*. New York: Holt, Rinehart & Winston.

Stoller, S. & Nielsen, C. (2005). Asymmetrical genders: Phenomenological reflections on sexual difference. *Hypatia*, 20(2), pp. 7-26.

Tan, L. & Neo, H. (2009). “Community in bloom”: local participation of community gardens in urban Singapore. *Local Environment,* 14(6), pp. 529-539.

Theron, P. M. (2015). Coding and data analysis during qualitative empirical research in Practical Theology. *Die Skriflig*. 49(3). Available online: http://dx.doi.org/10.4102/ids.v49i3.1880 [Accessed on 14/09/2017].

Thornton, A. (2008). Beyond the metropolis: Small town case studies of urban and peri-urban agriculture in South Africa. *Urban Forum*, 19(3), pp. 243-262.

Thornton, R. & Ramphele, M. (1988). “The quest for community”. In Boonzaier, E. & Sharp, J. (Eds). *South African keywords: The uses and abuses of political concepts*. Cape Town: David Philip, pp. 29-39.

Tomkins, M. (2014). Making space for food: everyday community food. Gardening and its. Contribution to. Urban agriculture. Unpublished Doctor of Philosophy thesis. University of

Brighton. Available online: http://eprints.brighton.ac.uk/12919/1/Mikey%20Tomkins.pdf [Accessed on 05/06/2017].

Turner, B. (2011). Embodied connections: sustainability, food systems and community gardens. *Local Environment*, 16(6), pp. 509-522.

Van Averbeke, W. (2007). Urban farming in the informal settlements of Atteridgeville, Pretoria, South Africa. *Water SA,* 33(3), pp. 337-342.

Veteto, J. R. & Lockyer, J. (2008). Environmental anthropology engaging permaculture: Moving theory and practice toward sustainability. *Culture & Agriculture,* 30(1-2), pp. 47-58.

Viljoen, A. (Ed). (2005). *CPULs: Continuous Productive Urban Landscapes: Designing urban agriculture for sustainable cities*. London: Elsevier.

Weissman, E. (2013). No buts about it... The value of urban food production. *Journal of Agriculture, Food Systems, and Community Development*, 3(2), pp. 23-24.

Wills, J., Chinemana, F. & Rudolph, M. (2009). Growing or connecting? An urban food garden in Johannesburg. *Health Promotion International*, 25(1), 33-41.

WSEC.org. (2015). Community programs. Available online: https://bit.ly/2MtO9qx [Accessed on 28/09/2017].

Zahina-Ramos, J. G. (2013). Attitudes and perspectives about backyard food gardening: A case study in South Florida. Florida Atlantic University. Available online: https://bit.ly/2IzleiG [Accessed on 15/05/2017].

Znepolski, B. (2010). On the strengths and weaknesses of academic social critique. *Eurozine*. Available online: http://www.eurozine.com/articles/2010-11-26.znepolski-en.html [Accessed on 12/10/2018).

Appendices

Appendix 1: Interview schedule

<u>Childhood experience</u>

1. Can you tell me where you were born?
2. Where did you grow up?
3. When you grew up, did people farm?
4. If so, what did they grow?
5. Growing up, did you eat a lot of vegetables and fruits?
6. Growing up, did you eat food that you grew yourself?
7. Did you get fresh food from a market?
8. Now if you think back, what food you ate as a child do you miss?
9. Is there anything else you remember about food and your childhood that you want to share?

<u>Joining the garden</u>

1. When did you join the garden?
2. Who invited you to join the community garden
3. Can you tell me more about that decision to join the garden?
4. What was your first experience growing food? Before garden or not?
5. Tell me why you joined the community garden.
6. On a weekly basis, how many times do you work in the garden?
7. Which period of the year do you work in the garden?
8. Tell me about the gardening activities you know.
9. Please, give an example of when you thought your gardening activities really went well.
10. Did you receive any training about these gardening activities?
11. Would you teach other people about these gardening activities?
12. Tell me about the types of vegetables you grow in your garden.
13. Show me some of the best practices you apply to harvest more produce.

14. Tell me about the people who benefit from the food you produce.

Gardening now

1. How important is gardening at the community garden in your daily routine?
2. Do you plan your day around gardening?
3. Tell me about the seeds for the vegetables you grow in your garden?
4. Tell me where you get them
5. Do all the other gardeners here buy their seeds?
6. What types of vegetables do you grow in your garden plot?
7. You said you use some to cook and you give some away
8. How important is the garden in what you and the people in your household eat?
9. How important is the garden in summer/planting season?
10. How important is the garden in winter season?
11. How important is the garden in what people in your community eat?
12. How important is the garden in what children at the church eat?
13. What do you like best about coming to this garden?
14. What don't you like about gardening?
15. How many of you were there back then?
16. Was the size of the plots back then the same as today?
17. Is there any specific reason you joined?
18. People say people who garden have green fingers. Do you think you have green fingers?
19. Do your family garden with you?
20. Are you involved in other gardening projects?
21. If so. In your opinion, how does the two differ?
22. Do you get receipts after you pay?
23. How do you feel about that?
24. Tell me about the people who are allowed to enter the garden.

25. Who is allowed to access the trees and fruits in this garden?
26. How would you describe the WSCE garden to the community?
27. Have you met new people here in the garden?
28. Have you made friends with other gardeners?
29. Can you give me an example?
30. Can you please explain how this works to me?
31. Who is seen to be a good gardener here?
32. What lessons has gardening taught you?
33. Do you have a favorite gardening memory?
34. Do you know about the person who owned the plot before you?
35. Where do you live and how do you get there?

Permaculture training

1. When did you become familiar with permaculture?
2. Tell me about the permaculture training.
3. Where was the permaculture training held?
4. What did you like best about the training?
5. How many people attended the permaculture training?
6. Tell me how you use the permaculture learning materials.
7. Tell me about permaculture practices that have not worked well.

Appendix 2: Informed consent form

Department of Anthropology and Archaeology

Letter of Informed Consent to Participate in Research

This is a consent form for anyone who is willing to participate in this research project. It contains information about this study and what to expect should anyone decide to participate. Please read this carefully and feel free to ask questions before making a decision as to whether or not you are willing to participate in the study. As informed consent is a dynamic process, anyone willing to participate may be asked to complete this form at multiple stages of the research process.

Title of Research: An ethnography of the Mandela Peace Park senior citizens food garden in Mamelodi Township, Tshwane: A social critique of the economism in contemporary urban agriculture policies and projects

Researcher: Olipa Phiri **Supervisor:** Dr D. Krige

Degree: I am conducting this research to fulfil requirements to obtain a Master degree in Development Studies. The focus of the study is permaculture and community development projects in Pretoria and the end product may be published in academic journals or a book chapter.

Should you decide to participate, you will be asked to sign this form to show that you are giving **informed consent** and you will receive a copy of the form. Your consent will make you a participant in the fieldwork done by me as the researcher which may include observation, interview, photography and written details about your participation.

Your identity will remain **confidential** should you require this to be the case. In the Masters dissertation and any subsequent work written based on the study, pseudonyms will be used unless participants want to be identified. I undertake to get additional permission if I were to use any photographic material that could identify any one person. Lastly, **participation** is voluntary. You may choose not to participate in this study; without penalty. Should you choose to participate in this study you may discontinue your participation at any time.

Signing the consent form: I have read (or someone has read to me) this letter and I am aware that I am being asked to participate in a research study. I have had the opportunity to ask questions and have had them answered to my satisfaction. I voluntarily agree to participate in this study. I am not giving up any legal rights by signing this form. I will be given a copy of this form. I wish to remain anonymous (circle YES or NO).

-------------------------------- ----------------------------- -------------------

Printed name of participant Signature of participant Date

Investigator/Research Staff: I have explained the research to the participant before requesting the signature above. A copy of this form has been given to the participant.

-------------------------------- ----------------------------- --------------------

Printed name of researcher Signature of researcher Date

Appendix 3: Permission to conduct research

Christa Van Schalkwyk
Jewish National Fund Walter Sisulu Environmental Centre,
Mamelodi,
PO Box 79217,
Rethabile,
110122

11 December 2015

<u>To Whom It May Concern: PERMISSION FOR MS OLIPA PHIRI TO CONDUCT RESEARCH AT JEWISH NATIONAL FUND, WALTER SISULU ENVIRONMENTAL CENTRE</u>

The purpose of this letter is to inform you that I give Ms Olipa Phiri from University of Pretoria permission to conduct the research titled 'The rhythms of the garden': an ethnographic study of permaculture project as an urban strategy for food self-reliance in the capital city of Pretoria/Tshwane, South Africa at Mandela Park Peace Garden based at Walter Sisulu Environmental Centre. This also serves as assurance that this institution complies with requirements of the ethics in the conduct of this research at our community Garden

Sincerely,

Christa Van Schalkwyk

Director