

**BREAD-MAKING CULTURES AND FOODWAY CHANGES OF RURAL
COMMUNITIES IN THE NORTHERN CEDERBERG, SOUTH AFRICA**

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COMPULSORY DECLARATION

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Abstract

Traditional foodways are under threat. Historical factors, such as the legacy effects of profound racial discrimination and the pressures of rapid modernisation, have had severe consequences for the foodways of marginalised populations. The globalised agricultural and food system operates in a neoliberal mode of production, processing, and consumption in favour of powerful and wealthy actors. The adoption of Western diets has modified traditional foodways and this is linked to a decline in food diversity and knowledge. Meanwhile, the epidemic of diet-related diseases among communities in South Africa has increased dramatically. Besides health risks, the erosion of traditional foodways has had severe effects on communities' cultural and social well-being.

Food is inseparable from community identity and cultural health. Bread-making forms an integral component of the cultural heritage of rural communities in the northern Cederberg mountains of South Africa. This culture has evolved in response to social, environmental, economic, and epistemic changes in the area. However, knowledge remains limited about the drivers and implications of these changes, at both local and global levels. Through the lens of bread-making, this study aims to explore the food heritage of rural communities in the northern Cederberg, and to investigate how traditional foodways have changed. It does so by identifying drivers and dynamics that have affected traditional foodways and by exploring traditional food knowledge and culinary practices. It also seeks to contribute towards the healing and recovery of people's identity and culture by enhancing the visibility of traditional bread-making.

Two case study communities, Vleiplaas and a cluster of Moravian Church Villages (MCV) centred near Heuningvlei, both located in the northern Cederberg, were investigated. The research is grounded in a relational, decolonial approach, which challenges ingrained concepts and knowledge hierarchies in Western science, and is an extension of an ongoing community-based development project linked to the University of Cape Town. Alongside semi-structured interviews, community-led baking and oven-building workshops were used as a means of data collection. This collaborative approach allowed the research to (re-)build knowledge that is historically, culturally, and socially located, with a strong focus on community benefits and material outcomes.

The findings of the study affirm the indispensable role of food in rural communities' connection to the land and ancestors, inextricably linked to a sense of belonging and cultural identity. Changing food preferences, the expansion of a Western market economy, modernisation and urbanisation, as well as shifts in land use, and changes in ecosystems and climate were identified as the main drivers for foodways transitions. The study centres community members' perceptions about these changes, recognising that traditional practices are not stagnant concepts and constantly adapt to new realities.

A shift in bread-making ingredients from stone-ground whole-grain flour to refined, white flour, combined with a shift towards the increased consumption of processed foods, is likely to have contributed to an increase in diet-related diseases in the area. The level of food knowledge was higher at the Moravian Church Villages which are surrounded by a largely untransformed biodiverse environment, while the land surrounding Vleiplaas is more transformed and peri-urban.

The study emphasises the need for food and nutrition security interventions to consider intangible, socio-cultural factors while strengthening the transmission and awareness of traditional food knowledge in a rapidly changing world. A call is made for bottom-up, community-driven solutions, as well as community-led research on local foodways and their relation to food and nutritional security.

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List of Acronyms

CWA	Cederberg Wilderness Area
FNS	Food and Nutritional Security
HLPE	High Level Panel of Experts on Food Security
MCV	Moravian Church Villages
PAR	Participatory Action Research
TFK	Traditional Food Knowledge

Glossary

Afrikaans Term	Definition
<i>Ashbrood/Potbrood</i>	Bread baked in a pot on hot coals
<i>Broodmaak boekie</i>	Bread-making booklet
<i>Bruinmeel</i>	Coarse wholemeal flour
<i>Kitskos</i>	Fast food
<i>Krag</i>	Power
<i>Roosterkoek</i>	Small breads baked over the fire
<i>Soetsuurdeegbrood</i>	Sweet sourdough bread
<i>Ou Suurdeegbrood</i>	Old sourdough bread
<i>Plaaslike meel</i>	Local flour
<i>Rysmiere</i>	Termites
<i>Veldkos</i>	Indigenous field foods
<i>Wildvleis</i>	Wild meat
<i>Winkelbrood</i>	Store bread

Chapter One

Introduction

1.1 Introduction

Foodways, as a relatively young construct of the social sciences, elucidates the intersection of food with culture, knowledge, nature, and health. Conceptualised in the mid-20th century (Laudan, 2017), foodways encompass various activities and beliefs related to the production, gathering, preparation, and consumption of foods (Counihan, 2018). Food-related practices are inseparable from people's identity, culture, and emotional connections (Bodirsky & Johnson, 2008; Nyamnjoh, 2018). Therefore, "the recovery of people is tied to the recovery of food, since food itself is medicine: not only for the body, but for the soul, for the spiritual connection to history, ancestors and the land" (LaDuke, 2005:210). Yet, rural communities have undergone rapid socio-economic, nutritional, and cultural changes in a food system dominated by Western ideologies (D'Ambrosio & Puri, 2016).

The global agricultural and food system is controlled by the Western world. Power and knowledge creation are centralised in the Global North (McMichael, 2000). Food and nutrition studies are typically rooted in Western, modernist thought that explains the natural world in reductive materialism, a prevalent dualism between the human subject (social/cultural) and the environmental object (Hassel, 2014). Colonial rule, the separation of local people from their land, rapid urbanisation, and modernisation, as well as the introduction of the Western market economy, have transformed local peoples' culinary practices (Bodirsky & Johnson, 2008; D'Ambrosio & Puri, 2016). Processes of "accumulation through dispossession" (McMichael, 2005:270) for food production emerged during colonial occupation in order to feed a growing population in the West (McMichael, 2009).

The expansion of global trade prepared the ground for a capitalist and corporate-controlled food regime (McMichael, 2005). Marginalised groups, such as small-scale farmers and rural communities suffer most within this highly centralised regime (McMichael, 2005; Grey & Patel, 2015). The commodification of food for capitalist accumulation has not only led to a 'distancing' between the consumer and the production process but has inevitably resulted in

an alienation from the social, cultural, and spiritual values of food (Cheney, 2016). This stark alienation of food from culture and nature neglects the importance of peoples' food identity and their closely linked connections to land and nature (Almeida, 2017; Kuhnlein et al., 2013). The decolonising discourse seeks to oppose Western imperialism in the food system by rethinking the ways we engage with food, agriculture and nutrition, and linkages to issues of Indigenous land and ways of life (Grey & Patel, 2015).

The inequalities of the globalised food system continue to threaten traditional foodways and Food and Nutritional Security (FNS) in many countries of sub-Saharan Africa (FAO, 2021). Based on centuries of land dispossession and discrimination against people of colour, the South African food system has left marginalised communities without land and sufficient income to afford healthy nutrition (Cherry, 2016). Processes of economic and livelihood diversification, alongside a rapid increase in commercial supermarkets, has led to changes in local foodways' production, consumption, food preparation, and culture (Kroll, 2016).

This chapter introduces the background of this study, and provides a brief overview of the study area, as well as the aim and objectives of the research. It also clarifies the terminology used in the dissertation and provides an overview of how the study was carried out. The chapter concludes with an outline of the dissertation structure.

1.2 General Background and Study Rationale

The cash crop agriculture introduced by European colonialists in the late 18th century eroded traditional modes of food production for self-sufficiency, such as foraging, herding, and farming (Penn, 2005). Coerced to grow cash crops such as wheat, local communities increasingly neglected traditional food crops (Maathai, 2010). The neoliberal food system thus began with the colonial expansion of food production, (Grey & Patel, 2015).

Today, experiences of colonialism and dispossession continue to undermine traditional foodways globally (Grey and Patel, 2015; Richmond et al., 2021), with impacts arising in colonial and apartheid times affecting foodways in rural communities across South Africa (Cherry, 2016). The globalisation of the South African food system, alongside urbanisation and migration, has led to shifts in food consumption patterns towards Western, 'modern' diets (Tydeman-Edwards et al., 2018). Increased exposure and interaction with Western-

dominated foodways has, consequently, modified traditional food practices in South Africa (Viljoen et al., 2005). In many cases, the promotion of ultra-processed and ready-made meals has contributed to socio-cultural changes, such as a decrease in food knowledge from one generation to the next (Akinola et al., 2020; Claasen & Chigeza, 2019).

Moreover, dietary shifts towards more Western diets are linked to negative health effects (Popkin, 2006). Various scholars caution that the adoption of 'modern' Westernised diets has not only discriminated against traditional foodways, but also dramatically increased the epidemic of diet-related disease in the Global South (Popkin et al., 2020; Tydeman-Edwards et al., 2018). Meeting these challenges necessitates a holistic approach that synchronously supports the revitalisation of food knowledge and cultural practices inherent to traditional foodways (Richmond et al., 2021). As such, food system researchers and policymakers need to incorporate unique culturally-relevant contexts and examine the forces that have transformed local foodways. Dynamics and drivers of changes of local foodways in South Africa remain, however, largely unexplored (Viljoen et al., 2005).

The recovery of traditional foodways in the Global South has increasingly gained momentum in academic literature (Bodirsky & Johnson, 2008; Figueroa-Helland et al., 2018). Simultaneously, the revitalisation of traditional foodways has been strengthened and promoted in global movements, such as the food sovereignty campaign that emerged during the early 21st century as a counter-hegemonic movement to critique the dominant global food regime (Coté, 2016; Grey & Patel, 2015; LaDuke, 2005).

Most studies on traditional foodways have focused on Native America, and there is a lack of knowledge about traditional foodways in South Africa. In particular, little is known about traditional foodways of rural communities in the mountainous Cederberg region of South Africa, as well as the dynamics that have eroded people's food knowledge and dietary practices. By uncovering the bread-making culture and changes in foodways in rural communities of the northern Cederberg, this study hopes to ameliorate this gap.

1.3 Aims and Objectives

Through the lens of bread-making, this study aims to explore the food heritage of rural communities in the northern Cederberg region of South Africa in order to contribute to a

wider understanding of foodway changes in the context of food and nutritional security. By adopting a relational, decolonial approach with a strong focus on community benefits and material outcomes, the study also aims to contribute to the resurgence and recovery of food knowledge and culinary practices in this region.

The objectives of the study are:

- (1) With a focus on traditional bread-making, to explore traditional food knowledge and culinary practices that are embedded in living community memory.
- (2) To describe how traditional foodways have changed in the study area.
- (3) To identify the drivers and dynamics that have affected traditional foodways in the study area.
- (4) To contribute towards the healing and recovery of people's identity and culture by enhancing the visibility of traditional bread-making.

1.4 Study Area and Case Study Communities

Bread-making cultures and foodways changes are explored among two case study communities situated in the Cederberg mountain range in South Africa (Figure 1). The area is popular for its ancient rock art and is a World Heritage Site. Due to its unique landscapes, the region has become a popular tourist destination. However, despite these economic activities, high inequalities persist in the area (Pauw & Du Plessis, 2005). Legacy effects of the colonial and apartheid regime determine these distorted land ownership and income patterns. The case study communities are situated within a particularly arid area of the Cederberg. Effects of climate change have, thus, further pressurised local farmers (Ballantyne, 2010).



Figure 1: Case study communities, Vleiplaas, and the MCV within the study area

While demographic patterns and socio-economic profiles are similar in both communities, they are different in terms of land use patterns and remoteness. Vleiplaas is situated in the Rocklands area, a popular tourist destination that is easily accessible and which has well-developed infrastructure (see Figure 1). The Moravian Church Villages (MCV) lie in a mountain valley of the Cederberg Mountain range, and are less accessible, and are also surrounded by a more natural environment. Although not all the 14 villages that are under the Moravian Church were included in this research, for simplification the expression MCV is used throughout this study. The cluster of Moravian Church villages investigated for this research are Heuningvlei, Menskraal, Graspvlei, and Brugkraal (see Figure 1).

1.5 Methodological Approach

A decolonial research approach was adopted for the study. Data was collected by means of semi-structured interviews along with participatory bread-making and oven building workshops during two separate field visits over a period of three months between April and June 2022. A grounded theory approach was used to analyse and code data. Findings were

investigated for meta themes to generate new theories and elaborate on existing literature (Glaser, 1992; Strauss and Corbin, 1994). The methodological approach is described in more detail in Chapter 3.

1.6 Terminology

This section provides contextual definitions of terms used within the scope of this study.

(1) Traditional

Acknowledging the imperfections of the expression *traditional* (Mazzocchi, 2006), the term is used throughout the study to describe a culture and knowledge system which exists in the local context associated to a social group (the case study communities). The expression *traditional* is used throughout the study in consideration of the constant transformation that cultural identities (Hall, 1997) and knowledge systems undertake (Hobsbawm & Ranger, 1983; Mazzocchi, 2006). The term *traditional foodways* is used interchangeably with *Indigenous foodways*.

(2) Indigenous

While the term and theory concerning *Indigenous peoples* is used in this thesis, its complexity and controversy is fully acknowledged. Discourses about Indigenous peoples and development are frequently linked with debates on and resistance against modernity, as well as imperial rules of capitalism and neoliberalism (Germond-Duret, 2016). The term *Indigenous* is, thus, used in the context of these features and challenges, but without generalising or oversimplifying indigeneity in South Africa where identities are complex, multifaceted and multi-layered (Taylor et al., 2011; Verbuyst, 2021). Literature describes *Indigenous foodways* as distinct cultural and knowledge systems passed on from generation to generation (Richmond et al., 2021; D'Ambrosio & Puri, 2016). Challenges to Indigenous foodways include modernisation, rapid urbanisation, and neo-colonial forces manifested in a food system dominated by Western, corporate power (McMichael, 2009; Grey & Patel, 2015). The features and challenges of foodways among local communities of the Cederberg are similar to those encountered in studies with Indigenous peoples in other parts of the world.

(3) Coloured

The term *coloured* refers to people from a diverse combination of heritages in South Africa. In rural Cape communities, coloured communities include a heterogonous group of descendants of mixed parentage including Khoi and San, people enslaved from other parts of Africa, as well as Europeans and Asians (Verbuyst, 2021). Coloured identities experience various contradictions and, to some degree, an invisible existence (Taylor et al., 2011).

As such, many coloured people are uncertain about their roots and cultural heritage (Ives, 2014). Considering the strong links between food and cultural identity (Sibal, 2018), cultural commonalities such as traditional foods are a vital symbols of identity and heritage for coloured communities in South Africa (Taylor et al., 2011). The term is thus used in consideration of the crucial role that food heritage can play in claiming identities and cultures among coloured communities.

1.7 Outline of the Dissertation

The dissertation comprises seven chapters. This chapter has provided the background, rationale, the aim and objectives of the study, as well as contextual definitions of the terminology used in the dissertation. Chapter Two provides a review of relevant literature. Chapter Three describes the research approach and methodology used. Thereafter, Chapter Four describes the study area and case study communities. Chapter Five outlines the results of the research. Chapter Six connects the research findings to the prevalent themes presented in the literature reviewed. Chapter Seven concludes the study with a summary, as well as recommendations for further research and an outlook for the future.

Chapter Two

Literature Review

2.1 Introduction

This chapter reviews literature of the cultural and epistemological dimensions of food, along with contemporary theories of the food system and food security paradigms. The first part explores food in relation to heritage, culture, and identity. Thereafter, dynamics of the global food system are described. The last part investigates contemporary concepts of food and nutrition security in relation to threats to traditional foodways, also presenting an integrated foundation for the research.

2.2 Food as a Symbol of Heritage, Culture, and Identity

2.2.1 Food and Culture

Food is central to human life and is celebrated as a sacred entity in many cultures. The cultural narrative of food goes beyond just a bundle of nutrients to keep the physical body functioning (Kloppenburger et al., 1996; Sibal, 2018). Various scholars highlight that food is intertwined with culture, identity, sense of place, and belonging (Camp, 1989; Erasmus & Spigelski, 2013; Kroll, 2016; Rearick, 2009). Food has the capability of revitalising cultural practices, identity, ancestral knowledge, and cohesion, as well as a connectedness to nature and landscapes (Coetzee, 2015; Kloppenburger et al., 1996). In fact, food and eating are not only vital to self-identity, but are also instrumental in the association of ethnicity and family.

Food is the cornerstone of every society. Counihan et al. (2018) highlight that food is an essential part of life, and, in turn, life can be studied and understood through food. Cultural customs surrounding food, such as preparation practices, utensils for preparing and eating, as well as food procurements, contribute to the distinctive food culture of a social group (Coetzee, 2015). Food is represented in a set of beliefs and knowledge transmitted over generations within a social group or given culture (Contreras & Gracia, 2011). Food is thus frequently used to not only preserve cultural identity, but also to differentiate cultural or ethnic groups. This applies equally to the dynamic contexts of cultural identities and belonging in South Africa.

South African food cultures are heterogenous and in no way monolithic. Kroll (2016:22) highlights the “historical emergence and interaction of multiple broad cultural domains” reflected in the multifaceted foodways of “unique and internally diverse communities”, such as the Cape Coloured cultures. Such sentiments underpin the omnipresent symbolism that food has for multi-ethnic communities where perceptions of belonging and identity may be fragile. While diasporic groups have adopted foods from various cultural domains, their food cultures echo a unique footprint and offer direct ways to express and preserve ethnic identities (D’Sylva & Beagan, 2011). Despite social and cultural bonds (Camp, 1989; Counihan et al., 2018), food cultures are constantly evolving and adapting to a rapidly changing world (Heim & Pyhälä, 2020).

Food culture is embedded in historical processes of change and reinvention. Many scholars have highlighted the dynamic and adaptable nature of traditional culture and knowledge systems (e.g. Islam and Berkes, 2016; Ratuva, 2009; Richmond et al., 2021). Although traditional culture is frequently perceived as something ‘old’ or ‘static’ (Germond-Duret, 2016) traditions are, however, also subject to change (Ratuva, 2009).

Although traditional food culture often serves as a common objective counterposing modern, neo-colonial structures of the globalised food system (Grey & Patel, 2015), the rights of Indigenous peoples’ to adapt their traditions to new realities is also critical (Ruelle & Kassam, 2013). Cultures constantly “redefine themselves to reflect changes taking place around them” (Germond-Duret, 2016:8). Thus, instead of the Western observer in search of ‘authentic’ culture, communities themselves should define what counts as ‘traditional’ (Ruelle & Kassam, 2013). Traditional Food Knowledge (TFK) is by extension therefore an essential part of food culture.

2.2.2 Food Knowledge

Traditional food knowledge as a collection of teachings, skills, traditions, and cultural beliefs has developed within diverse communities over many generations (Kwik, 2008). It contains elements that provide continuity of unique knowledge systems embedded in the landscape, history, and culture (PPI, 2022). Traditional food knowledge is usually transferred and adapted

from one generation to the next through oral transmission, and plays an important role in FNS (Islam & Berkes, 2016).

Traditional food knowledge is not only a vital part of cultural identity, but also contributes to personal skills that can enhance community capacity and FNS (Heim & Pyhälä, 2020; Kuhnlein et al., 2013; Kwik, 2008). Studies emphasise that TFK impacts various aspects of community well-being that relate to the cultural components of FNS (Kwik, 2008; Power, 2008). The documentation and intergenerational transmission of TFK are therefore critical to protecting food heritage while strengthening FNS (Ruelle & Kassam, 2013). Yet, globalisation, urbanisation, and cultural homogenisation have led to the erosion and loss of TFK (Arjona-García et al., 2021).

The uptake of Western foods coupled with urban development pose a major threat to TFK transmission (D'Ambrosio & Puri, 2016). Communities residing closer to urban centres undergo social, economic, and environmental shifts which affect local TFK systems (Arjona-García et al., 2021). As such, urbanisation increases the exposure to modern, Western foods, leading to changes in food preferences, particularly among younger people (Heim & Pyhälä, 2020). These shifts have resulted in the decreased transfer of TFK from elders to youth (Kuhnlein & Receveur, 1996; Power, 2008).

2.2.3 Foodways

Foodways encompass a wide range of cultural, social and economic practices surrounding the gathering, production, preparation, and consumption of food (Camp, 1989; Cannuscio et al., 2010). The traditions concerning food are unique to social groups and geographic regions (Darnton, 2012). Several authors define foodways as the intersection of food with culture, knowledge, nature, and health (Camp, 1989; Rearick, 2009; Richmond et al., 2021). Rearick (2009) posits foodways in the dialectic between nature (environment and biology) and culture (beliefs/practices), affecting how people represent and perform their culinary practices. As such, activities surrounding food can reveal meaningful insights into peoples' beliefs, worldviews, and cultural practices (Pilcher, 2017).

Transitions in foodways are subject to changes in culture, as well as those in economic and natural environments (Rearick, 2009). Colonial rule, the separation of Indigenous people from

their land, rapid urbanisation and modernisation, as well as the introduction of the Western market economy have transformed local foodways (D'Ambrosio & Puri, 2016). Traditional foods are often linked with negative perceptions of 'poor-people foods' (Cloete & Idsardi, 2013). These assumptions are rooted in colonial logics that considered traditional lifestyles as 'primitive', 'poor' and 'unsophisticated' (Maathai, 2010).

For example, Western food preferences have spread negative perceptions about edible insects, leading to a decrease in their consumption and related knowledge (Looy & Wood, 2014). Many insects, however, contain excellent nutritional values (DeFoliart, 1992). However, this is changing as science and the media place increasing attention on the potential of integrating traditional foods such as insects into sustainable diets (Ayieko et al., 2021; Love & Lawler, 2021).

Traditional foods are frequently praised as catalysers for nutritional, cultural, social, and spiritual health (Bodirsky & Johnson, 2008; Kuhnlein et al., 2013). Although many traditional foods are known for their nutritional benefits (Akinola et al., 2020), due to restrictions in access and acceptability, their potential is typically not realised in contemporary FNS interventions (Power, 2008). Examining changes in foodways of marginalised populations in South Africa, Kroll (2016) highlights linkages between access and acceptability restrictions, FNS and cultural well-being. Eurocentric and materialistic conceptualisations of FNS, however, frequently neglect the socio-cultural benefits that traditional foods provide (Power, 2008). Traditional bread, for example, is an important staple food while simultaneously representing a vital symbol of cultural heritage for many South African communities (Visser & Du Pisani, 2016). The following section elaborates on the significance and evolution of traditional bread-making culture in South Africa.

2.2.4 Traditional Bread-making in South Africa: Food, Culture and Symbolism

In some religions, bread symbolises life, nourishment, and blessing (Boselli, 2014; Serradell, 2009). Bread is a symbol of a 'simple way of life' that has left a cultural legacy among many marginalised communities in South Africa who consume bread as a main staple (Visser & Du Pisani, 2016). Early records confirm that Indigenous Khoi-San peoples made bread, cakes, and porridges from edible veld plants by grinding bulbs and roots before wheat was grown in the

area (Coetzee, 2015). The ground plants were mixed with water or milk and baked on hot ashes (Coetzee & Miros, 2009). Records of colonialists, moreover, describe baking techniques of Indigenous peoples using termite heaps as ovens and of them consuming termites as a delicacy (Swanton, 1902).

Traditional dishes such as bread have been adapted to new influences and circumstances. After the introduction of wheat by European settlers, for example, the Indigenous peoples of the Cederberg developed new breads baked on hot coals (Coetzee, 2015).

Today, bread-making remains a vital component of the cultural heritage in many communities of the Cederberg region. As such, the bread-making culture contributes to “people’s collective historical consciousness, group identity and sense of place” (Visser & Du Pisani, 2016:63). This cultural footprint can add new meaning to the heritage of multi-ethnic communities in postcolonial South Africa. The following section elaborates on the role of colonisation on food cultures.

2.3 Erosion of Traditional Foodways

2.3.1 The Rise of the Corporate Food Regime

The alienation of lands, nature, and cultural identity were central components of the colonial agenda (Waziyatawin, 2012). Principles of enclosure, ownership, and individualism served the expansion of the European world economy (Penn, 2005). Marxist theory refers to this concept as the primitive accumulation of capital that divided the working class from the wealthy and powerful capitalists (Harvey, 2005). The production of staple foods such as wheat and maize to feed European industrial classes, and the labour force in associated colonies, laid the groundwork for a neo-colonial food regime. Today, TFK and culinary practices remain threatened by the global food regime as a construct and enabler of unfettered capitalism (Grey & Patel, 2015; McMichael, 2014).

One of the ultimate goals of a capitalist economy is the active participation of all citizens in economic activities. This logic is contrary to traditional foodways, which usually rely on subsistence farming and the foraging of wild foods (Heim & Pyhälä, 2020). Narratives of market-driven and technological intensification have gradually led to the global disfranchisement of rural farming cultures with shifts in access to land, labour, and markets

(McMichael, 2016). It has become nearly impossible for small farmers to meet the requirements of big food retailers (Reardon et al., 2003).

Food regime theory analyses the neo-colonial and capitalist forces that undermine the global food and agricultural system. Here, the so-called corporate food regime (from 1980s-present) is characterised by corporate power, mechanisms of accumulation through dispossession, and marginalisation of traditional food cultures as a result of “colonial-induced social catastrophes” (McMichael, 2005:13). From cheap food mass production to food price volatility and spikes, the neoliberal food regime has reached a no-return increase in food costs due to corporate monopolies, resource depletion, and the hegemony of financial accumulation led by the Global North (McMichael, 2009; Moore, 2010).

The increasing costs of food place a double burden on rural, poor communities that have been disconnected from self-reliant lifestyles due to socio-cultural, economic, and environmental changes (Heim & Pyhälä, 2020; ITC, 2009). Figure 2 illustrates the historical development of the corporate food regime which began with colonisation during the mid-17th century, followed by the expansion of capitalism and neoliberalism. Western hegemony has underlined these developments and eroded TFK and practices.

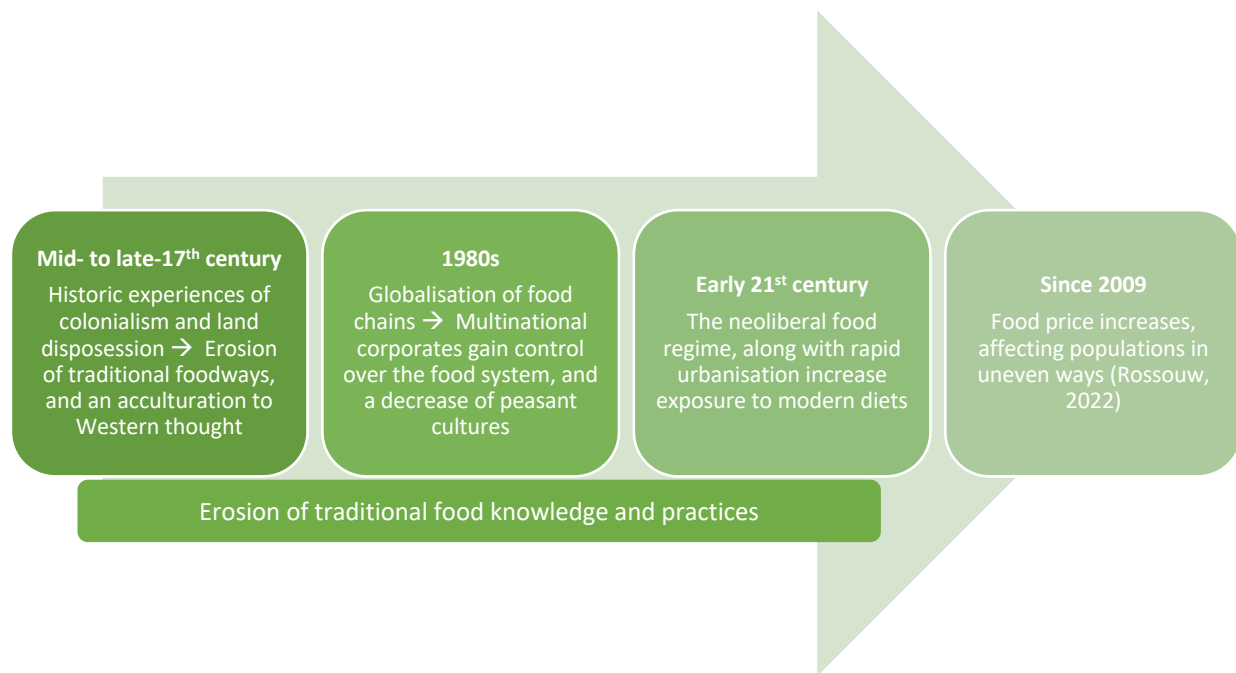


Figure 2: Historical development of the corporate food regime

2.3.2 The Nutrition Transition and the Proliferation of Supermarkets

Shifts from traditional, local diets that are rich in vegetables, fruit, and whole-grains, to Western foods that are high in saturated fats, salts, sugar and processed foods have led to a higher health care burden (Hawkes, 2006). The concurrent manifestation of both undernutrition, as well as overweight and obesity, is defined as the double burden of malnutrition (Ward & Baldinelli, 2020).

The double burden of malnutrition is linked to increasing diet-related diseases, including type 2 diabetes, cardiovascular disease, and some cancers (WHO, 2017). Studies affirm that dietary shifts have resulted in nutritional deficiency and stunting, as well as an obesity epidemic in South Africa (Pereira, 2014; Tydeman-Edwards et al., 2018). This has occurred alongside a severe loss of food knowledge and practices in South Africa (Akinola et al., 2020). These processes of dietary and nutritional changes are often referred to as the 'nutrition transition' (Popkin, 2006; 1994).

Key drivers for the nutrition transition are changes in demographic patterns and socio-economic factors related to the globalisation of the food system (Haysom, 2015; Popkin et al., 2020). This is linked to industrialisation and rapid urbanisation (Crush et al., 2011). For

example, activity patterns have changed in relation to shifts in livelihood systems and changed socio-cultural dynamics have impacted food choices (Popkin, 2012). Meanwhile, urbanisation has increased access to large supermarkets and fast food restaurants (Popkin, 2006). Large-scale food manufacturers and retailers have encouraged cheap, processed foods (Reardon et al., 2003).

Several studies affirm how the acculturation of diets to Westernised lifestyles (Hawkes, 2006) has been compounded by the negative health outcomes of the nutrition transition (Popkin et al., 2020). As Figure 3 illustrates, cultural changes impacting food practices are frequently linked with colonial and postcolonial dynamics (Weerasekara et al., 2018). Adams and Mulligan (2002) describe these impacts as Eurocentric cultural ideologies that have been particularly harmful for vulnerable groups. Uncovering colonial dynamics that have eroded traditional foodways among marginalised populations is thus critical for a better understanding of dietary changes and their health impacts in postcolonial states.

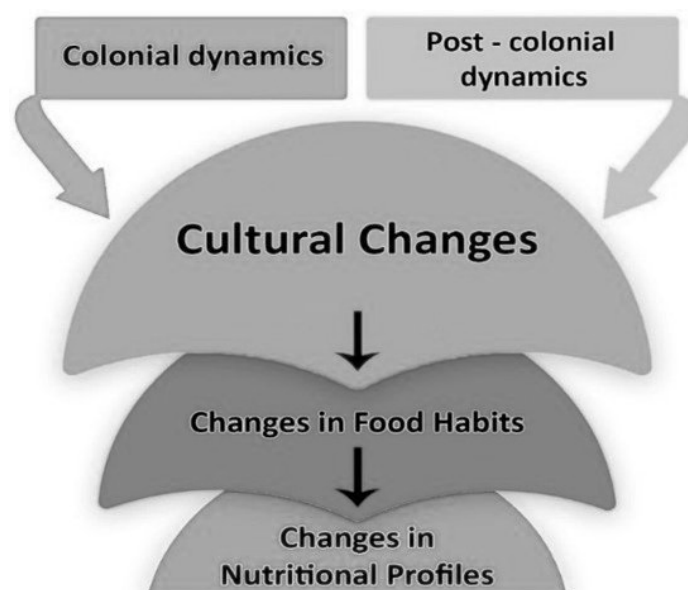


Figure 3: The conceptual framework for the colonial and postcolonial dynamics of food culture (Weerasekara et al., 2018)

2.3.3 South Africa: The Evolution of a Broken Food System

Archaeological records of food practices of South Africa's first inhabitants indicate a high reliance on wild foods of their immediate natural environment, such as bulbs, nuts, leaves,

and vegetables (Singels, 2020). Colonial land dispossession, which began in 1652, introduced commercial agriculture and forcibly removed Indigenous peoples from their traditional lands (Penn, 2005). Centuries of land dispossession and taxation transformed subsistence farmers into wage laborers across the country. During apartheid, South Africa reinforced this type of wage labour alongside restrictions on movement (Ogura, 1996). These dynamics of spatial discrimination against black and coloured people have strongly affected agri-food system dynamics in South Africa.

South Africa is ingrained within the corporate food regime (Haysom, 2015). While global deregulation came into effect in 1994 with the Marrakesh Agreement which established the World Trade Organization (WTO), South Africa had already committed to deregulating its agricultural sector during the 1980s to maintain competitiveness in the global food market (Doyer et al., 2007). With deregulation, the South African agriculture sector has increasingly been exposed to global market forces and has quickly become a net importer of various agricultural products and Western foodstuffs (Igumbor et al., 2012).

As an effect of neoliberal trade policies and the globalisation of the food system, local smallholder farmers have been priced out of business (Pereira, 2014). Centuries of racial discrimination in South Africa's political, economic, and social policies are reflected in an agri-food system with a commercial industry led by white-dominated, large-scale farms (FAO, 1995).

One example of the neoliberal corporate-controlled food system is the centralised wheat industry and its effects on local markets and health in South Africa. With agricultural deregulation, large-scale wheat producers emerged under the umbrella company Pioneer Foods, including the sub-companies Sasko and Bokomo, controlling one-third of the wheat market by the late 20th century (Cherry, 2016). As a result, the competitiveness of the local wheat industry has decreased dramatically (Merwe et al., 2016). The highly centralised wheat-to-bread supply chain has, moreover, resulted in alarming practices in the wheat industry, such as the use of unhealthy ingredients and agrichemicals that are banned elsewhere in the world (Hafner, 2015; Lee, 2023).

Almost all breads distributed by the largest bread suppliers contain genetically modified (GM) soya which is commonly sprayed with herbicides containing glyphosate as well as other agrochemicals (African Centre for Biosafety, 2014). Several studies describe the risks associated with pesticide residues in food (Quinn et al., 2011). Major risks include environmental pollution and health concerns, including cancer and birth effects (Bøhn et al., 2014; Myers et al., 2016).

Alongside the centralised food regime, climate change has impacted food production in South Africa. For example, a stark decline in rainfall has, and will, impact the farm sector of the Western Cape (Erasmus et al., 2000). Rural poor farming communities are extremely vulnerable to climate change effects (Morton, 2007). Given that coloured and black populations have a significantly higher prevalence of FNS compared to whites (Pereira, 2014), it is likely that climate change will continue to disproportionately affect FNS among marginalised groups.

2.4 Food and Nutrition Security Framework

The most widely accepted definition by the United Nations' Committee on World Food Security conceptualises food and nutritional security as "a situation that exists when all people, at all times have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy lifestyle" (World Food Summit, 1996). The World Food Summit's definition of FNS emphasises the right to food access as the primary characteristic of FNS. However, the definition remains silent about the power dynamics that define systems that regulate access to food.

With an emphasis on food availability and access, FNS narratives remain instrumental for serving neoliberal ideologies (Battersby, 2017; Jarosz, 2011). For instance, food deserts – areas with limited access to supermarkets – have often been addressed with market-based solutions (Battersby, 2019). In response, the High Level Panel of Experts on Food Security and Nutrition (HLPE) proposed the dimensions 'agency' and 'sustainability' as essential for understanding the right to food and nutrition (HLPE, 2020). The two additional dimensions are, however, "not formally agreed upon by the FAO or others" (FAO et al., 2022:203) and the six-dimensional FNS framework lacks formal implementation (Clapp et al., 2022).

Intangible values of foods, such as culture, identity, and connection to land frequently remain neglected in food-related policies (Hammelman & Hayes-Conroy, 2015; Power, 2008). The inclusion of communities' autonomy and agency can however lay the foundation for transforming a demoralised food system, pointing the way towards more just and appropriate FNS policies (Clapp et al., 2022; Hammelman & Hayes-Conroy, 2015; Power, 2008).

2.5 Summary

Food is undoubtedly related to cultural identity and emotional well-being (Kloppenburger et al., 1996). Changes in traditional foodways began with the colonial occupation that has imposed Western ideologies on Indigenous populations (Grey & Patel, 2015). These forces continue to influence dynamics within the global food system (Grey & Patel, 2015; McMichael, 2016, 2009). Current FNS policies and programmes have failed to deliver on promises for a sustainable and just food system (Power, 2008). Greater efforts must be placed on the incorporation of intangible factors such as TFK for FNS.

Chapter Three

Methods

3.1 Introduction

This chapter describes the research approach and methods used to collect and analyse data. The first part elaborates on my research approach, which is grounded in decolonial theory, and my positionality. Both aspects informed my choice of data collection methods and the process used to give feedback to respondents. The last part of the chapter elucidates the limitations of the study.

3.2 Decolonial Research Approach

3.2.1 Decolonisation and Research

Many people whose ancestors were colonised or enslaved have a negative attitude towards research. In numerous cases, social research has been used as a tool to reinforce colonial structures to defeat and categorise ‘the other’ (Kenton et al., 2016). In consideration of this concern, alongside the history of colonial and apartheid rule in the study area, this research is conducted within a decolonial, feminist approach that seeks to empower local people’s own voices and distinctions (Manning, 2018; Smith, 2021).

Traditional knowledge systems, practices, and histories are diverse and deeply embedded in unique contexts and geographies (Sium et al., 2012). Decolonisation implies resistance against a hegemony of imperialism, capitalism, and modern slavery¹ established by former colonial powers (Grey & Patel, 2015; Smith, 2021). A decolonial approach thus seeks to co-create knowledge that is historically, culturally, and socially located (Manning, 2018).

Inclusion, reciprocity, and constant reflection are critical for decolonial research approaches (Keikelame & Swartz, 2019). Participatory, dynamic research methods offer an approach to research that encourages conversations about equity and inclusivity (Singh, 2016). Yet, there remains a risk to use terms such as ‘participatory’ and ‘reciprocal’ to gloss over research

¹The severe exploitation of other people by powerful actors for their commercial gain (Anti-Slavery International, 2022).

proposals without really engaging with their profound meaning in practice (Kenton et al., 2016). It is also critical to acknowledge that research may not fully be decolonised whilst the researcher writes about 'the other' from an outsider position (Singh, 2016). As such, decolonisation is a process and ongoing mode of resistance rather than a static end goal (Grey & Patel, 2015).

3.2.2 Research Approach

Decolonial approaches to research are not without contradiction and complexity. Early in the conceptualisation process of this research project, I questioned whether research undertaken by a white community-outsider such as myself could be considered decolonial. In other words, does the virtue of my own race and privilege allow me to consider my approach 'decolonial'? Undoubtedly, the decolonial turn in research during the 21st century is one of the most controversial, yet prominent, topics debated by scholars of various ethnic backgrounds (Keikelame & Swartz, 2019; Manning, 2018; Simonds & Christopher, 2013; Smith, 2021).

The decolonial research discourse is a very young discipline compared to the centuries of imperialism and colonialism that it seeks to oppose. Academia is only at the beginning of a decolonial transformation, and still has a long way to go to achieve genuine decolonial thinking and practice. As such, the lessons that arise during the research are vital for a process of decolonisation (Keikelame & Swartz, 2018). My research approach is, therefore, grounded in humility and is seen as a learning process in itself.

The approach of this study critiques a positivist research paradigm and seeks to alleviate the appropriation of the 'other' (Henwood & Pidgeon, 1995) by the means of triangulated mixed methods (Hesse-Biber, 2012). Grounded in a dialectical process, triangulation gives a more nuanced and complex understanding of findings (Denzin, 1989). Employing triangulation within a feminist approach broadens the concept "in the service of pinpointing subjugated knowledge" (Hesse-Biber, 2012:3). The research made use of triangulation between methods, including semi-structured interviews, participant observation, and participatory methods – adding diversity and complexity in trying to understand the communities' ways of knowing and doing. To avoid making assumptions about the 'other', an inductive analysis method

allowed the theory to be established and modified based on the collected data (Strauss & Corbin, 1994).

Communication in the local language of Afrikaans played a vital role in developing relationships with case study communities (Keane et al., 2017) while considering issues of language and translators (Keikelame & Swartz, 2019). To establish an elementary level of conversation with participants, I acquired a basic level of Afrikaans for my field research. Demonstrating an interest in their culture and language helped me to engage with the participants, as well as minimise the experience of 'otherness'.

The ability to have basic conversations with participants was a key asset to build trust and respect through communication. Consistent with the community-based methodology, community members were employed as translators. The use of a community insider as translator during the interview process intended to make participants feel more comfortable during the interviews, as well as to help reduce imbalances in power and positionality. To demonstrate reciprocity, food was shared with the participants during the interviews. Participants received gifts in the form of food and cooking items for their contribution.

3.2.3 Self-Reflection, Feedback and Community Benefits

3.2.3.1 Self-Reflection Process

"Far more often than not, we write about our successes and not our mistakes."
(Sarason, 1995)

Many articulate the importance of self-reflexivity in research with marginalised and vulnerable populations (Keikelame & Swartz, 2019). Reflexivity is "the examination of both the structural and personal conditions which help us understand the knowledge we create" (Jon, 2017:10). Critical reflexivity is the process of reflecting inward towards oneself concerning forces that shape the social interaction between the researcher and the participant with a particular focus on power and privileges (Keikelame, 2018).

However, the process of critically evaluating one's own standpoint and assumptions can be uncomfortable (Stahl, 2011). While power and cultural differences may remain during the research process, it is vital to examine these power processes, as well as how they may influence interaction and project outcomes (Langhout, 2006). Daily, systematic self-reflection

was, therefore, a vital part of my research approach. The self-reflection guide (Appendix C) included questions about self-awareness and perceptions of participants. Lessons arising from the research process are described in Chapter 7.

3.2.3.2 Feedback and The Bread-making Booklet

To make research accessible for local communities, it is essential to present findings in culturally appropriate ways. As such, presentation in everyday language and the use of visual methods can help participants understand the research outcomes (Smith, 2021). All participants were invited to a feedback and reflection workshop in their community at the end of the study. The group discussion aimed to provide the opportunity to reflect on the research process and to co-develop solutions for any concerns that arose.

Given the limited English proficiency among community members, it was essential for this study to relate back in an accessible way. A community-owned bread-making booklet, published in Afrikaans and exemplified with photos, was thus agreed upon with communities as part of the feedback process.

It was important to not merely consult people regarding their opinions about the booklet, but also to involve them to articulate what kind of content they would like to be included in the *Broodmaak boekie* (Afrikaans for 'bread-making booklet'). The content ranged from recipes to photos of ovens and people. Members of both communities articulated that they wanted to be named as a group for their contribution rather than individually. The booklet will be presented and handed out to the participants in the final feedback workshop.

The community will decide how they wish to use the booklet – for internal purposes, as a community heritage to enhance the preservation and transmission of their knowledge to younger generations, or for external purposes, and/or as a product offered to visitors. As a symbol of reciprocity, the research also funded the construction of an outdoor oven for a bread-making workshop space at Vleiplaas.

3.2.4 Positioning Myself

Positioning myself as a white, academic, middle-class European (German) woman undertaking research in the Northern Cederberg of South Africa, my aim was to explore local

peoples' way of living. However, this represented a potential source of power imbalance. Awareness and reflection on the impact of my whiteness, language, and education were thus crucial (Mayra et al., 2016). It is critical to understand white privilege before we can engage with marginalised people's suffering (Singh, 2016). Without profound understanding of these power dynamics, there is a risk of helping others in a paternalistic or controlling way that reinforces patterns of white hegemony and dependency (Reason, 2006).

An in-depth engagement of the historical and contemporary challenges of case study communities was critical. Background information was gathered from academic literature, as well as during personal conversations with community members and those working with the communities over several years, such as members of the Co-creating Wild Foods Team (hereinafter referred to as the 'co-create team').

3.2.5 The Co-creating Wild Foods Project

Since 2017, a team of University of Cape Town (UCT) professors, associates, and students, as well as a botanist and wild food innovator, have explored community identity, landscapes, plant use, and wild food usages in the Cederberg mountains. Within the work that has been done, food knowledge on wild foods has been revitalised by means of participatory processes, including film, cooking workshops, and collaborative documentation with local knowledge holders (Van Niekerk, 2017).

I was introduced to the UCT-led project in one of my course modules. First contact with the communities was made during a field trip in which I supported the design of a code of conduct for research and media engagement with the communities. This field visit sparked my interest to collaborate further with the communities to explore local food heritage. The reciprocal relationships formed over five years between the team and the communities were essential for the collaboration.

3.2.6 Scoping Visits and Pilot Interviews

The first scoping visit to Vleiplaas was with the co-create team in October 2021. Its primary objective was to develop community engagement guidelines. Moreover, the field trip allowed me to become acquainted with the cultural, environmental, and political context of the

community to conceptualise a research project responding to their realities. During this visit, traditional bread-making was identified as an essential part of the local food heritage.

The main purpose of the second field visit to Vleiplaas in December 2021 was to attend the first bread-making workshops offered to visitors by the Vleiplaas community. My participation in the workshop allowed me to not only learn more about the local bread-making tradition, but also to deepen the relationship with the community members.

During another field visit in March 2022, the research project was introduced to the communities. In Vleiplaas, a bread-making workshop, led by two female breadmakers, was purposefully held before the focus group discussion. This way of participatory engagement before the discussion intended to facilitate a safe and welcoming space for participants to articulate their ideas, concerns, and experiences. The sharing of food and collective eating also helps build interpersonal trust and connection (Hamburg et al., 2014).

Four members of the co-create team and seven community members took part in the group conversation. The research project was introduced to the community members as part of the group discussion. During a poll, all participants indicated that they would like to have a bread-making booklet for their community.

The field trip in March 2022 also included a scoping visit to the MCV. Community members were approached individually and introduced to the project and asked to identify traditional breadmakers who were willing to participate in the study. The different approach in introducing the project was the result of a difference in community dynamic, and geographical distance between the MCV satellite communities. The Vleiplaas community has a strong group dynamic since they established a group named 'Fynbos Mengels' in which they have been working on the documentation of heritage and manufacturing of local products since 2017. All participants at Vleiplaas live near each other while the subcommunities of the MCV are only accessible by car.

A pilot interview was undertaken in each community prior to data collection. The main purpose of the pilot interview was to test the questions and allow the translators to get familiar with the interview guide and process.

3.2.7 Ethical Considerations

Ethical clearance was obtained from the Science Faculty at UCT. The Research Ethics Committee's approval form includes considerations on informed consent, confidentiality, anonymity, potential harm for participants, benefits to participants, feedback, and publication of results. Oral informed consent was obtained from people participating in interviews and workshops (see Appendix B).

3.3 Data collection: Methods

3.3.1 Selection of Case Study Communities

Case study communities were chosen by virtue of past interactions with the co-create team. The choice of communities was also informed by differences in foodways due to varied levels of remoteness, infrastructure, and livelihood activities. Vleiplaas is situated at a popular tourist destination and is surrounded by various types of guest accommodations. MCV receives less tourists and only one guest lodge exists in the area (Figure 1). At the more remote MCV, most community members are still engaged in farming activities while most participants at Vleiplaas are employed in the tourism industry.

3.3.2 Data Collection Period

Data was collected over two field visits over a period of three months (15 April to 19 June 2022) after several scoping visits between October 2021 and April 2022. The first field visit (15-28 April, 2022) for data collection included semi-structured interviews and participatory bread-making workshops. The second field visit (17-19 June 2022) included a participant-led oven building workshop.

3.3.3 Sampling

Purposeful sampling as a form of non-probability sampling was used to identify traditional knowledge holders in the community. Purposeful sampling is a technique focused on collecting a small, specific number of participants that are relevant informants (Palinkas et al., 2015). Instead of ensuring generalisability and representativeness, the process of purposeful sampling aims to select participants that hold in-depth knowledge about the research topic (Cresswell & Plano, 2017).

In Vleiplaas, the list of community members who own an outdoor oven and still bake traditional bread was identified with the help of community members during a focus group discussion. At the MCV, community members that own an oven were approached individually during a scoping visit. Ten participants were interviewed in both communities, Vleiplaas and the MCV (Appendix A). Most participants were involved in previous projects hosted by the co-create team.

3.3.4 Demographics of Participants

In both communities, the gender of participants displayed a clear predomination of female breadmakers. While seven out of ten participants were female in Vleiplaas, all ten participants in the MCV were women. The oldest knowledge holder in Vleiplaas was born in 1954 and the youngest in 1999. Most of the participants in Vleiplaas were born between the 1960s and 1980s. In the MCV, the oldest participant was born in 1957 and the youngest in 1971 with most participants born in the 1960s. Hence, the proportion of breadmakers over the age of 50 was greater in MCV than in Vleiplaas. Most participants' families had resided in the area for at least two generations.

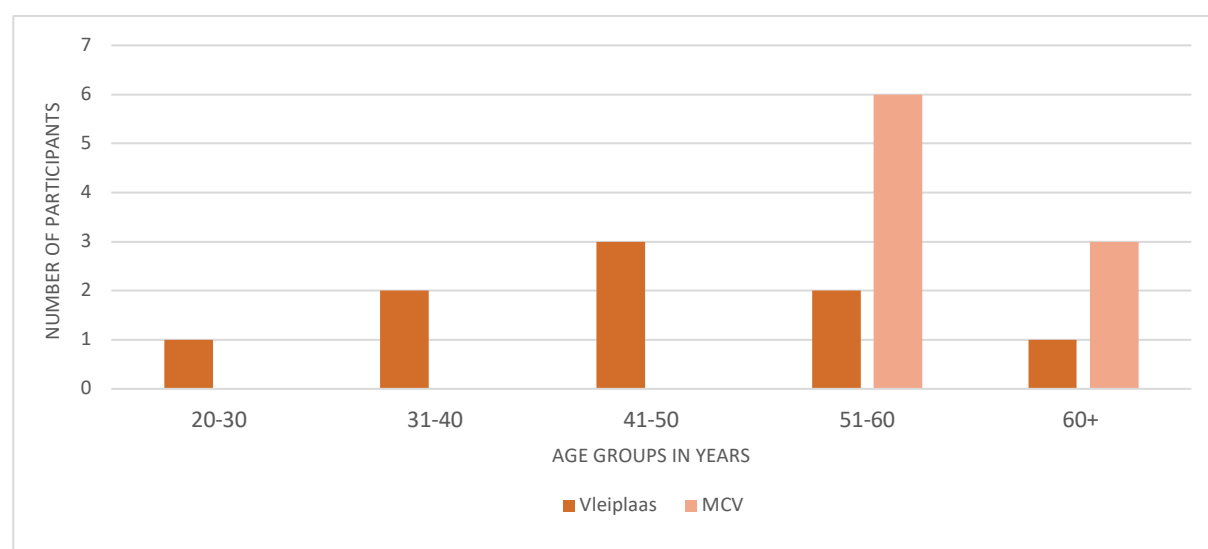


Figure 4: Age of participants at Vleiplaas and the surveyed Moravian Church Villages

In Vleiplaas, five out of ten participants (50%) were pensioners or unemployed while only four people were permanently employed. Most of the participants (n=6; 67%) at MCV were pensioners.

3.3.5 Semi-structured Interviews

Semi-structured interviews were used as the primary source of qualitative data collection. This approach is based on a key topics guide with a set of open-ended questions within a dynamic structure that allows people to express their lived experiences and feelings during the conversation (Kelly, 2006). This allows the inclusion of further topics and responses during the conversation to encourage detailed responses (Lewis-Beck et al., 2004). The flexibility of the interview guide provided “the opportunity to discover respondent’s experience and interpretation of reality, and access to people’s ideas, thoughts, and memories in their own” (Klandermans & Staggenborg, 2002:92).

Participants provided their oral informed consent prior to the interview which was audio-recorded with their permission. The consent form was translated into the local language, and read out to the participants by the translator with consent tape-recorded. Participants were also given the option of retracting from the study at any time of the interview, but no participants chose to do so. Interviews varied in length between 30-70 minutes and were transcribed verbatim with the help of an Afrikaans translator.

The interview guide consisted of open-ended questions concerning changes in foodways with a specific section focusing on bread-making practices, as well as the participant’s experiences and perceptions of these changes. Structured in three categories (demographics, foodways, and bread-making), the themes and subcategories of the interview guide are outlined in Table 1. The complete interview guide can be found in Appendix B.

Table 1: Overview of the topics in the interview guide

Category	Theme	Subcategories
1) Demographics	A brief description of the participant’s cultural identity and roots.	N/A
2) Foodways	The exploration of changes in culinary practices during the participant’s lifetime.	i. Childhood memories ii. Eating habits of the participant’s ancestors

		iii. Impact of changes in foodways on the community's health
3) Bread-making	The exploration of changes in bread-making traditions and knowledge.	i. Bread-making traditions in the participant's family ii. Changes in bread-making traditions iii. History of bread-making in the northern Cederberg area iv. Ovens used for bread-making v. Knowledge of traditional bread-making
4) Feedback Discussion	Ideas/suggestions for the content of the bread-making booklet. Feedback on the project and interview process.	N/A

Considering limited English proficiency among participants and in respect of their oral culture, visual tools such as supermarket products and photographs were used to encourage discussion and to help access ancestral knowledge.

3.3.6 Participatory Bread-making and Oven Building Workshops

The innovative use of methods to increase participation is essential to reverse power dynamics, as well as to enable a collegiate process of mutual learning between the researcher and local people (Cornwall & Jewkes, 1995). Participant-led bread-making workshops were employed to collect data to encourage collaboration and equality between participants and myself.

Participatory Action Research (PAR) utilises a range of methods that acknowledge experiential and practical ways of knowing (Reason, 2004; Ladkin, 2005). In participatory qualitative data collection, researchers become committed learners and participants in the research process

(Kenton et al., 2016). Participatory Action Research thus challenges the hegemony of positivism in conventional, academic research (Kenton et al., 2016).

Acknowledging that the participants hold valuable knowledge grounded in experiences which I do not have, and to encourage a sense of ownership, members were encouraged to lead workshops in which I was a participant. The community-led workshops facilitated a space for participants to share their knowledge grounded in practical knowledge and experience. During the baking workshops, breadmakers would teach me about bread-making and I would get engaged in the process. Two participatory bread-making sessions were facilitated by three female breadmakers in Vleiplaas while two collaborative baking sessions took place at MCV.

The oven building workshop at Vleiplaas was facilitated by two male community members. The participatory setting of these sessions allowed me to establish trust and form a deeper connection with the community members.

Participant observation, defined as a method that “takes part in the daily activities, rituals and interactions” (Musante & DeWalt, 2011:1) of people to better understand their culture, history, and action (Shah, 2017) was utilised to collect data during the workshops. Observations were recorded in field notes, photographs, and videos. Workshop facilitators also provided me with a handwritten recipe.

3.4 Data Analysis

Data was analysed based on a grounded theory approach. Unlike many conventional academic research methods where the researcher develops hypotheses before data collection, a grounded theory approach constructs theory from emerging data (Strauss & Corbin, 1994). This approach allowed the analysis to be informed by issues appearing during data collection and interpretation.

Meta themes relevant to the research objectives were induced during data collection and through repeated reading of the transcripts. Emerging themes included changes in farming, food preferences, and ecosystems, along with the loss of TFK. By means of open coding, observed data were broken down analytically (Corbin & Strauss, 1990) in Microsoft Excel and thematically categorised to one or several colour codes (Kelly, 2006). In the final step,

thematic categories were assessed in consideration of existing theory (Glaser, 1992; Strauss & Corbin, 1994).

3.5 Limitations of the Study

The major limitation of this study, which was undertaken as part of a mini-dissertation, was the limited time frame. This was challenging to implement with a decolonial approach which emphasises a slowly paced 'tortoise' commitment (Keikelame, 2018). The limitation of time and funding restricted the full application of community-based PAR methodology throughout the entire research process (problem definition, data collection and analysis).

Such limitations also impacted the relationship building process between myself and the participants. Along with limited time, my positionality is likely to have affected participants responses. To mitigate the interviewer effect and mistrust towards myself, community members were employed as facilitators and translators during the interviews. The interviews were, moreover, recorded and transcribed by a translator familiar with the local language.

The case study communities were identified in consideration of accessibility and former engagement with the co-create team. However, generalisations should not be made from case study research as causal links are difficult to validate (Lindegger, 2006). The findings of this study should, as such, be interpreted with caution and in consideration of unique contexts of the communities included in this research.

3.6 Summary

Considering the history of colonialism and apartheid in the study area, a research approach grounded in decolonial theory was employed to dismantle power dynamics and my positionality, as well as to encourage participatory methods that acknowledge distinct ways of knowing. Along with semi-structured interviews and secondary data, participatory bread-making workshops were utilised to access food knowledge and memory. The limitations of the study included a lack of time and language barriers.

Chapter Four

The Study Area

4.1 Introduction

This chapter provides an overview of the case study area. The historical background, land use, and land ownership patterns, as well as the demographics and socio-economic characteristics of the study area are described in the first part. The second part introduces the case study communities, which consist of the Vleiplaas community and four subcommunities which are part of the Moravian satellite stations.

4.2 Geographic Location and Climate

The case study communities are situated in the north of the Cederberg Municipality in the Western Cape Province, South Africa (Figure 1). The nearest population centre with a food store is Clanwilliam. A main road connects Vleiplaas to Clanwilliam, while poor road conditions make Clanwilliam less accessible to MCV members.

The Cederberg was declared a nature reserve, the Cederberg Wilderness Area (CWA), in 1973 (CapeNature, n.d.). The area is also a part of the Cape Floral Region - proclaimed a World Heritage Site in 2004 due to its distinctive, species-rich fynbos vegetation which occurs uniquely in South Africa (CapeNature, 2022). The Cederberg Mountain range is a winter rainfall zone (Valsecchi et al., 2013) characterized by cool, wet winters and hot, dry summers (Chase & Meadows, 2007). Due to the strong seasonality, the vegetation types found in this area are more vulnerable to the impacts of climate change (Ballantyne, 2010). Extreme weather events such as the 2016-2017 drought have also threatened food and nutrition security in the Western Cape, with a direct effect on the variability of yields and food prices (Western Cape Government, 2016b).

It is estimated that the effects of climate change will have a severe impact on agriculture while disproportionately affecting the poor (Erasmus et al., 2000). For example, higher food prices and exposure to climate catastrophes disparately harm low-income households (Rozenberg

& Hallegatte, 2015). These social and economic inequalities continue to be determined by imprints of the colonial and apartheid regime.

4.3 Historical Background

One of the oldest rock paintings and human artifacts was discovered in the Cederberg Mountain range. Some of these paintings are just 200 years while others date back to more than 8 000 years (Ferreira, 2007). It is believed that the paintings reflect folklore, knowledge, and cosmologies of the pre-colonial inhabitants of the area (Parkington, 2015).

Pastoralism was the dominant mode of production and land use when European settlers arrived (Penn, 2005). Little is known, however, about the history of Khoi-San people who occupied the area beforehand. Vulnerable to manipulation, their oral cultures have been undermined by the settlers' narratives (Penn, 2005). In fact, the elimination of Indigenous narratives, worldviews, and lifestyles has been an intrinsic part of colonisation (Smith, 2021).

The arrival of the European colonists initiated a gradual process of alienation, displacement, and dispossession. During colonisation, new means of production, including herding and crop agriculture, were introduced to the Cederberg area (Smith, 1983). Indigenous peoples believed that 'selling' their land would only give the settlers the right to access the land since land 'ownership' was a foreign concept (Nell, 1996). In effect, the land became increasingly controlled by white farmers. The establishment of colonial agriculture was based on the dispossession of local people from land for the production and export of cash crops like wheat for European countries (Ross, 1983).

The first cultivation of wheat in South Africa occurred in the mid-17th century (Du Plessis, 1993). The Western Cape as a winter rainfall zone offered suitable conditions for the cultivation of wheat, which is a winter cereal crop (Smith, 1983). With agriculture, the first settlements were established in the Cederberg area (Smith, 2009).

Clanwilliam, formally known as Jan Dissels Vallei, was established in 1812 as one of the first frontier settlements (Parkington, 1999). The town became an independent municipality in 1901 (Clanwilliam Tourism, n.d.). In the following years, the Clanwilliam district was known

for its high concentrations of mixed-race descendants of Indigenous Khoi-San peoples and freed slaves (Nell, 2005).

The Wupperthal Mission Village, the oldest mission station in South Africa, was formed in 1830 (Andrag, 1977). The village was established by the German Rhenish Missionary Society with the intention to cultivate a Christian, self-sufficient community to support the development of agricultural practices in the area (Noyce, 1996). Kaplan (1984) reports that the communities cultivated wheat and picked wild rooibos tea in the late 19th century.

Despite economic development in the area, Kaplan (1984) remarks on the 'helplessness' and lack of leadership of coloured communities in the area who became depended on white landowners. As such, the development of new industries in the area, controlled by European entrepreneurs, fostered a paternalistic relationship between local peoples and the missionary society (Noyce, 1996). The mission station was transferred to the Moravian church in 1966 which continues to control it (RSA, *Heuningvlei Tourism Flyer*, n.d.).

Similar to the Rhenish society, the Moravian missionaries arrived with the intent to evangelise the Indigenous Khoi-San peoples of South Africa (August, 2003). Contemporary literature reports that the church was never able to dissolve the tendencies of dependency and paternalism on which their mission work was built (Kim, 2019). The Natives Land Act (No. 27 of 1913) had further consequences for non-white South Africans, with its racial segregation policy forcing many black and coloured people to decide between working on white-owned farms at minimal wage as 'working slaves' or moving to the areas set aside for non-white people (Feinberg, 1993). This process opened the door for what became known as the apartheid regime from 1948 (United Nations Centre against Apartheid, 1980).

The working conditions on these farms have commonly been described as slave-like, along with severe forms of abuse and oppression, including the payment of workers with alcohol, known as the 'dop' system which has its roots in colonial practices (London, 2000). These acts of discrimination are closely linked to centuries of colonial repression making use of slaves and serfs as farm workers (United Nations Centre against Apartheid, 1980). The long history of racial discrimination, including restrictions on land ownership, led to white domination in commercial agriculture in the Western Cape (Moseley, 2007).

Centuries of colonial and apartheid policies, alongside foreign investments during the late 1990s, have resulted in a highly centralised land and agricultural sector ruled by white-owned corporates (Vink & Tregurtha, 2005). In fact, concentration trends have significantly increased since the liberalisation and integration of the agricultural sector into international markets after the end of apartheid in 1994 (ILC, 2020). Land ownership remains a burdensome, unresolved, and controversial topic across South Africa.

4.4 Land Use and Land Ownership

In 2017, approximately 15% (2 million hectares) of the total area in the Western Cape was under agricultural production. At 17%, wheat production constitutes a significant share of agricultural land use (Partridge et al., 2021). In 2017, the Western Cape province had the second highest number of farms in South Africa (6 937 or 17%) after the Free State (7 951 or 19,8%) (StatsSA, 2020). Approximately 13% of the Western Cape is legally recognised as a protected area, with an additional 34% classified as critical for biodiversity conservation (Lotter et al., 2017). The remaining share of land (72%) is under use for tourism or occupied by dwellings and settlements.

Figure 5 illustrates land ownership by race in the Western Cape. Despite the government's ambitious land restitution efforts, approximately 70% of private farmland remains owned by the white population. Although coloured people constitute a majority in the Western Cape at 49% (StatsSA, 2012), just 11% of erven land is owned by people of colour. In effect, a long history of land dispossession by colonisation and racial domination means most of the South African land remains owned by a minority of white people.

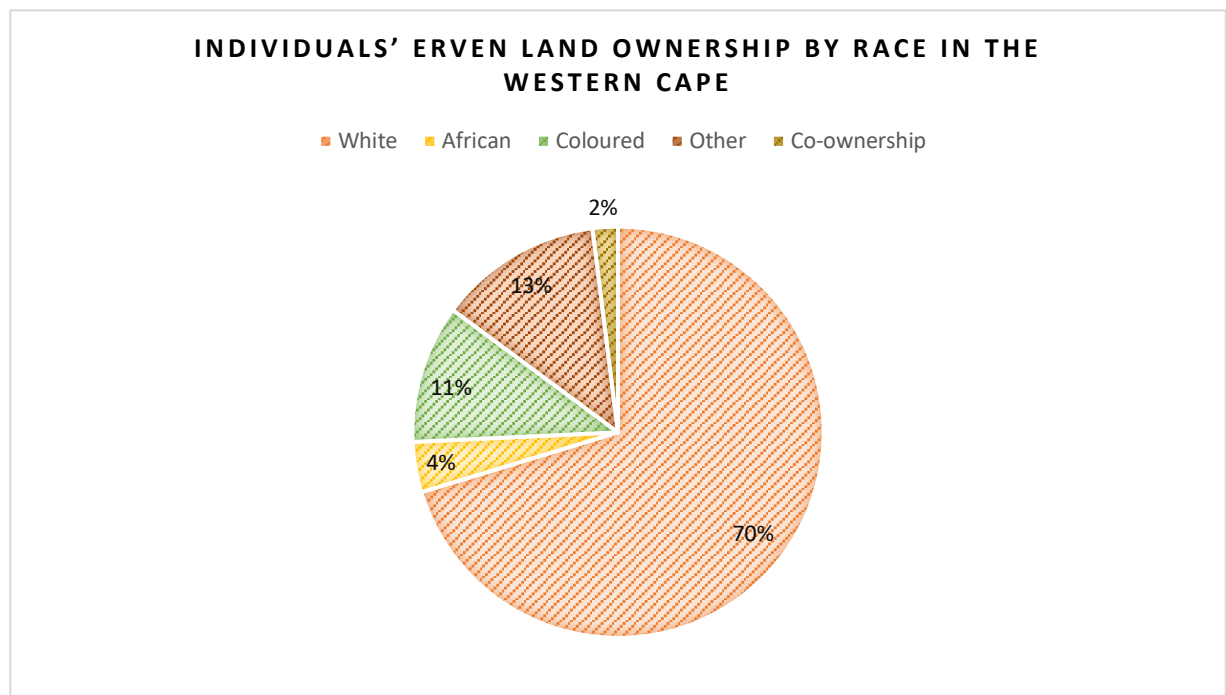


Figure 5: Land ownership titles by race in the Western Cape (RSA, 2017)

4.5 Demographics and Socio-economic Background

The northern Cederberg region is part of the Western Cape Province. While the Western Cape is considered one of the richest provinces in South Africa, high economic and social inequalities remain. Local challenges include widening inequality gaps and high unemployment rates next to increasing migration (Pauw & Du Plessis, 2005).

The case study communities reside in Ward 6 of the Cederberg Municipality. The socio-demographic data available was recorded during the 2011 census for Ward 6.² 7 411 people lived within the study area in 2011 (StatsSA, 2012). No more than 4 127 (56%) of the population were employed, of whom 3 219 (78%) were employed in the informal sector. The informal sector, comprising cleaners, vendors, building caretakers, domestic and related workers, is not regulated by the government and is thus unregulated, unprotected, and frequently underpaid (El Badaoui et al., 2008). The average annual household income in the

² The data collected during the census 2011 was used to investigate the socio-demographic conditions of the study since no newer data was available via Statistics South Africa at the time of writing.

study area was R29 400³ with the majority (55%, n=2269) earning between R10-40k⁴ per year. 428 households (6%) were registered as having no annual income.

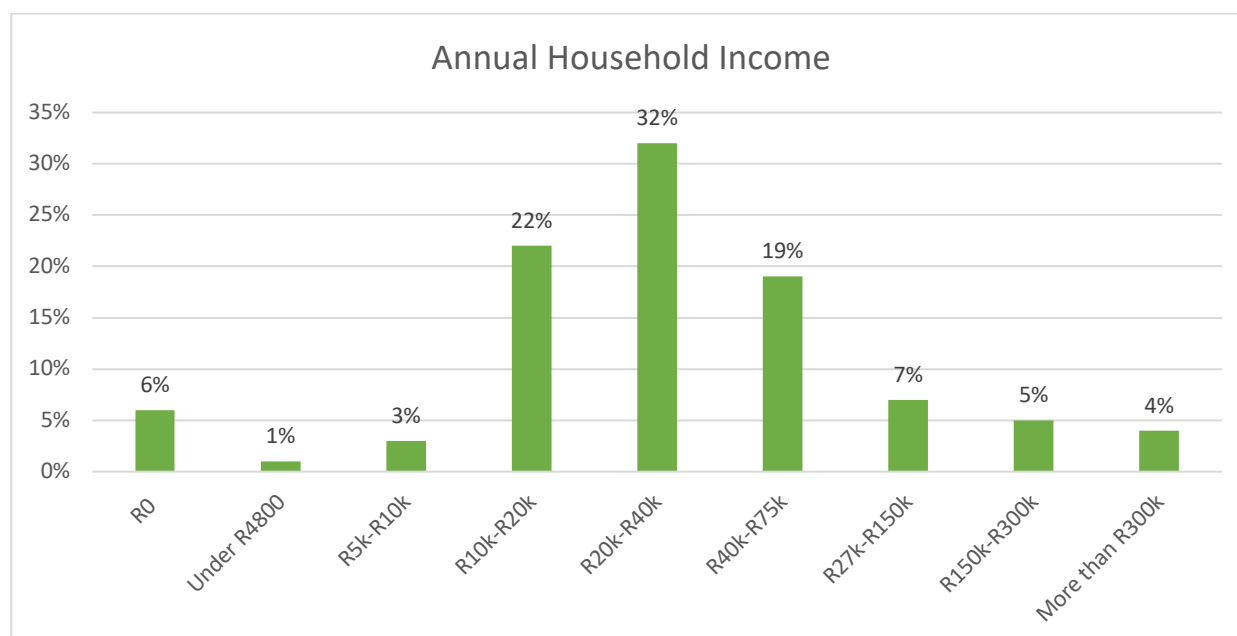


Figure 6: Annual household income Ward 6 (StatsSA, 2012)

Approximately 73% (n=5780) of the population had not completed secondary schooling in 2011, while only 17% (n=1223) had completed secondary school or higher.

³ Equals 1699 USD exchange rate as of November 14 2022.

⁴ Equals 573-2290 USD exchange rate as of November 14, 2022.

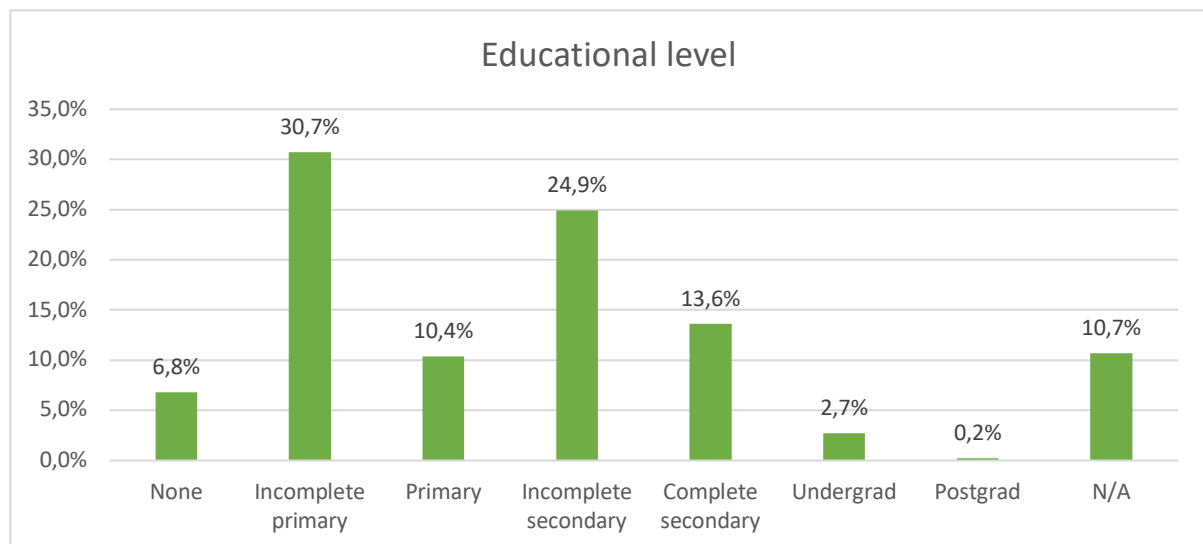


Figure 7: Educational level, Ward 6 (StatsSA, 2012)

The high socio-economic disparities in the Western Cape constitute various food-system-related challenges, such as food insecurity, manifested in a high level of diet-related diseases. The 2015 General Household Survey states that 17% of households in the Western Cape had inadequate access and 7% severely inadequate access to food (StatsSA, 2016). Amongst racial groups, coloured children experienced the highest percentage (girls 14%; boys 18%) of stunting. Moreover, the highest levels of overweight children (girls 19%; boys 18%) were reported in the Western Cape (Western Cape Government, 2016).

4.6 The Case Study Communities

4.6.1 Vleiplaas

The land on which the Vleiplaas community lives is in the Rocklands area. Rocklands has been attracting climbers from around the world since around 1996. The number of tourist accommodations and facilities in the area has increased significantly since. Vleiplaas is surrounded by a peri-urban area and lies about 30km ($\pm$ 25 minutes commute) away from Clanwilliam, the next major town with a grocery store.

The Vleiplaas area is home to 103 people from mixed ethnic backgrounds. Some of the local people, yet not all, are descendants of Khoi-San. Vleiplaas used to be a farmstead that was entirely owned by one large-scale farmer. Approximately 20 years ago, the land got split apart into smaller pieces which all remain under private ownership (J. van Niekerk, personal

communication, 11 June 2022). The inhabitants have a lifelong right to stay on the land under the post-apartheid Extension of Security of Tenure Act (ESTA) Act 62 of 1997. Many have been employed as farm workers on white-owned farmlands and businesses for generations (T. Du Plessis, personal communication, 18 June 2022).

4.6.2 The Moravian Church Villages (MCV)

The satellite communities investigated here are Heuningvlei, Menskraal, Grasvlei, and Brugkraal. The four communities are part of the 14 outpost villages of the Moravian Mission Church in Wuppertal. Not all of the villages could be included due to time and financial limitations, alongside inaccessibility of more remote communities. Heuningvlei was founded in 1868 (Noyce, 1996) and is home to approximately 62 residents. Menskraal has 45 residents, while about 25 people live in Grasvlei, and 8 in Brugkraal.⁵ The surveyed villages are located on the eastern boundary of the CWA. In consideration of their similarities in terms of appearance, geographic location, climate and social structure, the four subcommunities are grouped into 'one' case study community.

The Moravian church functions as an overseer and land owner in the area until today. Although citizens have a lifetime right to rent the property they occupy, a fee for land occupation and use needs to be paid to the Moravian Provincial Board. The *Opsiensersraad* (board of overseers) and *Kerkraad* (church council) form the Church's Overseer Council which acts as a municipality for the villages (D. van der Westhuizen, personal communication, 25 April 2022).

The villages are populated by subsistence farmers and craftsmen (RSA, Heuningvlei Tourism Flyer, n.d.). Many of the residents are involved in rooibos production. The surveyed villages are surrounded by unspoiled landscapes and the closest supermarket is situated in Clanwilliam – approximately 34km away ($\pm$ 60 minutes commute due to poor road conditions).

⁵ Number of inhabitants as of November 2022, obtained from the community representatives.

Chapter Five

Results

5.1 Introduction

This chapter reveals the findings obtained from the semi-structured interviews and participatory workshops. The first part of the chapter describes the findings associated with bread-making traditions and knowledge in each case study community while the second part portrays the results about broader changes in traditional foodways.

5.2 Bread-making Traditions and Knowledge

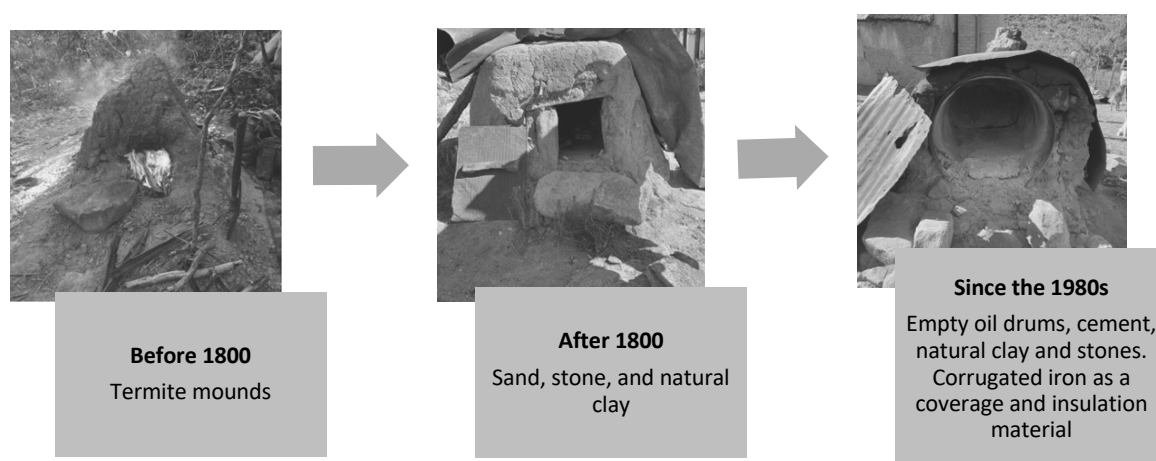
5.2.1 Vleiplaas

5.2.1.1 Ovens

Bread is traditionally baked in an outdoor oven in Vleiplaas. Six ovens were recorded in the area during April 2022. According to a young traditional leader (MO, Vleiplaas, 16 April 2022), the type of outdoor ovens which are used in the area today date back to the early 1800s. Interestingly, early outdoor ovens were built in termite heaps (QH, oven constructor, Vleiplaas, 18 June 2022). MO reported: “At that time, they [ancestors] were digging holes in the termite mounds to bake in them.”

Later on, clay, sand, and stones were incorporated as building materials (SO, elder breadmaker, Vleiplaas, 18 April 2022). One participant reported that his ancestors used cattle manure to fix the sand and repair holes in the oven. According to several oven constructors, empty oil drums became a popular material for building ovens during the 1980s. All of the remaining ovens in Vleiplaas have since been built with an oil drum. Figure 8 illustrates the evolution of building materials.

Figure 8. Evolution of building materials for ovens at Vleiplaas.



According to several elders, ovens are usually constructed by men. Among the younger generation, QH was the only community member interviewed who still held the knowledge to build traditional ovens. The process of building an outdoor oven from an oil drum, natural clay, and stones was documented during a participatory workshop led by two male community members in June 2022. The process is described in detail in Box 1 and illustrated in figures 9-14.

Building an outdoor oven using an oil drum

- 1) Cut an empty oil drum open (remaining oil is burned out in Step 7).
- 2) Gather natural clay and stones (Figure 9).
- 3) Crush the clay until it has a sandy texture and mix with water.
- 4) Even out the ground and position the stones.
- 5) Build a foundation layer from clay that will hold the drum. This elevation is essential for insulation keeping the heat in the oven (Figure 10).
- 6) Put multiple insulation layers of clay to thicken the upper part (Figure 11) and a ground layer on the bottom of the drum (Figure 12).
- 7) Stop adding layers when the wet clay starts slipping off. Burn the clay dry (Figure 13).
- 8) Close the oven with a piece of metal (Figure 14). Additional layers can be added when the clay is dry.
- 9) If wet clay is slipping off it may help to put dry sand on top.

Box 1: Steps to build an outdoor oven at Vleiplaas (QH, oven constructor, 18 June 2022)



Figure 9: Natural clay



Figure 10: Elevated oil drum



Figure 11: Building layers on top of the drum



Figure 12: Ground Layer



Figure 13: Burning the clay



Figure 14: Closed oven

While ovens are usually family-owned, a decline in the number of ovens has led to an increase in oven sharing with other community members. Electric, modern ovens have gained popularity during the past decade. Participants were asked to indicate their preferences and perceptions about conventional ovens. Nearly all participants rejected the use of conventional ovens to bake bread.

Community members favouring traditional ovens highlighted the higher number of bread loaves that fit in the oven which make it more suitable to feed a big family. Only one of the elders indicated that she makes bread in a modern oven since she struggles to collect

firewood at her age. Many breadmakers reported a difference in taste and texture of the bread, as well as higher costs related to using a modern oven. During the bread-making workshop, EH (Vleiplaas, 19 April 2022) affirmed: “If there is a fire burning then there will be a taste and smell of fire. You taste the nature.”

5.2.1.2 Types of Bread and Preparation Processes

The community of Vleiplaas predominately makes *soetsuurdeegbrood* (Afrikaans for sweet sourdough bread). All participants baked *soetsuurdeegbrood* one to three times a week. Four out of ten participants indicated that they also regularly made *roosterkoek* – small breads baked over the fire. Several community members reported that *potbrood*⁶ and *ashbrood*⁷ were commonly baked “under the ashes” (DR, elderly breadmaker, Vleiplaas, 19 April 2022) and “around the fire” (EH, breadmaker, Vleiplaas, 19 April 2022) in past times. Moreover, DR commented that her ancestors “had to grind wheat every time they made bread”. Many breadmakers indicated that the main reasons for the decrease in types of bread were a lack of time and loss of knowledge. Box 2 illustrates the recipe for *soetsuurdeegbrood*.

***Soetsuurdeegbrood* Recipe**

- Sliced potatoes or peas
- 1 Teaspoon salt

Put the ingredients in a glass jar with lukewarm water and close the jar with a blanket/plastic bag. Let it ferment overnight. Wrap the jar in towels in winter to keep it warm.

Next day:

- The water should have foam bubbles
 - Take the veggies out
 - Add some flour and mix
 - Put lid loosely on the jar
 - Put the jar in a bowl with lukewarm water and let it rise for about 30 minutes
 - Mix the leaven with about 2kg flour and salt
 - Slowly add water
 - Knead until the texture is smooth and slightly sticky
 - Let the dough rise for about 1 hour
- Put the dough in a pan and bake it for 1 hour

⁶ Bread baked in a pot on hot coals. Sometimes prepared with sheep fat (Coetzee, 2018).

⁷ Synonym for *Ou Suurdeegbrood*.

Additional notes:

- If your dough doesn't come out right, get a piece of good dough from someone in the community and mix it with your dough.

Box 2: Soetsuurdeegbrood Recipe (EH, breadmaker, Vleiplaas, 19 April 2022)

5.2.1.3 Ingredients and Dietary Habits

Many breadmakers noted changes in the type of flour used to make traditional bread. While white cake flour is used to make bread today, elderly breadmakers reported that they learned to bake bread with *bruinmeel* (Afrikaans for coarse wholemeal flour), and made beer from the bran layer. SR (elder breadmaker, Vleiplaas, 19 April 2022) emphasised that her father never used any yeast in the past to make beer or bread. In fact, “the stuff fermented itself by letting it ferment with water and sugar for eight days” (SR). Archaeological records about preparation describe similar Khoi-San methods of making natural yeast and brewing Karri⁸ (Coetzee, 2015; Rusch, 2020).

Some elderly participants indicated that their parents grew wheat and ground flour. DR (elder breadmaker, Vleiplaas, 19 April 2022) affirmed: “When my mother-in-law grew up, they ground their own flour. They threw the sackcloth on the ground, put stones and corn on the floor, and ground it.” OL (community elder, Vleiplaas, 21 April 2022) described how her parents used *plaaslike meel* (Afrikaans for local flour):

“They [ancestors] took wheat and sowed it. They cut off the ripe wheat with a sickle and ground it. When the wheat was ripe, they threw it on a bale and took the donkeys, and let the donkeys crush it. Afterward, they swept the wheat together and threw it into a sack. After packing it into bags they used their millstones to grind the wheat.”

While elders reported that previous generations had ground wheat, they themselves now obtained their flour from ‘the white people’ or a hawker. Some participants mentioned the existence of a local farm shop that sold flour. The store was locally owned, but had to close down after being robbed (T. Du Plessis, personal communication, 19 June 2022). Since the

⁸ Beer made from wild harvested honey (Coetzee, 2015).

local shop closed, community members have had to travel from Vleiplaas to Clanwilliam to get groceries for making bread.

All participants reported a significant increase in the consumption of *winkelbrood* (Afrikaans for shop bread). Some elders emphasised that *winkelbrood* did not exist when they were young. Despite the increase in consumption, the overall perception regarding *winkelbrood* among participants was negative. The most common reasons indicated for the rejection of store bread were that it is expensive, not filling and unhealthy. SJ (breadmaker, Vleiplaas, 18 April 2022) emphasised: “The way we live now is by buying bread from the supermarket instead of making it. That is very unhealthy.” Some community members argued that store bread is healthier since it contains unclear ingredients. Others reported that the high price for *winkelbrood* is a major reason to keep the baking culture alive.

5.2.1.4 Traditions and Cultural Significance

Bread was considered a basic necessity and was associated with a ‘simple way of life’ among community members. As such, bread played, and still plays, a crucial role in the community members’ daily lives and diets. Some participants highlighted that they were raised on bread with water, tea and coffee. “Tea and bread – I like it. I’m not really a fan of such fancy food. [...] I don’t care about other food as long as there is bread. Thank him (god) for it,” DR (community elder, Vleiplaas, 19 April 2022) rejoiced during the interview. Two elders described how they made tea from rooibos harvested in the area. DR remembered: “Rooibos was harvested in the sandy area with a tractor. We got the cut-offs, the more sticky part, and we made tea from it.”

While the younger generation still consumes bread with beverages such as coffee and tea, modern foodstuffs such as packaged meat are increasingly put on bread. Amidst the vital role that bread plays for nearly all participants, one younger community member (MO, Vleiplaas, 16 April 2022) stated:

“I just can’t eat bread and coffee anymore [...]. But they are saying you can’t just eat expensively, you must eat bread.”

Although bread is usually consumed within the family, some participants indicated that pieces of dough or bread loaves are occasionally given to fellow community members. SO (breadmaker, Vleiplaas, 18 April 2022) reported:

“If we give it to one another then we do it out of love. Like maybe people who come from the Cape do not bake bread, so then we give them a bread to take with them.”

Another community elder believed that bread should not be exchanged with other products for the reason that it is holy and associated with the “Lord’s Body” (JJ, male breadmaker, Vleiplaas, 21 April 2022).

5.2.1.5 Knowledge Transmission

Nearly all community members learned to make bread from the female head of the family. This may be an indication that women play a critical role in knowledge transmission. Yet, participants reported that men are increasingly making bread as a consequence of shifting gender roles in the area.

Many participants who had previously lived in cities indicated that they didn’t make traditional bread while staying in town. The majority of participants verbalised concerns about the loss of TFK that had already taken place and was likely to continue in the future. For example, several breadmakers reported the loss of knowledge about traditional *potbrood*. A community elder (SR, Vleiplaas, 19 April 2022) believed that some of the younger girls are not able to ‘knead nicely’ and that she had to teach them. Common reasons articulated concerning the loss of knowledge were modernisation, disconnection from traditions, and time scarcity. Some community members reported that tourism development had led to increased modernisation.

In addition to this exposure to modern, Western lifestyles, new job opportunities have led to a decrease in time for baking traditional bread. In effect, younger generations eat significantly more shop bread. One young breadmaker (MO, Vleiplaas, 18 April 2022) commented: “People don’t make *ashkoek* or *potbrood* anymore because they don’t have time. [...] People are getting into ways to make it faster. Life is a hurry.” Besides, MO noted that younger people have intentionally disconnected from traditions and ancestral knowledge, which he referred

to as primitive “bushman lifestyles”. Yet, all community members agreed that traditions and knowledge need to be preserved for younger generations. As such, one breadmaker (EH, Vleiplaas, 19 April 2022) commented:

“One day, they can say, ‘I learned it from my grandmother or my mother’, and, they can pass it on to the next generation, their own children, and maybe to others who come from far away. [...] We are the beginners, you are just learning more and more.”

Similarly, one male breadmaker (JJ, Vleiplaas, 21 April 2022) noted that knowledge exchange is vital for the evolution of bread-making techniques:

“If I see a person making the bread, I will ask her later why she does it in a specific way, so that I know tomorrow how to do it. [...] I take a look at her way because maybe you have a better or easier way than me to do the same thing.”

All participants were reasonably comfortable and proud to share their knowledge with community outsiders. Many breadmakers articulated a substantial sense of pride related to their traditional knowledge about bread-making because it embodies a symbol of independence, sharing, and survival. Box 3 presents breadmakers’ statements highlighting their sense of pride and ownership with regard to their knowledge. Community members considered the knowledge about traditional *soetsuurdeegbrood* a cultural heritage uniquely linked to the area of Vleiplaas.

Community members sense of pride and ownerships about their bread-making knowledge at Vleiplaas

“It has a great meaning because it is something that you do with your own hands and you can be proud of it, and it came a long way. [...] It didn't begin here. It comes from my granny's granny – it goes a long way back. I can be proud of it. It is something special to make your own bread from the beginning. It is a privilege that you are able to do it.” – SJ, 18 April 2022

“If you don't have bread then you have nothing. Many children will come to you and ask for bread. They will not ask you for meat.” – SO, 18 April 2022

"It feels good because you are feeding your family and others around you because there are those who cannot do it and then you can help them with it." – EH, 19 April 2022

"Broodbak is vir my die beste. [...] Askoek en oondkoek is my lewe." (Making bread is the best for me. Ash bread and oven bread are my life.) – SR, 19 April 2022

"I have to make bread, otherwise I'll go hungry." – OL, 21 March 2022

Box 3: Perception about bread-making knowledge at Vleiplaas

5.2.2 Moravian Church Villages (MCV)

5.2.2.1 Ovens

In addition to outdoor ovens, indoor fire ovens are also used to bake traditional bread at MCV. An overview of the number of ovens in each subcommunity can be found in Table 2. In Heuningvlei, three indoor ovens and three outdoor ovens were recorded in April 2022. However, only one of the three outdoor ovens was still in use because many families have moved to cities for work.

Table 2: Number of ovens at the surveyed MCV reported by community members or counted during data collection in April 2022

Subcommunity	Inhabitants	Indoor ovens	Outdoor ovens
Heuningvlei	60	3	3 (2 in use)
Grasvlei	25	N/A	7
Menskraal	35	N/A	5
Brugkraal	8	N/A	3
Total	128	3 (possibly more)	18

According to a community representative (DW, Heuningvlei, 23 April 2022), the use of outdoor ovens dates back at least 200 years. All participants indicated that the number of ovens in the area has not decreased.

Building materials for ovens have evolved in a similar way to those at Vleiplaas. However, several ovens were constructed without a drum at MCV. Menskraal's community representative, RL, constructed an outdoor oven during a field visit in April. Next to stones, she used natural clay collected from termite heaps close to her house. Figures 15 and 16 illustrate the building materials and finished outdoor oven.



Figure 15: Natural clay harvested from termite heap



Figure 16: Outdoor oven made from clay and stones at Menskraal

Even though most breadmakers emphasised that men usually build ovens, RL was a female breadmaker who had built several ovens herself. Many participants reported that fewer people in the area have the knowledge to build an oven. Heuningvlei's community representative (DW, Heuningvlei, 23 April 2022) expressed her concerns regarding the loss of knowledge about ovens:

"There is a change in that. It became extinct. People make ovens but now it's a drum and, in the past ovens were made from clay. But they cannot build it anymore. The knowledge is gone, it is gone, gone!"

The overall perception of modern, conventional ovens among community members was negative. Reasons for rejecting modern ovens were similar to views expressed at Vleiplaas. Some participants highlighted that bread made on hot coals tastes more 'natural' than

conventional bread. Many breadmakers explained that a modern oven cannot make *ashbrood*, which is traditionally baked on hot coals. Community representative, DW, was the only participant using a modern oven to make bread. She said that this was due to her traditional oven breaking.

5.2.2.2 Types of Bread and Preparation Processes

Inhabitants of the surveyed MCV prepared *ou suurdeegbrood* and *soetsuurdeegbrood*. Most participants indicated that *soetsuurdeegbrood* had become more popular in the area in recent years. RL (community representative, Menskraal, 23 April 2022) emphasised that people only prepared *ou suurdeegbrood* in the area when she was a child. According to RL, people from Vleiplaas introduced *soetsuurdeegbrood* to the community. Figure 17 presents the *ou suurdeegbrood* recipe while Figures 18 to 20 illustrates the *ou suurdeegbrood* preparation process. In contrast to *soetsuurdeegbrood*, *ou suurdeegbrood* is baked on hot coals without a pan.

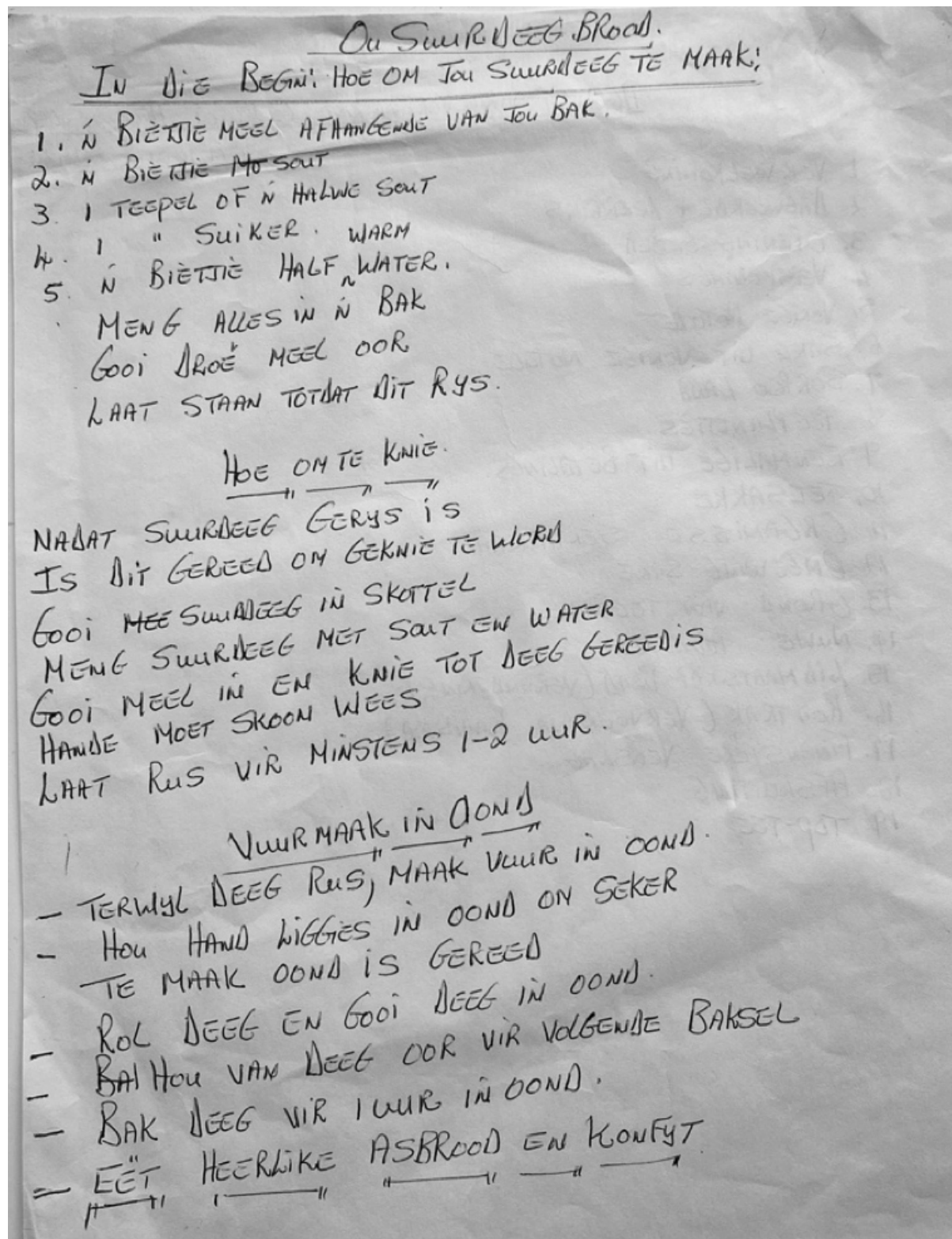


Figure 17: Ou suurdeegbrood recipe (written by DW, community representative, Heuningvlei, 25 April 2022)



Figure 18: Mix starter culture with flour

Figure 19: Dough (rise for 1 hour)

Figure 20: Bread baking on hot coals

5.2.2.3 Ingredients and Dietary Habits

Nearly all participants reported significant changes in the types of flour used to make bread. Various breadmakers emphasised that wheat was historically sowed, harvested, and ground in the area. RL (community representative, Menskraal, 23 April 2022) commented: “Previously we sowed, harvested, and ground wheat with stones to make flour to bake bread. As I got older, they started buying flour.”

Similarly, one male breadmaker (JJ, Vleiplaas, 21 April 2022) who grew up at MCV reported that his grandfather sowed wheat and rye when he was young. JJ stated that wheat was ground with two stones of which one had a hole. The millstones were pulled in opposite direction with the help of donkeys (Figure 21) which “they called the one-eyed or blind donkey. One eye was closed so he could only turn to one side”. Several participants at MCV reiterated that donkeys were used to thresh and ground wheat during their childhood.

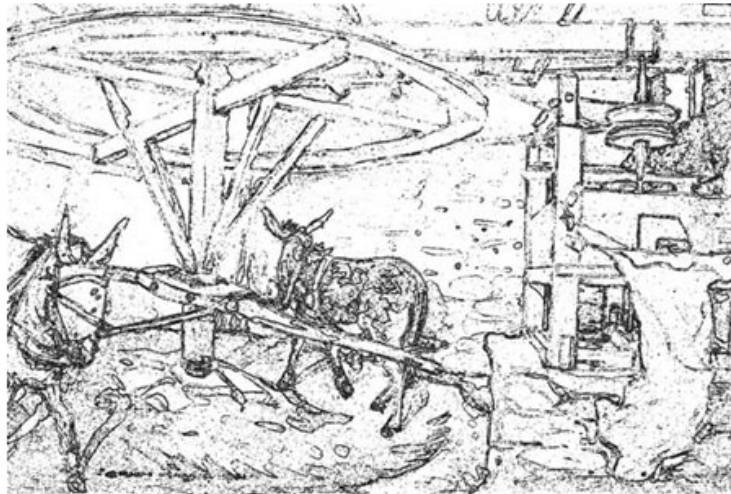


Figure 21: Donkey mill (Eseltjiesrus Donkey Sanctuary, 2023)

Box 4 summarises various participants' stories about harvesting and grinding wheat at MCV.

Stories about harvesting and grinding wheat at MCV

"They harvest it with a sickle and those bundles that are made are then cut out. [...] The two bricks are on top of each other. The wheat comes in-between and you grind it. When it is finished grinding then she (mother) has to take the flour and knead it for bread. We have to eat." – DW, 23 April 2022

"At that time they used a millstone to grind wheat and we got the flour from there. My dad cleaned it and then me or my mom kneaded it to make bread. We threw it directly in the oven at that time and not in the pans." – AM, 26 April 2022

"We sowed wheat on the fields. We ploughed the ground and sowed the wheat, the whole lane. [...] They threw it down to see from which side the wind is blowing and then the wind blows the fine vein away. [...] They let the wheat dry until it falls out, and put it between two stones. The top one has a stick in it. The wheat is thrown in and grounded. [...] We then added salt and kneaded. Fresh wheat bread was the most delicious bread." – MG, 25 April 2022

Box 4: Stories about harvesting and grinding at the MCV

According to community representative, DW, wheat farming was replaced by rooibos cultivation about 40 years ago. Several participants indicated that water scarcity and financial viability were the main reasons for the change in crops. Similarly, literature highlights that the profitability of wheat production in the area has been affected by climate-change related challenges, such as severe droughts (Theron et al., 2021) and changes in agricultural trade policies, as a direct effect of neoliberal globalisation (Vink et al., 1997). Barends-Jones' (2020) report about rooibos tea cultivation in the Cederberg underlines the higher level of returns of rooibos compared to wheat.

There was common agreement among participants that store bread is less healthy and less tasty than traditional bread. Many breadmakers commented that store bread has less *krag* (Afrikaans for power) than traditional bread.⁹ Yet, some people increasingly consume supermarket bread. RL (community representative, Menskraal, 23 April 2022) complained about “the Cape eating habits”, emphasising that she “had to eat more *winkelbrood*” when she stayed in the city.

5.2.2.4 Traditions and Cultural Significance

All the participants at the surveyed MCV reported that bread was a major meal during their childhood. Like Vleiplaas, bread was often consumed with fat from domesticated animals and with tea, water, or coffee. Some community members mentioned that the wild rooibos tea they consumed with bread was harvested from the fields even before rooibos was cultivated in the area. One elderly participant (DW, Heuningvlei, 23 April 2022) mentioned:

“Harvesting veld tea¹⁰ was our way of not buying tea. You process it, put it into water, and then you drink it and eat it with a slice of bread. It was also a remedy to drink for babies.”

Similarly, one female elder (MG, community elder, Grasvlei, 25 April 2022) recalled: “You can make the babies bottles by pouring the tea through a sieve and adding sugar. It gives them appetite.” She described the process of making veld tea:

⁹ Participants used the expression ‘krag’ to describe the energy/nutrition that the bread contains.

¹⁰ Afrikaans expression for wild rooibos.

"My mom sent us to pluck the top part of the veld tea so there are no thick sticks in between. We took a block and put a bag of potato paper on top of it. We then took an axe to chop it finely. We put it in a bag, added some water, and we bruised the tea. We put it together nicely and closed it so it could sweat. When it is completely brown, we threw the bag open outside and then we scraped the teas open so that it dried."

Some community elders emphasised that the meaning of bread goes beyond its nutritional value considering the spiritual meaning of bread attributed in the bible. One breadmaker (RB, Brugkraal, 26 April 2022) explained:

"Bread is a gift from God because the Lord blesses that grain plant to become grain and so the flour, and the bread made from the grain. This is a miracle from the Lord. You cannot call it any different. It is a gift. If you do not have bread then you have nothing."

Most people residing at the MCV mentioned that they make bread for family members who are staying in cities. One breadmaker (MH, breadmaker, Heuningvlei, 25 April 2022) highlighted: "Bread is given to them to take with them as they are accustomed to our baked bread while they have to buy bread in the city. [...] When the people come from the city it is still baked for them."

5.2.2.5 Knowledge Transmission

Although most participants reported an increase in men making and learning to make bread, bread-making remains a traditional role attributed to women. Breadmakers usually started to make bread between the age of 10 and 17 years. One participant indicated that she never learned how to make bread. She lived most of her life in the city and, therefore, was never taught how to make traditional bread. Similarly, some breadmakers in Menskraal reported that they had to eat more shop bread while staying in town and that they had to relearn traditional bread-making when they returned.

Several community members emphasised being proud of their knowledge of traditional bread-making. Common reasons associated with this sense of pride were independence, ownership, as well as the ability to teach other people and sell bread to visitors. Box 5

presents statements emphasising a sense of ownership and pride among the community members.

Community members sense of pride and ownerships about their bread-making knowledge at MCV

“It's unique because you can do it yourself, without needing anyone else.” – MH, 24 April 2022

“I’m very proud of myself, very proud. And to teach other people, to show people about it. To teach them and to sell bread.” – DW, 23 April 2022

“Many things have changed so I will not trade bread in the fire oven for anything else.” – MH, 25 May 2022

Box 5: Perception about bread-making knowledge, MCV

An elder (MH, Grasvlei, 25 May 2022) maintained that her ancestors were much stricter in teaching traditional knowledge to their children. She posits that young people are distracted by modern ways, commenting: “these days the kids just run to the store. They do not want to learn yet.”

5.3 Changes in Traditional Foodways

5.3.1 Vleiplaas

5.3.1.1 Overview of Changes in Traditional Foodways

(1) Changes in Food Availability

All participants at Vleiplaas noticed changes in farming during their lifetime. Several elders reported that plenty of fruits and vegetables were planted historically in the area. With regards to commercial farming, some community members indicated that many vegetable, fruit, and grain farmers in the area had gone bankrupt. One elder breadmaker (SO, Vleiplaas, 18 April 2022) explained that commercial farming had become unaffordable due to middle men dominating the agri-food supply chain:

“They went bankrupt and did not make enough money. The truck that picks up the food to take it to the market must also be paid. That is why the area has been converted into a guest place.”

Alongside commercial farming, there has reportedly been a significant decrease in self-sufficiency farming. Many community members maintained that time scarcity and environmental challenges were the main reasons for the erosion of farming in the area. Some participants reported a dramatic decrease of rainfall during the past ten years, leading to loss of crops and animals, while other community members mentioned soil degradation in effect of drought.

These observations concur with climate records and statistics highlighting the impact of severe droughts as a direct consequence of climate change on the farming sector in the Western Cape (Archer et al., 2019; Wolski, 2018). The Western Cape Department of Environmental Affairs and Development Planning states that the temperature rise threatens agricultural production and natural environments which, in turn, threatens food security (Western Cape Government, 2018).

Nearly all participants maintained that more food was available at Vleiplaas in the past. Some elders reported that they received food from local farms, such as Bushmans Kloof, a farmstead that was converted into an elite tourism retreat and ironically, is today the subject of a land claim. Box 6 presents participants’ comments concerning a decrease in food availability in effect of changes in both commercial and subsistence farming.

Decrease in food availability in Vleiplaas

“At that time you received everything from the farm. [...] We had everything because everything was planted.” – SR, 19 April 2022

“There used to be vegetable and fruit farms here, so we got food from the farm. [...] I think it was easier back then because now I have to look for a lift or I have to hike to buy food.” – AR, 18 April 2022

“Yes, we farmed more in the past. Nowadays have to go to the stores because we don’t have time.” – MO, 16 April 2022

“We don’t plant anymore. Beans, apples, potatoes. [...] It was better when we planted food” – DR, 19 April 2022

Box 6: Decrease in food availability in Vleiplaas

The decrease of farming in the area was accompanied by the development of tourism facilities. Although several community members highlighted that tourism has replaced farming because it generates better income, several participants reported a deterioration of their living conditions. Many participants work in ‘low-prestige’ jobs that underpay and are time consuming, such as domestic workers. Land owner Du Plessis (personal communication, 18 June 2022) affirmed that with the availability of new job opportunities, many community members have disconnected from their subsistence farming culture.

(2) Changes in Food Accessibility

Since the local farm store closed (see section 5.2.1.3), community members have had to travel 21km to obtain groceries. Most participants stated that in the past they almost never went to town as there was enough food available in the area. The local shop, moreover, provided a debt system to the community members when they were short of money (EH, breadmaker, Vleiplaas, 19 April 2022).

Various community members indicated that life had become more expensive since the land was converted from farming into a tourism destination. One breadmaker (EH, 19 April 2022) commented:

"Yes, it was easier in my childhood than it is now because the food is terribly expensive. Food is terribly, terribly expensive. In my childhood it was much cheaper and you get just about everything for free at the farm."

Some elders mentioned that the value of money had decreased dramatically. As such, SR (Vleiplaas, 19 April 2022) emphasised that she “never came short in the past days”. In effect,

changes in food access and affordability in the area have influenced a transition in foodways from fresh, local vegetables to more ‘modern’, processed foods.

(3) Loss of food knowledge

Many participants at Vleiplaas reported a loss of TFK. Reasons included the availability of supermarket foods, time scarcity, and modern development associated with a disconnection from traditions. One younger community member (MO, Vleiplaas, 16 April 2022) commented:

“No I don’t think they [children] will have the knowledge. Because a lot of people from this generation hate connecting to traditions. [...] They disconnect themselves from bushman [...] because people are more modern, they are not connected to traditional foods or their ancestors.”

Despite several participants highlighting that many community members want to live modern lifestyles and consume ‘fancy foods’,¹¹ they also believed modern development to be one of the main reasons for a rapid loss of traditional knowledge in the area. One of the breadmakers (EH, 19 April 2022) stated: “You can lose some of your knowledge if you go after the modern development of today, so we just want to keep it alive.”

EH reported that recipes about cooking *wildvleis* (Afrikaans for game meat) were disappearing and that she would like to document these for future generations. Some participants also expressed their concerns about people using the internet for recipes instead of preparing traditional foods. Although recipes are transmitted orally, several participants affirmed that documenting TFK would help preserve knowledge for future generations.

The overall perception towards modern foods was negative. However, some participants at Vleiplaas related veld foods to ‘poverty’ and ‘backwardness’. One of the younger community members (MO, Vleiplaas, 16 April 2022) welcomed the changes towards a modern, Western diet:

“Today we have salami and all types of stuff we consider as fancy. Because in the old days we couldn’t afford it, it was a luxury to have it in the house. Now I can afford to

¹¹ Several interviewees mentioned fancy foods as a synonym for modern, Western foods.

get a pizza, or a hamburger, or KFC. [...] People which can't still have to use the sheep fat, the legs and the head."

Several elderly participants remembered how they foraged and ate *veldkos* (Afrikaans for wild foods) when they were young. Box 7 presents elders' stories about *veldkos*.

Stories about *veldkos* at Vleiplaas

"If you see the Karoo bushes here – if you pull the root under the ground then it is dry. We baked well with it and cooked food. [...] Then you can just look at the foot of Botterkloof. You get the sweet yawn and the bitter yawn. You peel the bitter yawn, but you eat the sweet yawn just like that." – SR, 19 April 2022

"We always dug ends [roots and bulbs] in those years and then we ate it. I no longer see them digging ends." – OL, 21 April 2022

"[T]hey [ancestors] ate that, so I eat and use tubers and that stuff too. [...] You eat it like that or you can throw it in the pot. You add it along to the boiling water with potatoes or green beans" – JJ, 21 April 2022

Box 7: Stories about veldkos, Vleiplaas

Four out of ten participants reported that *rysmiere* (Afrikaans for rice ants) were consumed in the past. One elder (SR, Vleiplaas, 18 April 2022) commented:

"People made *rysmiere*, they fry them, add salt and then stir it through. It is a big ant, the hole in the back turns brown when roasted. It looks like a little rabbit that has been roasted and shrinks. [...] They [ancestors] put it on the bread as they take the bread out of the oven. I ate it too. It is like salt on the bread."

This concurs with records about Khoi-San cultures consuming termites as veld food delicacies with excellent nutritional value, roasted "brown and crunchy" on hot coals and "served with freshly baked breads" (Coetzee, 2015:152) even before meat became a popular staple (Lesnik,

2014). According to SR, negative perceptions about traditional foods, such as insects, make them a taboo among younger generations though.

Interestingly, one of the land owners (T. Du Plessis, personal communication, 18 June 2022) emphasised that she noticed a connection between the loss of local, environmental knowledge, and tourism development. Du Plessis substantiated the correlation by reason of community members being exposed to modern ways of living and working in time-consuming tourism jobs, instead of spending their days in the fields.

5.3.1.2 Impact of Foodways Transition on Community Members' Health

Nearly all community members mentioned the spread of diet-related diseases like high blood pressure and diabetes. Common explanations were an increase in the consumption of meat and high-fat foods. One breadmaker (EH, Vleiplaas, 19 April 2022) commented: "Today is about meat. Before, people ate vegetable pots throughout the week – vegetable foods, because everything was on the farm."

One younger community member (MO, Vleiplaas, 18 April 2022) added: "Nowadays many people go to the hospital with diabetes or cancer [...] [b]ecause people are eating all the fatty foods." Further reasons included a shift from organic, self-grown foods to chemically-processed supermarket foods; also from medicinal plants to modern medicine. Moreover, alcoholism as a legacy effect of the Apartheid's dop system remains a major health challenge in the area (T. Du Plessis, 18 June 2022). Box 8 illustrates participants' opinions about the impact of changes in diet on health.

Impact of changes in diet on health in Vleiplaas

“Today's food is not healthy because food should not be eaten as we eat it. [...] The people of past times ate *veldkos* and all those foods we do not know about. They were still living out of the field.” – AR, 18 April 2022

“I think it's probably the fertilizer and the toxins – all types of stuff – that need to be sprayed on today's vegetables. It has an impact, that's why today's food is not as healthy as it used to be.” – EH, 19 April 2022

“They just used medicine out of the field. When I was born, I did not go to the hospital. Even when I had blood poisoning. From the age of three months, my mother gave me medicine and herbs from the field.” – SR, 19 April 2022

“You should know, if someone was sick, we went to the field and get medicine for us – bush herbs. But if we get sick now then we have to go to hospital or doctor.” – OL, 21 April 2022

Box 8: Impacts of changes in diet at Vleiplaas

5.3.2 Moravian Church Villages (MCV)

5.3.2.1 Overview of Changes in Traditional Foodways

(1) Changes in Food Availability

Various community members in the surveyed MCV reported changes in commercial farming, with rooibos cultivation replacing wheat farming in the area. According to DW (community representative, Heuningvlei, 23 April 2022), the shift from wheat cultivation to rooibos occurred during the mid- to late-20th century. The main reason for this shift was a decrease in the profitability of wheat.

Menskraal's community representative (RL, 23 April 2022) criticised the shift to rooibos farming: “I almost think the wheat was a better option because you could grind a little and

we can no longer grind it now. You have flour, plus you can store the rest of your wheat. But on your tea-land, you have to cut off your tea and sell everything to the processor.”

With regards to farming, several community members complained about the shift from natural fertilizer, such as animal manure, to chemicals. One elder (DW, Heuningvlei, 23 April 2022) reported: “In the past they only used the manure of animals, the sheeps and goats but today they buy things like 'groeisout' (chemical fertilizer) and everything for the plants.” Similarly, one breadmaker (RB, Brugkraal, 26 April 2022) commented:

“We used livestock manure, now it's fertilizer out of the store. Today, everything has to come out of the store to make it grow. It also does not want to grow itself if you do not help it. [...] I poured cattle manure over the onions every year and then I work it in and wet it. I grew big onions.”

Four out of ten respondents at MCV noted changes in subsistence farming, such as a decrease in the variety and amount of food grown in the area. This number is, however, smaller than Vleiplaas where all participants remarked on significant changes in subsistence farming. Menskraal’s community representative (RL, 23 April 2022) commented: “We still use our garden lands to grow but it has become less.” Some elders stated that the reasons for the decrease in subsistence farming included water scarcity and heat waves. Heuningvlei’s community representative (DW, 23 April 2022) commented:

"From 2006 we recorded the weather, my husband and I, we can see the changes every year from that. I planted tea in August but I cannot do that now. I must plant tea now June, July, two month before. [...] If the rain is not coming, it's dead - so nature is very important.”

Considering weather changes, rising food prices and changes in farming, many community members at MCV reported a decrease of food availability in the area. Box 9 summarises participants’ comments about the decrease in food availability at MCV.

Decrease in food availability at the MCV

"Back in the days it was much better. You could plant twice a year in the vegetable gardens. Your carrots, cabbage in the winter and the other beans in the summer. [...] No chemicals, it was organic." – DW, 23 April 2022

"It was better compared to having to buy it. Yes, it was easier because in the old days everyone took care of themselves - planted and so on." – SV, 23 April 2022

"At that time the money was scarce but the food available was plentiful." – EB, 26 April 2022

Box 9: Decrease in food availability at the MCV

(2) Food Accessibility

Many members of the surveyed MCV reported a decrease in food accessibility. While groceries could be obtained from a local store in Wupperthal until the 1980s (DW, community representative, Heuningvlei, 23 April 2022), nowadays community members needed to travel to the nearest town, Clanwilliam, to reach the next supermarket. In effect, they access a supermarket only once a month by sharing a taxi. One of the elders (MG, community elder, Grasvlei, 25 May 2022) reported: "It's more difficult to get food now because we have to go to Clanwilliam to buy groceries." Another breadmaker (MH, Heuningvlei, 24 April 2022) added:

"That's why we have to be frugal now and why we need to eat less food to be able to survive until the end of the month."

Corresponding with the results in Vleiplaas, many participants at MCV highlighted that the increase in food prices make them feel less food secure. Various participants also mentioned that hunting traditions had diminished. MG emphasised that "hunting was better – because we didn't need to spend money."

The existence of a sharing economy was observed during data collection. Foods such as fruits and vegetables were exchanged among community members after the interviews, for example. Several participants indicated that exchanging and sharing has always been part of their culture. As such, Heuningvlei's community representative DW (23 April 2022) affirmed:

"You give it back to me and we go on like this. Suppose you do not have bread but I have bread, then you give me bread again when you bake again. We exchange. We always worked that way, back to the Khoi."

(3) Loss of Food Knowledge

In proportion, the number of participants reporting a loss of knowledge at the MCV was smaller than at Vleiplaas. However, some community members noted an erosion of TFK. In particular, elders expressed their concerns about children wanting to live 'modern' and 'fast'. One elderly breadmaker (AG, Grasvlei, 25 May 2022) stressed: "The old days were very good. Today, the kids do not learn much from the old people, that's why it is dying out." Highlighting the need to preserve local food culture, her sister (MG, elder breadmaker, 25 May 2022) added: "They [children] need to learn and need to remember. [...] We must take care of that in the future." Heuningvlei's community representative (DW, 23 April 2022) commented:

"There must be knowledgeable women in the future and the boys must know how to build the oven. This is very important. This is not for now – it is for the future. Let things go on and on, and, not stagnate here. [...] But many young people are too busy with cell phones. They do not hear what we say."

Participants at the surveyed MCV were more knowledgeable about *veldkos*. Interestingly, many participants mentioned positive characteristics related to *veldkos* such as 'healthy', 'nutritious', and 'tasty' while participants at Vleiplaas considered *veldkos* as something 'outdated' and 'primitive'. For example, one of the breadmakers (AM, Menskraal, 26 April 2022) affirmed: "*rysmiere* are very delicious. You put it on the warm sourdough bread and then you eat it. That's my food." Other participants reported that some people in the community still consume termites. Box 10 presents stories about *veldkos* at MCV.

Stories about *veldkos* at MCV

“Koekemakranka Bolle [Gethyllis]! My dad always told me about the bulbs they dug out of the ground.” – MH, 24 April 2022

“At that time we took a pot and then we picked those red berries for ourselves, Garra [Taaibos] - look there is a tree. [...] Another thing, we call it a Norretjie [Pelargonium] – it has a green twig on top and then you dig it out of the ground. It has such a nice thick red root. We peeled off the skin and ate the inside. It is very healthy. [...] There was another one with about four leaves on the ground. We used sticks to dig it out. We took off the top portion and ate the white bottom food. It was called the Turnip [Raaptol] [...] We also picked up such round things that sat on top of the rocks. We called it the *veldkos*.” – MG, 25 May 2022

“It [*veldkos*] is very nice. You put it on the old sourdough bread when it is hot and then you eat it. That's my food. [...] My father always took it out for us. I stood far away so that my father could take it out because I was afraid that the woodcutters would bite me.” – AM, 26 April 2022

“There was no sweets. Our children go and fetch something like *veldkos* and we take a stick and we dig it out and we eat it. That were our sweets for Sundays. You have almost like a type of *Watsonia* – there are two. Both of them had red flowers but when you go in the field you can see what is the right one to eat and which is the flower.” – DW, 23 April 2022

Box 10: Stories about veldkos at the MCV

Table 3 presents the congruence of food knowledge documented during the interviews with records of Khoi-San food culture.

Table 3: Congruence of food knowledge with records of earlier inhabitants of the Cederberg region

Traditional food mentioned during interview	Records of Khoi-San food culture
Veld tea (Rooibos tea, <i>Aspalathus linearis</i>)	Khoi-San peoples harvested and processed rooibos tea in precolonial times (Rooibos Council, 2018).
Turnip (Raaptol, <i>Cyanella Hyacinthoides</i>)	Edible bulbs, part of the Khoi-San food culture (Coetzee, 2015), rated as highly nutritious food (Archer, 1994).
Norretije (Bergpatat, <i>Pelargonium rapaceum</i>)	Norretije roots and tubers were used as food source and medicinal remedy by the Khoi of the South African Cape. Tubers are eaten – roasted on hot ashes. Medicinal use: anti-diarrhetic, infusion of the leaves for sore muscles (HSA, 2006; Van Rooyen and Steyn, 1999).
Garre (Taaibos)	Identified as Indigenous edible plant by Khoi-San descendants (De Vynck et al., 2016). Medicinal use: influenza, stomach cramps, and ailments (Nortje & Wyk, 2015).
Koekemakranka (<i>Gethyllis</i> species)	Fruity, aromatic plant used by Khoi-San peoples for perfume, medicine or as sweet treat for children. (Coetzee & Miros, 2009). Medical use: flatulence, stomach ache, and cramps (Musara, 2019)

5.3.2.2 Impact of Foodways Transition on Community Members' Health

Compared to Vleiplaas, fewer participants noted major dietary changes during their lifetime. Some elders emphasised that they still grow and eat the same vegetables such as beans and potatoes. However, grains are no longer cultivated and instead are obtained from supermarkets. Various community members reported an increase in diet-related diseases in the area.

Several participants noted an increase in the use of oil and processed supermarket foods. One breadmaker (MH, Heuningvlei, 23 April 2022) mentioned that “people no longer eat as healthy as they used to” and, therefore, are “getting sicker”. Similarly, Heuningvlei’s community representative DW (23 April 2022) commented:

“When you make food your way, longer, smell it, and you eat, you eat better. It's tastier than fast food. [...] That time was better and healthier because there are not so many things being thrown in. The people in the old times, did not have diabetes and high blood pressure. But now all that sickness is here.”

While meat has always been a part of people’s diets, many elderly participants emphasised that they did not know packaged meat when they were young. Instead, animals were slaughtered in the area. The meat was rubbed with salt, dried, and eaten fresh. Box 11 presents community members’ comments regarding dietary shifts and their impact on health at MCV.

Impacts of changes in diet on health at MCV

“Previously, food had more *krag* because they had not thrown in so many chemicals.” – RL, 23 April 2022

“Everything is an instant business today – *kitskos* [Afrikaans for fast food]. In those years, people ate baked corn and beans. Now everything comes from the store and it's *kitskos*. Food is not as healthy as it used to be.” – EB, 26 April 2022

“Food is less healthy than in the past because you now use oil, that makes you sick. You buy and store meat in the freezer, the *krag* is gone.” – MG, 25 May 2022

Box 11: Impacts of changes in diet at the MCV

5.4 Summary

The results of this study illuminate the close link between bread-making culture, community identity, history, and land. Bread-making has been a vital part of the local food culture in both case study communities for centuries. Changes in ingredients and knowledge transmission in effect of social, cultural, economic, and environmental shifts were recorded in both communities. These changes have, moreover, impacted food availability and accessibility, as well as food knowledge with likely consequences for community members’ health.

Chapter Six

Discussion

6.1 Introduction

This chapter discusses the findings in relation to the literature reviewed. The first part elaborates on the vital role that bread-making plays in the context of local socio-cultural and belief systems, along with history and connection to land. The following part discusses the drivers of changes in foodways and how adaptations of traditional food practices can be vital for their survival. Thereafter, the implications of these changes on food and nutrition security, as well as limitations of the nutrition transition theory, will be examined.

6.2 Bread-making, Foodways, and Heritage

The Cederberg bread-making culture is an example of the adaptation of foodways to socio-cultural, political, and ecological changes. Coetzee and Miros (2008) indicate that Khoi peoples prepared various breads and cakes from plants by drying and grinding *veldkos* like bulbs and roots before wheat was introduced to the area in the 17th century. Like the traditional bread of the northern Cederberg communities, the Khoi breads were usually baked on hot coals and termite heaps were used as a baking oven (Coetzee, 2015; Swanton, 1902).

Baking bread is part of the Khoi food culture, as well as European cookery. Khoi bread-making traditions have adapted to colonial influences, such as the introduction of wheat and Dutch recipes. In his historical novels about the Cape cookery and food culture, Leipoldt (1952) describes various bread-making recipes such as 'potato yeast' and 'meal yeast' similar to those recorded during this research. The Afrikaans food journalist emphasises that these European recipes spread across the Cape when the settlers arrived. However, the technique slightly differs from the way in which *soetsuurdeegbrood* and *ou suurdeegbrood* are prepared. For instance, European breads were baked in Dutch brick or iron ovens (Leipoldt, 1952), while bread is traditionally baked on hot coals in the northern Cederberg communities. A published recipe for the *soetsuurdeegbrood* and *ou suurdeegbrood* baked in the northern Cederberg did not exist before this study.

Literature reviewed suggests that foodways are closely linked to issues of identity, culture, sense of place, and history (Kloppenburger et al., 1996; Kroll, 2016; Rearick, 2009). Residents of both case study communities believed that their bread recipe was unique to the area. These findings are in keeping with the literature about bread-making in rural communities of the Cederberg which highlights the crucial role that bread-making plays as a cultural community heritage embedded in a connection to place and ancestors (Visser and Du Pisani, 2016).

Considering the dynamic and contested contexts of cultural identities among coloured communities in South Africa (Kroll, 2016), foodways mark an integral part of a shared historical and cultural experience embedded in collective memory. The bread-making culture, expressed in food production, preparation, and consumption reflects a TFK system unique to a place and social group. Thus, food heritage, such as bread-making culture, plays a vital role in the formation of community identity.

Traditional Food Knowledge and food culture are concepts deeply embedded in history and land (Kloppenburger et al., 1996; Kuhnlein et al., 2013; Rearick, 2009). For many community members, bread incorporates cultural and spiritual values, symbolising a connection to their ancestors. Some participants considered bread as a creation of God/the Lord. It is noteworthy that concepts of 'God' were inherited from Western missionaries who aimed to spread colonial mentality in hand with the destruction of Indigenous faith and culture (Boezak, 2017).

With the arrival of wheat and European recipes, the local bread-making culture has adapted and new recipes, combining both techniques, have evolved. Even today, preparation techniques are consistently adapting to modern lifestyles, including the shift from grinding wheat to buying flour. Modern elements are combined with old, traditional processes, like baking on hot coals, which ensures a continuation of the food heritage.

The findings of this study indicated the vital role that traditional bread-making plays in participants' connection to their (1) ancestors and history; (2) environment and sense of place; (3) socio-cultural system; and (4) belief system. Figure 22 presents the underlying factors that position bread-making within these four spheres.

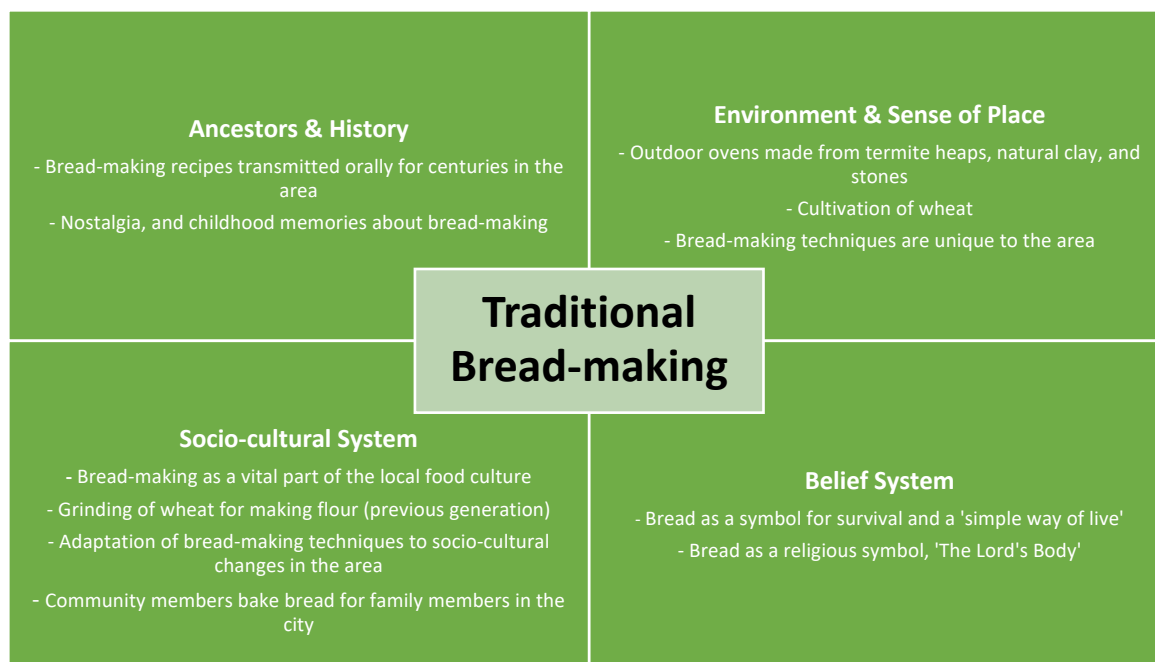


Figure 22: Traditional bread-making in relation to ancestors and history, environment and sense of place, socio-cultural systems, and belief systems

Traditional foods can become a livelihood opportunity while strengthening the visibility of cultural heritage. Traditional food knowledge can be a symbol of heritage, trademark, and culture (Akinola et al., 2020) and, therefore, can be particularly important to communities of mixed-ethnicity such as coloured communities. It is noteworthy that the number of people expressing a sense of pride and ownership was higher at Vleiplaas where the community has offered several bread-making workshops to visitors. This elevated sense of awareness about the value of their TFK could be related to the popularisation of their local food heritage.

6.3 Changes in Foodways

6.3.1 Drivers and Dynamics of Changes in Foodways

A process of social, economic, and environmental change has taken place in the northern Cederberg area over the past three centuries. Foods such as plants and meat formerly obtained from the natural environment have been replaced by processed and pre-packaged supermarket products. These findings support the nutrition transition theory (see section 2.4.2) – a shift from traditional diets to a reliance on modern, Western diets (Haysom, 2015;

Nnyepi et al., 2015; Popkin et al., 2020). However, unique socio-political and historical circumstances refine the nutrition transition hypothesis in the case of the northern Cederberg communities. Figure 23 illustrates the four main factors identified for this gradual process of changes to foodways. The following subsections will elaborate on these four drivers in congruence with the reviewed literature.

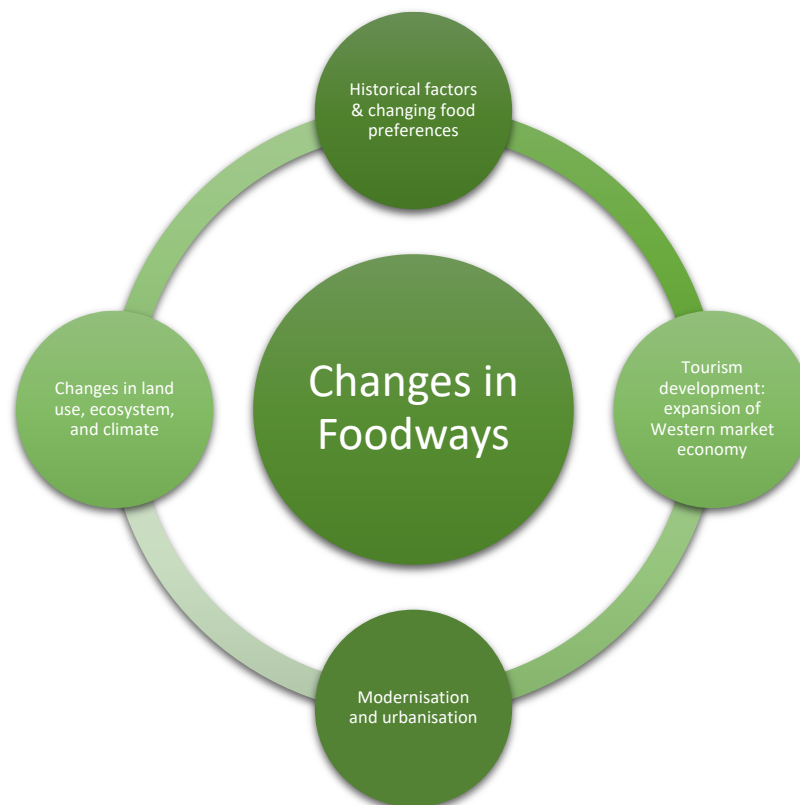


Figure 23: The four main drivers for changes in foodways in rural communities in the northern Cederberg

- (1) Historical factors and changing food preferences related to the expansion of dominating Western values and negative perceptions about traditional foods

Literature reviewed (section 2.3.3) highlighted the influence of historical and cultural contexts on transitioning foodways (Reading, 2018; Richmond et al., 2021). Western food taboos have had a direct influence on dietary preferences in areas adapting to Westernised lifestyles (Hawkes, 2006; Popkin, 2006). Crush et al. (2011) highlight the influence of desirable ‘status foods’ as a vital driver of food choices. These perceptions are particularly prevalent among younger generations and have impacted TFK transmission in both communities. Elders’

disheartenment regarding the lack of interest in learning about traditional foods among the younger generation aligns with former studies observing a decline in TFK transmission (Kuhnlein & Receveur, 1996; Ruelle & Kassam, 2013).

Negative perceptions about eating from ‘the bush’ are frequently linked to the necessity of sourcing free food as a consequence of rural subsistence lifestyles and low incomes (Cloete & Idsardi, 2013). However, the acceptance of traditional foods, along with their accessibility, is a critical factor for the re-integration of these foods into local diets (Power, 2008).

Vleiplaas participants’ negative perceptions of traditional foods raise questions about the origin of these assumptions which, in turn, influence food preferences. Centuries of racial discrimination during colonial and apartheid times likely left an intergenerational imprint on how people relate to their cultural practices. These challenges align with literature about Indigenous foodways in Canada where historic processes of colonisation and racial discrimination had similar effects on TFK transmission (Richmond et al., 2021).

It can be argued that negative perceptions are closely rooted in a colonial logic which describes traditional foods as trivial (Maathai, 2010). Surprisingly, however, participants at MCV attributed several positive attitudes and memories to *veldkos*, contrary to members of the Vleiplaas. This discrepancy could be explained by a considerably higher exposure to Western lifestyles at Vleiplaas – situated at a popular tourist destination.

One example of Western social norms that influence peoples’ food preferences is the consumption of insects. Beyond their nutritional qualities (DeFoliart, 1992), insects have long been rejected in dominating, Western cultures (Looy & Wood, 2014; Meyer-Rochow, 2019). This perception aligns with an elderly respondent who reported that she could not eat insects such as *rysmiere* anymore since people would condemn her.

However, insects as a nutritious and edible resource have increasingly gained attention in literature, media, and the hospitality industry (Love & Lawler, 2021; Patel et al., 2019). Edible insects as a sustainable alternative to address food insecurity have led to a growing insect farming industry in Europe and the United States (Ayieko et al., 2021). With this shift in

attitude towards entomophagy,¹² the social acceptability of eating insects could change in rural communities impacted by Western cultural values.

The neo-colonial food regime rejects subsistence lifestyles and peasant cultures (McMichael, 2016). Foraging and consuming freely available food could therefore be seen as a resistance to taking part in the market economy. Scholars highlight this tension between capitalism and local food systems (Grey & Patel, 2015; McMichael, 2014). Marxist concepts of commodity fetishism describe the economic relationship modern society has with goods such as food (Morton, 2017). The relations of commodity production have led to an alienation from the production process together with a distancing from the destructive social and environmental processes under capitalism (Hudson & Hudson, 2003). The colonial/modern food system is based on a capitalist ontological position that de-territorializes food from our bodies and from land and, in effect, from ancestral foodways (Montalvo & Zandi, 2011). The next subsection elaborates on the influence of tourism development on foodways changes in the case study communities.

(2) Tourism development – expansion of a Western market economy

Tourism development at Vleiplaas has provoked changes in household livelihood systems. Several community members mentioned a lack of time related to their occupation leading to the abandonment of subsistence farming – a critical part of their culture. This finding aligns with earlier studies observing similar changes in self-reliance related to an increase in economic development and job opportunities in the area (D'Ambrosio & Puri, 2016; Harrison & Maharaj, 2017). However, literature has placed little emphasis on the effect of changes from outdoor to indoor lifestyles on decreasing traditional knowledge about edible landscapes.

At Vleiplaas, where rapid tourism development has taken place since a popular climbing spot was discovered in the area, almost all participants were employed in tourism. The availability of new jobs has decreased community members activities in natural environments like foraging or farming. Although a guest lodge and tourist activities such as the donkey hiking

¹² Technical term for the practice of eating insects.

trails exist in Heuningvlei, the area receives less tourists and most people at the MCV remain engaged in farming activities. It is noteworthy that both memory and knowledge about *veldkos* were stronger at the MCV where community members remain engaged in commercial and self-sufficient agriculture.

Former studies have shown that tourism development frequently leads to a decline in traditional practices, such as subsistence agriculture (Harrison & Maharaj, 2017; Steward, 2007), as a result of land and labour competition (Njoya & Seetaram, 2018). The increased knowledge about edible plants among participants at MCV could therefore be related to their farming lifestyles encouraging the transmission of traditional ecological and agricultural knowledge. It is plausible that shifts in livelihood systems have contributed to an erosion of traditional ecological knowledge at Vleiplaas.

Community members' negative perceptions of tourism align with critiques of the tourism industry. Critical scholars highlight the process in which tourism development in developing countries has reinforced economic dependency and system inequalities (Bianchi, 2018; Koot, 2020; Lepp, 2008). A Marxist approach to analysing working conditions and dependency structures of the capitalistic tourism industry highlights logic of exploitation as a result of uneven power dynamics and class relations (Bianchi, 2018).

In a recent study that explored postcolonial paternalistic relationships between tourism businesses and Indigenous groups, the latter described their working conditions as exploitative and paternalistic (Koot, 2020). At Vleiplaas, most community members are employed in low-wage labour jobs which have not resulted in capacity-building or self-reliance (Lepp, 2008). The market-driven approach to tourism, present in the research areas, showcases an unequal distribution of benefits among social classes.

One resident at Vleiplaas complained about increases in food prices due to tourism development. Although tourism development has received a lot of praise as an effective means of poverty alleviation (Blake et al., 2008; Scheyvens, 2007), studies from Botswana and Kenya warn of negative impacts on poor populations, such as price increases for goods and services (Folarin & Adeniyi, 2020; Njoya & Seetaram, 2018). Small increases in prices impact

poor households' purchasing power and can influence their food choices. This, in turn, negatively affects FNS.

While literature raises concerns about food deserts (Battersby, 2019) and high food costs (Heim & Pyhälä, 2020; Kroll, 2016), the findings of this study highlight a positive benefit related to these factors. Several participants indicated that they continue making bread because *winkelbrood* is overpriced. Thus, the unaffordability of supermarket foods could have a positive effect on the preservation and revitalisation of traditional foods. Strengthening TFK transmission is thus important to realise the potential that traditional foods can play in reducing food costs.

The next subsection presents the influence of urbanisation, closely linked with modernisation, as a major driver of changes in foodways.

(3) Urbanisation and modernisation

Participants did not prepare traditional bread while living in an urban environment. Although some relearned to make traditional bread when they returned to the area, others never learned how to bake bread, or only learned about new bread-making techniques. Community members expressed their frustration about the lack of bread-making knowledge among family members who live in cities. Other case studies show similar effects of urbanisation and rural-urban migration on TFK (Ellena & Nongkynrih, 2018), leading to a higher degree of acculturation (D'Ambrosio & Puri, 2016).

Arjona-García et. al (2021) highlight that urbanisation may lead to a decrease in TFK transmission due to increased access to modern products and medicine. Elders' observations about a shift from traditional plant medicine to modern medicine echoed these concerns. This concern was particularly highlighted at Vleiplaas which is surrounded by a more urbanised and degraded habitat. In contrast, the MCV are surrounded by unspoiled landscapes with rich biodiversity. Several breadmakers at Vleiplaas underlined the influence of modern technology, such as the internet, electronic ovens, and fridges on altering foodways.

Urban development increases the exposure to modern foodstuff and new technologies. One younger participants who spent time in urban areas appreciated changes in diets toward a

modern diet that includes fast food which are often associated with urban poor diets (Crush et al., 2011). However, he considered these foods as 'luxuries' that 'poor' people cannot afford. It is therefore likely that the increased exposure to Western, modern lifestyles at Vleiplaas has not only altered foodways, but has also compromised the intergenerational transmission of TFK.

At the MCV which lie further away from urban areas, community members are more connected to traditional lifestyles. Fewer participants expressed the influence of modernisation on changes in foodways. This observation is echoed by D'Ambrosio and Puri (2016) who associate a higher degree of acculturation and a decrease in TFK with being closer to urban areas. Alongside modern development, climate change has transformed local landscapes and foodways.

(4) Changes in land use, ecosystem, and climate

Members of both communities noted an abundance of food in the form of cultivated food, game meat, and wild foods in their youth. Some of the elders emphasised that hunting is a vital tradition in their culture and that they would like to reintegrate wild meat into their diet. Participants at Vleiplaas described drastic changes in expenditures for food since food prices have increased. As such, free food is no longer obtained from the environment and surrounding farms. Changes in land use from farming land to tourism development as part of the CWA have made community members more dependent on supermarkets.

Other studies observe a similar effect of economic development based on land use change and conservation programmes encouraging acculturation and participation in a market-based economy (D'Ambrosio & Puri, 2016; Heim & Pyhälä, 2020). They also identify burdens associated with such land use changes, including a dependence on store-bought foodstuff.

Surprisingly, participants did not raise conservation as a factor leading to changes in their culinary practices. Former studies highlight the influence of conservation restrictions on foodways (D'Ambrosio & Puri, 2016; Heim & Pyhälä, 2020; Wilson, 2011). For example, hunting restrictions have banned a former hunter-gatherer community in Namibia from subsistence food production (Heim & Pyhälä, 2020). Yet, changes in land use patterns had an

impact on changes in foodways, such as a higher degree of reliance on convenience store foods.

One of the main reasons identified for land use changes from farming to tourism in Vleiplaas was the economic challenge of farming. Although community members at MCV are still engaged in farming activities, many complained about agricultural price volatility which has not only caused a shift from wheat to rooibos farming, but also remains a major challenge for small-scale rooibos farmers. Literature similarly highlights the 'class fate' of the peasantry as a direct result of the globalised food and agricultural system (Giller et al., 2021; McMichael, 2016). Community members also observed changes in weather patterns, including lower precipitation, which challenged farming.

Participants reported a dramatic loss of livestock and crops during recent droughts in both case study communities. A study about the effects of climate change on the farming sector has shown that the decrease in total employment in the farming industry will disproportionately affect poor households in the Western Cape province (Erasmus et al., 2000). In fact, climate change has and will continue to affect land use patterns with a severe effect on subsistence and small-holder food production (Morton, 2007). These changes, in turn, are likely to reinforce a reliance on commercial foods.

6.3.2 Innovations and Adaptations of Traditional Food Culture

The study area was once inhabited by Khoi pastoralists who relied on their traditional knowledge of *veldkos* such as tubers, bulbs, termites, and small game (Coetzee, 2015). With the land dispossession of Indigenous peoples during the colonial and apartheid period, many of these food practices were eroded. The results of this study illustrate that some culinary practices, such as wheat breads, were adopted or infused with traditional practices. Other foodways, including harvesting *veldkos*, remained a part of local diets in previous generations or during elders' childhood.

Although traditional food culture is based on historical experiences, it adapts to social, environmental, and economic changes. This adaptation is key to survival and innovation (Ruelle & Kassam, 2013). During the colonial period, the export-orientated production of wheat contributed to the uprooting and disfranchisement of KhoiSan peoples as land was

given away to settlers on a first-come, first-served basis with the requirement to be cultivated or fortified (Guelke, 1976). Although the colonial roots of wheat production in the Cederberg area are indisputable, this crop has become a vital and accepted part of local food culture.

Changes in the bread-making culture demonstrate the dynamic and adaptable nature of traditional food culture. While baking breads on hot coals and open fire has been part of the local culture for centuries, new recipes emerged due to the introduction of wheat in the area. Certain elements of traditions such as preparation techniques remained largely unchanged while others, including ingredients, oven building materials, and gender roles have transformed.

Despite wheat being a non-indigenous species, community members considered *ou suurdeegbrood* and *soetsuurdeegbrood* traditional breads to be unique to the area. Moreover, modern utensils like oil drums have increasingly been used for building outdoor ovens. Literature supports this perspective by emphasising that traditions such as food cultures are dynamic, adaptive, and transform to sustain in new realities (Ratuva, 2009; Ruelle & Kassam, 2013). Emerging technologies and new ingredients are imparted with existing traditions to maintain “relevance” and “vibrancy” (Ruelle & Kassam, 2013:321).

Germond-Duret (2016) highlights that dichotomous thinking is not desirable when examining traditional cultures and their evolution. As such, he affirms that obsolete perceptions of ‘traditional’ have led to distorted outsider perceptions about Indigenous peoples and their culture. In *Spectres of Inauthenticity*, Jolly (1992) emphasises the arrogance of Westerners in defining their own change as progress, but the same adaptation in Indigenous societies as adulteration or loss of their culture.

Modern development can, however, be seen as both a threat and a benefit, for local communities. For example, one participant in Vleiplaas appreciated some of the changes in modern technology. As an elderly widow, she could avoid the strenuous work of collecting wood for the outdoor oven and thus, continue to bake bread – showing that modern upgrades can be appropriate and contribute to FNS.

Many scholars highlight the important role that women play in the transmission and preservation of food knowledge (Beoku-Betts, 1995; Nyamnjoh, 2018). Earlier documentation of the Cederberg bread-making culture indicated that recipes are transmitted orally by women (Visser & Du Pisani, 2016). Although most community members reported that they learned to make bread from the female head of the family, some participants noticed an increase in men baking bread. Some participants highlighted that traditional gender norms have changed within the last decade.

However, there have been few studies about a gradual shift in gender roles regarding TFK transmission in the Global South. Further studies are, thus, needed in order to explain these changes and their impact on FNS. Without doubt, changes in foodways have influenced FNS. The next section elaborates on community members' perceptions of these impacts.

6.4 Implications of Changes in Foodways on Food and Nutrition Security

Most community members reported changes in diet from fresh foods obtained from the natural environment to supermarket products. As such, participants highlighted an increase in the intake of oil and sugar, as well as the consumption of packaged meat. Several participants associated dietary changes towards modern foods with an increase in diet-related diseases in the area. Former studies have identified similar shifts in diet as a result of rapidly growing economies, making unhealthy, highly refined foods more available to low-income populations (Nnyepi et al., 2015; Pereira, 2014).

Participants also reported a decrease in knowledge and usage of *veldkos* having an impact on community health. Community elders noted that diseases such as high blood pressure or diabetes have dramatically increased during the past 50 years. According to other studies, the consumption of traditional foods and medicine can improve nutritional and dietary quality (Heim & Pyhälä, 2020; Kuhnlein et al., 2013), while enhancing cultural, social, and spiritual health (Bodirsky & Johnson, 2008; Chan et al., 2006).

The decline in TFK and consumption has, therefore, been linked to a decrease in FNS among many rural communities (Kuhnlein & Receveur, 1996; Kwik, 2008; Richmond et al., 2021). The shift from fresh, stone-ground flour to refined, pre-packaged flour is one example of a change in foodways affecting community members' health.

While members of the MCV still sifted and ground wheat before making bread when they were young, elders at Vleiplaas recalled stories about the milling of wheat from the previous generation. A recent study on the health effects of refined flour revealed an association with a higher risk of strokes and cardiovascular disease when compared to stone-ground flours (Swaminathan et al., 2021). As such, refined grains contain less dietary fibre and essential vitamins and minerals (Serra-Majem & Bautista-Castaño, 2015). Some research suggests that the dramatic increase in high blood pressure, heart disease, and strokes could also be linked to changes in flour.

Considering that bread is a crucial food source for the communities, studies show that changes in its ingredients is proving to have an impact on community members' health. However, this must be interpreted with caution in consideration of additional factors such as increased use of alcohol, stress, and environmental factors. Yet, with literature proving the significantly lower nutritional value of refined flour compared to stone-ground flour (Swaminathan et al., 2021), this shift has likely impacted community members' FNS.

Many participants expressed their concerns about the impact of *winkelbrood* on health. Wheat crops are heavily reliant on the use of agrichemical products; refined wheat flour is the main ingredient of store-bought bread (Quinn et al., 2011).

Alongside wheat flour, South Africa's white breads are often made with genetically modified (GM) soya flour. The African Centre for Biosafety (2014) warns of various health risks related to the pesticides and herbicides used in the production of GM soya. For example, glyphosate residues have been associated with an increased risk of kidney damage and birth defects.

White supermarket bread also frequently contains additional unhealthy ingredients, such as high fructose corn syrup, bleach, and chemicals used as food preservatives (Hafner, 2015). White bread is digested rapidly due to its low fibre and nutrient content (ibid). *Winkelbrood* was considered not as filling and more expensive. Therefore, participants felt like they need to consume larger amounts compared to self-made bread. Higher expenditures for bread may also, in turn, cut spending on other food products, possibly resulting in cutting costs for other food products.

The findings of this study indicate that the decline in food availability was associated with a decrease in food farming in the area. Vleiplaas residents' negative perception about changes in land use from smallholder farming to tourism align with a former study highlighting the positive impact of subsistence farming on FNS in rural areas (Mashamaite, 2014). The findings of this research, however, contradict former studies highlighting the positive effects of tourism on FNS (Richardson, 2010). In the research area, tourism businesses and land remain owned by community outsiders, who benefit the most.

Participants were frustrated that healthy food was less affordable. Literature has shown that pre-packaged and ultra-processed foods tend to be more accessible than fresh foods in African countries and thus leading to unhealthier food choices (Kroll, 2016; Reardon et al., 2003). Although the assessment of people's food choices was beyond the scope of this study, many participants complained about high food costs and unhealthy shifts in diets toward an increase in packaged and chemically-processed foods. This may be indicative of a correlation between rising food prices and innutritious food choices.

Members of both communities complained about long distances and high commuting costs to reach the next grocery store. These challenges could be another factor influencing food choices towards cheaper food options with longer shelf life. The food desert framework similarly links the absence of supermarkets with FNS (Short et al., 2007). Critical scholars, however, warn of a capitalistic simplification of the food security nexus that neglects lived experiences of food insecurity in South Africa while benefiting the corporate-led food system (Battersby, 2019).

Therefore, living in closer proximity to a food store does not necessarily lead to improved FNS. Instead, as the findings of this study affirm, FNS is a complex and multidimensional issue that needs to consider unique individual, socio-cultural, and economic conditions embodied in the food system (Clapp et al., 2022).

Local factors that have impacted FNS in rural communities in the northern Cederberg are (1) acculturation to Western food preferences; (2) decrease in subsistence farming (food availability); (3) increasing food cost (food access); and (4) erosion of TFK. Figure 24 presents

these factors within the broader drivers and dynamics of changes in foodways that have negatively impacted FNS.



Figure 24: Broader context and local factors of changes in foodways that have impacted FNS

Food availability and food access (Figure 24) are recognised and incorporated in contemporary FNS theory. However, acculturation to Western culture and TFK are neglected in most FNS interventions. The findings of this study demonstrate the importance of recognising cultural acceptability, along with a better understanding of more flexible and appropriate FNS policies (Hammelman & Hayes-Conroy, 2015). Many participants observed an increase in diet-related diseases in the area coupled with a decrease in consumption of traditional food and medicine. Literature has confirmed the vital role that traditional foods can play in enhancing FNS (Akinola et al., 2020). FNS interventions, however, frequently

neglect broader factors contributing to communities' health and well-being (Akinola et al., 2020; Power, 2008).

Food has become a globalised commodity. This framing abandons intangible values, such as identity and cultural values. Power (2008) highlights the necessity to incorporate cultural domains into FNS conceptualisations and interventions. As such, "indicators of cultural food security might include the levels of traditional food knowledge, access to traditional food systems, and the safety of traditional/country food" (Power, 2008:96). Many community members emphasised the cultural, nutritional, and medicinal value of traditional foods. The inclusion of traditional food practices could, therefore, play an important role to improve FNS in the area.

6.5 The Nutrition Transition Theory in the South African Context

In accordance with the nutrition transition theory, rapid urbanisation, industrialisation, and economic shifts have provoked dietary changes (Crush et al., 2011; Popkin, 2006) in the case study communities. Changes from wholesome and mostly plant-based diets to highly refined and processed foods high in saturated fats, sugar, and salts have impacted social classes in uneven ways (Popkin, 1994). The corporate-controlled South African food system favours powerful actors and discriminates against less powerful ones, such as peasant cultures (McMichael, 2005). In the case of Vleiplaas, the unequal power relations of the food industry have led to a demise of farming in the area.

This, in turn, has made community members more dependent on supermarkets. Particularly affected by price increases and high commuting expenses to reach the next supermarket are low-income households. The findings of this study, thus, underline the effects of urbanisation and economic changes in favour of agribusiness interests on diet-related health outcomes. Yet, along with economic development, socio-cultural and environmental changes have impacted FNS in the research area.

Nutrition transition theory focuses on economic growth and urbanisation as leading factors provoking dietary shifts towards modern, Western diets (Popkin, 2006). Without a doubt, the availability of refined and processed foods has led to a dramatic decrease of chronic, diet-related diseases in the study area. Yet, the historical, cultural, and political forces that impact

changes in foodways are neglected in the nutrition transition framework. The acculturation to Western food preferences and erosion of TFK has taken place since the beginning of colonialism in South Africa.

Colonial occupation laid the foundations of the nutrition transition. The nutrition transition, however, neglects the influence of colonial and neo-colonial dynamics affecting FNS in South Africa. The historical roots of the nutritional transition have particularly affected marginalised communities in postcolonial societies. Figure 1 (section 2.4.1) illustrates the chronological development of nutritional changes beginning in the mid-17th century.

6.6 Summary

This chapter investigated the findings of the study with regard to themes identified in the literature reviewed. Changes in bread-making and broader foodways in the research area have been influenced by colonial and neo-colonial forces like acculturation to Western ideologies and the neoliberal food regime. These changes have had direct implications for food and nutrition security, including the increase in diet-related illnesses reflected in the nutrition transition theory. The chapter concluded with a historical perspective on the nutrition transition.

Chapter Seven

Conclusion and Recommendations

This study investigated food heritage and changes in foodways through the lens of traditional bread-making in rural communities of the northern Cederberg. It did so using semi-structured interviews, participatory workshops, participant observation, and secondary literature. The influence of Western food preferences, a decline in food farming, as well as tourism development, along with urbanisation and modernisation, were identified as the main drivers for the foodway changes that has taken place in the study area.

These impacts were stronger in Vleiplaas where community members are mainly employed by the tourism industry and more exposed to Westernised lifestyles. A strong decline in subsistence farming at Vleiplaas has made participants more dependent on supermarket foods while many inhabitants of the MCV remain self-reliant.

Participants expressed several burdens associated with tourism development in Vleiplaas. These included negative impacts on FNS since subsistence farming has declined and excess food from neighbouring farms can no longer be obtained. Moreover, emerging job opportunities in tourism have provoked a change from outdoor lifestyles (farming) to indoor (domestic workers) lifestyles. This shift is likely to have disconnected participants further from traditional knowledge about edible and medicinal plants.

On the other hand, the level of knowledge was higher, and perceptions about *veldkos* were more positive at MCV where people are still involved in farming. Although tourism can bring benefits to rural communities (Blake et al., 2008; Lepp, 2007), it is crucial to consider the associated risks and impacts on traditional knowledge and cultures. This caution applies in particular if commercial development is undertaken by wealthy outside actors instead of a bottom-up approach that strengthens communities' capacities and agency.

A closer examination of the drivers and dynamics that have transformed traditional foodways is critical for their revitalisation. Some adaptations may be desired, or even necessary, in rapidly changing contexts while others are a result of discriminatory practices and economic

or environmental pressures. While the right to modify cultural practices is critical (Germond-Duret, 2016; Ruelle & Kassam, 2013), the access to and acceptability of traditional food culture is equally important (Power, 2008). Adaptations of foodways should, thus, not be accompanied by a loss of self-determination.

Through the lens of traditional bread-making, this study elucidated the vitality of TFK for health, culture, heritage, and identity. Participants in both case study communities expressed a strong sense of pride, ownership, and community identity related to bread-making. Narratives about participants' ancestors grinding wheat for fresh flour and baking in termite heaps illuminated the liveliness of bread as a connection to land and ancestors. Along with this continuity to the past, adaptations of bread-making techniques to socio-cultural, economic, and environmental changes were crucial for their survival. Having a modern oven, for instance, enabled an elderly participant to continue making bread.

In contrast, economic globalisation and climate change provoked an erosion of wheat and subsistence farming which many participants associated with negative impacts on FNS.

Another example of the adaptation of food culture are *ou suurdeegbrood* and *soetsuurdeegbrood* which represent a culinary fusion between local food culture and Western influences. Colonialisation has led to the development of 'alternative' traditional dishes such as wheat breads baked in local ways. While a dichotomy between the modern (Western) and tradition (Indigenous) frequently leads to stigmatisation and stagnation (Germond-Duret, 2016), both can complement each other, with greater agency for rural communities to define their realities and gain agency for a 'bottom-up' development approach.

Changes in foodways need to be examined in a broader context and with a focus on outcomes for the communities' well-being. The right of communities themselves to define what can be considered a 'traditional' food or preparation technique is thus critical. Researchers and media need to include community members, in particular elders, voices when defining and engaging with traditional foodways. Moreover, the contextual drivers that influence food choices and food-related knowledge transmission need to be considered. As such, standards for FNS often evolve in response to neo-colonial, Western forces and are enforced on local communities (Hammelman & Hayes-Conroy, 2015).

Western, modern diets which promote the production and consumption of ultra-processed (lifeless) foods are underpinned by a colonial separation of food from body and land. This de-territorialization has resulted in the cultural alienation from sacred cycles of food gathering, production and consumption, which have been replaced by the agro-chemical poisoning, processing, and packaging of foods (Montalvo & Zandi, 2011). As many critics have observed, (D'Ambrosia & Puri, 2016; Heim & Pyhälä, 2020; Ruelle & Kassam, 2013), modern, ultra-processed foods are inappropriate to ensure sustainable, healthy and culturally-appropriate diets for all.

One of the objectives of this study was to contribute to a wider understanding of changing foodways in the context of FNS. As such, the shift from whole-grain, stone-grounded flour bread to bread made from white, refined flour which is linked to various health risks (Dalvie & London, 2009; Swaminathan et al., 2021) is likely to have impacted FNS in the communities. It is important to note that participants articulated their awareness with regard to the negative health impacts of these dietary shifts.

While economic, cultural, and environmental forces had direct consequences on people's food choices, it was beyond the scope of this study to closely examine the drivers of participants' food choices. Further research is needed to assess people's dietary patterns concerning these dynamics and their relation to the spread of diet-related diseases in the area.

The rapid loss of TFK that has taken place in both case study communities is, moreover, likely to have affected FNS. Although some of the elderly participants recalled TFK about *veldkos*, some younger respondents were less knowledgeable with regard to edible and medicinal plants. In Vleiplaas, the loss of TFK has been associated with negative perceptions about traditional foods. As the findings of this study have shown, it is crucial to include historical and local contexts in FNS discourses.

Centuries of land dispossession and racial discrimination have eroded traditional foodways of rural communities in the northern Cederberg. As such, the decline of subsistence farming and erosion of TFK are related to issues of land expropriation embedded in food system inequalities as a consequence of unfettered economic development. First-hand

understanding of distinct historic (and ongoing) experiences of discrimination as legacy effects of colonialism and the apartheid regime, alongside environmental change, is critical for appropriate FNS in South Africa.

Figure 25 illustrates challenges to the revitalisation of traditional foodways embedded in global market forces, Western ideologies, and environmental changes. Furthermore, the characteristics of traditional foods are elucidated as drivers for cultural and nutritional health. Pathways to revitalise traditional food practices and dietary habits include the support of knowledge transmission and the elimination of assumptions about traditional foods relating to backwardness and poverty. Furthermore, the strengthening of communities' voices and agencies alongside their right to adapt and define traditional foods is vital for genuine FNS intervention.

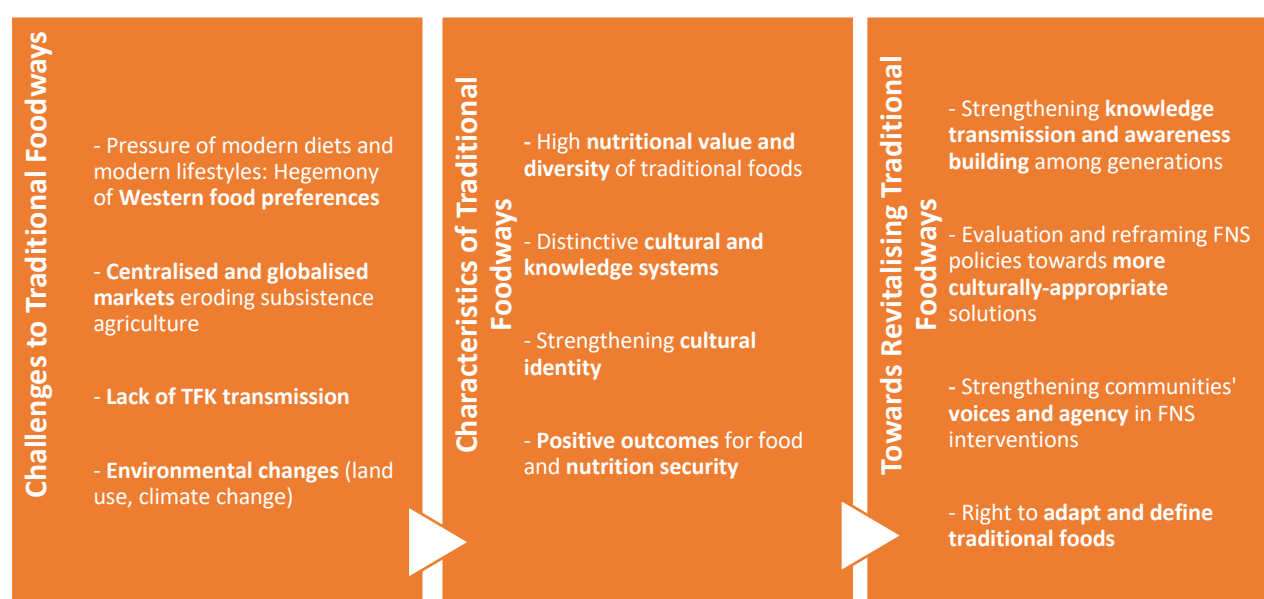


Figure 25: Revitalising traditional foodways: challenges, characteristics, and pathways

This research aimed to contribute towards the healing and recovery of people's identity and culture by enhancing the visibility of traditional bread-making. Besides the documentation in this thesis, an illustrated, community-owned bread-making booklet printed in the local language aimed to increase awareness, as well as support knowledge preservation and transmission for future generations. Many participants expressed that the interviews and

workshops helped them to recall food-related memories and knowledge. The study also supported the development of bread-making workshops for visitors in Vleiplaas.

The documentation and transmission of traditional foodways are essential for their revitalisation. Drawing on several cases (Heim & Pyhälä, 2020; Ruelle & Kassam, 2013) further programmes could include nutritional education in schools, facilitated knowledge exchange events to support food knowledge transmission between elders and youth, interventions to promote self-reliant farming, and documentation of traditional food knowledge in culturally appropriate ways, such as a recipe book. It is important to note that the co-create team has successfully documented local plant knowledge and developed a range of medicinal products which are sold by the Vleiplaas community.

It lay beyond the scope of this study to evaluate the outcomes of this initiative. An evaluation process of the project could, however, provide meaningful insights for future engagements. Considerably, the involvement of communities in finding pathways and ideas for knowledge transmission should lie at the core of such interventions. That being said, I want to reflect on the research process and limitations of this study.

As a white, Western academic, my positionality in this research inevitably had impacts on data collection and analysis processes. Although a basic level of trust and mutual understanding could be established between the participants and the researcher (myself) through engagement with community members beyond the interviews (presence at community events and bread-making workshops), learning basics of the local language, and applying interactive research methods – it is crucial to acknowledge the limitations of research with communities from an outsider perspective.

Systematic, critical self-reflection (Appendix C) as an essential part of my research approach provided various insights into the complex dynamics that influenced my interactions with the participants. As such, I felt confronted with my positionality in various situations throughout the research process. Highlighting the vitality of community members' involvement in the research process, I echo calls for supporting engaged scholars that employ community members in the conceptualisation and design of research, as well as data collection and analysis (Keane et al., 2017; Smith, 2021).

PAR that builds on active collaboration with participants is critical for research that addresses local needs while strengthening community capacities and agency. I also wish to mention various positive responses that I received from community members during my research process. Several elders articulated their appreciation for the interviews and workshops. For example, one elder breadmaker affirmed: “It was good. I learned something, because sometimes you forget these stories but you helped me remember them.” (AG, 25 May 2022, Graspvlei).

The results and conclusion of this research provide a basis for further research. I suggest several areas for research in the area. Overall, special attention is required to better understand the links between landscapes, food heritage, identity, and gender, as well as their relation to FSN. While changes in foodways were exemplified by the means of bread-making in this study, there are various other foodways that deserve further in-depth examination.

Looking forward, a recent HLPE (2022) report on data collection and analysis tools for food security and nutrition was published while this study was completed. The report advocates for the just inclusion of voices most affected by FNS policies, namely, rural peasants, Indigenous peoples, and vulnerable groups. I conclude the research quoting one of the community members who elucidates the vitality of traditional foods for future generations:

“Dit is baie belangrik om met ander mense die kennis te deel en dat hulle die brood kan maak. Ons moet sorg vir die toekoms.”

“It is really important to share the knowledge with other people and that they are able to make bread. We must take care of that in the future.” (Afrikaans to English translation)

– MG, community elder, Graspvlei

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Personal Communication

- Du Plessis, D. Personal communication, interview, 18 June 2022.
- Van der Westhuizen, D. Personal communication, interview, 25 April 2022.
- Van Niekerk, J. Personal communication, interview, 11 June 2022.

Appendices

Appendix A – List of participants

Participants' initials are used to ensure confidentiality and anonymity of the community members taking part in the workshops and interviews undertaken for the purpose of this study.

- MO, male breadmaker, interview, Vleiplaas, 16 April 2022
- SJ, breadmaker, interview, Vleiplaas, 18 April 2022
- SO, elder breadmaker, interview and bread-making workshop, Vleiplaas, 18 April 2022
- AR, breadmaker, interview and bread-making workshop, Vleiplaas, 18 April 2022
- DR, elder breadmaker, interview and bread-making workshop, Vleiplaas, 19 April 2022
- EH, breadmaker, interview and bread-making workshop, Vleiplaas, 19 April 2022
- SR, elder breadmaker, interview and bread-making workshop, Vleiplaas, 19 April 2022
- OL, elder breadmaker, interview, Vleiplaas, 21 April 2022
- JJ, male breadmaker, interview, Vleiplaas, 21 April 2022

QH, oven constructor, interview, building workshop, Vleiplaas, 16 April 2022
DW, community representative, interview, Heuningvlei, 23 April 2022
SV, community member, interview, Heuningvlei, 23 April 2022
RL, community representative, interview, Menskraal, 23 April 2022
MH, breadmaker, interview, Heuningvlei, 24 April 2022
MG, elder breadmaker, interview, Grasvlei, 25 April 2022
AG, breadmaker, interview and bread-making workshop, Grasvlei, 25 April 2022
MJ, breadmaker, interview and bread-making workshop, Grasvlei, 25 April 2022
AM, breadmaker, interview, Menskraal, 26 April 2022
RB, breadmaker, interview, Brugkraal, 26 April 2022
EB, oven constructor, interview, Brugkraal, 26 April 2022

Appendix B – Consent Form & Interview Guide

Project Title: Uncovering the Bread-making Culture & Changes in Foodways of rural Communities in the Northern Cederberg

Invitation to participate, and benefits: You are invited to participate in a research study conducted with community members of Vleiplaas/Heuningvlei. The study aim is to investigate changes in foodways and uncover food knowledge. You will be asked questions about your food practices, how these have changed over your lifetime and, if applicable, questions about the dietary practices of your ancestors.

In addition, the interview will include some more specific questions about bread-making traditions and how these have changed over time. During the interview you will be shown visual tool such as photographs and supermarket products. I invite you to share your thoughts and feelings about these pictures and products.

I will not ask you to share any personal beliefs, stories or knowledge you are not comfortable sharing. The outcome of this study is my master's thesis and a community-owned 'Bread-making Traditions and Recipes' booklet. Your participation involves one interview, approximately 45 minutes in length. I believe that your experience would be a valuable source of information, and hope that by participating you may gain useful knowledge and contribute towards the documentation of bread-making traditions in your community.

Procedures: During this study, you will be invited to take part to take part in an open-ended interview and participatory bread-making activities.

Recording: We may take photographs and/or record audio as part of the study. These will be used to transcribe the interview and photographs may be used for the bread-making booklet. If you object to this, please indicate below.

Risks: There are no potentially harmful risks related to your participation in this study.

Feedback: You will receive feedback about the results of this research in a workshop, explaining the findings of this study and in form of a written handout. Another outcome

summarizing the results of this study will be a community-owned bread-making booklet. Moreover, you are invited to take part in an official feedback workshop at the end of the project to share your experiences and feelings throughout this study.

Disclaimer/Withdrawal: Your participation is completely voluntary; you may refuse to participate, and you may withdraw at any time without having to state a reason and without any prejudice or penalty against you. Should you choose to withdraw, the researcher commits not to use any of the information you have provided without your signed consent. Note that the researcher may also withdraw you from the study at any time.

Confidentiality: You are a vital contributor to this study and, if you wish so, may be named as a co-author, depending on your contribution to this study, in the bread-making booklet. If you would like to be named as a co-author, please indicate below that you wish to be identified as a co-author.

What signing this form means: By agreeing to this consent form, you agree to participate in this research study. The aim, procedures to be used, as well as the potential risks and benefits of your participation have been explained verbally to you in detail, using this form. Refusal to participate in or withdrawal from this study at any time will have no effect on you in any way. You are free to contact me, to ask questions or request further information, at any time during this research.

I agree to participate in this research (tick one box) ☐ Yes ☐ No
_____ (Initials)

[The following statements are suggested items only and may be replaced or deleted as appropriate for your study.]

I agree to be photographed ☐ Yes ☐ No _____
(Initials)

I agree to be audio-recorded ☐ Yes ☐ No _____
(Initials)

I agree to be published with my full name in the booklet* ☐ Yes ☐ No _____
(Initials)

I agree to include photos of myself in the booklet ☐ Yes ☐ No
_____ (Initials)

(If yes) I agree to include my name below these photos ☐ Yes ☐ No
_____ (Initials)

Name of Researcher

Signature of Researcher

Date

*= Depending on my contribution to the outcome

Contact Details:

Eva Ross

Telephone: 0784827067

Email: ross.eva92@gmail.com

Demographics:

A brief description of your cultural identity and where your family and ancestors are originally from.

1. Please describe the family and place you grew up:
 - 1.1 Where were you born?
 - 1.2 When was that?
 - 1.3 Where were your parents born? Where were your grandparents born?
2. Migration during your lifetime
 - 2.1 Have you stayed in the area or lived in other places during your lifetime?
 - 2.2 If yes - How have your cooking and eating habits changed when you left your home?
3. How do you support yourself and your family (income/employment)?

Changes in foodways:

Exploring culinary practices and traditions during your lifetime and how these have changed.

4. What meaning does 'food' have for you (culturally, religious, health)?

Childhood memories
5. What was your favourite food when you were a child?
 - 5.1 Do you still eat that food?
 - 5.2 Do you have a favourite memory from your childhood involving food?
6. What did your family usually eat for breakfast, lunch and dinner when you were a child?

7. How were these meals prepared and served (Who prepared the food? Collective Eating)?
8. Where did your family get groceries like flour and salt? Where did your family get fresh produce like vegetables and fruits?
9. How food secure was your family? Was there always enough food?
10. If not, did you get support from other people in your community [sharing economy]?
11. Compared to when you were a child, did your cooking and eating habits change?
 - 11.1 If yes, in which ways (e.g., ingredients, eating and cooking culture, frequency of meals)?

Your ancestor's eating habits:

12. Do you think that the eating habits of your parents different from yours? If yes, how so?
13. What do you think your ancestors ate as staples before wheat was introduced to the area? [Foraging? Wild grains?]

**Show Watsonia bulbs*

14. Were the food preparation techniques and family's kitchen different from yours?
 - 14.1 If yes, how so?

**Show photos of Khoi-San cooking utensils (Coetzee, 2015)*

15. What do you think has influenced these changes? Why have things changed [growing food]?
16. Do you still have recipes from your ancestors (parents, grandparents)? Are these recipes transmitted/documentated orally or written?
17. Is there any food traditions and recipes that you would consider your family's or your community's cultural heritages?
18. Do you feel like you have access and resources required to prepare traditional foods?
19. Other remarkable changes in diets and food culture in the Vleiplaas region that you have observed in your lifetime?

Impact of these changes on the community's health:

20. What impacts have these changes in diets and food culture had on your family and community live (culture/traditions, social, financial)?

21. Do you believe that the food is healthier or less healthy today compared to when you were a child? Please explain.
22. Do you believe that it was easier for the peoples in Vleiplaas to put food on the table when you were a child or today [perception of changes in food security]?

Bread-making:

Exploring bread-making traditions and knowledge and how these habits have changed over your lifetime.

Bread-making traditions in your family:

23. Do you make your own bread at home? What kind of bread? How often?
24. What does making bread mean to you (and your family)? How is it different from buying bread in the supermarket?
25. Is the bread usually shared among community members or exchanged for other products (past and today)?
26. Who taught you how to make bread? [How old were you? Is bread-making only practiced by women or also by men?]
27. How did [xx] make the bread (technique, oven, ingredients, yeast)?
28. Where did [xx] get the ingredients from (local mill, exchange system)?
29. What is your favourite memory/story of bread-making when you were a child?
30. How do you keep record of the bread-making recipes (oral or written)?
31. Have you taught your children how to make bread? Is it the same process as your parents taught you or different?

Changes in bread-making traditions during your lifetime:

32. Are bread-making practices different today compared to your childhood? If yes, how?
 - 32.1 Was the flour used in your childhood different from the flour used today?
 - 32.2 Was the grinding processes change (flour from mill)?
 - 32.3 Was the yeast different from the yeast used today?
 - 32.4 Was the (kitchen) equipment different from the equipment used today?
 - 32.5 Is the number of ovens the same as when you were a child? More or less ovens?
 - 32.6 Is the type of ovens the same as when you were a child?

History of bread-making in the Northern Cederberg area:

33. Who do you think introduced bread-making to the area (Who were the first people that made open coal bread in the area)?

34. What ingredients do you think were used originally? Where did the wheat come from?

**Show Watsonia bulb (Indigenous veld plants used as staple)*

35. What is unique about bread-making in the Vleiplaas area?

36. When you were young did people buy the bread from each other or share the bread? Today, is bread made for the household only or for the community?

Ovens used for bread-making:

37. What kind of ovens are used to bake the bread?

38. How many ovens are in the area?

39. Are they used collectively (by women and/or men)?

40. Difference between open-fire bread-making and conventional oven (taste, how many breads fit in)?

**Show photos of industrial oven and outdoor oven*

41. How many people in Vleiplaas still have the knowledge to build and maintain the traditional ovens (construction and plastering)?

Your knowledge of traditional bread-making

42. Does self-made bread taste different than bread from the supermarket?

**Show white store-bought bread*

42.1 If yes, how?

42.2 Why do you think so?

43. Do you think that self-made bread is healthier or less healthy for you?

43.1 If yes, why?

44. How do you think about your knowledge of breadmaking? What does it mean to be a 'breadmaker' in this community?

45. How do you feel about sharing your bread-making knowledge with visitors/community outsiders? (the bread-making workshops)

46. What knowledge do you think will the children of this community have about bread-making in the future?

47. What would you like to include in your community's bread-making booklet?

48. What bread-making recipes would you like to see included in that book? *This is a safe space and I'm happy to receive honest feedback about this project and your feelings throughout the interview.*

Appendix C – Self-Reflection Guide

General questions:

- Summary of the field trip
- Highlights and obstacles during the trip
- How did the dynamic between the participants and myself feel?

Participants:

- Were the participants open and actively engaged in the discussion (workshop)?
- Do the participants perceive their knowledge as individually or collectively owned?
- Level of research fatigue among the participants?
- How do participants know what they know?
- What might have shaped their worldview?
- How may they perceive me? (why?)

Myself:

- What shapes and has shaped my perspective (e.g., political views, beliefs)?
- How have my perceptions and my background affected the data I've collected and the analysis of this data?
- How do I perceive those I have studied?
- With what voice do I share my perspective?
- How can I use the information gathered from this exercise to make my research more ethical?