Wellbeing on the Edge:

The dynamics of Musundian edge-dwelling on the boundaries of protected natural areas in Limpopo, South Africa

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A thesis submitted for the degree of

Doctor of Philosophy

at the

University of Kent

Canterbury, Kent

April 2018

Abstract

This thesis examines the impacts of a protected natural area (Makuya park) on residents of Musunda village in Limpopo, South Africa. The creation of protected natural areas entails the formation of boundaries to limit access and resource use, often under the assumption that the isolation from human activity will allow 'natural' environments/habitats to re-emerge. When humans are not afforded a place in protected spaces, 'edge-dwellers' emerge. This thesis explores how the resulting changes in land use and access can impact the availability, distribution, and quality of strategically important resources, and thus influence a wide range of ecological, epidemiological, and economic processes that directly and indirectly impinge on an individual's wellbeing. Based on over two years of ethnographic fieldwork in the HaMakuya chieftaincy, this thesis aims to explore the tangible and intangible ways in which Makuya park impacts on Musundian edge-dwellers efforts to achieve wellbeing.

Specific research questions include: How do edge-dwellers understand, discuss, and enact wellbeing? How and when are natural resources used toward achieving wellbeing? How and when does land access shape land use in terms of wellbeing and in what ways? Have shifts in practices occurred as a result of the formation of protected areas? I address these questions by engaging with current debates in social, medical and environmental anthropology. Using Cohen's (2013) 'ecologies of wellbeing' as a matrix through which to explore local conceptions of health/wellbeing (*mutakalo*), this thesis engages with a historical 'political ecology of health' (Harper 2002) and conservation to consider health and wellbeing within 'environmental perspectives' (McElroy and Townsend 2009). In focusing on the everyday practices of Musundians, this thesis foregrounds local notions of health (*mutakalo*) and local perceptions of natural resource limitations imposed by the park as a way to understand edge-dwellers' local ecologies of wellbeing. This thesis provides TshiVenda speakers' (an under-represented group) perspectives; it shows the negative impacts that the park has on resource access, diet, relationships and local healing practices according to edge-dwellers. Questioning how Musundians maintained ambivalence in these challenging circumstances, I discuss how I came to realize that the park is locally understood to offer the promise of 'good things.' Exploring the ways in which hope and the park intersect, I describe how the park has become incorporated into local ecologies of wellbeing. This thesis explores some wellbeing-related experiences of Musunda's edge-dwellers, while considering the park's influence on those dwelling on the boundary of a protected natural area thereby contributing to social anthropology scholarship at the intersection of environmental and medical anthropology. In doing this, this thesis draws on related disciplines in the social sciences, contributing to literatures in human geography, public health and ecology.

Acknowledgements

My thesis has been a labour of love – not only for me, but for those who love me, as my labour has certainly impinged on many family, friends, colleagues and complete strangers. With that said, traversing the country (South Africa) to undertake this research has taught me so much about the various people that comprise my natal country. I thank the nameless people whose help along the way made this research possible, from the kind man at the first roadside lodge I stayed at, who fed an exhausted and teary traveller, drove me to the rock paintings and Oryx herds, and never sent the bill for the room that he had promised to send, to the mechanic in Makhado, who ran tests on my car that kept stalling on the highway, free of charge, and many more – thank you.

Throughout my travels across the country, people made efforts to help me, to ensure my safety, and comfort, or to help a scared, exhausted or weepy young woman make it through the long journeys with a little more faith in her fellow country-persons. This brings me to the extended family members in Johannesburg who made space in their homes to shelter me while waiting for car repairs, or medical tests, who called on favours from others to get my car repaired, and eventually sold – thank you Barry, Rita, Josh, Renee, James, Grecia, Peter, Dr. Gary, Dr. van Hasselt and Dax. Thanks is due also to all those in Cape Town who offered support, love, guidance, time, and more – this includes UCT's social anthropology department, especially Dr. Helen MacDonald, and Dr. Fiona Ross, and other colleagues like Dr. Liz Kruger, Dr. Josh Cohen, Dr. Marieke Norton, Jody Xala, Dr. Nandi Siegfried and my MRC colleagues, Dr. Tamara Kredo, Joy Oliver and Elizabeth Pienaar. To family in Cape Town who supported this wild, salary-less 'student again,' Jarryd, Louise, Arn, Colette, and Sarina, Charles, Andre for taking me out to supper and endless other support. Without connections in Cape Town I may have never found a home in HaMakuya, and thus am greatly appreciative to OTS staff, like Dr. Laurence Kruger, Dr. Kate Abney, Eric, Shaddy, Mary, and Don who connected me with the Trust, and introduced me to HaMakuya.

In HaMakuya, the Trust founders as initial access points, require mentioning. Of course though, without the kindness, warmth and generosity of the people who live in HaMakuya, this research would have been impossible. Some people require special mention because of the love, time and attention they shared with me; Mr. Mutele, Mr. Malala, Idah, Peter, Mercy, Agnes, Elsie, Eliza, Justice, Reuben, Baloyi, Gift, Phelina, Gladys. Idah, Peter and Marelynh need special mention because of their centrality to my daily existence in HaMakuya – my gratitude for your input will never end, my indebtedness to you is eternal. Also in HaMakuya two

PREFACE: SITUATING MYSELF, POSITIONALITY AND LIMITATIONS

INTRODUCTION: ON REPRESENTATION

Rubenstein suggests the 'quest' to 'penetrate the various layers of meaning of a foreign culture', is 'at its worst, an act of violence, stripping a culture of all its masks and leaving it naked for all to see (Derrida 1974: 110–14). At best, characterizing the other culture as passive and the anthropologist as active, such knowledge necessarily implies power over the object of study' (Rubenstein 2004: 1056). Writing this dissertation has been a similar struggle for me, as analytic frameworks feel like impositions that flatten the reality of the lives that I attempt to provide (partial) insight into.

Symbolic analyses, along with attempts at rendering others' ontologies[1] flat on paper tend to do violence.[2] This flattening obscures the complexity in the intertwined nature of the things we know about, the things we haven't begun to understand, and the indescribable things. My personal crisis with this 'quest' forced reflection on the 'politics of representation' in the context of my own privileged position (Hall 1996; Fassin 2007). In my effort to explore lived experiences, my background, in conjunction with my physical body, play major roles. Here, I offer insights into my own world, as means of acknowledging that while this thesis borrows from the experiences of those I lived among, it is my rendering of my experiences. Relatedly, I can only ever hope to present partial truths, which I have attempted to analyse using locally relevant modes of explanation to undermine some of the potential violence in the act of developing theory and representing others against a theoretical backdrop foreign to their existence. I do not feign to grasp the 'ontological' or 'epistemological' perspectives of TshiVenda speakers, nor do I offer unifying theoretical perspectives. I can however, provide some insight into the lifeworlds of the people I worked with, while acknowledging my limitations.

PERSONAL BACKGROUND AND CRITICAL ENGAGEMENT

My undergraduate and masters training, both in post-modern contexts that stressed critical self-reflexivity, make me hyper-sensitive to power, and the various lenses of privilege through which I see the world (cf. Clifford and Marcus 1986). In taking inquiries into wellbeing seriously, I acknowledge the social determinants of health that allow me to feel differently in my body than another might. I follow Fassin's suggestion that 'history is not merely a narrative or the sum of competing narratives. It is also inscribed within our bodies and makes us think and act as we do' (2007: XIX). As such, I cannot know the physical experience, complete with overlapping intersubjectivities, of any of the people in my research, just as I cannot know what it might mean to be in the body of another white, mid-thirties, middle-class woman.

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[1] In tracking an ontological 'drift', Graeber (2015) suggests that ontology becomes what 'one imagines the people one is studying would construct, were they the sort of people who spent their time engaging in speculative philosophy' (2015: 19), predicated on an 'as if' that ignores the reality that people speak directly about.

[2] To imagine that another could grasp someone else's ontological perspective undermines the complexity, and diversity of the world. How could I, a person who barely understands my own ontological perspective, begin to try to lay bare, and write down another person's?

Thus while my gaze direction might be the same as those I worked with, the lens through which I experience the world – my body – can never be the same. In stating this, I acknowledge the ample privilege that my physical body has had (e.g., nutritional) in relation to those I worked with.

My training emphasised that my life experiences are central mediators of the topics I attended to and the analytic choices I make. The intersectional identities which I inhabit should be laid bare at the outset to give context to these topics and choices. My identities as partner, or sister, are likely less important in this context than my identities as white, Jewish, middle-class and female, with access to private healthcare. With that said, my own life experiences, for example, as a daughter of a mother with breast cancer, came to bear on my research. Being the daughter of nature conservation practitioners with a career in public health, prompted my research interests. It also likely shaped the way I engaged as a researcher; as I began my PhD a conservationist asked, 'But why do you anthropologists always want to be critical of the work we do? We are trying to do good'. The irony of criticising a field of study that contributed centrally to the ample privilege of my upbringing does not escape me. While my work does offer some criticism, this is not its focus.

At the same time, I was raised in the US, where 'public' healthcare is practiced as epidemic management and not public provision of primary care. South Africa's recent attempts to provide 'healthcare for all' through National Health Insurance re-engineering efforts, to me, are laudable. Although I engage critically with biomedical care-delivery, my training prior to undertaking this PhD - in epidemiology, biostatistics, and health systems research - has shaped my analytic lens so that I am inevitably attentive to clinical issues: patterns of ill-health and obstacles to biomedical care. Thus a potential limitation arises, if I do not remain aware of this lens, in both the ways I conceive of what people do in relation to their notions of health[3] and in a narrowed focus on what health might mean. In acknowledging these tendencies in myself, I am able to critically engage with my own initial assessments, and acknowledge with humility how little I understand.

ON MY BODY – INTERSUBJECTIVITY AND EMBODIMENT
Because I cannot go anywhere, or engage with anyone without my body, a research approach that acknowledges how my body feels, and how others perceive it, grounds the research findings in the reality of the context through which I moved. Biomedicine and early academic theories historically relied on the Cartesian mind/body duality, rendering the body a 'fixed material entity subject to the empirical rules of biological science' (Csordas 1994: 1). Foucault's works, highlighting the ways in which a body comes to represent historical, political, and social forces that act on it, shifted scholarly thought. Bodies, once understood as fixed or natural, with universal characteristics, became understood as fluid and situated, 'embodied' within a particular location, history and in relation to other bodies (Csordas 1994: 2–3). While being careful not to 'objectify[ing] bodies' (ibid.:

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[3] Perhaps I miss observing "health-seeking behaviours" because I do not immediately understand them as such.

4), Csordas renders the body 'as a valuable starting point for rethinking the nature of culture and our existential situations as cultural beings' (ibid.: 6), using 'techniques of the body' as a means of examining culture rather than using 'culture' to examine the body (Mauss 2007).

Csordas' embodiment framework problematises dualities like mind/body, looking beyond the 'discursive conditions' imposed on the 'body as an object of domination' (1994: 12). This embodiment situates lived experience in the interwoven, entangled complexity of relationships and exchanges, which acknowledges the historical contexts and messy pasts that come to bear on the ways in which agency is enacted. Similarly, Ingold and Palsson (2013: 8) assert that 'all human life unfolds within a matrix of relations, which are at once social and biological'. Their call for integration of approaches speaks to a process rather than an existence, of human becoming rather than human being (ibid.). They explain that such an approach:

> 'requires us to think of humanity not as a fixed and given condition but as a relational achievement . . . of evolution not as change along lines of descent but as the developmental unfolding of the entire matrix of relations within which forms of life (human and non-human) emerge and are held in place . . . these forms [are] neither genetically nor culturally configured but [as] emergent outcomes of the dynamic self-organization of developmental systems' (ibid.: 20).

My research is shaped in meaningful ways by my life experiences and physical appearance. As individuals enmeshed in connections with one another, the bodies we inhabit have bearing on the matrix of relations we engage in. In very real ways, my gender, race, religion and personal context shaped this research. The following descriptions shed light on the body that others can see and enter into relations with.

On Race
When I first drove into Skukuza, the main rest camp of Kruger National Park (Kruger), I marvelled at the extensive fencing and tourist accommodation. With its sleek modern buildings, amenities and diverse visitor population, the Skukuza tourist accommodation is much smaller, and less reflective of South Africa's colonial past, than the larger Skukuza town. Skukuza consists of the tourist accommodation, the State Veterinary Services, offices, labs, short-term research accommodation, a school, police station, cricket fields, a golf course, a clinic, and private doctors office. Long term resident accommodation is split - on opposite ends of the larger Skukuza.

To the left of the tourist entrance, is the area referred to as 'the village'. Driving over a small bridge that crosses a river; first the public pool and tennis courts along wide and freshly paved roads appear. Large stand-alone houses, individually fenced, with lush gardens, line the ten or so blocks, with a school, cricket field and golf course nestled among them. Scientific staff and section wardens live in the village; historically, these roles were constrained to white people (men, mostly), although this is slowly changing.

Taking a right before the tourist gate brings you towards residences commonly known as 'the compound'. Driving past the soccer field, bus stop and police station, you pass storage units, and garages. At the garages, a right turn leads to a security guard manning a single-pole boom-gate (no electric fence, as in the 'village') leading into the 'compound', where most staff stay in shared apartments and row-houses, crowded together and in disrepair. The government clinic is located here, but no public pools, tennis courts or cricket fields in the compound, no schools or private doctors. Despite the 'village' being increasingly populated by people of colour, the 'compound' residents and even clinic staff were shocked when seeing me in the compound. Colonial and Apartheid histories have left an indelible mark on the South African landscape and peoples, still visible, especially in Kruger - 'struggling to overcome its institutional and ideological past' (McDonald 2002: 8). In my experiences, the entrenched nature of colonial and Apartheid racism is enacted visibly in South African conservation initiatives with which I engaged,[4] making matters of race a cross-cutting presence in this research.

I was born in 1982 in South Africa; a third-generation South African whose family sought reprieve from Europe's pogroms. I was born 'white' into a system called Apartheid – a system that formally began with the National Party's 1948 election. However, legislated segregation is evident in colonial policies including the 1913 Land Act. During Apartheid the white minority actively disenfranchised other peoples through a powerful propaganda machine that used fear, fragmentation, and misinformation. Apartheid and colonialism have had lasting impacts on service delivery and infrastructural provisions, as well as various social determinants of health. My research intersects with the physical reminders and remainders of Apartheid and colonial legacies, but I cannot, in the scope of this thesis, appropriately engage with the psychological impacts of this history on the people who bore the brunt of the majority of Apartheid policies. However, the existence of such impacts are particularly important to remember when reading my representation of this place, or in understanding my interactions.

When I initially moved into the area, it was difficult to move around without young children shouting 'MAKUUUAAAA' (*makua*, white person). My attempts to volunteer at the local crèche were met with inconsolable toddlers. My neighbour, whose toddler, Pfanu soon became a fixture in my life, explained: 'They think you're a ghost. You're so white. The small ones don't get to see many *makua*. Maybe you are the first for some', as her son tried to pick the skin of my leg away, looking deeply into my eyes to see if his prodding provoked a response.

In some cases, my whiteness meant that I was immediately assumed to align with historic political and social perspectives, or missionizing groups.[5] In addition, older residents regularly assumed that I spoke Afrikaans. With a history of violent oppression at the hands of white Afrikaners, this assumption could symbolise a

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[4] Similar accommodation differences were offered to white professional hunters and their black trackers in Makuya Nature Reserve.
[5] I was mistaken for a missionary on multiple occasions.

power imbalance beyond the researcher/researched imbalance already in place, indicating just one of the ways in which my physical presentation might have had an impact on interactions.

Whiteness as Benefit and Burden

During my time in Limpopo, the psychological scars from apartheid and colonialism were difficult to ascertain from a distance, but, like keloid scars, up close, in certain interactions, the past could be felt, as self-doubt roughed the surface of interactions. The administrator at the Trust explained: 'Maybe you can help us at the Trust. We need a white person to do the marketing, and to respond to some of these people – they will listen better to a *makua*.' The colour of my skin meant that in many cases, to the people I worked with, I was a resource and tool. For example, on multiple occasions I was asked to join various trips to government officials (e.g. visiting a social worker, or hospital in an attempt to have a doctor 'pay attention'). As the Trust administrator explained, my 'makua-ness' was perceived to result in my demands being taken more seriously than hers.

In some instances the colour of my skin posed a problem, and marked me as an outsider (cf. Dowsett 2017). Drawing on Pietz (1993: 141), Rubenstein describes the realization that 'any relationship on the colonial frontier exists within the libidinal economy' (2004: 1061). My relations in HaMakuya were often framed around my ability to produce something someone else desired (Rubenstein 2004), although these were rarely expressed as erotic desires.[6] Most initial interviews or discussions with people included questions of what my research would provide for them – although over time, as most people came to know me and my financial/social situations, these questions were raised less often. People who did not know me well might approach me and demand something or ask me to bring them 'shoes' the next time I returned. If not the colour of my skin alone, then my accent[7] also rendered me an outsider, perceived to have access to things not locally available.

In other cases, the colour of my skin and my role as a researcher posed a threat to those around me. These instances explain some of the limitations of my research, but also the ethical tightrope I found myself walking. Police officers in the area often stopped me; sometimes asking for cash, or twice to ask if I wanted 'a Limpopo boyfriend'. Once, with a car full of friends, we were pulled over. The officer explained that a woman that 'looked like you' was reportedly bringing Zimbabweans over the border. Here, my presence attracted unwanted attention; however, when service delivery protests turned violent and threatened to spread from the neighbouring municipality, the danger my presence posed became evident.

I had been planning a return voyage home. My plan was to drive Sarina, my research assistant, and Fulu, whose home I shared, to Thohoyandou, where I would

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[6] Although I was propositioned a number of times - mostly by non-local HaMakuyans (i.e., out of town relatives, and funeral directors); Johansen (2015) describes similar field experiences.
[7] Born in South Africa, but raised in New York, to most people, my accent sounds foreign; 'from overseas'.

refuel, leaving them to their shopping, getting to Johannesburg by evening. The night before, Fulu and I confirmed our 7am departure before I went to bed. At 11pm she came to my room: 'Amber, the protests are spreading. It is not safe for me to come with you tomorrow. I am worried that if people find you here, or in town, there will be violence. Maybe you should go now. The protests are planned to start early tomorrow morning.' Fulu was visibly nervous. She had never given me direct instructions before this, nor had I heard this tone in her voice. At 11pm it was too late for me to set out on the dirt road. 'Fulu, I will leave before the sun comes up. I will be sure to leave your house before the protests begin. Do you know anything more about the protests?' 'People will meet in Thohoyandou. They are marching, but they already beat a foreigner. He is in hospital, and people were looting today,' Fulu offered with a furrowed brow. 'Will it be safe if I leave at 4am? This way I make it through Thohoyandou by 6:30.' 'I think so,' she replied.

As the night dragged on, I lay in my bed thinking about how my presence might bring danger to those around me. The following morning at 4:30am when I knocked on her door, Sarina laid the reality bare for me. 'Hi. I wanted to let you know that I am leaving now. Fulu was worried about the protests.' 'Yes. I did not message because I knew, Musunda, no [cell] signal, but last night my uncle called. He told me not to ride with you to Thohoyandou. He said that the protests were becoming violent, and it would not be safe'. I arrived in Johannesburg having seen no signs of protests. In the five hours between Fulu's warning and my departure, I rattled my brain to understand the position I was in, and putting others in. The colour of my skin was a marker of access, and of potential things I might have that others would want. For Fulu or Sarina, danger lay in their relationship with me. This was a lesson I carried with me everywhere thereafter, acknowledging that I would always be an outsider, even if I felt as though HaMakuyans accepted me, no matter how much my growing group of friends suggested I was becoming 'muVenda'.

On Gender and Intersectionality
Being a female of child-bearing age meant that I had to adhere to certain expectations, like wearing a skirt among elders, and perform certain roles like, cooking. It also explains why I could only access certain aspects of daily rhythms in the village. However, while there were distinctly gendered roles, women certainly exerted autonomy and agency in multiple ways, for example, in developing social networks used to generate cooperative savings plans, or "*stokvels*".[8] Gender can be both constraining and enabling, and varied in its effects.

Apartheid affected many people, places and systems, but women of colour were 'affected in particular ways' (Cooper 1994: 1523). Black African women living in the racialised, highly patriarchal intersection of systems that characterized Apartheid were burdened with the greatest challenges. For example, 'male only labour compounds' forced men to migrate to cities without their families, which resulted in

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[8] *Stokvels* are invitation-only women's groups that meet monthly as part of a rotating savings scheme; these meetings are social and financial events.

'the feminization of rural poverty, and a complex hierarchy of residential rights that divided black workers and families' (ibid.). My gender therefor only gives me so much access, as gender is not experienced in isolation. Relatedly, before academics debates focused on intersectionality, Haraway suggested: 'There is no single feminist standpoint because our maps require too many dimensions for that metaphor to ground our visions' (1988: 590). Women of colour were (and still are) constrained by both their colour and the overlapping systems of patriarchy inscribed into local ways of living, and imposed by missionary, colonizing and Apartheid forces. Acknowledging the differences in intersectional identities between myself and those I worked with, I follow Haraway in striving for 'engaged, accountable positioning', with the goal of providing 'better accounts of the world'; that is, 'science' (1988: 590). Here, I hope I have made clear that the rendering of edge-dwellers I offer is my writing, my perspective. This thesis, if written by any other person with the same set of 'data', would never emerge the same.

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This thesis is dedicated to the women;

> . . . who came before me in my family, who never got the space to do what I have here, but always encouraged . . . you know who you are;

> . . .who held me together throughout this process, there are too many to name;

> . . .to the women of HaMakuya who were honest with, kind to, and protective over me;

> . . . to the women of Musunda who gave me their time, patience and friendship;

> . . . and especially, to Idah and Marelynh for being there, always.

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CHAPTER 1: Introducing Musunda's Edge-dwellers

PROJECT INTENTIONS AND AIMS

This thesis explores the impact of a protected natural area on efforts to achieve wellbeing, among those living closest to a protected natural area – areas normally bounded by fences, within which human interactions are limited in an effort to conserve, most often, a particular habitat. In order to unpack how protected natural areas have an impact on wellbeing, my research explores the multiple meanings and practices associated with local definitions of wellbeing in relation to land use and access among Musunda residents. Musunda village borders Makuya Nature Reserve (from here on, 'the park' as it is locally referred to) in Limpopo province, South Africa. Musundians are edge-dwellers – people residing on the boundary of protected natural areas. Recent academic attention has turned the spotlight on people 'living on the edge' of protected natural areas in Africa (Andersson et al. 2013), whose needs and wants are increasingly marginalised and made invisible against goals of conservation protectionism (Anderson and Berglund 2003; Brockington et al. 2008). This research explores how such conservation impacts on health and wellbeing, thereby contributing to social, environmental and medical anthropology.

By exploring edge-dwellers' experiences I aim to provide insight into the wellbeing-related experiences of people who are physically positioned the furthest from state bio-medical facilities, while at the same time, through conservation legislation/practices, they are denied access to local environmental resources that might be instrumental in efforts to maintain wellbeing. The topics of conservation as imagined and practiced through protected area status and the lived experience of seeking health on the edges of protected areas are two realms that are routinely theoretically glossed over as linked (Chatty and Colchester 2002; West et al. 2006), although the detailed realities of such connections have less often been ethnographically explored. My aim is to explore 'hidden connections' (Capra 2007: 18) between these realms.

In light of limited contemporary ethnographic research among rural TshiVenda-speakers, I first needed to establish how, if at all, local notions of health are tied into environmental resources. My research was comprised of three aims/phases:

1. To develop an understanding for some of the ways in which local conceptions of wellbeing and health were constructed;
2. To explore the ways in which these notions intersected with local environments (i.e., explore edge-dwellers use of local resources towards their definition of achieving health);
3. To establish an understanding of how edge-dwellers understood their position on the edge, and how that related to local conceptions of health.

WHY RESEARCH WELLBEING AND EDGE-DWELLERS? RATIONALE AND SIGNIFICANCE

As of 2009, approximately 6% of terrestrial and 20% of marine environments in South Africa are covered by over 400 terrestrial and 23 marine protected areas (Paterson 2009: 5). Since the end of Apartheid, and reaffirmed more recently in the September 2012 update of the 2011 National Tourism Sector Strategy, the South African government has focused on increasing tourism (Binns and Nel 2002). The overall aim is to increase tourism's contribution to the gross domestic product to 'achieve transformation' and 'provide people development and decent jobs'.[1] As home to many charismatic species that people revel and delight in, and in light of the fact that conservation and eco-tourism have become 'sexy' (Sullivan 2011), South Africa's attempts to actively market its natural beauty and charismatic species align with neoliberal trends of commodifying 'nature' (Buscher and Dressler 2012; see also Buscher et al. 2012; Arsel and Buscher 2012).

On a national scale this intended increase in the tourism sector seems, if not beneficial, fairly innocuous. Yet the assignment of 'protected' status usually entails imposing restrictions ('re-regulation') on customary and contemporary land use practices with concomitant impacts on local livelihoods (West and Brockington 2006; West et al. 2006; Castree 2008; Igoe and Brockington 2007). The re-regulation of land use shifts local practices, changing access to natural resources like drinking water, or plant and animal food sources, which can impact health-seeking practices, especially when local healing practices rely on natural resources (see Cocks 2006).

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[1] <http://www.info.gov.za/aboutsa/tourism.htm>, accessed 2 April 2013.

Extensive anthropological research has been conducted on the experiences of people involved in land claim conflicts (Chennels 2003; Peters 2009) and the impacts of protected areas on livelihoods (Barrow and Fabricius 2002; McCusker and Carr 2006; West et al. 2006; Dressler et al. 2010). At the same time, research on the topic of human health and the environment/conservation abounds in fields like conservation medicine (Aguirre et al. 2002, 2012), ecology (Laurance et al. 2012), and public health (Bell 2013; van den Berg et al. 2010; Osofsky et al. 2005[2]), acknowledging that as populations grow, so do disease burdens and competition for limited natural resources. Links between environmental and health research are increasingly recognised as important, especially in anthropology, where calls for an 'environmental health anthropology' (Singer and Evans 2013) acknowledge that the health/environment intersection 'may be the single most pressing direction for future scholarship and activism' (Inhorn and Wentzell 2012: 19–20). Although increasingly recognised as important, linking these broad fields together by exploring the lived reality of navigating health while 'living on the edge' (Andersson 2013: 6) remains largely unexamined within anthropological literature.

Despite ample research exploring the impacts of conservation legislation on livelihoods (for example, Hulme and Murphree 2001; Homewood, Kristjanson and Trench 2009), research linking these livelihood changes and land/resources access restrictions to health-related impacts is limited. Chatty and Colchester's *Conservation and Mobile Indigenous People* has one sentence that glosses over the need to include considerations of health if conservation efforts are going deliver on sustainability and development goals (2002: 15). The fact that research on people and parks neglects discussions of health, with a few exceptions (Harper 2002; Andersson et al. 2013), becomes clear when reading West and colleagues' review of research on people and parks: 'We focus on social, economic, scientific, and political changes in places where there are protected areas . . . we also examine violence, conflict, power relations, and governmentality ' (2006: 251) – but not health. This thesis contributes to filling this lacuna.

The dearth of ethnographic literature at the intersection of health/wellbeing and protected natural areas is particularly important in the South African context, both

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[2] See also Animal and Human Health of the Environment and Development program: <https://www.wcs-ahead.org>, accessed 1 June 2017.

because of current policy implications – as the National Department of Health (NDoH) attempts to 're-engineer' the public healthcare system by creating a National Health Insurance[3] (NHI) – and because of historic processes that welded land dispossession and thereby resource access inequalities into the formalisation of protected natural areas. South African history has established an interwoven relationship between the formation of protected natural areas and human displacement that entails contestation over land perceived to be 'disease-free' (Carruthers 1995; see Chapter 3). A social history of the Kruger National Park (from here on, referred to as Kruger) (Carruthers 1995) highlights the links between colonisation, disease and Kruger's formation, yet disease as a factor shaping the creation of protected natural areas is underexplored elsewhere.

Similarly health-seeking in the context of resource access changes due to conservation has had scant attention, which is problematic as conservation is often framed as 'development' (Hulme and Murphree 2001; Nelson and Hossack 2003) and then often linked to improved healthcare access. However, in the context of resource limitations imposed by conservation, health-seeking options might be constrained by conservation efforts (Chapter 5 and 7). The importance of exploring the impacts of conservation-imposed resource limitations should be evident when foregrounded by colonial and Apartheid histories, especially because biomedical access was stratified by race.

The NHI's intended goal, to ensure healthcare access to all South Africans, is based on the notion that healthcare is a human right;[4] this is also entrenched in the South African constitution, where both access to healthcare, and an environment that does no harm, are civil rights. Aside from the mammoth task of providing the infrastructure, human capacity, and funds to manage the nation's public health re-engineering, given South Africa is home to more than eleven language groups, a plethora of religions, a multitude of landscapes and diverse ways of living, the task is further complicated by conflicting and variable views of individual and group priorities and challenges. Yet little work has explored context-specific priority areas for service delivery needed to ensure that South Africa's healthcare 're-egineering'

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[3] National Health Insurance is outlined in the "NHI Green Paper": https://pmg.org.za/policy-document/315/ , accessed 2 April 2013.
[4] <http://www.doh.gov.za/list.php?type= National% 20Health%20Insurance>, accessed 2 April 2013.

meets its goal of 'health for all'.[5] If this dream, of providing acceptable healthcare across South Africa is going to come to fruition, then research must be done to understand the demands and needs of the variety of South African peoples. This thesis considers the protected natural area alongside these civil and human rights, as more South Africans become edge-dwellers.

At the same time, current neoliberal[6], capitalist, globalised processes attempting to 'develop' and 'grow' eco-tourism markets contribute to a growing global trend to expand parks, both as eco-tourism markets and, if you are optimistic about human motivations, in response to human-driven climate change and habitat loss (Buscher et al. 2012). The expansion of eco-tourism markets is not always beneficial to all stakeholders, especially those closest to 'the edge' of protected natural areas (Fabricius et al. 2004; West et al. 2006). Since conservation areas are expanding in South Africa, and national policies support efforts to grow eco-tourism markets, more and more people will become edge-dwellers. With this in mind, as the population of edge-dwellers increases, the specific challenges they face should be considered if intentions of re-engineering the healthcare system are to be realised. This research can contribute to building an understanding of acceptable, context-specific health-related priorities and concerns for northern Limpopo's TshiVenda-speakers, and can provide insight into the experience of rural edge-dwelling more generally, to contribute to understanding potentially salient issues for other South African edge-dwellers. This is timely and necessary research for South Africa as healthcare re-engineering is being undertaken alongside efforts to expand protected natural areas and eco-tourism.

Using a process of building understanding of the local context over time, I set out to explore the following questions.

Research Questions

1. How do edge-dwellers understand, discuss, and enact wellbeing? How, if at all, do understandings of 'nature' pertain to wellbeing?

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[5] 'Health for all', the goal of the Alma Ata Declaration (1978), emerged at the first international conference for primary healthcare in conjunction with the World Health Organization.
[6] Although neoliberalism is used in diverse ways (Ferguson 2010), I draw on Buscher et al.'s (2012:5) rendering of it as a political ideology, manifested in governmentality and embodied practices, that attempts to centre capitalistic market dynamics in political, social and ecological interactions.

2. How and when, if at all, are natural (surroundings, biota, water) resources used toward achieving wellbeing?

3. How and when does land access shape land use in terms of wellbeing and in what ways? Have shifts in practices occurred as a result of the formation of protected areas?

4. How, when, and in what ways, if at all, are health-seeking skills and strategies developed and operationalised by people living at the borders of a protected area in the context of conservation-driven limitations on land and resource use and access? That is, how do people understand and relate to the adjacent protected area?

In order to answer these questions, first, a brief research site summary provides ethnographic context. Then, I provide a summary argument before problematising the concept of protected natural areas by unpacking the notion of edge-dwellers. Finally, I explain my theoretical approach and outline the remainder of the text before operationalising some key concepts.

HISTORIC CONTEXT AND LOCATION BRIEF

The following research site overview is provided for context, while a more detailed description follows in Chapter 3. Musunda, a village in the Mutale municipality (sub-district), Vhembe district, Limpopo, South Africa, is the starting point for this research. Located alongside Makuya Park's boundary fence (Figure 1.1), Musundians reside within HaMakuya chieftaincy under the royal authority of the Makuya family. During Apartheid this area was the Venda bantustan or homeland,[7] and for a short time, the independent nation of Venda. Six villages within HaMakuya are situated 'on the edge' of the park, which is managed by Limpopo Department of Environment, Development and Tourism (LEDET), and shares a fenceless boundary with Kruger National Park (Kruger), managed by South African National Parks.

Locating published historical or contemporary ethnographic work focused on TshiVenda speakers in this region has been challenging. Academics drawing on oral history suggest that much contestation over historic accounts, rightful heirs, and legitimate rulers remains in the Venda context,[8] but very little ethnographic research

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[7] Described below.
[8] See Chapter 3.

on HaMakuya specifically exists. While historic ethnologies outline the distant past in Venda (for example Van Warmelo 1931; Van Warmelo and Phophi 1948, 1967; Lestrade 1927, 1930; Stayt 1931), post-colonial (Liesegang, 1977; BENSO 1979) or contemporary literature is sparse aside from Buijs (2002a, 2002b, 2002c), McNeill (2007, 2008, 2009, 2011, 2012, 2015, 2016), whose work, generally focused on urban areas, and unpublished dissertations (see Tshighuvo 2008; Řezáčová 2011). In addition, while I make use of colonial/early Apartheid-era accounts, unlike anthropological 'exposé' styles that emerged between the late 1960s and 1980s reflecting 'a sense of moral outrage about Apartheid and its effects' (Spiegel 2005: 133, in Morriera 2012: 100), these earlier texts reinforce the colonial/Apartheid projects, and reify racial, intellectual, 'development' hierarchies and prejudices.[9] I draw on these texts sparingly, as their projects aligned with colonial/Apartheid efforts of control and oppression. My research thus contributes to filling a gap in contemporary social anthropological literature focused on rural TshiVenda speakers.

Figure 1.1: Field site in the far northeast

Vhembe district indicated by a red box[10]

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[9] See Gordon's (1988) critique of Volkekunde.
[10] <https://www.google.com/imgres?imgurl=http://www.mapsofworld.com/south-africa/maps/south-africa-political-map.jpg>, accessed 2 March 2016, edited to include red box.

South Africa During Apartheid: From Bantustan to Independent Venda

Although officially instituted in 1948, Apartheid-style segregation policies in South Africa began during colonial rule (Chapter 3). The foundation for the Group Areas Act (1950) - which separated residential areas by racial categories - was already laid down with the 1913 Native Land Act. Apartheid systematically maintained separation between imposed racial categories, implemented through a series of acts that limited individual movement and regulated all political, social and economic interactions. Bantustans, or homelands, created through the Group Areas Act and the 1951 Bantu Authorities Act, according to the official rhetoric of the time, allowed black South Africans to govern themselves. The reality was that homeland residents were denied opportunities to participate in South African politics, while South Africa continued to extract resources and labour from these 'independent' nations; thus black Africans' citizenship and access to arable land and other resources was also denied. Homelands were left to their own devices to develop systems to cope with the harsh inequalities in service provision, funding, arable land allocation and resources. As Apartheid policies mounted, formal disenfranchisement was imposed by making these areas 'independent' and installing government-picked 'customary' leaders (van Kessel and Oomen 1997).[11]
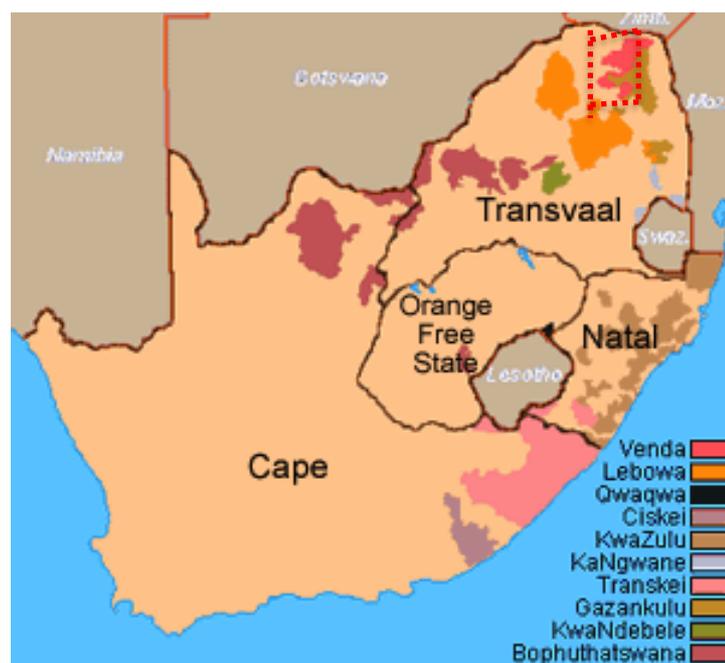
Figure 1.2: Pre-1994 Apartheid-era 'homelands'

(bantustans); the red dotted line indicates the Venda homeland[12]

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[11] Similar to puppet regimes installed by the US in South and Central America.
[12] South African History Online: <http://www.sahistory.org.za>, accessed 22 January 2013.

The Independent State of Venda and Reincorporation

The Venda homeland (Figure 1.2), created in 1962 by the South African government, shared a northeast border with Kruger, and its southeast border with Gazankulu homeland. From 1962 homelands were systematically ignored when developments to road and sewerage infrastructure, healthcare, electricity and telecommunications services were undertaken elsewhere in the country. Venda began self-governing in 1973, and the Apartheid regime forced 'independence' on Venda in 1979 (BENSO). However, the United Nations Security Council did not recognise independent Venda, challenging attempts to further the Apartheid regime.[13]

The South African governments' infrastructural disengagement with these areas, justified by their 'independence', led to further resource access inequality and systematic under-development compared to the rest of the country. However, these 'independent' areas were still controlled by South Africa. For example, homelands remained major contributors to the South African economy through 'international trade', largely in agriculture and as labour;[14] also, Venda maintained the Rand currency, and answered to the South African Supreme Court (BENSO 1979). Echoing this uneven exchange, the area where I conducted my research had no electricity until 2013, and currently has no sewerage infrastructure, consistent water provision or reliable roads, but continued to provide coal for South Africa until 2014. Independence thus became a time of labour and resources extraction by the South African state, while South Africa contributed nothing to infrastructure, governance or service provisions. By 1979 migrant income was the largest share of the gross national income (approximately R74 million [$60 million] out of R103.9 million [$83.1 million] total), with agriculture (creating 80–90% of domestic jobs) and then government services (especially education) providing the largest sources of employment (BENSO 1979: 9).[15] With independence, economic investments and job generation decreased, while outmigration and migrant wage labour increased.

During this period of 'nominal statehood' (1979–94), Lahiff suggests that 'Venda was not so much 'independent' of South Africa as isolated from it' (1997: xix). This

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[13] <http://www.sahistory.org.za/places/ venda>, accessed 2 April 2013.
[14] In 1978, 5,200 Venda border commuters and 62,300 migrant workers worked in South Africa (BENSO 1979: 9).
[15] This is important because with the 1979 'independence' South Africa's provision of educational support ended (see Noble and Wright 2013).

political, legal, and social 'isolation', according to Lahiff, reinforced Venda's 'geographic and economic marginalization', while explaining historic differences in environmental protection and natural resource management, including 'political regulatory framework[s], and enforcement system[s]', between Venda and the rest of the country (1997: xix). Environmental injustices and (infra)structural violence combined during Venda's independence to create impoverishment and under-development, 'with a highly unpopular and authoritarian government' lacking in 'the resources, the capacity or the political will . . . to implement more than a rudimentary service in many fields, not least amongst them local government and environmental protection' (ibid.). Perhaps relatedly, the Venda State depended on agriculture until the 1980s, when coal mining began. Additionally, between 1989 and 1994 'Venda was subject to severe civil unrest and state repression' that brought much of government 'to a virtual standstill' (ibid: xix).

In 1991 Venda applied for reincorporation with South Africa, formalised when the homeland policy was dissolved with the end of Apartheid (1994). Venda's period of independence still has significant impacts on the current context with regard to environmental policies, current economic opportunities, services delivery (like sanitation and water) and civil protest – all of which impacts on wellbeing. For example, the lack of water, sewerage infrastructure, the poor quality of air and soil (Chapter 3), all add to health-related concerns that are further compounded by conservation-driven limitations to natural resources imposed by the park (Chapter 5).

Current Context: Limpopo Province
Continuous change marked the transition from the end of Apartheid in 1994 to the present day; however, many structural inequalities remain. South Africa's provinces have not escaped this flux, complete with constant contestations of spaces, names and power/political relations. Until September 2016, the Limpopo province was separated into five districts: Waterberg, Capricorn, Vhembe, Mopani and Sekhukhune. This research was situated in the Vhembe district, Mutale municipality.

The Limpopo Province located in the far north-east of South Africa, covers 125,755km^2, nearly 10% of South Africa's surface area,[16] and is home to 5.5 million people, 11% of the nation's approximated 50.5 million.[17] Limpopo shares its borders with Zimbabwe, Mozambique and Botswana, making it an important access point for South Africa. Much like the rest of southern Africa, Limpopo faced pre-colonial land claim conflicts, and colonial land partitioning, creating tensions over resource and land access which were magnified given that the region is criss-crossed by national borders, trans-national protected area fences, chieftaincy boundaries, former homeland and national boundaries, as well as cattle-control-for-human-health fences (Red Line). Contestation around these borders or 'edges', while not new, may be intensified by the proliferation of more edges: for example, as nature reserves are formalised more fences are built, and populations spread closer to boundary fences.

The provincial web-page claims that Limpopo is the 'natural resource treasure chest of South Africa, if not the whole of southern Africa', referring to the trifecta of capital production generated in this space through mining, agriculture and tourism.[18] This predominantly rural area (90%) with a low population density (43 people/ km^2) provided 7.2% of South Africa's 2010 GDP.[19] While it is resource rich (minerals and agriculture), the population is generally poor and unemployment is extremely high.[20]

Vhembe District, Mutale Municipality in the Limpopo Province
Lahiff suggests that 'Venda today remains extremely under governed'; to speak of 'government policy', 'the state', or even 'the law' is 'as often as not, to speak of the absence, or the ineffectualness, of those institutions at a local level' (1997: xix). While new forms of governing (collaborations between customary and national/regional bodies) have emerged in the post-Apartheid context, Apartheid's historic remnants are currently reflected in the lack of service delivery, as well as the recent re-organisation of the Limpopo municipal districts due to Vhembe's continued poor performance (according to audits and corruption claims). In August

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[16] <http://www.southafrica.info/about/ geography/provinces.htm#.UROKr6VpufR>, accessed 15 March 2013.
[17] According to StatsSA 2011 mid-year report <http://www.statssa.gov.za/publications/P0302/P03022011.pdf>, accessed 28 September 2015.
[18] <http://www.limpopo.gov.za/index.php? option=com_content&view=article&id=5&Itemid=7> , accessed 1 October 2015 .
[19] <http://www.southafrica.info/about/geography/ provinces.htm#.UROKr6VpufR#ixzz2KDEdUWUi >, accessed, 1 October 2015.
[20] According to incomes, 32% are below the poverty line and overall unemployment is at 38.7% (Massyn 2015:iv).

2016, a year after finishing formal field research, the Mutale sub-district was dissolved and reincorporated in a new, larger district; however, throughout the course of this research, the Mutale sub-district administration – which overlaps 90% of the HaMakuya Chieftaincy, with 2011 census data suggesting that Mutale had 91,870 residents and 23,751 households[21] – was the state's governing body in charge of the area, and as such, is used in this thesis.

HaMakuya

Musunda is a village within the HaMakuya chieftaincy; one of approximately 21 villages.[22] Historically Venda peoples organised in clans headed by royal lines of descent[23], which during Apartheid were manipulated to ensure compliance with the national governing bodies. The end of Apartheid brought the opportunity to re-write the constitution, and concerted efforts were made to ensure that customary systems were integrated into new state frameworks (Chirayath, Sage and Woolcock 2005), including customary law alongside Western-styled judicial and executive systems.[24] In the post-Apartheid context, customary governance structures collaborate with Western democratic modes of governance through the Makuya Traditional Council and Ward 13 District Councillors respectively.

TshiVenda speakers (in the Bantu language family) comprise 16.7% of the Limpopo Province's population.[25] While TshiVenda is the local language throughout HaMakuya, and many people identify as muVenda, HaMakuya is a cosmopolitan place. Residents of Musunda range in first-language and ethnic identity: for

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[21] <http://www.municipalities.co.za/south-africa/local-municipality/134#demographic>, accessed 5 March 2017.

[22] Depending on the source, the Makuya 'chieftaincy' is comprised of 16–26 villages. This relates to discrepancies regarding which chieftaincies some villages fall under and disagreements about villages that emerge as off-shoots from other villages (e.g., Musunda (Gate) and Musunda (Far) II). Lishivha 2010 (<www.luonde.co.za>, accessed 2 February 2013) suggests HaMakuya is comprised of 16 villages, while Berman and Allen (2012) state there are 18. A map in the clinic lists 26, but this map outlines the Department of Health's district, so some villages do not fall within the chieftaincy (i.e., Lamvi).

[23] Among Venda speakers, before 'villagisation' (Niehaus 2005a: 195) domestic organization was around a *motse* (metse; pl). A *motse* is comprised of the homesteads, fields, and ancestral graves of a co-resident agnatic cluster whose inhabitants 'were typically a grandfather, his sons, their wives, unmarried daughters, children, and grandchildren' (ibid.:196).

[24] Such a task was not without its own challenges, as the Apartheid state had created puppet governments and thus the 'customary' system had already been altered by outside forces. Despite the 2004, national Traditional Leadership and Governance Framework Act, tensions remain in integrating a 'customary system' that was altered by the Apartheid state through manipulation of ascendance practices which placed Apartheid-complicit leaders in power (Hay 2014).

[25] Sepedi and Xitsonga speakers comprise most of the rest of the province's population, at 52.9% and 17% respectively:
<http://www.southafrica.info/about/geography/provinces.htm#.UROKr6VpufR#ixzz2KDEdUWUi>, accessed, 25 September 2015.

example, Fulu identifies as both Venda and Tsonga; Livhu, the crèche matron, is Shangaan; the biggest shop in HaMakuya is owned by Ethiopians, and while many people who live in HaMakuya have long-term family ties to the land, others do not. The close proximity of HaMakuya to both the Zimbabwe and Mozambican borders goes hand in hand with international traffic through the area. There are people living in Musunda from Johannesburg, Thohoyandou and Makhado and people in HaMakuya from all these places, as well as Durban, and the US (in 2013 Peace Corp volunteers arrived).

Climate, Land Ownership and Economy

The Mutale Municipality's subtropical climate manifests differently from the rest of the Vhembe region; although both are characterised as subtropical, HaMakuya is significantly more arid than neighbours 30km in either direction, with temperatures ranging from 10 to 40°C (Mutale Municipality IDP 2012). Average rainfall per year is approximated between 300 and 400 mm (ibid.). The landscape of HaMakuya starkly contrasts neighbouring districts – the rocky terrain and lack of rain poses challenges for example, to cultivation. As part of the savannah biome, bush fires add to air pollution affecting this region. Limited water sources are available and piped sewerage infrastructure is non-existent.

Land in the 3,886km of the Mutale Municipality can be owned in two ways; by the state but allocated to villages, or village-owned. The chief is in charge of land allocation, but all members of the village retain rights to cultivate (BENSO 1979). Agriculture continues to contribute to Limpopo's economy, accounting for 7% of the area's GDP (Massyn 2015: iv). In HaMakuya this includes smallholding cultivation and cattle rearing (cf. Patrick 2004). Small-scale subsistence farming is common in the former Venda homeland (Patrick 2004), and to a lesser extent in HaMakuya, but is at odds with the larger agricultural industry in this region. Small-scale farmers experience challenges resulting from funding gaps and fragmented, insecure land rights (Patrick 2004). The majority of Vhembe households are agricultural households (i.e., 53.7% of households in Thulamela – the neighbouring sub-district), but only 11.3% in the Mutale sub-district are agricultural households (Mutale Municipality IDP 2012), possibly because of low rainfall there.

Since livelihood opportunities are limited in former homelands as a result of lack of infrastructure, job opportunities and transport networks (Patrick 2004), people rely

on their natural surroundings to supplement livelihoods (Hunter et al. 2007), for example, by foraging and gathering – e.g., edible insects and bushmeat (see Teffo et al. 2007). Other forms of supplementary livelihood practices, like selling firewood and raising urban residents' cattle for wages, requires access to land and resources, which are increasingly constrained for edge-dwellers. Coal mining was the dominant economic opportunity in the Mutale area (Massyn 2015: iv), but the mine closed in 2014. Females head more than half of the households in most Vhembe municipalities, Mutale included (Massyn 2015: iv) as male family members migrate to urban areas to secure income.

The fact that Kruger[26] is located in this district makes it a worldwide eco-tourism attraction and a site of focused biodiversity conservation work. The push from the South African state to increase tourism's contribution to GDP has knock-on effects for the province since it is a locus for eco-tourism activities. Already, the western border of Kruger is being marketed by the state as the best place to find 'luxurious lodges' and 'rewarding experiences of wilderness country', [27] while a HaMakuya-based Trust offers accommodation at a tented-camp.

Biomedical Care Access in Mutale sub-district/Vhembe District

While the national and provincial governments encourage tourism, potentially bringing more people and demands to the area, the public healthcare sector is unable to provide the human capacity needed to handle the regional demands. According to the 2011 mid-year census report, Limpopo has the highest provincial fertility rate, and second highest average life expectancy rate;[28] more people are living longer in Limpopo. Yet Limpopo is crippled by the same shortage of health professionals that most rural settings experience – 3% of registered medical practitioners reside in Limpopo, which is home to more than 10% of the population (Chaytors 1996; Health Systems Trust 2004; Van Rensberg 2004; Kotzee and Couper 2006). Vhembe's public healthcare service delivery is burdened by a (homeland) history wrought with fragmentation, under-development, and lack of human capacity (Health Systems Trust 2004; Kotzee and Couper 2006). Even as South Africa improves the infrastructure of clinics in these previously ignored regions, they

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[26] The tourism industry built around Kruger is the most established in the country; where else do you find a national park with paved roads, and multiple tourist shops and overnight accommodation within? Kruger has been a site for eco-tourism pre-dating the use of the term.
[27] <http://www.limpopo.gov.za/index.php?option=com_content&view=article&id=1&Itemid=3>, accessed 10 October 2015.
[28] <http://www.statssa.gov.za/publications/P0302/ P03022011.pdf>, accessed 15 September 2016.

struggle to employ skilled professionals to staff the clinics (Padarath et al. 2003; Hongoro and McPake 2004; Kotzee and Couper 2006), especially in the Vhembe district (Chapter 3), which is known for mismanaged funds and resultant collapsing infrastructure.

ARGUMENT AND ORGANISATION OF TEXT

In Chapter 2, I stress the importance of an improvisational ethic, while explaining my processes of locating a research site, permission seeking and engaging in ethical and sensitive research methods. Chapter 3 describes the research site while tracking the historic processes of gradual dispossession (Hay 2014), and infrastructural violence that forced people to live on the edge. I outline how Musunda's edge is shaped by historic and contemporary extractivism and infrastructural neglect; processes taking place alongside the creation of South African protected natural areas that shed light on patterns of control that were enacted through environmental policies that make protected areas 'tool[s] of racially based oppression' (McDonald 2002: 1).

Edge-dwelling is thus characterised by, and edge-dwellers experience extensive challenges beyond those experienced by many other South Africans in their efforts to achieve wellbeing. As such, environmental justice as it relates to basic human rights[29] emerges as an important consideration in this research, because 'though we share the same world, we share it unequally' which has bearing on bodies that 'remember' (Fassin 2007: xv). The reminder that 'historical time' is inscribed 'onto flesh' (ibid.) offers a rationale for my efforts to draw on historical political ecology (Offen 2004) to track historic influences that shape current inequality. It is important to understand how historic patterns of resource access and oppression have impacts on wellbeing, while emphasising that despite erasure from their local surroundings in the form of Apartheid-era forced removals, edge-dwellers are very much a people with history (cf. Wolf 1982).

In Chapter 4, I draw on environmental and medical anthropology to acknowledge the ongoing dynamics between place and ways of living (Ingold 2001, 2012; Cohen 2013), while engaging with edge-dwellers' definitions of *mutakalo* (health). I

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[29] McDonald describes environmental justice concerns addressing the 'cruel and perverse' South African environmental policy history (2002: 1).

combine 'medical anthropology in ecological perspective' (McElroy and Townsend 2009) with an extension of Jackson's (1996, 1998) concept of intersubjectivity to the making and remaking of not only knowledge but surroundings, places (cf. Sahlins 2009), and personhood (cf. Conklin and Morgan 1996). Drawing on local notions of *mutakalo,* my focus expands beyond biomedical health, to a wider framing, allowing me to explore local 'ecologies of wellbeing' (Cohen 2013), while outlining the ways in which wellbeing is locally achieved. The park challenges these ecologies of wellbeing, not only by constraining access to resources central to local notions of wellbeing, but also in limiting the ways in which relational exchanges take place. I evidence how local efforts to maintain wellbeing include navigating relations with one's ancestors, which for many are mediated through relations with the environment. As such, the park's fence fundamentally challenges local practices towards wellbeing with knock-on implications for other forms of relating, including relations of care.

Chapter 5 explores the ways in which local residents, as resource users, interact with the park. This chapter considers the importance of *mupo* in local 'ecologies of wellbeing' (Cohen 2013) and describes the ways in which the park and its fence interferes with these practices. Drawing on a local 'political ecology of health' (Harper 2002: 25) while considering 'ecological perspectives' (McElroy and Townsend 2009), I describe how the park's fence impacts on edge-dwellers by shaping resource access (cf. Ribot and Peluso 2003). I outline edge-dwellers' perceptions of how resource access limitations (for example, to water, grasses, trees), imposed by conservation practices (like, protected area buffer zones), influences local ecologies of wellbeing. I track the impacts of resource limitations on wellbeing, exploring how resource limitations shape practices.

Chapter 6 begins by considering the links between the park and dietary changes, including the imposition of restrictions, for example, on hunting. Tracing the dietary influences on edge-dwellers, while considering how conservation-linked trophy hunts shape practices and vital relations, I highlight the ways in which the park is implicated in, for example, food insecurity. I suggest that the park re-frames relations and thereby the ways in which people engage and interact with their surroundings, with concomitant impacts on wellbeing – extending my research considerations to touch on a 'more-than-human' approach (Haraway 2008, 2015). I

show how the park alters relations central to wellbeing, which catalyses safety concerns, adding challenges to the embodied experience of edge-dwelling.

 In Chapter 7 I further unpack the park's role in shaping relations and on influencing edge-dwellers' care-seeking choices, and perceptions of animals. I also suggest that the park creates new tensions and concerns, as jealousy over access to benefits associated with the park is locally associated with increased illness (Chapter 7). Although throughout the thesis I emphasise many negative impacts of the park on wellbeing, Chapter 8 asks why, in the context of so many negative impacts, edge-dwellers remain ambivalent about their position on the edge. By exploring how and why the park continues to be positioned by edge-dwellers as offering hope, I emphasize the affective impact of hope on local ecologies of wellbeing, while exploring how hope for the future is tied to the park, as a source for aspiration and hope, contextualizing edge-dwellers ambivalence, rather than hostility, towards the park. In this chapter, I outline my contributions to anthropology, and the implications of this research before offering suggestions for avenues of future research. Crosscutting themes emerge throughout, including diabetes, extractivism, malaria and climate change.

Approach

My initial broad-based approach was a conscious effort (and ethical decision) to avoid imposing meanings, or topics of significance, without first establishing local relevance. Although I began field research having developed some overarching questions before approaching residents, from the outset I knew my questions might change as I became more familiar with the local context. As such, over time my research focused on emergent topics related to access to resources and places, for example, water, which then led to other topics.

To explore the variety of local health-related practices/experiences; how, if at all, they are shaped by the experience of edge-dwelling; and what this means in terms of everyday wellbeing, I consider the intricate linkages and nuances in local relationships between health and the environment (Berkes 1999; Davis and Wagner 2003; Descola 2005). In engaging with the 'frontiers' (Mauss 2007: 51) of the fields of conservation and health, I attempt to bring together environmental and critical medical anthropology while keeping Deleuze and Guattarri's rhizomatic theory (1987) in mind. Such theory deconstructs hierarchical causal relationships, drawing

attention to the web of enmeshed interactions that result in the varied ways in which local residents conceive of wellbeing and perceive of impacts on their health in the edge-dwelling context.

The complex interplay between conservation's impositions – enacted most obviously through a fence – and the related impacts on health, can be explored through what Singer and Evans (2013) describe as 'an ethnographically grounded political ecology of health', to which I add conservation. Yet a political ecology approach alone does not suffice, and so I draw on a number of approaches throughout while sharing numerous edge-dwellers' stories, because the closely intertwined trajectories of environmental and human health are best explored through multi-disciplinary understanding. For example, to explore issues surrounding resource access, I draw on multiple literatures, including history, to better understand how Venda became an 'apartheid oasis' (Lahiff 2000); and on political ecology and history to analyse current infrastructure limitations leading to northern Limpopo's isolation (Aliber et al. 2013), which necessitates further engagement with for example, the notion of food deserts (Beaulac et al. 2009). This results in what some might call a 'patchwork ethnography' or what I have come to understand as a bricolage of approaches that work in 'discrete patches' and which turn up 'odd connections' rather than 'seamless generalizations' (Tsing 2005: x, xi). This bricolage can more appropriately deal with the intersections of different fields and literatures that are necessary to address the complexity of edge-dwellers' lived-reality.

By exploring edge-dwellers' efforts towards wellbeing, while keeping in mind the various and intersecting ways in which nature is known and health is achieved, this thesis draws on critical medical anthropology, historical political ecology, environmental justice, and environmental anthropology, to explore links between the complex and multiple ways of being healthy while 'living on the edge' (Andersson et al. 2013). I engage with situated knowledges (Haraway 1988) and practices to understand how place and person are co-produced in a particular moment in the social-ecological trajectory (Berkes and Folke 1998), while acknowledging influences of the multiple social-environmental interactions over time and on various scales (Mathevet et al. 2015).

I follow a number of continental African scholars' appeals (Adichie 2009; Mkwanazi 2016) to acknowledge the dangers of telling a single story, especially one that reifies stereotypes that associate Africa and poverty. At the same time, I draw on studies that understand 'science' and 'medical knowledge' as cultural constructs and thus only one among many forms of knowledge (see Green 2013). As such, this thesis provides multiple stories that highlight the enmeshed and interconnected factors that bring together conservation and health in this particular context. This thesis draws on Haraway's (2015) definition of sympoiesis, or 'performing storying' including constant 'looping back' which I suggest is necessary to highlight the impacts that edge-dwelling has on practices and social relations that are imperative to, but not always obviously a part of wellbeing. In 'performing storying' (Haraway 2015), I provide 'fractals' and trace connections without providing a 'whole' story (Strathern 2005) to highlight historic patterns of inequality that come to bear on shaping edge-dwellers' efforts towards wellbeing.

My attempt is thus not to present a cohesive picture of VhaVenda health related practices in the context of edge-dwelling, but rather to expand current thinking to develop discourse at the interface of environmental and health-related anthropologies. For this reason I draw on Cohen's 'ecologies of wellbeing' which strives to engage with the 'continual flux' in the 'struggle for wellbeing' (2013: 92). Cohen (2013) brings together Ingold's (2011: 64) concept of a 'meshwork' (to explain inter-related, overlapping interactions akin to Deleuze and Guattari's *haecceity* [1987: 262]) with Jackson's rendering of wellbeing as 'susceptible to constant change' (Jackson 2005: x, in Cohen 2013: 92). Cohen explains that 'people's wellbeing in their day-to-day lives' is cultivated through 'the myriad humans and nonhumans who played, and continue to play, their parts as mutually forging constituents of ecologies of wellbeing' (2013: 106–107).

By using 'ecologies' to think, Cohen asserts that 'space is prised open' to blur established categories, unbinding the 'lines' that actor-network theory imposes (2013: 105). Cohen argues analysis can move beyond the 'uniquely human realm' often referred to as society (Latour 2005), to one that understands and takes heed of the 'the multitude of flows, substances, materials and organisms' that constitute the 'living ecology' (2013: 92) through which we all attempt to live. I suggest these are living ecolog*ies*, making space to conceptually address the multiple understandings

of efforts towards wellbeing that I witnessed among HaMakuyans when living 'through a world' (Cohen 2013: 106). Moving forward, this thesis will build on the notions of 'ecologies of wellbeing' and 'living through' a world, while acknowledging that as humans becoming, we are just one of many forces, beings, pressures, materials, etc. that interact to forge the ecologies through which we live.

What is Edge-Dwelling? Problematising Protected Natural Areas[30]

Edge-dwellers' position, on the boundary of protected areas requires research that combines literatures in the topics of human health, wellbeing, protected natural areas and conservation. Here I draw on these literatures as I problematise protected natural areas by introducing edge-dwellers. Protected areas such as nature reserves or game parks often appear as quaint institutions that are useful for public education and entertainment, not to mention their centrality to conservation efforts. Indeed, nature reserves, safari parks, and marine protected areas are places that people flock to for holiday adventures. Visitors revel in the notion of being 'in nature' or 'in the wild' because it is 'simple' or 'serene'. The South African economy relies on policies that position eco-tourism as a source of 'development' and jobs (National Tourism Strategy 2012). Public health research even touts the benefits of living near green spaces (Maas et al. 2006; Mitchell and Popham 2008).

As attention to ecological impacts and biodiversity loss mounts, land is increasingly being appropriated as protected natural areas in order to expand the rangelands for charismatic species such as elephants. Conservation initiatives are increasing as a result of growing global trends of biodiversity conservation (Sullivan 2011) and an economic response to worldwide surges in eco-tourism. These efforts, like creating 'corridors' for large species, necessitate claims for more land in the name of biodiversity and conservation biology. Such land demands impinge on the lives of local people.

Protected areas, created through legislation that limits access and resource use and delineates boundaries, are often formulated for a multiplicity of motives, of which only one is habitat and biodiversity conservation. Contemporary protected areas largely result from nineteenth-century class-based values that revered 'pristine

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[30] A similar version – Abrams (2015) - was published online.

nature' (Nash 1982; Carruthers 1995; Neumann 1998; Cocks 2006).[31] Thus some argue that protected natural areas are a state myth that legitimises protectionist action (Anderson and Bergland 2004: 5), especially because most often, historically, the decision to protect an area is imposed from above with little local consultation, as was the case with Kruger, land set aside by hunting-motivated colonialists (Chapter 3).

Although today Kruger is engaging with selective adaptive management,[32] historically it worked on a theoretical approach to conservation known as fortress conservation, which imagines that if people are removed from a particular space, then the 'natural' and 'wild' environments of the past will re-emerge. Fortress conservation approaches tend to rely on concepts of 'the environment' as bounded, using fences to keep people out of places that are imagined to be 'pristine' or 'wild', and conserved through processes that attempt to disallow anthropogenic influences (see Terborgh 1999). This type of conservation relies on the notion that isolation from human impact is the best way to achieve habitat and biodiversity protection with a philosophical stance that positions nature as separate from people and relies on notions of a nature/culture divide. Further, such modes of conservation suggest that people are not rational users of their immediate resources and, if allowed, will degrade their natural environs. This type of conservation ignores the fact that 'pristine' and 'wild' spaces have always had anthropogenic influences (see Fairhead and Leach 1996; Abrams et al. 2009). These practitioners imagine spaces as atemporal, ahistorical, and in need of preservation but, most importantly, devoid of human impact.

Adaptive management practitioners, on the other hand, acknowledge that past concepts of bounded ecosystems do harm rather than good in that they are not realistic models of the pathways and flows of resources; for example, water flows in and out of the boundaries of imagined ecosystems, as do bacteria, regardless of

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[31] Of course, areas that are protected as sacred spaces based on local notions of importance with local buy-in do exist.

[32] Kruger's engagement with adaptive management is evident in the debates I witnessed between different members of Kruger's Scientific Services; for example, the question of whether elephant culling should take place more often, to ensure that the large, old-growth trees within the park are not destroyed by playful elephants, ended in one senior scientist asking another: 'This debate all depends on what we see our job as; are we in the business of preservation or conservation?' (July 2013). In a lecture given by a Kruger management specialist on Kruger's selective adaptive management processes, staff acknowledged the constraints of this approach in the bounded setting of the fenced-in park (21 February 2014).

whether a fence is present (Kottak 1999; Laurance et al. 2012). While Kruger has begun to embrace notions linked to selective adaptive management, the overall approach still attempts to separate humans from 'nature', limiting human impacts in Kruger and Makuya parks through fences and regulations that constrain how people can engage with the local environment.

When humans are not afforded a place in protected spaces, peripheral people or 'edge-dwellers' emerge, whose needs and wants are increasingly marginalised and made invisible against the goals of conservation protectionism (George 1998 in Anderson and Berglund 2003: 6; Brockington et al. 2008). The assignment of 'protected' status often imposes restrictions ('re-regulation') on customary and contemporary land use practices, including resource access, with concomitant impacts on local practices and livelihoods (Hulme and Murphree 2001; West and Brockington 2006; West et al. 2006; Castree 2008). Changes in land use and access that result from the creation of protected areas can influence the availability, distribution, and quality of accessible, strategically important resources and a wide range of social, ecological, epidemiological, and economic processes that directly and indirectly impinge on wellbeing. Practices like fortress conservation and associated buffer zones simultaneously create a context with limited infrastructure (Chapter 3) that requires edge-dwellers live off of the land while the fence and regulations dispossess edge-dwellers of land and resources. Protected areas and their fences often impose a nature/culture divide.

The Nature/Culture Divide
Environmental anthropologists have been engaged with how 'nature' is known (Ingold 1996, 2000; Vivieros de Castro 1998) and the various ways people live in and understand 'nature' or their environment when living next to, on, or separated from protected areas, particularly in Africa (Nelson and Hossack 2003). Like fortress conservation of the past, protected natural areas like Makuya and Kruger parks continue to position nature as 'out there' and separate from our every day lives such that 'a coloniality of nature in modernity' (Escobar 2008: 8) is clearly visible at the edge, in the form of the park boundary fence. At this 'edge' what is natural is deemed to be so through a process of opposition such that what is not 'human' is 'natural' (Descola, 2005: 24); in this way, human actions and practices are juxtaposed to some imagined pristine or wild space.

Unlike the perspective of fortress conservationists with regard to human impacts, ethnographic and ethnobotanical research shows that people develop intimate awareness and knowledges of the ecological systems they live within, often referred to as local ecological knowledges (Berkes 1999; Fabricius and de Wet 2002; Davis and Wagner 2003). These types of knowledges emphasize the reality that people live with (not separate from) and make use of, or what I refer to as 'live through' nature, often with in-built practices (sometimes prohibitions) of adaptive management that work to conserve resources[33] (Anyinam 1995; Berkes et al. 2000; Abrams et al. 2009; Sullivan 2016), highlighting the pretence of a nature/culture divide.

The nature/culture dichotomy works to produce and impose particular constructions of space and place that people living on the edge upset (Neumann 1998; Biersack 1999, 2006). The very existence of an imposed nature/culture boundary, such as the fence that surrounds a protected area, interrupts the daily lives of and creates challenges for edge-dwellers (Chapter 5). In fact, many contemporary conservation (protectionism) projects continue to pit indigenous peoples' land use against an imagined pristine space (Anderson and Berglund 2003) such that protected areas are complicit in reifying nature/culture boundaries. This results, in part, from bourgeois notions and Western philosophical traditions of the proper place of people in society – separate from nature (Nash 1982; Neumann 1998), such that edge-dwellers' actions, because they do not adhere neatly to this divide, seem to be at odds with biodiversity protection (cf. Knight 2000).

Protectionist conservation efforts are bolstered by notions of a nature/culture divide, that can lead to an understanding of the world that is based on scarcity, which contributes to a way of living in the world that is focused on accumulation (Sahlins et al. 1996) and preservation (i.e., fortress conservation). Conservation legislation, political discourse, and policy, such as buffer zones regulations, are formed through an ethic of need that attempts to control a 'nature' that without human interference would not provide enough, furthering the nature/culture divide. Literature exploring the proliferation of environmental conservation efforts, and how this relates to development on a global scale (Guha 2000) and in the African context has been critical of the neoliberal commodification of nature which ties into Western

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[33] Such knowledge can lend itself to *wise use of resources;* incidentally, this is how 'conservation' is often defined.

consumptive practices (see Buscher and Whande 2007; Brockington et al. 2008), like trophy hunting. This form of relating to nature is not universal (Descola 2005), especially where relations with what the West deems 'natural' are inherently social in the local context, or where natural and human do not stand in opposition. It is at the 'edge' of these spaces where the 'pristine' nature reserve is juxtaposed to the 'cultural' space of the village, that the nature/culture divide as an imposition becomes most obvious in the challenges it poses to local ways of living.

The Edge

Although 'edge-dwellers' is a relatively new term to describe people living on the boundaries of protected areas (cf. Andersson et al. 2012 in the context of transfrontier parks), extensive anthropological research explores the related experiences of people involved in land claim conflicts and the impacts of protected areas on livelihoods (see Kepe et al. 2005 on conflicts; Aliber et al. 2013 on livelihoods). Studies of the edges of variously demarcated, bounded or regulated areas abound.[34] The experience of living close to the borders of spaces that are differently policed and legislated, for example national boundaries, has also had ample attention (Wilson and Donnan 2012, 2016).[35]

The notion of the 'edge' is not new when considering literature on 'fringe-dwellers' (see Coombs 1978; Reynolds 2008). Research from Australia (Tatz 1972) and Malaysia (Lambros, Davis and Lewis 1989) suggests such 'fringe' positionality is a major cause of serious health problems, so much so that research intending to focus on forest medicines ended up instead unpacking the challenges that protected natural areas pose for edge-dwelling Malagasy (Harper 2002). The fringe concept has also been used to understand the lives of people living on the boundaries of Ghanian forests (Acheampong 2003) where forest resources are central to healing efforts.

Acknowledging that conservation is a construct - framed through Western discourse as morally virtuous habitat and biodiversity protection – can assist in explaining why edge-dwellers, might view conservation as a semantic guise used to control resources (Neumann 1998; Brockington et al. 2008). These constructed, protected areas (Escobar 1998; Nazarea 2006) contribute to economic and social limitations

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[34] For example Berdahl (1999) explores life at the Berlin wall, while Odum (1971), Leopold (1933) and Fagan et al. (1999) explore changes in species interactions, and diversity as part of the ecological concept of the 'edge effect'.
[35] Alvarez (1995) explores the US/Mexico borderlands; see also Fassin (2011).

imposed on edge-dwellers, where 'geographies of difference' (Harvey and Braun 1996) eventually create 'territories of difference' (Escobar 2008). Environmental historians (Beinart and Coates 1995), social historians (Carruthers 1995), and environmental justice scholars (McDonald 2002) highlight the negative impacts of conservation efforts like protected areas on people living closest to them. However, where protected areas offer future sources of employment, and opportunity in areas otherwise ignored by government services, markets and 'development' initiatives, they can also be sources of hope.

There are multiple ways in which edge-dwelling is experienced. Edge-dwelling is not a homogenous experience. Living on the edge may result in increased attention to and flows of people through an area, including the potential to attract grant funds as the area's notoriety increases, with knock-on implications for local landscapes including increased investment in infrastructure and systems for service delivery. At the same time, tourism can create the demand for increased service delivery thereby magnifying demands on limited resources like water or firewood, as well as potentially increasing traffic, which can affect air and water pollution levels, not to mention increase demands on an already strained public health system (clinic capacity, supplies, and staff).

In an effort not to undermine the agency of local edge-dwellers or the web of local (and not-so-local) relations with which they are enmeshed, this research acknowledges that 'local social and economic differentiation (e.g., class, ethnicity, gender) shapes how people experience and negotiate' their reality in the context of the 'processes beyond' their local networks, which necessitates emphasis on local contexts rather than broader comparisons (Leatherman 2005: 49; see also Goodman and Leatherman 1998; Robbins 2002; Anderson-Fye 2003). This research engages with a number of local emergent responses to conservation in order to explore edge-dwellers' experiences with, understandings of, and attempts to live well, and dwell through, to *live through*[36] 'the edge'. However, simultaneously, because globalisation often leads to increased levels of economic disparity, destruction of the

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[36] Here I borrow 'dwelling' from Ingold (2000) but heed his reflexive critique on the limitations of the term as 'too cosy' (Ingold 2005). He notes 'while we may acknowledge that dwelling is a way of being at home in the world, home is not necessarily a comfortable or pleasant place to be, nor are we alone there' (Ingold 2005: 504). This is why, moving forward, I use the term 'live through,' as this reflects the sensuous experiences, as well as knowledges, habits, practices and skills that comes from living engaged with and partially dependent on one's surroundings.

environment, and health inequalities, along with 'deterritorialization' of place (Leatherman 2005: 49), this research necessitates acknowledgement that 'local-level realities are shaped by processes beyond the community and region', for example, my consideration of how the expectations of trophy hunters have an impact on edge-dwellers' wellbeing (Chapter 3).[37]

Edge-dwellers make use of and live through their surroundings; they rely on certain local resources while navigating the impositions of historic and contemporary power relations. This is all done within an 'inherently and intensely political' context in which multiple landscapes and natures are known (and created) and multiple groups claim contested resources (Ingold 2005: 503; Green 2013). Because the local is context-specific and 'created in conjunction with the external' (Agrawal 2001: 1657; see also Agrawal 2002: 58) it is necessary to explore how, if at all, residents navigate wellbeing while responding to externally imposed land status changes. Although I focus on edge-dwellers, I acknowledge the multitude of overlapping influences, both on bodies and on environments. By exploring the ways in which edge-dwellers live through their local surroundings, I hope to make clear the entangled context of edge-dwellers with non-edge-dwellers and the blurry lines of the 'edge'. This research explores the experience of living on the edge, considering how these entanglements make the imposition of a nature/culture divide challenging for edge-dwellers.

Entangling

While growing numbers of academics look at 'borderlands', 'fringes', 'interfaces' or margins in different ways, most return to the reality that human lives are entangled with the environments, species, weather patterns and other non-human actors that surround them in dynamic, complex and overlapping ways (Zimmerer 2000 in Gandy 2013; Haraway 2008; Tsing 2012); a reality that is often not taken into account when creating protected areas. This thesis unpacks the imposition of a fence as a division between nature and culture (Chapter 5), exploring how such

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[37] Other external forces have an impact on local experiences. For example, the increasing globalisation of markets, modes of information sharing, and flows of people and things, has shifted the ways local environmental knowledge is being utilised, and transformed across space (Alexiades 2009), as in cases where these knowledges becomes a powerful marketing tool (Abrams 2016). In fact, in South Africa, where practices continue to rely on local knowledge with regard to healing and environmental management on the ground, conflict with state-mediated structures might arise, as do influences from international regimes that place pressure on the ways in which the environment, health-seeking and concepts of development are enacted (Reich 2002; Biersack 2006).

divides shape the lived reality of the people closest to the fences. Living on a 'nature-culture borderland' (Johansson 2008: 1), like the edge, is unique in the tension inherent in the experience of living on the boundary of spaces that Western philosophy and conservation legislation/administration has positioned as in opposition to one another (i.e., nature vs. culture). In these spaces the lived realities of edge-dwellers are in constant tension with the supposed neat divides that underlie the discourses of conservationists and state authorities.

In contesting the rigidity of the nature/culture divide it can help to examine protected natural areas as places rather than spaces. Protected natural areas have environmental histories that pre-date their protected status. They are not 'permanent or static entities, but situated, produced, and representational spaces' (Mathevet 2015; para.9), thus individuals or groups engage with them in different ways – sometimes conflicting, sometimes complimentary, often somewhere in between.

Place is a complex concept. It is an 'important source of culture and identity' (Escobar 2008: 7). Lefebvre uses 'place' as the 'lived-in' version of a space, 'fashioned and moulded from historical and natural elements, but in a political way'; space 'has always been political and strategic' (1970: 170). While a space may seem neutral and '"purely" formal [this] is precisely because [it] has already been occupied and planned, already the focus of past strategies, of which we cannot always find traces' (ibid). Similarly Gupta and Ferguson suggest that 'hierarchical power relations' play a significant role in the identity of a space made into place (1992:8). I extend these notions of place to account for more than just the space's inhabitants and users' interactions, more than just the histories that have been normalised to define that space, to also include the interactions that exist between land and bodies, entangled through historic, political, social, biotic and abiotic influences.

Place is made by lived interactions with surroundings, as a human 'becoming' (Ingold and Palsson 2013: 8) moves through an enmeshed world. By describing the ways in which edge-dwellers make use of and define place, not only by things and objects, but by feelings and through inter-relations, I align with Escobar's suggestion that 'embodiment and emplacement' are central components in 'human life' (2008: 7). I focus on edge-dwellers' embodied experience of *living through* a

place as opposed to *living in* a place; this is because being in a place denotes that one is enclosed within a space, a description that does not adequately portray the process of becoming that emerges from living through, engaging with, and being shaped by, while shaping a place. I envision 'the edge' as a place that challenges an assumed nature/culture divide.

Places overlap. For some people a place is imagined, for others, that imagined place is one they must live through. In a particular space, there can be multiple renderings of place. Renderings of a 'pristine' 'wild', for example, as happens at the edge, can create an imagined place, and that imaginary can impact on the ways in which edge-dwellers are permitted to live through their surroundings. At the same time, place has a material reality, tangible elements that people interact with, known by individuals through material (Tilley and Cameron-Daum 2017) and sensory experiences (Spiegel 2004) that link knowledge, embodiment and memory.[38] In fact, the value, efficacy, and utility of local ecological knowledge is tied to and 'emanates from' one's specific locality or sense of place (Nazarea 2006: 323).[39]

According to von Glasenapp and Thornton (2011: 772), cultural capital develops as collective memory, and elders' knowledge builds up an array of possible responses to environmental challenges or changes,[40] highlighting the importance of place, memory, social interactions and knowledge transmission in the interconnected milieu of efforts to achieve wellbeing. Local surroundings, peoples, plants, animals, water flows and sacred sites all play vital roles in modes of healing and conceptions of wellbeing, which are not easily understood through a bio-medical (positivistic) lens, and are not easily separable from one another. For example, research on migrants shows that ethnomedicinal practices shift in relation to their environment (Waldstein 2008) indicating that changes to either the environment or healing practices affect the other in interdependent ways (Anyinam 1995; Alves and Rosa

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[38] Discussing memory is complex in a context where historical conservation practices created places by relocating people (Chapter 3). Nazarea (2006: 323) emphasises the importance of sensory embodiment, emotion and memory by reminding the reader of 'Merleu-Ponty's "presences" (1962), Bourdieu's "dispositions in positions" and "habitus" (1980, 1987), Ellen's "prehensions" and "affordances" (1993), and Ingold's "dwelling" and "enskillment"(1996, 2000).'
[39] Focusing specifically on sensory anthropology (Stoller 1997; Sutton 2001) would thus be productive to further explore my research questions.
[40] My focus on change is not meant to imply that HaMakuyans' ways of living were devoid of change prior to living on the 'edge.' Rather, I suggest the changes experienced as a result of living on the 'edge' are directly related to government-imposed resource limitations because they impose additional constraints on people beyond ecological cycles or other change propellants.

2007), including, but not limited to, plant use, healers' skills and geopiety. Because these practices influence people's relationship with and effects on their surroundings, one another, non-human and external stakeholders, and vice versa, place is closely linked to ways of being healthy in the world (cf. Diamond 2007; Anyinam 1995) and entangled with efforts to maintain wellbeing.

Context specific and situated modes of knowing, such as local ecological knowledges are cultivated through years, if not generations, of detailed and intimate knowledge of complex local systems, employing skills learned from *living through* a particular environment. Ethnomedicine,[41] like other forms of local ecological knowledges, emphasizes the entanglement of nature with culture. Social interactions are important to ethnomedicinal practices, not only as central to knowledge transmission, but also as a component of lived experience (cf. Baer 2004). Residents who have lived through a particular place draw on embodied knowledge (including that accumulated through previous generations) to become experts in situ (Berkes 1999; Davis and Wagner 2003; Green and Hill 2005).[42] As such, paying particular attention to how access to plants, animals and other natural resources shapes people's ways of being healthy in the world is one way to explore the nexus between health and conservation practices.

Health-seeking, wellbeing and the good life
Ward and colleagues define health-seeking behaviours as a series of actions that individuals undertake to rectify perceived ill health (1996). This process is most often initiated through recognition of symptoms (Tones 2004; Ahmed 2005), which indicate a disturbance in what is otherwise imagined (by many biomedical practitioners) to be some form of homeostasis, often referred to as health. In this way, health becomes the absence of disease and health-seeking a series of actions

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[41] Ethnomedicine - the clinical and nonclinical activities that include knowledge, beliefs, skills, morals, and ways of doing things - is closely linked to ecological, socio-cultural and religious practices (Foster and Anderson 1978; Good 1980; Anyinam 1995) making ethnobotanical and ethnomedical ethnographic research necessary (Ellen 2006; Hsu and Harris 2010).
[42] The available descriptive terminology – traditional ecological and indigenous knowledge systems - has inherent problems; the concepts 'traditional' and 'system' have theoretical and lexical implications that can deny history, imply static relationships and reify inequality – but these issues have been dealt with elsewhere (see Gupta 1998). However, both terms also suggest that ways of knowing are appropriate to the context in which they are used, having adapted over time to suit the particularities of the environment, context and people using them (Sillitoe 2006). Thereby, these terms can re-position authority in knowledge hierarchies while acknowledging that individuals are experts in their own lives.

that takes place when the body manifests symptoms.[43] These renderings rely on a theoretical framework that positions the body as having a static, single way of being healthy in the world. However, when Apartheid ended, 80% of black Africans surveyed reported that they consulted traditional healers in conjunction with bio-medical practitioners (Abdool-Karim et al. 1994) illuminating that in this context multiple and parallel ways of being healthy coexist.

A 2009 review established that traditional/complimentary/alternative medicinal practices, despite declining from 1994, still significantly contributed to how South Africans seek health (Peltzer 2009) in this medically plural setting; confirming the parallel and pragmatic use of multiple methods of healing and understanding the body (cf. Thornton 2010; Moshabela et al. 2011). However, post-Apartheid attempts to legitimise non-biomedical healing reinforced and reified established hierarchical categorisations of certain forms of knowledge (linked to race/ethnicity: see Nandy 1987; Agrawal 1995, 2002; Green 2007, 2013) as efforts to standardise practice were set against biomedical modes of knowing (Cohen 2009).

Instead of imposing definitions of health or posing local health-related choices as 'static cultural facts', I draw on Levine's attempts to chart the 'uneasy journeys' of edge-dwellers in their 'search of healing in medically plural settings' in the context of an 'uneven, fragile' world (2012: 7). I extend the definition of health-seeking, beyond a response to symptoms, to include all efforts to ensure that the changing and fluid lived reality of our corporeal existence is at least survivable and perhaps even comfortable. This grounds 'health-seeking' in a process of navigating a journey towards wellbeing (cf. Fischer 2012, 2014). In other words, measuring health according to local metrics, and drawing on local definitions (cf. Lambek 1998) of what it means to live a good life,[44] allows for the possibility of thinking of health-seeking in a context-specific way that reflects the local lived reality. Exploring these 'journeys' must be done without imposing Western, biomedical correlations to notions of health or illness explanations. I join Levine in 'reimaging the possibilities for scholarly ways of knowing and assembling the world' (2012: 5)

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[43] The existence of 'health-seeking models' – for example, the health belief model - standardises and formalises people's process of decision-making and recognises health-seeking within a paradigm that asserts that care is sought when a health facility is reached (Hausmann-Muela et al. 2003; Ahmed 2005), but this does not encompass all forms of HaMakuyan health-seeking.
[44] Quality of life is a person's perceived position in life in relation to their goals, expectations and concerns (Sala et al. 2009).

that take into account local ways of knowing the body. Such a task requires drawing on local notions in analysis, especially of health (*mutakalo*, in TshiVenda; Chapter 4).

Initially, I operationalised health-seeking behaviours as all the skills, actions, networks and actors, that act on or influence a body. Such an assemblage of skills, networks, actors and actions include, but are not limited to, obtaining and cooking food (nutrition), access to water (hygiene, hydration), and access to medicines and care (biomedical and otherwise), and further extends to livelihood practices, because securing income plays a significant role in one's ability to provide for the necessities of survival (Sen 1992). All of these allow an individual to acquire a quality of life (some may call this 'a good life') that is acceptable to their individual desires (WHO QOL Group 1994; Sala et al. 2009).

My approach expanded beyond 'health' to explore local notions of 'wellbeing' as my inquiries led me to understand local notions of health as indivisible from wider relations (with one's surroundings, with one another, with non-human and intangible others), and thus I draw on Cohen's 'ecologies of wellbeing' (2013). The materials, energies and flows that comprise local ecologies of wellbeing are also often tied to notions of living in such a way as to achieve a 'good life' (cf. Fischer 2014: 13). Efforts to achieve a good life, or 'visions of the good life' vary tremendously (Fischer 2014: 7) even among people raised and living in the same place, much like notions of health. Definitions of health,[45] and actions taken to ensure 'health', are influenced by how wellbeing and the good life are understood, and are thus context-specific, sometimes changing, and related to an individual's ways of living through the world (Chapter 4). These varied definitions provide insight into understanding the journeys[46] and techniques people take/make use of in acquiring health, uncovering how health is understood (Chapter 4), as well as when (if at all) and where care is accessed (Chapter 7) including what factors (local, global, social, political, environmental, economic) play into wellbeing-related decision making (cf. Mackian et al. 2004).

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[45] I use the plural form to acknowledgement that a single person may have multiple methods of ensuring their own health, and that multiple definitions coexist within HaMakuya.

[46] Pathways models in public health explore people's engagements with biomedical facilities and modes of healing (see Ingun1979; Young 1981; Rogers and Elliot 1997). However, I use journey (Levine 2012) to extend beyond bio-medical modes of healing to include the navigation of interactions and decisions related to perceptions of health, especially as a 'path' obscures the reality that the way forward is rarely clearly defined.

In making use of the good life, I draw on Calestani's (2009) extension of Sen's (1999) rendering of the good life, not just as emerging from 'substantive freedom,' but also embedded in social interaction. Adding to factors commonly accepted to be central to 'the good life' such as sufficient material resources, physical health, safety, family and social relations, Fischer suggests that 'the good life' also includes aspiration/opportunity, dignity/fairness and shared larger purpose (2014: 5). In the context of 'complex coexistences,' (Calestani 2009: 141) the good life is undergirded by a sense of wellbeing (Fischer 2012, 2014). This sense can be achieved in a variety of ways, but in this context it is inextricably interwoven with local surroundings, highlighting the problematic imposition of a nature/culture divide, particularly when exploring wellbeing. Thus, throughout, I critically engage with and question positivism's singular reality, and the oversimplified dualisms of nature/culture and biomedicine/'traditional medicine' (Agrawal 1995; Latour 2004), pointing out that for many edge-dwellers these dualisms do not exist.

Increasingly, biomedicine is attempting to acknowledge that healing efforts need to take into account emotional, environmental, and other aspects of our lived experience, rather than just treating pathologies. The notion of interconnectedness that this effort espouses is relatively new to biomedical approaches; however, anthropological research focusing on these interconnections is not new. Numerous anthropological studies acknowledge that the body is useful to think with and emphasise a similar interconnectedness in acknowledging that through the body we 'experience and transform the world around us' (Lock and Farquhar 2007: 20–21; Hertz 2007; Mauss 2007). Both biomedicine and anthropologists[47] in earlier eras of bodily theorising envisioned the body as discrete, and individual. More recently, embodiment and phenomenology, paired with critical medical anthropology, are theoretical avenues that attend to the sensory experiences within oneself, and between oneself and others, where 'various experiences intersect' (Merleau-Ponty 1962: xx). Such a position acknowledges that there are a plurality of voices and ways of looking at and living in the universe, bringing to mind concepts like Latour's (1993) pluriverse.

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[47] Anthropological research highlighting the social nature of the body has tended to put the 'physicality of the body proper' to one side (Lock and Farquhar 2007: 23).

As such, imposing notions of health can obscure the lived reality of how people seek health by sanctioning certain practices and not others. Acknowledging the danger of imposing a singular way of attending to 'health' that homogenises multiple and divergent practices, relations and embodied experiences, this research draws on non-biomedical (and biomedical) modes of understanding wellbeing. I explore the local context, without positioning any particular efforts to achieve wellbeing or forms of healing above others. Rather, throughout I draw attention to the lived reality of edge-dwellers by providing extended descriptions that intend to encourage readers to imagine edge-dwellers' experiences.

A Few Important Notes

This thesis makes use of the ethnographic present, but in no way suggests that all the practices and patterns I observed are necessarily the same as when I observed them. When I refer to Makuya Nature Reserve or 'the park' it should be assumed that I am implying its ethos and its management, unless otherwise stated. All names are pseudonyms.

CHAPTER 2: Methods, Access and Ethics – exercises in improvisation

INTRODUCTION

Methodologically, when I developed the proposal for this research project, I imagined a place very different from the reality with which I engaged. Reflecting on my intended methods, and comparing them to those that worked as the project unfolded, provides insights on the many lessons I learned. The methods toolbox that I proposed drew on many disciplines, making use of an 'intellectual poaching license' (Kluckhohn, cited by Geertz 1973 in Malkki 2007: 162), while attempting to ensure that I maintained a 'sensibility'[48] in line with the training I had received and my own ethical standards. For me, this 'difficult to name' sensibility (Malkki 2007: 13) was/is preoccupied with a concern for the challenges of representation, while attempting to re-write the colonial, externally imposed methods of research (i.e., research questions, forms of engagement) that may be people's experience of anthropology in this setting (e.g., Van Warmelo 1932). In an effort to not be a 'helicopter researcher' (Panapasa et al. 2012: 57) the focus of my professional disposition was to ensure that the work I did mattered to the people I worked among, and that long-term engagements were maintained. This meant that my work necessarily had to have some inbuilt improvisation (cf. Malkki 2007), and that my research methods were ethnographically informed. In other words, as this chapter aims to show, the methodological decisions I made, based on my own ethical sensibility, developed out of experiences I had in the field. Before describing my methodological approach, it is important to explain the processes by which I found my research site, and sought permission, as these processes influenced my approach.

FINDING A SITE/ENTERING THE FIELD

Concerned more with concepts, and less with practicalities, my research plan was based on months of library research, without a specific site. The very nature of identifying a place 'on the edge' was a challenge I had not thought through. In a country with difficult terrain that, at times, lacks road infrastructure, I had to start with places where I had contacts. I reached out to anyone I knew working in conservation. With limited funding and time constraints, my method was a mad dash

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[48] Malkki (2007: 163) suggests this 'sensibility' is similar to Bourdieu's (2000) professional 'disposition'; for Johansson (2015) this sensibility aligns with being a 'good anthropologist'.

to find a place to get started. However, this took networking and a bit of luck, as described in the following sections.

Initial Contact with HaMakuya – The Trust

I learned of HaMakuya and the Trust in January 2013 when exploring potential research sites. Gert – a conservation biologist/botanist employed by Kruger, runs university programs in ecology – suggested HaMakuya because it bordered a protected natural area, and from his experience, HaMakuyans were receptive to research. Gert connected me with Harry and Sally, two researchers who worked in the area, and offered me the opportunity to visit HaMakuya in May 2013, in exchange for lecturing on a study-abroad course there.

Sally responded to my email almost immediately, explaining her history with the area. Having developed relationships in the area, including with the Traditional Council (henceforth, Council), she, Harry and HaMakuya's Chief Makuya applied for National Lottery funding to set up a community trust in approximately 2001. They remained active on the board until I began correspondence in 2013, when Harry resigned. Although Sally had recently moved to Europe, she maintained ties to the Trust, and ran programs for US students there. In our first conversation, she explained that the Trusts' board was composed of 'big men' from the area (Chief Makuya and Mr L), herself, and the local clinic's head nurse. The Trust ran a 'Resource Centre' in the middle of HaMakuya, and a 'Camp' for researchers and eco-tourists. Most researchers stayed at the Camp for a week, at most four times a year, 'collecting data' – an early indication of why my long-term engagement and methods, at first, ran counter to HaMakuyans' previous engagements with researchers. Sally directed me to the Trust website and, offered help with local contacts.

While researching the region, I found surprisingly little ethnographic research among rural TshiVenda speakers aside from colonial descriptions (Stayt 1931; van Warmelo 1932). The Trust's website explained that their organisation aimed to 'enhance responsible wellbeing and livelihoods by improving the ability of community members to sustainably exploit their natural and cultural resources'.[49] The Trust's methodology was based on the idea that stimulating the local market economy through micro-enterprises will generate jobs, tourism, agricultural

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[49] Please contact the author for the website reference (accessed 20 January 2013).

production and businesses. Aware of the possibility of such endeavours to wreak environmental havoc and exploit local residents, the Trust 'focuses on the eco-, cultural and educational niches in tourism . . .' through their central project, the Camp which is also marketed as an eco-tourism accommodation.[50] I emailed Sally to confirm interest while reaching out to contacts at the Universities of Cape Town and Venda[51] to explore which other academics worked in the region.

A conversation with Sally in May 2013, before departing for HaMakuya, provided more insight into the Trust's board and its links to the Council. Mr L, a 'big man' – a royal relative, petty headman, and school board member – voted according to the wishes of Vho Makuya (the royal head or Chief of HaMakuya[52]), creating a 'block' in board voting explained Sally, hinting at tensions among board members. She also explained that the Trust and Council were formalising a research coordinator position – dedicated to support and research management - acknowledging growing research interest in the area. A European volunteer, Brody, who was also Camp Manager, held this coordinator position, and began developing a research program[53]; however, his continued role in the Trust was uncertain. Sally hinted that local responses to the Trust had been divided, some in support, others not, which increased my concern that affiliation with the Trust might influence my research. However, since the Council had formally arranged that the Trust act as liaison for researchers, I could not do otherwise.

I arrived in May 2013. In June and July I travelled south along the Kruger border, to the next province (Mapumalanga), exploring other potential research areas, returning to HaMakuya three times. During each ten-day visit, I stayed at the Camp, learning about the region, and taking basic language lessons. I met Brody regularly, discussing my developing plans including permission seeking.

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[50] Ibid.

[51] I arranged many meetings with the University of Venda professor, but all efforts to meet failed. In September 2013, a UCT history professor agreed to meet; his research did not focus on HaMakuya, but he grew up there, and confirmed a lack of long-term social science research there.

[52] HaMakuyans were not consistent in their use of terms to refer to Vho Makuya; some referred to him as 'chief', others as 'king'.

[53] In 2013 two industrial engineers, an agricultural engineer and multiple fine arts students piloted projects.

ACCESS, PERMISSION AND GATEKEEPERS

Ethical review was sought from the University of Kent, and of Cape Town. I followed formal permission-seeking processes with Kruger, and informed Limpopo Department of Health of my research. Since I was following local advice in gaining permission, my initial contacts in HaMakuya were mediated through the Trust via Brody. Eventually, in this way, I appropriately engaged with local royal hierarchy (i.e., approaching people in the correct order and building a contact network from there). Permission was granted, albeit with many delays and lessons learned, as the following stories show.

Gatekeepers: Layers and Lessons in TshiVenda Politics

Through Brody as research coordinator – a European, who spoke fluent TshiVenda – and Camp staff, I was trained in how to greet, which changes according to the time of day. Brody taught me the various levels of local royal hierarchy, and prepared me for meeting the Council.[54] In late July I felt ready; permission seeking involved approaching the Council secretary first, then, potentially, meeting with Chief Makuya's advisors. I could then approach the village headman, before seeking permission from residents at a village meeting.

HaMakuya Chieftaincy Permission

Brody advised me to arrive with a one-page document outlining my research aims. When I eventually met the Council secretary,[55] Brody approached the office before me, introduced me, and, with eyes averted, I attempted the formal greeting, before explaining my presence. The secretary responded, 'You did the right thing coming here, and asking us first. Sometimes, the *makua*,[56] they go to the headman of the village first, but that is not how it works with us. First, you must have the permission of HaMakuya's chief then he tells you to go to the secretary or chairperson of what village, and then they will help you. But sometimes, people who do not know our ways, they do not come here first. You have done the right thing. Let me see that paper.' He reached for the one-page research summary.

'Do you want me to explain?' I asked.

'No, I see your research is about health. Are you a doctor?'

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[54] The building sign was labelled 'Traditional Council'; however, locally, 'royal' council may have been more appropriate. Researchers who engaged with the area, referred to the 'Tribal Council'.
[55] A number of prior efforts failed because the Council offices were closed.
[56] 'White person', but the literal translation is 'of English' as 'kua' refers to 'English'; 'tshikua' to the language, just as 'tshiVenda' is the local language, and 'muVenda' is a way to self identify as Venda.

'No, I am not. I want to understand how people in the village stay healthy, so I will learn a little about clinics and that kind of biomedical health, but I am not only interested in that. I want to know about other things people do to stay healthy that might not have anything to do with the clinic.'

Looking down at the paper, he said, 'I see. This paper will be reviewed, and if we have any questions we will get back to you, but if you do not hear anything, then it is fine. In the meantime – you said you wanted to visit Musunda for research? You can arrange that with the village headman and his people. You can go.' He looked at Brody, 'You can take her to Musunda.'

Musunda Village Permission

In our initial conversation, Sally suggested Musunda, located on the boundary of Makuya park. Brody and Camp staff agreed that Musunda was appropriate for my interests, not just for its location, but because the village chairperson, Fulu, was helpful. We arrived in Musunda and crossed the Red Line Gate, where we had to wait to register our vehicle. Then we drove approximately five hundred metres and turned left. It was just before 4pm when we pulled up to a carefully landscaped house. A woman had just arrived as we walked up.

She looked up and smiled, inviting us to sit by bringing chairs outside. Brody introduced me to Fulu, the village chairperson – a democratically elected point-person in the village, and counterpart to the customarily appointed headman (*vhamasanda*) and his secretary. I explained my research interests, and Fulu nodded, asking if I intended to live in Musunda. I expressed interest in the accommodation being built in Musunda near the Makuya gate. She nodded again, remarking that she thought I would be lonely there. Then she rose, announcing we could speak with *vhamasanda* now that we had addressed her; she would accompany us because this was her duty as chairperson.

We drove away from the Red Line gate, towards the nature reserve and deeper into Musunda. We stopped at a homestead with a giant baobab tree in the yard - *vhamasanda's*[57] house, but his wife told us that he was 'too full of alcohol' to meet, so Fulu suggested that we meet his secretary/counsel. This man, Mr. Rama, lived

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[57] Some people refer to a village headman as *vhamasanda*; others refer to *vhakoma* or *mukoma*. The chief counsel to each headman (in Musunda, Mr. Rama) – also referred to in English as secretary – is called *vhakoma* by some. While this confused me, Musundians did not seem confused.

just four houses from *vhamasanda*. When we arrived we were ushered into the courtyard between the housing structures and cooking rondavel. Family members bustled around in the fading light of the day; a young woman cooking at the fire, an older woman tending two children on a grass mat, as the man we came to see sat on a plastic chair, smiling through cataract-filmed eyes.

Fulu and Brody explained my research interests – building on each other's explanations in TshiVenda while I remained seated on the floor, eyes diverted from direct gaze. He listened carefully, and spoke quietly. My research was 'important' and 'useful', but he had concerns. Where would I live? Fulu explained my interested in the eco-accommodation. Who would bring me water? Fulu brushed this off by saying a teenager could. The conversation carried on, until Fulu and Brody turned to me, 'Do you know how to cook *vhuswa*?' The young lady silently cooking and fanning the fire looked up and smiled. She handed me the spoon to work the maize porridge (*vhuswa*) cooking on the fire.

My lack of skill embarrassed me as I worried that I would ruin their meal. They watched and giggled as I struggled to manipulate the thick stuff. Then the young lady grabbed my hand and showed me; the skill in her fluid figure-eights were not reproducible with my weak, clumsy wrists. Acutely aware that my lack of skills would create lumpy porridge, my fear of ruining their meal became a reality as spittle from my mouth dropped into their pot in full view of everyone – I was hungrier than I thought. Despite my mortification, they just laughed and the young lady took over so as not to have ruined, lumpy *vhuswa*. Mr Rama told me to return the next day; he would accompany me to visit *vhamasanda* to seek permission. Although not apparent at the time, this lesson in cooking *vhuswa* was key not only in the gate-keeping process, but also as an indicator of the importance of food in everyday life.

On 22 July 2013 I arrived with Mr. Rama at *vhamasanda's* home and sat waiting under the shade of the giant baobab. After ten-minutes, *vhamasanda* emerged from another homestead, and positioned himself near Mr. Rama, but turned away slightly. No one made eye contact with him as he stared off into the bush behind his house. Brody got down on the ground for a full kneeling greeting. 'Nda', he said, with hands clasped to the left and eyes averted. I followed – greeting 'Aaaa', with head

bowed. *Vhamasanda* listened to Brody and Mr. Rama with a faraway gaze, grunting in response to my intentions. Then, it was done. Mr. Rama explained that I should feel welcome in his home, and that Musundians would be told to welcome me at the next village meeting. I asked Brody to stress that people should not feel obliged to speak with me, and requested to attend this meeting.

Mr. Rama turned to me and began speaking in TshiVenda. Brody translated: 'Our news and business with *vhamasanda* is done now, unless you have anything more to ask?' I did not, and bowed deeply, '*ndolevua*'. We headed to the car. I expected to take Mr. Rama home, but he wanted to walk; it was his 'exercise', he explained, walking out ahead of us. With that, the permission-seeking process was done, but I had to wait for the village meeting, and permission to move in. Months of planning this process, and now a day and half of explaining, and it was done. Or so I thought.

Finding a home in Musunda

When I returned to HaMakuya later in 2013 to move into Musunda's eco-tourism accommodation as discussed, I was told that the longdrop (latrine) had not yet been constructed and that I should instead stay at the Camp until it was ready. I offered to help build the latrine as I was interested in the process, but was told that the Community Works Program[58] crew were already working on it. In the interim, I attended Musunda's village meeting where Sarina[59] and I explained my research aims and stressed that no one should feel obliged to speak to me, but that people should approach me if they wanted. Then, we asked for feedback.

Largely the feedback was welcoming – as in 'I welcome you' or 'feel welcome' – but one tall, stern woman wanted to know if I would be paying rent. The Limpopo Department of Agriculture representative at this meeting, interjected that students who were researchers could not afford to pay expensive rent. Fulu then suggested that they would return to this discussion when all other business was handled. I was thanked for my time. Sarina thought we should leave the meeting to allow them to talk freely, so we did.

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[58] This government job-generation program is described in Chapter 3.
[59] Sarina, who I met through the Trust, began as a translator, but over time, she became my research assistant; I detail this relationship later.

Major shifts were happening at the Camp since my first visit. By November 2013, Brody had not been invited back, despite his willingness to stay on. The Trusts' board had experienced some internal fighting, and as a result all board members aside from Vho Makuya and Mr L had stepped down. Camp staff were frustrated by the fighting, but even more tense about the fact that their pay had been reduced, due to what many claimed was mismanagement of funds (and others blamed the Chief's greediness). Camp staff complained more than ever; they had complained about Brody previously, but were now complaining about how much they missed him as camp manager – most were unhappy, aside from the new (local) interim manager, Kone.

After another month in the Camp, I approached Fulu again about moving to Musunda. She explained that a village meeting was planned to find someone to move to the accommodation with me. This was the first indication from Fulu that Musundians had decided that my living in their eco-accommodation was agreeable, but there was concern for my safety there alone. I explained to Fulu that I was shocked that the plan was to have someone move to facilitate me, adding that I would happily live at an established homestead if it meant no one had to move. She expressed surprise, telling me she thought I wanted to live alone.

Thus, my initial engagement in the area was through the Camp. I lived at the Camp, moving from tent to tent, around guest bookings, until I finally was given permission to move to Musunda. In total I spent more than eight months at the Camp. It was comfortable, with hot showers, and a gas stove. Camp staff became my family, with evening language and music lessons and shared meals. The Camp was not ideal, though, as it was a twenty-minute drive from the nearest village on a treacherous and historically flooded road. With limited budget and rising petrol prices, I could not afford the daily commute. I was ready to move into the village from the outset, but there was apparently a lot of politics around who would benefit from my stay, which delayed my move.

Fulu later revealed that as village chairperson, she was meant to assist residents in deciding where I would stay. Extensive debates and some heated arguments emerged as some suggested I pay city rent, or '*makua* rates'. Fulu explained that one Musundian scolded the others, 'Some of you have children at university, and some

of your children will have to do research like this. This person is a student, she is not making money studying. If it were your children, would you want someone to charge them?' It was then decided that I should not pay rent.[60] Perhaps that is why no one immediately stepped forward to host me; no one in the village had ever had a foreign visitor stay long-term, and if nothing else I was an extra mouth to feed in a setting where homestays had established that foreigners came with a stipend from the Trust.[61]

Fulu offered to host me. Her house had a spare bedroom and, she later explained, she knew I would be safe in her home – revealing she felt responsible for my safety. Thus, I ended up living in the home of the village chairperson, who is also (unrelatedly) the crew manager of HaMakuya's largest form of employment, the Community Works Program. Fulu is also married to Pfarelo, the son of the village secretary, Mr. Rama.[62] Initially, my access was mediated through relatively powerful people within local village hierarchies, unbeknownst to me. This is just one of many factors and ethical considerations that influenced the ways I conducted my research, as the following sections outline.

IMPROVISATION AS METHODOLOGICAL APPROACH

I follow Malkki's (2007: 163) assertion that 'improvisation is indispensable' in the process of writing and doing ethnography. 'Poaching' (ibid: 162) from various fields is precisely how I navigated this research process. Environmental and medical anthropology acknowledge the ongoing dynamics between local landscapes and ways of living (Ingold 2000; McElroy and Townsend 2009; Sahlins 2009). Pairing this acknowledgement with a tendency in South Africa for local biota to play key roles in health (Botha et al. 2004; Cocks 2006), meant that using phenomenology and embodiment (Merleau-Ponty 1962; Csordas 1994) to focus on lived experiences became key to facilitating this research in order to explore if, and how, health and surrounding environments (for example, as key resource sources) are understood together.

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[60] I insisted on paying for my accommodation, but Fulu refused to take cash, so I covered household expenses, including food, electricity, and in consultation with Fulu, I replaced appliances that had broken (a refrigerator, and television).
[61] The Camp set up short (2–3 day) homestays where HaMakuyans were paid to host, and received additional food.
[62] In mid 2014 Mr. Rama passed away, and Pfarelo, as eldest son, assumed the role of village counsel, although he was rarely called upon to fulfil this role.

This thesis presents work that emerges from a mutual learning and building process between myself and my teachers – HaMakuyans. This engaged, exploratory research (West 2005; Igoe and Brockington 2007) drew loosely on a constructivist approach informed by participatory research models (like PRA[63] and CBPR[64]) (Horowitz et al. 2009; Leung et al. 2004; O'Kane 2008). Collaboration with my research assistant, Sarina, was central to the process of building on locally salient themes. Raised in Domboni village within HaMakuya, Sarina's knowledge of and personal anecdotes relating to topics that arose in discussions were instrumental in this research process. I generally worked with Sarina three days per week, according to her availability, with the remainder of the week initially (first six months) used for language lessons, and later, dedicated to working with Fulu's Community Works Program crews. My weekend activities ranged from housework and goat tending to funeral and/or *stokvel*[65] food preparation/attendance, helping Fulu with the laundry service she provided, visiting friends, and bi-monthly trips to the shop for supplies – my weekends were improvisational as well.

THE ORIGAMI OF RESEARCH – FOLDING, UNFOLDING, REFOLDING OF FOCUS

Above all else, this research was processual (cf. Alexiades and Peluso 2002), with the aim of assisting residents to voice their health-related experiences of 'living on the edge', while acknowledging their positions as experts in matters that pertain to them (Greene and Hill 2005; James 2007). Building on participant observation as the central research method, plant and food security surveys, interviews (semi-structured and open-ended) and photo-journals (Wang and Burris 1997) were used in three thematically distinct, but overlapping phases: Phase I: How is health locally defined? What do people do to be healthy?; Phase Two: How is the environment, if at all, implicated in local notions of health?; and Phase Three: How do the findings of the previous two phases intersect with conservation legislation, practices and expectations? How does this impact on local residents?

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[63] Participatory Rural Appraisal is intended to support interactive analysis and dialogue within a constructivist paradigm that recognises both researchers and researched as active participants in data production (see Pretty et al. 1995).
[64] Community-based participatory research encourages researchers working across disciplines to engage with the population being researched when designing variables, instruments and data collection methods (Schwab and Syme 1997).
[65] Women's monthly gatherings that includes festivities but double as a rotating credit union.

Phases of this field project

Phase I explored how residents defined health by unpacking local conceptions of health and wellbeing. With limited ethnographic literature available on Venda-language speakers in this region, I felt it was necessary to establish whether local residents relied on their surroundings in their definitions of wellbeing. This was done by drawing on informal discussions and formal semi-structured interviews, while also reflecting on my experiences of trying to maintain my wellbeing, and watching how others did the same (participant observation). Targeted, in-depth, individual interviews focused on health (42 hour-long interviews, recorded) deepened my understanding of how people relate to and live through their bodies and surrounding environment. In developing an understanding of recurring themes, and the variety of local conceptions of wellbeing, I also explored decisions and actions people take towards achieving wellbeing. Using photo-journals (Wang and Burris 1997) to determine what natural resources are important to local conceptions and practices, I cued participants to take pictures of places or things that represented 'health' and 'sickness'. I used their explanations of their photos to further refine my understanding (more than 70 cameras).

Phase II explored emergent topics that link health to the surroundings. By watching the ways in which people used their surroundings, and learning how the surrounding environment might affect my own health, I was able to gain insights and gather topics of importance from which to build further questions. Formal (22 recorded interviews, forty-five minutes on average) and informal individual interviews and group discussions provided evidence of how natural resources (i.e., water, plants, firewood) are used in efforts towards achieving wellbeing. Ethnobotanical surveys, sampled from 47 households, were used to gather information on health-related local plant uses and determine health-related priority species (Vieira et al. 2011; Etkin 2001, 1988).

Phase III included further observation and individual interviews (34 interviews, most not recorded) to explore the links people made between their health and edge-dwelling status. Such discussions drew out people's conceptions of and relationships to the conservation project they live adjacent to. In addition, consultations with the park's staff, and eco-tourism employees provided further insights into the relationships between conservation ventures and edge-dwellers.

As standard in anthropological inquiry, participant observation was central to all phases of this research. Interview themes and content were drawn from previous interviews and discussions to build topics of local salience (Pope and Mays 1995; Stuttaford et al. 2006).[66] Interviews for all three phases included requests to take part in photo-voice diaries with different prompts for each phase, inviting those willing to get involved as researchers.[67] Ideally each interviewee would thus have three interviews and three sets of photographs that aligned with questions from each phase, although in reality this was not always the case.[68] Additional interviews were conducted that did not fit into the 'phases' listed above, for example, interviews with Community Works Program managers, local eco-tourism employees, local healers; these were completed as opportunities arose, again improvisational.

Story Origami: A reminder that the crane starts out a flat piece of paper

I sat under the shade of an expansive tree, on my first day of research, in a large orchard shared by some Domboni villagers. A grandfather, repairing a sieve while two little boys played around him, stressed the importance of food in my questions about health. Under the shade of another tree, a grandmother, with her granddaughter playing nearby, showed me how to prepare marula beer. As a local healer (*maine*), she believed a first aid workshop for area residents was needed, explaining that often people came with injuries from being 'in the bush'; they arrived, after a long journey over difficult terrain, more injured. During this discussion, the granddaughter began picking groundnuts, feeding me intermittently. Just like her grandmother, she was showing me an important nutritional plant source, and how to harvest it.

Summary notes are a bit magical in drawing out how neatly this day-long adventure brought together and clearly highlighted two centrally important themes in my research. At the time, this just felt like the first day of research, but hindsight allows me to see just how pivotal these first two conversations and skill observations/lessons were to the course of my research. These conversations – with

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[66] In public health, this is 'grounded theory' (Strauss and Corbin 1997; Glaser 1978).

[67] See appendix 2. 1 for photo- voice instruction examples.

[68] I intended to engage those I interviewed in all phases but in some cases this was not possible. For example, one person was available for the first phase in 2013, but by early 2014 moved to a Kruger for work. By November 2014, she was staying with her sister in another village, recovering from malaria. Patterns of migration out of HaMakuya for work shaped my long-term access to some, while sickness, death, or study made others inaccessible.

food and remoteness as key themes I attended to – can exhibit how, once articulated, thematic focuses were followed and expanded upon.

The practice of writing, the 'storying' of people's lives (cf. Haraway 2015), which summarises messy, chaotic and sometimes painful overlapping experiences and emotions, is just that – 'storying.' We pick, and chose details to make our points – we see, hear, and relate – but it must not be forgotten that I am the one observing and relating other people's lives. Lives are never as clear as the summary notes can make them; the moments of impact, the causal reactions, are easy to see when stories are written, when beginnings and ends are crafted, when accounts are made linear. However, for the people living these neatly summarised days or months, the connections, the reactions, the impacts are not so linear. While I endeavour to 'give voice', I would be remiss if I didn't remind the reader that this is my story, my voice, and it's embedded in the privileges I have. These are stories – people's lives are far more complicated than the stories that even the best ethnographer conveys.

Authority Origami: Framing the Expert

With an iterative process as its underpinning as both a methodological tool and an ethical necessity, topics of inquiry necessarily develop, expand, and then, later become more focused. This unfolding and refocusing of research aims is an ethical necessity because if questions about health issues are imposed, they can manifest in health concerns that otherwise might not have existed had the researcher not prompted consideration of them through inquiry. With concern for the historic power imbalances in researcher/researched relationships, further complicated by my position as a white, middle-class woman in a rural, post-Apartheid, Limpopo village, I worked to frame my research around the concept of working *with* willing participants-as-researchers rather than doing research *on* people (Pretty et al. 2005).

Drawing on medical anthropology theory that posits illness (and health) as an experiential series of events, *we* (myself alongside willing HaMakuyans) explored experiences of efforts to maintain wellbeing in the context of edge-dwelling (Merleau-Ponty 1962; Csordas 1994; Good 2004; Lock and Farquhar 2007). The people I worked *with* (as opposed to those who provided some information) are those who took time to speak with me, to point out something they thought might interest me (like termites), who welcomed me for repeat visits and willingly engaged in discussions, walks, parties, work and research. Not all of these people became my

friends – although many did – but what is important is that through their efforts, their interactions, body language, and words, they expressed an interest, and willingness to remain engaged. Ever aware of the power of my skin colour, accent, and material resources, this type of relationship building and research engagement felt ethically appropriate and necessary.

METHODS TOOLBOX

When given choices of what methods to use to communicate their position, people respond in a variety of ways (Hill 2006); thus I proposed the use of varied techniques, with the caveat that their use would depend on their reception when piloted. I intended to layer methods to elicit responses from different types of communicators (ibid), allowing for people with varied levels of literacy to engage with the research while building a processual ethnography that explored edge-dwellers' worlds of experience (Turner and Bruner 1986; Abu-Lughod 1993; Good 1994; Jackson 1996). The methods I intended to make use of included participant observation, focus groups, interviews, surveys, life histories, mapping, photo-journals, body-mapping, mural making and role playing. Some of these methods worked well, and others did not, as outlined below.

The Tools that Worked

I actively positioned myself as learner, and wanted to underplay the notion of myself as research expert. Perhaps because I was aware that those I was closest with resented other researchers (complaints included; they dropped in for short periods; made demands, and 'empty promises'), I was careful with research requests, as I wanted people to understand that I saw them as experts. My methods of gathering data were, thus, organised around an ethic of pragmatism and humility, mixed with some attempts to pilot methods too meekly. If I faced resistance to a method - aside from persisting with recurring lessons on how to use the camera - I was willing to drop the method. In the following section I outline the tools that worked. Then, before moving on to briefly describing the tools that did not work, I provide an ethnographic interlude that sheds light on some of the ethical considerations in my research encounters.

Participant Observation

Participant observation is a central method in anthropological work, and in my research. With permission, I participated as much as possible in daily activities

(Malinowski 1922), to get at the heart of the spaces between what people say they do, what they think they do, and what they actually do (Murphy 1980). My participation included active engagement in Community Works Program daily routines like road repair, or working in the school's food garden, as well as observation and recording interactions. Involvement in daily activities increased my understanding of daily rhythms, but also provided insight into why some intended methods might not work.

As a female researcher complying with local gender-related practices, I am able to provide more insight into the life-worlds of women, than those of the men. My engagements most often took place with women; men were around, but not active in women's daily chores. I learned to copy various routines (washing, food preparation, water and fire-wood collection), and connected with others by engaging in this learning process (cf. Taussig 2007: 263). I gained deeper understandings of my informants and their associates during informal discussions and interactions (Bernard 2006), especially while learning skills involved in cooking, carrying water and attending *stokvels*. I drew on Bemak's 'street-researcher' methodology[69], where I started by acknowledging that, in the village setting, I was (and probably still am) a novice (Bemak 1996; van Blerk 2006). This method outlines the importance of learning the rules and norms of a particular setting by relying on research consultants for interpretation while developing trust, rapport and new ways of communicating through active engagement on residents' terms (van Blerk 2006).

For me, participant observation was as much a learning process as a method to explore issues relevant to the research, providing insight into how people strive to secure wellbeing. Using a formal field diary, I shared key research notes with my research assistant – a methodological tool that relies on feedback to clarify what facts are openly discussed, and which are 'hidden transcripts'[70] (Scott 1990; Novellino 2003). As someone learning to survive in Musunda, my efforts to maintain wellbeing gave me insight into the broader questions I asked. By positioning myself as someone wanting to learn from and with residents, and conveying appreciation for the skills which others trained me in, I worked toward

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[69] I drew on my research experiences among street children, led by van Blerk (2006), whose research methods were based on Bemak (1996).

[70] Hidden transcripts become especially important, as Novellino's research among the Batak shows of cases where the researcher is not a native speaker (2003).

subverting the possible power hierarchies often implicit in researcher/researched relationships. It is also for this reason that some of the methods I intended to use did not work, as I was not willing to position myself in an authoritarian role.

Interviews and Ethnobotanical Surveys; Ethics Lessons Learned

Contextually it is important to understand that the HaMakuya chieftaincy hosts three-day homestays as part of the Trust's research and eco-tourist services. In 2011–2013 engineering researchers made repeated use of survey questionnaires while testing newly re-designed stoves; thus Musundians were used to foreigners moving through for short periods of time, with research surveys. Often as part of Camp/Trust affiliated research projects, young researchers, some without any past experience in interviewing, are sent into the villages with translators to conduct structured interviews. As such, when I started my research, Sarina was confused by the fact that I spent entire days asking no questions, instead just doing chores with women, or joining work crews.

Sarina kept asking when I would start my research, and I continually explained that I was already doing research.[71] As a past homestay interpreter, Sarina responded, 'But, when are you going to start collecting data?' This, despite the fact that before setting out to do any work, I had sat with Sarina for days, explaining my research approach. I explained that a lot of what I saw and did was 'data' and that, unlike some students or researchers whom she had previously worked with, I was interested in more than collecting pages of surveys. The Trust's homestays, with embedded mini-research projects intended to teach research methods to students while giving them hands-on experience, had the unintended consequence of creating a particular expectation of what research was among HaMakuyans. This influenced my approach as I realized that HaMakuyans seemed comfortable with semi-structured interviews, but increased my awareness of the need to consistently remind people that informal discussions were also part of my research.

Building and drawing on previous interviews in attempts to align research topics with pertinent local experiences, Sarina and I developed semi-structured interviews focused on notions of wellbeing, health-related concerns (i.e., what do you see as your biggest health challenge?), perspectives on the intersection between the local

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[71] I repeatedly reinforced that I was conducting research, and that speaking with me was completely voluntary.

environment and health, and local understandings of conservation and the park. Ethnobotanical surveys[72] explored local plant uses for healing and food. Initially these surveys also included food security questions drawn from pre-validated surveys in other countries. Sarina's confirmation that what I sensed as cues indicating embarrassment, when these questions were posed, led to re-wording many and abandoning others.[73] This is just one example of Sarina's importance to this research beyond translation.

In-depth, unstructured interviews allow participants to discuss a single topic in detail. They were not as easy to conduct as semi-structured interviews were; they required deeper connections with people; were time-demanding; and being open-ended, made people uncomfortable in their transgression of what residents expected of research. That does not mean that in-depth and unstructured interviews were abandoned, but that these types of interviews were less often formally scheduled; often they developed out of informal conversations and were conducted with people whom I had close relationships with.

Photo-journals

The use of photo-journals was dually beneficial. Not only were they a productive method of engagement, providing starting points for discussion, but they assisted in providing access to spaces I might not otherwise have seen: for example, local practice is to welcome one into the homestead but very rarely inside. Having residents participate as active photographers provided insights into what is most meaningful, from their own perspective, giving residents visual tools to aid them in describing their lives (Wang and Buris 1997). Although demanding – time to teach people to use the cameras – providing residents with disposable cameras, and cues (e.g., 'take pictures of places and things that bring or assist with health') helped to uncover hard-to-verbalise topics (Wang and Buris 1997; Banks 1996; Berman and Allen 2012). While this method challenged me significantly from a funding and

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[72] Etkin (1988, 2001) combines ethnopharmacological data with medical ethnography to account for both the physiologic potential of plants and their cultural interpretations; see Vogl et al. (2004) and Vieira et al. (2011) for participatory ethnobotanical research.
[73] Three questions from an international food security survey (Coates et al. 2006, 2007) asked people to recount how long it had been between meals. We abandoned the effort to understand specific details of the longest periods people waited between meals once it was clear that this caused embarrassment.

logistics perspective,[74] it was a useful and engaging method.

Botanic Field Guide Editing/Re-writing

Onda looked over my shoulder at the tree identification book. 'Ah, that is a good book but you see that plant, that is not all it can do,' he said, pointing to the 'Uses' subheading. 'Do you want to tell me?' I asked in response. 'No, you can give it to me. I can edit it,' Onda offered. In this way a new research technique and methodological experiment evolved out of my relationship with Onda;[75] it involved sharing botanical photo guides with residents, and asking residents to 'add to or edit' the entries (Figure 2.1).

This technique revealed multiple additional uses for many plant resources, while also providing indications of the magical qualities of many species. This form of engagement, where one could more privately share knowledge with me, became particularly useful in the HaMakuya context. In order to understand the complicated interplay between ethical considerations, data collection efforts and my developing understanding of the local context, I provide the following ethical interlude to highlight context-specific constraints on data collection of plants.

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[74] Nowhere within a five hour driving radius processed film. This was costly and time-consuming, highlighting the 'remoteness' (logistical, geographical, and economic) of HaMakuya.
[75] Onda assisted with interviews when Sarina could not.

Murenzhe

DICHROSTACHYS CINEREA MIMOSACEAE

Chinese-lanterns (Z), sicklebush (SA, Z) • sekelbos • omutjete (N)
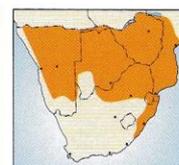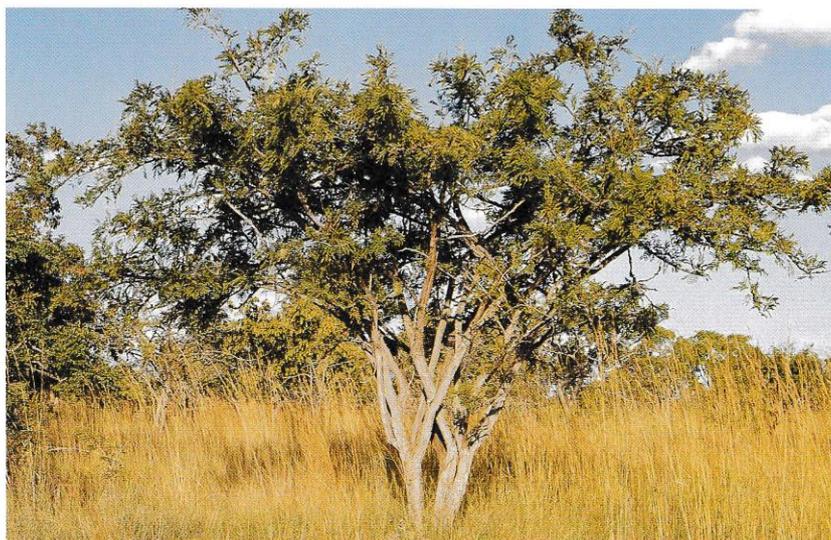
Main features
- Shrub or small deciduous tree, usually multistemmed, with a spreading, ± flat-topped or rounded, untidy crown.
- Spinescent branches present, single, same colour as branchlets, often leaf-bearing.
- Leaves alternate, bipinnately compound, with 4–19 pairs of pinnae; leaflets less than 2 mm wide in subsp. *africana*, at least some more than 2 mm wide in subsp. *nyassana*.
- Flowers in pendulous spikes, lower part with mauve or pink sterile flowers, the upper part with yellow fertile flowers (spring–summer).
- Pods in dense clusters, curly and twisted, indehiscent.

Similar species
Superficially resembles a straight-spined species of *Acacia*, but the spines are modified stems and not stipules, hence they are not paired and often bear leaves.

Habitat
Bushveld, often invasive and thicket-forming, particularly in overgrazed areas.

Uses
Pods are eaten by livestock and game. It is an important medicinal plant in southern Africa. Leaves are used to treat diarrhoea, toothache, earache and snake-bite. Leaves and roots are smoked for head-colds and tuberculosis. Powdered bark or bark and leaf extracts are applied to wounds and root infusions are used to treat abdominal pain, coughs and pneumonia. Powdered root is sniffed to stop nose bleeding. The wood is excellent as firewood and for making charcoal.

one of the best species that provide good firewood in Makuya Rural area

Magic is administered through the thorn of this tree – causing a painful open sore called "Bhipfula" in venda

heartwood is used to make axe handles.

Tree numbers: FSA: 190 & 190.1; Zim: 213 & 214

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Figure 2.1: Example of Botanic Field Guide Edits

'One of the best species that provides good firewood in Makuya area. This hard wood is used to make axe handles. Magic is administered through the thorn of this tree, creating a painful sore called "tshipfula".'

Ethical Interlude: The Difficulty of Determining Important Medicines

In attempting to answer the question, how, if at all, natural resources are used towards achieving health, I made use of ethnobotanical and food security surveys, and other forms of engagement (including gardening – in situ). Ethnobotanical surveys revealed that Musundians made use of their surroundings for many plant-based food sources: for example, some residents named up to ten species of edible leafy greens (*moroho*). Determining what medicines were sourced from the local environment was more difficult to discern than for example, food resources. Local use and knowledge of plants, trees, and animals for food and remedies is extensive, but not always immediately evident, as the following interaction exhibits.

In January 2014, before I had the chance to formally interview Fulu, I sat with her in the shade of the veterinary services porch, as we waited for a meeting to start. I asked 'Fulu, some day, when you have time, may I interview you?'

'Sure. I have time now. We are just waiting.'

'Oh, well, there are all these people around, and I wanted to ask some personal questions.'

'It's ok, these people can hear.'

'Are you sure? I could do it another time. Any time?'

'We have time now.'

At her insistence I began the interview. Eventually broaching the subject of local remedies for self-care, I asked 'Are there things you do or use from around your home to care for yourself?'

'No'

'Are there any plants, trees or other things you use from around the village or in the bush that can help you care for yourself?'

'No'

'Do you know of any plants, or trees, or other things that people use for healing?'

'No. I do not know them.'

I did not think much of these answers. I took them at face value, as I had no reference to indicate that I might need to explore these questions in other ways. However, that Saturday morning I found Pfarelo, Fulu's husband, cutting tree branches. Fulu, having just fed her visiting toddler niece, was washing dishes nearby. I asked him what he was doing. 'These trees are medicines. I am preparing

these medicines for family in Johannesburg. They asked for them. They send me supplies, so now, my cousin, he is going there,' Pfarelo replied.

'Medicines? What do they do?'

Pfarelo picked up branches with red bark: 'This is for cleaning the blood', and the other bark had 'many uses', for example, for 'running stomach' and 'flu'. Fulu interjected, 'That one, it can even be used for family planning, and those are for joint pains'.

Figure 2.2: Medicines gathered that morning.

Early the following week, while driving Fulu and Sarina to HaMakuya, I asked Sarina about the trees that the veterinary gate guard[76] had shown us. 'When he said "family planning" what do you think he meant?'

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[76] The Red Line guard showed me three different trees with similar pods, explaining that these trees were for 'family planning'. Then he took me to another tree, and pointed to my foot (enrobed in an aircast), explaining that the bark from 'that one can help you heal'.

'What do you mean?' Sarina replied.

'Well, when people tell me family planning sometimes they mean something they do to make sure they do not get pregnant, and other people mean something they do if they don't want to stay pregnant – '

Fulu interjected and pointed to one of the trees the guard had shown us. 'That tree, it can be used to end pregnancy.'

Fulu clearly has knowledge of some plants' uses, despite the fact that, in a public space, she contended a lack of such knowledge.[77] This contradiction – of what knowledge she said she had, versus what she showed evidence of – struck me as important. It was nearly a year later, as Mr. Mashudu expressed concerns that visiting a *maine* might have a negative impact on his relationship with the church, that I understood one reason for the discord. In public, Fulu did not want to assert this plant knowledge because in her church circles – at the time, the ZCC[78] – the use of plants for self-healing is tied to *muthi*.[79] Asserting plant knowledge in public would transgress the rules of her church, and expose her to gossip. I began to understand that secrecy was part of maintaining wellbeing.

Secrecy around plant-based knowledge may arise for a number of reasons. A long history of bio-piracy in South Africa has left people highly sceptical of non-locals interested in plant medicines. The healer Precious, in response to my questions about which plants she worked with, asserted, 'these are my secrets, I can't share them'. The ancestors visited her in dreams, teaching her about plants and remedies; thus Precious explained that sharing this knowledge could anger her ancestors. Many HaMakuyans were happy to share the plants they made use of, but not specific 'secrets' of preparation or treatment. For example, someone would say 'that tree is for the eyes', followed by extended silence in response to my follow-up, probing questions about 'what does it do for the eyes?' Aware of South Africa's history of high profile cases related to bio-piracy and intellectual property rights, for example San claims to hoodia and sutherlandia (Chennels 2003; Wynberg and Chennels 2009), I understood the subtle silent resistance to my probing questions as boundaries to what people were consenting to share with me. My ethical position

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[77] Over time I learned that Fulu possesses plant-knowledge, including remedies for her goats.
[78] ZCC ('zed cee cee') is Zion Christian Church.
[79] I discuss muthi in Chapter 7, but the term used widely in South Africa, is often associated with sorcery and/or 'bad magic', although the literal translation is 'medicine' (and also 'tree').

might have limited the information I was able to gather, unwilling as I was to push through what I saw as exertions of silence (cf. Das and Nandy 1985; Ross 2001; Das 2003). Some people felt comfortable saying no to the *makua*,[80] others did not, which forced a fine-tuning of my sensitivity to subtle resistance, and undergirds why my methodological approach was infused with ethical lessons learned throughout my engagement.

Aside from upsetting the ancestors or plant-based knowledge piracy, the church and the fear of being labelled a witch poses further challenges to collecting information on plant-based remedies. These remedies are associated with 'traditions' or 'old ways' according to many churchgoers I spoke with. Beyond their own ZCC-branded teas, plant remedies indicate a relationship or consultation with local healers, who have been painted as in concert with the devil first through missionary teachings (Kirkaldy and Kriel 2006) and more recently by local pastors, according to many HaMakuyans. In 1988, among heightened political tensions, the number of accused witch murders in Venda undertaken by 'militant youths' increased.[81] This 'dramatic upsurge' in 'witchburning' (Minnaar, Offringa and Payze 1992), was tied to fears of 'traditional' (TshiVenda) practices, including medicine and plant-based healing. Ultimately these murders worked to reify juxtapositions that paired traditional healing/devil worship against church healing/biomedical practices, at least in public discourse. Thus, for someone like Fulu, who wanted to maintain a relationship with her church and remain the favoured candidate for the democratically elected village chairperson, revealing plant knowledge in public, or consulting with a local healer, might align her with entities that could create social strife.[82]

The history of the region, and the emergent responses to Apartheid-era controls, created contemporary anxiety and secrecy around plant-based and local healing knowledges. However, local residents have a wealth of such knowledge, and make

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[80] Once, a healer was seeing a friend who had agreed that I could join him if the healer allowed. However, the healer expressed clearly that my *makua* presence was not welcome – leaving no ethical uncertainty there.

[81] The rise of *muthi* murders coincided with the government's creation of Bantustans. New power structures, puppet governments, aligned with Apartheid-friendly leaders allocated more power into chiefly structures and 'traditions', and pushed practices, such as *muthi* murders, back into popularity to maintain control and power (Ralushai TRC). In response, 'the youth became aware that the police were no longer effective[ly]' and 'chiefs were now seen as strong, that they could conceal evidence,' so militant youths responded 'to clean out the whole rot' (Ralushai, TRC).

[82] This is also why numerous Musundians visited local healers in secret, or travelled long distances.

use of local resources in self-healing and daily efforts for wellbeing. Due to a need for secrecy, ethical sensitivity was necessary with this context in mind, thus Onda's edits of my botanical field guide that emerged as a creative method of sharing plant knowledge became useful to draw out information from those who might fear social strife (i.e., accusations of witchcraft) had their plant-based knowledge been made public.

The Tools That Did Not Work

The following section briefly describes methods that I attempted, but found unproductive, or ran counter to the performance I was trying to embody.[83] By suggesting that these methods did not work for me, I am not stating that they are incommensurate with local ways of life nor were they impossible. Rather, the particular position I chose to take, and the relationships I built, facilitated the use of some methods of engagement over others. I acknowledge that some planned methods may not have been appropriate within my time constraints, and that my own skills in facilitating some methods were limited, thus my attempts to use them may not have been appropriately applied (e.g., life histories).

Life History

Linked to my experience that unstructured interviews undermined local expectations of how research is conducted, my intention to gather life histories fell short. Asking participants to 'tell me about your life' provided for confusion and nervousness. The format of the open-ended life his/herstory, or at least my delivery and effort to extract this, sat with my interlocutors just as uneasily as unstructured interviews, but was even more challenging in that I remained silent, without guiding any inquiry. Although I had planned to gather health-centred life histories, the extremely personal nature of asking about health-related life events as a means of drawing out someone's life experiences requires extreme sensitivity.

Knowing that the life history collection process is demanding, and often forced by the anthropologist (Crapanzano 1984), and aware that great sensitivity was needed on my part to ensure that my efforts did not place my interlocutors in danger (ibid), or force them to engage in inappropriate places (Rosaldo 1976; Rubenstein 2002), I carefully read body cues when asking personal history, particularly because of Apartheid-era forced removals. When I arrived in the field, I learned from Trust

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[83] For more on methods that did not work see appendix 2.2

staff that the Park's formalisation was highly politicised because of controversy over the Chief's legitimacy (and thus, right to distribute land). In asking about memories of the park, and the arrival of its boundary fence, the discomfort from some was palpable. Most of my requests for reflection on the park's emergence were met with responses of being unable to remember and thus my direct requests for people to recall recent personal history felt as though I was straddling an ethical line. I succeeded in gathering life histories but these were not narrated in the monologue style, over a course of a number of meetings, as I had hoped. Instead, these life his/herstories were pieced together over time, from snippets of shared life events and related discussions. I make use of aspects of life stories to show you the ways in which both wellbeing and the environment are variably understood, while spotlighting the diversity of experiences people have in their relationships with this protected area.

Focus groups

The most important lesson I learned is that rural village life in HaMakuya is full, and exhausting. The demands on the women I spent time with start before the cockerel crows and carry on after sunset – free time is rare, and not willingly given up for focus groups, regardless of the topic. Initially, I intended to use group discussions focused on a specific topic (Kitzinger 1994) as a central method of engaging with a wide audience to determine what events, issues, concerns and practices are most salient to Musundians.

My aim to hold focus groups at regular intervals, in order to build methods for continuous feedback, emerged from my own misreading of free time and work allocation in Musunda. I imagined that the hours of chores, like shucking corn or de-pipping marula, could be done in groups, and would be a good space, as the work was largely woman-centred, to open up group discussions. Instead, I learned that these domestic chores were most often completed at home. Every homestead had so much to do that gathering for discussions over work was not a 'free-time' priority.[84] My efforts to invite people for Saturday get-togethers were met with invitations instead to join *stokvels*.[85]

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[84] I had thought that Saturdays would be an optimal for such gatherings. Instead, I learned that Saturdays were filled with efforts to supply home life. Asking women to use this time was a burden, made evident by complaints of 'workshops that waste time on things we already know'.
[85] Stokvels fulfilled what I had thought focus groups would do; eliciting possible avenues of inquiry and generating ideas for discussion. Since information gathered in groups may be different

Role Playing, Body-Mapping, Mural Making and Drawing/Mapping Exercises
Schensul's applied and action-oriented work relies on the theoretical notion that 'if material items or performance' could express a community's ways of being, then the creation and process of making art together – 'creating material culture' – can provide insight into the ways in which people understand their 'community' and work together,[86] to inform the research process (2006: 164). HaMakuyans have been involved in mural-making projects in the past (Berman and Allen 2012), so I thought generating group art, to bring to light topics that are difficult to verbalise, would be productive (Schensul 2006). Similarly, I thought body-mapping would enrich my data (Cornwall 1992). Since performance and music are important components to VhaVenda rituals and customs (Mugovhani 2009; Berman and Allen 2012), I also intended to initiate role-playing (Boal 1979; Diamond 2007).

Just like focus groups, the mural making, role-playing and body-mapping activities demanded that participants-as-researchers find time that they did not have. Many students, lecturers, researchers and volunteers had come through the village for short stays, and engaged people in all kinds of workshops – people were tired of 'empty promises' that came with these group activities. In my effort to do no harm, I did not want to add burdens, which required flexibility and improvisation on my part to fit my research around busy and physically demanding lives.

In addition, I learned that drawing/mapping exercises did not work. In my first interviews, I asked people to 'draw or show me' where, if at all, they kept plants that were important to wellbeing. Every interviewee, when offered this option, chose to walk or point across their yards to the plants; none took up the offer of pens and paper. Upon reflecting on this with Sarina, her response was 'drawing is for children'. This cue from Sarina, that the drawing exercise might infantilise the people I was hoping to frame as experts in their own experiences, made me step back from this approach.

Lessons Learned and Other Research Resources
These lessons learned in methodological experimentation and interaction highlight two really important aspects of my research. The first is flexibility; flexibility in

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from that collected in individual interviews (O'Kane 2008) *stokvels* provided useful insight on hierarchies among HaMakuyan women and on inter-village politics (in this case, a Shangaan village 80 km away).
[86] See appendix 2.2.1 for more on this approach.

approach, and in acknowledging that some methods I had so carefully researched were not appropriate. The second lesson was the importance of Sarina. As a first-language TshiVenda speaker, Sarina understood nuances and turns of phrase beyond my limited vocabulary. Additionally, TshiVenda is a tonal language; acknowledging my own difficulty with differentiating tones meant that having a native language speaker with me during most interviews was centrally important if I wanted to understand the depth and potential multiple meanings of what was said (cf. Novellino 2003). As our relationship developed and my limited TshiVenda skills grew, Sarina became less active in translating, and more active in collaboration. Relying on her less for translations allowed her space to think through what people were saying, and gave me a partner in my research. As a resident of the area since childhood, Sarina was well acquainted with local customs, and more sensitive to subtle cues. It was often her feedback that helped me understand where I was pushing people's comfort or challenging local practices and sensibilities.

Technological Resources

During fieldwork, in order to record and analyse my data, I used a variety of technological and paper-based materials, including an audio-recorder, a video-recorder, a digital SLR camera and a laptop. I made use of my computer, including Microsoft Excel, Word and iTunes, to transcribe and translate interviews, analyse survey data and construct this thesis. Two of my possessions also became research resources, albeit unplanned; my vehicle and mobile phone. Since I had never had a phone capable of internet connection before, when I entered the field with a smart phone, I never imagined that it would be a useful tool beyond my specific intentions (telephone and email). I learned quickly that the phone's applications, including capabilities to photograph, video and audio record, were useful research tools. I reflected on the iPhone as an interactive tool in my field notes:

> 9 Feb 2014: Khumbu and Abraham spent two hours today teaching me Venda which came about in an interesting way: I showed them the South African languages programme on my phone. Abraham learning Shangaan on the phone, while Khumbu sat opposite me reviewing TshiVenda vocabulary. Khumbu was amazingly multi-tasking –simultaneously teaching me and interjecting in Abraham' self-made lesson. I asked her how she knew so many languages. 'My father was a traditional healer and so, many, many people would come to my house when I was small.'

This story illuminates the ways in which the mobile phone became an asset and jumping-off point for further inquiry. Similarly, my air-conditioned vehicle became a benefit to my research productivity, like Colburn's experience in Managua (1991). My sampling method benefitted from 'on the road' sampling as this excerpt from my field notes indicates:

> This is a place of shared technology and goods. Vehicles do not escape this - hitchhiking is common. Today as we gave a lift to a lady on her way to Musunda, she asked us to stop at a shop, so we did. As we drove into Musunda we asked her if she would speak with us. She agreed.

The vehicle became a tool for finding interviewees, and part of my relations of reciprocity and exchange. Aside from the convenience of transport, the vehicle also became a space to conduct interviews on hot days. When I approached Community Works Program crews to interview them during their lunch break, if I had my vehicle with me, the majority of people chose to speak with me in the car. Some even requested that I turn the air-conditioning on. Having a car also meant that people approached me when they needed transport or assistance, which provided more insights into the challenges and experiences of living on the edge.

BUILDING A SOCIAL NETWORK: SAMPLING METHOD

I envisioned using snowball sampling (Patton 1990; Pope and Mays 1995) with the aim of starting with Musundians who experienced displacement by Makuya park. I intended to extend beyond this to understand the village-wide practices with regard to wellbeing (and possibly those of the larger HaMakuya). In reality, due to access negotiation processes, my network of contacts instead started with people at the Trust and Camp. My sampling method attempted to map against locally coherent socio-linguistic, practical and social groupings, while accepting that group dynamics and boundaries are fluid. Musundians are members of and interact with many groups and peoples – in fact, sometimes Musundians become Jobergers, or Capetonians – and thus what may seem to be proposed as a closed group is one that I acknowledge is in fact very porous.

Research depended on people's availability, requiring a continuation of my own ethic of flexibility/improvisation. Often, Sarina and I made rough plans to find

people at a certain location, usually their homestead, within a particular time of day, like 'in the morning' (*matsheloni*). Some days, none of our plans worked out, but on other days, at least one meeting took place, and from there our days would unfold in efforts to find someone willing to share time. To continue extending the network of people I engaged with, I ended interviews by asking for suggestions for other interviewees. This proved to be less fruitful than people coming upon me already engaged with someone else; such interactions often turned into future interviews.

ETHICS IN METHODS

There were many ethical considerations that contributed to the ways in which I conducted my research. My training and acknowledgement of my multiple and intersecting identities guided my research. I attempted to undermine entrenched modes of power in researcher/researched exchanges, while acknowledging that these power inequalities are linked to my identity, and the ways in which others perceive me. Residents' repeated questions, of 'What will your research do for me/us?' or 'What will you do with this information once you have gathered it?' gave me confidence that my authority was not over-powering; that people felt comfortable to engage with, and challenge me. It was also a useful, regular reminder of the expectations of 'giving back' that debates around activist versus applied anthropology highlight in theory (Scheper-Hughes 1995; Farmer et al. 2013; Johansen 2015).

Sensitivities and Sensibilities

The methods I made use of were carefully considered, in order to align with my professional sensibility, which aimed to pre-empt potential negative impacts of my research. Actions, and decisions I made were framed by my own (clinical) ethics training. First and foremost, I wanted to do no harm – an underlying principle from my professional public health past. This meant that I navigated a tight-rope of multiple considerations: from time demands to the emotional impacts of questions. I used Sarina as a cue to understand where my lines of questioning might cause discomfort, as with food security surveys, and always made sure to err on the side of caution in interactions.

Distancing and the Complexity of the Trust

It did not take long to realise the complicated nature of the Trust's relationship with its staff or Trust staff's complicated engagements with other residents – a discussion

I return to in Chapter 7. With this in mind, as part of the ethical perspective I took, I worked to distance myself from, while acknowledging that my entrance to the area was facilitated by the Trust. In hindsight, however, I was thankful for Brody. Only once he was gone, and I watched other researchers try to find their bearings in HaMakuya, did I realise my luck in being coached to approach the Council.

Additional Ethical Considerations

Since I asked questions about wellbeing, I was approached occasionally when someone had health concerns. I am particularly sensitive to ethical concerns regarding unqualified researchers providing biomedical information. I always made sure to emphasise my lack of medical training, but often people wanted to know what I did when I felt ill – thereby giving me an opportunity to share my own self-care remedies and ask about theirs. Despite my hesitancy to engage in any activity that could be understood as providing biomedical intervention, twice I provided first-aid supplies. The first time I provided a family member of an injured man with bandages and gloves. I had no interaction with the injured man; this did not challenge my ethical sensibility. However, the second instance, with Fulu's niece, was more difficult to navigate.

I had been interviewing Lina (Fulu's mother-in-law) for a half hour, noticing that Fulu's toddler niece, who had an infected burn on her foot, seemed very uncomfortable. To shade the wound from the sun Lina had draped a towel over the leg, causing irritation, so I offered a cooling burn cream and dressing. I felt conflict, knowing the burn cream would bring her comfort, but concerned that the dressing, if not removed in a timely manner, would further stress the child. The cream quieted her whimpering. To ease my worry, I contacted her father reminding him to remove the bandage and allow the wound to breath – again reminding the family that I was not a doctor.

Being a researcher in a small community also meant that I became the keeper of many secrets. In a place where gossip moves more quickly than people can, I was privy to all kinds of stories about various community members. As Rubenstein suggests, a secret is participated in, and 'constitutes new forms of knowledge and social relations' (2004: 1057), but I also found that secrets required of me an improvisation ethical origami, or folding and re-folding of various relations I had

entered into. That is to say, even my ethical approach was necessarily improvisational.

In setting out to understand how and when natural resources are used toward achieving wellbeing, I learned important lessons in ethics and methods. Just as methodological improvisation requires a heightened sense of time and process (Malkki 2007: 163), I suggest ethical improvisation requires a heightened sensitivity; nurtured and developed through close engagement in the local setting, and in developing long-term, mutual and collaborative relationships. Ethical considerations guided my inquiry and helped to fine-tune my methodology in line with a context-specific ethical sensibility I was developing while in the field.

CHAPTER 3: Musunda, On The Edge

INTRODUCTION: 'GROWING ROCKS' ON THE EDGE

Traveling north, the dirt road starts 30km from Musunda, approximately 7km before the HaMakuya chieftaincy. The stark contrast of the changing landscape is made more evident by the sudden end of the tarred road and a drop-off in road traffic as donkey carts replace motor vehicles (Figure 3.1). The green landscape falls away to deep hues of brown and ochre because road-dust coats roadside shrubbery. The lush green fertile, rolling hills of the country's 'bread basket' (fruit plantations) give way to arid, red, rocky, terrain dotted with thorny acacia trees. HaMakuya's very different climate from its neighbours is evident not just in the plants and soil, but in the way cows no longer graze, but browse.

In February 2013 HaMakuya's seasonal summer rains devastated the area; dirt roads were washed out, swollen rivers uprooted baobabs, destroying everything in their paths, and the deluge of water washed away homes. The absence of road infrastructure and rainwater control measures led to erosion – creating dangerous conditions.[87] Following the 2012-3 rainy season, HaMakuya experienced what many residents call 'drought'.[88] Rivers dried up, compounded by the government's failure to provide drinking water, and crops failed.

Okhou fhisa, nga manda ('It is very hot'), the first TshiVenda phrase I mastered, reflects the location, above the Tropic of Capricorn. While winter nights can bring frost, temperatures soar to 40°C in the summer shade. When they can, people plan their days around the shade; for example, women shucking corn move around their *rondavels'*[89] thatched roof overhangs. Although the heat is not new, the periods of intensity are perceived to be increasing as rain patterns change. In fact, Kone, a HaMakuyan in his late fifties, explained the challenges experienced as a result of the drought: 'No rain, none. We don't even know when to plant anymore.' Kone's lament of changing patterns in rainfall, which challenge local knowledge of planting seasons,[90] provides insight into the impacts of the precarious nature of edge-

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[87] Fatal traffic accidents on washed-out roads resulted.
[88] The 'drought' overlapped my research period entirely; see Appendix 3.1.
[89] A circular home.
[90] Although beyond this thesis' scope, this begs the question of how climate change might influence local ecological knowledge.

dwelling, especially in relation to water access including local declines in rainfall and river levels (Lahiff 1997), in the context of regional (Thompson et al. 2012) and global climate change.

'We grow rocks . . .' Khumbu, a Camp staffer, jokingly explained in response to my questions about crops, indicating one of the many challenges of the local terrain[91] (Figures 3.2 and 3.3), that adds to transportation and cultivation challenges. Conversations about the challenges associated with the dirt road were weekly if not daily. 'But this dirt road, eh, everything is far, and every year they say they will tar it,' Frank, a Musundian, explained. Recurring election-season promises of tarring the dirt road remained 'empty promises'. No tractors came to maintain roads and impassable potholes developed. Community Works Program crews cut bypasses, to make roads usable.

This chapter draws on historical, political and ecological contexts to track how Musunda came to be an edge, and how that edge continues to be shaped. This chapter's description of HaMakuya evidences the ways in which colonial and Apartheid 'gradual dispossession' (Hay 2014) shaped the current situation of infrastructural violence, and differential resource access. I consider how differentials established during these periods are maintained through conservation efforts, like protected areas, that continue to shape resource and land access, attending to the ways in which parks maintain power relations that constrain possibilities (Stott and Sullivan 2000). As such, this chapter contributes to literatures that focus on the environmental anthropology of settler colonialism,[92] and environmental justice in a post-colonial context. First, I describe HaMakuya, before tracing how Musunda became an 'edge'.

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[91] The rough terrain makes moving around extremely challenging.
[92] See <https://aesengagement.wordpress.com/thematic-series/life-on-the-frontier-the-environmental-anthropology-of-settler-colonialism/> (accessed 7 July 2017).

Figure 3.1: A donkeycart; HaMakuya main road, near Musunda.
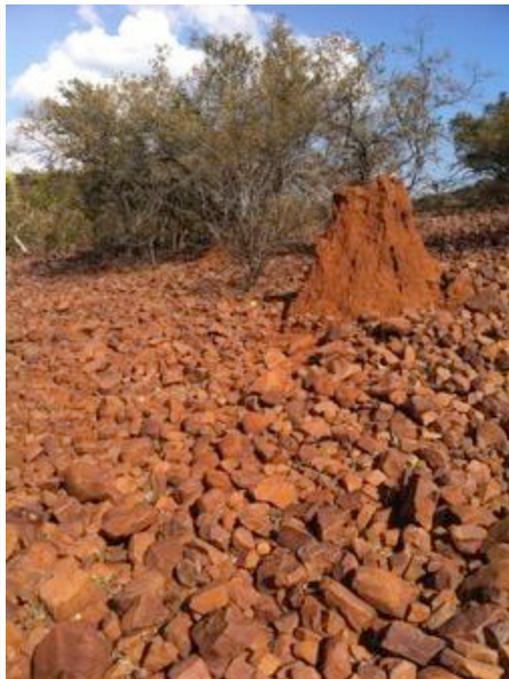
Figure 3.2A and 3.2B: 'We grow rocks'

Figure 3.3: Carrying water from the hand pump

The Road to Makuya Nature Reserve, through Musunda

To get to Musunda you drive through HaMakuya centre, past the clinic, secondary school, police station, and community centre. In the vibrant HaMakuya centre, mobile phones have reception, as home to the area's sole telecommunications tower. Three villages meet here (Figure 3.4 – 3.7). Domboni (population: 247[93]) houses a large shop, the Trusts' resource centre, the Council and the pink 'palace' of Vho Makuya (the chief/king). Mutshikilini (pop: 1219[94]) houses the secondary school, the police station, and two more shops. Makuya (pop: unknown[95]) is where the clinic and the community centre are located. While the clinic and municipality make distinctions between these villages in HaMakuya centre, the divisions between them are not evident – movement of peoples, animals, cars, flow seamlessly between the villages. As such, when Musundians travel the 15km to the centre of the Chieftaincy, they refer to it generally as 'going to HaMakuya,' or 'town' without specifying a village. In essence, the other villages within the chieftaincy are suburbs of this space, the city-centre of HaMakuya.

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[93] Census (2011) numbers suggests 247 people live in Domboni, but residents suggest 500: see <http://www.statssa.gov.za/?page_id=4286&id=12312> (accessed 2 July 2017).
[94] <http://www.statssa.gov.za/?page_id=4286&id=12348> (accessed 2 July 2017).
[95] Makuya is not officially a census village so population numbers are unavailable.

Figure 3.4: The pin indicates where HaMakuya is located (scale: 200km).
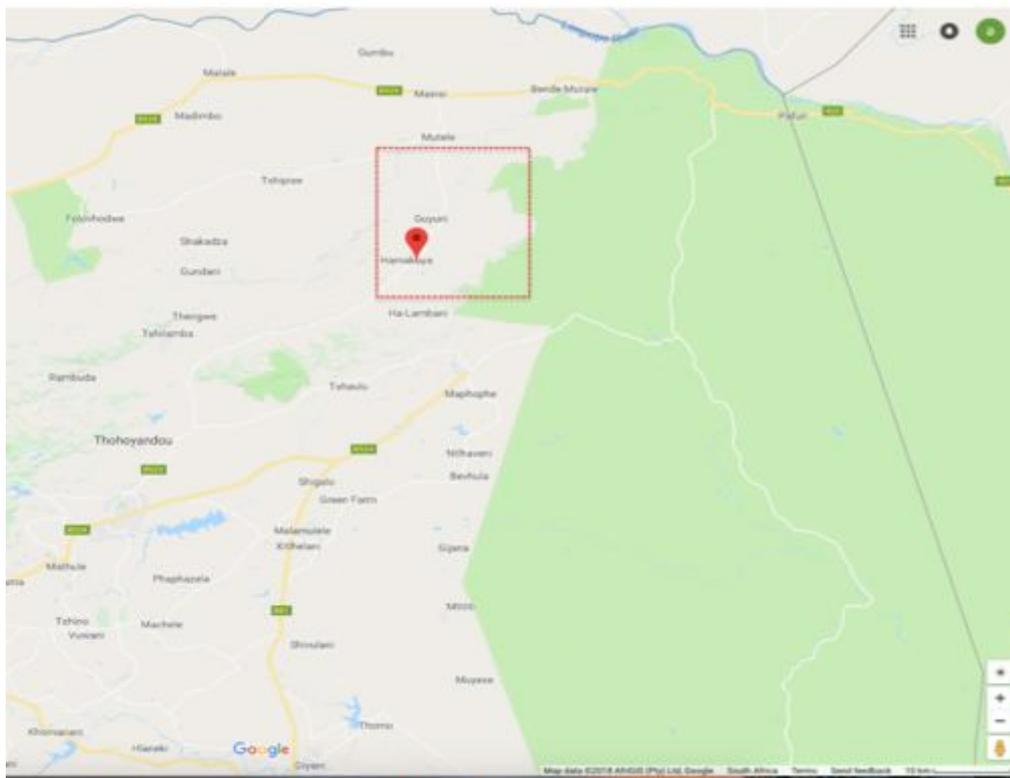
Figure 3.5: More detail - HaMakuya in relation to protected areas (the green)

The red line indicates the area covered in the map below (scale: 10km).
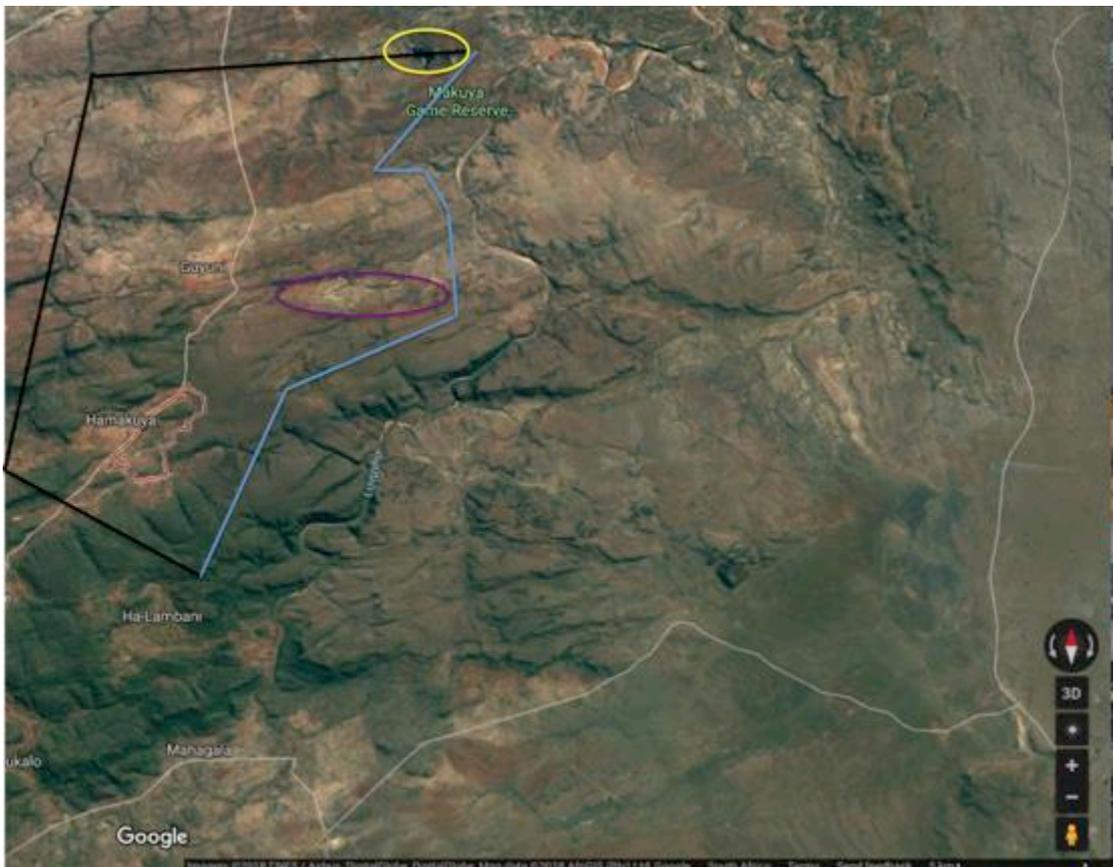
Figure 3.6: Details of inset from Figure 3.5

The blue line is Makuya Park's boundary; black lines represent HaMakuya chieftaincy; the red outline is Domboni/Makuya villages; the purple circle indicates Musunda; the yellow circle is the mine (scale: 5km).

Figure 3.7: HaMakuya map on the clinic wall

Domboni/Makuya villages in Figure 3.6 can provide reference for this map.

HaMakuya lacks infrastructure and economic markets, except for the monthly social grant distribution day, when markets spring up as individuals gather at collection points. Here, no chain stores, drainage provision, nor sewerage infrastructure exists. HaMakuya is 80km from the nearest large city, Thohoyandou - a journey which on average takes two hours. Traveling north through HaMakuya, the road gets narrower and less well maintained past Domboni. Ten kilometres further, and Mbuyuni village becomes visible, beyond which, a sign indicating that the same winding dirt road leads to Musunda and Makuya Park (Figure 3.8).

The right fork to Musunda leads to the Red Line gate, where visitors register their details before entering. Homesteads dot either side of the main road. Next to the Red Line fence cattle are sprayed before leaving Musunda. To the left of the main road is Fulu's home (where I lived). Lanes to more homes expand from either side of the road– these approximately sixty homesteads are considered 'Gate Musunda'. Musunda homesteads vary, but some have cattle and goats, even more have chickens and small vegetable gardens. Organisationally people still largely follow virilocal patterns, where wives move to their husbands' village (see Van Der Waal 1979, in Huffman 1986); however, migrant labour demands result in many female-headed households.

Along the road, a cement ford – now dry– marks the place where river tributaries used to cross Musunda. This area has no homesteads; the sand is deep, the rocks are plentiful, and the acacia trees' thorny thicket shades cattle. Further down the road appear homesteads, the primary school[96], and crèche. As the road continues, paths fork off, leading to homesteads, a soccer field, and some gardens. Further down the road, *vhamasanda's* (headman) homestead boasts a giant baobab where village meetings are held; opposite, is Ruth's homestead (Figure 3.9). Beyond this, are the bulk of the approximately ninety homesteads that make up 'Far Musunda'.

Beyond these houses, where the tree canopy gets thicker and roads become rockier, three small gardens rest on the bank of a stream – a sign warns of water pollution. On the left is Musunda Orchard, a plot of fenced land – a remnant of Tshikondeni

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[96] During 2015 the primary school closed, sending students to Guyuni.

Mine.[97] On the right, two rondavels overlook the polluted stream; eco-tourism accommodations created in 2013. Increasingly narrow, and requiring 4x4 vehicles, the road leads to a gate and sign declaring Makuya Nature Reserve (Figure 3.10). The fence abruptly ends the space through which Musundians can move. The eco-tourism accommodations, just like this entry gate, remain un-used. Occasionally, the gate is opened for a tourist-filled vehicle, but not for locals. Six HaMakuyan villages share boundaries with Makuya Park; the boundary area of royal oversight rests on the park's edge. Since Musunda is on the periphery of HaMakuya, Musunda is on the edge of the edge.

Figure 3.8: Road sign to Makuya Park through Musunda; the gate no longer functions.

Figure 3.9: A 'TshiVenda tradition[al]' homestead

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[97] Described later in this chapter.

Approximately six hundred[98] Musundians live in this geographically and logistically remote location in large part because of colonial and Apartheid processes, including conservation protectionism that shaped land allocation. Edge-dwelling in this sense is both literal and figurative; literally, edge-dwellers were pushed to the furthest geographic corners of South Africa due to settler land grabbing, and figuratively they occupy resource-constrained environments magnified by Apartheid policies that have dispossessed them of resources access. Having outlined Musunda's position on the edge of the edge, this chapter now aims to consider how colonial and Apartheid histories have left 'ecological legacies' that 'continue to unfold' and bear on the lives of edge-dwellers (Taylor et al. 2015: 132), while describing emergent factors that shape the edge.

Figure 3.10: The park gate on the edge of Musunda.

Chapter Outline

Colonial (1600s – 1930s) and Apartheid (1940s-90s) policies in South Africa created a 'fissured land' (Gadgil and Guha 1992) that fostered current 'geographies of' (Harvey and Braun 1996) and 'territories of difference' (Escobar 2008). This chapter considers how protected areas have helped to enforce and maintain these

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[98] Musundians suggest 'around 600 people' and 150 active homesteads; 2011 census suggests 319 residents, see <http://www.statssa.gov.za/?page_id=4286&id=12334> (accessed 2 July 2017).

differences and fissures. Descriptions of the 'materially grounded messiness of everyday life and the minutiae of material practices that constitute it' (Tilley and Cameron-Daum, 2017: 5) augment an understanding of the embodied experiences of edge-dwelling, thus, I discuss regional history, and describe contemporary Musunda.

This chapter acknowledges the importance of history in political ecology (Offen 2004) while attending to difference. In tracing the impositions created through a 'system of compartments' (Fanon 2001: 37–38) that manifest in multiple forms of fragmentation, I consider the residual impacts of colonial/Apartheid history on Musunda's edge-dwellers' 'changing interactions with living resources' (Gadgil and Guha, 1992: 2). I share 'fractals' (Strathern 2005) that indicate how historical infrastructural violence, combined with difficult terrain, remoteness and a governmentality that focuses investment on conservation concerns over those of its citizens (cf. Harper 2002; West 2006), shapes edge-dwellers' access to land, local resources and biomedical care.

I trace how historic and contemporary extractivism and infrastructural neglect, tied to the park, shapes edge-dwellers current engagements with their surroundings, and consider how the park might be understood as an extension of colonialism. I explore the ways in which colonial and Apartheid policies dispossessed people of land and resource access, and institutionalized neglect and inequality, as I seek to contribute to literature on infrastructural violence (Rodgers and O'Neill 2012). I unpack how historic environmental injustices along with pressures and expectations, for example, imposed through privileging the wants and needs of tourists and trophy hunters over those of locals, characterize the experiences of edge-dwellers. I consider how the 'wild' and 'pristine' aspects of the local environment, which attract tourists as features of an escape, are an everyday reality that poses serious challenges for edge-dwellers. Finally, by focusing on edge-dwellers experiences in accessing biomedical care, I build on the notion of infrastructural violence while evidencing some healthcare challenges edge-dwellers face.

THE EDGE AND ITS HISTORICAL CONTEXT

Examining historic conflicts over land emphasises how settlers pushed African peoples to the geographic edges. Considering the simultaneous emergence of conservation practices and 'gradual dispossession' (Hay 2014), I explore how

protected area formalization helped colonial, then Apartheid forces to control land and resource access. I track how the formation of Musunda through processes of dispossession and forced removal tied to the formalisation of Apartheid-era protected areas, further constrained peoples' access to resources, and magnified their marginalization.

Pre-Colonial Conflict Over Land and Resource Access (1700s - 1830s)

Conflict and contestation over South Africa's arable lands predate colonialism (see Comaroff and Comaroff 1997, 2002; Hamilton et al. 2010).[99] Extensive internal and external forces influenced VhaVenda relationships with their surroundings, including 'subjugation' of Vhagona (1700s), conflict with Nguni and Sotho raiders (1820-30s) and colonial contestations, which began with Voortrekking elephant hunters (Wagner 1980; Boeyens 1985 in Loubser 1989: 58). Musundians describe histories of contestation, 'running away from hunger and wars', and searching for arable lands, in which language groups, clans and families became incorporated within other groups.[100]

Musundian elders describe different pathways to Musunda[101], but consistently locate Venda ancestry in the Congo, while acknowledging a history of subjugation of and consolidation with other regional language groups or clans (Liesegang 1977; Loubser 1990), highlighting the heterogeneous nature of those later grouped as Venda. These descriptions make evident that Venda migration was not always a choice, emphasising that Musunda is a product of a long history of contestation over land rights, resource access and royal claims.[102] Thus, while regional land contestation is not just a colonial/Apartheid product, I suggest that these policies created edge-dwellers, as from the 1800s such policies moved people to a periphery. This created the edge as a territory 'of difference' through a 'triple transformation' that included: transforming diverse subsistence economies into a monetized economy; transforming the park and its surrounds into 'modern forms of nature' (Escobar 2008: 13); and transforming HaMakuyans (of Makuya) into MuVenda

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[99] See <www.luonde.co.za> (accessed 2 April 2013) for HaMakuya oral histories.
[100] Bantu-language speakers moved south between 800 and 1000 AD, establishing Mapungubwe kingdom in the Limpopo River Valley (Huffman 2000). By 1300 Huffman (2000, 2009) suggests climate shifts forced dispersal; others suggest socio-economic or political explanations for abandoning Mapungubwe (Smith et al. 2007).
[101] See appendix 3.2.1 for elders' descriptions.
[102] VhaVenda succession debates continue – see appendix 3.2.2

peoples (cf. Hay 2014), or, more generally, kinship networks into ethnic groups (cf. Harper 2002; Bryant 2004).

Early Dispossession, Emerging Conservation (1830s to 1910): Settler Colonialism and Nyamazana

Throughout South Africa's colonial history, despite attempts at resistance, local inhabitants were forcibly driven away from their land and stripped of resource access. From 1836, as the Cape Colony banned slavery Dutch-speaking colonists (Boers) from the Cape began settling inland to maintain their slaves; this became known as the Groot (Great) Trek, and increased contact between TshiVenda speakers and settlers. The land was fragmented into Boer Republics (the Transvaal,[103] the Orange Free State, briefly Natalia), British colonies (the Cape Colony and Natal), and through continued contestation by various African peoples (San, Xhosa, Zulu). In an effort to fend off settlers, Venda leaders encouraged peoples to spread to maintain control of land (Loubser 1989). White settlers 'pushed and shoved' local populations as they demarcated commercial farms and consolidated control over resources (Aliber et al. 2009: 1) while overhunting species, like elephants (Du Toit et al. 2003). This pushed locals to more marginal areas – arid lands with endemic diseases (malaria, foot and mouth, rinderpest), unforgiving climate and terrain (Carruthers 1995) – where they remain today.

Resource access and use of space emerge early as areas of contestation in the relationships between conservation protectionism and local land claims. Through the 1800s, dependent on hunting for trade, settlers implemented early forms of 'game protectionism' based on economic concerns linked to wildlife resource extraction (Carruthers 1995: 10). Poaching became a political issue as recreational hunting among landholding and urban elites competed with rural subsistence hunters (ibid.: 13). For example, by 1858, the former Transvaal region passed legislation regulating 'hunting of elephant and other wild animals', in which thirteen of the nineteen clauses aimed to restrict Africans' access to wildlife (ibid.: 12). In 1870, legislation outlawed trapping (ibid.: 13), a local form of hunting, while white settlers were free to shoot game. Thus conservation legislation is implicated in the control of black Africans' access to resources, particularly hunting wildlife, from the outset of colonial contact.

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[103] The Transvaal partially overlaps with what became Venda.

In HaMakuya, by the end of the 1800s, land was set aside as protected areas to cater to colonial hunting interests, known to Musundians as Nyamazana. The 1896 rinderpest epidemic[104] led to the construction of Red Line fences – veterinary control measures intended to limit disease spread – coordinated by colonial authorities (Miescher 2012: 19).[105] Thus Kruger's location is linked to colonial spatialisation achieved through fences, forced removals, dispossession, and was assisted by the area's 'disadvantageous tropical climate' (Carruthers 1995: 44) as an incubator of diseases that colonial settlers were not accustomed to. Disease assisted in shaping colonial era protectionism as these spaces were made the edge because they were uninhabitable for settlers[106], and Kruger's founding Warden, Stevenson-Hamilton expanded reserve areas to rebuild populations decimated by the rinderpest epidemic (Du Toit et al. 2003).

When the South African Act of 1909 brought the colonies together under British dominion,[107] taxes were imposed to indenture local peoples as labour and strip them of their independence; some were forced to work on settlers' farms (Coovadia et al. 2009). The transition from agricultural to an industrial economy, with the discovery of gold (1886) and diamonds (1867), meant control via violence, legislation, taxes and resource access limitations increased on local populations to create the labour necessary for mines (Carruthers 1995; Coovadia et al. 2009). This undercut rural, black agricultural endeavours and resources access, while creating migrant population flows on which many (especially HaMakuyans) still rely. In this way colonial land policies began shaping the edge by dispossessing locals of land and resources, and influencing local demographics[108] – a process that continued as Kruger was formalized.

Dispossession Continued (1910–1948): Colonial Land Contestation, Nationalism, and Kruger National Park (Kruger)

Musunda came to be on the edge through a long and gradual process of dispossession that began with colonialism (Hay 2014). As Kruger developed, black

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[104] A cattle plague.
[105] Formally named the 'red line' after 1915 (Miescher 2012).
[106] Malaria is endemic here, but not elsewhere.
[107] Increased settler tensions led to the first Anglo-Boer War (1881) that ended with the Dutch defending the Transvaal (Kruger 1996), but by the second Anglo-Boer War (1899), the British used slash and burn techniques (in areas now protected, fenced off to maintain 'pristine-ness') to win (Coetzer 2000).
[108] Colonial practices contributed to skewed local demographics; according to Makuya Clinic, 1:5, male:female.

Africans were either moved off the land to ensure it remained 'pristine' or moved onto less desirable places within, as labour (Carruthers 1995: 43, 44, 58). The creation of Kruger limited local residents' access to land and resources, which continues to impact on the wellbeing of edge-dwellers.

British dominion further impacted on land access and Africans' rights. For example, the 1913 Natives' Land Act set aside only 8% of the land for black Africans, while the white minority controlled the majority of land. By 1924 Afrikaner nationalist rhetoric dominated politics; Afrikaans became an official Union language (Coetzee 1948) in an era marked by harsh segregationist laws, which denied black Africans voting and land rights. In the 1930s, buffer zones were formalized through Red Lines in an attempt to delineate colonial frontiers (Miescher 2012) and control disease. Cattle epidemics (rinderpest and 1938 foot and mouth) shaped the spaces that became protected areas (Carruthers 1995; Du Toit et al. 2003), tying a history of diseases and dispossession to conservation efforts, and Red Lines. As tensions between Dutch and British mounted, efforts were made to bring together these groups' interests. One such project was Kruger, where previously adversarial white factions were engaged in 'collaborative creation' of 'a common identity between' white English and Afrikaans speakers (Carruthers 1995: 48); consolidating 'white interests over African' interests as the 'search for common ground' entirely 'excluded Africans' (ibid.). Head Warden, Stevenson-Hamilton, formally removed all Africans dwelling within Kruger if they were not employed there, earning the nickname Skukuza[109] (Carruthers 1995; Du Toit et al. 2003: 8). Musunda emerged as part of these processes.

Musunda: Forced Removals and Resource Access (1940s)

Musunda is a product of relations and negotiations around hunting and resource access, before (1800s) and during (1900 – 50s) Kruger's formalization. For example, Frank Ndlovu's family story of forced removal links his current location as an edge-dweller to Kruger's protectionism. 'We came through Vhufuli to this place during drought. Our great-grandparents lived in Kruger until they were forcefully removed around 1946.' He traced his family's pathways to Musunda, staking claim to Musunda for three generations, but to places within the Kruger long before that.

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[109] 'He who sweeps clean' in Shangaan; ironically, currently the name of Kruger's largest tourist and research village.

This is a story of historical and social pushes, and environmental pulls, that brought his forefathers to Musunda:

> 'They used to farm different things, both crops and animals . . . Our clan[110] name recognizes both the Venda and Tsonga people that used to live together in Kruger. The Makuya family were living outside of Kruger. They used to come to [us] looking for food. They saw the easiest way is to build family by arranging marriages, [making it] easier to collect or hunt for food, [so we] married Makuya people, [who] used to come and trade foods[111] . . . When they were removed from the park[112], some went to Ha-Masiya, others to Ha-Mashudu and here . . .'

Frank's family's presence in Kruger resulted from famine brought on by drought; the Ndlovus wanted animals to hunt and land for grazing. Then, once living in Kruger they intermarried with the Makuyas – forging alliances out of food needs. Later the Ndlovus were splintered as they were removed from lands they hunted on for subsistence, in order to expand Kruger to meet colonial recreational hunting needs (Carruthers 1995: 13). Some established residences in Musunda,[113] as they already had bonds with Makuyas through marriage - an indication of one of the ways in which relationships were (and continue to be) constituted around strategic resource needs while also influenced by colonial forces.

Kruger's creation, although often framed as a wildlife and habitat protection strategy, was a political effort to merge adversarial white factions through an envisioned shared natural resource (Carruthers 1995). As an effort to curb African access to resources, and maintain control over land (Carruthers 1995), protected areas contributed to the formation of 'edge' dwellers (Andersson et al. 2013). Musunda became home to the Ndlovus through forced removal prior to the formal start of Apartheid; however, it became the 'edge' through Kruger's expansion and the creation of the Makuya park, during Apartheid.

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[110] A clan denotes the totem (*mutupo*) one follows and is linked to lineage. Family (*shaka*) can cross clans (Lestrade 1930).
[111] See appendix 3.2.4 for more information.
[112] Frank's ancestor was buried in Kruger hence the family's land claim (Appendix 3.2.3).
[113] This move effectively made the Ndlovu's 'muVenda' according to the Apartheid state, even though the family had alliances with other language groups, and thereby homelands.

Apartheid Dispossessions (1948–1994): Expanding Protected Areas, Creating New Edges

Colonial policies of relegating local peoples to lands least coveted continued through Apartheid. The 1940s removal of people from Kruger was followed by homeland (*bantustan*) creation (1951), which systematically pushed black South Africans off of the most productive lands (Aliber et al. 2009). The Homeland Act (1970) formalised the independent Venda state's boundaries; the white minority allocated the most unfertile lands to the homelands (Carruthers 1995; Andersson et al. 2013), 'legitimat[ing] differential accumulation of wealth' (Anderson and Berglund 2003) and further entrenching territories of difference (Escobar 2008). The encroaching parks then imposed fences, limiting resource access, further dispossessing peoples of productive relations with these 'least inhabitable' surroundings. Against the backdrop of Apartheid, the protected status and national symbol of Kruger, and by extension Makuya park, worked to 'weld together' the English and Afrikaans-speaking white populations, while excluding Africans (Carruthers 1995: 48). In contrast to the expanding and sprawling cities emerging during the twentieth century elsewhere in South Africa, northern Limpopo *Bantustans* remained devoid of investment (time and money) under the guise of 'independent rule'; this I later suggest contributed to 'infrastructural violence'.

Not only was the location and infrastructural profile of Musunda shaped by colonial and Apartheid policies, but because homelands were created around notions of tribalism that did not rightfully account for clan affiliation (Hay 2014), families like Franks' were fragmented. As different language groups were relegated to different homelands (e.g., TshiVenda speakers to Venda[114]), the Ndlovus were forced to live according to European imaginaries of tribal/ethnic differences, instead of fulfilling marriage alliances forged for resource sharing and reciprocity (cf. Levi-Strauss 1969a) that spanned language groups. European creations like bantustans imposed groupings based on European assumptions that important social groups remained within ethnic or linguistic boundaries, which they did not (Hay 2014). As such, Kruger's formation was part of a process that created a new set of conditions – based on incorrect European imaginaries – around which social engagements, including marriage alliances, were played out.

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[114] Gazankulu homeland was allocated to Shangaan/Tsonga speakers – many were Ndlovus.

Homelands ended direct conflict between colonial settlers and locals by allocating people to bounded geographical areas according to their race/ethnicity, and installing Apartheid friendly leaders to buffer conflict (van Kessel and Ooman 1997; Lahiff 2000). On top of being pushed to unwanted lands through colonial land grabs, 'pervasive imaginings' by white policy makers, that centred '"tribe" in rural people's historic relationships with land', restricted individual access to land (Hay 2014: 745, 746). Homelands did not reflect local self-organization, relegating 'compliant' local leaders more power to determine land access than before colonial/Apartheid interference (Hay 2014: 746). The approval of Makuya park by a chief whose authority was (and still is) contested[115] effectively further dispossessed Musundians. I suggest that since the park was imposed on edge-dwellers during Apartheid, it is implicated in social fragmentation, and continued land dispossession.

Acknowledging the danger of telling a single story (Adiche 2009; Mkhwanazi 2016), it is important to remember that the experiences of becoming edge-dwellers differs; not all Musundians were forcefully removed. However, many faced land and resource dispossession as the 'edge' came to Musunda with the encroaching protected areas.

When the 'Park Found Us Here': Makuya Nature Reserve Emerges (1980s)
Eric, in his fifties, and a lifelong Musundian explained: 'There was no park when I was growing up. *Makuya Park found us here.* There was Nyamazana and then they extended to Makuya Park . . . we didn't know [it was coming]. We just saw the fence and then they told us that it's Makuya park, a nature reserve that *they built*' (my emphasis). The fence, intended to keep large game within the park, is relatively new for Musundians' – an imposition that they did not know about until confronted with. Eric indicates that the park is an extension of Nyamazana, which was previously 'near Musunda, but not as close' as the boundary fence is now. Gloria, in her late forties, married to Frank's brother, explained why some residents frame Makuya park as an extension of Kruger, ' we are only separated by the river' and reflected on a moment of forced removal, 'the place called Nyamazana is the park that the Ndlovu family lived in before white people forced [them] to move, then it was called Kruger'. However, Apartheid-era dispossession, especially in Musunda, was more often a 'gradual dispossession,' 'far less concrete' than a 'single, momentous experience of forced removal' (Hay 2014: 747). Instead it was

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[115] This remains a topic of high sensitivity - see appendix 3.2.

cumulative: a 'slow loss of rights to land' as 'each generation experienced increasing restrictions in the terms on which they could access land' (ibid.).

Penny, in her seventies, who 'lived here for a long time, before this park was started' suggested that Nyamazana emerged 'during the Apartheid time', but she couldn't 'remember when exactly . . . Vho Makuya wanted people to move but that was because of Apartheid. They were cheating him into believing that it is for the benefit of the community. . . . We were never able to be part of Nyamazana . . .[or] pass through the park, and were arrested if found there.' Penny's recollection raises a number of topics – including memory – that recurred when Musundians reflected on the park. Penny suggests that Nyamazana guards were 'strict'; this may, in part, explain repeated suggestions that the current park regime treats edge-dwellers better than during Apartheid. Penny stated that 'the elders didn't want to move so they asked that the chief come to talk to them', illuminating how collective refusal to move signals one of the ways that the edge 'found' Musundians.

According to the park's current manager, Vho Philani, Makuya park was formalized through agreements between the Apartheid state, and the chiefs of HaMakuya and Sanari in 'the late 1980s' (pers. comm., July 2015). I suggest that the park contributed to creating edge-dwellers by positioning the 'chief' as a powerful land broker. As the edge came to Musunda, the struggle for land and access to resources continued to be intricately interwoven with both the histories of colonial and Apartheid control, and (the guise of) conservation/protectionist efforts (Carruthers 1995). Thus, I argue that the park represents a contemporary extension of the gradual dispossession enacted by colonial and Apartheid regimes.

Post Apartheid: The edge after 1994

Apartheid formally ended in 1994. Homelands were dissolved, and racial inequality made illegal with South Africa's 1996 Constitution. However, colonial and Apartheid policies have left indelible legacies in the spatialisation, extraction, fragmentation and dispossession that accompanied the formation of these protected areas. Below, I consider how practices and structures that emerged or were reinforced during colonialism and Apartheid continue to shape Musunda's edge. In describing these dynamics tied to close proximity to the park, I evidence how they work to shape the edge.

THE EDGE TODAY

Protected natural areas play a role in extending Apartheid-era extractivism and maintaining infrastructural violence. Here I sketch more details of contemporary Musunda, drawing on my time there (May 2013 – August 2016). I outline how extractive practices like mining, and trophy hunting; structures like the Red Line; and infrastructural violence, such as patterns of neglect that result in fragmented biomedical services (and relatedly, missionary influences – see Horwitz 2009; Kirkaldy 2009) work to extend Apartheid-era dispossession, influencing edge-dwellers' lives. I explore how current infrastructural decay, protectionist practices, and extractivism enrich national and provincial governments at the expense of local residents who face restrictions on engagements with their surroundings. As non-Musundian stakeholders' (e.g. trophy hunters) wants and needs impose on edge-dwellers' lives, the edge is produced by a lack of structural investment that I suggest fits with the environmental imaginary (Peet and Watts 1996) and eco/edu-tourism imaginaries of 'pristine' African environments. I then consider how all of this contributes to edge-dwellers experiences in accessing biomedical care.

The Edge as an Instrument of Dispossession and Fragmentation

The park's boundaries, imposed during Apartheid, remain. The creation of Kruger and Makuya parks - conservation protectionist practices that assisted the process of land dispossession - transformed natural resources into monetized and regulated resources. From the 1860s legislation increasingly transformed wildlife 'from an economic resource available to everyone, to a commodity reserved for the enjoyment of the ruling white group' (Carruthers 1995:13). Attempts to resist the formalization of the park increased state efforts to maintain control[116], further limiting land and resource access (ibid.: 43, 44, 65). For Europeans and Afrikaners, Kruger became a national symbol imbued with a romanticized nostalgia for a 'natural', 'pristine' landscape of the past (Carruthers 1994, 1995). The creation of a 'pristine wild' in Kruger conjured an imagined past that disregarded Africans' role in shaping the landscape; conservation protectionism then effectively denied them access to these spaces (Carruthers 1995: 65; see Fairhead and Leach 1996). This 'pristine' imaginary continues to impose on edge-dwellers' lives, often in the form of tourists' expectations, crucial to remember when considering the state's aim to increase eco-tourism – a point I return to later.

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[116] Including legislation reducing access to firearms.

Park Formalization: Apartheid, Royal 'Dictatorships' and Memory

Colonial land grabbing and Apartheid-era dispossession contribute to the park's existence. Very few Musundians recalled Makuya park's formalization with ease. Frank explained that Nyamazana existed through his childhood, but 'in the eighties' the current fence, delineating the park, was built less than a kilometre from Musunda. Musundians struggled to state a specific year that the fence was erected, adding credence to claims that Apartheid-era land transformations – for Spiegel, afforestation by the emerging Forestry Department – coincided with a local sense of 'amnesia' (2004: 7). When pushed to give a year, Musundians offered dates ranging from 1979 to 2001.

Penny knew of the impending fence because her brother was hired to build it, but she recalled the 'surprise' of other Musundians, confirming Eric's earlier statement: 'We just saw the fence and then they told us that it's Makuya park. . .' Relatedly, Frank explained that no one could argue with HaMakuya's royal authority, which he likened to a 'dictatorship'. Penny explained, 'You can't question the chief, especially in those Apartheid days. You can't challenge or raise issues, even today. There are spies for the chief, and for the park.'

The dictatorial practices of Makuya royalty might explain the confusion and/or silence surrounding the park's emergence; recall of this emergence is also complicated by the fact that edge-dwellers' agency regarding land-use was undermined by Apartheid and complicit royalty. While living near Nyamazana, Musundians recalled armed guards' night-time raids. Vhuthu, my neighbour (in her 50s), explained, if someone brought home an antelope from 'the bush' then it had to be cooked and eaten 'and even all the pots had to be cleaned before we went to sleep'. Otherwise, if guards found evidence of a hunt, they would arrest the whole family.

At the same time, because the park was fenced in the 1980s, it was managed under Apartheid for a relatively short time, and since then, post-Apartheid legislation mandates that co-management plans have input from customary leaders, providing relatively more opportunity for *some* (royal) edge-dwellers' input, and legally establishing edge-dwellers' rights. Consider then that the encroachment process from Nyamazana to Makuya Park coincided with a sense of less violent oversight,

as the post-Apartheid constitution supports residents' rights to claim access to local resources, at least on paper, potentially influencing the perceptions of the park amongst those who experienced Apartheid violence. However, I also suggest that Makuya royalty continues to shape Musundians' engagements with the park: 'not everyone can talk to the chief, so it is difficult for us to lodge our complaints'. In this way, the park reifies hierarches of power that were magnified or reframed during Apartheid (cf. van Kessel and Ooman 1997; Lahiff 2000; Hay 2014).

On-going Contestation of the Park's Formalisation: Fragmentation Legacies
Fragmentation inherited from Apartheid policies that managed certain areas and ignored homelands, led to land and regulatory fragmentation, and on-going contestation over the rightful park management authority (Paterson 2009). South African protected natural areas are formalized through the Protected Areas Act 57 of 2003 in conjunction with the Biodiversity Act 2004 (ibid.: 15). The 2003 legislation allows Apartheid-era protected areas to maintain their status despite acknowledging forced dispossession. This can be challenged through a land claim process,[117] but these areas maintain their protected status until a court decides otherwise. Makuya park is not formally proclaimed (NCC 2013: 41), nor does it have a management co-operation plan in place (ibid: 8), both necessary to formalise protected status and associated buffer zones. However, despite legal liminality, the park exists in practice.

The park, managed by the Limpopo Province's Department of Economic Development, Environment and Tourism (LEDET), in partnership with Kruger, is required to form a co-operative agreement with the Council, but the Council rejected the park's five-year management plan for 2013. Challenging LEDET's designation as management authority, the Council suggested instead that they be confirmed as 'rightful custodians' (NCC 2013: 28).[118] However, the park's fences remain on Musunda's perimeter and the Council continues to draw capital from trophy-hunting partnerships with the park.

LEDET's capacity to manage is also challenged by Kruger. Although Kruger's management plan aims to 'continue to engage and assist the provincial conservation authorities to build the necessary capacity in order to manage these areas

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[117] See Roux 2004 on land claims.
[118] A hired company, NCC, authored the Public Participation Report.

appropriately', 'strained relationships' between Kruger's managing authority and 'some of the provincial authorities' have slowed finalization of buffer areas.[119] However, according to park manager Vho Philani, tensions between Kruger and Makuya managing authorities arise from unfulfilled fence maintenance promises on Kruger's part. These 'strained relationships' according to Kruger management documents results instead from a 'lack of capacity on the part of provincial authorities to manage and control these areas' resulting in 'serious poaching, harvesting of firewood, and even the establishment of mining infrastructure in Makuya Nature Reserve'.[120] Curiously, Kruger take no responsibility for the situation, blaming limited provincial capacity despite the fact that at the time of the mine's establishment, the Limpopo province did not exist. This perspective glosses over how Apartheid limited the power of homelands to intervene in extractive practices, or homeland residents to access land and resources. This example indicates one way that inherited fragmentation fosters contestation and continues to shape the 'edge'.

Purposes of Protected Areas and Musundians' Rights: Extraction Legacies
Protected natural area oversight currently falls under the Department of Environmental Affairs and Tourism (DEAT) whose mandate includes ensuring the protection of the environment and natural resources, alongside sustainable development and the equitable distribution of benefits derived from natural resources.[121] DEAT receives its mandate from the South African Constitution's Bill of Rights[122] which includes consideration for health and wellbeing ('an environment that is not harmful') alongside conservation efforts. However, Act 57 (2003) establishing protected areas outlines twelve 'purposes', very few (three) of which attend to the needs and wants of those most affected by protected status proclamation.[123]

The legislation suggests that only one of the necessary 'purposes' must be fulfilled for a protected area to be declared (ibid.). These purposes are prioritized, with the protection of charismatic species and resource extraction appearing more often and

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[119] Kruger Management Plan: 67; see
https://www.sanparks.org/assets/docs/conservation/park_man/knp-management-plan1.pdf (accessed 6 September 2016).
[120] Ibid.
[121] See https://www.environment.gov.za/aboutus/department (accessed 10 June 2016).
[122] See Appendix 3.3.1.
[123] Edge-dwellers are most marginalized by this legislation; see Appendix 3.3.2.

higher on the list than, for example, the protection of humans in conflict with these species/practices. At the same time, the National Environmental Management: Biodiversity Act 2004 outlines planning instruments intended for each protected area which position biodiversity priorities over those of local residents, drawing on notions of healthy eco-systems that rely on Western scientific notions of for example, biodiversity, rather than in consultation with local residents. These 'distributions of agencies' position certain types of knowledge as more 'factual' than other types, which results in edge-dwellers' 'matters of concern' coming second to a park's 'matters of fact' (Latour 2015: 221). Thus, protected areas challenge the civil rights of edge-dwellers to access an environment that fosters their wellbeing as mining and trophy hunting provide examples of how Apartheid-era dispossession and fragmentation continues to influence Musunda's environmental conditions.

The Edge and Park: Instruments to Extend Extraction and Spatialisation

Apartheid and colonial processes of territory making are tied to extractive practices that illuminate power inequalities. Mining evolved in the park during Apartheid and continues to impact on the daily lives of edge-dwellers. Meanwhile, the relationships forged between edge-dwellers and protected areas through trophy hunting demonstrate the ways in which extractive practices are prioritized over locals' conceptions of appropriate relations with their surroundings. Black Africans' needs were made secondary to economic and utilitarian demands of settlers as their access to wildlife resources for sustenance were displaced by settlers' extraction of the same resources for commercial use. Throughout Apartheid, trophy hunting continued to extract large game while reifying notions of 'wild' and 'pristine' spaces, tying these spaces, politically and historically, to struggles over land and resource access. Today, protected areas continue to be instrumental in the dispossession of black populations in favour of rich, white hunters. From colonial hunters, to South African 'professional' hunters, to US/European trophy hunters and 'wildlife' tourists, local *needs* are made insignificant when in conflict with recreational *wants*; a reality, which I suggest lives on today in the relationships between edge-dwellers and trophy hunting tourism.

Directly Affected Communities and Trophy Hunting: Extending Extractivism and Creating Reliance

One kilometre east of Musunda, the park's boundary fence cuts off access to the bush, rivers and routes northeast of the village. In contrast, the park's eastern

boundary shares the Luvhuvhu River with Kruger, extending the spaces through which charismatic species, like elephants, can roam. Today Musundians live alongside the park's fence; thus, essentially, Musundians live on the boundary of Kruger, within its buffer zone, making hunting of any kind illegal for Musundians.

Musunda, one of six HaMakuyan villages bordering the park, is, according to the park and Council, a 'DAC' (directly affected community, or village adjacent to the boundary fence). This nomenclature acknowledges that these residents are impacted by their close proximity to the park, for example, when an elephant or lion breaches the fence 'these are the villages that get the impact from the wild animals' (Fulu). They are allocated 'benefits' from the park trophy hunts in the form of leftover meat and money, which other HaMakuyan villages do not receive. Due to their close proximity to game within the park, they fall within the Red Lines, which means they face unique surveillance in relation to other HaMakuyan villages. I suggest that directly affected communities provide an example of ways in which edge-dwelling is shaped by the park through trophy hunting.

To understand the ways in which edge-dwellers are impacted by their position on the edge, it is important to understand how directly affected community framing by the park plays out in the form of 'benefits', and how this relates to trophy hunting. In describing how other stakeholders, like trophy hunters, influence 'the edge', I consider how trophy hunting - a form of extraction (see Buscher and Davidov 2016) that began with colonial-era land grabs, but continues today - extends and reinforces colonial/Apartheid-era extractivism.

The extractive practice of trophy hunting is rooted in the history of Kruger's emergence as hunting grounds for the colonial elite. Because the park is difficult to access (dirt roads, long distances from other tourist sites), it generates the majority of its profits from trophy hunting, as it provides a unique opportunity to 'hunt with the Big Five[124] in pristine, proper bushveld', according to Johann, an Afrikaans professional hunter, in his mid-forties. The trophy-hunting season, from April to September, is highly regulated. A number of stakeholders (Council, Royal family, and non-HaMakuyans) benefit from the multiple layers of bureaucracy resulting

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[124] To have all five (lion, leopard, rhino, elephant and buffalo) is apparently a boon that some consumers specifically seek.

from these regulations more than others (edge-dwellers) as the following trophy-hunting explanation outlines.

Each intended animal head requires a permit. Although permits are allocated to HaMakuya through agreements with the park, the paperwork must be filed alongside a safari outfit. Until 2016, a HaMakuyan, closely connected to the Makuya royalty, ran this outfit,[125] but in 2016, he was ousted for skimming.[126] The Council hired a new outfit – a non-HaMakuyan, TshiVenda-speaking woman with experience in eco-tourism/trophy-hunting excursions.

Although this outfit negotiates the permits for trophy-heads, tourists must be accompanied by a 'professional hunter' who must be a trained, registered South African citizen[127] – such demands are difficult for someone with limited means, like the average Musundian. According to Musundians, the park does not engage a single professional hunter of colour, nor are there any HaMakuyans who have a professional hunting license.

A professional hunter negotiates permits (per head, for short time windows) with the local outfit, finds clients, and hires an outfitter (for equipment, guns). In my two experiences shadowing hunts, the outfitters and professional hunters were white men, who brought their own trackers (from KZN province). Musundians received no employment opportunities through the actual hunt. Relatedly, the total cost of undertaking a trophy-hunt is well beyond a middle-class South African income, and thus trophy-hunters are often wealthy foreigners who hardly interact with locals. In fact, hunters flew directly to a park airstrip, never once engaging with HaMakuya. Thus my research provides evidence that just because trophy-hunters come to the park, this does not mean that local businesses are supported, nor are local markets being developed, something that runs counter to the rhetoric mobilized by the state – see 2012 National Tourism Sector Strategy update – to garner support for conservation projects as 'development' or 'economically' beneficent.

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[125] This same man formally rejected the park's co-management plan on behalf of the Council.
[126] HaMakuyans suggested income of R85,000 per elephant head was reported but R110,000 received. In 2003 the standard cost for an elephant hunt was $19,222 (de Beer 2009). HaMakuya receives less than half– exploring how the rest of this money is allocated is an important avenue of future inquiry.
[127] See <https://www.environment.gov.za/sites/default/files/legislations/nemba10of2004_regualations_profesionalhunters.pdf> (accessed 2 January 2017).

Trophy hunting 'benefits' come in the form of aid,[128] rather than business or employment. Directly affected communities are provided with meat and money through the Hunting Committee.[129] The money provided per hunt, a percentage of the trophy hunt profit, according to one Hunting Committee member, is allocated as follows:

> 50% Traditional council
>
> 30% Council development projects
>
> 10% Chief Makuya
>
> 5% Royal Council
>
> 5% Directly affected community

The funds allocated to the village are the smallest, and managed by village authorities (headman and his counsel) and elected chairs; processes that are not necessarily transparent to all village residents. Reflecting on the allocation of funds, in general, those who are most impacted by the park (i.e., non-royal 'directly affected' residents) are allocated the least funds, while having little control over how the funds are spent. The six directly affected villages reap minimal benefits from their position as edge-dwellers, while the royal family and Council benefit significantly more from trophy hunts.

The Park and Red Line Gate: Intertwined Spatialization Efforts

The impacts of edge-dwelling do not end with shared borders, or limited resource access – these are direct affects. Indirect impacts of edge dwelling include increased surveillance as Musundians must navigate fences that contain their village – the park fence on one side, the Red Line on the other (Figures 3.11 and 3.12). Protected areas contribute to local spatialization, creating distinctions between directly affected and other villages; imposing on edge-dwellers' movements; and propelling ecological challenges. 'Living on the edge' for Musundians means living within foot and mouth disease containment areas and complying with state veterinary regulations; for example, Musunda's cattle are not permitted to leave until sprayed. I suggest the Red Line is a 'strategic production of nature' through 'the state's spatial construction and intervention in the natural world' (Whitehead et al. 2006: 49),

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[128] Aid to Africa inflicts damage; see Cotter 1979; Kanbur 2000; Moss et al. 2006; Moyo 2009; Crane 2011.

[129] The Hunting Committee meets quarterly, with four representatives from the Council and each directly affected village.

which may control disease spread but also maintains power and access differentials (Figures 3.13 & 3.14). The state frames social interactions with nature through 'territorial strategies to control and order space' (ibid.); directly affected villages are one example of this, the Red Line is another.

The Red Line gate ties this area's colonial settlement patterns - shaped by diseases and dispossession - to conservation efforts and represents one way that the state continues to use spatialisation strategies to 'introduce[s] its presence, control and surveillance into the most isolated corners' (Lefebvre 1978: 227, in Norton 2014: 127). Additionally, Musundians are exposed to insecticides, sprayed on livestock at the Red Line gate (Figure 3.15), increasing edge-dwellers' exposures to environmental toxins.[130] The Red Line gate further shapes Musundians lives as those who live near it live in 'Musunda Gate' while the rest live in 'Far Musunda' – as in, far from the gate. Spacialization and extractivism are remnants of colonialism and Apartheid that tie the park to impositions on edge-dwellers, especially when considering the existence of a mine that is infrastructurally intertwined with the park.

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[130] Agard-Jones (2013) considers environmental racism alongside toxic exposures; in HaMakuya, toxic exposures from the mine, Red Line spraying and mosquito control measures (DDT) are noteworthy.

Figure 3.11: The Red Line gate

To the right, beyond the gate, the cattle kraal where cattle are sprayed before they leave the village.

Figure 3.12: Musunda Red Line guard at the gate
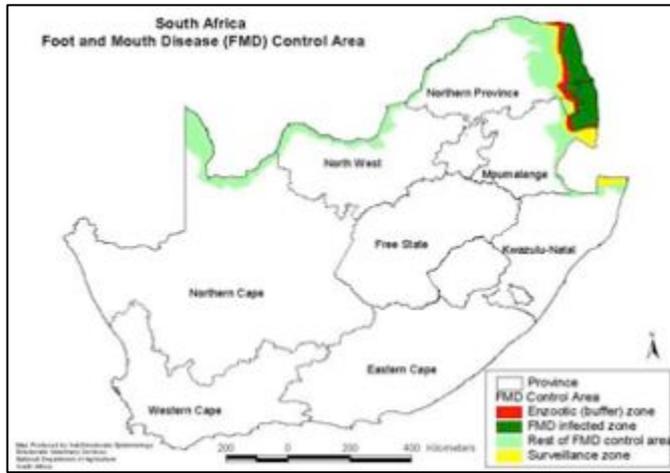
Figure 3.13: Musunda residents live in the red (buffer) zone in the former Northern Province.

Figure 3.14: The end of the foot and mouth disease-free zone

Figure 3.15: Cattle sprayed at Musunda Red Line

Legacies of Extraction and Fragmentation: The Mine

The intertwined nature of the park and Tshikondeni mine highlights one impact of Apartheid-era extractivism, and illuminates the environmental risk exposures (cf. Evans and Kantrowitz 2002) that contemporary edge-dwellers face. A trickling Luvhuvhu River tributary flows from the north, past the unused eco-tourism accommodation where a sign warns of polluted water. Twenty kilometres north, past the Musunda turn-off t, a right turn towards the Luvhuvhu River, through a Red Line gate, past villages, leads to a mine complex and Makuya Park's main gate. Before that an abandoned suburb appears – where homes inhabited primarily by white mine management now stand empty. Opposite an abandoned petrol station, and supermarket, towers of white piping rise above shallow cement pools of grey shimmering water. Hulking behind, rise large banks of fine-grained discarded mine waste (Figure 3.16).

Road signs warn of 'cavity danger' (Figure 3.17) as HaMakuyan Community Works Program[131] crews provide manual labour for local infrastructural maintenance. The sign for the park is gone, but follow 'Shaft II' signs and eventually a large sign – peeling and discoloured – appears (Figure 3.18). The mine shares road infrastructure (now collapsing) with the park, and main gate, while underground, the mine extends with shaft entries inside the park.

The Tshikondeni coalmine, opened in 1984, is another extractive Apartheid-era practice tied to the park. When the fences encircled the park in the 'early eighties' (Vho-Philani) 'legislative fragmentation' led to inconsistent approaches in declaring protected areas (Paterson 2009: 8), and left gaps in oversight and management, which I suggest made space for the emergence of the mine. Because no single process was in place, multiple processes across diverse authorities (national, regional, and local authorities) variably formalized protected areas until 2003 (ibid). This led to fragmented protected area management, which resulted in isolation from adjacent buffer areas and little provision for sharing management responsibilities with local communities (ibid.: 9). In addition, as suggested by Musundians, public participation in the declaration process was entirely absent, and customary rule equated to dictatorial practices by Chiefs; for Musundians the park emerged when Vho-Makuya 'sold the land' (see Maathai's [2009: 25] discussion of 'big men').

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[131] Described later in this chapter.

Figure 3.16: Mine waste along the road.

Figure 3.17: On the road to the main gate.

Figure 3.18: Main gate; the brown sign points to mining shafts within the park.

During Venda's independence, a South African company, over which homeland authorities had little (to no) say, built the mine. In fact, when discussing the relative lack of information I could find on the park's formalization, one government conservation employee and ex-staff member (not a HaMakuyan), Budzi, suggested that 'perhaps Makuya park was formalized in response to the creation of the mine, as many times, large extractive projects of that nature, during that era, were encouraged to mitigate their practices by providing support for protected areas' (pers. comm., August 2015). As such, I suggest that land dispossession may not simply come from encroachment by the park, but rather as Budzi suggested, the park's existence may be tied to Apartheid-era extractive practices, and the gaps left by Apartheid-era policy fragmentation.

At its most busy, the mine employed 750 permanent employees; exporting to Gauteng province (Cornish 2012). A prime example of the ways in which, even during independence, Venda supplied South Africa with important resources while reaping little benefit. In fact, my research evidences the intertwined nature of environmental injustices and extractivist projects like mines; during Apartheid mining companies operated 'with virtual environmental impunity, producing a legacy of solid waste and water contamination' (McDonald 2002: 8). In 2014 the mine closed. The social outreach plans outlined in the 'mine closure' document remained unrealized, or unsustainable (e.g., Musunda Orchard).[132] The mine has had multiple impacts on wellbeing; HaMakuyans lost jobs when the mine closed, or were transferred to other mines,[133] not to mention its continued influence on the local environment (e.g., toxins, geological instability, water pollution).

Fragmentation in governance during Apartheid led to contestation surrounding the park's management, and likely led to the closely intertwined nature of the mine and park. This illustrates how the local environment is shaped, and polluted by extractivist practices that remain (albeit odd) bedfellows with protectionist efforts. Other, more contemporary impositions also influence edge-dwellers. With the expanding eco-tourism market (Sullivan 2011; Buscher and Fletcher 2017) comes

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[132] Few edge-dwellers benefitted; see appendix 3.4.1.
[133] I witnessed how the mine's closure impacted the wellbeing of a family; see appendix 3.4.2.

expectations for 'pristine' environments (Brockington et al. 2008; Buscher 2011) – discussed in the next section.

Edge Stakeholders, Tourism and 'Pristine' Expectations Associated with Makuya Park

Many factors shape Musunda. Historic processes, forces of desire, relations of production, and ideological standpoints all come together in complex meshworks (Ingold 2008) of interaction (*reedes*, according to Escobar 2008; rhizomes, for Deleuze and Guattarri 1987) to create contemporary Musunda. While this research focuses on Musundians, they are not alone in staking claim to the areas in and around the edge. Multiple stakeholders, with connections to the park and one another, exert overlapping claims on the local environment, which influences how the edge is shaped and experienced by edge-dwellers.

Stakeholders include[134] the national parks department; the Limpopo provincial department that oversees regional 'development', 'environment' and 'tourism'; the Council and royal family; researchers, volunteers and tourists visiting the Trust to 'conduct research on untouched environments' or to 'escape' or 'experience the bushveld'; and concession owners, professional and trophy hunters, who shape expectations of HaMakuya as 'wilderness,' where wildlife and 'proper bushveld' can be contacted. These stakeholders see the park in multiple ways between and among themselves: as a resource, a source of data, an economic opportunity, personal property, state property, a job, a problem that needs managing, or a challenge. The wants and needs of these various stakeholders – often reflecting imaginings of 'wild Africa' as 'pristine' – impact on edge-dwellers' experiences.

The concept of wilderness and the associated myth of 'pristine' are a 'human creation' (Cronon 1996: 7). An imagined 'wild Africa' is conjured through media stereotypes (Lutz and Collins 1993) and historic adventure stories that align with a lack of infrastructure, which may inform the foreign edu-/eco-tourists' and trophy hunters' expectations, and may explain the inaction of the government to change things. Expectations to perform 'a pristine primitivity' (Mintz 1985: xxvii) – endorsed by the imaginary created by the South African Department of Tourism's

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[134] A partial list.

official press materials[135] – are aided by a striking lack of infrastructure. This infrastructural violence, including a lack of provision of modes of transport and basic resources like water, works to reify concepts of 'untouched' landscapes used to market South Africa.

How Tourism, The Trust, and Protected Areas Shape the Edge

Catering to a particular imaginary[136] that is produced and endorsed by national policies that emphasize the role of tourism as a 'local development strategy' (Binns and Nel 2002; Buscher and Fletcher 2017) and job creator (National Tourism Strategy 2012; ASGISA 2005 in van der Merwe et al. 2014), the park's management goal of 'preservation of the wilderness attributes of the reserve in order to promote a true "bushveld" experience' (2013: 14), exerts pressure on edge-dwellers. Expectations of a 'wilderness' devoid of human impact (Neumann 1998; Anderson and Berglund 2003) impose limitations on edge-dwellers' resource access and use.

South Africa's policy focus on tourism as a means of increasing the country's income has resulted in the proliferation of tourism operators, capitalizing on eco-tourism and increasingly popular educational 'voluntouring' (Abrams 2008; West 2008). I suggest that HaMakuya has been shaped by tourism in material ways. For example, the Trust, itself a product of HaMakuya's position on the 'edge', markets the Camp as dedicated to eco-tourism, using the 'natural environment' and location close to Kruger to attract business.

Chapter 2 explained the Trust and its Camp's development in partnership with HaMakuyan royal authorities and university professors. The Camp, located on the outskirts of HaMakuya, offers accommodation and field support, largely staffed by HaMakuyans. Comprised of five canvas tents, it overlooks the Mutale River. Each tent has a shower, flushable toilet and sink with hot water- amenities that are not available in the surrounding villages. The Camp hosts students from international and local programmes for two to ten days. As such, HaMakuyans have developed

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[135] The MeetSouthAfrica video is three-minutes of sprawling landscapes, leopards languishing in trees, and scantily clad black Africans dancing in colourful beads.
[136] Stereotypical renderings of authentic African experiences (Lutz and Collins 1993) contribute to 'tourismification' where marketing creates imaginaries, often based on portrayals of 'otherness' (Said 1994; Gaonkar and Lee 2002; Salazar 2009), very different to realities.

services for them.[137] The Camp created jobs, such as research assistants and Homestay interpreters; has created expectations of stipends for homestay hosts; and receives two governmental Environmental Monitor stipends. This has also attracted ecosystem-related research to HaMakuya (e.g., IMAGINE).

While these modes of tourism generate some benefits like jobs and training, they also impose on HaMakuyans' daily lives (cf. Honey 2008; West 2008). For example, eco-tourists are encouraged to report firewood collection or net fishing HaMakuyans (Figure 3.19). Tourists imaginaries and the marketing of eco-tourism that creates expectations of 'pristine' environments, shapes the modes of 'development' that edge-dwellers find imposed on them. In HaMakuya, this is evident in the Trusts' marketing of homestays,[138] and in the fact that tourists are co-opted into policing resource use (Figure 3.19). In this way, the Camp is complicit in and an extension of processes of ongoing dispossession.

Figure 3.19: Sign at the Camp.

Infrastructural Violence on the Edge

Apartheid-era policies maintained colonial practices of ignoring some spaces. In fact, Venda was described as an 'apartheid Oasis' (Lahiff 2000). However, such a positive rendering disregards the lack of access to basic national services, or civil rights, obscuring the brutality and violence inherent in the decisions to ignore these spaces when infrastructure provisions were being made. Chapter 1 described the

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[137] Like guided hikes.
[138] 'Cultural exchanges' envisioned by the Trust require that homestays be allocated to 'traditional' rondavels.

ways in which homelands were systematically ignored and independence was imposed, leading to unequal development of infrastructures, as roads, schools and biomedical services, for example, were developed throughout South Africa except within homelands. Here I suggest that infrastructural violence – a situation of structural violence experienced by edge-dwellers that emerges from a lack of engagement and investment in infrastructure by those with state power (municipal, national, customary governments) – characterized the Apartheid government's engagements with homelands, and continues to shape Musunda. Collapsing ceilings in the only secondary school (Figure 3.20) are a reminder that contemporary experiences of edge-dwelling are exacerbated by poor service delivery, with the precedent of 'infrastructural violence' formally set through homeland policies.

My use of 'infrastructural violence' draws on public health and medical anthropological literature on 'structural violence' (Farmer 1992, 1999, 2003). Musunda's infrastructural limitations evidence the ways in which infrastructural differences are linked to power differentials that manifest in economic possibilities and politics (Farmer 2003). Rodger and O'Neill (2012) draw on Scott (1998) and Ferguson (2010) to suggest that infrastructure is 'one of the major vectors for the organization of society by the state,' and is thus an 'ideal site' to observe 'forms of social control and oppression,' and to examine how they 'play out' (2012: 402).

In focusing on Musunda's (lack of) infrastructure, I align with Rodger and O'Neil's efforts to reveal how 'relationships of power and hierarchy translate into palpable forms of physical and emotional harm' (2012: 402). However, the rural setting of Musunda is critically different from the urban sites Rodger and O'Neil discussed (2012). I suggest that this context is not one where such violence can be juxtaposed to pockets of 'infrastructural power' (Mann 1984) as happens within a city. Rather, in Musunda's rural context, my conceptualisation of infrastructural violence emerges from my consideration of the violence and marginalization inherent in the Apartheid system; a systematic violence where homelands were purposefully ignored as the government established infrastructure. And now, Musundian edge-dwellers experience this infrastructural violence in embodied ways (Farmer 2003: 30). I contribute to the infrastructural violence literature by reframing the term for these post-Apartheid rural contexts, where the lack of infrastructure induces

suffering.[139] Building from historic influences, I reflect on how the lack of service provision and infrastructural investment on the edge serves to fortify imagined landscapes of 'pristine' wild bushveld that suit the goals and objectives of other park stakeholders, more than edge-dwellers.

Infrastructural violence is particularly visible in HaMakuya. Not just in 'direct, intentional harm, incapacitation, or deprivation' (Loyd 2009: 865), but also in hierarchies that sustain inequality such that individuals' 'actual somatic and mental realizations are below their potential realizations' (Galtung 1969: 168). Lahiff (2000: 76) characterizes post-Apartheid Venda as generally lacking 'investment and economic development', leaving people reliant on remittances, and social grants in the absence of other economic opportunities, which impinges on dignity and thereby wellbeing (cf. Fischer 2014). Apartheid lives on in the continued infrastructural violence of the crumbling schools; in the highly mobile, mostly male, migrant labour population; in the dirt roads, or lack of sewerage.

Electricity was installed in Musunda in 2012, however, the village remains in relative darkness at night. Fires outside most homes, used for cooking to save electricity, also occasionally burn garbage (Fig. 3.21). Firewood collection is increasingly regulated in this edge-dwelling context, along with fishing and hunting (Chapter 5 and 6). Municipal service provision indicators (Table 1) reveal how a 'social machinery of oppression' works to create a system of violence that plays out in who has access to and who suffers from a lack of infrastructure (Farmer 2004: 307; Rodger and O'Neill 2012), as piped water, including flushing toilets, was only available at the Camp, but not at the clinic.

	Vhembe %	Provincial %	National %
Piped water w/in dwelling	13.7	77.5	88.9
Toilets connected to sewerage	13.9	77.5	77.9

Table 1: Municipal Services

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[139] 'Infrastructural violence' may be imprecise, but is less unwieldy than 'a violence inherent in the intentional lack of infrastructure'.

Figure 3.20: A classroom with collapsing ceiling.

Figure 3.21: 'Take a photo of this Amber, you see, no service delivery, so we burn garbage'
(Fulu).

Annually, 'empty promises' to pave the road coincide with elections, while road repairs are left to HaMakuya's Community Works Programme. Communal taps become meeting places, as women or children wait for their households' turn to fill water containers (Chapter 5). Service delivery strikes - protests against the lack of services – spread from neighbouring sub-districts, sometimes result in violence that included burning nearby schools. These factors contribute to a landscape devoid of infrastructure, where dirt roads, and dusty shrubs stand instead of buildings, tarred roads, and delivery of basic (water, sewerage) municipal services. The infrastructural violence of living on the edge, as with the violence of the colonial/Apartheid history (Fanon 2001), is carried through the park, in its continued resource dispossession, extended through neoliberal policy reforms focused on wildlife habitat preservation (Hallowes and Butler 2004), which give power to environmental imaginaries (Peet and Watts 1996).

Galtung reminds readers that structural violence is particularly insidious because 'it does not show – it is essentially static, it is the tranquil waters. In a static society, personal violence will be registered, whereas structural violence may be seen as about as natural as the air around us' (1969: 173). I suggest that in the rural edge-dwelling context, the 'naturalness' of infrastructural violence, is precisely what makes it so insidious, particularly when tethered to projects that are steeped in Western morals tied to biodiversity conservation and protectionism. In some ways this infrastructural violence is an Apartheid/colonial relic, but contemporary processes also fortify this violence – for example, the influence of 'pristine' imaginaries – which emerge from forces of globalization, the making of the third world (cf. Escobar 2012) and neoliberal capitalist efforts to commodify nature that align with current South African tourism efforts to expand eco-tourism (Buscher and Fletcher 2017).

The Community Works Program

I suggest that it suits the goals of Limpopo's environment and tourism sector (tellingly, combined within this province), to maintain the landscape as is – a remote outpost with little infrastructure. The apathy towards infrastructural development in the area creates challenges. As a former homeland, there is very little economic opportunity. Many people earn less than US$5 per day, or R2000 (approximately $150) per month. Historic infrastructural violence, combined with the unfulfilled

promises of the post-Apartheid government (housing, education, service delivery) create a sub-district (Mutale) that has both the highest overall unemployment (48.8%) and youth unemployment rates (62.2%), and the highest proportion of households with no income (13.2%) within the Vhembe District (Massyn et al. 2015).[140] In a historic context where most basic needs were gleaned from the local environment, but now survival requires cash, there are limited earning opportunities. Thus, I suggest the Community Works Program becomes a vital access point for cash while delivering much-needed public services.

This government work and 'empowerment' program offers two days of work weekly at R75/day (approximately $7), and is 'good for the community because most people were not working' (Fulu, *pers. comm.*). Almost every village has a crew[141] and manager: 'Where the municipality is unable to perform certain duties, we step in. This includes filling potholes, repairing dongas, and opening new streets. This is important because we ensure service delivery to the people.' Although imperfect, the Program creates jobs, access to cash – increasingly necessary – and fills gaps left by infrastructural violence (Figure 3.22) by 'stepping in' to fill roles that 'government departments do not do'. In fact, HaMakuyan crews were sent to the park to build accommodations there. The Program literally shapes the physical landscape (i.e., repairing roads), and influences lives by providing access to money – albeit 'too little' relative to the work done as HaMakuyans are co-opted into labour, to create a resource (park accommodation) that they have little access to.

Despite the government's 'empty' promises, no tarred road has materialized, and water taps remain broken, perhaps revealing the potential tension between the interest of nature-based tourism in remote, or 'wilderness' places, and the realities of everyday life in these areas. Thinking through how this space has been produced (largely through neglect) it must be considered that if the state delivered on promises of infrastructure and economic opportunity it would shape the landscape in ways that sharply contrast the imagined 'pristine' landscape that is sold to tourists and trophy hunters.

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[140] Incomes varied; 69.5% of households earned less than R38,200 per annum (Massyn et al. 2015).
[141] Fulu facilitates applicants' paperwork, 'offering jobs to people who are illiterate' because 'CWP does not discriminate in terms of level of education', an important consideration in the post-bantu-education context (see Christie and Collins 1982; Biko 2002).

Figure 3.22: Community Works Program crew repairing roads.

HOW THE EDGE IMPACTS BIOMEDICAL HEALTHCARE DELIVERY

Infrastructural violence in HaMakuya influences the availability and accessibility of biomedical care. Apartheid and colonial era remnants continue to impact biomedical service delivery in South Africa, and 'the health of its people' (Coovadia et al. 2009: 817), from imposing biomedical practices and disallowing other forms of healing (Pinkoane et al. 2005), to creating infrastructural inequality that is evident today (Stuckler et al. 2011).

Biomedical Healthcare Delivery Historical Context and Legacies

Similar to racialised land policies, South Africa's healthcare inequalities were systematically implemented through Apartheid-era policies, but were already practiced; for example the Group Areas Act's (1923) facilitated fragmentation of healthcare (Horwitz 2009: 3). This created two distinct patterns of health: among the white population infant mortality was less than 15 deaths per 1000 live births, with a life expectancy of 65 and 72 years for men and women, respectively; whereas among the black population 30–50% of infants died before the age of five and life expectancy was, at minimum, a decade shorter (ibid.: 1).[142] Apartheid[143] further entrenched a system of violently unequal biomedical services. Homeland healthcare

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[142] Pre-1960s life expectancy in rural black populations was 36 (male) and 37 (female); by the late 1960s, 51 (male) and 59 (female) (Horwitz 2009: 1).

[143] Recommendations from the 1920s – 40s were disregarded during Apartheid – see appendix 3.5.

systems developed separately from urban, white areas, under the guise of independence (ibid.: 28). Coovadia et al. describes Apartheid's legacy of fragmentation within the healthcare system - separate facilities, management of funds, and training that 'moulded' the 'violent subjugation of indigenous peoples' (2009: 817).

During colonialism and early Apartheid, mission hospitals filled voids left by governmental 'neglect of the rural population' (Horwitz 2009: 4). In the 1940s one in five hospital beds were in mission hospitals; by the 1960s one third of 'non-specialist' services for black patients was provided by 81 mission hospitals (ibid.). The extensive uptake of Christianity among HaMakuyans is not surprising when offered alongside the only option for biomedical care, as missionary work is known for converting people, and changing local healing practices (Giovanini et al. 2011: 935). In light of missionary efforts that worked to remove the supernatural from the natural (Miller 1974), I suggest that edge-dwellers' healthcare decision-making has been significantly impacted by the simultaneous lack of government infrastructural provisions, and the secularizing impact of missionaries. By 1973 the government took control of 117 mission hospitals (Horwitz 2009: 4), overlapping with Venda's independence and coinciding with Apartheid-era infrastructural neglect; leading to limited biomedical care provision (and training) in the former Venda state.

The final report of the Truth and Reconciliation Commission (Volume V: 250) acknowledges that the Apartheid-era 'health sector, through apathy, acceptance of the status quo and acts of omission, allowed the creation of an environment in which the health of millions of South Africans was neglected, even at times actively compromised,' violating 'moral and ethical codes of practice' and facilitating human rights violations (Horwitz 2009: 1; see also Baldwin-Ragaven et al. 1999). In addition, until 1996 South African law banned non-biomedical healers from practicing (Pinkoane et al. 2005) despite the fact that research showed that such practices were central to providing acceptable care, especially in the absence of public healthcare provision (Abdool-Karim et al. 1994).

This combination of historic infrastructural violence, the legacy of governmental neglect and regulation, geographic remoteness, and resource access limitations resulting from conservation legislation creates challenges, evident when describing

edge-dwellers' efforts to access biomedical care. There remains a large divide between private and public sector service provision, and extreme variety between provinces (see Kredo et al. 2017). With a quadruple disease burden incommensurate with the country's middle-income status, South Africa's history contributes to unique health concerns, encompassing challenges of both lower income countries – child mortality, malnutrition – and higher income countries – high levels of obesity, hypertension, and diabetes (Coovadia et al. 2009) – all of which play out in Musunda's edge. The National Health Insurance, South Africa's primary healthcare re-engineering plan, is being undertaken because service delivery throughout the country remains extremely unbalanced. More than twenty years after the end of Apartheid, South Africa continues to face challenges in delivering equitable, and accessible services – as described below.

Accessibility, 'The Problem of Transport' in Musunda

HaMakuya is in the only Limpopo sub-district without a hospital. Musundians face geographic and infrastructural challenges in accessing biomedical care. The lack of infrastructure, while not solely an experience of edge-dwellers, is further complicated by the lack of service provision, the difficult terrain of 'true bushveld' (as per Limpopo's environment and tourism department's management aims) and long distances from urban centres, with little transportation. The clinic is 15km from Musunda; the nearest hospital is 80km from the clinic. While discussing my 'preliminary research findings' Sarina reminded me, 'don't forget the daily problem of transport'. Accessing tertiary or secondary care in the public, biomedical system, as both Frank and Ruby' stories will show, is no easy task.

Care Access: Ori and Ruby' Stories

Ruby's story has many layers – some of which I return to in later chapters. For now, it highlights the challenges that edge-dwellers face in accessing care, providing evidence of how living on the edge influences efforts towards wellbeing. Ruby was Ori's mother. They lived in the village closest to the Camp, with Ori's two younger brothers.[144] In December Ori and Ruby had both been ill, first with malaria, but then the *vhulwadze* (sickness) continued, and 'changed'. Both had 'small pimples'; she described pustules of milky fluid that grew larger. Although Ori's had 'popped' and was healing, Ruby's, on her foot, was inflamed, the skin badly discoloured and the

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[144] Ori worked at the Camp during 2012/13.

wound oozing. Ruby had been to the clinic, and then the hospital, but the doctors had sent her home. Then she increasingly had dizzy spells.

By the last Friday in January (2014) Ruby had moved to 'town'. Although the move was only over a distance of approximately 20km, the remote location of her village, and poor road conditions meant that a journey to the clinic, in a vehicle, could take 45 minutes, and without one, more than two hours for an able-bodied walker, which Ruby was not. The distance, and difficult journey, forced Ruby to move into the home of her daughter's in-laws, less than 500m from the clinic. I visited Ruby there who explained that she accepted her in-laws' room so as not to burden her younger children. Her two older daughters lived closer to 'town' with their families and could assist with her care.

Ruby's visit to the clinic earlier that week had resulted in another trip to Donald Frasier hospital (80km from Makuya clinic). Forced to pay for her own taxi (R40 each way), because no ambulance transfer was available, she was very upset, complaining about the smell of her wound, and the dirty looks she received from her fellow travellers; she didn't know if she could travel again if she needed to face such embarrassment.

In the weeks following, Ruby continued to struggle. After another visit to the hospital, including a transfer to Polokwane (250km from Donald Frasier) Ruby returned forlorn. When I visited in mid-February, she explained that the doctor wanted to 'cut the foot' off, but he did not explain why. When Ruby refused, he sent her home, suggesting she return in April. 'When in April?' I asked. The doctor did not make a follow-up appointment, and she perceived he was 'angry', so Ruby left. I asked her when she would return, and she said, 'Sometime in April, maybe.'

Ruby's story highlights edge-dwellers' difficulty in accessing biomedical care. Ruby moved from her home to facilitate clinic access. Her efforts to address the issue first at primary and then at a secondary biomedical facility within the province – far-away, in another sub-district – ended in frustration, an inability to understand the doctor's suggested treatment, the indignity of her own smell and returning home after costly voyages to two distant cities. Ruby's is a story of struggling to find care, and the long, lonesome, costly journeys to different provincial biomedical sites, only

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to be sent home. Ruby died in April, in a hospital, in another province, but only once her family rallied resources to move her 700km to Johannesburg. Fragmentation and inequality of services, paired with the remoteness of edge-dwelling added to Ruby's struggles, ultimately contributing to her death in a different province, far from her home and most of her children. Ruby's story highlights the physical and material challenges in accessing care, and the suffering, embarrassment, confusion and pain – the embodied and emotional challenges – that came with her efforts to access state services.

Biomedical Care Options, and Home-Based Care Workers

For edge-dwellers, some care is available; getting to the clinic may be challenging, but most HaMakuyans manage to. Specialized care, or an operating room, are not accessible in HaMakuya, nor is there a sub-district hospital. Historic infrastructural violence continues to impact on biomedical service provision in this region (Coovadia et al. 2009; Horwitz 2009). Particularly concerning is Vhembe District Health Report's suggestion that despite Mutale's relatively low population density, 'low levels of health-facility provision means exercising the constitutional right' to basic healthcare access 'is difficult for much of the population' (Massyn et al. 2015: v), because this Report includes consideration of two clinics within the Mutale municipality (Fig. 3.23), neither of which existed when I was there. This sub-district is deemed to have an already 'low level' of biomedical healthcare provision, while only one of the three clinics listed is actually operating.

Although busy, the clinic provides free primary care. HaMakuya does not escape the wider trend in sub-Saharan Africa of a shortage of human resources in healthcare (Kironde and Klaasen 2002; Johnson and Khanna 2004), which is mitigated by community-based health workers throughout the world (Mlotshwa et al. 2015). In HaMakuya, the government supports a home-based care-worker program, central to on-the-ground biomedical care (Goudie 2011). Three Musundians[145] work four days per week as 'care-workers', for R2000/month. Also, Musunda is visited by a monthly mobile clinic, for which the Community Works crew have built a waiting area, and 'bed'. While Musundians make use of the mobile clinic, it is not always able to navigate Musunda's roads.

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[145] Musundians, like Gloria, have completed the training, but there are no available stipends.

Health Facilities and Population of Vhembe district settlements
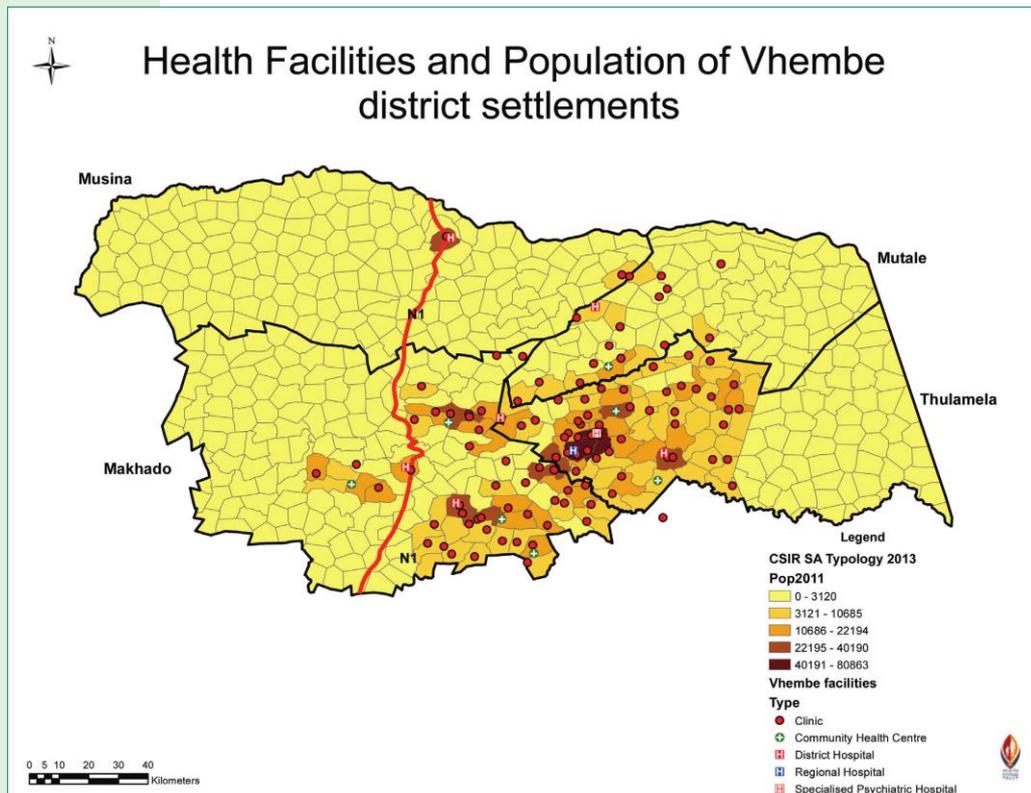
Figure 3.23: Regional health facilities (DHS 2015 Vhembe).

Biomedical care is accessible,[146] but often requires transportation costs, persistence and/or physical exertion (often of a person already feeling unwell). Sometimes the cost is more, like for Ruby, where the clinic could not address her concerns, and she was faced with embarrassment at her wound's smell and disapproving looks of the taxi passengers. Sometimes the price also includes the loss of wages. In some cases, the biomedical options offered, for example, Ruby's foot amputation, do not suit lived realities, especially as survival requires mobility, for example, for collecting water as municipal infrastructure fails.

Costs factor into healing choices. For some HaMakuyan families transportation and private clinic costs are manageable financially; although costly, a worthwhile trade-off for the longer wait times in government facilities. For others, there is no available cash. Noretta and her husband, Eric - both long-time Musundians - explained that their involvement in ZCC[147] resulted in their turn away from

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[146] Although not always acceptable, as with Ruby' foot amputation.
[147] Zion Christian Church, or 'Zed Cee Cee'.

'traditional TshiVenda doctors', because 'the church is free'. The church and TshiVenda doctors (traditional healers, or *maines*) are healing options that some people turn to, depending on costs, the type of wellbeing-related challenge and personal/religious preferences (see Chapter 7). Since there are no private clinics for at least 50km, the public hospital is 80km away, and very few Musundians have working vehicles – on average only three homesteads among 150 – transportation is a salient obstacle to accessing biomedical care on the edge.

Using the System: Frank's Networks and Knowledge to Access Care
The remoteness of HaMakuya, and the transportation challenges that edge-dwellers face, have a number of health-related implications. Edge-dwelling is not felt uniformly by all edge-dwellers; this is equally true in accessing biomedical care. The following story provides insight into the biomedical facilities available to edge-dwellers, while documenting how Frank, as a care-worker, sought care for his son. As a care-worker I suggest that Frank has considerably more knowledge of and contacts with the public healthcare system than many other edge-dwellers have, which perhaps facilitated his relatively easy (although resource and time demanding) engagement with public tertiary care.

The clinic has one ambulance. Sometimes it is used for hospital transfers as well as its primary role in emergencies. Frank's five-year-old son had a problem with his knee-joint; a challenge that, in a village where everything – including school – must be accessed by long walks in deep sand, would have put Frank's son at a serious disadvantage. After months of waiting, Frank and his son were notified to report to Polokwane for surgery.

One dawn, I saw Frank leaving his house as I drove past, 3km from the main road. Frank was carrying two backpacks – one on either shoulder – a bag of food, and his son's hand in either hand. I picked them up. They were going '[t]o the main road for a taxi to Donald Frasier. We are going there to get a lift. We need to be early. My son will have knee surgery in Polokwane. I have family working for the ambulance. They arranged for the ambulance to take us there.' 'So will the surgery be today?' I asked. 'Probably no. We will have to wait in long lines, and stay maybe two nights. Tomorrow, early in the morning we line up at the hospital. Then we will see.'

I dropped them off beyond the Red Line gate, where they waited hoping a taxi with space might pass. Frank's care-worker training gave him considerable knowledge of the most efficient ways to access biomedical care and family connections facilitated transport. This may explain why he was able to arrange his son's surgery and access the ambulance with relative ease. He made use of his social capital to reduce the wait time and costs of seeking specialized care for his son. Yet the surgery and check-ups required five visits to Polokwane at R2,500 each (for food, transport and accommodation). In a setting where Frank earns R2,000/month, the cost of going to Polokwane requires savings. It also requires missing at least two days of work per visit; meaning that HaMakuyans under his care did not receive his attention, and he was not paid his full stipend.

Both Ruby and Frank travelled to Polokwane for tertiary/specialized care. Frank's story ends in a successful operation for his son – who can now run with the other children, at dawn, over 8km to the nearest school – while Ruby's story does not. Easily turned away, likely labelled a non-compliant patient because of her refusal to undergo the amputation, should the doctor know that taking Ruby's foot would leave her unable to gather water, move around her property, survive? In both situations lives had to be adjusted in order to access care, and demands on resources and social networks were made. Edge-dwellers not only face challenges in the long, arduous journeys for care; another challenge is accessing emergency care.

Emergency Care in a Remote Setting: It Takes a Village… and the Importance of a Donkey Cart

The remoteness of HaMakuya, the infrastructural violence that equates to a seriously under-resourced sub-district, and the physical landscape of Musunda, contribute to a unique nexus of challenges for edge-dwellers. Unforgiving terrain combined with a space shaped by a 'pristine' imaginary that includes limited road infrastructure, I suggest, makes accessing emergency care especially challenging as these features hamper swift movement, increasing edge-dwellers' embodied suffering during emergencies, as evidenced by the following story.

The Chopping Story

At 9:30am, during an interview with Gloria, a woman ran onto the property, waving her hands and screaming, interrupting us. Someone had been 'chopped' with an axe

'in the bush'. The man who had done the chopping was boasting at the tavern next door. Gloria called her son, Ben, who then gathered water and hurried away.

Gloria sat down with her mobile phone in hand. I offered my car to assist. The police and emergency services had been called. 'They should be here soon,' Gloria responded looking down at her phone, shaking her head. 'No signal' she said, then pushed me to continue my interview. By 10:30 a neighbour, Zinzi arrived, explaining that a husband caught his wife – who had pretended to go collect firewood – interlocked with another man, and 'chopped him'. Gloria handed Zinzi money 'for airtime'; she agreed to call the ambulance again, and look for a donkey-cart. By 11am Zinzi returned; help had yet to arrive so they accepted my offer. Gloria looked at her phone: 'We don't know if the police or ambulance will come. They should be here, but no signal.'

Sarina, Gloria and Zinzi directed my driving as far into the bush as possible. When we reached a rocky hill with no discernable donkey-cart path, I explained my fear of getting the car stuck. Zinzi went with Gloria over the hill to find the man. Sarina and I walked up the hill for shade[148], looking towards the village, hoping the ambulance would arrive. Sarina and I waited. She commented on the lack of emergency services, noting that waiting was common. 'If I ever get hurt here, please call a donkey cart, and not the ambulance,' I replied. She laughed, suggesting that I write a chapter called, 'The importance of owning a donkey cart in Musunda.' This led to a discussion of how valuable a donkey cart is in HaMakuya, considering the slow emergency services, and the poor road quality. Sarina reminded me of my first interview, more than a year prior. 'Do you remember she told you that here, we need help with first-aid?' In my first ever HaMakuyan interview, this *maine*, suggested that HaMakuya would benefit from a first-aid workshop, explaining that, sometimes the journey to access care results in further injury.

At 12:55pm the ambulance arrived. This big vehicle, with limited clearance, awkwardly advanced along the donkey path, wheels spinning on the sandy substrate, until the driver gave up, reversed and parked on higher ground. The ambulance staff said they could not 'carry the stretcher with the man over the hill . . . ' Sarina was

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[148] Standing around my car, Sarina showed me a spring, which she identified because the area is filled with 'these plants' (see Appendix 3.6).

exasperated. At 1:30pm the donkey cart arrived with its still bleeding patient. More than four hours had passed as he lay bleeding in the bush.

The ambulance driver flagged me down; he wanted to follow me back to the village. Leading the ambulance sparked reflection on the emergency services: certainly ambulances could be more responsive if they were not so cumbersome? I started to think of the overland vehicles that wealthy safari companies have – the four-wheel drive, high-clearance custom suites. I thought about how they blast through the village, carrying trophy hunters chasing elephants, and how just one of those vehicles, if retro-fitted as an ambulance, could assist many HaMakuyans.

This story highlights themes related to care – important to the ways wellbeing is sought in HaMakuya. For example, Musundians stopped their day to ensure that some form of care reached the man in the absence of emergency services. It highlights the communication challenges that Musundians face with limited to no mobile phone reception; and the challenge of accessing emergency care. Even when the ambulance arrived, it was not equipped to cover the ground needed to access the man; instead a donkey cart transported the injured man to the ambulance, shedding light on some challenges that the landscape presents, like difficult-to-navigate terrain. While remoteness and edge-ness are factors that work well for people wanting to 'experience nature' or engage with 'wild' 'pristine' and 'proper bushveld', it does not work for someone needing emergency care, or a speedy hospital transfer.

The fact that people must live in lands that are edges to places imagined as untouched puts pressure on edge-dwellers that other South Africans do not face. Paul Farmer explores structural barriers, like HaMakuya's lack of infrastructure, asserting that these barriers become 'violence' when they result in 'adverse outcomes' (2004). If the adverse outcome of having to spend what is equivalent to more than three months salary to ensure that Frank's son can walk in the future is not violence enough, then surely Ruby's death or the long wait for emergency care, while bleeding, is.

Whether infrastructural violence is intended, a result of poor budget management, or a reflection of 'big men' capturing state resources[149] (Maathai 2009), the lack of transport, and basic resource infrastructures works to reify a concept of 'untouched' landscapes. This imposes challenges that are specific to edge-dwelling: a double-bind or dual imposition of living in a rural, remote space, with an imaginary that enforces little noticeable impact on the landscape, while denying people economic and service provision alternatives, resulting in a reliance on the land. This creates a circular loop for edge-dwellers, putting them in a situation where they are expected not to impact on their surroundings while being forced to *live through* these landscapes by cobbling together sustenance from 'productive bricolage' (Batterbury 2001: 438). Yet these South Africans survive and some flourish, even within the least desired tracts of land.

CONCLUSION

Similar to Grove's (1995) observation that colonial dispossession in the form of conservation was experienced differently across and within the colonies, not everyone who lives on the edge has the same experience of edge-dwelling. Different sets of skills, knowledge and social capital, not to mention access to savings, as for example with Frank, contribute to varied edge-dwelling experiences. However, as this chapter shows, edge-dwellers have largely come to live on the edge through dispossession making edge-dwellers into remote-dwellers through historically racist policies which left certain areas devoid of infrastructure, and allocated the least productive lands to black South Africans. I suggest that infrastructural violence combined with environmental racism and dispossession are characteristics of edge-dwelling; the combination of these factors continues to mould the edge.

This chapter outlined the colonial/Apartheid-era remnants that continue to shape edge-dwellers lives, while also detailing emergent features of the edge. I suggested that historic processes of marginalization and dispossession combined with extractivism contribute to Musundians' current experiences of infrastructural violence, shedding light on how power hierarchies were reified in processes that brought the edge to Musunda. By unpacking the ways in which nationalism and Kruger emerged in concert, I highlight the role of conservation in Apartheid-era

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[149] For example, where are the funds budgeted for the two clinics that exist on paper, but are not in HaMakuya?

human rights violations, and illuminate how contemporary protectionist principles position conservation priorities, and the related wants of tourists and trophy-hunters, over the needs of edge-dwellers.

Boundaries, fences, divisions between language groups, and the creation of ethnic groups emerged out of colonial and Apartheid practices concurrent with protected areas. Apartheid-era policies that shaped land and resource access, and hierarchies of power (cf. Hallowes and Butler 2004) continue to impact edge-dwellers lives, and the ways in which the edge is experienced by Musundians. HaMakuyans' social organization, customary leadership and access to biomedical care are influenced by colonial/Apartheid policies, and the locations and ways in which people are permitted to engage with their surrounds continues to be shaped by the structures and practices that emerged out of conservation protectionism. In fact relationships with the land, with other species and one another, are all influenced by the park.

This chapter evidences Makuya park's centrality in enacting processes of dispossession, suggesting edge-dwellers lives are, at least partially, shaped by the park. I suggest that the park maintains these processes through preservation objectives and conservation legislation that actively excludes edge-dwellers, and reifies environmental racism by allowing some to extract from the environment (mines, trophy-hunters), while policing other forms of extraction (local hunters). I evidence how conservation legislation creates hierarchies of power, with edge-dwellers at the bottom of a long list of stakeholders who stake claims to lands (and resources) where HaMakuyans were historically forced to live. Set against a backdrop of historical dispossession I suggest the lack of infrastructure in HaMakuya, coupled with the limitations on landscape interactions due to conservation legislation, create situations of struggle for edge-dwellers.

CHAPTER 4: *Mutakalo na Mupo* (Health and Nature): Wellbeing in HaMakuya

INTRODUCTION: WELLBEING IN HAMAKUYA

This chapter explores some emergent patterns related to wellbeing in HaMakuya while considering Sahlins' suggestion that 'there is an interchange between culture and environment,' that forms a 'continuous dialectic' if, in adapting to its environment, a culture 'transforms its landscape and so must respond anew to changes that it had set in motion' (2009: 133). In order to explore the ways in which HaMakuya's edge-dwellers understand the park's impact on their health, local notions of health first need exploration. Drawing on Musundians' efforts to ensure they maintain *mutakalo* (health/wellbeing) while attending to connections with local environments, this chapter explores the questions: How do Musundians understand, discuss, and enact wellbeing? How if at all does this intersect with local environments?

This chapter offers an ethnographic analysis of 'wellbeing' in HaMakuya with a follow-up discussion on what this reveals from an ecological, relational perspective. This chapter first discusses the diversity of ways that HaMakuyans understand health in a section entitled 'Multiple Ways of Achieving Mutakalo'. In 'Making a Body' I explore how health and wellbeing are nurtured in Musunda. Drawing on Cohen's (2013) 'ecologies of wellbeing' - the flows of energies, relations of care, exchange of materials that contribute to the constant cultivation of vitality or life-force - I consider how a healthy body is achieved while reflecting on how power (*namanda*) is cultivated in social, material, physical and emotional relations. While Cohen's work is situated in another region of South Africa (the Kamiesberg), an arid climate shaped by historical infrastructural violence and dispossession are characteristics shared with Musunda. Like Cohen, I work to understand local notions of wellbeing keeping in mind the historical context that bears on local environments, while making space for a diversity of understandings - this aligns with HaMakuyans' varied notions of *mutakalo*. By unpacking some of the components integral to local ecologies of wellbeing, before exploring the ways in which these make use of *mupo* (nature) and natural resources, in 'Mutakalo na mupo' I consider how some local beliefs link *mutakalo* and mupo. In 'Ecologies of *Mutakalo*' I

explore how the themes discussed are intertwined, and inform local ecologies of wellbeing.

MULTIPLE WAYS OF ACHIEVING *MUTAKALO*: WELLBEING IN CONTEXT

Here I explore *mutakalo* (health) in HaMakuya, engaging with local notions to unpack the range of ways in which *mutakalo* is understood (see Lambek 1998 for the importance of this approach). When HaMakuyans described what *mutakalo* meant to them, responses varied. Descriptions of *mutakalo* in this medically plural setting[150] provide an array of knowledge(s) and offer insights into efforts to achieve wellbeing, including discussions of efforts to prevent *vhulwadze* (sickness), and/or pain.

The statement by Ntombi, a mother of two in her thirties, that 'to be healthy means not to be sick' seems to resonate with a biomedical definition. For some, the absence of sickness associated with *mutakalo* was embodied in particular ways. For example, for Manu, a single man in his sixties, 'it means I'm happy, I'm not sick'. Similarly Julia, the middle-aged wife of *vhamasanda* (village headman), understands herself to be healthy when 'I am feeling fine and I am not sick'. Noretta is healthy when she does 'not feel any pain', which she qualified with, 'I only feel pain if I worked hard'. Ntombi 'knows' she is healthy 'because I feel alright'. The *feeling* of being well, and the absence of pain, as with Huli (in her forties), Ruth (in her fifties), and Glenda (in her sixties), indicates *mutakalo* for some. Noretta's comments also highlight the context specific nature of these feelings, so that where hard work is done, pain is not a measure of ill-health, but in other cases it is. Common between these descriptions is the emphasis on the embodied experience, the importance of *feeling* well, and, for some, the absence of sickness.

In HaMakuya *mutakalo* is mobilised in multiple ways, but most often towards wellbeing. Musundians actively work to maintain health and prevent sickness. For some Musundians *mutakalo* is a reflection of the ways in which they live; living 'in a good way' ensures that Frank 'stay[s] healthy.' Others suggest that to 'live without stress' and 'to be happy' brings health, while Gloria understands *mutakalo* as

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[150] I draw on Leslie's (1980) discussion of medical plurality, and Thornton's (2010) suggestion that South Africans enter into 'markets' of wellbeing instead of 'systems' of care.

'protect[ing] myself by knowing how to handle myself.' These suggestions align with Cohen's assertion that 'the multitude of flows, substances, materials and organisms which constitute local ecosystems, require certain ways of being and doing' (2013: 92). Relatedly, Vhuthu suggests that being healthy comes from 'the way I take good care of my body', which Ntombi suggests includes being 'clean and eat[ing] good food'. Although achieving wellbeing in HaMakuya encompasses relationships 'between mind, body and spirit, as well as the natural, social and cultural environments' (Kirsten et al. 2009: 5), unlike Kirsten et al.'s analysis of South African distinctions between terms like health and wellbeing, in HaMakuya, 'harmony and balance' (ibid.: 5) with respect to these relationships is not always the ultimate goal. The multiple *mutakalo(s)* described in this chapter draw on mind, body (*muvhili*), relationships, and interactions with the environment, without necessarily compartmentalizing aspects of the lived experience, or striving to 'balance' distinct categories as such.[151]

Local uses of *mutakalo* align less with narrow biomedical notions of health, and more with efforts to live well including but not limited to the importance of social relations and illness prevention. Although Chapter 3 described biomedical care accessibility to stress the infrastructural context, health in HaMakuya is broader than biomedical renderings, as Fulu explained: '*Mutakalo* means everyday life – when looking at how we live our lives, including happiness, where we stay, and the environment in general.'

My efforts to understand *mutakalo* and health-seeking led me to an exploration of wellbeing. Initially, I proposed to focus on lived experiences to explore how (and if) health and the surrounding environment are understood together. My aim was to build on local understandings, without first imposing notions. Although initially, I explored what it meant to *have mutakalo*, discussions persistently returned to the ways in which wellbeing, more broadly, was *achieved*. This pattern forced me to think more deeply about the varied ways that people understand and strive to have *mutakalo.* I had to explore an extended concept of health-seeking; one that

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[151] Sullivan's (1996) 'non-equilibrium ecology' contrasts tendencies to equate balance with a healthy ecosystem. Combined with 'ecologies of wellbeing' this reflects the HaMakuya context better than any singular approach.

encompasses all those actions, skills, actors[152] and unknowns that create a body that is functioning, at minimum, for its daily survival, but potentially for flourishing vitality - toward the 'good life' (Fischer 2012, 2014; see Watermanm Schwartz and Conti 2006 for a discussion of 'life satisfaction'). Instead of defining health-seeking actions at the outset, I proposed to explore what these actions were as a first step to understanding the paths people take in actively acquiring health.

While broad, and intentionally avoiding biomedical narrowing, my initial definition was action oriented. Health, I naively imagined, could be 'explored' through actions, and by focusing on 'paths'. Yet this turned out to be limiting. Instead, I learned that efforts towards health expand in time and space beyond actions that I might be able to explore first-hand. This is also why it is important to stress that while I seek to sketch out some local notions of *mutakalo,* there is still very much I do not understand.

Mutakalo is many things, and no consistent definition was offered. *Mutakalo* is the product of careful avoidance of certain behaviours and interactions (detailed in this chapter), and it comes from 'living in a good way'. Mutakalo is achieved for example, through prayer and/or exercise but, not just by the individual in question; starting in infancy, life-long health relies on the activities of one's parents, as discussed below.

MAKING THE BODY: The importance of *namanda* (power) and *nungo* (strength)

My questions about health were often met with explanations of what was done to make a body (*muvhili*) grow *nungo na namanda* ('strong and powerful'), and thus it became apparent that these are central factors in maintaining wellbeing. Here, I explore some HaMakuyans' bodily practices, and the ways in which, for some, a body is cultivated or made from birth (*nwana o sikiwa[153]*) in order to survive in the particular environment of 'the edge.' First I provide descriptions of *misho*, a kind of sickness, and then, efforts to avoid *misho,* illuminating local wellbeing maintenance

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[152] I extend the definition to aspiration, which provides for dignity (Fisher 2014), and livelihoods, because income plays a role in one's ability to survive (Sen 1992), and foster an acceptable quality of life (WHO QOL Group 1994; Sala et al. 2009).

[153] *Nwana* is infant. *Sika* is 'make' but when used by royalty can refer to 'cook'; 'to cook' among non-royalty is '*bika*'. HaMakuyans also used *u alusa nwana*, where *alusa* is 'to rear, to bring up'.

strategies, especially in relation to non-visible agents. Then, in 'What makes a body (healthy)?' I draw on anthropologies of substances (Carsten 2011) to explore how bodily substances work as part of 'ecologies of wellbeing' (Cohen 2013) in HaMakuya to build power (*namanda*) and strength (*nungo*) by cultivating social relations and kinship (see Carsten 1995, 2011; Niehaus 2002, 2013). I suggest that these processes in HaMakuya are linked to personhood development as I draw on Amazonian (Conklin and Morgan 1996; McCallum 1996) and African (Jackson 1989; Green 1996; Hutchinson 2000; Niehaus 2002; Řezáčová 2011) literatures to make connections between these contexts (a discussion I return to later in this chapter) while considering the role of bodily substances and social relations in embodied wellbeing.

In HaMakuya being healthy depends on the entire history of your being, and includes influences from your parents and ancestors. For example, depending on one's beliefs, ancestral spirits may 'be taken into another person' at birth,[154] which can influence health. Ancestors are often located in natural features, like rocks or trees, thereby linking *mupo* (nature) to ancestors – a point I return to later. The village *makhadzi*[155] (the sister of the headman), and female elders ('grannies', according to Sarina) mediate relations between ancestors and new-borns by introducing the child to the ancestors through offerings. These introductions, one 'granny' explained, are important; they establish an individual with the ancestors, so that the ancestors can 'know the baby' which allows for 'communication with [the] ancestors.' In this way, ancestors are present in daily lives, even if intangible/non-visible (cf. Morriss 1998, 2000; Lewis 2015; Sullivan 2016).

Misho, a sickness that develops if you have not been appropriately introduced to the ancestors and neighbourhood baboons (*pfene*) through rituals, 'herbs' or 'TshiVenda medicine,' demonstrates the ways in which health is cultivated through substance ingestion as prophylaxis: in this case, through the activities of one's elders. Ruth's explanation combines many elements of Musundians' descriptions of *misho*:

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[154] For example, children who cry for no reason are understood to have taken on an ancestor's spirit; elders provide plant medicines to separate the child from spirit.

[155] *Makhadzi* acts as advisor. Fulu explained, 'she is the one that people must bring offerings to. Then she does the traditional things, offerings to the ancestors letting them know we will gather or hunt.' For Musundians who follow what Fulu described as 'traditional practices, not the Church', *Makhadzi* mediates relations between living Venda and 'the ancestors' to ensure that the ancestors maintain their role as guardians (see Taringa 2006; Buijs 2002a; Řezáčová 2011, 2016) indicating reciprocal relations of care. See Buijs (2002b, 2002c) for additional discussions of Makhadzi.

'When a child is born and about to be introduced to the ancestors, you soak baboon excrement [in water] the night before. That's what is going to be used to assist the child. [Drinking this] mixture helps the child not to be unnecessarily scared of the baboons or easily frightened.

Amber: Why is it important? What is scary about the baboons?'

Ruth: 'There is a relationship between *pfene* (baboon) and people. If a child suffers from *misho* and you extract their blood and put it inside *phuri* (a local dish)[156] and throw it in the field, when *pfene* eats it, then the child will be healed. The blood will be mixed with herbs used as medicine.'

Amber: 'How does it heal the child?'

Ruth: 'It is just a belief that we grew up with. There is no explanation. The baboon might also have the sickness.'

Amber: 'What happens to an adult with *misho*?'

Ruth: 'Those people are always biting their nails and will never look you in eyes. They don't want to look you in the face. It affects everyone regardless of his or her age. You can die, go crazy or be crippled.'

Ruth suggests introducing a child to their ancestors includes ingestion of baboon excrement soaked in water; in this way animals are linked to the ancestors[157], which is common throughout the region, as is the importance of ancestors in daily social life (see Van Wolputte 2004; Sullivan 2016, 2017). At the same time, a child with *misho* can be healed if a baboon eats a local semi-wild green (*phuri*) stewed with the child's blood, reinforcing the importance of substance exchanges (cf. Řezáčová 2011; Niehaus 2002) when cultivating relations. Substance exchanges between humans and baboons also prepares the child for engagements with the baboon later in life, highlighting the importance of substance incorporation as part of ongoing processes of bodily cultivation (cf. Connerton 1989; Green 1996; Hutchinson 2000; Niehaus 2002, 2013) and personhood development, as in HaMakuya, social relations contribute to personhood (cf. Guyer 1993; Guyer and Belinga 1995). Fulu's mother-in-law Lina elaborates on Ruth's description:

'*Pfene* are the wild animals that are closest to us. They try to steal food, so a baby must be prepared to see them. Everyone and anyone can get *misho* if this has not been done when they were small. It is important because

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[156] A form of *moroho* (greens); butternut greens, sautéed with onion, and groundnuts.
[157] Ancestors can dwell within an animal. An animal is not the ancestor, but can be sent as an extension of an ancestor.

otherwise *pfene* will terrify the small children, and the child will faint, and this can lead to disabilities. Or *misho* will develop when you are an adult. You will pick, pick, and bite your nails and fingers. You will struggle to talk, and will not look at people – always looking down. If *misho* in an adult is not treated with the mixture, then you will go mad. This is why, when babies are born, young mothers call the grannies, because they know the herbs and things that babies need to grow up *nungo* (strong), and to protect the child.'

Even people who assert that they do not believe in the 'traditional' ways have drunk the mixture. For example, Sarina, after hearing repeated stories about *misho* in interviews, asked her grandmother if she had been given the drink. When her grandmother confirmed, Sarina scrunched her nose in disgust. Unable to remember if her twins received the mixture, Sarina did recall the 'grannies mixed some traditional herbs,' which, according to Lina, help a child 'to know this place.' Given the above, it seems that relationships between humans and non-human primates have a special significance (cf. Fuentes 2006; Fuentes and Wolf 2002), and that introducing the body to its surroundings and establishing links between humans and locally salient non-humans prevents *misho*.

Substance exchange contributes to the process of ensuring a child's wellbeing, evident in *misho* avoidance practices. 'Growing up well without fear is important' stated Musunda's Makhadzi as she explained 'for newborns we have to do the rituals with *pfene* (baboon) and *quarra* (pangolin), it helps the body to be *nungo* (strong) and prevent *vhulwadze* (sickness) and fear.' Baboons factor centrally in the surroundings, as beings that can move through the edge – over fences that formalise conservation boundaries, into local gardens – unlike other species, like elephants, that are more constrained by the park's fence. Thus Musundians come into contact with baboons more regularly than many other species.[158]

Although the importance of baboons in HaMakuya is beyond the scope of this thesis (but important for future research), my research suggests a need to manage relations between children and baboons as part of cultivating wellbeing. Explanations of *misho* avoidance practices suggest that a sociality with non-human others is actively

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[158] Baboon excrement might, from a bio-medical perspective, introduce children to baboons' microbial flora, making living alongside baboons less likely to induce illness.

cultivated (cf. Morris 1998, 2000; Descola 2006; Kohn 2013). Managing intangible or non-visible relations, including relations with the local environment and ancestors, is important in HaMakuya because, as elsewhere (see Sullivan's [2016] Namibian example), wellbeing is constituted in a relational and intersubjective manner.

Misho is similar in many ways to descriptions of *susto*,[159] including the fact that both are attributed to a 'fright' (Crandon 1983; Mysyk 1998: 187). Like *susto*, *misho* symptoms include depression, malaise, withdrawal and other embodied experiences that also accompany a wide variety of pathological and psychological causes (Crandon 1983; Mysyk 1998). Also like *susto*, it appears that *misho* arises when an individual loses a central component of its life-force, *namanda* (power) or vitality (see Mysyk 1998: 188), whether it be from soul loss (as with *susto*) or, in the case of *misho*, where the development of personhood is interrupted by failure to practice exercises that 'assist' in introducing children to the ancestors. The similarities between *misho* and *susto* suggest that, although different causes are ascribed, both are linked to an alienation from important non-visible agents that are central to wellbeing; in *susto* of an individual from its soul, and in *misho* of a person from their natural surroundings and ancestral relations. In HaMakuya, practices to avoid *vhulwadze* (sickness), including the maintenance of relations, are central to cultivating vitality and wellbeing. At the same time, making a healthy body does not end with prophylactic efforts; rather, as the following section describes, a healthy body is cultivated in other ways, as well.

What makes a body (healthy)?

Some Musundians undertake practices to cultivate healthy bodies for their children; some academics suggest that processes of nurturing a baby's body cultivates a 'social being', because the body 'serves as a metaphor for personhood' (Conklin and Morgan 1996: 658, 663, 667; Csordas 1994). The following example provides insight into the ways in which healthy bodies are cultivated, drawing on literatures

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[159] In Latin America, *susto* ('fright') is often described as a 'folk illness' (Mysyk 1998: 187) or 'culture-bound syndrome' (Yap 1969 in Crandon 1983: 153), and is generally accepted to be 'soul loss through magical fright' (Mysyk 1998: 187). Since *misho* manifests in a person who is unable to make eye-contact, it might mean like *nervios*, and *susto*, perhaps *misho* is an 'idiom of distress' (Mysyk 1998: 199)?

focused on personhood[160] and shared substances (cf. McCallum 1996), to emphasise the local importance of a 'constant praxis of self-construction' (Comaroff and Comaroff 2001: 271) that shares similarities with 'processual relational personhood' (Conklin and Morgan 1996: 666; see also Guyer 1993; Guyer and Belinga 1995 for relational aspects of personhood). This in turn provides context for my use of Cohen's (2013) ecologies of wellbeing.

Gloria explained the importance of breast-milk in response to my question asking what makes a healthy body. 'When the baby is still an infant, you take this part' – Gloria pulled my arm towards her with her left hand. Grabbing her breast, she leaned towards me with a squeezing motion, while explaining: 'A mother will take her breast milk and squeeze it onto the baby's arms and massage.' Pulling my arm, she showed me how to massage the milk, as she explained:

> 'You wake up early in the morning, after your menstruation, and use your breast milk to stretch the baby. Rub your breast milk on the baby's arms, legs and back. This helps them grow strong. If you spray the child with breast milk in their nose, they will never suck any other breast other than their mother's. Even in their eyes, so that they can sleep at night without crying, and spray their genitals so that they work well and can be healthy. It is done so that boys can grow to be healthy men and the same for women. It is important to give the child strength and power.'

Gloria's description stresses the importance of reproductivity, a common theme among Africanists exploring how bodily processes link to social relations, including kinship (Taylor 1992; Devisch 1993; Kaspin 1996, 1999; Hutchinson 2000). Unlike Green's observation of Pogoro peoples, where an infant's substance incorporation is a father's role (1996:491), in HaMakuya, *misho* prophylaxis efforts and the bodily cultivation of infants are tasks for female elders and mothers. Gloria's rendering of efforts to give her infants *nungo* (strength) and *namanda* (power) through the 'intimacy' (cf. Waltz and Ross 2016: 48)[161] of her breast milk was followed by the explanation, 'Makua do not know that you are the only one who should feed your

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[160] Personhood is a dynamic social category, often heavily contested, that denotes how a person is constituted (Conklin and Morgan 1996: 658). Competing views of personhood are worked out through the body (Csordas 1994).

[161] In South Africa, as breast milk moves between bodily fluid, food and medicine, the meaning attributed to this substance shifts (Waltz and Ross 2016: 46–47; Majombozi 2015). Milk can transfer one's 'essence' or aspects of 'personhood' (Waltz 2015: 25), highlighting associations between substance exchange and processes that develop personhood.

child. They just let other people breastfeed their children.' It is the specific substance of breastmilk, and its power to link mother and child that Gloria raises. Here similarities (and differences[162]) between some Amazonianists who posit the importance of breast milk in fostering a Cashinahua baby's 'close physical relationship with the mother' (McCallum1996: 354), or in extending blood transfers that build War'i bodies (Conklin and Morgan 1996: 671) are evident. This example and practices associated with *misho,* also suggest that HaMakuyans align with Niehaus' observation, among residents of nearby Bushbuckridge, when he suggests that bodies are understood to be 'permeable, partible and constantly engaged in transfers and exchanges of substances' (2013: 128; see also Taylor 1988, 2005; Niehaus 2002) which adds a processual aspect to the ways in which a body and person is made.

Gloria's description emphasises the 'social in the body,' reflecting the centrality of relationships in the 'construction of the material, corporeal thing itself' (Conklin and Morgan 1996: 659), perhaps not necessarily in the body's creation (as in Amazonia), but in its ongoing strengthening (cf. Řezáčová 2011). In HaMakuya, as with elsewhere in Africa (Taylor 1988, 2005; Green 1996; Niehaus 2002; Hutchinson 2000), and indeed, throughout the world, the exchange of substances welds people together,[163] making the body a site where some important relationships are constituted (Conklin and Morgan 1996: 668; Niehaus 2002, 2013).[164] Through an accumulation of substances such as breast milk, the use of appropriate plant medicines, dietary prohibitions, and practices that protect an unborn baby (e.g., food prohibitions during pregnancy), a Musundian child is partially 'shaped by human agency out of material elements taken from the environment' (McCallum 1996: 354). In this way Norton's (forthcoming[165]) suggestion that personhood among her

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[162] McCallum's rendering of Cashinahua bodily cultivation is similar to HaMakuyans in that, as a body is built up over time, knowledge is embedded in the body through substance exchanges and processes that are also tied to considerations of the local environment (1996:351); unlike in HaMakuya, where the body is described as being 'stretched' once born, a Cashinahua foetus' body is understood to begin being built by the fluids of the mother and her partners in utero.

[163] See Lambek and Strathern 1998; Carsten 2011 for an overview of substances and relationality; Seeger et al. 1979; Vilaça, 2002 for Amazonianist perspectives; Lock 1993 for bodily cultivation linked to body fluids; Evans-Pritchard (1953) and Hutchinson (2000) discuss Nuer fluid exchanges. In South Africa, literatures on bodily fluids abound, often focused on HIV/AIDS (Stadler and Saethre 2011). Taylor attends to substance exchange in Rwanda, highlighting the importance of flow (1988; 2005).

[164] Contemporary research on TshiVenda speakers' notions of personhood is needed.

[165] Norton explores impacts of South African fisheries management on fishers and inspectors.

South African interlocutors is 'among other ways of describing it, the convergence of relations on and in a body' coincides with HaMakuyans' practices, and efforts.

Ruth's description of *misho*-preventative plant mixtures that 'assist' the child in their introduction to ancestors could parallel what McCallum (1996: 355) suggests are processes that give 'experience' and contribute to a body/persons' knowledge. Seemingly by ingesting baboon excrement and herbs, communication with ancestors and living among baboons is facilitated, reinforcing that ancestors are embedded in relations with the environment (cf. Sullivan 2017).[166] Additionally, exchanging substance with animals as an intervention to develop a healthy person, as in the case of *misho*, indicates that ecological/environmental relations are also social relations (cf. Morris 1998, 2000; Taringa 2006; Sullivan 2016). The body and personhood are developed over time through flows (cf. Taylor 1988) and exchanges with all aspects (living and non) of the local environment, and one another.[167] Similarly, Cohen offers Jackson's (2005)'sense of wellbeing' as 'susceptible to constant change' to described the context of these flows and exchanges that make up the constant 'flux in and struggle for wellbeing' that he describes as 'ecologies of wellbeing' (2013:93).

HaMakuya's Ecologies of Wellbeing: the Importance of Namanda (power) and Nungo (strength)

Local notions of *mutakalo* emphasise efforts to cultivate a body by building strength, similar to Řezáčová's (2011) research on Venda 'traditional healing'. Řezáčová asserts that bodily cultivation among her Venda interlocutors in the Nzhelele Valley and urban sites like Thohoyandou is a process of bodily strengthening (2011: 30). In Musunda, efforts to build and prepare a body to move through and interact with its surroundings – to be able to engage in ecologies of

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[166] McCallum (1996:362) suggests knowledge and body are interlinked in a processual mutual making. Perhaps sharing substances helps Musunda's children to *know* kin and animals, just as substance exchange helps a Musundian child 'know' their mother? Further research is needed to understand the ways in which a being is 'known,' but prohibitions around accepting food offer some insight. Children are often taught to only take food from their mothers; substance exchange (breast milk squirted in the infant's nose) solidifies the relationship that will build *namanda* by helping a child know who should be their food source; and substance exchange prohibitions can assist in maintaining *namanda* (power), where ingesting inappropriate substances can drain *namanda* through 'bad medicines' (cf. Green 1996).

[167] Personhood can shift with one's surroundings, as described in Caruso's PhD research among Peruvian Ashaninka; where children were taken and raised by outsiders, their bodies and thus identities were transformed through foods (pers. comm. D. Peluso). Chapter 6 explores the park's impacts on diet.

wellbeing - provide deeper insights into the ways in which wellbeing is conceived and enacted locally.

Gloria's explanation of how to make an infant strong, paired with the tradition of drinking baboon-excrement-water highlights two sets of practices meant to nurture strength and power, while cultivating wellbeing. Another example of 'external interventions' (McCallum 1996: 353), that ensure a baby grows up *uvha namanda* (to have power), came from Fred's description of local plant uses. A Baobab tree was 'medicine when babies are not growing'; a bulbous plant was 'even better' for babies 'not growing big and *nungo* (strong) enough.'

The importance of cultivating power and strength is further highlighted through the ways in which HaMakuyans speak. A tree or plant can be particularly powerful; plant medicines contain 'more power' than 'clinic pills', making *maines* (healers) powerful; pastors and prophets can give a person strength; god can bring 'more power'. The importance of strength and power, repeated often among HaMakuyans, echoes Guyer and Belinga's (1995:101) work in equatorial Africa that suggests that each individuals' 'power is itself a composition', and that becoming a 'real person' or obtaining personhood is a social process. The notion of *ubuntu (vhuthu,* in TshiVenda, according to Vermaak, 2001) could provide insight here; although a term originally from isiZulu and isiXhosa, it is used widely throughout South Africa (Gade 2012). In the current context, *ubuntu* describes a person as constituted through their relations with others – 'I am because we are' (Lötter 1997: 46 in Gade 2012).[168] This rendering of *ubuntu* highlights the intertwined nature of each person's existence with those (human, non-human and non-visible) around them (see Guyer 1993; Guyer and Belinga 1995).

Practices that cultivate power and strength also shed light on the local importance of non-human and intangible agents in the ongoing development of a local version of 'processual relational personhood' (Conklin and Morgan 1996: 667; see Taringa 2006; Sullivan 2016, 2017). Gloria's nurturing efforts that stretch and strengthen her infant resonates with the idiom of cultivation for both food and persons that Jackson (1989) describes of West African Kuranko peoples (in Green 1996: 487).

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[168] Gade contends the 'new use' of the term powerfully counters Apartheid's segregationist policies and emerged in the 1990s out of the Nguni proverb '*umuntu ngumuntu ngabatu*', often translated as 'a person is a person through other persons' (2012: 487).

Similarly Musundians' descriptions link nurturing, bodily cultivation, power and strengthening, to the 'intrinsically social construction' of personhood as with colonial Tswana speakers (Comaroff and Comaroff 2001: 268; also Guyer 1993). However, HaMakuyans efforts towards wellbeing more closely align with Cohen's (2013:96) description of Kamiesberg residents' efforts to navigate 'ecologies of wellbeing' by 'build[ing] krag', an Afrikaans term that translates to life force, vitality, or power. Considering this alongside Musundians' descriptions of efforts to avoid *misho,* by introducing substances that stretch and strengthen the body's resistance to outside interferences, leads to my suggestion that many HaMakuyans work to build vitality by cultivating *namanda* (power) and *nungo* (strength), as they navigate 'ecologies of wellbeing' (Cohen 2013).

Drawing on Farquhar's (2002) rendering of *yangsheng*[169] ('life nurturance'), Cohen, outlines local conceptions of power, strength and vitality, or 'krag' (2013: 96). He draws on Latour's assertion that ecology is 'the deployment of all the attributes necessary for [anything] to subsist (2011: 801)' (Cohen 2013: 93), and on Jullien to emphasise the 'practices and moments' (2007: 14) in his research that Kamiesbergers said nourish one's vitality, detailing the processes people take to build, manage and maintain 'krag' (ibid.: 95).[170] He discusses aspects of life that drain 'krag' including social strife, jealousies and magical capture, which reflect many of the concerns that HaMakuyans raise with regard to wellbeing. I suggest, the importance of cultivating 'krag' parallels the ways in which *nungo* and *namanda* factor centrally into HaMakuyan ecologies of wellbeing.

Ecologies of wellbeing, according to Cohen, is a 'matrix,' or framework that provides space for the variability in wellbeing efforts that manifest in HaMakuya. Importantly, Cohen reminds readers of two things; first, that these processes of building 'krag' often reflect an 'ideal'; that 'for many people, if not most, such wellbeing remains highly elusive in a context weighed down by material want, alcoholism, illness (in particular HIV, diabetes, and high blood pressure), and

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[169] Yangsheng, 'life nurturance', or 'health cultivation' in China encompasses all efforts to improve one's health, including 'what to eat and drink, how to take care of one's body, how to relate to time and space, and how to relate to other people and the environment . . .' (Farquhar 2002: 50 in Martin and Lewis 2016: 67).

[170] Cohen (2013) weaves the stories of the different people, energies, materials, places, and experiences to describe 'ecologies of wellbeing', explaining that some interactions are weakness inducing – sorcery from the healer; souring relations – while others build 'krag' (*namanda*, in HaMakuya) – collecting wood with his friend; the idea that wood collection will keep his friend's family warm.

spiritual war waged by malicious sorcerers' (ibid.); and second, that to 'lay' out or map 'some kind of totality, instantly knowable' to the reader, contrasts the intention of this conceptual matrix, abstracting 'the visceral actualities of life without which wellbeing simply cannot be' (ibid: 93). With this in mind, I draw on Cohen to explore HaMakuyans' embodied experiences and efforts to 'nurture' and create 'the best conditions' within HaMakuya's 'living ecology' (ibid.: 96).

In HaMakuya, like in Cohen's Kamiesberg, cultivating 'krag' or power/vitality (*namanda*, in HaMakuya) is central to the ideal of living well. Actions that cultivate strength and power (*nungo na namanda*) towards wellbeing include decisions around diet (*zwaliwa zwavhudi*, or good foods), maintaining relations with the ancestors (for some) or god (for some) or both, fulfilling roles at home, including cleaning (the self and home), and work.[171] Practices to ensure that bodies stay powerful (*namanda*) and strong (*nungo*) to cultivate wellbeing include avoidance of cold temperatures[172], maintaining good interpersonal relations (for example, by avoiding gossip), and prohibitions.[173]

In asking people, 'What must you do to have mutakalo?', recurring responses suggest the importance of cultivating power, strengthening or nourishing life. Fulu's response also highlights the centrality of the environment:

> 'What I do to ensure that I am healthy, is eating healthily, taking a bath, washing my clothes, cleaning where I stay, as well as ensuring that the environment where I stay is noise and violence free. When I encounter problems, I make sure that I resolve the problems on the spot. This frees me and ensures that my health is in good condition. The environment should be a good one for me to live a healthy life.'

She emphasises diet, cleanliness, and stress avoidance, echoed in Julia's description of her efforts to maintain *mutakalo*: 'Good behaviour, things that we use at home, the food we eat, and the environment . . . Clean place and some plants at home. I

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[171] My data encourages critical engagement with renderings that biomedicalise and compartmentalise experiences of the body into distinct categories, as physical or mental health categorisations do not align with most local renderings of wellbeing.

[172] Themes of hot and cold arose repeatedly, but were not the focus of this research. Research on TshiVenda notions of temperature and wellbeing could contribute to literature that explores similar themes in South and East Africa (Taylor 1988; Niehaus 2002, 2013).

[173] Ranging from dietary to sexual; for example, sex with a woman who has had an abortion is prohibited unless a *maine* (healer) has intervened.

take good care of myself, healthy food'. The importance of home duties and good behaviour were discussed across ages and gender.

Although variably defined, what Frank described as 'living in a good way' also became centrally important to maintaining wellbeing. For Frank this includes eating healthy foods, 'clean water' and exercise. Similarly, living in a 'good place' arose repeatedly as central to wellbeing, with some people, such as Glenda, suggesting that her recent move to Musunda from another HaMakuyan village was instigated by a need for 'more space', as her ability to cultivate and gather in HaMakuya centre was increasingly constrained by growing populations there. Recurring themes arise – themes of relationships, and family; of cleanliness and presentation; of living in 'good way'; of exercise and/or work; and diet – all of which contribute to *namanda* (power) and *nungo* (strength). The following sections discuss these themes and how they factor into local renderings of wellbeing.

Relationships, Family and Place

> 'Amber, did you see? Pfanu does not live here anymore. The family sent him to his granny in Tshuvhuvhu. Lily is into the cards, going to Guyuni every night and not taking care of him. If you see him, you will see. He is too skinny. She was not paying him attention, and so Lina was scared because he was not growing strong. Lina has Thabo, so Pfanu went to Lily's mother. Meaning, we will only see him twice this year.'

I asked about the absence of our neighbour Pfanu, a toddler at the time that I lived with Fulu. Family members explained that while I was gone (August 2015 to June 2016), Pfanu was consistently getting thinner. Family members described witnessing Lily's – the wife of Fulu's husband's youngest brother – increasing disregard for Pfanu, her son. Lina, Pfanu's paternal grandmother (Fulu and Lily's mother-in-law), was already caring for her daughter Faith's youngest child, Thabo, so she arranged for Pfanu to move to his maternal grandmother's house.

Pfanu's physical body not showing signs of increasing in size, or building *namanda*, spurred this move. His removal, according to Fulu, resulted from his mother not spending time doing 'home duties' or attending to his needs to ensure continued growth, paired with Lina's perception that his maternal grandmother could provide him with better care. That the type of care he was receiving – the lack of a

relationship built between Pfanu and Lily – factored into where he should live, exhibits the importance (and entangled nature) of building a strong body, and the social ramifications when such a body is not cultivated.

Health, wellbeing, *mutakalo, namanda, nungo* – these related concepts in HaMakuya are complexly social, shedding light on Livhu's description of being healthy when she is 'free and avoids conflicts with others' and Huli's efforts to maintain her health by 'always isolat[ing] myself from others in order to avoid rumours and scandals'. These acts of isolation and avoidance are part of preventative approaches to wellbeing that acknowledge the associated affects of envy/jealousy (*vivho*) and sorcery on health.[174] Power and strength are cultivated not just to nurture a body, but also as protection or prevention (Řezáčová 2011); accumulation of *namanda* and *nungo* can bolster against instances that might drain *namanda* or *nungo* (cf. Cohen 2013).

Recurring themes reflect the ways in which local notions of wellbeing depend heavily on maintaining social relations. Guyer's (1993) description of self-realization suggests that elsewhere in Africa, personhood and power are, in part, developed through 'a wealth in people' (see also Guyer and Belinga 1995). In very simple terms, navigating social interactions well can contribute to more allies and thus more power. As Chapter 3 showed, Musundians' remoteness creates interdependency, and a certain amount of shared experiences and understanding.[175] This is demonstrated in the responses of village residents when someone dies; family, friends, neighbours arrive, work through the night to prepare a property for mourning services, reinforcing the importance and expectation of social support. Remoteness, a boon and benefit to marketing a place as pristine, has some serious health-related impacts for edge-dwellers, and in part, creates embodied suffering, as the previous chapter showed. Familial and neighbourhood care is important not just for illnesses and injuries, but for picking up issues of inadequate care before they become problems, as with Pfanu.

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[174] I return to sorcery in the context of *muthi,* and its role in *vhulwadze* (sickness) in Chapter 7. However, I wish to point out that literatures on sorcery, witchcraft and magic among African health scholars were historically presented at the cost of other important aspects of health. As such, I do not over-emphasise, but also cannot ignore that sorcery includes non-visible forms of aggression that impact on wellbeing.
[175] This is also why sorcery is powerful in these contexts.

Relationships - important sources of support - are key to mobilising resources, and building *namanda* while they are also potentially sources of stress, which weaken *namanda*. This links to a recurring theme of a fear of *muthi*,[176] as someone might send bad magic your way because of a disagreement or jealousy. Chapter 7 explores *muthi* further, but here what is important is that people behave, speak and socialise in such ways as to avoid jealousy or gossip (as with Livhu and Huli), and thereby avoid *muthi,* which can make one weak. Social relations and negotiations are integral to maintaining strength; navigating social life to minimise jealousy, conflict, scandal is vitally important to *mutakalo* and maintaining *namanda.* The knowledge of how to maintain wellbeing in this remote setting also requires skills, some of which emerge through cultivating and maintaining important social ties and relationships; the 'artful skills of living together' as described by Overing and Passes (2000: 7) in their exploration of Amerindian social life. These relations are not limited to humans, and extend to other living and non-living entities – see Chapters 6 and 7 – including relations with place.

Place is central to wellbeing in HaMakuya. Mr Mashudu and his sister explained this when recounting their efforts to counter the *muthi* that he perceived was making him ill:[177] 'I cannot even sleep in my own house, these ancestors, they want me in my father's place, in Guyuni, and they make it hard to sleep or work if I go anywhere else'. Mr Mashudu explained that after both biomedical and church healing failed, he found adhering to local healing practices mitigated his symptoms, but this required consultation with the ancestors each time he moved from his village to the Camp (his job), or vice versa. If he neglected to do this, he was struck by sleepless nights, and weakness. These symptoms – worst at the Camp, but evident when he was at home – disappeared when he stayed at his natal home (managed by his brother) in Guyuni (the neighbouring village).

Increasingly, research highlights that a relational approach to understanding place can help to understand the 'complex relational spatial interdependencies which exist between people and places' (Cummins et al. 2007: 1835; see also Macintyre et al.2002). More than just distance to resources, other factors - like history, time, scale, multiple lived-through contexts - contribute to wellbeing (Cummins et al.

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[176] A diversely used South African term that directly translates to 'medicine' but here refers to sorcery.
[177] See appendix 4.1 for Mr. Mashudu's efforts to be healed.

2007: 1832) echoing the importance of Englund's notion of 'emplacement'[178] (2002:267) and Ingold's exploration of 'skill' in the context of 'dwelling' (2011). Place is central to wellbeing because the environment within particular places are known and thus resources are familiar and relied upon; perception is attuned to develop skilled, place-based practice (Cohen 2013: 97); and intangible relations can be rooted within specific places (Sullivan 2017), as is often the case in Musundians' relations with ancestors. Additionally, some Musundians suggest that certain places or landscapes are therapeutic[179], especially water bodies, a point I return to later.

Cleanliness, Presentation and Living the 'Good' Way
When I asked Julia what it meant to be healthy she said 'good behaviour'. For Ntombi 'It means to be clean'. Similarly Huli and Manu said, respectively 'I stay away from dirt (*tshika*)' and 'You must bath three times a day'. Fulu bathed twice a day. Even when water was scarce, she bathed twice; at night, she bathed outside under the cover of darkness, in the mornings, in the outhouse, or, when very cold, in her room. Pfarelo, her husband, did the same. She often said to me, in an effort to encourage more bathing 'I am boiling the kettle now, for my bath'.

She gave up reminding me of morning baths, but was consistent in her evening reminders, which I grudgingly accepted as I carried my two litres of boiling water outside to bathe in the darkness. Bathing, in the dusty, arid setting of HaMakuya, provided me with a refreshing break from the thin layer of dust that the sandy substrate coats everything in; the importance of washing for minimising the colonisation of bacteria aside, it is also centrally important to local concepts of living in a 'good way'. Wellbeing, cleanliness and personal presentation are related, as poor hygiene and an unkempt presentation are linked to ill-health, which is not a ground-breaking discovery (see Douglas 1966 for renderings of dirt and matter out of place; cleanliness also factors into biomedical notions of wellbeing). Yet, the choice to bath twice a day ran counter to my ideas of surviving in a water-stressed location. The choices that Fulu made reflect the skills she developed to maintain what she deems a clean body, but also provide a window into a hierarchy of values that contribute to her decision-making in the context of a scarce resource.

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[178] Englund's Malawian research addresses a very different context – urban globalism - but importantly stresses emplacement as an embodied experience. Emplacement is a 'phenomenological fact' that is 'moulded by histories of boundary making and constraint', which coincides with the material reality of HaMakuya's edge-dwellers (2002: 267-68).
[179] See Foley (2011) and Finlay et al. (2015).

It is important to understand that personal presentation, of both the body and the home, are part of complex value systems that ordain what it means to live in 'a good way', which Frank described as central to maintaining *mutakalo*. These values have developed over many centuries, with moral influences, including pre-settler, settler, missionary, colonial, Apartheid and post-Apartheid impositions. Apartheid's segregationist policies created an extremely unequal healthcare system, and, in Venda, left gaps in infrastructure that church missionaries filled. For the majority of the nineteenth century, missionaries delivered the only available biomedical care to South Africa's remote rural areas (Horwitz 2009: 4), which likely influenced local cleanliness practices and notions of living in a 'good way'. However, to imagine that cleanliness practices came only from external influences, like missionaries, is short-sighted. While it is challenging to tease out the various influencers and their specific impositions on present day HaMakuyan values, cleanliness practices elucidate the local importance of a carefully cultivated presentation of self. The importance of outward presentations became apparent when answering my question 'Is there anything else to make you healthy or well?' Manu (in his 60s, lives alone) suggested 'to wear good clothes', while Lily (early twenties, mother of Pfanu) suggested 'looking sharp'. Here the connection between wellbeing and wealth cannot be ignored, as both Manu and Lily refer to external presentation that requires cash. I return to the importance of access to income in the next chapter.

In HaMakuya presentation is an outward sign of wellbeing that can mask vulnerabilities, or signal social capital. Many women stressed the importance of presenting themselves: for example, Lina borrowed money she didn't have, to buy new clothes for her husband's funeral celebrations. Personal preparations for social events might start a few days before the event in the process of relaxing hair,[180] or choosing outfits. In the days before a *stokvel*, for example, clothes were washed, pressed, and hair was braided. Hours before, beaded jewellery and blankets were prepared, bodies washed, make-up, cream and gels were applied. Effort is exerted to present the best outward appearance – effort beyond the obvious given that, in

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[180] Although beyond this thesis' scope, consider how colonial and apartheid regulations historically dictated the outward presentation of living in a 'good way'. The pressure to relaxing hair is still entrenched in school dress codes influencing wellbeing through chemical exposures from hair relaxers (Khumalo et al. 2007). Additionally the stress of living under conditions where the unaltered state of one's hair does not fit aesthetics of 'goodness' (Malcom X and Haley 1965) is particularly poignant as South African girls' schools nationwide are being challenged for policies that deny students the right to attend in their 'natural hair'.

HaMakuya, there are no taps in homes, and water is scarce. As a woman, presenting family, home or self as clean and ordered, signified living in a 'good way'. For example, Fiona (early twenties, mother of one, and new to Musunda) felt that she had *mutakalo* 'when my family's needs are met, then I am also happy and healthy, like food to eat, uniform and clothes'.

Living in a good way is simultaneously about one's behaviour, presentation and others' perceptions – it is about a 'being and doing' which aligns with HaMakuyan sociality (Cohen 2013: 92; cf. Overing and Passes 2000; Overing 1999). Frank's efforts to live in a 'good way' bears striking resemblance to anthropological concepts of 'the good life'.[181] Fischer (2012: 6) explains: 'striving for the good life involves the arduous work of becoming, of living a life that one deems worthy: creating meaning, aspiring for something better, the act of becoming the sort of person and living the sort of life one desires'. To live in a good way, to strive for the good life requires cultivation of self in the context of one's wider surroundings (Ingold 2011; Cohen 2013; Sullivan 2016, 2017); careful attention must be given to nurture life and build *namanda*, not only through appearance and/or social relations (cf. Guyer 1993; Comaroff and Comaroff 2001; Ferguson 2013), but the body itself is constantly cultivated through an active life, as the following theme details.

Exercise and/or Work; Activeness vs. Idleness

Avadipfi, a Musunda-raised father in his twenties, suggests that playing soccer (as *nyonyoloso,* or exercise) and working keeps him healthy. Fiona's ability to *shuma* (work) means she is healthy: 'It depends on how I feel. Can I work? If am weak, it means I am not healthy.' Similarly for Glenda and Ntombi, *shuma* and *nyonyoloso* are important for their wellbeing, because as Gloria explains, they help her 'keep busy' and 'avoid just sitting around,' suggesting that idleness reflects not living in a 'good way.'

In HaMakuya most people are very busy working. Although life may seem slow-paced compared to a city, edge-dwellers do not have abundant leisure time (cf. Sahlins 1998). Contrary to Sahlins' (1998) findings that suggests that intense work of the !Kung people appeared to parlay into high levels of leisure time, in HaMakuya, intense work was not necessarily balanced by high levels of leisure

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[181] 'Buen vivir' emerged from anthropological exploration of Andean cosmological understandings, but is currently used by a number of academic fields and political/social movements (Merino 2016).

time. The Musundians I lived among were constantly engaged in repetitive chores (like collecting water) needed to survive, no less maintain wellbeing. In fact, very often, even activities that appeared to involve leisure, such as grooming, or socialising during a *stokvel*, are carefully navigated engagements and chores used towards maintaining wellbeing, and include work. Most HaMakuyans work very hard. Many work in physical labour (e.g. repairing roads, tending cattle), while for others the effort to get to work requires significant exertion.[182] Long distances and limited service delivery mean that days are long, as chores to ensure water, and food (Figure 4.1) are undertaken before and after formal working hours. In my life in Musunda idle moments were rare.

Figure 4.1: A Musundian carrying firewood – generally women's work

Hard work is essential to gathering wood, or fetching water. Work builds the physical body, grooms it to live well through one's environment – building skills and knowledge in the process of cultivating personhood and bodily wellbeing through *namanda* (power/lifeforce) and *nungo* (strength). Strength (physical, mental and emotional) and skills are needed to live through the landscape; these are tested when adolescents are initiated[183], but skill building and bodily cultivation begin long

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[182] For example, Community Works Program workers often walk one to two hours each morning.
[183] Initiation includes circumcision and exclusion in the bush. Not all HaMakuyans engage with these 'traditional' practices, which are often juxtaposed to 'church.'

before that. Pointing to a small boy of about five carrying a plastic chair bigger than he was, Penny explained that a healthy body is one where strength has been cultivated from early on:

> 'When they are like this, they do the house chores. They also help when I fetch firewood. I make them their own bundle to carry home. It helps the child to get strong and do things by themselves.'

Fulfilling 'home duties' and 'good behaviour' draws on moral imperatives that bring to mind missionary teachings[184], and colonial/apartheid notions that worked to create a docile, but powerful labour force (see Wolpe 1972; Packard 1989). In HaMakuya, the ability to work can be a measure of wellbeing while weakness is a sign of sickness (*vhulwadze*). Exercise and hard work builds *nungo* (strength) and *namanda* (power), and thereby *mutakalo;* part of the constant grooming and conditioning of the body and person.

Exercise was often discussed among HaMakuyans. Penny suggested that food cultivation provided exercise, but others suggested that exercise independent from work was necessary for wellbeing. In HaMakuya, such a trend could be ascribed to the influence of home-based care-workers'[185] efforts to introduce dietary advice linked to increasing concerns around diabetes, which in turn could reflect one of the ways that biomedical frameworks influence local notions of what makes a body healthy. With less space to graze cattle and cultivate land, people are more sedentary. This, combined with changing food availability - to more industrialised foods (Chapter 6) - means that HaMakuyans, as with much of the rest of the world, are increasingly experiencing diet-related non-communicable diseases (i.e., heart disease, diabetes). In fact, Frank explained that he became a home-based care-worker because he realised that his father might have lived longer with 'sugar diabetes' had someone explained that exercise and dietary changes could help his 'sugar problem'.

At the same time, jobs are few and far between. Although there is always wood to gather, water to collect, a road to mend or children to mind, these routine chores are not the 'work' people look for. Residents envision work as paid jobs, often

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[184] For example, the proverb, 'idle hands are the devil's workshop'.
[185] Trained locals providing healthcare support (Chapter 3).

discussed in relation to the park. The infrastructural violence of colonialism/Apartheid has resulted in a current lack of job opportunities. Yet, within a setting where natural gathered resources – previously the source for heat and food – are highly regulated, due to the park, and are being replaced with electricity services that demand money, jobs have become central to survival and wellbeing. Having a job, or even the hope of a job, can provide a release from the worry of providing for family, thereby contributing to living in a good way.

When reflecting on the park, Apfira, who recently moved to Musunda after marrying, explained, 'We wish we could get jobs and be prioritised when those opportunities are available'. Because work is difficult to find in HaMakuya, the park provides hope, as a potential source for work. While HaMakuyans do not necessarily separate stressors into the social-psychological compartments that biomedicine does, research increasingly acknowledges the links between mind and body. For example, optimism has positive impacts on both psychological and physical wellbeing (Scheier and Carver 1992). At the same time, Fischer (2014) - in exploring similarities in conceptions of the good life across diverse settings ranging from Guatemala to Germany - stresses the importance of dignity, aspiration and opportunity as central to wellbeing. As Patience, a mother of two, in her twenties, explains: 'I understand Makuya Park as a job creator. I feel very good, because now our children will be working at the park.'

On the other hand, living beside a place where the promise of a job remains unfulfilled, where 'very few' are employed, may be a constant reminder of what one does not have, and thus a stressor. Ample research shows that wellbeing and stress are linked (for example, McEwen 1998; Glaser and Kiecolt-Glaser 2005). The park's promises of jobs that do not come to fruition can result in disappointment for people like Apfira, or Ruth, who explained: 'When the park started they promised to employ local people from Musunda, but now they are employing people from very far, and those that live closer to the park are jobless.' Joblessness in the HaMakuya context where cash is increasingly needed was often described as a 'worry' or 'stress'. Within the context of the ways in which wellbeing is locally described, stress is salient; Huli avoids social situations in an effort to evade conflicts and gossip, which indicates that stress factors into people's decisions about how to maintain wellbeing. Living beside a potential work source, where the absence of

work is an ongoing challenge, might counter or catalyse stress. In this way, the park may negatively influence, or potentially bolster wellbeing.

Diet, Zwaliwa Zwavhudi (Good Food) and the importance of Wild Fruits

When I asked about *mutakalo*, without prompting about food, a recurring theme was the centrality of food in building a powerful (*namanda*) or strong (nungo) body. When Ori's mother moved to HaMakuya central to be nearer to the clinic, Ori asked for a ride to visit her uncle. After discussing her mother's condition, Ori's uncle instructed us to visit his 'orchard.' As we wended the maze of dirt roads, driving to the cultivated field, Ori explained:

> 'My uncle said we must get fresh foods, like melon, butternut, cabbage, beans, and we must take the greens to make *moroho* and other vegetables. These things that we grow, we know that they are *zwaliwa zwavhudi* (good foods), and they will help my mother to grow strong, and her wounds will heal.'

Similarly, for Penny, a source of health is 'eating well-balanced food'. Ntombi suggested that she prefers to eat 'clean foods' which are 'rich in vitamins, green vegetables, potatoes, *vhuswa* and milk straight from the cow'. Vhuthu prefers 'lots of vegetables', especially those 'that we produce.' Ruth stressed the value of 'clean water', and 'fruits and vegetables', while Frank ensures his children's wellbeing with 'wild fruits, like baobab fruits'.

Recurring themes arose with regard to food. HaMakuyans described a diversity of foods that were understood to be *zwaliwa zwavhudi* ('good foods') - a local referent for foods that build health; predominantly foods that are *bika* (cooked) at home. For Gloria, *zwaliwa zwavhudi* are 'mostly wild fruits, and *morohos* including *phuri, delele,* spinach, and also termites.' General categories like 'meat,' 'milk,' 'fruits' and 'vegetables' were most often described as *zwaliwa zwavhudi*. Some Musundians specified preferred proteins, like Avadipfi, who listed '*Vhuswa*, milk, *moshanzha* (mopani worms), fish, eggs and vegetables.' Ruth suggested that 'clean water' was also *zwaliwa zwavhudi*.

While there was ample diversity among Musundians as to what else constituted *zwaliwa zwavhudi*, *vhuswa* (a stiff maize porridge, also known as 'pap') was most often included after 'vegetables' or '*moroho*' (leafy greens). *Vhuswa*, was often described as a source of *nungo*: 'it keeps me full and strong through the whole day';

'I can work hard all day without being hungry'. Similarly, foods grown locally bring strength according to Penny:

> 'I prefer traditional/indigenous foods. That's why I have a garden. I don't like foods that are not from here. Indigenous foods make me feel healthier, and *they make me feel strong*.' (my emphasis)

Musunda's *makhadzi* explained 'wild fruits are the best because, for example baobab, you can grind it and cook it with *vhuswa* and you will never get sick, even *nee-ee*. These wild fruits make you well. The older people who grew up eating these healthy foods will survive longer than us.' Wild fruits including moringa, baobab, marula, and non-domesticated meats, are generally more valued than store-bought or homegrown products.[186] Baobab trees, for example, are found on many homesteads, and are an important nutritive supplement for children when they fail to thrive; for example, 'yogurt' that 'does not need a fridge' is made from soaking baobab fruit.

Many Musundians 'prefer wild fruits', 'wild meat' and 'milk from the cow.' In fact, 'wild fruits' like *mazwilo* and *niwe* were specifically eaten by Noretta to build *namanda*. Fulu's description of wild fruits reflects repeated assertions that foods grown locally, without external influences, were better for the body:

> 'Wild fruits are healthy because they are not fertilised with commercial fertilisers or sprayed with insecticides/pesticides. They grow naturally. If they need the sun to grow and be ready for harvesting, they do so. No human being is involved in how they grow and bear fruits.'

Here, Fulu suggests that the agency of the fruits to grow as they need without human or chemical interference, a virtue of their wildness, is important to the qualities the foods transfer. Foods that are 'wild' and 'not domestic' are said to cultivate more strength than those domestically grown, or purchased '*makua* foods' (white people's foods). *Makhadzi* explained 'even these foods that we plant, they have chemicals that make you weak.' As such, foods are substances within local ecologies of wellbeing that can bolster or drain one's power/strength; foods can cultivate the body, especially through ingesting particular items, grown in particular places (cf. Hutchinson 2000; Farquhar 2002; Niehaus 2002).

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[186] Moringa, baobab and marula products – fruits that repeatedly appeared in ethnobotanical surveys, and food diaries - are increasingly sold globally (Abrams 2016).

I return to the importance of food in local ecologies of wellbeing and its centrality in providing sources of *namanda* in Chapter 6. Below, I draw on the theme of food to illuminate the links between local notions of wellbeing and *mupo* (nature), tied together through food prohibitions and offerings that honour the ancestors. Thus far I have described some HaMakuyans' narratives of *mutakalo* as linked to biomedical notions of the absence of illness, while for others having *mutakalo* means living without anger, conflict, or stress. The lived experience(s) of striving for wellbeing reflects both efforts to avoid illness, and efforts towards cultivating *nungo* and *namanda*. Being strong or having power resulted from careful navigation of social issues, living life within a framework of what was deemed 'good', including cleanliness, avoiding stress, and eating well. Wellbeing and health are also tied to the local environment, as discussed in the following section.

MUTAKALO NA MUPO (HEALTH AND NATURE)

Here I outline the ways in which Musunda's edge-dwellers develop skills while *living through* their surrounds. My use of *living through* emphasises the process of human becoming (Ingold and Palsson 2013: 8) as intertwined with one's surrounds to generate specific skills and embodied practices (cf. Ingold 2012; Bourdieu 1977). I explore Musundians' constant interplay with *mupo* (nature) as they engage with their surroundings, acknowledging a co-creation of spaces within which wellbeing is sought, before moving on to an exploration of the entangled aspects of *mupo*, the ancestors and *vhulwadze* (sickness).

Living through: Skills, *Mupo* (Nature) and Local Ecological Knowledges

Mutakalo is about who you know; it is about access to material resources, and ancestral, spiritual and/or social forces; it is about what you believe, and what your family believes. In HaMakuya, biomedical understandings do not dominate other ways of knowing or sensing wellbeing.[187] Survival is secured through skills[188], which are finely tuned to the demands of the locations where people dwell, both of which (people and locations) are inter-related in dynamic ecologies (Ingold 2011: 8).

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[187] Despite drawing on biomedical services, HaMakuyans' notions of wellbeing call for non-Cartesian renderings.
[188] Habitus, drawing on Mauss' (2007), Bourdieu's (1977) and Husserl's (1973) reflections on the notion of skills.

This notion of a mutual making of bodies and skills in dynamic ecologies is not unlike Jacksons' (1996, 1998, 2005) rendering of intersubjectivity – where peoples are made and remade, in fact co-made, by the ongoing interactions they have with one another, the environment and non-visible agents/qualities around them. Bodies and landscapes are enmeshed. For example, Sarina's skill set was different from mine – her knowledge of the local environment, cultivated through embodied engagements, allowed her to accumulate skills (Bourdieu 1977; Mauss 2007; Ingold 2011; Cohen 2013) over a childhood spent in HaMakuya. Sarina knew things about the land that I did not, including which plants indicated ground water. She was 'enskilled' – embodying 'capacities of awareness and response' learned through local 'environmentally situated agents' – in the landscape of HaMakuya, given her particular life experiences[189] (Ingold, 2000: 5; see also Desjarlais 1992: 42). Sarina's knowledge and personal preferences combined into a skill set that allowed her to read the landscape in a comfortable manner, with precision, saving strength and assisting her to locate water. HaMakuyans vary in the knowledges, morals and priorities that they use to navigate life; they vary in the material and social resources at their disposal; in their ability to exercise choices, and in their personal preferences; however, they also strive to live in 'a good way', in a local environment that offers many challenges.

HaMakuyans learn from their surroundings as they live through them, cultivating specialist skills and knowledge. Edge-dwelling is complicated by a slew of biota that pose significant challenges for survival. Poisonous snakes, painful scorpions, crocodiles, malaria mosquitos, and bilharzia are just some regular challenges edge-dwellers face as they navigate ecologies of wellbeing. One evening, this reality became very clear as I witnessed Pfarelo save Pfanu from a near death experience with a *boomslang*[190] (snake), emphasizing the challenges inherent in the local landscape, and highlighting that Musundians learn fine-tuned skills specific to survive on the edge.

Over time, Pfanu will learn which snakes are deadly, just as I quickly learned to identify scorpions or the type of firewood I was gathering, as some gave off deadly

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[189] Others necessarily had different skills. Ruth explained: 'People who have lost their cattle are the ones who know that there are seven lions roaming around. They track them through their footprints.'
[190] In Afrikaans, boom = tree, slang = snake; also the common name, like 'cobra', of *Dispholidus typus*.

smoke, contaminating foods cooked over it. By learning to *live through* this environment, people learn to survive, and succeed at cultivating wellbeing. Knowledges accumulated and developed over time, through engagement with surroundings and deep insights into the local ecology – often referred to as local ecological knowledge[191] – combined with 'artful skills of living together' (Overing and Passes 2000: 7) are required in this setting to ensure wellbeing. Pfarelo's quick response to the type of snake potentially saved Pfanu's life, highlighting the importance of skills emerging from local ecological knowledges when navigating the intertwined relationships between wellbeing, and the local environment.

In spite of the local rough, rocky terrain, the lack of infrastructural provisions and transportation networks that complicate life, HaMakuyans survive *through* their local landscapes. Individuals come to *know* and really understand their surroundings through sensory interactions and skills developed over time mirroring Spiegel's observation, in the context of South African land dispossession, that relations with and memories of landscapes, are 'inscribed in and through people's feet' (2004: 3). Knowing a landscape involves the sensory knowledge attached to the lived-through experience (cf. Nazarea 2006); for example the feeling of the bark was one way that I was taught to identify a tree appropriate for firewood. One learns to live through the lands they reside on in varying degrees; over time learning specific skills that suit the particular environments they inhabit. These environments are created by their inhabitants, while they shape lives (cf. Lefebvre 1978); co-creating, and *living through* the environment, while developing skills suited to it.

Drawing on Ingold (2012), *mupo* (nature) is comprised of 'things' through which Musundians' wellbeing depends (as opposed to objects, things are interactive). Fulu explained that 'Without *mupo* (nature) people cannot live, without trees and water we cannot survive. We exchange oxygen and carbon dioxide with trees. We use water always.' In this discussion, Fulu linked her surroundings to sustaining life, as her understanding is that humans 'cannot live' without these 'exchanges' of water and oxygen. In this way, place and wellbeing are intertwined (Cummins et al. 2007: 1835; also Macintyre et al. 2002).[192] While Fulu sees *mupo* in general as central to *mutakalo*, others tie wellbeing to specific places, like Jayne who explained 'at the

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[191] Also described as traditional ecological knowledge; see appendix 4.3 for further discussion.
[192] For example, warming and decreased rainfall correlate with increased childhood disease incidence implicating climate change in Limpopo's health profile (Thompson et al. 2012).

Khongodi river when you arrive, you feel well.' Multiple Musundians referred to natural springs that assist in healing. The Vhatavhatsindi clan (the 'people of the pool') of TshiVenda speakers, living southwest of HaMakuya, oversee the sacred Lake Fundudzi[193] and Tathe Vondo forest, both of which are said to house ancestral spirits of great importance protected by a giant python and a white crocodile. Water in general, and specific water features are valuable sources that, if visited, can build *namanda,* thereby contributing to wellbeing.

HaMakuyans, like Fulu, describe themselves as part of a system of exchange with *mupo* (cf. Hsu 1999). Wellbeing is fortified by living in and through *mupo* as Kone explained on my first visit to HaMakuya:

> 'Amber, your research, it is about *mutakalo na mupo* [health and nature], yes? So, you see, today we get our water from these taps. You saw by my house this tap. Sometimes it is broken. Sometimes there is no water even if it's not broken. The water comes to us through these taps, which means water comes through pipes. But, this has not always been the way. It used to be that we would gather water from the river, or collect it from the rains. These days the water does not have all the nutrients it used to. Before the taps, the water would move through the soil, it would filter through and pick up important things for us to be healthy. Now, with the taps, people are sick more. The pipes interfere with the water, and block it from flowing and picking up what it wants.'

One way of reading this interaction might draw out Kone's local ecological knowledge. Exploring medical anthropology through an ecological perspective, McElroy and Townsend note that 'differences in underlying rock strata affect health by influencing the mineral content of drinking water' (2009: 41), which aligns with Kone's perspective. Another way of reading this is by attending to a repetitive theme; Kone, as with Fulu's statements about wild fruits, indicates that human interference diminishes the health-giving qualities, the *namanda*, of the water. This indicates that HaMakuyans understand water and fruit to have agency - 'agency beyond the human' (Sullivan 2016:160) -, just as other non-human, non-visible and non-living agents/materials do (cf. Nash 2005; Malafouris 2008).

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[193] The Mutale River, where the Camp is located, feeds this lake.

That human beings are part of larger processes, beyond themselves, which they should not attempt to control appears often in discussions around *mutakalo* as it relates to *mupo*. A body has less *namanda* as a result of human interference with foods and water; in this way interferences reflect what Cohen describes as vitality draining elements (2013: 95). Yet there are times when one must interfere, for example, when a child is born, as with *misho* practices that set one on the right track in relation to the animals that it lives among, highlighting the importance of relational aspects to local ecologies of wellbeing.

Similarly *miri* (trees) 'clean air for us' (Jayne); 'help us to breath, get *mashonzha* [mopane worms] and firewood' (Glenda); and provide 'important medicine' (Frank) and resources that people 'depend on for healing' (Avadipfi). Not only do HaMakuyans understand themselves to live in relation to the trees and water flows around them, but overwhelmingly, *mupo* (nature) is described as providing vital resources for wellbeing, including *miri* (trees), sources of food, fuel, water, and sun ('needed for plants to grow'). HaMakuyans are linked to their ancestors through *mupo* (cf. Taringa 2006; Sullivan 2017), while honouring the ancestors is mediated through human interactions with *mupo*, which, if done incorrectly, can result in sickness, or drought. In this way ancestors have agency (cf. Sullivan 2017) and can influence *mupo* and mutakalo.

Mupo, Ancestors, and *Vhulwadze* (Sickness)

Among Musundians, relationships with the ancestors factor into a variety of wellbeing-related efforts, and relations of care.[194] As in Zimbabwe (Taringa 2006:1999), the spirits of one's ancestors are locally understood by some to protect households. Angering these spirits, referred to in HaMakuya as 'the ancestors' (*vhadzimu*) can bring suffering (*shengela*) (Řezáčová 2011: 41) as they have agency (see Sullivan's [2016] Namibian work) and demand propitiation (Řezáčová 2016). In fact, HaMakuyans, including *Makhadzi* and healers, convene with their ancestors; healers often described ancestors as providing healing remedies in dreams.[195] Thus, ancestors actively take part in acquisition of local ecological knowledge, sending

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[194] Řezáčová describes an 'ancestral cult' (*malombo*). Her Venda interlocutors, mostly healers, ensure the protection of their ancestral spirits 'against malevolent forces by cherishing kinship obligations to the living and dead' through participation in 'sacrificial ritual feasts' (2011: 31). Musundians described fulfilling kinship obligations through offerings to *Makhadzi*, who performs ancestral rituals on their behalf.
[195] Elsewhere in southern Africa, ancestors communicate through dreams (Jedrej and Shaw 1992; Niehaus 2005b).

healers to specific places or particular plants. Similarly, 'introductions' to the ancestors, as with *misho* practices, support the importance of appropriate care relations with ancestors as a central component in local ecologies of wellbeing. While more research is needed to understand HaMakuyan perspectives surrounding ancestral relations, in my research, discussions around rain reinforce the enmeshment between HaMakuyans, their ancestors and the local environment.

Historically the rainy season in HaMakuya started in November/December, and continued through February/March. In May 2013, I noticed storm clouds accumulating overhead, and commented to Khumbu that I thought rain was coming. She laughed at me, 'No, not now. Its not rainy season, and anyway, we struggle with rain.' Needless to say, the clouds accumulated, and threatened, but no rain came. During 2014 the rains came in season, albeit in severely reduced quantities – a drought set in. In 2015 the rains did not come in December. It rained far 'too little' from February through April. In June, as I sat in unseasonal, but welcome drizzle, my surprise at the gentle pitter-patter was met with the matter-of-fact answer from Sarina 'it is initiation time now.' A year later, when commenting again on unseasonal rain, Fulu explained: 'The boys who are doing initiation, they are in the bush now. This rain, it is maybe for the initiation, from the ancestors.'

Local belief systems are varied. Among TshiVenda speakers, beliefs surrounding the ancestors differ, evidenced by diversity in the ways that burials, and offerings take place (or do not) – linked to clan histories, but also influenced by missionaries. Miller (1974) points out that missionary teachings secularise worldviews, for example by removing the supernatural from the natural. In fact, some HaMakuyans have completely discarded practices related to ancestral beliefs as missionaries and now pastors secularise relations aside from those with their approved god. However, what is consistent, even among churchgoers, is an understanding that the ancestors take part in the local environment; they have a hand in rain-making (cf. Krige, Krige and Smuts 1943), for example. In this way, ancestors take care of HaMakuyans, and if the ancestors are not being cared for appropriately in return, they get angry, which can impact on the weather, or bring sickness, drought, fire, or cattle disease (cf. Lewis 2015).

Musunda's *Makhadzi* explained her role in caring for the ancestors:

'You have to tell the ancestors before you gather or hunt. If you want to gather *mashonzha* (Mopani worms) then you tell me and I do the rituals. I take four *mashonzha* and throw one in the north, south, east and west while telling the ancestors it is time to do these things and asking, please can we eat them . . .'

Makhadzi is trained to commune with the ancestors to negotiate the use of local environmental resources, such as before a hunt. If the ancestors are not appeased through offerings, or if local prohibitions are ignored (for example, hunting pregnant game) this can bring suffering. As such, local beliefs are intricately interwoven with relations with nature, and care relations with ancestors – this intertwined relationality also highlights the impossibility of separating naturecultures (cf. Haraway 2003). The following example provides further evidence of the links between ancestors, and nature while briefly exploring local dietary prohibitions and notions of sickness.

Mutupos: Clans and Dietary Prohibitions

Mutupo is a clan name, or 'second surname' linked to a specific 'totem' animal, where clans represent lineage affiliations (Ralushai 1977).[196] Similar to Zimbabwean Shona for whom Taringa translates 'totemism' to 'mutupo' (2006:201), totem animals can be conduits for the spirit and energy of one's ancestors, where ancestral spirits can rest; such practices 'take[s] the existence of non-human seriously' (ibid: 192). Often, according to Ruth, ancestors rest in *miri*, but can rest, according to Lina, 'everywhere and anywhere; in rocks, trees, rivers, and all around', providing TshiVenda perspectives to Taringa's assertion that among his Shona interlocutors, 'most aspects of nature are perceived as kin, endowed with consciousness and the power of ancestral spirits' (ibid: 201).

Mutupo are associated with food prohibitions. For example, if your *mutupo* is *nari* (buffalo), you are not permitted to eat certain buffalo parts. Penny explained:

'I personally don't eat beef liver, and their heels. It is forbidden with my people because our *mutupo, nari*, is similar to cow. So I cannot eat those cow parts. People whose totem is an elephant cannot eat any part of it or anything that looks like it.'

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[196] See Lestrade (1930) and Stayt (1931) for colonial explanations of Venda clan organisation, and Loubser (1990) for more recent historical analysis.

Prohibitions around eating specific animal parts may vary between clan affiliations, or individuals; some Musundians do not eat buffalo feet or legs, others, from different clans, explained that buffalo tail or tongue is prohibited.

Reasons for avoiding specific parts vary, but consistently relate to the harm that eating these body parts can cause for the ancestors, or selves. 'The heart pumps blood, if you eat this, it means that you are eating your own blood', Penny explained. For Lina, the *nari*'s tail is prohibited, because it is like 'eating the spine of ancestors'. Despite variety in these prohibitions, disregarding them was consistently associated with suffering. If one unknowingly ate prohibited foods, the ancestors' punishment might be a rotten tooth; however, prior knowledge of the transgression could lead to immediate tooth loss.[197] This highlights the importance of intentionality (of the eater) while linking the health of a person to other animal species, and ancestors. It also fits with a preventative approach to wellbeing; HaMakuyans' avoidance of certain foods is a strategy for maintaining strength and vitality by ensuring they do not ingest anything that might drain power.

In concert with concerns about *muthi* (sorcery), there is a general hesitancy to accept foods from other people. Jayne explained: 'I need to be careful of what I eat because my body sometimes reacts badly towards certain foods, with different pains. A lot of the things I eat are related to my ancestors, so if I go to people's house, I don't just eat everything.' Similarly, Ori suggested that 'traditional ways' meant that she could not share a meal with me while pregnant, but she explained as she ate from my plate, 'I don't follow that tradition.' Practices in HaMakuya, although at times referred to as 'traditions', are by no means repeated in the same way, year after year (i.e., *mutupo* practices are changing); rituals in practice, as with life-nurturing techniques, change and are fluid (cf. Farquhar and Zhang 2012: 28).

Mutakalo (health) and local environments are further linked through certain prohibitions that factor across clans. For example, many Musundians avoid elephant meat, even among those whose *mutupo* is not associated with elephants. This was variably explained as related to the fact that elephants menstruate or because they 'smell like human' - I return to the importance of this close relationship in Chapter

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[197] Jayne explained that 'it was the rules for the time' but 'things change'. Now, sometimes 'if the child eats the tail, nothing happens', because children 'no longer believe in those rules' so their teeth do not fall out.

6. In addition, the *quarra* (pangolin), sought after for fortifying properties (throughout Africa[198]), are said to give *namanda*. As such, hunting a pangolin is strictly forbidden. Niehaus (2013: 128) discusses prohibitions around bodily substances as a method of averting danger in South Africa's lowveld, indicating that the death of a pangolin could bring severe drought. Similarly, a lifelong Musundian, in his twenties explained that the *quarra* (pangolin) is a 'very old' animal. He ran into his home, returning with what looked like a giant mussel shell (Figure 4.2): 'It lives long, so if you drink this skin [scratchings mixed with water] then you take a long time to die.' It is evident from *mutupo* practices and *misho* treatment that HaMakuyans understand themselves in relation to the animals around them, but this is clearly reinforced by elephant and pangolin prohibitions. Such relations are fortified through shared substances, like the scratchings of pangolin scales, or baboon excrement.

Figure 4.2: *Quarra* **(Pangolin) shell**

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[198] See Sodeinde and Soewu 1999; Soewu and Ayodele 2009; Whitling et al. 2013; Boakye et al. 2014, 2015.

Figure 4.3: A gourd used to 'drink with the ancestors.'

Makhadzi and Mudinyane: Ancestral Relations, and Sickness

Further evidence linking wellbeing to relations with the environment emerges when considering the explanation for the *vhulwadze* (sickness) called *mudinyane*. In HaMakuya, the TshiVenda word *vhulwadze* most often referred to ill-health. Distinctions between 'disease' and 'sickness' were not made as such, exemplified by the fact that TshiVenda dictionaries indicate that disease = *dwadze* and *vhulwadze*, while sickness = *biso* and *vhulwadze*. Commonly, anthropological and epidemiological renderings of the differences between these words relate to who is discerning the ill-health (Susser 1973); i.e., disease is ill-health as discerned by biomedical practitioners, and sickness is the wider society's perspective, while illness relates to individual experiences. Yet, in HaMakuya these linguistic nuances are not the same, and ill-health is often referred to as it relates to concepts of wellbeing; being unwell reflects a loss of *namanda* and *nungo*, and is often referred to in this embodied way if *vhuldwadze* is not used.

As discussed earlier, according to ancestral traditions, hunting, gathering or brewing *marula* beer must be preceded by 'certain rituals' and 'offerings' by *Makhadzi* (Figure 4.3). Since, wild, non-domesticated foods are locally understood to nurture and strengthen one's body more than other foods, and practices that honour the ancestors link gathering to the role of *Makhadzi*, a 'proper way' to collect natural

resources, including consultation with the ancestors, exists. It follows local understanding then, that *zwaliwa zwavhudi* ('good foods') would be made from foods collected in locally appropriate ways including consultation with and offerings to the ancestors. *Mudinyane* is an illness that manifests when this is not done, or when someone 'overuses' a particular wild fruit, or local resource.[199] The symptoms of *mudinyane* are similar to those of malaria, which include vomiting and diarrhoea, but upsetting the ancestors comes with worse ramifications than individual suffering.

As with *mutupos*, transgressing prohibitions or expectations of offerings can lead to wider challenges, including drought, or failed crops. Makhadzi explained 'if one doesn't tell the ancestors [of your intention to hunt], then your traps will remain empty.' Failing to provide offerings breaks down the care relations between edge-dwellers and ancestors. Relatedly, the prohibitions linked to *mutupo* require HaMakuyans to only accept food when they know how it has been handled and prepared; similarly suffering from *mudinyane* results when food has not been appropriately handled. I suggest that these similarities indicate a theme that links natural resources or nature (*mupo*) to relations of care and recurring concerns surrounding the appropriate handling (extraction, preparation) of natural resources. Foods sourced without engaging the ancestors appropriately have significant health risks. Frank suggests that if you fail to complete 'ancestral ceremonies' then 'you would get sick, your livestock would be attacked, or you would just be dismissed from work without a reason'. The links between wellbeing and the local environment may differ from HaMakuyan to HaMakuyan, but the fact that wellbeing is tied to one's surroundings, and entangled with ancestral relations, is consistently asserted.

ECOLOGIES OF MUTAKALO

In HaMakuya, there are multiple overlapping ecologies of health, just as there are multiple worldviews (Vivieros de Castro 1998; Levine 2012). For example, some edge-dwellers insist that medicines from the *maine* are 'stronger' than clinic medicines while others suggest that only the clinic can cure some concerns, like, malaria. One *maine* explained: 'Trees are better than medicine from hospitals. At the

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[199] *Mudinyane* may be a form of local ecological knowledge that has environmentally protective outcomes or 'relational sustainability' (Gorenflo et al. 2012; Sullivan 2016).

hospital or clinic they give you that medicine, but it will re-occur. If you try to heal by traditional [methods] it is gone forever.' This suggestion, that local methods 'heal', whereas biomedical interventions simply allay symptoms, runs counter to hegemonic narratives that positions biomedicine as best.

In fact, many HaMakuyans appear to align with a pattern that Wayland (2004) noted among healers from peri-urban areas in the Brazilian Amazon, who juxtapose plants/tradition/positive with pharmaceuticals/modern/negative. Wayland suggests this is commentary on the failures of development, and an assertion of the superiority of 'tradition over modernity' (2004: 2409). HaMakuyan juxtapositions between clinic/traditional and 'pills'/plants in statements asserting that plant medicines are stronger than clinic-provided pills may be commentary on development/modernisation, but they also highlight the importance of local environments in healing practices, and the centrality of concepts of power and strength in relation to wellbeing.

Throughout this chapter, comparisons have been made to Amazonian or Amerindian contexts, including South/South comparisons aligning with de-colonial calls to de-centre Western, and Northern hegemony. The similarities between the ways in which modern anthropologists of these two regions are expanding understanding beyond the human realm cannot be ignored. Sullivan's (2016, 2017) Namibian research draws largely on South and Central American[200] research that acknowledges more than human worldings (for example, Vivieros de Castro 1998, Descola 2013, Kohn 2013) and ways of being (well) that extend beyond the human, and tangible realms. Sullivan draws on Vivieros de Castro (2004) in stressing the importance of acknowledging animals' and ancestors' social agency and intentionality (2016:160) which mirrors Cohen's (2013) efforts to move beyond established categories by unbinding the lines that actor-network theory imposes. In HaMakuya, an ecologies of wellbeing that is attuned to the local context must incorporate non-visible and non-human sociality and agency (cf. Morris 1998, 2000), extending agency to materials like water and plants (cf. Sullivan 2016: 162); in this way wellbeing is not just considered in the context of actors and networks,

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[200] Sullivan offers Solomon's (1997) work among the Khoe San as an African example of this wider worlding, and suggests Biesele's (1993) work with Kalahari Ju|'hoansi offers a sense of being that is similar to Vivieros de Castro's perspectivism (1998).

but flows (cf. Taylor 1988, 1992, 2005) and exchanges of materials, energies, relations, substances, feelings, and much more.

When discussing *mutakalo*, HaMakuyans draw on a wide variety of tropes that reflect a way of being and living through the world that places lived physical experiences alongside future worries, hopes and opportunities, all of which are impacted on simultaneously by immediate surroundings, intangible/non-visible realms, ancestral inheritances and personal position. In engaging with an anthropology of wellbeing, Fischer (2014), in his book *The Good Life*, draws on diverse examples from Guatemala to Germany to suggest that rather than seeing both wellbeing and the good life as a 'state to be obtained' it might better fit lived realities to understand both as an 'ongoing aspiration' that requires the 'arduous work of becoming' (ibid.: 2). Like local environments, 'nature' is continually contested (cf. Green 2013) and thereby shaped, such that efforts towards a good life are mediated by ever-changing surroundings, just as wellbeing is 'susceptible to constant change' (Jackson 2005: x). The refreshing, healing properties of a visit to the *Khongodi* river might counter the bit of overheard gossip, or the worry of finding work – or a visit to the river might be eclipsed by returning home to find one's goat dead. Bodies and local environments are entangled, interacting in complex ways, while exerting their own agency. Cohen's ecologies of wellbeing take into account this 'continual flux in and struggle for wellbeing' (2013: 92), centring wellbeing within the multiple interactions and relations of daily existence without limiting these interactions to agents, or actors, which is another reason that South American theorists' work is relevant to this context.

CONCLUSION

Drawing on 'ecologies of wellbeing' (Cohen 2013), I have tried to set up for the reader a window to understand local concepts of *namanda* (strength) and *nungo* (power) in relation to *mutakalo* (health). I have attempted to draw out links between the ways in which a body and personhood are nurtured through flows of substances, and relational exchanges. *Mutakalo* in HaMakuya is not just the absence of disease, or illness, it is about living in such a way as to prevent suffering (for example, from stress, or sorcery). For many HaMakuyans, English language distinctions between health and wellbeing are not relevant; biomedical health is just one factor within local conceptualisations of wellbeing. This chapter provides insight into the multiple

conceptions of *mutakalo* while highlighting some of the more consistent themes that emerged in my research. These themes include the importance of *mupo* (nature), maintaining good social standing, bodily cultivation and its central role in the process of human becoming, living in 'a good way', work/activity, and diet.

I have attempted to show how, in HaMakuya, the 'struggle for wellbeing' (Cohen 2013: 92) is found in local relations of care and the daily activities of cleaning, praying, socialising, eating, working, caring for ancestors and exercise, all to nurture *namanda* and *nungo*. These struggles to maintain strength and power in efforts towards wellbeing – local ecologies of wellbeing - are tied to natural surroundings through relations, practices, rituals and prohibitions that link Musundians with their ancestors, often through *mupo* (nature). While this chapter has outlined local notions important to the concept of *mutakalo*, the following chapter draws further on links made between wellbeing and the environment to explore the specific impositions of protected area status on local ecologies of wellbeing.

Edge-dwellers' ecologies of wellbeing are shaped by their edge-dwelling status. When considering how skill sets are developed over time, drawing from and relying on resources that are locally available, the wellbeing-related impacts of the increasing constraints on edge-dwellers' resource use due to the park become pressing concerns (Chapter 5). Drawing on medical anthropological work within an ecological perspective (McElroy and Townsend 2009) can illuminate edge-dwellers' health challenges in the context of resource constraints resulting from protected area status. However, this only provides a partial story, while imposing a notion of health, and assuming shared or utilitarian notions of rational decision-making and biomedical understandings. The park's influence on edge-dwellers' wellbeing, when considering an ecologies of wellbeing framework, must extend beyond resource constraints to consider more-than-human relations, dietary practices (Chapter 6) and interpersonal relationships (Chapter 7).

CHAPTER 5: The Fence – The Park's Role in Natural Resource Accessibility Challenges and the Implications for Local Ecologies of Wellbeing on the 'Edge'

INTRODUCTION

Makuya Nature Reserve's ('the park') boundary fence is, according to park managers, meant to contain wildlife. The two-meter high, chain-metal fence runs the length of Musunda village, along the boundary of the western limits of HaMakuya. 'The fence' was a recurring theme in interviews, and informal conversations when discussing the experiences of edge-dwelling, or *mutakalo* (health/wellbeing) generally. This chapter is about the fence and its effects on edge-dwellers' lives, particularly with regard to accessing resources and places.

When asked about *mupo*'s (nature) relationship with *mutakalo*, Musundians asserted its importance. 'Mupo includes *miri* (trees), plants, animals and people as well, because they breathe and survive through those plants and animals.' As Noretta explained, many Musundians *survive through* natural resources[201] and depend on *mupo*. Jayne notes that '*miri* clean air for us,' and 'we mostly depend on *miri* around us for healing,' emphasizing co-existence and interdependence with *mupo* as central to local ecologies of wellbeing.

When asked about wellbeing related challenges without referring to the Park, Musundians consistently raised issue with the park fence. Khani, in her late 50s, and long-term Musunda resident, suggested that 'before the park, people were benefitting . . . from firewood, grass for roofing, even grazing.' However, 'now people are complaining, [because] before the fence, people used to go there and find something to eat, but now it is hard for them.' Jayne, a Musundian in her 50s, reinforces food challenges due to inaccessible *phuka* (animals) and concerns about inaccessible *hatsi* (grasses used as roof thatching); 'The difference is that *phuka* are not available like before when there was no fence, . . .and *hatsi*, people used to cut it, but now they are not allowed.'

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[201] In ethnobotanical surveys grandmothers were often sources of plant knowledge, followed by grandparents, mothers and 'watching other people' or neighbours.

Glenda, a life-long Musundian in her 70s, suggests that 'people used to access hunting but now they can't because of rules,' including no longer being 'allowed' to enter to 'harvest *hatsi.*' Adding to these concerns, Manu, in his 60s, suggests that 'firewood, catching buffalo, fish, *moroho*' are integral resources for wellbeing, but access is cut off by the fence. For Patience, a Musunda-born mother in her 20s, and her mother, Khani, the no longer accessible 'nearby river'; prohibitions about where they 'do fishing'; limitations on their ability to 'walk all over' and an inability to collect *mashonzha* (mopani worms) and *hatsi* are attributed to the fence. Edge-dwellers narratives suggest that these overlapping resource limitations are related to their boundary position.

The fence alters Musundians' engagements with their surroundings, and local ecologies of wellbeing by creating an edge; a place of interaction, where different frameworks for engaging with a landscape sit side-by-side, enforcing conceptual divides like inside/outside, wild/non-wild and nature/culture.[202] These imposed divides reveal the constructed nature of protected areas which rely on equally constructed concepts like 'biodiversity' (Escobar 1998; Nazarea 2006) and 'conservation' (Roe and Elliot 2010; West 2006), or discursively produced (Brosius 1999; Biersack 2006), constructs like 'pristine', 'wilderness' (Andersun and Berglund 2003; Brockington et al. 2008). These constructs have led to a polemicized debate between fortress conservationists[203] and other practitioners[204] around the presence of people **in** parks. While this debate still occupies conservation scientists, in practice the Makuya and Kruger parks remain enclosed by fences that intend to keep humans separated from the wildlife and *mupo* (nature) within.

The boundary fence that encloses the park is not just a conceptual divide; as an extension of the material manifestation of colonial/Apartheid dispossession and contemporary state and 'customary' land control (Chapter 3), it physically divides Musundians' daily lives from 'the wild' fortressed within the fence.[205] The fence

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[202] Missionizing processes secularized relations, forcing separation between supernatural, and natural (cf. Miller 1974), thereby influencing healing practices that combined the two.

[203] Fortress conservationists rely on concepts of 'the environment' as bounded, using fences to keep people out of places they understand to be 'pristine' (see Terborgh 1999).

[204] Those who understand that concepts of bounded ecosystems do not reflect the pathways and flows of resources (Kottak 1999; Laurance et al. 2012).

[205] A Marxist perspective drawing on Igoe's (2010:378) discussion of Debord (1976) might suggest that the fence is a physical reminder of the 'spectacle' of park's impositions. The park is spectacle 'as "separation perfected", the ultimate expression of alienation and fetishization' – the fence alienates, a literal barrier reminding edge-dwellers of the 'general loss of control by people over the conditions

bisects human footpaths, but flying birds, bees, mosquitos and bacterial transmissions by-pass the barriers the fence imposes, which illuminates the imposition of the fence in forcing a nature/culture boundary. Haraway's (2003) naturecultures problematizes the notion of one or the other as bounded. Latour describes a nature/culture pretence, suggesting that isolating '"Nature" from its twin sister "culture" is a phantom of Western anthropology' (2015:221). This is especially poignant in South African conservation, where close ties between Western anthropology and colonial/Apartheid violences are widely acknowledged.[206] Thus, throughout this chapter I explore how this 'phantom' is made visible as the fence disrupts resource access.

The fence propels unintended consequences that shape social situations. When I asked Gloria what it meant for her to live on the park boundary, she stated without hesitation:

> 'Number one, we the Musunda community are disabled from using the park, like for instance if it is hunting season and an animal has been killed, we have to use Tshikondeni Gate which is very far, while there is a short cut if you go through the park.'

Musunda was promised direct access to the park through a gate that no longer functions. The fence disrupts movements, as access to more direct routes to other villages and resources are cut off by it. In this chapter I explore how the dynamics brought about by the imposition of the park and its fence have consequences for edge-dwellers' ecologies of wellbeing. For example, one healer, Precious, explained that instead of traveling daily through the park from her home in Sanari to Musunda - where she works on a Kruger-affiliated medicinal garden - she must stay the week in Musunda. She can no longer travel through the park, and daily travel around it is time consuming and expensive. Thus during the week she cannot support her family by caring for her grandchildren, nor does she have her family as social support.

Gloria and Precious are not alone in feeling that the park adds challenges to their daily existence by carving out an un-crossable space from which they are excluded. The fence interrupts interpersonal relationships evident in child-caring choices. For

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that shape their lives . . .', whereas fetishization takes place as conservation objectives supersede local needs, transforming relationships with *mupo* (nature), (Igoe 2010:387), objectifying (Ingold 2012), and divorcing *mupo* from 'the relationships and contexts from which' it emerged (Igoe 2010:387).

[206] See Gordon 1988; Carruthers 1995; Spiegel and Becker 2015.

example, Faith's youngest child lives with her mother Lina, because Faith works within the park. Transportation challenges require Faith to leave home by 4am, often returning after 7pm – these are hours beyond which the crèche will care for children. Precious explained that if she could go through the park, instead of around it to get home, her commute would be cut in half; the same is true for Faith. The fence forces residents to take wide berths around the park, increasing time demands and costs. A lack of road infrastructure combined with added challenges of traveling around a large tract of land that previously could be walked through, mean that Precious and Faith are cut off, weekly, from the life-giving (personhood-building) family interactions that contribute to local ecologies of wellbeing.

Reflecting on boundary making during Apartheid, Hammond-Tooke suggested in the context of 'competition for scarce resources' that 'boundaries[207] assume great importance' which then become 'mechanisms blatantly used to achieve and maintain control over power and resources' (1981:24). Anthropological research exploring how conservation efforts influence humans nearby is extensive (for example see Orlove and Brush 1996; Brosius 1999; Anderson and Berglund 2003; West 2005; West et al. 2006; Brockington and Igoe 2006; Igoe and Brockington 2007; Roe and Elliot 2010), especially throughout Africa; from research on the composition of (imagined) communities living on/near protected areas (Sullivan 2002; Bolonga 2008; Giller et al. 2013; Mukamari et al. 2013), to protected areas' impacts on livelihood strategies (Hulme and Murphree 2001; Cumming et al. 2013; Giller et al. 2013), resource accessibility (Wells 1996; Whande 2010; Murwira et al. 2013), and migration/eviction responses (Geisler and De Sousa 2001; Chatty and Colchester 2002; Fabricus and de Wet 2002; Brockington and Igoe 2006; Colchester 2010; de Garine-Wichatitsky et al. 2013). However, explorations of people's engagements with protected areas often lack considerations of health, with few exceptions (see Harper 2002; Andersson et al. 2013). In this chapter I consider the ways in which local ecologies of health are shaped by the park fence.

On one side of the fence, a 'pristine,' wild veld is created within the nature reserve through conservation legislation, and on the other side, edge-dwellers *live through* their surroundings with (and despite) impositions of conservation-related legislation

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[207] Here Hammond-Tooke was referring to ethnic boundaries, however, the lecture focused on imposed boundaries (1981).

and protected area status. Conservation practices of fencing off areas divide people from animals, plants, places, and other resources, creating what Escobar describes in the pacific as 'territories of difference' (2008: 25). In this way the creation of protected areas shapes environments, and entanglements, using moralistic and 'fact' claims around biodiversity and habitats, limiting resources access, installing buffer zones, and legislation that privileges tourism and animal habitats over locals' subsistence (Chapter 3). Along with influencing travel and daily social interactions, the park shapes Musundians' embodied experience through resource access limitations, which become inscribed on bodies (Csordas 1994, 2002; Lock and Farquhar 2007: 4). After all, it is through the body that we 'experience and transform the world around us' (Lock and Farquhar 2007:20 – 21; Hertz 2007; Mauss 2007). This chapter considers these impositions alongside the ways in which edge-dwellers live through their surroundings, highlighting the pretence in attempts to divide nature from society.

Public health research throughout the world touts the benefits of green spaces (Burls 2007; Kuo 2011), with suggestions that green spaces can buffer against stressful life events (Van den Berg et al. 2010). But what happens when the inaccessibility of a green space is precisely what causes stress? In this chapter I draw on Ribot and Peluso's formulation of access as a process (2003: 154, 160) to explore the access constraints and concerns of edge-dwellers. I consider how the park fortifies the colonial/Apartheid legacy of dispossession through the physical boundary of the fence, and how resource inaccessibility, magnified by the park, influences local ecologies of wellbeing. This chapter builds on data that explored the following questions: How and when, if at all, are local natural resources used toward achieving health? How and when does land access shape land use in terms of wellbeing and in what ways? Have shifts in practices occurred as a result of the formation of protected areas?

I consider how the fence influences edge-dwellers lives, while continuing to draw on Cohen's ecologies of wellbeing, especially the importance of flows of energy and materials (2013; Ingold 2011). I explore how the fence shapes resource accessibility, while considering how edge-dwellers fit into a hierarchy of stakeholders' claims to park resources. In this chapter, rather than focusing on *rights,* I explore access through edge-dwellers' *ability* to make use of and benefit from resources that are

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vital to local ecologies of wellbeing, while attending 'to a wider range of social relationships' that may 'constrain or enable people to benefit from resources' (Ribot and Peluso 2003:154).

The park is effectively state privatization of land; part of a South African neoliberal agenda (Chapter 3). Research in the neighbouring chieftaincy suggests that conservation efforts work as 'state interventions that exclude local peoples from participation and decision-making over their land and natural resources' (Whande 2010:149). I consider how the park's fence shapes edge-dwellers' relations with their environment, making commodities out of items that were once freely available as part of the commons. Here, I explore how some natural resources have been objectified as access to them was monetized (e.g. wood, water), and others are rendered unavailable, making people turn to commercially available substitutes. At the same time, I evidence how inaccessibility changes patterns of use, which can lead to environmental degradation. I consider the ways that the fence interrupts relationships with, and access to natural resources identified by Musundians as important to daily existence - namely, *hatsi* (grasses), *miri* (trees) and *madi* (water). I explore how the imposed nature/culture boundary of the fence interferes with edge-dwellers' relationships with their surroundings, and maintains 'abysmal inequalities and ecologically disastrous patterns of consumption' (Hornborg 2016:3); for example, erosion catalysed by increased grazing and timber harvesting in accessible areas. In describing the ways in which resources are entangled in local ecologies of wellbeing (Ingold 2011; Cohen 2013), I explore the implications of resource limitations on *mutakalo*, while touching on topics of deforestation, and climate change.

The park's fence shapes movements, social interactions, access to resources, and the environment, which in turn influences local ecologies of wellbeing. To consider these influences, I draw on Harper's 'political ecology of health' (Harper 2002: 25 – 26) to engage with critical medical anthropological efforts to include ecological factors (cf. Baer 1996; Leatherman 1996) without centring analysis solely on economy, or ignoring the role edge-dwellers play in constructing their own environments. Drawing on McElroy and Townsend's (2009) ecological perspective, I explore how the fence contributes to resource access concerns and how this influences edge-dwellers' embodied experiences. I conclude by considering the

ways in which the fence shapes edge-dwellers' sense and practice of place. Absent from this chapter is the park's impacts on *zwaliwa* (food) because Chapter 6 focuses on that.

THE FENCE AND NATURAL RESOURCES

Below, I consider how the fence influences edge-dwellers' access to *hatsi* (grasses), *miri* (trees) and *madi* (water). For each of the resources, I begin by exploring uses, addressing how and when the resource is accessed, and by whom. I describe how access is now limited, before considering some of the consequences of these resource limitations on local ecologies of wellbeing.

Hatsi (Grasses)

This chapter's introduction showcases Musundians' concern for limited access to *hatsi* (grasses, used for roof thatching and matts). The fence shapes access to plants like grasses, which influences grazing spaces and housing practices.

Hatsi and Housing

Homes in HaMakuya were historically *rondavels*, round structures, built by hand. Most often men created the framework out of young saplings, while women shaped the walls with mud and dung, a naturally insulating combination of materials. These thatched-roof, round homes stay relatively cool, and roof overhangs provide shade throughout the day. The ample grasses that are needed to create and maintain these roofs were historically gathered in the bush around villages.

Musundians repeatedly discuss the inaccessibility of *hatsi*. 'People used to go in the reserve and harvest grass but they are not allowed anymore.' Glenda explained that *hatsi* was no longer available in Musunda, but was, just beyond the fence. Although, legislation protects Musundians' rights to access 'natural resources' as long as they are gathered in a 'sustainable' way (Section 24; SA Bill of Rights[208]), in practice Musundians are not permitted to enter the park to gather or forage without a ranger; 'there must be protection when you enter the park' for safety reasons, so the game guards can protect edge-dwellers from 'animals like lion and buffalo'. However, Musundians complained about the difficulty of negotiating access; as Frank explained '[The rangers] will not protect you if you enter the park. It is at your own risk, like if you want to collect the grass.' The park cuts off access to lands

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[208] See appendix 3.3.1.

historically used for gathering, without facilitating access, which undermines the rights of South African citizens, or what Ribot and Peluso describe as 'legal access' (2003: 162).

Inaccessible *hatsi* has implications for edge-dwellers' housing practices. By cutting off access to *hatsi*, the park contributes to an increasing number of residents making use of tin roofs.[209] Anyone who has ever turned on an oven knows the sounds of the metal in the oven heating up; the clinking and popping increases as the panels expand, warping the shape of the metal. Now imagine lying in bed, and as the sun rises, your home begins to sound like an oven. HaMakuya's tin roof homes do not just sound like ovens, they feel like ovens - unbearably hot during the day.[210] The shift to government subsidized housing materials in the absence of accessible *hatsi* creates additional embodied challenges for edge-dwellers, especially when Musundians describe temperature extremes as bringing sickness (cf. Niehaus 2002). This change in roofing increases heat strain[211] imposed on bodies already situated in high heat exposure settings and jobs, which is exacerbated by limited access to water, also partially due to the park, as discussed later. Inaccessible *hatsi* increases the need for cash, and has exacerbated overharvesting in areas where grasses were once accessible outside of the park; problematic in an area where residents already complain about the increasing levels of sand (desertification).

By interrupting practices of gathering *hatsi,* and other supplies needed for the constant maintenance of thatched roofs (Figure 5.1), the park shapes housing choices, and practices, with concomitant impacts on wellbeing. Additionally, in a setting where 'adequate' housing, was promised in the Freedom Charter as a basic post-Apartheid civil right (West 2016), and the Bill of Rights promises 'an environment that is not harmful to health and wellbeing,' the natural resource access limitations generated by the park and its fence seriously undermines civil and human rights. Inaccessible *hatsi* influences ecologies of wellbeing for example, by propelling shifts in local modes of home-building, adding strain to already challenging embodied experiences.

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[209] Although not the only reason for the shift to tin roofs, the park makes the choice to maintain a grass roof more difficult.

[210] Fulu and I prepared supper outside in summer, as the tin-roofed house needed to cool in order to comfortably spend time inside.

[211] For biomedical implications see Harlan et al. 2006; Kovats and Hajat 2008; Braubach and Fairburn 2010; Maller and Strenger 2011.

Figure 5.1: Rondavel - thatching needs repair.

Hatsi and Pasture; The Park's Role in Shaping Cattle and Livestock Practices
Sarina explained that when she was a child, daily chores, were very different. Less than thirty years ago she met other school children as the sun rose to graze goats in 'the bush'. She contrasted this to the current context, explaining, 'Children don't know the goats like we did. My girls don't take the goats. But then, there are less cattle now too, and the men who used roam all over, now they stay close, and some no longer have cows, most just have goats, but some have nothing.' Cattle, according to Sarina no longer produce milk due to 'all the sand, and no place for grazing' referring to the reduction in range-land imposed by the fence and exacerbated by drought and increased competition for grazing land which in turn, has converted some grazing areas to sand, increasing desertification, highlighting one of the ecological consequences of the park's fence.

Research on the former Venda homeland suggests that many households managed cattle herds ranging from 6 to 149 heads per household (Schwalbach et al. 2001;

Rendala 2003). Cattle were historically used as meat, in providing milk, for tilling soil, and as sources of dung to build homes; also as bridal payments. In the East African Serengeti, where cattle herding was similarly central to livelihoods, diets and ways of life, the development of protected areas was, according to Colchester, a process that was 'single-mindedly dedicated to excluding the indigenous Maasai cattle herders from their lands' (1994:3; also Prins 1992). Although admittedly less targeted specifically at cattle, the park's formation influences contemporary cattle herding.

Today, in Musunda less than half of the homesteads manage their own cattle, with an average of no more than eight cattle. Inaccessibility of *hatsi,* or other grasslands, especially in the arid context of Musunda implicate the park in these changes. The fence reduces access to grasslands; in Musunda this means some households abandoned cattle rearing, as with Sarina's family, while other families shift to goat herding, or herd for salaries working for the former mine's 'community feedlot' (twelve positions available) or for urban dwellers, instead of owning their own.

Chain reactions occur as grasslands become less accessible through protected area status, with environmental and wellbeing-related consequences, including increased competition over accessible grazing spaces; which could spur interpersonal tensions, and leads to undernourished cattle; resulting in herders decisions not to milk their cattle (Rendala 2003); which in turn shapes diets by reducing accessible meat and milk. The reduced grazing spaces lead to reduced herd numbers, and reorganization of herding practices including feedlots, or herding for hire. Reduced herd numbers have material affects that, for example, further propel changes in housing practices; because as Glenda explained spreading mud/dung as insulation, finishing walls and decorating has become 'too much trouble to find *kholomo* poo now, because its not like it used to be, when there were many cattle all over.' Reduced cattle numbers can also influence social interactions like marriage negotiations, as cattle were once a sign of wealth.[212]

The economic consequences of the fence making *hatsi* inaccessible include an increased need for cash to supplement diets, marriage payments, and housing

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[212] Mair (1982) suggests that cattle as bridal payments are not just tokens, they bring people into ongoing relations of exchange and reciprocity, however cash payments are increasingly accepted in marriage negotiations.

materials. The social implications of inaccessible *hatsi* arise as competition among Musundians for limited grazing spaces increases, and changes in cattle practices affect one's power in marriage negotiations, not to mention denying people the social experiences of harvesting *hatsi* and laying thatching – activities that are not done alone, where knowledges of plants and practices can be transferred. From a wellbeing perspective, the influence of inaccessible *hatsi* on housing practices can affect embodied experiences within one's home, while denying a person their basic citizenship rights. One inaccessible resource like *hatsi* has numerous implications for local ecologies of wellbeing, including shaping housing, home life, social interactions, economic demands, work roles, and diets (cf. Cocks and Dold 2004). Musundians' concerns about inaccessible *hatsi* highlights just one of the many ways in which 'historical and contemporary interventions aimed at controlling land and society, have penetrated the body' (Harper 2002:28). In the context of climate change, played out in unseasonal drought, the fence adds multiple pressures, as it reduces and re-regulates grazing and foraging spaces.

Miri (Trees)

Miri (trees) are perhaps one of the most widely used natural resources in local ecologies of wellbeing. Here I explore how edge-dwellers' engagements with *miri* are influenced in a number of ways by the park's fence.

Miri: Uses and access before Makuya Park

Glenda, in her 70s, explains the *miri* in her yard: 'I've planted Orange tree, *musuma*, *muvhazwi* and *mubobolibo*. These trees help children to have fruits and we use it as shade. I also take some leaves for the domestic animals when there is no grass for them to eat' (Figure 5.2). Musundians' interdependence with and the multiple importances of *miri* are also evident in Lina's assertion that '*miri* help to breath, to get mopane worms, and even firewood.' In other words, *miri* (trees) are important for cultivating wellbeing; for continued survival as trees are home to protein sources (mopane worms), and wild fruits; maintaining an environment that people can live through (and breathe in); providing firewood for cooking and as sources of informal income allowing one to provide for family, and thereby live in 'a good way.' *Miri* are integral in building as support structures for roofs (tin or thatched), and for shade[213] - necessary in this climatic context.

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[213] Trees, like Thobi, are valued specifically because they maintain leaves during drought (Canadell et al. 1996). Mozambican Massingir use Thobi as medicine, in building, as food, and fuel (Ribiero et al. 2010).

As noted in Chapter 2, South Africa's missionary legacies[214] and recent history regarding biopiracy might interfere with people's willingness to share their plant-based knowledge. However, those I became close with, over time, shared some of their knowledge:

> Frank: 'There is medicine inside, but they can't allow it, because people cannot gather inside. Mpesu, mukundadu, mukhuvazwivi, mushato. Some are for wounds. You take the roots and barks. They mix with mageu and you drink . . . Mpesu and Mukundadu, the men say, when it comes to the bedside, the men are strong. . . (laughing)'
>
> Amber: 'And mukhuvazwivhi? and mushato?'
>
> Frank: 'For your immune system. Mushato for wounds, healing.'

As Frank indicates, trees and other plants were described as central to self-healing knowledge and fortifying wellbeing; these resources, however, were increasingly only available within the park fence. The importance of trees was emphasized in Ruth's question for me: 'We mostly depend on these trees around us for healing, what do you do where you stay?'

Prior to the park fence, healers (*maines*, or 'TshiVenda doktora'), local residents (royal or not), and 'outsiders, even those from overseas and Cape Town' had access to trees in and around their villages. Land was accessible to all, although the chief/king or village headman had to approve of homestead locations, but did not regulate access to specific resources. *Miri* play multiple, vital and entangled roles in local ecologies of wellbeing (Figure 5.3); they perform multiple functions in keeping both humans and livestock alive, flourishing even – and caring for livestock can contribute to local ecologies of wellbeing (cf. Cohen 2013: 92 – 93). Vitally important to edge-dwellers, accessing *miri* is increasingly difficult, but simultaneously provides one of few work opportunities to generate income that allows Musundians to live in a good way.

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[214] Many Musundians identify as Christian and claim no knowledge of plant remedies, but in practice make use of the supernatural within the natural – see Onda's botanical field guide edits including magical properties of trees (Chapter 2).

Figure 5.2: 'Amber look, here I store the extra leaves to feed the goats.' (Lina)

Figure 5.3: a tree at Domboni orchard

b) under the tree used for shade, to store tools, for napping children, to cook and prepare foods harvested.

Miri access limitations: The Fence and Differential Access

Contemporary South African legislation creates buffer zones, where the non-extraction policies of the protected natural area[215] extend outwards from the boundary fence (Neumann 1997; Paterson 2009). Musundians live within this buffer zone, which restricts resource access and I suggest, imposes further challenges for edge-dwellers, most evident in firewood/fuel and healing resource access limitations.

Musundians repeatedly connected the park fence to inaccessible plants and animal-based medicines in interviews and informal discussions. Precious explained, 'There is this other medicine which is no longer available here because people misuse it. People from far away were taking too much. It is there at Makuya Park, but they don't allow us in to have those medicines.' Just as the plants Precious needs to attend to malaria are no longer available to her[216], Onda suggests, 'There is a species. Mulanga, it is no longer available around here but it is still abundant in the park. We use it for healing and other purposes.' The fence cuts off access to healing resources (Figure 5.4), which shapes healing practices, and options.

According to Fulu 'trees and grasses that are protected in the park' are not the only healing resources that have become difficult to access due to the park:

> 'Some parts of the wild animals found in the park are used as traditional
> medicine by healers. Like the skin of an elephant…when you have nasal
> bleeding, you can put it on the fire and inhale the smoke. And lion's claws,
> they are used by footballers to make them strong when they run. A
> wildebeest's horn is used by some *maines* as a pouch for storing their *muti*.'

The park is perceived by edge-dwellers to influence the availability of a wide range of remedies, from those intended to clean wounds, and encourage immune responses, to general *namanda*, and *nungo*-building remedies, supporting claims that flora and fauna factor centrally into regional healing practices (Arnold and Gulumian 1984; Tshighuvo 2008; Mulaudzi et al. 2013) and embodied notions around wellbeing. Although further research is needed to trace how access

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[215] Buffer Zone legislation creates an area surrounding a park with 'complementary legal and management restrictions placed on its use and development, aimed at providing an extra layer of protection to the integrity of the national park' (DEA 2012).

[216] Precious cannot access medicines that cure malaria. One species was still available within the park, but no longer available outside of it, which Frank suggested was problematic because healing choices were thus limited to biomedicine or church. However, Precious saw this as a benefit, because '*at least*' these trees will be 'available for *future generations*.'

limitations resulting from the park and its fence propel changes in healing practices[217], my research indicates that the park limits access to important medicines and influences subtle relational shifts between edge-dwellers and their environment (cf. Descola 1994, 2013) with implications for the healing that local healers can do (Chapter 7).

Most HaMakuyans are limited in the ways that they are permitted to engage with trees. For example, according to residents and documents publicly displayed in HaMakuya by the Limpopo Province Environmental Management Inspectorate (Figure 5.5), buffer zone trees cannot be cut down or killed; all firewood collection must be done from trees already dead. Extraction of resources by HaMakuyans is increasingly regulated, not only through environmental and buffer zone legislation, but also, by the Council.

Penny offered, 'as black people, we are used to this park and we appreciate it. The problem is we need firewood but are not able to get it from the park.' The inability to gather firewood within and around the park was made more frustrating because of perceived inequality. She explained: 'I wish the rules about the park would be applicable to everyone. People on our side (Musunda) want to get firewood, which we need, but other people can get it. There is punishment for some and none for others. This activity helps us with income and for [home] use.' Ribot maps Senegal's coal commodity chain, emphasising the complexity of 'nested levels' of access, suggesting that more than ownership rights, social relations and identity, among other factors, play a part in one's ability to access a resource (Ribot 1998:332). Although further research is needed for a similar HaMakuyan analysis of firewood, Penny's wish for equity in resource extraction highlights her concerns around differential access rights between and within villages, and chieftaincies.

An example of this differential access is evident when comparing HaMakuyans' resource accessibility to those living in the neighbouring Sanari chieftaincy, which borders Kruger. Musundians have the right to access 'natural resources' as long as they are gathered in a 'sustainable' way (Section 24; SA Bill of Rights). In fact,

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[217] To detail specific inaccessible plants would require cataloguing species' uses, and perceived changes to access. While this is possible, with limited time and as my initial attempts were met with responses like 'these are my secrets' or healers' exorbitant payment demands (R500/hr), I decided this avenue of inquiry required longer term engagement beyond this thesis' time constraints.

Kruger has created agreements with Sanari's Traditional Council who successfully negotiated access to gather *mashonzha* (Mopani worms; Figure 5.6) (pers. comm. M. Hawkins and VhoPhilani). However, when I asked Musundians about similar negotiations with the park, most explained that although they could not gather *mashonzha* they knew other chieftaincies accessed Kruger. Musundians explained that no meetings between the park and Council had taken place, leaving little recourse for resource access negotiations. Royal resistance to the park's management authority (Chapter 3), and village residents' (lack of) relations with their Council[218] play a role in the access limitations that edge-dwellers face (cf. Ribot 1995; Ribot and Peluso 2003). Such uneven distribution of access is not uncommon in 'systems of joint resource management' where the 'boundaries of rights and access are not clear' (ibid:163), as is the case in HaMakuya because the Council refused to work with the park to develop a co-management plan (Chapter 3) that could establish clear access rights.

Other forms of differential natural resource access are evident on a national scale.[219] For example, on the drive north from Makhado, large corporate plantations line both sides of the road (Figure 5.7). Less than 100km from Penny, visible on her taxi rides to Makhado, entire forests are cleared to make paper, but she cannot cut down a tree on the outskirts of her village because it lies within the park's buffer zone. Such regional resource access inconsistencies support my claim that in this context, capitalism and conservation combine to create territories of difference (cf. Escobar 2008). Similarly, local politics and power hierarchies converge with buffer zone regulations 'resulting in overlapping systems of legitimacy' (Ribot and Peluso 2003: 163) that create inconsistent extractive practices between Chieftaincies on the edge. Penny's concerns bring to the fore the ways in which the park extends and reinforces 'structural and relational access mechanisms' (ibid.: 164; Blaikie 1985) imposed during colonial/Apartheid-eras.

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[218] These relations are at worst, dictatorial, and at best, disengaged from the reality of non-royal residents (Chapter 3).

[219] At a different scale, coal extraction beneath lands made inaccessible to Musundians by the fence makes the inequality of permitted extractive practices evident; underground coal was made accessible for Johannesburg, but above ground sustenance was not accessible to locals. This resource access hierarchy is reified as paying trophy hunters are permitted to extract wildlife while Musundians are prohibited from the same access for subsistence.

Figure 5.4 Medicines

a &b: a) Red Line guard indicating 'miri used for family planning, and burns'; b) Pfarelo's 'medicines for family in Johannesburg'.
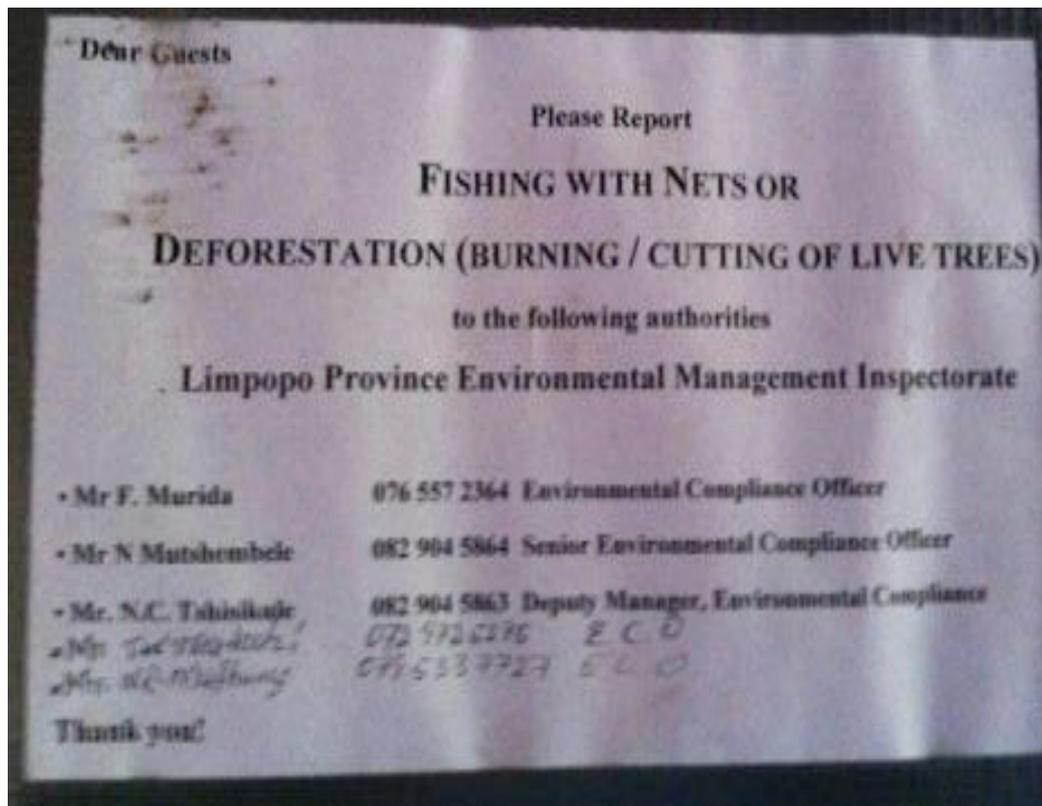
Figure 5.5: Notice on Camp kitchen door

Figure 5.6: Dried *mashonzha*

Figure 5.7: A tree plantation; the road to HaMakuya.

By limiting the spaces through which one can move, and thereby gather resources, I suggest the park's fence not only interferes with access to vital resources, but also cuts off (sensory and haptic) knowledge. Cutting off access to *miri* doesn't just make a species unavailable as medicine, I suggest it impacts on efforts to 'live through' local environments, requiring edge-dwellers hone new skills, in an ongoing process that requires further adapting, while managing already shifting relations

with their local environment.[220] As such, I consider how these additional pressures 'illuminate broad linkages between biodiversity conservation and neoliberal capitalism,' (Igoe 2010: 376) obvious in commodification and asymmetrical extraction of firewood, described in the next section.

The Consequences of Miri Inaccessibility

The consequences of inaccessible trees are wide-ranging. Below, I discuss how the fence contributes to commodifying firewood; environmental degradation; the extension of historic (unequal) access hierarchies; and, threatens wellbeing.

Commoditization of firewood:

The consequences of the fence – its commoditization of firewood – become evident when exploring Musundians' complaints surrounding firewood. According to Limpopo Environmental Management Act, HaMakuyans are limited to a single head-load of wood per day – historically, women's work. Until the end of 2012 Musunda had no electricity, thus people relied on firewood for cooking, and firewood sales became a form of 'piece-work' for men. When I first moved through HaMakuya in 2013 many homesteads had piles of wood. In some cases, these piles were converted to bags of wood, and occasionally, early in the morning, sometimes under the cover of darkness, a truck would come and buy the bags. In some instances a driver was hired to cart the wood by the family gathering, who had arrangements with a buyer, but more often the truck driver worked as a middleman, buying the bags in bulk off of HaMakuyans, to re-sell in urban areas.

In 2014 my neighbor's husband (Philane) and his brother (Johnson) worked together most Saturday mornings, and some weekday evenings to cut and bag wood. Early in the morning, often when it was still dark, a truck came to buy wood for R8 a bag (53c); the wood was resold in cities for R25 ($1.6) to R60 ($4) a bag. Three of 14 homesteads surrounding Fulu's house regularly engaged in this firewood selling, and even more in Far Musunda. During 2013 and 2014 it was common to see these bags of wood along the main road (Figures 5.8 and 5.9).

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[220] Which could shift the local environment; for example, less people walking a particular pathway decreases seed dispersal, changing floral profiles.

Figure 5.8: Firewood filled trucks leaving HaMakuya (2014)

Figure 5.9: Firewood bagged for sale at a homestead.

For many Musundians firewood is an important economic resource; one that might lead some individuals to ignore buffer zone regulations. For example, during a hike with Fred[221], as we moved down the mountain deep into the valley, we came across a couple in their 60s loading tree branches into a flatbed truck, while a younger couple, deeper in the bush, had saws. They stopped, stock-still when we came into view and put their saws down, but Fred waved at them, and upon recognizing him, they returned to their work. It was no coincidence that this group was working deep in the bush, along paths not often travelled, far from a main road and the gaze of the Council or Environmental Monitors. As firewood was commodified, competition over access for basic needs increased. In households like Fulu's, where male members began to 'work' the wood for resale, household wood stores diminished, and men, more often than women, went to the 'bush' to generate income.

Buffer zones and environmental degradation:
The demand for firewood and the inaccessibility of resources within the park may lead to buffer zone degradation. The following interaction illuminates edge-dwellers' concerns for overharvesting, or 'deforestation':

25 November 2014 (Field Notes): Today I said to Takalani 'You know my research is about health, but it's also about the environment, so what things do you think are important to research here?'

'What about deforestation?' she responded without hesitation. I was struck by the term used, and pushed for more. 'If you go there in the bush, just a little deeper, what you see is just sadness.' She explained as she rolled her eyes back in her head. Standing on one leg, she stuck out the other and raised her arms above her head. Then she leaned to one side and wilted one arm downwards. 'See I am the tree and the people come and pull on it. Then it dies. Then they come back another day to gather it, and sell it.'

She explained that HaMakuyans sell wood – sometimes to people passing through, Camp guests, or to middlemen. 'It is a good way to make extra income. You saw that notice on the Camp kitchen door (Figure 5.5). Collection of firewood is not permitted. Well cutting of live trees is not permitted. So people,

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[221] Fred, a Camp staffer guided hikes for tourists.

they come one day, and they break tree branches. Then they come another day and collect the wood. Then they are not breaking the rules, because they are not cutting the tree.' She shrugged and frowned. I asked what it would mean that the trees were gone. She looked at me as if I were crazy: 'Trees are important.'

In a setting where other fuels are difficult to access due to remoteness or costs, firewood demands persist. As the areas for accessing such resources are encroached by park fences and buffer zones, this catalyses competition and environmental degradation.

Politics and resource access hierarchies established by colonialism:
Relations with trees provide insight into the politics of local resource access hierarchies. By the middle of 2015, roadside wood sellers were rare and a large pile of bagged wood accumulated at the Council offices (Figure 5.9). When I asked what was happening, the Council secretary explained the wood was confiscated from trucks heading to Thohoyandou. My follow-up questions on the confiscation process were met with silence. However, other HaMakuyans suggested that *some people* continue their wood-cutting business, while others have not been that lucky, hinting as Ribot (1998:332) suggests, that access is in part, dependent on social ties. This is especially true in HaMakuya, where the Chief ultimately controls the actions of the Council to, for example, confiscate materials so that some edge-dwellers continue to access firewood for selling, while others are not afforded this access.

While the park's role in this differential treatment is indirect, Apartheid and colonial era processes that gave Chiefs more power over land use (Chapter 3) continues to impact on differential resource access within villages (see Jensen and Zenker 2015), giving those with 'customary' authority continued, and magnified power over limited resources and land allocation. The fact that the park's co-management plan must have final approval from the Council means that non-royal, or non-Council members are given less autonomy over resource decisions than was practice before colonial influences increased the power of local leaders. Where 'discretionary decisions or transfers establish insecure arrangements or privileges that decision-making agents can change at will' (Ribot and Peluso 2003:163) tensions arise, evidenced by Musundians complaints about the Chief's firewood confiscation. The tensions playing out around *miri* can reveal the ways in which conservation plays a role in creating 'territories of difference' (Escobar 2008:25), that marginalize edge-

dwellers, in part, by extending colonial era allocations of power and resource control.

Villages like Musunda, on the outskirts of HaMakuya, were once perceived to be easier to survive in than villages like Domboni in HaMakuya centre. 'You see, in my village, because we are in the centre of HaMakuya, there is no easy access to trees, or grasses. My village is more busy, more people, more sand, less trees, less wild fruits, so it costs more money. Musunda has bush around it, so there is more to collect, and collecting is easier.' Sarina explained. Both Glenda and Penny moved to Musunda because 'stands are bigger' and the 'bush provides more' relative to villages in HaMakuya centre. Yet, by mid-2015 Pfarelo explained that to collect wood he now had to 'travel far'; he and his brother were no longer able to find trees near enough to home to process wood in the comfort of their yards, and had the additional stress of fearing that their hard work might be confiscated. In 2016, these challenges resulted in Philane's decision to stop woodcutting. In explaining this change, when I returned in July 2016, Philane pointed to his car, 'Since November this car has been damaged. There is no extra money to get it fixed anymore, no money for petrol either. Salary goes to food, but no extra cash for the car, or TV now.'

A number of aspects of ecologies of wellbeing are shaped by Philane's decision. The commodification of firewood, followed by increased regulation also indicates one of the subtle ways in which the park influences the gendered allocation of household labour, highlighting that relations with trees (especially as a commodity) are dynamic. For example, there were no longer piles of bagged of wood in the yard and my neighbors wife re-inherited the duty of wood collection, adding to the numerous physically demanding chores that she undertakes regularly to keep the house running. Additionally, having already outlined transportation challenges in accessing biomedical care, consider the fact that Philane's car was one of very few in Musunda; because the car was no longer running it was not available to, for example, transport someone in need of emergency care. Thus, Philane's decision to stop woodcutting and his resultant inability to repair his vehicle reduced the potential transportation resources available to most Musundians.[222] The park

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[222] People often stopped in to request transportation, or plan car pools, and sometimes for assistance in an emergency.

contributes to the commodification of trees, and environmental degradation in buffer zones, and also reinforces the political power allocated to the chief as co-management frameworks maintain a resource access hierarchy and magnify powers that were imposed with colonialism and extended through the formalization of protected areas.

Threats to Ecologies of Wellbeing:

The additional cash earned through firewood provides a buffer and supports local notions of wellbeing, by providing 'work' thereby ensuring that edge-dwellers can live in a 'good way.' The bulwark of additional cash flow allows for savings, which become vitally important to reducing stress. Such savings can buffer a family in times of need, as with Frank's son's surgery (Chapter 3) that required multiple trips to Polokwane, and thus more than three times Frank's monthly salary. Without savings, Pfarelo explained, 'extra money' to facilitate, for example, fixing a car, is not available. Without cash, even consultation with practitioners outside the government primary healthcare system (including *maines*, private doctors, transport to tertiary care) becomes unobtainable. Similarly, the knowledge of having savings, or not having such a safeguard, as when facing the loss of an income source, such as that generated from woodcutting, impacts on one's stress levels, sense of dignity and thereby wellbeing (Fischer 2014). *Miri* (trees) provide shade, resources for housing, and medicines, but *miri* also provides an economic safety-net that the park and associated legislation increasingly challenges.

As I explored the ways in which the park interferes with *mutakalo* and local ecologies of wellbeing, I witnessed emergent responses to the park's imposed limitations - such as ways to gather wood without cutting live trees – highlighting edge-dwellers' creativity and pragmatism. Concerns regarding inequality in resources access emphasize that edge-dwelling is a not a uniform experience; people like Fulu, as community works program manager and elected official with access to those who confer directly with local royalty, have more opportunities to earn extra income to facilitate living in a 'good way,' while other edge-dwellers must rely on their surroundings, including firewood, to earn income. By making some local flora inaccessible, the park impacts on shade, shelter, income generation, cooking practices and medicines, all of which factor into local ecologies of wellbeing. Similarly, the park's impact on local ecologies of wellbeing extends to other

limitations on vital resources needed for survival, including water (*madi*), as discussed below.

Madi (Water)

The fence cuts people off from the largest perennial river in the area, the Luvhuvhu. In a setting where temperatures soar above 40°C, *madi* (water) is important to maintaining wellbeing, as Frank's headache advice for Sarina suggests:

> '*Madi* is like medicine. Drink a cup with your stomach being empty in the morning then the headache will go away and drink a lot before sleep. If you wake up with a headache again, drink another cup.'

Living in a hot, arid climate necessitates increased water intake (Sawka 2005) to avoid symptoms of dehydration and maintain cognitive functioning (Popkin et al. 2010). For Musundians water is important as 'medicine,' but also a source of life (for selves, cattle, crops), as part of spiritual practices[223], for washing and cooking, and as I will show below, as an income generating or tradable material, as with the emerging laundry and water delivery services. Like *miri* (trees), *madi* (water) is a key resource that fills multiple roles in local ecologies of wellbeing. For example, Chapter 4 emphasized the local importance of cleanliness, which results in many Musundians washing twice daily, making demands on already limited water sources. Beyond these demands, water is necessary for livestock, and cultivation, both important components in local ecologies of wellbeing, as food sources and central to work, and yet, the nearest river to Musunda is inaccessible because of the park.

Water Access Prior to Makuya Park

When Musunda was located close to Nyamazana[224], the area to the west of the Luvhuvhu River – which is now Makuya park – was open to HaMakuyans, making the Luvhuvhu accessible. Thus, although Musundians have lived near a protected area since Kruger emerged, only when Makuya park was formalised, and the fence erected, was access to the Luvhuvhu cut off. In this way, river water was freely accessible with relative (to the current context) ease. The river was a source for irrigation and drinking; used for washing, and fishing. Now the fence cuts off access to the Luvhuvhu – although individuals are occasionally allowed to fish (Chapter 6) – which adds strain to the embodied experiences of Musundians, especially women,

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[223] Whenever returning to Cape Town, Pfarelo requested 'two-litre bottles of ocean water, for church.'
[224] The protected area that later became Kruger (Chapter 3).

who bear additional burdens as female-gendered chores, like laundry and water collection, are rendered more difficult by the now inaccessible Luvhuvhu.

Water Supply Problems: Waiting and Paying for Water

'We have a shortage of water,' Mr. Khuba responded when I asked what challenges he faces. Although the national Department of Water Affairs and Forestry has implemented a Free Basic Water policy including national funding for municipalities (Mehta 2006), water delivery continues to fall on the backs of non-royal HaMakuyans. Similar to Lahiff's (1997:xlv) findings 20 years earlier, HaMakuyan drinking water is still delivered through communal standpipes. Seven to ten homesteads in Musunda share a tap, but water provision is unreliable. The municipality failed in water delivery for as long as I lived in the area (May 2013 – July 2015), and the river that trickles past the village is polluted, likely partially due to the now-defunct coalmine. Taps in HaMakuya are often dry: 'Last week, we lasted the whole week without water,' Langa, a mother of two in her 20s, who recently moved to Musunda, explained.

Non-piped water - droughts and floods:

HaMakuya is located in a region that experienced significant declines in rainwater and river levels over the past twenty years[225] (Lahiff 1997: xli). The February 2013 heavy rains led to over-flowing riverbeds, which washed away crops, and even cars. In 2016 the bridge near the former mine remained broken from the 2012/3 floods; further evidence of infrastructural violence (Chapter 3). This flooding followed by drought in 2014, compounded by a lack of government provision of drinkable water, all likely contributed to why *madi* became a recurring theme in my research.

Non-piped water - access to rivers and streams curtailed:

Not only does Musunda face a combination of drought, and municipal failure to deliver water, but the fence makes accessing the closest river illegal or only accessible with permission by park authorities. The fence also curtails access to other streams, 'caves' and 'springs' within the park, as places valued for their water, and healing qualities (see Chapter 4).

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[225] 'No single explanation' accounts 'for the severe decline' in the Mutale River, but 'changing rainfall pattern[s],' and 'the increasing extraction of river water for irrigation schemes' contribute (Lahiff 1997: xli).

Potable water - catchment management, and the state:

Edge-dwellers water shortages are exacerbated as the fence cuts off river access. However, this is not the only way that protected natural areas shapes water accessibility. In the water catchment area where Musundians live, water is directed to watering holes within Kruger and Makuya parks. When water provision was devolved to the municipalities with the establishment of the constitutional right to water, the Vhembe municipality (Mutale sub-district) began managing the Luvhuvhu water supply system.[226] This water management area is over subscribed (DWA 2012) leading to water shortages, even at the district hospital.[227] At the same time while the municipal infrastructure system is built to draw HaMakuyans' water from the Luvhuvhu catchment, they live within the Shingwedzi catchment, where 'no sustainable yield is derived from surface flow' as those waters are directed into river systems that flow through Kruger (DWA 2012). Thus, water is directed away from edge-dwellers to provide for charismatic species, and tourist sites (watering holes). Therefore, this catchment's management does not factor in the human lives that dwell within it, nor does it contribute to the municipal demands, but rather to the Kruger and Makuya parks. Once again the resource needs of edge-dwellers comes second to conservation-related efforts.

Although the right to water is promised to all South Africans (Mehta 2006), the municipal and national governments have failed to provide this civil and human right (cf. Gleick 1999; Ferguson and Derman 1999, 2000). The park plays a role in water access limitations that tend to also be gendered (female) human rights issues (see Hellum, Kameri-Mbote and von Koppen 2015), implicating the park in violating the South African constitution. In a setting where nearby rivers are inaccessible; municipal taps are often dry, or broken (Figure 5.10); and government delivery of basic services continues to be, according to many HaMakuyans, 'empty promises,' HaMakuyans developed Water Committees in response. The absence of an effective municipal water department resulted in villages taking over water service delivery, which, I explain later, created space for an economy to emerge around this vital resource.

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[226]
https://www.dwa.gov.za/Projects/Luvuvhu/Documents/Web%20Doc%20CD2/WCWDM%20Strategy%20and%20Business%20Plan_Vhembe%20Polokwane.pdf (accessed 14 October 2016)
[227] There was no water in four of six my visits to Donald Frasier.
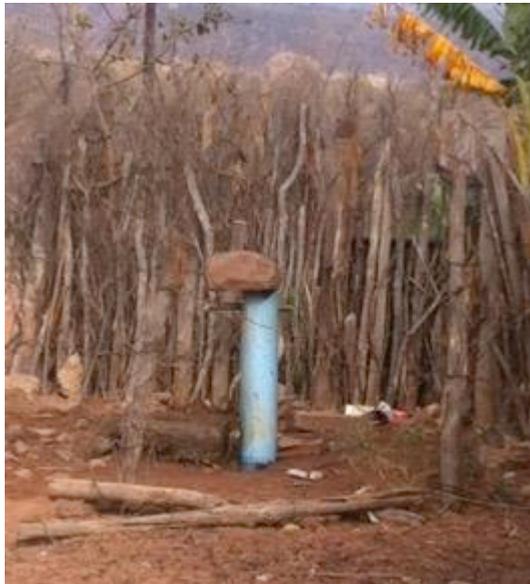
Figure 5.10a&b: Water Access

a) A broken tap; b) Poor water quality warning sign in Musunda

Potable water - standpipes, costs and the commoditization of water:

The municipality's failure to deliver water means that Musundians are often 'waiting for water' which according to Lin (*vhamasanda*'s daughter) can 'sometimes take[s] months'. While living in Musunda we waited two weeks, on average, for the taps to run.[228] Taps run for a set period of two to three hours, most often in the evening, from a borehole system purchased through communal collection by the Water Committee, instead of relying on the municipality. The Water Committee, an elected group of village residents[229], collects funds from each homestead monthly.[230] In other words, Langa explained 'we must go to the treasurer and give R20,' which is used to purchase diesel to run the borehole pump. Fulu spoke of a time, 'maybe four years' ago, when the government provided diesel for the pumps, but government representatives cite 'budgets' to explain why these practices stopped. This means that water is usually available once a week, but sometimes only twice a month as water access is now linked to diesel prices.

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[228] Elsewhere in South Africa, waiting two days for water was considered a burden (see https://theconversation.com/south-africas-water-sector-a-case-study-in-state-capture-69581). In HaMakuya, very few people aside from Chief Makuya could afford a borehole thus, most residents were accustomed to periods of inaccessible water.

[229] The committee is the 'go-between from the village to the water department.' Pfarelo chairs the committee, whose members were elected at a village meeting because 'we realized that we can't all go to the water affairs together, so we elect a committee.'

[230] Further research is needed to understand the dynamics and politics of water committees, as I was not privy to these meetings.

The Water Committee, consulting with the wider Musunda population through village meetings, decided that three containers, per homestead, could be filled. If the taps are still running once each homestead has filled their containers, then the rotation begins again. The rotation is set by lining up the containers at the tap (Figures 5.11 and 5.12). If the tap comes on, and one's containers are at the front of the line, but they are not around or have not arranged with someone else to fill them[231], then those containers can be moved to the end of the rotation. With that said, no one allows a family to go without water, and when someone takes more than their share at the tap, everyone else waiting regulates such actions with shouting and teasing.

Two Musunda homesteads drilled[232] private boreholes, but this water is not shared. The sound of pumps and generators (private and communal) cancel out the bleating goats and donkey bells, sometimes for entire days. Some homesteads purchased rainwater tanks, however residents with tanks, like Fulu, question the quality of this water. HaMakuya's lack of water provision is mitigated, in neighbouring villages (like Guyuni), by potable water trucks. However, I never saw such a truck in Musunda, perhaps due to poor roads, signalling one of the ways that 'edge-ness' might make Musundians' experiences different from other HaMakuyans'. Relatedly, Musunda's rough terrain made transporting water from, for example, the borehole pump to Fulu's homestead, challenging for even the strongest, best balanced, water-on-the-head carrier.[233] The infrastructural violence described in Chapter 3 is evident in the municipality's failure to provide water, which was amplified by drought and the fact that Musundians are cut off from river sources by the fence, adding water access concerns to already challenging embodied experiences.

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[231] These arrangements – to fill in for one another – are part of the moral economy around water. Asking someone (or owing someone in exchange) to fill your water container, establishes expectations of reciprocity. On the other hand, having to remember to have someone collect your water added stress for Fulu.

[232] When a private borehole in another HaMakuyan village was drilled, gossip suggested that funds for drilling came from his political position within the national ruling government (ANC); when my neighbours began drilling, gossip suggested that family in Johannesburg funded the project.

[233] I was unskilled at carrying water, most often arriving home drenched, with a nearly empty bucket. Carrying head-loads of water is a skill learned from an early age, and another example of ways in which one is required to live through their environment, as bodies are constantly conditioned through long term (spine) strengthening, and the cultivation of balance and posture that allowed one to get home dry.

Figure 5.11: Water containers awaiting the turning on of taps.

Figure 5.12: Children waiting with water containers, on line at the tap.

The Consequences of Water Inaccessibility

There are economic, and wellbeing-related consequences as the fence propels water accessibility and quality concerns, including the commoditization of water. In response to the arid environment and re-direction of water to the nearby protected areas, a fence that cuts off access to rivers, and the failure of the municipality to deliver water consistently, one consequence I witnessed was the emergence of moral and monetary economies (that are not so easily separable) around water.

Water and reciprocity - moral economy:

Fulu relies on neighbours and family if the taps do not run. If one family runs out of water, youngsters are sent to find neighbours with spare water. This occasional sharing is paid back (cf. Fuller et al. 2010) when the taps are next turned on. This evidence of the moral economy[234] and reciprocity of Musundian water borrowing points to the value of natural resources in reinforcing social relations (Hsu and Harris 2010: 2 -3; Ribot 1998; Trawick 2001; Cleaver 2002). Similarly, very few elderly people lived alone, but in cases where someone was unable to carry their own water, teenage neighbours assisted.

In the Peruvian Andes, Trawick (2001) describes a 'moral economy of water' as a 'product of the unfolding of nature and culture together, of their mutual transformation' which emerges from 'a process' that is partly 'but only partly, a social construction. It partly reflects necessity, the impact of material constraints' (Trawick 2001:374). I suggest that Musundians engage in an economy around water that is primarily economic, but also moral, which emerges, in part, from the material constraints imposed by the park, and the governments' 'empty promises' (of service delivery). Then the processes put in place to ensure water delivery, such as the Water Committee, and water delivery services, commodify water. In Botswana, Peters (1984) shows how struggles over access shape the meaning of water. Since Kone described, in the previous chapter, that the wellbeing-giving properties of water are diminished by piping it, which reduces the water's agency to accumulate nutrients, it is worth considering that in the process of commodifying water it is objectified which potentially changes its agency and/or meaning. The constraints imposed by inaccessible rivers, combined with shifts in the ways in which water is delivered seemingly coagulate to alter relationships with water (objectify, commodify), while undermining its life-giving agency.

At the same time, although limited access to, and uncertainty around water supplies have led to the development of a Water Committee, and demands for monthly cash

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[234] My use of 'moral economy' emerged independent of the academic literature; it described the relations around water I observed, which was primarily an economy (as money was needed and made in the process of accessing water), influenced by morals or notions of relational responsibility; part of living in 'a good way'. Trawick's (2001:373) 'moral economy of water' similarly attempts to describe 'how the material reality of having to share scarce water in order to subsist and survive—making the best of a bad situation—can bring people to interact and coexist in an extraordinary manner . . .' Musundians cooperate to ensure basic water security in the context of water scarcity while an economy around water has developed.

contributions that impose financial requirements on households, an ethic of shared responsibility for one another is evident in the inter-household water sharing (also Chapter 3). I suggest that, out of water constraints, partially imposed by the park, social organizations and relationships emerge; some demand monetary contributions to the village, while others reinforce mutual support that is reflexive of living in 'a good way' all of which coincides with a burgeoning economy around water.

The park has a role in shaping local social relationships, organizations and economies, all of which influence local ecologies of wellbeing. The park also influences water, as material, playing a part in the objectification of it. In addition, water constraints can propel specific disease concerns, for example, Fulu, in response to my concern about using the last of our water store for others' laundry suggested that we could buy cool drink at the café with the money just earned. The fact that sugary carbonated drink was the alternative when water was not available highlights a lack of choice, in the absence of water, which perhaps contributes to the increasing incidence of obesity, and sugar diabetes described by home-based care-workers (Frank and Lina) – see Chapter 6 for the park's role in shaping diets.

Commoditization - water entrepreneurs:

For Musundians, just as much as water is vital to *mutakalo*, water is also an economic resource, beyond its centrality in cultivation and livestock husbandry. Households that own donkey carts transport water for cash; water delivery generates income (Figure 5.13).[235] Youngsters also benefitted from wheelbarrow water delivery. For example, Fulu's ten year-old neighbour delivered water in exchange for after-school snacks.[236] Resource limitations imposed by the fence, such as the inaccessible river, combined with the infrastructural violence of municipal service delivery failures, make space for this emergent economy around water. Those with access to transport, like trucks or donkey carts, can generate income from water. In HaMakuya, access to material resources like donkey carts can offer opportunities to accumulate more wealth - providing a financial buffer to support a 'good life'. Thus, access to water and the decisions that such access necessitates are significant for local ecologies of wellbeing, not to mention daily survival.

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[235] Vhuthu's photo-voice emphasizes her donkeys' importance for income and survival (appendix 5.1).

[236] This indicates one subtle way that the economy around water impacts on dietary practices, as taking food from another homestead can bring sickness, but this youngster accepted food in exchange for her labour, asking that Fulu not tell her parents.

In this context, decisions around water become increasingly complex, adding to stress and thereby influencing wellbeing. For example, my household relied on water for extra income, through a laundry service for the park-based Mutale Falls accommodation - our water use choices depended on the potential for future work. Although soaring temperatures reinforce the need for water for daily functioning, when the last 25L water container is also the only option for income, difficult decisions must be made. Limited water supplies force decisions between giving up remaining drinking water to source income necessary to contribute to pumping water in the future; creating an almost continual loop of demand and need. At times Fulu was forced to decide to use the last of our household water for her laundry business, explaining that the long-term pay-off became more important than the immediacy of needing drinking or bathing water (Figure 5.14).

These pay-offs and social connections - future income, and maintaining links with Mutale Falls staff to maintain access to this market (cf. Ribot and Peluso 2003: 165-66) - Fulu feared would be lost if she was unable to deliver her laundry service. Thus, she expends a limited resource to cultivate her relations with Mutale Falls staff. Through these efforts Fulu stresses the importance of 'access maintenance' (Ribot and Peluso 2003: 159), 'via the negotiation of other social relations' (ibid.:172; Berry 1993). Beyond reducing Fulu's financial concerns these social relations have other benefits, for example, our household was once able to leverage the laundry service to get Mutale Falls' staff to provide water delivery when the pumps had not run for more than two weeks. However subsequent requests were denied, highlighting the tenuousness of the potential benefits of maintaining these relations. Instead, we drove the laundry to another river thereby allowing Fulu to maintain relations with tourism service-providers through the use of my car, which she had access to, largely because of her role as village Chairperson (Chapter 2). The need for extensive networks of social capital beyond the edge is apparent in that Fulu's entrepreneurial efforts are limited by water availability, which she is intermittently able to overcome by drawing on her relatively wide social networks (e.g., me, park staff).

Figure 5.13: Donkeys at the hand-pump

Resting as water containers are filled for delivery. The hand pump is used when diesel and water committee funds run out – Musundians complain about the 'sulphur smell' or 'bad' smell of this pumps' water.

Quantity	Description	Unit Price	Amount	
26	PILLOW CASE	3.00	78	00
15	FLAT SHEET	4.50	67	50
11	DUVET COVER	4.50	49	50
17	FITTED SHEET	4.50	76	50
16	L/ TOWEL	5.00	80	00
14	S/ TOWEL	5.00	70	00
9	bath matt	5.00	45	00
1	SOAP	30.00	30	00
1	Iron	30.00	50	00
		Sub Total	526	50
			~~271 50~~	
	V.A.T. @ ....% / Inclusive (Delete as applicable)			
TERMS		TOTAL		

Figure 5.14: A receipt for the laundry service Fulu provides.

Water quality, pollution, health and wellbeing:

Access is not the only water-related challenge that Musundians face; acceptability of water sources also factors into what Kone called 'water problems.' Kone's (Chapter 4) commentary on the shifts in water quality that result from piped water[237] highlight one perceived 'problem' with accessible water, but other problems exist as acceptable water sources (the Luvhuvhu) are cut off by the park. Vhuthu, my neighbour, explained that quality, not just quantity of water was a concern: 'The challenge we have here in Musunda is water. Our water tanks and reservoirs are cleaned after a long time. Even though the authorities purify water some of the time using chlorine, this is done after a long time.' Even when the taps are running, many Musundians question whether these water sources are safe (cf. Steelman et al. 2015).

Ennis-McMillan's work exploring water-related experiences in a Mexican village, discusses how residents describe 'suffering from water,' highlighting the bodily concerns that villagers linked to accessible water in the context of water scarcity (2001). Similarly, accessible water sources pose a number of wellbeing-related challenges in HaMakuya. When I arrived, I was warned against bathing in the Mutale river – a two-hour walk from Musunda, but the closest accessible river. Crocodiles inhabit the deep pools, and the shallows are not suitable for bathing or drinking because of 'snails' (Kone). Bilharzia[238], and according to some, cholera is present in the Mutale.

Ground water, like 'springs and caves' Sarina suggested, are often kept secret. 'Sometimes you will find them. I know them by the plants[239], but they dry up too.' However, groundwater was not always acceptable. Penny explained, 'springs mean that the water is close to the surface' which was 'no good' because, 'you see the toilets we have? There, everything from the toilets just sits, and these things are not built well,' commentary indicating perceptions of the permeability of the soil in relation to the pit latrines. Vhuthu's water quality concerns link to specific illnesses; 'When the water is finished in the taps, we have to go and fetch water from the spring and that water makes us sick. We can get cholera and malaria from the spring

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[237] Kone suggested that pipes strip water of its ability to accumulate nutrients, interfering with water quality, different from when it moved through soil; this acknowledges the agency of water.
[238] Bilharzia parasites reside in snails (Berrie 1970), see http://www.who.int/mediacentre/factsheets/fs115/en/ (accessed 1 June 2017); again, Kone's ecological knowledge aligned with bio-scientifically asserted 'facts.'
[239] Mr. Mashudu showed me 'plants that show water is below' as we walked to Ruby's burial; also during the Chopping story, Sarina pointed to plants that 'indicate springs'.

water.' Health concerns regarding accessible water sources, arose repeatedly: 'In these dams[240] you can get sicknesses by getting in that water, like malaria and bilharzias . . ..' Repeatedly, Musundians explained that spit 'bubbles' carrying *vhulwadze* (sicknesses) are transferred to water sources when animals drink (Figure 5.15). Edge-dwellers' perceptions that the taps and springs are unsafe aligns with water-tap quality tests indicating high levels of e-coli (Steelman et al. 2015).

Figure 5.15: Unclean Water Sources

A female cow has just given birth. She knocked down the wooden structure meant to keep her away from the communal tap. With labour remains still being excreted, her presence at the tap was one explanation of perceived unclean water sources.

While a number of local factors contribute to perceptions that accessible water is 'not clean', the park limits choice by cutting off certain rivers as water sources, thereby contributing to edge-dwellers' 'suffering from' and 'for water.' These examples also highlight that local knowledge of water systems, although varied, should be taken into consideration as future planning, infrastructure, and policies are written to attend to South Africa's national water shortage. Because water is integral to survival, Musunda's edge-dwellers' daily lives are shaped by water access, water choices and acceptability concerns. The water stressed environment of Musunda combined with infrastructural violence (municipal water delivery failure), and park-

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[240] Standing water puddles and cement water holes for cattle are sometime referred to as 'dams.'

related impositions (inaccessible river) result in a normalized precariousness surrounding water access that Musundians have been navigating using a combination of customary governance structures (water committees), commodification (through monthly capital requirements), an emergent economy (water delivery), and a widely held shared sense of responsibility for one another.

Water access and acceptability challenges in HaMakuya are experienced widely I argue, albeit to different degrees. Some people have more social (e.g., Fulu's contacts within the park) or material (e.g., a car; money for a private borehole) networks to call upon as buffer, or for leverage to gain resource access. Here, it is important to consider that the headman's daughter's long wait for water (described earlier) may indicate that unlike with other resources where access hierarchies are stratified by social identity (Ribot and Peluso 2003: 170) or (royal) nepotism, as with firewood for resale, when it comes to water access, financial capital more than social networks, can assist with this resource access challenge. In the context of local notions of wellbeing, where stress, and social interactions can add weight to already heavy burdens, the requirement of more monetary contributions, especially in light of increasing constraints on informal modes of generating cash (i.e., firewood sales), means that the park puts multiple, mounting pressures on edge-dwellers with concomitant impacts on wellbeing. At the same time, since water delivery has become a venue through which some Musundians make cash, the park also opens up space for some to benefit.

The Edge: The Fence Shapes Place

By tracking how local ecologies of wellbeing rely on natural resources, while highlighting how access to historically relied-upon sources for subsistence are curtailed by the boundary fence, this chapter begins to explore the park's impact on local residents' relations with place. Resource access is not easily separable from the other (material, energetic, etc.) flows inherent in local ecologies of wellbeing, such that cutting off access to even one resource catalyses changes in flows of energies, and materials that contribute to edge-dwellers skills, and local ecological knowledge, thereby affecting one's sense and practice of place. In HaMakuya the relevance of place in considerations of wellbeing is evident when recalling Chapter 4 suggestions that Musundians' ancestors' displeasure with their relocating to a new village could be felt through leg pain. Not only are intangible forces rooted in specific places, but as elsewhere in South Africa, (Cocks 2006; Geldenhuys 2007;

Corrigan et al. 2011) endemic medicinal plants are used in HaMakuya, and the healing potency of these plants is dependent on their being harvested from 'meaningful locations' (incidentally, this is Cresswell's [2004:7] definition of place; Ngubane 1977; Anyinam 1995; Green 2007; Helman 2007; Cohen 2009).

Place is important to local ecologies of wellbeing, as bodies are made and places are shaped through interactive, mutual making, co-creating knowledges, skills and persons (Jackson 1983, 2005; Ingold 2012; Cohen 2013). Cummins et al. posits a relational approach to understanding place, suggesting for example, that it is useful to look at the wide relational impacts (2007:1833) of something like the park's fence. This approach to place aligns with understanding that a multitude of relations are dynamic and constantly evolving parts of local ecologies of wellbeing, and speaks to the overlapping complexity of Musundians' park-related concerns. The fence acts as barrier to obtaining important resources, and specific sites, fragmenting and compartmentalizing spaces, rendering plants and spaces unfamiliar, while reframing places and materials that were once integrated into life.   In this way inaccessibility propels the creation of new places as both Musunda's edge, and the park, are constantly being made and remade (Lefebvre 1979; Jackson 1996, 1998) through the co-respondence (Ingold 2012) of a variety of stakeholders who engage with aspects of their surroundings (materials, energies, flows; visible and non-visible) and one another.

One way the fence reframes space is through its conservation role of monitoring human engagement, which impinges on access to resources, and specific places, like secret sacred sites (*zwifho*). For example, when asked to reflect on the experience of edge-dwelling, Precious said, 'its hard because they ask why do you want to visit the place.' Additionally, Frank explained that, particularly for HaMakuyans who follow practices that honour ancestors, the fence poses significant health challenges, as the inability to access burial sites has wellbeing-related consequences:

> 'There are family members that are buried in the park, and that troubles us because we need to apply every time we want to go and perform ancestral ceremonies and rituals. A lot of the times things are not successful if you are not able to link to your ancestors. With the older people, you would get sick, your livestock would be attacked, or you would just be dismissed from work without a reason.'

An inability to conduct burial rituals can bring sickness and misfortune tying wellbeing to access to places. Since Frank's family rejected Kruger's monetary offer for their land claim, the practice of facilitating burial site visits has been cut off, illuminating how resistance to Kruger's conservation efforts and the associated capitalization of land creates tensions between edge-dwellers and protected area administration that result in further access challenges. Beyond monetary values the land is valuable because it represents a connection with the ancestors, 'generations of relatives', 'the collective weight of history' (Fischer 2012:4) and provides hope for the future, a point to which I return in the final chapter. In denying people access to burial sites[241] or sacred spaces, the fence and park challenge edge-dwellers' wellbeing while affecting the ways in which place is experienced. The park and its fence alter how Musundians can engage with places, positioning the demands of a conservation landscape - reporting engagement with specific locations - over Musundians' need to access or keep some places secret.

The boundary fence interrupts edge-dwellers' 'naturalcultural' relations (Haraway 2003) embedded in place(s) they previously learned skills to *live through*; it can affect a place's meaning as inaccessibility reshapes 'the dance of relating' (Haraway 2008:15) through which skills, and knowledges evolve in the process of a human becoming. Reporting where and why a particular place is being visited prohibits a spontaneous visit, for example, while reinforcing fragmentation imposed by the fence. The health impacts of this fragmentation are wide-ranging, including the stress of violating intangible, ancestral requirements that are central to ecologies of wellbeing. Inaccessibility can work to change the meanings that people associate with place; for example, as the park transforms burial grounds into inaccessible sites of past ancestral reverence. As the fence shapes access to meaningful locations, it creates a new place with associated expectations

Expectations: Accessing the park through Musunda Gate
The fence's role in shaping edge-dwellers' senses and practices of place is evident in Musundians responses to the non-functioning Musunda Gate. Not only does this influence social interactions as described in this chapter's introduction, but Fulu explained that in coming to terms with the park as their neighbour, and in response

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[241] 'The potholes' – a section of the Luvhuvhu with rock pools - described as 'once secret', is now a tourist site (cf. Tshiguvho 2008).

to the imposition of the fence, Musundian Community Works crews invested time and effort to build a 'tourist accommodation close to the park access gate.' However, the gate no longer functions, an exasperated Fulu explained. The inability to access the park, because of the fence, is made more frustrating by the inactive accommodation that remains a source of disappointment for Fulu's crew members.

I suggest the Community Works Program crew's perceived opportunity to benefit directly from the park, through an eco-tourism accommodation, arose in response to the reframing of the place as an 'edge,' aligning with neoliberal efforts set forth in the National Tourism Strategy. However, with budget cuts as the reason given for closing the gate, the roadways were not maintained, the gate does not operate, and thus the accommodation has never hosted a guest. Unable to make use of a space that took months of effort to create, predicated on the hope that the park gate would attract tourists, and income, a 'cruel optimism' emerges (cf. Berlant 2011:1-2).[242] In this way, the park has become a source of disappointment with associated biomedical health impacts[243] for edge-dwellers. Musundians' efforts to capitalize on their close proximity to the park by building this accommodation illuminates edge-dwellers' expectations and emergent forms of adaption.

The eco-tourism accommodation signals one form of response to the fence that re-frames the space around Musundians' homes; an example of how the park shapes edge-dwellers relationships with the various stakeholders, materials, flows and energies that are entangled at the edge, and beyond the fence. The fence influences edge-dwellers' 'sense of place' - the 'subjective and emotional attachments' associated to a space (Agnew 1987 in Cresswell 2004:7). In fact, this chapter's focus on resource limitations evidence the park's extensive role in influencing edge-dwellers' 'practice of place' (Cresswell 2004:2), thus both a 'sense of ' and the 'practice' of place - central to local ecologies of wellbeing because they mediate the resources, relations and engagements used to achieve wellbeing – are reframed by the park, especially among those whose local experiences pre-date the fence. Creating a 'Nature' on the other side the fence forces edge-dwellers to engage in

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[242] 'Cruel optimism' (Berlant 2011:1-2) is born from the imposition of a fence; in adapting to these changes edge-dwellers reframed the space, optimistic that it could become an eco-tourism site, but these hopes were dashed by the very (non-functioning) gate, which itself brought that hope.

[243] Osika and Montgomery (2008:12) contend that disappointment increases the risk of psychiatric and physical morbidity, including depression, which in turn increases risks of cardiovascular/coronary disease.

new ways – interfering with the 'subtle sociability' of life (Descola 2013:5) built on living through an environment formerly unbounded.

Since ecologies of wellbeing are tied into skills that are generated in the embodied and sensory lessons learned (Cohen 2013) from what I call 'living through' a particular local environment, maintaining wellbeing in HaMakuya is an ongoing place-based co-creation and co-respondence process (Ingold 2012). The fence changes the ways in which people engage with their surroundings, thereby shaping their sensory knowledge, which Spiegel's (2004) work suggests allows people to 'know' and I argue thereby *live through* their local environment. Spiegel shows that the colonial and Apartheid afforestation processes grew not only trees 'but amnesia too'; creating a paradox as 'pristine' areas 'described as "wilderness" and protected from human encroachment' are where bodily memory was still 'traceable' (2004:7). For Musunda's edge-dwellers, I suggest that conservation does the work that colonial afforestation did in Spiegel's setting, erasing evidence of Musundians' role in shaping the space within the fence while imposing boundaries that do not align with HaMakuyans lived reality, resulting in amnesia[244], or an inability to *know* certain plants for healing, or secret/burial sites. The park interferes with ecologies of wellbeing, shaping edge-dwellers' senses and practices of place, by creating situations where for example, exchanges become public instead of secret, altering flows of energies by denying people access to spaces that embody social ties, like burial sites.

CONCLUSION: WHAT IS IN A FENCE?

Although the fence is there to keep people out, and animals in the park, certain species still cross it, they pay no heed to it, yet the existence of the fence interferes with and affects people's wellbeing. The fence imposes a nature/culture divide, fragmenting environments in the production of 'proper bushveld' (Chapter 3), reinforcing the compartmentalization processes of colonialism (Fanon 2001:38), and creating oppositions (ibid:37) that justify the fence. This renders resources, vital to achieving wellbeing, inaccessible - from rivers, to medicinal plants, grasses for roofing, fuel woods, and burial grounds/secret spaces. Musundians are cut off from

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[244] Spiegel's (2004) work may illustrate why, as Makuya park was formalized, amnesia grew (Chapter 3) as tacit and sensory knowledge was lost; see appendix 5.2.

pathways to other villages, and important tasks like a mother's daily role in building *namanda* or income generating activities (firewood).

The fence fragments a space that was once contiguous, affecting edge-dwellers' resource access, and freedom to move; both forms of dispossession influence health and wellbeing by creating more challenges, demanding more time, increasing inconveniences, necessitating more cash, and thereby increasing stress, all of which negatively impact *namanda* (power), *nungo* (strength) and therefore *mutakalo* (health/wellbeing). As residents must re-orient practices that involve no longer available plants, the potential wide-ranging ramifications of inaccessible natural resources become evident; from inaccessible home-building materials to anti-bacterials, and *namanda* and *nungo*-building plants (Frank: *mpesu, mukundadu)* and animal parts (Fulu: Lion's claw). After all, if the plants needed to fortify a man's ability to fulfil his role in sexual engagements can't be accessed, the park is implicated in resource access challenges with resultant bio-physical impacts, interpersonal challenges, and reproductive concerns, all integral to ecologies of wellbeing.

The fence works as a form of active exclusion, which according to Sen (2000:15) imposes deprivations that often impact already marginalized groups. The fence denies Musundians' civil rights (like housing, resource access, and an environment that is not harmful); and human rights, (like accessible drinking water) making evident the governments' failures to address these limitations when curtailing resource access. By focusing on the fence's role in shaping the process of resource access (Ribot and Peluso 2003) I addressed the ways in which resource limitations imposed, or magnified by the park, influence local notions of wellbeing, and reinforce hierarchies of power which further impact resource access.

The ways in which the park privileges certain types of resource extraction and access over others as first described in Chapter 3, and ethnographically expanded here, highlights the environmental injustices implicit in the park's current practices around who can access resources, and relatedly, the consequences of inaccessibility. Economically, the consequences of inaccessible resources are wide ranging; from propelling the commoditization of water and wood, to encouraging entrepreneurial activities (like laundry services, wood cutting, and water delivery), to illuminating

moral economies around water, and undermining livelihood activities, thereby increasing poverty. I have evidenced some ways in which the fence magnifies marginalization, amplifies differences (material, economic, royal and non-royal), and disempowers Musundians raising some of the political consequences of the park. At the same time, I have shown creative ways in which park-imposed natural resource limitations are skirted, highlighting edge-dwellers' forms of emergent resistance, like breaking tree branches instead of cutting them.

Other emergent responses that arise from resource limitations imposed on edge-dwellers, such as the moral and monetary economies around water, illuminates Musundians' agency to organize life in a 'good way' despite mounting stressors. The economic pressures that resource inaccessibility adds to edge-dwellers' lives have environmental consequences; reduced rangeland, and inaccessible water sources have led to overgrazing, and private borehole purchases while competition for scarce resources propel issues like inequality, drought, and ecological degradation. The limitations imposed by the park's boundary fence magnify the challenges Musundians face, adding stress, inciting interpersonal tensions over resource access differentials, adding strain to embodied experiences, challenging livelihood practices that contribute to living in a good way and denying people the dignity of their civil and human rights.

In the previous chapter, when outlining local ecologies of wellbeing, I described the importance of work, social interactions, family, and living in a good way, all of which, I have shown in this chapter to be negatively impacted by natural resource limitations due to the park. I argue that because the fence does not align with many Musundians' modes of *living through* their environment, it propels social, political, economic and environmental concerns made clear in discussions on resource access inequalities, deforestation, and climate change.

The Fence: A Permeable Boundary

The fence marks the boundary of the reserve, as both a physical obstruction (limiting access) and a marker of a symbolic divide (nature/culture). Buffer zones around conservation areas mean that Musundians are not permitted to hunt local fauna (cf. Neumann 1997); local hunters have been re-regulated as poachers (cf. Igoe 2007). By fencing the reserve, the aim is to conserve 'nature' from the depredations of those who live outside it, but not from those who get access rights in

exchange for payment. However, although the fence curtails Musundians' access rights, they do not always abide by this fact.

Driving with Fulu, I saw her noticing a group of young men with dogs. Thinking she knew the men, I asked if we should stop. She laughed, 'No, those are just some non-professional hunters. See their dogs with them?' I had never heard that term before. 'Non-professional hunters? They are going to hunt?' She nodded. I thought about it more, and began to laugh. 'Why are you laughing?' she asked. I explained that calling these young men 'non-professionals' when juxtaposed to white counter-parts who were considered 'professionals' seemed funny. I said that, for me, the idea of professional was linked with skills, and the skills needed for a hunt on foot, with dogs, was more demanding than a vehicle guided, gun hunt with hired trackers. She laughed and looked at me, 'but they bring the money.'

The fence and the regulations instituted around the establishment of the protected area benefits those who have the financial means to access conservation areas, but excludes people who have historically subsisted on the land. By mimicking colonial practices, for example, in making local natural resource users into poachers, protected areas and conservation legislation further the historical dispossession and fragmentation that took root as 'colonization changed the very categories within which nature and society were conceived' (Adams and Mulligan 2003:5). Unlike the 'professional' hunters, who are after trophies, these hunters are after food, and they are not alone.

Other hunters – animals from the reserve – cross the fence in search of food, undermining the conservationists' dream of separating nature and culture. Frank explained that 'Lions come out and eat domestic animals and, elephant comes out to destroy crops.' Ruth provided more context: 'These lions are not really fed inside so they escape from the park and come to the communities. The fear is that the lions will finish all the livestock and then come to the human beings.' Gloria explained, 'Our greatest challenge is the wild animals that are running around. And people will be told to take pictures as proof that their livestock has been attacked but eventually nothing happens. People have really lost so much.' Although part of the 'natural' world of the reserve, these animals cross the fence into the outside world (of 'culture') in search of food. Here 'nature' – in the form of animals – does not abide

by the cultural categories imposed on it. By affecting access to resources, the park has affected diet and food security, producing hunger. It is food, and diet that I focus on in the next chapter.

CHAPTER 6: Diet and Safety

INTRODUCTION

Ruth's homestead bustled with activity; a boy spread corn kernels onto corrugated tin in the sun, while Ruth cleaned *moroho* (greens) and diverted a crawling child away from chickens. The bells around the goats' necks clinked, as Ruth's daughter tended a fire in the kitchen rondavel – smoke seeped out the door. We sat under the shade of the thatching overhang, as I conducted my first formal interview.

Eventually I asked, 'What are things that are important to you for your health?'
'I eat fruits and vegetables and drink clean water.' Ruth explained her reliance on her surroundings for healing medicines, and opined that village residents increasingly suffered from more illnesses. So I asked what topics she thought were important for me to explore. 'Malaria, because mosquitoes bite animals from Makuya Park and then come and bite people.'

Excited that the opportunity to discuss the park had emerged without my prompts, I asked, 'Have you been?'
'Yes.'
'And how did you find it there?'
'**I remember the free wild meat we used to eat, but we can't catch the animals anymore as they are protected**.' (my emphasis)
'How did this happen?'
'The chief sold the land.'
'Is there any way you can get meat?'
'Sometimes if there is a dead elephant, the park will call people to come and cut meat and if a buffalo, we boil it first, and take a piece each. Our chief Vho-Makuya loves money too much.'

Ruth lamented the missing, free, wild meat, the absence of which she suggested, was a primary concern linked to edge-dwelling. Noretta explained 'we used to get meat from those animals that they now keep inside the park, which makes it difficult to feed ourselves like we used to. Mopani and even the animal skins are difficult to get.' As with many Musundians, Noretta and Ruth attributed these concerns to the park, indicating that it has changed the ways in which they are permitted to interact

with – or to borrow from Ingold (2005), dwell in - and thereby *live through* their local landscape.

Significance of food

Dietary changes in HaMakuya are an ongoing and fluid process, but as above, edge-dwellers repeatedly blamed the park for food security challenges, and dietary changes. Drawing on Mintz and DuBois's suggestion that food should be present in anthropologists' ethnographies; 'Next to breathing, eating is perhaps the most essential of all human activities, and one with which much of social life is entwined' (2002: 102), and keeping in mind Goody's assertion that food and beliefs are closely related (1982:120), this chapter explores the park's impact on Musundians' dietary practices. Remembering that Chapter 4 emphasized the 'pervasive role' of food (Mintz and DuBois 2002:102), particularly *zwaliwa zwavhudi* (good foods) in building *namanda,* here I examine the extent to which edge-dwellers suggest that the park shapes their food landscapes[245], and foodways[246], influencing dietary practices and wellbeing.

As described in Chapter 5, the park contributes to resource access limitations. These limitations include influencing hunting practices - re-regulated as poaching; the types of fishing allowed; and access to the Luvhuvhu River for irrigation, all of which affects Musundians dietary practices. Ethnographic research in Africa has historically been interested in dietary composition (Gore-Brown 1938; Preston 1954, 1968; Tweedie 1966), including food production, cultivation, trade, access and nutrition (Annegers 1973; Ströhle and Hahn 2011), especially in relation to food security (Shipton 1990), gender roles (Muntemba 1982) or as a reflection of interpersonal relations and wider societal changes (Richards 1939; Moore and Vaughan 1994; Haaland 1998, 2007); in fact, an Apartheid-era analysis shows significant differences between rural and urban Venda men's dietary intake (Lubbe 1971). Research throughout Africa highlights the dietary importance of gathered, wild, and/or non-domesticated foods (Lee 1973; Murray et al. 2001; Masozera and Alavalapati 2004; Ndangalasi et al. 2007). However, protected areas have, throughout the world, been shown to influence access to these gathered, wild or non-domesticated foods, which negatively impacts on nutrition (Mainka and Trivedi

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[245] Parts of the local environment that are accessed or used towards nutritive sustenance.
[246] Production, preservation, and other processes, including the materials used in making food (Counihan and Van Esterik 1997; Counihan 1999).

2002; Gjertsen 2005; Leatherman and Goodman 2005; West and Brockington 2006; Aswani and Furusawa 2007; Coad et al. 2008; Ibarra et al. 2011; Bennett and Dearden 2014), especially in Africa (Mallerat-King 2000; Ferraro 2002; Harper 2002). This chapter explores how dietary changes that edge-dwellers link to the park affects people's health and sense of wellbeing.

Chapter Outline

This chapter considers the park's role in propelling dietary changes and food insecurity; influencing perceptions of nutritional changes; undermining food prohibitions; and increasing the need for cash. I consider how the remoteness of the edge combines with increased use of industrialized foods and limited choice, contributing to Musundians' concerns around food quality and meal composition. I explore edge-dwellers' tendency to attribute increased incidence of sickness to diet, highlighting how some generational dietary differences are shaped by the park. I unpack how the park's offer of meat 'benefits' influences HaMakuyans' 'everyday sociality' (cf. Overing and Passes 2000: 8) that manifests in concerns around safety. Before addressing these issues, I sketch a picture of HaMakuyan life as it relates to diet prior to the park in order to address changes.

THE SITUATION BEFORE THE MAKUYA NATURE RESERVE

Historically, economic practices among Venda included a combination of pastoralism and agriculture, with more emphasis on agriculture. Land, owned communally, was allocated by royal heads, through village headmen, to individuals for cultivation, but grazing land 'remain[ed] communal and all members of the tribe [had] the right to keep cattle, hunt, collect grass and wood, collect veld foods and use available water' (BENSO 1979:116). Residents (most often women) cultivated home gardens, but also shared larger communal gardens. Economic, political and religious life was intertwined through sowing and harvesting ceremonies, offerings to the ancestors and expectations that chiefs could bring rain (BENSO 1979), but by the 1970s these activities were no longer widely practiced. In fact, as early as 1901 subsistence practices were being replaced by efforts to earn cash to pay annual family taxes imposed that year (Nemudzivhadi 1985; Kruger 1999). Further, agricultural practices were shaped by the 1960s -70s South African government as the Department of Agriculture and Forestry imposed a 'system of planning' that determined which lands, and crops could be used for cultivation and grazing

(BENSO 1979:117) thereby undermining local land rotation practices in favour of more 'productive' agriculture (ibid.:118 – 129).

Production - Cultivation and Gathering:

Originally finger millet (*mufhoho*) and sorghum were staple crops, but later maize sourced via early Portuguese traders dominated the landscape (Lahiff 2000:60). Maize (*mavhele*), sorghum and *mufhoho* (*Eleusine coracana*) were commonly cultivated into the 1950s (BENSO 1979). Although less of a focus than agricultural production, cattle were a source of prestige and wealth, central to bridal negotiations. In the 1980s, when the park was formalized, Sarina explained that young children herded goats, while adult men herded cows. Women were largely responsible for gathering (leafy greens, mopane worms, wild fruits), and cultivation, from ploughing to harvesting – men increasingly took on the role of ploughing as mechanical means, aided by donkeys, became available (ibid.:27). Before the South African government took control of agricultural planning (1960s), lands were left fallow for a season or two before re-cultivation. In HaMakuyan communal gardens, elders spoke of a range of crops, from groundnuts, squashes, and melons to tobacco, leafy greens, and tubers. Men hunted, mostly antelope and birds, in the bush around their villages.[247] Processing fruits and grains for porridges and beers, and drying greens to store for the dry season were 'home duties' and thus, women's work.

Trade and Exchange:

Wagner suggests that before colonial and Apartheid rule, Venda hunted, as evidenced by their involvement in the east coast ivory trade (1976:34); and during colonialism a regional trading market grew in Elim (ibid:37), about 200km south of HaMakuya. During Apartheid, prior to the park's formalization in the 1980s, in other areas of Venda, surplus crops were sold to urban centres and single-crop plantations expanded (Aliber et al. 2013). However, HaMakuya's long distance from urban areas, rocky terrain and difficult to navigate roads made large-scale production, and exchange with markets, challenging and rare. Instead, local roadside stands sold excess potatoes and occasionally corn, but such excess was more often shared between relatives. By the 1980s, the Apartheid government began extracting local resources through the park (animals as trophies) and Tshikondeni coal mine (Chapter 3).

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[247] Chapter 3 describes colonialisms' increasing oversight of hunting linked to conservation, however, initially the focus was on elephants (Wagner 1976), not smaller game.

Dietary Consumption:

During the colonial/early Apartheid periods *vhuswa* (mealie-meal porridge) was central to meals, eaten with relishes (meat, or vegetables) or sour milk (*mafhi*) (BENSO 1979). Groundnuts, squashes, leafy greens, sweet potatoes contributed to relishes, and beers were brewed from local fruits and grains. Cooking was a woman's role; often a new bride cooked for her husband, and his larger family (his parents, and siblings) in a training process that started when she moved into her husband's family home. The eldest man of the household often ate alone; wives and small children ate together; older children ate in their rondavels (ibid.:29). Food, evidently, not only works to develop and bolster a physical body (Chapter 4), but it can also mark status, position, and indicates relations. As this brief introduction to HaMakuyan dietary practices shows, locally grown plants and animals have been central to diets. Below I provide ethnographic evidence of the ongoing reliance on cultivated and wild resources.

CONTEMPORARY MUSUNDA

There are many challenges associated with sourcing food in the remote setting of HaMakuya. One morning Murunwa (Ori's sister) asked if I needed anything from Thohoyandou. After discussing my budget, and options, she suggested frozen chicken. At sunset I met Murunwa alighting from the taxi. She apologised, handing me a soggy bag of defrosted chicken - the brine had thawed and leaked in her lap. Despite buying the chicken at days end, the heat, and tight space of the long taxi ride thawed the chicken. Frozen chicken rarely stays frozen between the shop and home freezer. 'The problem of transport' (Chapter 3) and HaMakuya's remoteness means that fresh foods are not being delivered, and the cold-chain integrity of commercial foods is questionable. In part, then, living on the edge contributes to a reliance on locally grown, or wild, foraged resources – as described below.

Plants

The ethnobotanical surveys I conducted revealed that edge-dwellers made use of their surroundings for many plant-based food sources. Cultivated and wild plants contribute significantly to local diets, and include a range of items from grains and groundnuts, to wild fruits and leafy greens (*morohos*). In Musunda, v*huswa* (tshiVenda) or *pap* (Afrikaans)*, refers to a* stiff porridge made from maize meal that is central to most meals.

Vhuswa – a staple food

Vhuswa is served with every evening meal, and leftovers are eaten for lunch (Figure 6.1); a thinner version is breakfast porridge, often fed to children. I asked a Community Works Program crew that I was shadowing if *vhuswa* was important. They scoffed loudly, but Fulu recognizing that my question was in earnest, explained, 'Without *vhuswa*, I do not feel strong. *Vhuswa* stays in my belly and stops me from feeling hunger. If I don't have *vhuswa*, then I am hungry and not strong enough to do my work.' Confirming this, in an interview with Noretta a Musundian for 20 years, since her 20s, who, along with her husband (listening in and interjecting) echoed Fulu's explanation when I asked 'what are the best foods to make you healthy?'

> Noretta: 'We use *makhaha*[248] for pap, and vegetables like spinach.'
>
> Eric: '*Vhuswa.'*
>
> Noretta: 'If I eat *vhuswa* I will be full and strong for the whole day, without eating any other food, until I eat again at night.'
>
> Eric: '*Vhuswa* stays long in the stomach. You won't [need to] eat many times in a day. It's unlike if you have eaten bread because [with bread] you will be hungry and forced to eat again.'
>
> Noretta: '*Vhuswa* doesn't cause sicknesses.'
>
> Eric: '*Vhuswa* it's an African food because if you go to other areas, Pedis, Tsongas, etc. you will find them depending on it too.'

Musundians highlight a 'dependence' on *vhuswa*. *Vhuswa* doesn't cause sickness, and it keeps one sated for long periods, feeling strong and able to complete hard work, both factors that are central to local ecologies of wellbeing. Maize is used in HaMakuya to make a number of *namanda*-building foods (Figure 6.2) - for example, *vhuswa*, and *mageu*[249] - and is often gifted at stokvels or offered to *Makhadzi*. This dependence on maize and its fundamental role in local diet might make it a 'cultural keystone' (cf. Garibaldi and Turner 2004: 13th paragraph).[250] Another vitally important local food is *moroho*.

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[248] *Makhaha*, or 'brown vhuswa,' made of sorghum, was much less common, only cooked for special occasions, when someone was ill, or gifted to a *stokvel* host.

[249] This non-alcoholic drink, with antibacterial properties, made from lactic acid fermented maize, is a meal substitute or used when people are sick, undernourished, and weaning (Holzapfel and Taljaard, 2004).

[250] Drawing on Paine's (1969) ecological concept – that some species influence the ecosystem they inhabit more than others - Garibaldi and Turner (2004) apply this to locally, socially salient species.

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Figure 6.1 Preparing food

a) *Vhuswa* and 'sauce"; b) Fulu cooks 'yellow *vhuswa*' while I prepare sauce/relish.

Figure 6.2: Maize in Domboni shared garden prior to 2014 drought.

Morohos and Other Wild, Gathered Plant Resources

Moroho describes leafy greens - often an example given when I asked what constituted *zwaliwa zwavhudi* (good food). Although most people named two to three plants they used for *moroho*, some named as many as ten.[251] Some *morohos* are cultivated, but as Etkin notes of Hausa peoples, others are 'semi-wild' (2008: 21), gathered beyond HaMakuyans' gardens.[252] *Morohos* become *mukusule* when dried (Figure 6.3 and 6.4), and are sources of 'important nutrients' in winter or during drought. In addition, as already discussed (Chapter 4), wild gathered fruits are valued as particularly nutrient rich, and important to building *namanda;* they are also used to brew beers.

Figure 6.3a. Mukusule; b. photo-diary - 'drying mukusule'

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[251] Appendix 6.1 provides a list.
[252] Hausa eat a diversity of leafy vegetables at the end of the rainy/malaria season, which may treat malaria as laboratory investigation reveals these vegetables increase red blood cell oxidation (Etkin and Ross 1983; McElroy and Townsend 2009:213).

Figure 6.4 cultivation a&b: a) dried moroho and marula; b) hanging butternut flowers to dry

Figure 6.5 a&b: a) termites; b) 'sticks' used to forage for termites 'only when the rains come.'

Animals

As with plants, wild and reared animals were historically central to diets, and continue to be significant protein sources.

Mopani worms and termites

Mashonzha (mopani worms are caterpillars) and termites are important local protein sources (Figure 6.5). They are easily dried and stored for future use, and widely appreciated throughout the region by other language groups, and thus valuable for trade.

Hunting and fishing

Reflecting on the differences between life before the park fence, and the current situation in Musunda, Glenda explained, 'We used to eat game meat before, but now we are arrested. . . we used to fish in the Luvhuvhu River before without restriction . . .'. Ruth, in this chapter's introduction expressed a similar sentiment, suggesting that prior to the park, hunting, and fishing were done freely, 'all over in the bush' without limitations. Musundians recalled that in times of drought, the options to fish and hunt provided a safety net when harvests were minimal. Today hunting has been re-regulated as poaching associated with jail time or fines.

Livestock

TshiVenda speakers historically raised livestock, and cows were central to bridal negotiations (BENSO 1979). With colonial/Apartheid influences on agricultural/pastoral practices, especially a colonial pre-occupation with overgrazing (ibid.:118 – 124), herd numbers dropped and many homesteads rear goats and chickens instead. 'Fresh milk from the cow' was historically an important food source, along with fermented milk. Slaughtering a cow was central to a number of ceremonies, including burial practices that culminate in large feasts. Cattle ownership reflected a man's wealth, and because cattle were central to marriage negotiations, they were also integral to a man's ability to obtain adulthood, central to the process of personhood (ibid.:32). However, as noted by Sarina, Pfarelo, and other Musundians, herd numbers have declined, as have the number of families that keep cattle.

DIETARY CHANGE

Here, I explore the influences of the park on diet, as I lay the groundwork to draw connections between these influences and the ways in which they shape edge-dwellers' wellbeing. It is important to note that as colonial and Apartheid policies took control over land allocation with cooperative customary leaders as proxy, subsistence efforts declined, but due to remoteness and governmental apathy for the periphery, economic markets were not well developed in this region. As such, many HaMakuyans rely on incomes from government grants (pensioner and children support grants), and even more rely on the government's Community Works Program for employment. Money is largely earned through a combination of government programs, social grants and 'piece work' like woodcutting ('productive bricolage'). Due to the monthly allocation of social grants, 'month-end' is often a time of 'little food', 'struggles' or 'sometimes there is not enough'.[253]

Food insecurity at month-end (Figure 6.6) combined with increased conservation-related policing of local resources such as fishing in rivers, or limited areas accessible for gathering, means that sources of vital resources for building *namanda* are cut off. Monthly cycles of food insecurity are felt across many former homelands where people are reliant on social grants but this reality is made more challenging by the park, as access to and production of many local foods, like *vhuswa* and *morohos*, have been curtailed by it. Elsewhere, as in Central Africa and Tanzania, conservation initiatives are similarly shown to magnify food insecurity (Galvin et al. 1999; Schmidt-Soltau 2003), and dietary changes with wellbeing related impacts (Ross et al. 1996). Following Pottier's (1999) emphasis on understanding the viewpoints of food-insecure people, I explore how the park adds to already compromised (by climate, and competition) subsistence strategies, and magnifies food insecurity as I consider how edge-dwellers understand the park to affect their diet.

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[253] Food security surveys described shortages; everyone reported having one meal/day, but near month-end, choices and portions were reduced.

Figure 6.6: Penny's photo-journal; a pot scraped clean of moroho

'I took this photo because there is not always enough at month-end'.

Plants

The park does not just limit access to wild, or gathered plants, but also limits access to rivers, and reduces available spaces for cultivation. These (irrigation and space) pressures intersect with climate change such that industrial foodstuffs replace many no longer available resources, as I explain with *vhuswa*, below.

Maize, Vhuswa and other cultivated foods

Until 2014, when drought made it impossible, Community Works crews planted the schoolyard with maize and almost every homestead had at least a small patch growing. The recent drought challenged crop cultivation, however many Musundians explained that maize meal production had changed before the drought. As access to cultivable land has decreased due to the fence which catalyses competition and degradation, and because more cash is necessary for survival, less people use their precious time to engage with shared gardens beyond their homesteads – according to the elders I interviewed in the communal gardens. Thus, less local cultivation was taking place, including less maize grown at home. Also, maize was not being ground at home, by hand. Instead of the yellow and brown varieties that were once common in every home, store bought, bleached-white brands were more readily available, cheaper to acquire and replaced other forms of porridge (like *makhaha*). Local residents' engagement with *vhuswa* has shifted in multiple ways including the frequency with which it is used, the quality, and forms of production.

Changes such as the ready supply of bleached and bagged corn meal available in every village, came about for a number of overlapping reasons. The time and energy saved in cutting out hand-processing the corn likely does not only appeal to edge-dwellers. However, Musunda's remoteness makes maintaining practices like carting the heavy bags of kernels to the mill 35km away more challenging. Since store-bought varieties are less resource demanding than self-production[254], they particularly appeal to edge-dwellers whose resources are already stretched quite thin. In addition, as HaMakuyan rains came erratically, and in smaller volumes than on average, residents suggested that maize cultivation on most homesteads drastically reduced.[255] Having already outlined the park's role in water access limitations in the previous chapter, since *vhuswa* changes result from cultivation shifts linked to water, not only does the fence make certain key resources unavailable, it also makes irrigation extremely challenging. *Vhuswa* quality shifts were brought on by a combination of industrialization[256], land and water source dispossession, drought, and the remoteness of edge-dwelling.

These cultivation challenges, along with increasing demands for more cash to survive contribute to a tendency that Penny described as 'young people don't know about growing'. Reflecting a trend that others repeatedly asserted, Penny discussed the challenges she faces in cultivation as her children attend schools faraway, and then enter urban workforces because of limited local opportunities. Penny was not alone in suggesting that people are growing and gathering less than in the past. In fact, many women, older than 35, with memories of Musunda prior to the park's fence, suggested that the composition of meals is significantly changing as Musundians substitute for example, home-grown/ground *vhuswa* with store-bought white bread. The effects of such substitutions, propelled by the park, influence nutritional intake, dietary practices, the need for cash and interpersonal relations, especially those solidified in labour exchanges between young people and knowledgeable elders.

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[254] Barriers to accessing 'traditional foods' extend beyond cash, to time and energy, which can make cultivating traditional crops too costly (Kuhnlein and Receveur 1996: 422).
[255] This is reminiscent of Kone's comments on how the lack of rain poses challenges to local planting knowledge (Chapter 3).
[256] For example, in the 70s – 80s growth in industrial *mageu* production impacted home production (Holzapfel and Taljaard 2004).

Moroho and other gathered foods (Mopani worms and termites)

While the park influences *vhuswa* production by adding to cultivation challenges, and competition over arable lands, it also shapes the spaces available for foraging. Wild, non-domesticated foods are locally understood to nurture and strengthen one's body more than other foods, and *zwaliwa zwavhudi* ('good foods') are made from foods collected in locally appropriate ways. Considering the importance of *zwaliwa zwavhudi* and the emphasis on wild fruits, as central to building *namanda* and *mutakalo* (Chapter 4), then the specific places where food is grown, implicitly factor into food-related wellbeing discussions. Thus when the fence curtails resource access, local dietary practices are disrupted. Wild *morohos* are increasingly difficult to access because foraging spaces have been reduced. Similarly, access to 'wild fruits' has changed, but this reality is felt acutely when considering the importance of Mopani worms.

The example of Mopani worms highlights the entangled reality that makes sub-dividing the influences of the park potentially problematic. The inability to access Mopani worms is tied to an inability to access Mopani trees. As described in previous chapters, the park is implicated in deforestation in the buffer zone leading to less Mopani trees available outside of the park fence, and thus, less Mopani worms in HaMakuya, as discussed in the next section on animal-based dietary resources.

Animals

In Musunda hunting has been re-regulated as poaching. The park also reduces access to multiple protein sources, influencing diets, and increasing economic stress. The following sections detail the park's role in shaping animal-related dietary practices.

Mopani worms and Termites

The fence limits the areas that people can forage, increasing the effort needed to access, and competition for wild or semi-wild foraged species, influencing local food landscapes. For example, many termite hills are visible but not accessible. The fence also cuts off the area for foraging Mopani worms, increasing competition for limited resources, and thereby creating tensions between edge-dwellers, especially as some have Mopani trees on their homesteads and others do not. Hunter et al.'s (2007) article entitled 'Locusts are now our beef . . .' reports a similar reliance on gathered protein resources in Bushbuckridge, south of HaMakuya, also bordering

Kruger. This evidence, of the multiple locations where parks impact on foodways highlights the widespread pressures that they put on edge-dwellers. Makuya park not only reduces access to foraged protein, but also influences livestock practices.

Livestock

The effects on livestock as a result of changes in available grazing land are addressed in Chapter 5. However, the inaccessibility of grazing spaces doesn't just influence herd numbers. The cattle owners I spoke with suggested that they no longer milk their cows, because cows have less space to graze - this influences diets. 'When I was young, we still had fresh milk from the cows. Today, not as many people have cows, and the cows do not make milk. There is less grass for grazing. Cows used to be much fatter, so maybe that is why there is no milk.' After interviews Sarina often reflected on what people said, providing deeper insight into HaMakuyan life. Her statement explaining why a number of Musundians made distinctions between 'fresh milk from the cow' and milk more generally, implicates changing weather patterns, and diminished grazing space, resulting from Makuya park's encroachment, in the dietary shifts that she witnessed.

The contemporary absence of 'fresh milk' made evident generational differences in Musundians' discussions of diet; these differences are not uncommon (cf. Guendelman and Abrams 1995; Srinivas 2013: 365), however in the edge-dwelling context they are catalysed by limited choice – a point I return to shortly. Instead of fresh milk, long-life milk has become a fixture in most homes. Not only have milking processes changed, but the park's encroachment on grazing spaces plays a role in the shifting purposes and practices surrounding livestock keeping, evident in the increasing incidence of Musundians' caring for wealthy urbanites' cattle – while these cattle draw from the land, Musundians as caretakers of these cattle, can only draw income, and not sustenance from them.

Hunting and Fishing

Early in my research, without prompts specifically about the park, Musundians asserted that health had changed because foods, especially meat sources, had changed. 'I miss the meat,' Jayne explained when I asked how life differed now in contrast to her childhood, as she pointed her head (hands busy shucking marula) in the direction of the park's gate. Game (*phuka*; animals), once freely available are now protected. The re-regulation of lands as protected spaces that creates poachers

out of those who historically hunted (Igoe 2007) influences local diets, relationships and financial demands. For Musundians, the park's formalization has brought changes to both hunting and fishing practices.

Crossing paths with the 'non-professional' hunters described in the previous chapters' conclusion was a reminder that resource access is not as clear as the boundaries of the park and the related regulations may suggest. Although I saw very little first-hand evidence of local residents 'poaching,' I was offered game meat on a number of occasions, suggesting that Musundians are able to access protected resources from time to time.[257] However, due to anti-poaching legislation these hunts were not openly discussed, even if evident in defiant acts like hanging biltong in the open, outside of hunting season[258] (Figure 6.7). Hunting, once a social practice, and expectation of a husband as part of providing for his family, must now take place in secret, if at all. Since past hunting practices - snare trapping, the use of dogs and bird hunting - are now illegal, Musundians like Ruth, lamented the loss of '. . . the *free wild meat* we used to eat . . .' Aside from the obvious nutritional impacts of limiting access to key protein sources, the financial burden of replacing game, once freely available, with resources that require cash, cannot be ignored. Ironic, as trophy hunting is the primary income generator for the park.

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[257] Park staff suggested that snare hunting takes place, and increasingly, armed poaching. One staffer attributed this to 'the white people in that village over there' (in Sanari chieftaincy) blaming a growing community of non-locals, suggesting that 'Boers' were providing young men with guns and incentives.

[258] Perhaps Musundians are using 'weapons of the weak' (Scott 1985; Jeffrey et al. 2003); hanging game meat, in the open, after hunting season, Vhuthu explained would never have been possible during apartheid. In Amboseli National park, Maasai killed elephants as resistance to their liminal status, raising awareness of the fact that often, protected natural areas put people at odds with large charismatic species (Igoe 2004).

Figure 6.7: Meat hanging; outside of trophy hunting season

This re-regulation also reifies hierarchies of resource access that have historically marginalized edge-dwellers. While hunting has become a criminal offence, fishing is permitted albeit, only when professional hunts are not taking place. This secondary nature of edge-dwellers in resource access hierarchies became evident in June (2015), just before Mr. Khuba and I were meant to access the Luvhuvhu River within the park. He called: 'The plan for fishing, we have to cancel. There are professional hunters in [the park], and so we cannot enter.' Not only do Musundians need permission to access the river, the types of fishing, and thereby the quantity of fish they can catch has been re-regulated (see Figure 5.5). River access limitations imposed by the park affect water (Chapter 5), and protein access.

Even when residents are permitted access to lands they once communally shared for fishing, the wants of paying, foreign, trophy hunters supersede the rights of locals. This renders a certain type of extractive engagement with the landscape (trophy hunting[259]) more acceptable than other forms of extraction (local fishers, firewood demands, snare hunting). HaMakuyans' efforts to access fish in the rivers they once

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[259] Goodrich distinguishes between biltong hunting – primarily for food - and trophy hunting - high-cost and trophy motivated (2015:x).

called their own comes second to the wants and needs of trophy hunters; it also illuminates the multiple, and interconnected impacts of the park on local ecologies of wellbeing. For example, the fence makes the river inaccessible, or costly to access, which makes fishing difficult, and increases cultivation challenges, while buffer zone legislation that forbids net-fishing - a potential source of income - may challenge one's ability to provide for their family that fulfils living in a 'good way' – another indication of the park's role in increasing edge-dwellers need for cash.

This hierarchy is evident in who can access which park entry gate. For Musundians, access to the park to fish, is complicated by the reality that travel to the Tshikondeni gate is time-consuming and costly – this challenges some Musundians ability to access the 'benefits' offered by the park to edge-dwellers, which I return to in the next section. Although access to the park is supposed to be free to HaMakuyans, sometimes staff demand permits, only attainable in Thohoyandou. Accessing the park through legal means is a significant challenge for Musundians who lack time, and funds for such a trip. In addition, 'professional hunts' are not always public knowledge, so sometimes limited resources are expended to make the long journey to the park gate, only to be turned away. However, while the main gate is the only access point for Musundians, I saw park vehicles filled with khaki-clad 'professional' and trophy hunters being driven, high speed, through Musunda, to the 'non-functioning' gate in chase of elephant. In fact, the rights of and rules for the professional hunters differ dramatically from edge-dwellers', positioning professional/trophy hunters' access above that of HaMakuyans.

At the same time, differences in social, political and financial capital also played a significant role in who, among Musundians accesses park-related 'benefits'. The following section explores how the park's provision of meats left by trophy hunters influences diets. I touch on themes of acceptability and accessibility, while critically engaging with the 'benefits' that the park offers edge-dwellers.

Trophy-hunt 'leftovers' and 'benefits'; access and acceptability
The park's influence on protein sources extends to issues of acceptability and accessibility, including the distribution of these 'benefits'. Swapping 'free wild meat' for promises of future jobs for their children, many men put away their pellet guns (for bird hunting) and stopped keeping dogs (for game tracking). In exchange,

the park provides the meat left behind from trophy hunts to directly affected communities ('DACs'[260] - the six villages bordering the park), providing what I call trophy hunt 'leftovers' (Figure 6.8), according to a Hunting Committee roster. These 'leftovers' are described by park staff, some Musundians, and other edge-dwellers as a 'DAC benefit'.

When asking about 'good' aspects of living on 'the edge', some, generally younger residents, like Fiona and Langa saw the 'meat and money' provided from trophy hunts as a benefit of edge-dwelling. However, longer-term Musundians such as Gloria echoed Ruth's memory of 'free wild meat,' blaming its absence on regulations that limit local hunting practices, tied to the park's formalization. Suspending hunting rights changes the pathways by which meat comes through pots into bellies. Now legally accessed wild protein must either be bought or received as a 'benefit' from the park; these changes reframe daily dietary and social practices.

Figure 6.8: Hunting 'leftovers' - buffalo in Fulu's freezer.

One example that illustrates this point occurred when elephant meat was available as a leftover. When the call came, Fulu was at work. By the end of the workday when we all returned home, and discussion around the practicality of getting the meat ensued, including petrol costs and time to get there, Fulu and Pfarelo (her husband) decided the journey was not worth it. Their considerations included the extensive effort and resources needed to get the meat, and their preference for other types of

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[260] HaMakuya residents and park staff alike refer to 'DACs'.

wild meat, as they explained they did not like elephant.[261] Even when the resources are available to retrieve these 'leftovers', the meat provided is not always desired. To understand why Fulu and Pfarelo decided not to collect the meat, the following two discussions focused on accessing 'benefits', and the acceptability of 'leftovers' provide context.

Accessing the park's 'benefits'

The fence, non-functioning gate, and the increased travel time to move around the park make accessing 'DAC benefits' difficult for many Musundians. In the past, game meat, discarded by trophy/'professional' hunters, was delivered to the village. Since 2011, with increased 'talk of budgets', this practice has been replaced by offering residents meat only if they can retrieve it.[262] This seems like a suitable compromise in the context of a global economic crisis, yet, the collection of meat is a complex and time-consuming task, where resource and physical demands might outweigh the benefits.

Collecting the meat was not easy for Musundians. Foot and mouth vector control surrounding *nari* (buffalo) requires meat to be cooked before it is permitted out of the park.[263] This necessitates a long journey to the only functioning gate (Tshikondeni); with transport, the return travel time is, at minimum, four hours. However, without transport, one would first need to wait for a taxi (a rarity). At Tshikondeni Red Line, the remaining 15km to the park gate, through the now-defunct mine complex, takes more than two hours to walk, making a one way trip take, at minimum, three hours.

Once an individual gathers their share of meat, they must find firewood; haul a pot with them, or borrow from park staff; and cook the meat. Since very few Musundians have functioning cars, the return journey with warm meat in hand could be an entire day's excursion, which for some, was not worth the effort, especially

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[261] For Fulu it was 'too fatty and oily,' and Pfarelo's 'family never ate that meat'.
[262] Discussing 'unfulfilled promises', Frank explained that 'budgets' were the reasons given for no working gate in Musunda, and why meat was no longer delivered.
[263] Despite contacting numerous Foot and Mouth disease specialists, none, from veterinary to human communicable disease researchers have heard of a case where Foot and Mouth disease was zoonotic. Why then the rules? I could not help consider how these rules create a raw/cooked binary (cf. Levi-Strauss 1969b) that parallels notions of wild vs. civilized. Cooking requirements reinforce the concept that cooking the meat makes it safe to take beyond the fence while also functioning to more the meat into an economic framework requiring more money and resources in order to make it usable beyond the fence.

when considering the lost day of wages/labour. For some Musundians the capital necessary to make the journey is prohibitive. Even with access to all the resources necessary to benefit from trophy-hunt leftovers - a car, ample fuel, firewood, a cooking pot, the time, and a container to transport it home - one would need to be notified about the meat in the first place. This is not always a straightforward process.

Living with Fulu I learned that as a hunting committee member, she is one of the first people called when 'leftovers' are available. Her role is to inform the village, but Musunda does not have regular cellular signal, so sometimes Fulu learns about available meat too late in the day to notify others. Often, once she gets the call, she begins informing the people closest to her home, and a network of family members– the information circulates out through these networks. Certain people receive the information about the meat before others, giving some more time than others to rally the necessary resources to gather the meat.

Some individuals, because of their social and political networks, and access to material items (like a car), are informed of and capable of fetching the meat more readily than others. Ribot and Peluso refer to 'economic selectivity' (2003: 170) which in this case could be Fulu's access to a car, or cell phone. Someone like Ruth, who lives far from Fulu (as an information source), without access to a car, and whose physical abilities are limited by age, faces more challenges in reaping the 'benefits' of edge-dwelling compared to someone like Fulu. The challenges involved in acquiring resources, like protein, in this edge-dwelling context thus become more or less difficult depending on individual social networks, and material (capital) resource access (cf. Ribot and Peluso 2003). As the examples of Fulu and Ruth's differential access to the meat shows, not everyone relates to the park in the same way. In fact, the challenges and impositions of the park tend to magnify entrenched power differentials. Those with 'access through social identity' (Ribot and Peluso 2003: 170), as with royal family members, also tend to have material and financial resources that make accessing 'benefits' easier. Since these 'benefits' are not accessible for all Musundians, there is often meat that is not collected, and whispers throughout HaMakuya suggest that Chief Makuya sells the remains to a butcher in another chieftaincy, generating cash for himself.

While some Musundians are able to benefit more (Fulu) than others (like Ruth), Musundians reap benefits that not all HaMakuyans do. The 'benefits' that Musundians receive for being directly affected community members are not afforded to residents of, for example, Mbuyuni, Musunda's neighbour. Mbuyunians access to rivers and lands have also been cut off, however, since they do not directly abut the park, mitigating practices, like meat 'benefits,' are not provided. Mbuyuni residents then, are affected by the park, but because they are not seen as 'directly' affected, they do not reap the same benefits as Musundians.

This signals a number of things: by describing asymmetrical resource access between HaMakuyan villages, the park's role in shaping resource access differentials, or to borrow from Escobar (2008), in creating 'territories of difference' between villages is illuminated; it also highlights the ways in which the State and conservation management professionals understand the impact of the park. Consider here that the effects worthy of mitigation are those where 'nature' breaks through the imposed nature/culture divide, and not where peoples are cut off from their surroundings. In other words to be 'directly affected,' elephants and lions need to breach the fence, but this denies the direct affects of the fence on local ecologies of wellbeing for other HaMakuyans – ignoring the impact of cutting off energetic and material flows.

Thus while edge-dwelling is experienced in a variety of ways within Musunda, it is also experienced differently between directly affected communities and other HaMakuyan villages. For non-'directly affected' HaMakuyan villages, wild meat is missing completely. For some Musundians, especially those born since the fence was erected, when comparing their experiences with other HaMakuyans, meat is a benefit of being a 'directly affected' edge-dweller, but older Musundians 'miss free wild meat'. This illuminates one of the many 'frictions' – the 'heterogeneous and unequal encounters' – that Tsing (2005: 264) suggests emerges as capitalist frontiers loot 'Nature.' It may also indicate why Musunda continues to grow and other HaMakuyans choose to move there, which might catalyse future concerns. Close proximity to the fence makes Musundians different kinds of edge-dwellers than Mbuyunians, for example, which in turn affects protein access differently across HaMakuya. In HaMakuya, some people bear the costs of edge-dwelling more than others, while edge-dwellers bear the cost of conservation more than 'professional

hunters' do. Through all this, what is clear is that 'DAC benefits' may not benefit many edge-dwellers, as the costs of accessing these meats may outweigh their local value as a food. To understand the local value of meats, I turn to discussions of meat quality and acceptability.

Acceptability: Meat Quality, not Quantity

How can it be that the park is seen as both a source of meat, and the reason for missing meat? The tension highlighted by this contradiction, is not solely about food shortages, but also about type and quality of foods. The only legally available game meat are 'leftovers' from trophy-hunts; this has changed the kinds of meat that Musundians can access – predominantly elephants and buffalos, which are unacceptable meats for some Musundians.

Gloria suggested that living in Musunda now is 'different' because 'the animals are not available like before when there was no fence. Before a month could not end without getting an antelope.' Such complaints are not only about access to meat or incurring additional costs, but also about its 'wild-ness' as juxtaposed to domesticated or industrialized foods – the agency and personhood of the animals, and the intangible relations between Musundians and those they hunt, all become important considerations in this context. For example, Musundians' descriptions of acceptable types of accessible meat and perceived changes to meal composition shed light on the park's role in dietary changes. Prohibitions around hunting, in combination with industrialization (including regional electrification) have made it possible and more common to buy and store meat for more regular consumption than when it was hunted, changing the frequency of meat consumption and the kinds of meat Musundians eat – no longer antelope, now either store-bought beef, chicken, or trophy-hunt leftovers (buffalo or elephant).

Fulu indicates that shifts in eating practices include increased ingestion of meats: 'People eat a lot of meat. And meat is not nutritious when consumed on a daily basis. You also need to eat vegetables and beans, and to alternate. But here we eat too much meat, and meat is not good for people's health.' A widely shared perception, among Musundians older than 35, that increased meat ingestion of questionable quality is a contributing factor to ill-health, resonates with biomedical literature that tethers increased meat consumption to diabetes and heart disease

(Micha et al. 2010). When considered alongside access limitations to other protein sources, HaMakuyans' 'narratives of anxiety' (Srinivas 2013:365) surrounding increased meat consumption, indicate that the trophy-meat leftovers might provoke further health challenges, rather than compensate for other 'missing' protein sources.

The park's effort to provide access to resources through hunting leftovers indicates a mis-reading of the needs and wants of some Musundians. The resources valued by park management and trophy hunters are not the same as those valued by local residents – for many edge-dwellers antelope meat is more valued than elephant, while an antelope could not fetch the R100,000 that elephants do from trophy hunters. Fulu's lack of desire to make use of 'DAC benefits' like trophy-hunt leftovers speaks not only to limited resources and pragmatic decisions, but also to the context of local food practices and preferences. Gloria emphasized the value of antelope as a favoured protein source that is no longer accessible due to hunting restrictions. I suggest that the park's efforts to replace inaccessible resources with trophy-hunt 'leftovers' does not consider that some edge-dwellers might perceive certain meats as less desirable, less nutritious, or even unacceptable as *mutupo* explanations (Chapter 4) suggested that some meats induce sickness – a point I return to in 'Eating Ancestors'.

Edge-dwelling is not a uniform experience; relations with the park are varied and mediated by political, social and material networks. They are affected by history and past experience; for Gloria and Ruth who miss meat, they can recall a time before the fence constrained local hunting practices, while many of the edge-dwellers who saw the 'the meat' as a benefit of living on the park's boundary were younger, perhaps lacking memories of other ways of engaging with the spaces around Musunda, when Musunda was a different place – that is, not the edge. In Musunda, the meat 'benefit' works to impose (although many push back) a particular type of re-framing of elephant-human relations – from family to food, a discussion I return to at the end of this chapter.

The substitution of meat:
Although protected natural areas are not solely responsible for dietary changes, the food insecurity that characterizes Musundians' experience of edge-dwelling is

amplified by the park. The imposed regulations have led to Musundian suggestions that hunting practices have declined; alongside reduced efforts to keep livestock, people now rely on store-bought meat. Instead of hunts taking place at intervals, spacing out meat consumption, meat is now often purchased in big cities, far away, and then stored in freezers. For many Musundians in addition to meat substitution that requires additional cash, refrigeration is consistently discussed as reducing the quality of meat.

Musundians, like Glenda questioned the quality of 'fridge foods.'[264] Frank explains:

> 'Refrigerated foods are not as fresh as the ones you reap. The food is very different. Fresh foods are healthier and still have all their nutrients. Lets say I slaughter a chicken, take half of that and put it in the fridge and use up the other half, their states wont be same. The meat [from the fridge] will not be good or tasty.'

Here, Frank raises a common perception that the fridge changes the state of the food, stripping it of nutrients, and taste. This perception links to Chapter 4 where wild fruits were described as more *namanda*-building because no outside force intervened. The refrigerators' interference with the state of the food affects the food's agency and nutritive value, and thereby its wellbeing-building qualities. Similarly the wellbeing-giving qualities of commercially grown fruit are less than those of wild fruits, as the commercial process includes all types of human interference (irrigation, fertilizer, insecticide).

Given the recent introduction of electricity and refrigeration throughout the region, these types of dietary changes, like the industrialization of *vhuswa*, are not unique to edge-dwellers, but they are catalysed by a reduction in home-made food production that, in this case, coincides with encroaching protected natural areas that limit gathered/hunted food sources. Substituting these food sources is often possible through shops, but this requires cash. In Musunda where means of generating cash are limited, substitutions that require cash can lead to debt accumulation, adding to mounting financial demands. The re-regulation of hunting, associated with the park, implicates it in the wide-ranging dietary changes that influence wellbeing, from nutritive to interpersonal and financial.

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[264] 'Fridge foods,' often refer to frozen foods – the majority of homes with electricity have freezers, not fridges.

Shops and a food desert

The above discussions, concerning changes in diet, focus on foods people once produced. Other foodstuffs have become available through shops, and are increasingly incorporated in Musundians' diets. Throughout HaMakuya, these shops have a limited range of goods. Langa who moved to Musunda from a rural, but relatively more urban area six months prior, explained that 'There are no shops here to buy those healthy foods.' The nearest 'supermarkets' are approximately an hour drive. All four of Musunda's shops carry dry goods and toiletries, where you can buy hair relaxer more readily than any form of protein (Figure 6.9).[265] Surveying these shops[266] revealed a variety of cosmetics, but only one carried a limited supply of fresh vegetables (potatoes, cabbage, and tomatoes; Figure 6.10). Packaged chips and carbonated sugary drinks were bountiful, but not water or protein. Prices were not consistent throughout Musunda nor in wider HaMakuya, but were generally more expensive than in Thohoyandou; the trade-off, of course, being the many hours journey and cost of transport for slightly more variety in choice. As such, the long and costly trip was not always preferred.

Residents obtain substitutes like highly processed, quick-cook versions of *vhuswa* that replace foods once produced locally; shops provide residents with access to 'makua foods' ('white people's food') or 'fridge foods.' These foods were attributed to perceived increases in *vhulwadze* (sickness) and were consistently linked to the park. For example, Livhu (in her early 30s) explained: 'Nowadays there are many diseases compared to before. In the past there were few foods and now there are many different kinds of food. Before there was no frozen meat, we used to eat fresh meat and bread was eaten only once in a while.'[267] Mdu, my neighbour in his late 40s offered: 'Those *makua* foods, you can eat and eat, and you will get bigger and bigger (he put his hands at his waist and moved outwards, smiling), but you will not be strong.' In opposition to *namanda*-building wild foods, *makua* foods are perceived to increase your waistline, but not your *nungo* (strength).

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[265] Hair straighteners contain formaldehyde, and a lack of plumbing means wastewater is thrown on the ground, seeping into soil and waterways, potentially increasing toxic exposures (cf. Agard-Jones 2013).

[266] See appendix 6.2 for stock lists.

[267] Bread was delivered to HaMakuya more regularly than other products, replacing other breakfast foods (like wild fruit). Mass-produced factory bread factored into breakfasts in HaMakuya; almost always a piece of bread dipped in tea or juice. Musundians repeatedly explained this reliance on bread was new.

Figure 6.9: Two Musunda shops

Figure 6.10: Musunda shop storeroom with tomatoes and potatoes.

Rising food prices were also a widespread concern. In 2016, Fulu explained: 'A half cabbage is now R14 or R20, we used to get a whole cabbage for R8. This is too much now. Cabbage used to be eaten all the time, now we must save it for special occasions.' Considering the increase in food costs alongside an 8% average national inflation rate, and the reality that Fulu's R2000 salary has not changed since she became the Community Works manager in 2009, the increase in food costs poses a significant challenge for those in her position (and her crews earn half that). As such, within HaMakuya, geographic remoteness paired with poor road infrastructure, prohibitive prices and few shops, results in limited food choices – a food desert. Three key elements of food deserts – increased fruit and vegetable prices, socio-economic deprivation, and a lack of locally available supermarkets (Pearson et al. 2005) – are apparent in Musunda. In addition to the park's role in

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dietary changes brought about by limitations to accessible resources and places, Musundians' remoteness creates a food desert with limited opportunities to obtain affordable nutritious foods, as the following story indicates.

'Chinese chips': of limited choice

The paucity of affordable choices in Musunda impacts more than just nutrition and *namanda*-building. As I walked past a friend leaving the clinic, holding the hand of her young son, she stopped to chat. I asked if she was ok as I looked towards the clinic. 'I am fine. We went for him.' She raised the hand that clasped her son's and grabbed his scalp angling it to me. 'See, he has Chinese chip rash, so we went to get some medicines.' As I looked down at her son's head, I noticed patches where his thick hair was bald, with irritated-looking dry skin. 'But, what is this from? Is it only his head?' She lifted his shirt to show me a similar patchy rash around his torso, and said 'I told you, it is from the chips, you know, the red ones. You get them at the café. Lots of kids have the rash. The clinic just gives us cream.' (Figure 6.11) 'But, if lots of kids have it, and you know it comes from these chips, why do you let him eat them?'

'Small kids want snacks; they are always hungry. These are the snacks that do not cost too much.' Despite the fact that this otherwise health-concerned mother knew these chips might lead to her son's rash, she allowed him to have them. Her (pragmatic) approach was to give him the snacks to fill his belly, and if needed, make use of the cream that the clinic provided (free) for the resulting irritation. Other chips were available, but the name brands were much more expensive, and 'not much better for him.' In the absence of an affordable alternative, this mother chose the 'Chinese chip rash' over a hungry belly (and whiney toddler).

Figure 6.11: Chinese Chips

Food deserts are not only measured by the lack of availability of fresh produce, but also take into account choice limitations (Shaw 2006). The normalization of the Chinese Chip Rash evolved out of limited affordable options, and indicates exposure to food chemicals.[268] In HaMakuya limitations like these (choice and affordability), in part, drive shifts in dietary practices, ultimately resulting in medical problems associated with malnutrition and processed foods (Shaw 2006), for example, as with diabetes, discussed in the next section dedicated to diet, health and wellbeing.

DIET, HEALTH AND WELLBEING

As discussed in Chapter 5, resources once freely available in the park for medicinal purposes are largely inaccessible for the majority of Musundians. This can challenge one's sense of wellbeing, as the tools historically used to nurture wellbeing are inaccessible. Similarly, Musundians repeatedly discussed changes in meal composition and dietary quality.

Meal Composition and Nutrition

A recurring theme among older HaMakuyans (35+) is the perception of major changes in meal composition, often expressed as generational differences in diet (cf. Srinivas 2013: 365). Granny Funi, a Domboni village elder in her 70s, and a *maine* (healer) linked her perception of increased *vhulwadze* (sickness) to dietary changes:

> 'First back when I was young there were pimples, rashes, eye sicknesses, flu and bilharzia. Nowadays, there's more cancer, HIV and cholera. When kids went to the toilet, we used to find tapeworms and we were able to heal them – we know the plants, roots and barks for this. But now, there's more high blood pressure and diabetes.'
>
> Amber: 'Why do you think this has changed?'
>
> Granny Funi: 'The food that we're eating makes us sick because we are eating food that has spent so much time in the fridge. Food that we used to eat a long time ago was fine. We used to plant our own food. There was no reason for us to pour chemicals in the food we planted ourselves. These days, people are adding more and more chemicals to make food not get rotten. There was no beer with strong alcohol. We used to drink traditional beer that we made using Marula fruit and things we planted. Nowadays, people who

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[268] Chinese chips' red colouring should be considered in the context of Agard-Jones' (2013) 'body burden' - accumulated harmful substances present in a body. These burdens highlight environmental racism (McDonald 2002), and can attenuate the ways in which 'black bodies remain inextricably entangled with the forces of capital—and are disproportionately porous' (Agard-Jones 2013: 182).

are more sick are people who eat all kinds of foods, especially, younger people. The old ones are OK because they didn't grow up eating foods with chemicals. Food is really important.'

Increased incidence of *vhulwadze* was consistently attributed by Musundians to meal composition changes, from '*vhuswa* and veg' to an increased variety of foods, and to 'fridge foods.' Jayne explained: 'Now there is a lot more sickness than before . . . because these days there is a lot [more variety] of foods that we eat, but before we used to eat *vhuswa* and vegetables only.' Shifts from *zwiliwa zwavhudi* (good foods) like *vhuswa* and *moroho* (greens) towards more processed foods, like white bread, and an increased variety of foods, were repeatedly discussed as negatively impacting health.

In discussing dietary changes, comments like Erics' assertion of the 'African-ness' of *vhuswa* may indicate a distrust of products brought in by those representative of a colonial/Apartheid authority (i.e., *makua* foods); these processes are intertwined with the encroachment of protected areas. Gloria suggests that dietary changes lead to sickness 'because there are lots of things that we use nowadays, like different kinds of foods. People just eat anything even if it is against their health. Before, it was *vhuswa* and *delele*. Bread and tea was only on Christmas days. There was not even jam.' Gloria's description of the shift from a staple diet of un-refined starch (*vhuswa*) and locally grown vegetables (*delele* are *morohos* - greens), to shop-bought white bread (highly processed starch) with jam (sugar), and tea (often with 3 – 6 teaspoons of sugar) emphasizes increased sugar, and refined starch intakes – a common by-product of living in a food desert (Pearson et al. 2005; Shaw 2006) – intersecting with Frank's concerns regarding what he called a 'sugar diabetes problem.'

Musundians' nutritional intakes are influenced[269] by the park's role in limiting accessible cultivation spaces; in creating a remote food desert; in making gathered resources more difficult to access, which then influences the types of foods locally produced. For example McElroy and Townsend suggest that 'an African millet beer, thick and unclarified, is a rich source of calcium, iron and vitamins B and C' and

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[269] Moore and Vaughan (1994) critically engage with quantifying changes in nutrition, as dietary sciences have changed extensively over time, thus appropriate comparators often do not exist.

'widely recognized as food,' but where people 'change to a prestigious imported beer' the drinker is deprived of this 'important and inexpensive source of nutrients' (2009:212). This trend is apparent in HaMakuya, especially as marula beer, made from wild gathered fruits, is replaced by mass-produced wheat beers; in this way nutritional intake is tied to the park's foraging limitations. When attention to the nutritional implications of dietary changes is applied to HaMakuya, a number of considerations arise; inaccessible *morohos* mean that iron, fibre and other nutrients associated with leafy greens are more difficult to consume; *vhuswa* shifts to store-bought bread may impact on dietary fibre consumption, and certainly influences processed carbohydrate intake; pressures from the park regarding cattle tending, hunting, fishing and insect collection create challenges in accessing multiple protein sources.

Makua Foods and Diabetes

The dietary shifts described by Musundians, including the de-localization of food sources, like *vhuswa*, are what Kuhnlein and Receveur (1996) describe as 'non-directed change,' resulting from economic forces and industrialization that redirects land resources from subsistence and family food gardens to cash crops and industrial development (ibid:423). In a context where the redirection of land and resources is amplified by the simultaneous influences of an encroaching protected natural area (and tourists[270]), and the extraction of only certain species for trophy hunting, I consider how the park contributes to shaping Musundians' mounting nutritional concerns, for example, surrounding diabetes.

In early 2014 while shadowing Frank as a home-based care-worker[271], he explained his biggest challenge, was that seven of his fourteen patients had 'sugar diabetes':

> 'With all these *makua* foods, people just eat, but they do not know what is in them. Some of them have too much sugar. With my father, if I think someone could have just explained to him how to eat for his sugar diabetes, then he might still be alive. It is why I decided to do this. As a care-worker I can support people in knowing what foods to eat, or I can encourage people

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[270] 'MAKUA SWEETIES, SWEETIES' children shouted when I first visited HaMakuya. Mr. Mashudu, explained, 'Some white tourists who came through here gave children candies, and now they think all white people bring candy.' Although shops in the area sell candy, Mr. Mashudu's words made me consider the dietary influences of tourists, and researchers - attracted to the area by the park; further research on this is necessary.

[271] Home-based care-workers (Chapter 3) are locals trained to extend the primary care system.

to visit the clinic and take their medicines. I can explain the sicknesses to the people who have them, like sugar diabetes.'

As he spoke he pulled a bound collection of well-worn papers out of his bag. He showed me the dietary advice provided by the department of health which included a nutritional pyramid, and suggestions, for example, that people replace sugary carbonated sodas with water – a considerable (and ironic) challenge in this resource (and water) constrained setting.

Figure 6.12: A child playing with empty soda bottles

Processed meats, highly processed grains, increased consumption of red meats, and sugar-sweetened beverages are known to increase incidence of type-2 diabetes ('sugar-diabetes') (Fung et al. 2004; Malik et al. 2010; Micha et al. 2010; Monteiro et al. 2011). This chapter has already outlined the park's role in shifting use of grains – from home processed maize, to mass-produced and more recently to processed wheat (with increasing bread delivery); and how the park is implicated in increased meat consumption. In the previous chapter I highlighted the park's role in reduced water access, which in Fulu's case resulted in the choice to buy sugary carbonated beverages illuminating how the park is implicated in increased sugar intake (Figure 6.12). Concomitant processes like resource inaccessibility, food deserts, and the re-regulation of protein sources in Musunda, propelled by the park,

results in an industrialization and commercialization of foods described elsewhere as 'Coca-colonization' (Leatherman and Goodman 2005).

These processes are linked to diabetes in Musundians' narratives, but are also known in biomedical circles to be obesogenic[272] (Kirk, Penney, & McHugh, 2010) leading to malnutrition and other deficiency diseases like anaemia, or xerophthalmia[273] (McElroy and Townsend 2009: 214) as Mdu's observation of expanding waistlines in relation to 'makua foods' indicates. While the lack of a sub-district hospital makes it difficult to accurately determine HaMakuyan malnutrition rates, the district case fatality rate was above the national average (Massyn et al. 2015:viii). Having outlined the ways in which the park's remoteness contributes to a food desert and how the park influences nutritional intake, Musundians repeated linking of the park, dietary shifts, 'makua foods', diabetes and increased *vhulwadze* to the experience of edge-dwelling, is contextualized.

'Leftovers', Safety and Wellbeing

The following section highlights a 'friction' (Tsing 2005:6) in the ways in which elephants are valued that explains why some trophy-hunt 'leftovers' can cause sickness. For many Musundians, elephants were 'family' who offered protection when in the 'bush', however such a rendering does not align with current conservation framing of elephant as commodity. The provision of elephant meat as trophy-hunt leftovers influences relations of 'co-respondence', which instead become 'interactions' between human and elephant (Ingold 2012:436), prompting wellbeing-related concerns, like safety.

Eating Ancestors: How The Park Undermines Food Prohibitions

Frank's *mutupo* is elephant. When Frank's family still lived in Nyamazana, he explained the elephants 'knew' his people, but now they do not. 'We [Ndlovu] are related to the elephant' Frank said, describing a 'special relationship' between his clan and elephants: 'We give gifts and observe rituals that celebrate our ancestors and their link to the elephant. We also introduce our children to the ancestors. The elder population like *makhadzi*[274] or grandmothers will do this introduction.' In the past, when a Ndlovu came upon an elephant in the bush, the elephants would 'always make way' for a Ndlovu who had been appropriately introduced by

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[272] Contributing to factors that encourage obesity (Kirk, Penney and McHugh 2010).
[273] An eye condition related to, and a term for, vitamin-A deficiency.
[274] Makhadzi, the headman's sister, is trained in practices that honour the ancestors (Chapter 4).

makhadzi. Frank's explanation suggests that, like in Locke's 'ethnoelephantology' which explores social, historical, and ecological intersections between Asian elephants and humans, there existed 'continuities between the sentient and affective lifeworlds of humans and elephants' (2013: 79). I suggest these 'mutual entanglements' (ibid) have been changed by the park's provision of elephant as food.

Could shifts in protein sources, and sickness narratives, linked to the park's provision of meat, reflect changing relationships between humans and nature (cf. Caplan, 1997: 8)? In his work on the ecology of materials, Ingold discusses a distinction between 'things' and 'objects' (2012:436). Things are interacted with and mutually constructed, objects are bounded, external from ourselves; objects act on or against us while things can join with us in a process of on-going formation – exhibiting a 'leaky'-ness (ibid). In a process counter to the 'thinging' described by Ingold (ibid) the park policies objectify elephants, creating objects out of formally leaky things.[275] This forces people to alter their relationships with elephants, as they are no longer touching, observing and 'co-responding' their movements to the constituent energy and materials tied to such an engagement with 'things' (Ingold 2012: 435-436).

The park's meat provision practices, combined with the inaccessibility of spaces where elephants live due to the fence, changes the ways in which places and species are engaged with. For example, in offering elephant meat as food, 'profound bonds' (cf. Peluso 2004:115) between human and elephant are ignored, as the elephant is commoditized. This conservation-protectionist mode of engagement is positioned over other ways of knowing or engaging with local surroundings, re-framing 'things' once engaged with (Ingold 2012:438), for example, elephants, into 'objects' that are feared, potentially affecting 'interpersonal social intimacy' (Kohn 2005:1717) or a 'more than human sociality' (Tsing 2013:27). Park policies that objectify elephants, in practice, force elephants and people into *different/new* relations shaped by ideological commitments - like fortress conservation - linked to the park's approach to people, place, and animals that significantly differs from Frank's 'special relationship' with elephants.

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[275] Cesaire (1972) suggests that 'thing-ifying' is akin to colonization; this very different use of 'thinging' parallels objectification, and not relational engagement, but further discussion is beyond this thesis' scope.

Cultivating wellbeing in HaMakuya includes the important work of cultivating relations with non-humans (Chapter 4). Frank asserted that in the past there was no need for the rangers because the elephants kept them 'safe' within the park, but relationships that were once formed through 'co-respondence' (Ingold 2012:435), familial even, have now turned oppositional. Drawing on Kohn's observation that 'how other kinds of beings see us, matters' (2013:1), in HaMakuya the ways in which species know one another is influenced by their contact.[276] Frank attributed the fact that the elephants no longer 'know' the Ndlovus to an inability to share the bush with them, implying that relationships emerge from a shared space. Seemingly, elephants once accepted as 'leaky things', have been transformed into 'stopped-up objects' through the fence (Ingold 2012:438) such that energies, and materials between, for example, Ndlovus and elephants, that previously contributed to local ecologies of wellbeing, are no longer exchanged or flow (Cohen 2013). The importance of exchanges and flows, in the process of 'knowing' raises the discussion of *misho* again; in Chapter 4 I describe the ways in which substance exchanges between humans and baboons were used to prevent and treat *misho*, assisting an infant in 'knowing' ancestors and baboons. While there is much more I need to learn about how these recurring themes of substance exchange are locally linked in ecologies of wellbeing to ways of knowing non-human and intangible forces, their recurring presence together indicates a connection (and important avenue for further inquiry).

Chapter 4 also explained that mutupo-related food prohibitions meant that eating buffalo – the other 'leftover' offered to Musundians – could equate to 'eating ancestors' which can lead to illness or suffering. The park neglects the local reality that some species of 'wild' meat are perceived to hold more nutritional value than purchased or provided meats (see Ndibalema and Songorwa 2008) while other species like elephant or buffalo may be inappropriate for consumption. Although

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[276] Kohn (2013:1) suggests that 'seeing, representing, and perhaps knowing, even thinking, are not exclusively human affairs.' This, when read alongside Descola's assertion that a subtle sociability is changed when contact and interactions change, leads me to suggest that if contact with an animal changes, so too does the animals' ways of knowing people, and vice versa. 'Knowing' in this way refers to a process that is built from experiences of 'potentiality' (qualities) and 'actuality' (events) where 'knowledge' evolves from experiences of 'regularity' (Kohn 2005: 173); as such, the park provides for edge-dwellers to have *knowledge of*, while reducing the ways in which they *know*, elephants, and vice versa.

some residents explained that elephant meat prohibitions have changed[277] with its provision as 'leftovers', for others this prohibition still exists.[278] By offering these species, the park ignores a 'common humanity' shared with animals and the potential that 'animals are visible manifestations of normally invisible anthropomorphic beings' (Peluso 2004: 115). This changes the ways in which edge-dwellers can engage in a 'mutual laying down of the conditions of life . . .not limited to the human realm' (Cohen 2013: 92). By providing 'benefits' that counter local food prohibitions, as elephants and buffalo, once family, are made into meat, the park assists in processes that separate edge-dwellers from their surroundings, alienating and altering bonds between humans and non-humans that propel safety concerns.

Family as Food and Related Safety Concerns

At the end of Chapter 5, I suggested that although the park's fence imposes resource access limitations, it is a permeable boundary; elephants, leopards and lions cross it. Referring back to efforts to incorporate *pfene* (baboons) into bodies and lives through *misho* prophylaxis (Chapter 4), I emphasized that intangible relations matter. The fence makes knowing what an elephant is (qualities) possible, but cuts off knowledge of what an animal does (properties) (Ingold 2012: 434) which ultimately breaks down 'continuities' and perhaps, 'mutual entanglements' (cf. Locke 2013: 79). Here I suggest that essentially, as relations between Musundians and elephants are altered by the park's provision of elephant meat, Musundians fear '*phuka* (animals) that belong to Makuya park', whom they no longer know.

The park's practice of trophy-hunting 'loots' (Tsing 2005:67) resources, while transforming them into commodities, which alters their meaning. Elephants, once family, are now positioned by the park as food. The park influences ecologies of wellbeing as processes of 'co-respondence' are cut off; for example, hunting prohibitions remove edge-dwellers' ability to engage in meaning-filled hunts, and feeding Musundians' their ancestors undermines local prohibitions, changing the ways in which non-human actors shape personhood and knowledge - limiting 'potentials immanent in a world of becoming' (Ingold 2012: 435). Frank, Jayne, Ruth, Gloria and many more suggested that fear of animals influenced their

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[277] Older residents suggest youth increasingly ignore *mutupo* prohibitions (Chapter 4).
[278] Some Musundians eat elephant. Most said they do not, offering diverse reasons, including because it is their *mutupo*; it menstruates like a woman; the meat smells 'like human meat.';

wellbeing. Safety emerged as a wellbeing related concern as elephants threaten people's crops, while carnivores threaten livestock and Musundians. The park not only shapes the ways in which one engages in ecologies of wellbeing by influencing dietary practices, but it also impacts how Musundians relate to non-human species, and their sense of safety around their homes.

Large animals, like elephants, and leopards, are rarely contained by the neat rows of fences meant to keep them inside - like edge-dwellers, they challenge the nature/culture boundary imposed by the fence. When I first moved into Musunda, Fulu explained that once in bed, I should use the bucket in my room, instead of the out-house. I followed Fulu's instructions until, one night, very late but long before sunrise, I awoke with stomach pains that motivated me to brave the late night dangers. Successful in this endeavour, I began regular mid-night toilet visits. After all, it was only 100m from the house, what could be the harm? However, that month, when I asked a care-worker from Bennde Mutale[279] to reflect on the biggest challenge of living alongside the park, she explained that a leopard had recently attacked a boy and fear of a similar fate was spreading. The stress of ongoing concerns for safety in the context of wild animals, this woman suggested, was unique to edge-dwelling. Not long after, leopard spoor were found along Fulu's neighbours' fence, and goats went missing. My night-time toilet adventures ended, and I listened more carefully to safety concerns.

Although in 2013 some Musundians suggested the fence protected them against potential wildlife attacks, by 2015, the permeability of the fence was repeatedly a concern. Fulu suggested that 'one of the disadvantages of living next to a nature reserve is when wild animals escape. Livestock and the people themselves are not safe. If a lion has escaped, you would walk around at night not knowing that a lion is roaming the village.' Ruth provided more context:

> 'The park has brought lots of loss for us. We used to farm different livestock. There are seven lions loitering in the streets and they attack our livestock. These lions are not really fed inside so they escape from the park. The fear is that the lions will finish all the livestock and then come to the human beings. There is no one compensating us for this loss. . . . People are not safe. The rangers do not patrol this area. They are more worried about people hunting

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[279] A Sanari (neighbouring) chieftaincy village bordering Makuya park.

their animals. They don't care whether the animals kill our livestock or attack our families. I have lost goats, attacked by leopards. We are told to take pictures of the animals (Figure 6.13) but nothing happens after that. Maybe we must move away.'

Ruth acknowledged that before the fence Musundians and animals came into contact, but conflict and cattle loss is increasing. She discussed how Makuya and Kruger rangers care more about people getting in, than animals getting out; positioning the park's animals as 'objects', 'against' her life (Ingold 2012:436), or her childrens' or goats'. She noted that she was not repaid for livestock killed by carnivores - the loss of livestock to carnivores is not uncommon, imposing additional stress and concerns for Musundians, especially those tending others' cattle for wages (R600 – 800/month) as cattle are expensive to replace (R10,000). She also suggested that the park's formalization led to less game, and less space for the lions to hunt, so they escape. Rather than biodiversity flourishing within the park, her sense is that lions breach the fence out of hunger.[280]

Figure 6.13: A goat, suspected leopard attack

One of a number of similar photos from photo-journaling activities.

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[280] A professional hunter explained lions' difficulty hunting within the park results from a combination of the terrain (density of trees and the space needed to run down prey are not compatible) and a lack of appropriate prey, aligning with Ruth's analysis.

Before the fence, human/wildlife interactions included contact and rituals that allowed someone like Frank to 'know' the elephants (see Sullivan's [2016, 2017] Namibian example). This is not unlike Descola's suggestion that among the Achuar technical know-how 'is indissociable from an ability to create an intersubjective ambience' in which different interlocutors (human and non-human) can flourish (2005:5). The park changes technical know-how as it re-frames a space once filled with family into a space filled with *phuka* (animals) - tied to monetary values, devoid of relations - that belong to someone else. The park forces shifts in engagements with animals, that impacts on how people 'know' them, which can propel fears.

It is worth considering that edge-dwellers' emergent response, that positions *phuka* that 'belong to Makuya Park' (Ruth) as threats to their safety results from the park's reframing of elephants, which works to cuts off 'shared personhood' and social interactions between HaMakuyans, and non-humans (Peluso 2004:115; see also Vivieros de Castro 1998,1999; Kohn 2013; Sullivan 2016, 2017). With the park's animals increasingly blamed for Musundians' livestock losses, beings once accepted as 'leaky things,' become objects resented/feared by some for not remaining 'stopped-up' by the fence (Ingold 2012: 436; see Sullivan's [2016, 2017] discussion of lions as agents and Goldman et al.'s [2010] considerations of Masaai/lion interactions addressing the ambivalent relations between humans and non-humans, beyond conflict framing). Musundians' increased concern for safety emerges from altered intangible relations linked to elephant 'leftovers', as well as changes in the incidence of actual contact, linked to the fence and hunting regulations.

Drawing on Sullivan's assertion that, among people who historically acknowledged personhood in non-human entities, from peoples in Africa to the Amazon, ecological relations are social relations (2016: 160) and vice versa, it is evident that the complexity of Musundians' relationship with the park is not only characterized by struggles and/or obstacles to getting resources out (Chapter 5). The park has a role in catalysing subtle sociality shifts (Descola 2013:5; Overing and Passes 2000), and in propelling fears associated with the fact that park biota, imagined (by park staff, conservation imposed landscape renderings, and some edge-dwellers) to be contained by fences, sometimes breaks out. Consider how HaMakuyans discussions of living in a good way reflects the need to provide for, and ensure one's family's

wellbeing, both of which are challenging when one fears for their safety. Edge-dwellers' safety concerns generate fear[281] and stress[282], so much so that Ruth suggests a potential need to move her family. Perceptions of personal safety[283] influence a slew of life experiences, which have knock-on effects for health, from nutrition to emotional/social connections (Taylor et al. 1997; Frumkin 2003). Stress avoidance - a local method of maintaining wellbeing (Chapter 4) - is difficult in this context, if not impossible. Living in fear over personal and livestock safety is a place-based risk (Frumkin 2003) and park imposed environmental injustice (McDonald 2002; Brulle and Pellow 2006) specific to edge-dwellers; such fear, or chronic stress can create an 'unhealthy environment' (Taylor et al. 1997:419).

Dietary Changes and their influence on Vhulwadze (Sickness)

Trophy-hunting 'leftovers' may alter relations in other ways; local practices related to ancestral reverence demand that *makhadzi* informs the ancestors of an intended forage or hunt with offerings (Chapter 4). If this is not done, the ancestors may be angered, which in turn can bring *vhulwadze,* or as Fulu described 'Sometimes if you eat certain unripe fruits, you will find that wild animals such as leopards and snakes, sent by the ancestors, will come to the village and kill goats and cattle because the wild fruits **are not ready for the picking**. (my emphasis)'. This indication that ancestors interact with Musundians through animals (see Morris 1998, 2000; Taringa 2006; Sullivan 2016, 2017) has implications for trophy-hunting; if *makhadzi* cannot commune with the ancestors before a hunt, then eating the meat could bring sickness. If Musundians are divorced from the process of hunting as happens with the trophy-hunting-leftovers, or if the animals hunted were not supposed to be eaten, perhaps, not yet 'ready for the picking', then care relations between ancestors and edge-dwellers are interrupted such that these meats might be sources of *vhulwadze*. Thus not only do trophy hunt 'leftovers' affect human/animals relations and propel safety fears, but they also potentially bring sickness/suffering impacting on one's sense of wellbeing.

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[281] Fear increases heartbeat, vascular constriction, and temperature, which further stresses a body (Levenson 2003).

[282] Stress has a variety of negative biomedical implications; long-term stress is cumulative (Hans Selye 1956 in Taylor et al. 1997:414) often with 'cascading' effects (McEwan and Stellar 1993 in Taylor et al. 1997:415) that impact on hypertension, immune responses (Andersen et al. 1991; Seeman et al. 1996 in Taylor et al. 1997: 415), mental health (Melamed 1995), with indications that stress, coronary heart disease and depression are inter-related (Taylor et al. 1997: 416).

[283] Safety is a key indicator in the WHO's Quality of Life assessment tool (WHOQOL Group 1999).

Dietary Changes Leading to Generational Differences and Anxieties

Throughout this chapter I have indicated that many Musundians older than 35 raised concerns about meal composition, and dietary changes in younger generations. Frank explained: 'In [the past] we never got sick like the way we are now because there were lots of wild fruits that people ate. Nowadays the children are not interested in fruits, they like yogurts . . .'. Kifleyesus (2002: 268) highlights a similar pattern in Ethiopia, complete with generational conflicts, among young Argobba individuals who prefer processed and pre-packaged foods over similar homemade ones. Unlike Kifleyesus' contention that the preference for processed foods results from what Illich (1977) refers to as 'commodity centred culture' of urban centres, in HaMakuya, such choices were not necessarily made simply as a result of desire. In many cases, as the 'Chinese Chips' story reveals, edge-dwellers lacked choice, and other times, pre-packaged foods (i.e., store-bought *vhuswa*) simplified daily workloads, water demands and transportation needs. Having established the park's contribution to water scarcity in the previous chapter, seemingly such scarcity influences decisions to use industrially produced *vhuswa*, which lead, in some cases to narratives of anxiety (cf. Srinivas 2013) especially regarding meal composition. This might reflect intergenerational anxieties, which is potentially one way that the park's role in influencing diets also impacts on inter-personal aspects of local ecologies of wellbeing.

Work, and Knowledge of Cultivation

The park's influence on diet extends to the daily activities one takes part in, for example, in an effort to prepare a meal. As Caplan (1997:5) explains of Mintz' (1984, 1985) assertions, prepared foods have profound impacts on our lives in that they remove some of the social 'work' and knowledge that in-home food preparation fosters. Put more simply, according to Penny, the work of farming, and preparing one's own food creates skills (i.e., cultivation), while encouraging exercise among children. However, shifts in diet, the industrialization of foods and thereby alienation from local food production impacts a number of *namanda*-building processes, for example, young people are robbed of exercise, and opportunities to learn about local cultivation/food preparation; potentially missing opportunities to transfer local ecological knowledge (Howard 2003; Turner 2003).

In her exploration of food, health and identity in Britain, Caplan asserts that shifts in diet can 'powerfully symbolize' wider societal changes (1997:8); thus although

dietary changes are bound to happen, one way of reading HaMakuyans' perceptions of changes is that they reflect wider societal changes like the park's impositions and influences. Could it be that the repeated concerns around diet are a way for HaMakuyans to voice their concerns about the park? Regardless, the fact that dietary change is continually discussed in relation to the park brings to the fore the reality that ecologies of wellbeing are influenced by its presence.

CONCLUSION: CONSEQUENCES OF THE PARK'S IMPACT ON DIET

My research shows that, for the majority of Musundians, edge-dwelling means living with food insecurity. Reflecting on life at the park boundary, Musundians repeatedly discussed food security, food quality, meal composition changes, and personal safety. The no-longer-accessible variety of resources, and relationships resulting from the park, shapes diets and the flows of materials, organisms, and energies that constitute local ecologies of wellbeing (Cohen 2013). I suggest that in making priority resources and places unavailable, the park influences practices, engagements with local landscapes (physical aspects, and biota), and vitality building processes of co-creation that emerge out of relations with one's (biotic, abiotic, non-visible) surroundings.

The ways in which the park and its fence creates spaces of vulnerability that affect edge-dwellers is complex, ranging from interfering with human/animal relations to propelling dietary changes by offering access to only certain meats. The simultaneous processes whereby foods are increasingly industrialized, and lands increasingly regulated, leaves less space for cultivation and pastoralism, it changes the things one comes into daily contact with thereby influencing relations; it impacts on knowledge and skills; and it changes diets.

Dietary changes

Musundians' diets have changed; staple foods, like vhuswa, once produced at home are increasingly replaced by mass-produced, highly-processed maize meal and store-bought breads, while gathered resources like wild fruits and *morohos* are less accessible, in part because the park limits cultivation by making river irrigation sources inaccessible and restricts access to foraging lands. Protein sources are limited by a range of park-related dynamics including cattle grazing restrictions; hunting re-regulations; prohibitions on certain types of fishing; reduced foraging space for Mopani worms and termites; and replacing game meat with 'fridge foods.'

Protein sources, already challenged by the park, are further compromised as conservation philosophies and resultant policies do not account for local food preferences, but rather feed Musundians their ancestors. Land dispossession impacts not only livestock grazing spaces, but also spaces to cultivate socially salient keystone species, and relations. Impacts like these accelerate processes of food industrialization and de-localization, which in turn influence food availability and quality. Dietary changes resulting from the park affect perceptions of nutritional intake, which older residents suggest leads to increasing incidences of sickness.

Generational differences

Foods accessible today are different from those that Granny Funi had when she was young, like fresh milk and *makhaha*. Sarina can still remember a childhood with 'fresh milk from the cows,' but has always bought store-ground, bleached maize meal instead of *makhaha*. The children of today will remember neither fresh milk nor *makhaha* as part of their childhood. These dietary changes reflect a shift away from self-provisioning to a reliance on foods produced by others, and on money to buy it. Many Musundians indicated generational differences in willingness to buy industrially produced foods. Consumption patterns have thus changed, especially between generations; older people dislike 'white people's food'; younger people accept sugar-rich, processed, shop-bought foods, and new food categories (e.g. snacks).

Vhulwadze (sickness)

These types of dietary changes have consequences. Musundians perceive that they are affected by new illnesses, especially diabetes, as a consequence of dietary changes whose origins they trace back to the creation of the park. Such changes not only create anxiety, but the increased sugar, and processed products that Musundians described of their diets have biomedical implications ranging from heart disease and diabetes, to digestive concerns.

Wellbeing

The park has a role in changing the composition of meals with associated impacts on nutrition; it undermines food prohibitions which can lead to sickness; increases the need for cash adding stress; influences agricultural and livestock practices reducing access to milk and meat; propels generational differences and adds to the mounting pressures of living on the edge. In addition, the conservation philosophies that imagine people as independent from their surroundings - the same philosophies that

fence off sections of land as 'pristine' - do not account for all resources uses, for example, Mopani trees as sources of protein, nor do they consider non-material resources, such as relations (elephants as family). Even when the park applies compensatory practices, for example, the (paltry) 'benefit' of trophy-hunt leftovers, they do not realistically provide much compensation. Not only are these 'benefits' difficult to access, but the resources that the park provides, such as elephant meat, force edge-dwellers to alter relations and types of engagements. Conservation-related restrictions and compensatory practices fundamentally change edge-dwellers' engagements with Musunda's surroundings, forcing changes to *namanda*-building diets and introducing *nungo*-sapping foods, with cascading health-related consequences, including obesity, and safety concerns. The final ethnographic chapter briefly addresses the ways in which the park influences interpersonal relations and offers a different example of the park's role in affecting human/animal relations.

CHAPTER 7: Makuya Park and Social Relations

INTRODUCTION

The previous chapter outlined the ways in which Makuya Park (the park) reframes vital relations with non-humans and ancestors, while this chapter explores the impact of the park on social relations and conflict, as reflected in, for example, notions of sickness, sorcery, and jealousy. The ways in which the park shapes interpersonal relations and wellbeing are considered through HaMakuyans' efforts to access care when faced with *vhulwadze* (sickness). This chapter further engages with the park's influences on edge-dwellers ecologies of wellbeing by considering the indirect impacts it has on social relationships.

In order to do this I first consider the park's role in shaping disease classifications and explanatory frameworks, and thereby edge-dwellers' healing options and choices. I consider how shifts in relations of care link to narratives that blame sickness, like malaria, on the park. I question why, if Musundians identify *lunyunyu* (mosquito) as the source of malaria, do they consistently blame the park and/or its animals for malaria? Then, mostly through an analysis of local decision-making regarding *vhulwadze* (sicknesses), I examine how edge-dwellers' interpersonal dynamics impact *mutakalo* (health), including concepts of *vhivo* (jealousy) and *muthi* (sorcery[284]). I also reflect on the park's role in shaping interpersonal tensions, while considering how external influences that the park attracts, further impact wellbeing. First, I explore the park's impact on local social practices, which form an important part of, and resource in, efforts towards wellbeing.

***VHULWADZE* (SICKNESS) AND SOCIAL RELATIONS:**

In HaMakuya relationships significantly impact resource access. Previous chapters suggested that managing stress related to social conflict, and thereby careful navigation of social relations are central to local ecologies of wellbeing, as are efforts to adhere to practices that appease ancestors and elders. Here I analyse how

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[284] *Muthi* is the practice of dark magic, often linked to witchcraft, and 'traditional' healing, but is in fact distinct from both (see http://www.justice.gov.za/trc/amntrans%5C1999/99071214_tho_990712th.htm - for historic Venda context in this regard). A rough translation may align '*muthi'* with 'sorcery'; '*muthi'* is discussed later in this chapter.

the presence of the park has influenced edge-dwellers health-seeking practices and how the resultant transformation of interpersonal relationships has encouraged narratives of blame toward the park.

In HaMakuya, the 'certain ways of being and doing' that form the commonplace and intimate interpersonal relationships central to local ecologies of wellbeing (Cohen 2013:92; Chapter 4) often include avoiding strong feelings of jealousy (cf. Cocks and Moller 2002). Ways of being and doing are always changing as '[h]umans and nonhumans continually create their conditions of existence in a dynamic ecology which is never exactly the same from one moment to the next (Ingold 2011: 8)'(Cohen 2013: 92). Health practices are no exception to this ongoing state of flux. Furthermore, health related choices generally lack discernable patterns (cf. Resnicow and Page 2008), especially in medically plural contexts where there are multiple views about health. For example, the same health related emergency might garner completely different responses given a persons' gender, age, past experiences, socio-politico-economic pressures and other context-specific factors. Levine - a South African medical anthropologist – emphasises the 'uneasy journeys people make in search of healing in medically plural settings' (2012: 7). Such a 'journey' coincides with the fluidity, interconnections, and flows inherent in Cohen's (2013) ecologies of wellbeing, and appears to follow the dynamic, and messy realities of life in HaMakuya, including the choices people make and types of social capital that HaMakuyans mobilize when seeking health. In order to discuss the way that the presence of the park has shaped HaMakuyan health journeys, I first describe health-related concepts and available treatment choices.

Healing Options in HaMkuya

In HaMakuya, there are a range of treatment choices, including the clinic, local healers (*maine*), and churches, while some travel up to 800km to attend evangelical prophets' services. For HaMakuyans, access to the clinic is free, but may require waiting many hours. Visiting a private doctor, or a specialist is expensive, as is consulting a *maine* (healer).[285] Many *maines* live near HaMakuya, but private doctors are not available in the immediate vicinity. The church may also be a source of free healing for some, as Eric explained: 'In the past we had no option but to go to the traditional healers and pay for the services provided. So now we decide to go

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[285] Biomedical care is available for free in South Africa, and traditional healers can cost significantly more than biomedical options (Nxumalo et al. 2011).

to church because we pay nothing. When we are sick they pray for us and the faith we have in God heals us.' Despite treatment in the church being 'free', people are encouraged to, and often comply, to donate (sometimes, significant sums) to the church and/or pastor. In addition, many churches openly oppose[286] the use of *maines*. Social pressures that impact decisions made when facing sickness include church affiliations, familial and ancestral responsibilities, and political affiliations. As such, care-seeking choices do not necessarily follow ease of access or cost-effectiveness, indeed, few people are *Homo Economicus* when it comes to wellbeing (Fischer 2012).

HaMakuyans 'journeys' to wellbeing when ill most often start at the clinic.[287] Their choices, if the clinic fails to meet their needs, depends on the individual and their affiliations; people with relatives who are healers often report seeking care from them, while many others visit the church for healing. In some cases, social pressures influence decisions around care. For example, when Mr. Mashudu began struggling with limb pain and insomnia, he initially suggested that visiting a *maine* was not an option because of his church affiliation, illustrating how relations among church members may factor into decisions regarding wellbeing. His case indicates how health-seeking choices can result from strategic avoidance of social strife and can potentially negatively impact on significant social relationships. Ostracization from the church is particularly serious for those who depend on church-related services, such as monthly *stokvels*, group savings schemes, often organised through church-affiliated social networks. Mr. Mashudu hesitated to follow Sarina's suggestion of visiting a *maine* because, he explained, he was concerned about what might happen if members of his church found out. Similarly, when Noretta asked if I would join initiation rituals if invited by elders, and I said yes, she shook her head and whistled, explaining that the idea of those 'traditional ways' scared her, because her 'church does not approve.' This fear is likely tied to colonial/missionary teachings (cf. Kirkaldy 2003; Kirkaldy and Kriel 2006) and history[288], and shapes some edge-dwellers' care-seeking choices.

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[286] Berlin missionaries informed converts that practices such as initiation rites were 'devil' worship (Kirkaldy and Kriel 2006:213); this influences contemporary HaMakuya when witnessing churchgoers disdain for 'traditional' practices.

[287] Despite my assertions of disinterest in biomedical care, as a white woman, with an interest in 'health,' I was repeatedly assumed to be affiliated with biomedicine; indicating a potential response bias.

[288] This fear of healers emerges from missionaries, but also relates to local history with regard to a spate of witch burnings in the 1980s and 90s (Minnaar et al. 1992).

The availability of public biomedical care services, as well as family members' opinions and actions also influence care-seeking choices, as the following example illuminates. Returning to Ruby's story introduced in Chapter 3,[289] in March 2014 I gave Ori, Ruby's daughter, names of wound specialists to tend to her mother's foot, but could only find specialists in Polokwane, over 200km away.[290] In April, Ori's older brother, living in Johannesburg, visited. Unhappy with his mother's condition, he had her admitted to a Johannesburg hospital. That Monday Ori was confident her mother would improve in a 'big Joberg hospital.' However, by Friday, Ruby was in ICU. The next week, as I passed Ori's house, en route to the Camp, it was a flurry of activity. Women were outside, pulling weeds, sweeping dirt, washing pots, while a gaggle of children played. I stopped the car. Before I reached the gate, Ori was there, tears in her eyes. Ruby had died.

When I returned that evening to help prepare the house for the weeklong mourning, more people had arrived to assist. In fact, crews from other villages made the long walk to rebuild the road around the house that had become impassable due to erosion. All of the village women were there, working through the night. HaMakuyans' responses to Ruby's death - the rallying of work parties - highlights the importance of social support and care. Just like the 'Chopping story' (Chapter 3), this part of Ruby's story exhibits the social expectations and reliance among HaMakuyans. Ruby's care-seeking started locally, but her efforts to access tertiary care ended in frustration, her physical decline and her son taking over care decisions. Similarly when Mr. Mashudu was struggling to rid himself of *tshipfula*, it was his sister's[291] suggestions of visiting a specific healer that brought him relief. Such reliance on family support in care-giving and seeking is not unique to HaMakuyans, as Kleinman explains family 'is a dominant force in health maintenance,' playing 'a major role in healthcare seeking choices' (Kleinman 1978:80). Family is imperative in care networks, and caregiving provides insight into local moral practices (Kleinman 2009).

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[289] This example continues Ruby's story, which described repeated attempts to access specialist biomedical attention for a wound.
[290] Rural areas struggle to attract/keep specialists due to 'brain drain' - the tendency for persons with specialized skills to move to cities, or high-income countries (Pang et al 2002).
[291] See Appendix 4.1

Concomitantly, in reflecting back to the early parts of Ruby's story (Chapter 3), the social support from her in-laws made her initial illness experience less challenging than if she had stayed at home, far from the clinic. In the absence of government promised service delivery, neighbours pool resources and labour, such that social relations are central to maintaining wellbeing, and mobilizing resources when edge-dwellers face *vhulwadze*. Ruby's story thus far illustrates the ways in which residents work together to ensure access to care, and to prepare a home for burial rituals - part of living in a good way.

Various social relations affect health-seeking decisions, but how the illness is perceived – its local diagnosis, including disease classification and explanatory frameworks – further dictates decision-making. Musundians are pragmatic, dynamic in their decision-making, and sometimes secretive in their health-seeking choices – a point I will return to when discussing jealousy and sorcery. Perceptions of disease categorizations factor centrally into the decision of which type of healer to visit. Scholars have suggested that VhaVenda diseases are classified by causes, such as supernatural forces, the gods[292], witchcraft and/or sorcery (Mabogo 1990:94; Mafalo 1997:63 in Mulaudzi 2007). Mabogo's (1990) piece is specific to TshiVenda speakers, but Mulaudzi's (2007) claim regarding disease categorizations refers generally to rural inhabitants of the larger northeast region of the country, and relies on data gathered prior to 1997. As such, there is limited contemporary work exploring TshiVenda speakers' disease classifications/categorizations outside of discussions related to HIV/AIDS (see McNeill 2009).

As suggested by Kleinman (1980) and reinforced in a review of explanatory models for mental illness in the sub-Saharan African context (Patel 1995), disease categorization and classification are commonly linked to explanatory frameworks, both of which contribute to how healing decisions are made. Mulaudzi (2007) emphasized that categorical separations are made between conditions that are regarded as African versus foreign. In HaMakuya, some forms of health-related suffering are not treatable at the clinic, for example, *tshipfula*[293] and *dorobo*[294] are identified as better treated by *maines*, while other illnesses, like malaria, are better

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[292] Mabogo translates 'the gods,' as *vhadzimu*, which in HaMakuya = 'the ancestors.'
[293] *Tshipfula*, often linked to *muthi* results from another person's sorcery, described in more detail below. *Tshipfula* is ascribed to a curse 'sent by others,' while *muthi* in this case refers to sorcery.
[294] A sexually transmitted disease with symptoms similar to a yeast infection (smell and discharge); '*Dorobo* can become HIV if it is not treated.'

treated with '*makua*' or 'clinic medicines.'[295] Adding to the categorical separations that Maluadzi (2007) described, a number of Musundians made clear their perception of categorical distinctions between '*muthi*' and 'natural sicknesses'.[296] Additionally, as previous chapters' discussion of *misho* highlights, social relations, including those with animals as/and ancestors, factor into HaMakuyans' disease categorizations and explanations.

To understand the ways in which the park impacts local disease categorization, explanations and care-seeking, it is noteworthy that among HaMakuyans categories of illness are not always mutually exclusive; they can co-exist and illnesses can be multi-dimensional. Mr. Mashudu explained, 'After I was healed from malaria at the clinic, I stayed sick. It changed, when it was malaria it was like the flu and headache, but now it is *tshipfula*, with these pains up my leg.' As Mr. Mashudu's sickness changed, and as various forms of care failed (first the clinic, then church, then a local healer, then a pilgrimage to ZCC headquarters in Moria, then another healer) his beliefs about the power (*namanda*) of healing options, and thereby his engagement with different types of healing also changed. This reflects trends discussed by Thornton (2010), who, in responding to discussions around medical pluralism while exploring healing choices in the neighbouring Mpumalanga province, describes similar journeys as entering 'healing markets[297].' He argues that 'belief in the efficacy of a therapy' is the primary criteria by which people judge therapies and thereby enter into a 'market for belief' (Thornton 2010: 145-46).[298]

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[295] Malaria is an illness, along with AIDS, that some local healers contend they cannot provide cures for. Musundians included cancer, sugar diabetes, cholera, flu and bilharzia, as challenges that are better treated by the clinic than the *maine.*

[296] Where 'muthi' comes from sorcery, and 'natural' indicates an illness that has not been brought on by other people.

[297] Thornton's 'market of healing' is not an economic market; choices are 'not made on the basis of economic rationality' (2010: 145). Thornton, drawing on Waldram (2000) notes that ambiguity is an unavoidable property of healing, and thus the analytic use of a 'market' (as opposed to a system, institution or structure) provides more realistic insights into the inconsistency of beliefs and practices that he noted in people's choices of therapies (2010:147).

[298] Thornton asserts that the South Africans he worked among 'generally, do not insist on, and one rarely finds, logical or formal consistency in belief systems, especially as these relate to health and healing' (2010:147). People treated healthcare choices 'more like a cultural bazaar where the value and commensurability of independent systems are on display, available for the taking and make no claims to cultural coherence' (ibid). Thornton acknowledges risks, options, losses, gains and outcomes that are not guaranteed and that 'people spread the risk of commitment to one therapy by initiating others' (ibid.:148). This use of overlapping therapies suggests that 'elastic' beliefs 'change to fit the therapy and thereby enable it' (ibid.). Mr. Mashudu exhibits this elasticity, and the enabling power of belief, as he vacillated between understanding himself to be healed immediately after (clinic, then church, then healer) treatments, to being in despair about his ongoing *tshipfula* struggles as belief in each treatment waned when symptoms returned. Levi-Strauss similarly discusses the notion of symbolic efficacy that links belief to the efficacy of healing (1963:168).

Reading this alongside Favret-Saada (2012), who engages with 'an anthropology of therapy' in her explorations of witchcraft in France, to suggest that allowing oneself to be 'affect-ed'[299] opens up the space to understand non-biomedical practices, for example, of the *maine,* as one of a number of available therapeutic choices for HaMakuya's edge-dwellers.

My research suggests that disease classifications and explanatory frameworks may be changing. Changes in classification are likely shaped by broader changes, like the end of Apartheid, that have elapsed over the last two decades since Mabogo (1990) and Maluadzi's (2007) research ended. The ways in which the park informs classification changes are most evident in the recurring pattern of blaming the park and its animals for malaria. In order to offer an explanation of the park's role in these changing patterns of blame, because explanatory frameworks are linked to healing options, I first describe the ways in which the park shapes choices in care seeking.

The Park's Impact on Care and Care Choices: the case of malaria

The park limits HaMakuyan health options. Precious explained: 'Malaria can be cured, it's just that we don't have access to things that can be used to cure.' She knows which tree bark to use, but cannot access it as these trees have been overharvested, 'even from healers from Cape Town,' although one species is still available within the park. However, as described in Chapter 5, the park's fence excludes HaMakuyans from gathering some plant species by limiting their access to the areas in which they grow.

The fence cuts off access, and renders people unable to move through certain spaces, which impacts the sharing and transmission of plant knowledge. One *maine* explained that classification of African and foreign sicknesses are linked to the ancestors' knowledge which forms the basis for a healers ability to heal. Some healers, like Rosie, referred to malaria as a *makua* ('white people') sickness, suggesting that she could not heal someone afflicted by it. She explained that when

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[299] Favret-Saada (2012) suggests that an 'anthropology of therapy' requires considerations of the ways in which one is 'being affect-ed' or 'taken' by a therapy. As such, if one believes in a *maine*, then the *maine* becomes one of many options in a therapeutic market.
http://www.haujournal.org/index.php/hau/article/view/hau2.1.019/1064; accessed 29 September 2016

her ancestors visited her in dreams[300] they could not direct her toward the appropriate plants for healing because they did not *know* the local plants. If ancestors do not know the local environment then they cannot lead a healer to the appropriate plants. Such disconnections from particular places lead to a lack of knowledge about accessible plants. This implicates the park, as, at least, partially responsible for local healers' inability to heal malaria. The processes that created edge-dwellers have divorced someone like Rosie from lands *known* to their ancestors, which has, in turn, undermined local healing practices and the processes by which local ecological knowledge is accumulated, shared or transferred.

Perhaps relatedly, unlike any of the other sicknesses that the clinic can attend to, malaria is the only *vhulwadze* specifically attributed to the park. In HaMakuya, malaria symptoms are often discussed using biomedical frameworks (duration and location of headache); and healing choices when malaria is suspected, often begin with the clinic's biomedical care including prescription medicines.[301] My research suggests that HaMakuyan's overwhelmingly biomedically-oriented responses to malaria are partially attributable to living on the edge of the park since the park is responsible for attracting Western volunteers who run malaria-specific 'awareness raising' campaigns that emphasize biomedical symptoms.[302] Malaria stands out in Musundians' narratives as an illness that can best be cured at the clinic. In response to my question 'Is there anything that the clinic can heal that the traditional healers cannot?' Musundians often answered, 'malaria' or 'dali'.[303] The choice to visit the clinic instead of a local healer considers that healers no longer have access to the plants known to the ancestors. As such, I suggest that edge-dwellers' preference for the clinic acknowledges that the park's presence alters ancestors' relationships to the land and their ability to transmit remedies to the healers. The therapeutic option of

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[300] Peluso (2004) suggests that, among the Amazonian Ese Eje, knowledge can be accumulated through dreams – in HaMakuya some healers speak with ancestors through dreams that transfer healing knowledge, suggesting ongoing place-based relations with ancestors.

[301] Both the Malaria Awareness Program - launched in the area by foreign volunteers - and governmental engagements like visible malaria prevention through Indoor Residual Spraying (IRS) may contribute to this. See appendix 7.1 for a brief on malaria; and appendix 7.2 for South African government malaria control services.

[302] See appendix 7.3 for Malaria Awareness Program Case Study.

[303] In HaMakuya, the English term malaria is most often used. However, a local term, *dali* Fulu explained 'is the old way of speaking about malaria.' Directly translated, *dali* means fever. I have had discussions with people where the term is used to mean either malaria or fever. When consulting TshiVenda to English translations, dali is fever, in English to TshiVenda translations dali is malaria, and fever is a different word entirely; if *dali* is 'not quite' *malaria* this would not be the first time that the common translation of the word for malaria is not specific enough (Dugas, Dube and Bibeau 2009).

the *maine* has been undermined by the park, especially regarding treatment of specific sicknesses, like malaria.

The park influences the accessibility of certain healing options, shaping edge-dwellers' care-seeking choices. The fact that malaria was routinely linked to the park (see Ruth's comments opening Chapter 6) might emanate from the fact that the park objectifies non-human species, and affects edge-dwellers' ability to engage with certain species in relational ways that allow Musundians to *know* these species. When animals are not contained by fences edge-dwellers blame them, not only for safety concerns (lions), but as sources of sicknesses (mosquitos). Here I consider how the park's efforts to separate naturecultures (cf. Haraway 2003; Sullivan 2016) with fenced borders are conducive to narratives of blame that emerge among edge-dwellers, accusing the park of negatively impacting their well-being.

Although Musundians narratives blame the park for malaria, most residents also indicate that malaria spreads through *lunyuyu*[304] (mosquitos). Many Musundians understand malaria to be linked to water,[305] and repeatedly also tie '*phuka*' (animals), and 'the park' to malaria.[306] Since most Musundians identify *lunyunyu* as the source of malaria, why do they consistently blame the park's animals for malaria? Perhaps their local ecological knowledge, and understanding of the spaces around them – even if inaccessible – lead to such accusations? In discussing explanatory models, Good describes the importance of moving past attempts to understand 'culture' as holistic pattern-making processes that are embedded in local rational structures (1986: 165). Explanatory models are not just 'simply beliefs that one has'; but are rather, 'frames provided by culture that we do things with' (ibid:167). Explanations of *vhulwadze* (sickness) provide insights into the structures, forces, and beings that influence individuals, and offer insights into how people relate to the world they inhabit.

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[304] More than half of those interviewed explicitly stated that malaria came from *lunyunyu*; See appendix 7.4

[305] 'When the water is finished in the taps,' Vhuthu suggested that other available water 'makes us sick' with 'cholera and malaria.' Ntombi explains that '*lunyunyu* make people sick' because 'the rain or waste water stands for long, then the mosquitoes breed inside.' Noretta highlighted the intertwined nature between water, mosquitos and edge-dwelling: 'because we stay next to the park' when 'rains [create] small dams, you can get sicknesses by getting in that water. Malaria, and bilharzias if you bath with that water.'

[306] Langa suggested that malaria concerns emerge 'because we live on the edge of a reserve,' while Frank suggested that the 'problem of malaria' has gotten worse since his childhood; 'it was not bad as it is now, since the park moved closer to people and the population growth.'

Musunda's water-stressed context, and its close proximity to the park combine to make malaria eradication difficult. Malaria, a parasite born disease spread through mosquitos, is highly contingent on available water, where mosquitos breed. Thus, environmental controls, like reducing pools of standing water, are used widely as malaria prevention.[307] However, the complexity of asking people to destroy standing water reserves is especially difficult in Musunda's water-stressed setting – the decision between a potential future *vhulwadze* and having access to drinking or laundry water might result in ignoring vector control methods.

Musundians also routinely speak about *nari* (buffalo) as sources of malaria. Even if local residents were compliant with government efforts to eradicate mosquitos, with DDT indoor residual spraying (IRS)[308], and requests to destroy all forms of standing water, Musundians close proximity to the park means malaria burdens remain. The park's *phuka* rely on water, for drinking, and temperature regulation. During each of my eight visits to the park, pools of standing water, and mud-welling holes with elephant, and buffalo tracks were visible. In a region desperately in need of water, and in a space dedicated to the protection of animals, the destruction of mud-pits or water-holes is far from conceivable, but allowing these water sources to remain serves as an ongoing host for *lunyunyu* larvae. When water is scarce and watering holes dry, urine-filled buffalo hoof-prints can create a place where mosquito larvae survive (Barnes 2007:74). My research suggests that local water precariousness poses a significant challenge to malaria eradication, as does the edge-dwellers' additional challenge of living in close proximity to the park's boundary, and thereby malaria sources.

Mosquitos can fly 4 – 10 kilometers (Kaufmann and Briegel 2004), thus, Musundians live within the flight radius of mosquitos breeding in the park. 'We are close to the park so we get sick easily because of malaria' explained Glenda. I suggest edge-dwellers' claims that malaria comes from the animals in the park should not be read as a misunderstanding of the vectors of transmission (as was the

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[307] https://www.youtube.com/watch?v=y68F8YwLWdg (accessed 6 January 2014) - A 1943 film about malaria, entitled The Winged Scourge, advocates draining wetlands, as vector control which destroy the potential spaces where mosquitos lay eggs, while at the same time decimating wetland, or riparian habitats, including water sources – interesting how over time priorities change, from saving people from a 'scourge' to protecting biodiversity and water catchment areas, especially when considering the demographic differences between those faced with the 'scourge' now versus in 1943. The film made it seem like choosing to destroy a local water source was a simple decision.
[308] DDT is widely banned, but sprayed on HaMakuyans' home walls; see appendix 7.2.

case among US-based volunteers who provided malaria awareness workshops), but rather, as critical commentary on their position as edge-dwellers. The importance of listening to residents' local ecological knowledge - which comes from *living through* one's surroundings - becomes apparent when reflecting on the disjuncture between HaMakuya's malaria-related programs, that focus on awareness raising, and residents' actual concerns regarding malaria.

Brown (2007) advocates for popular epidemiology[309] where local, specific contexts and lived-realities are considered alongside environmental and other exposures. In HaMakuya however, voluntourers[310] (see appendix 7.3 Malaria Awareness Program description) and government policy makers run interventions that focus on biomedical renderings, responding to Musundians' malaria concerns with workshops in symptom awareness. Seemingly, these interventionists hear edge-dwellers' repeated blaming of the park for malaria, and understand this blame as stemming from vector misunderstanding, or lack of awareness. Instead, I draw on Good (1986) to contextualise this blame in another way.

Good (1986) recounted one Mexican-American mothers' repeated visits to a clinic in California, citing the same concern of 'fallen fontanel.' In exploring why this concern was maintained by the mother despite clinicians explaining that the child would likely be fine, Good suggests no amount of 'education' would change her concerns, as the 'cultural frame "fallen fontanel" was being used to interpret very real medical concerns and social problems in the life of the mother' (Good 1986: 167), including a lack of social support. The recurring narrative of blaming the park for malaria is analogous to Good's (1986) patient's recurring concerns for her infants' fontanel. I suggest that in HaMakuya repeated assertions blaming the park for malaria could be attempts to emphasize a 'broader set of medical and social difficulties' (ibid.:167). Perhaps, education and awareness-raising is not what is needed? Perhaps malaria arises repeatedly because it speaks to broader social concerns having to do with the increasing loss of access to land, natural resources

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[309] Brown (2007) problematizes large-scale epidemiology, noting that it often misses clusters of suffering, especially in relation to environmental exposures.

[310] The Trusts' advertising circles, and the Camp, attracts many foreigners focused on 'service', or 'doing something good' (personal communication with volunteers) building on imaginaries that position rural Africa as in need of 'development' or 'education.' Do-good projects, like the Malaria Awareness Program emerge from students who visited briefly and want an excuse to return as voluntourers – to have a chance to 'come back to Africa'. See Wearing and McGehee's (2013) review on voluntourism; Sujarittanonta (2014) addresses conservation voluntourism; Wallace (2012); McCall and Iltis (2014); McLennan (2014) on healthcare voluntouring.

and relations embedded in the land and resources? I consider the recurring narratives that blame the park for malaria as deriving from the park's failure to recognize Musundians' need for care and support (cf. Good 1986), and because interventions aimed at malaria 'fail to address environmental causes' of malaria, like, water access concerns (cf. Brown 2007:135). Such recurring blame reflects reframed relationships with one's surroundings, and addresses deeper concerns that edge-dwellers may not necessarily feel empowered to vocalize, such as a loss of control over spaces they once had access to.

In HaMakuya, perhaps the recurring assertion of malaria as a problem is tied to the lack of service delivery, specifically, unreliable water provision, and the ways in which malaria is intricately intertwined with water availability and human hosts? Blaming the 'animals,' and/or the 'park' for malaria, I argue might be a pragmatic and measured response to the local context. HaMakuyans are likely to have noticed that malaria is a topic that garners much attention and attracts funding (for example the Malaria Awareness Program, or the government's IRS program), thus malaria may be a tool to speak of larger concerns. However, at the same time, blaming the park and the animals for Musundians' 'suffering from malaria,' when considering local ecologies of wellbeing, also makes sense – malaria will remain as long as large game need watering holes. For edge-dwellers, the repetitive narratives blaming the park for malaria also likely emerge from an understanding that malaria attracts funding, and economic activity (via the Trust) to HaMakuya. Furthermore, it is worth contemplating the possibility that the public transcript is around malaria, and perhaps the hidden transcript is about water, or the park specifically (cf. Scott 1990).

Musundians hinted that a hidden transcript existed when they spoke about their fears of complaining about the park in the context of people who 'spy for the chief'. The narratives surrounding malaria may arise because it addresses water issues, environmental encroachment, and access to services and resources in a language (biomedicine) that garners both attention and funding without putting people in danger of retribution from the Chief/King. Historic and contemporary introductions of external forces inform the changing ways in which sickness is categorized and treated, thus impacting the range of care choices. Encroaching protected areas and Apartheid-era dispossession create a situation of inaccessible plants, and environments un*known* to ancestors, making healing treatments difficult for local

healers to administer. However, the impacts of external forces on local ecologies of wellbeing are not confined to care option limitations or disease classification influences. The following section provides evidence for the ways in which external forces, attracted to the area through the Trust and its Camp, impact edge-dwellers' interpersonal relations.

JEALOUSY AND THE PARK - RUBY' STORY CONTINUED

Here, I provide a continuation of Ruby's story, that began in Chapter 3 and was briefly described above, to explore how interpersonal relations can impact wellbeing. I consider notions around *muthi* (sorcery), and relatedly, the ways in which eco-tourism and the park's external stakeholders influence local interpersonal relations. I evidence the ways in which the park and Trust/Camp are implicated in creating social tensions, which magnify strong feelings of *vhivo* (jealousy), and thereby impact local ecologies of wellbeing.

Building on the notion that eco-tourism linked to and dependent on protected natural areas catalyses the reorganization of livelihood practices (see Brandon et al. 1998; Peluso and Alexiades 2005; West et al. 2006), I consider how the park and Trust influence the reorganization of social relations in ways that impact wellbeing. In HaMakuya some individuals acknowledge pathological and biomedical explanations while others attribute *vhulwadze* (sickness) to the park and its animals (as with malaria), to witchcraft, and sorcery, or to the ancestors. Ecologies of wellbeing specifically involve HaMakuyans' efforts to avoid jealousy, which can bring *vhulwadze*. In tracking Ruby's *vhulwadze*, I consider the ways in which other edge-dwellers link Ruby's suffering to her daughter, Ori, which in turn, is linked to Ori's sister's *tshipfula*. This illuminates the ways in which social transgressions, responsibility, care and sorcery/*muthi* are incorporated into local ecologies of wellbeing; it also highlights the ways in which social life and wellbeing are tied together, and influenced by the park. Remembering southern African academics' calls to ensure that a 'single story' is not told (Adichie 2009; Mkwanazi 2016), I also evidence other residents' experiences with *tshipfula*, highlighting a shared perception that such suffering is linked to *vivho,* which arises when some HaMakuyans benefit from the Trust and others do not. Here, I explore the park's role in shaping jealousy and its negative impacts on wellbeing:

Khumbu asked me to join her for Ruby's memorial. I nodded and she said, 'Ori must feel bad. You know what people are saying?'

'No. What?'

'Well before Ori met Brody she was supposed to marry a boy from Gokwe village. Then she met Brody. So people are saying this boy's family are angry, and so, its *muthi*. Now they are jealous because she has a *makua*. Ruby got more sick when she went to hospital, which shows that it is *muthi*. If it wasn't *muthi*, then she might have gotten better. But the *muthi* just became stronger when she went to hospital because this was not a *makua* sickness.'

Khumbu provides insights on edge-dwellers' analysis of Ruby's situation by suggesting that Ruby's suffering resulted from Ori's transgression – her refusal to marry the Gokwe boy because of her developing love for the Camp's volunteer manager. In suggesting that this was not a '*makua* sickness,' Khumbu provides evidence of HaMakuyan alignment with Mulaudzi's (2007) contention that sickness is categorized as 'African versus foreign', while emphasizing the role of jealousy and thereby sorcery (i.e., *muthi*) (Mabogo 1990:94; Mafalo 1997:63 in Mulaudzi, 2007) in Ruby's demise. Ruby's suffering transitioned from malaria to *tshipfula*, a sickness that results 'from other people.' *Tshipfula*[311]*,* defined by Mulaudzi as a sore that will not heal, is often likened to cancer and chronic wounds of diabetes patients (2009:33). In HaMakuya it is distinguished from these by the course it takes. If the wound is *tshipfula*, presentation to a biomedical healer will cause the wound to worsen. Khumbu suggests that Ruby's hospital admission, which ended in death, was *tshipfula*, attributing it to *muthi* (and evidenced to be so) because of her rapid decline once admitted. This sorcery, according to Khumbu's reading seemingly emerges from interactions catalysed by new relations forged through the Camp.

When evening came, Khumbu, Takalani and I drove to Ori's house. On the way, we passed a young man, slim and gangly. Khumbu touched my arm, pointed at the boy and raised her eyebrows. The rough and treacherous roads between the Camp and Ori's house require slow driving – less than 20km/hr. Thus, it took some time to get far enough away, but once out of earshot Khumbu said, 'that is the boy from Gokwe.' Thinking about this I asked, 'If his family *muthi'd* Ruby, surely he would

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[311] *Tshipfula* (TshiVenda) is a wound that will not heal; see also, http://khokhovula.co.za/diseases/imvukuzane-tshipfula-uzozo-nhuta-isilonda-esingapholi AND http://www.musina.gov.za/index.php/mayor/34-latest-news/46-a-plea-for-help . This description of Tshipfula parallels Ruby' experience.

not show up? Surely he would be angry and stay away?' Khumbu looked at me and smiled 'But then everyone would know that they did the *muthi*.'[312]

It took the better part of the week leading up to the funeral, with days spent in Thohoyandou, to register Ruby's death. When I asked the cause of death, Ori explained that the hospital staff had told her brother that it resulted from infection. I pushed her for more information as gently as I knew how, but each time I tried, she skilfully re-directed the conversation. Unsure if this was purposeful, I let the conversation rest. Despite the fact that I struggled to draw out Ori's analysis of her mother's demise (cf. McNeill 2015), when Mr. Mashudu fell ill, his rendering of the reasons for his suffering aligned with Khumbu's reading of Ruby's death – that jealousy, especially around work or opportunities arising from the Camp significantly impact wellbeing. If Ori's family's suffering had ended with Ruby's death, I would likely never have thought of these conversations with Khumbu again, but the story continues.

With Ruby's death, the gossip about Ori and Brody increased, which spurred Ori to travel to Europe. In August she returned with the intention of marrying Brody and emigrating to Europe in December. First, she retook her matriculation exams, which she explained had been challenging in the previous year due to her mother's illness and her 'fever from malaria.' In the last week of November 2014, Ori re-sat her matriculation exams. This time, 'They were much easier. My head was clear, there was no malaria. I will have better results to take with me to Europe, where I can study for free with good results.' On December 6, 2014, Ori married Brody, surrounded by her family, at Makuya park.[313] On 20 December 2014, Ori (5 months pregnant), relocated overseas, but Ori's family's story does not end there.

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[312] Secrecy arose often in the context of avoiding jealousy, or around engagements with *maines* and *muthi*. Although an in-depth discussion is beyond the scope of this thesis, secrecy is important in maintaining sacred places; in sourcing significant healing species; and when people perceive threats to wellbeing. Mr. Mashudu's efforts to cure his *tshipfula* were secretive. On the way home from assisting Mr. Mashudu visit a *maine*, Sarina said, 'We don't need to tell anyone what we did today. You can just say you helped him go to the shops.' I thought that secrecy was needed to keep Mr. Mashudu safe from social ostracisation as his church frowned on local healers. I said this to Sarina, who explained another aspect of the secrecy 'Yes, also if others know he has gone to healing, maybe those doing the bad things will do more.' The secret is that he might be healed, and if others knew that, they may try new *muthi*. In saying this, I do not mean to underplay the social pressures of the church (they are very influential in South Africa; Chidester 2012), but suggest that the church is not the only reason for secrecy.

[313] Ori is friends with the park accommodation manager from her time as a Community Works manager, and was thus able to arrange the rental of the Singo Hunting Camp (outside of hunting season).

Maintaining health in HaMakuya is a social thing. In the TshiVenda context, others' jealousy (*vivho*) is a harbinger of sickness[314] and weakness. The role of jealousy and related efforts to avoid *muthi* highlight the enmeshed nature of social interactions in edge-dwellers' ecologies of wellbeing, while also making evident that interpersonal frictions can arise from a perceived place of opportunity, like the Camp. Staying well has a lot to do with avoiding jealousy (cf. Morris 2000; McNeill 2015). I suggest that relations that arise out of the Camp – for example, Ori's refusal to marry the Gokwe boy - create jealousy which HaMakuyans attribute to *muthi,* that can cause continued suffering, as with Ori's family.

To better understand the relationships between wellbeing and jealousy, a discussion of the multiple ways that *muthi* (muti) is referred to in South Africa is elucidating.[315] Ralushai, in explaining witchcraft, *muti*, and traditional healing in the Venda context makes 'distinctions'; 'a witch does not kill his own victim because he wants to be rich, whereas a *muti* murderer, he kills a person because he wants to gain' or 'enrich themselves' (TRC 6(3) Chapter 2 subsections 28/29).[316] Historically, *muti* 'murder was committed with the approval of traditional leaders, no commoner was allowed to kill another person,' however, Ralushai suggests that with the emergence of capitalistic markets, *muti* murder was increasingly undertaken by any member of society, often businessmen with vested interests (ibid.). *Muti* practices require the use of human body-parts for the 'power' in the magic to work (ibid.).[317] Despite the differences between *muti* and other forms of sorcery or witchcraft, HaMakuyans refer to someone being '*muthi'd*' even if human body parts or murder are not involved. Since in HaMakuya *muthi* generally has a negative connotation, but rarely directly involves ritual murder, I make the distinction[318] here between *muti* as a set of practices that include ritual murder, and narratives that suggests one has been '*muthi'd*' or experiences of '*muthi.*' In HaMakuya, *muthi* is often described as 'bad

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[314] I suggest that believing that *vivho* might inspire someone to undertake *muthi* is no different from beliefs that motivate one to protect themselves against, for example, the 'evil eye' by carrying a (Mediterranean) token of protection; see Appendix 7.4.

[315] The word 'muthi' has roots in isiZulu (the word for tree; *umuthi*), *and* is not originally a TshiVenda word. Throughout South Africa it used as a catch-all phrase to indicate some type of magical interaction, often negative, but not always. Adding to the term's complexity, it is also used in everyday vernacular to refer generally to 'medicine'. For example, the Afrikaans speaking biomedical practitioner I use in Cape Town, speaks of camphor as *muthi*.

[316] Although beyond the scope of this thesis, see appendix 7.5 for my brief treatment of witchcraft.

[317] Ashforth 2005a, 2005b discusses muthi, witchcraft and healing in South Africa, among isiZulu speakers.

[318] This 'muthi'/'muti' distinction is my own.

medicines' that can manifest in visions and haunting dreams, body pains, insomnia, general discomfort, and in many cases, *tshipfula*. In this thesis, I refer to *muthi* in the context of negative magic, but not ritual murder.

Returning to Ruby/Ori's story, in late January 2015 I discovered Ruth was Ori's great aunt. As our conversation during an interview touched upon death, Ruth reflected on her sadness surrounding Ruby's death. Having heard from a relative that Murunwa, one of Ori's older sisters, was having pains 'in her legs . . .Maybe the same as Ruby,' Ruth suggested it might be *tshipfula*, linking Murunwa's and Ruby's suffering. She asked me to find out more about Murunwa's condition. Repeated attempts to find an adult at Tanga's (Murunwa's sister) were unsuccessful.[319] I used 'What's App' to ask Ori, in Europe, what she knew. She described how her sister's illness had started in her legs, but the doctors could not explain it. As with Ruby, it started with 'pimples,' but Ori knew few further details.

Over February and March (2015) Murunwa was not improving. By April she was admitted to Donald Frasier Hospital; the once voluptuous Murunwa was wasting away. When tests revealed little, she was released. Over the course of May, Ori reported that Murunwa developed a swollen breast[320] with lesions, and was re-admitted. In late May, when I finally found Tanga at home, she explained that Murunwa's long-term hospitalization necessitated someone from the family to provide care and food. Although public health service delivery should include food, Donald Frasier lacked basic services (for example, intermittent water) and was overcrowded. Like many patients, Murunwa was supported daily by relatives, in her case, by an aunt who lived near the hospital. Tanga requested my help with transportation, an 85km one-way trip, which I did during May, June and early July bi-monthly, though sometimes weekly. Twice I had the chance to drive a friend of Murunwa's, Allie[321], with me to the hospital.

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[319] Tanga's husband, a mine security guard was relocated to another district when the mine shut down, and Tanga was at work. Murunwa's son was now living at Tanga's home, along with Ori's teenage brother. This housing reorganization did not worry me immediately, as Tanga's home was much closer to the secondary school, and a better primary school (for Murunwa's son); such reorganization was not unusual, so I did not take it as a sign that Murunwa's health had completely deteriorated.

[320] Ori sent pictures. I immediately thought about cancer, but she explained that the doctors said it was not cancer or HIV.

[321] Allie's catering service had, for many years, travelled to the Camp as part of a research programme. Murunwa shadowed Allie's camp visits since 2011; through the Camp we had all become friends.

Allie, a Shangaan speaker, raised in Justicia, a Mpumalanga village also bordering Kruger, travelled as caterer for excursions visiting the Camp. Allie provided further insights on Murunwa's experience one afternoon while she and Rebecca (Ori's cousin and Camp caterer) were cooking. I sat with them peeling potatoes. We had just fallen silent after planning our hospital visit when Allie said: 'Black people, not just Venda or Shangaan, but all black people, when they are jealous, they do *muthi*.'

I looked up, 'All black people?'

'Yes,' Rebecca said, while Allie whistled through her teeth, nodding her head.

'So you think this is what happened to Murunwa? What can someone do?'

'Ah well, the *muthi*, it can be very strong, but if you pray to god, it can get better.'

'Yes,' Allie confirmed 'You can take the teas, and what the church will give you, but you must pray and know in your heart that god is with you, then it can get better.'

'But, do you need to go to another healer with strong *muthi* as well?' I asked.

'Maybe, sometimes that will work, but people are jealous you see? Like, my mother she tells me that people ask my daughter about my work, so I must not tell my daughter when I am coming home because people are jealous of my work, and they may try something if they know when I will be home. Even when they see me, and they ask if I will have more work, or when I will return to work, I do not tell them. I just tell them Alani [her boss] is going to let me know when there is more work, but for now, no work. This way, no one will be jealous.' Allie offered.

'So, all that just to make sure people don't get jealous?'

'Yes, because there can be very powerful *muthi*' Allie explained. Rebecca nodded.

As the conversation unfolded and Allie described the secrecy around her movements and the efforts she made to avoid jealousy, I was reminded of Sarina's suggestion that 'we don't have to tell anyone' about Mr. Mashudu's *maine* visit, and his insistence that the neighbours not know that he went to Moria.[322] I remembered Khumbu's suggestion that the Gokwe family attended the mourning service so that no one would know that they had done the *muthi*. These instances of secrecy are tied to negotiations around *muthi* and jealousy as flows of energy that impact local ecologies of wellbeing. Mr. Mashudu explained 'My neighbours, eish . . . last night,

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[322] Moria is essentially ZCC's Mecca. Mr. Mashudu visited for a month for healing, but when his symptoms returned once in HaMakuya, he chose to seek healing from a *maine* which was not permitted by his congregation.

I did not sleep at all. I could see that they did this to me. They are jealous. I could see that they spread these bad medicines at my gate, and so I used a different entrance, but still I did not sleep. These thoughts. It is very bad, I think I will die.' These connections between jealousy, sorcery and physical suffering or illness are not unique to HaMakuya (Niehaus 2005b), or southern Africa (see Balikci's [1963] work among Netsilik Eskimos). Considering Allie's discussion of *muthi* and jealousy linked to desirable jobs, it is noteworthy that those suffering from *tshipfula* are linked to the Trust, which is one of the only local sources for stable work.

When I took Allie to visit, the aunt who had been caring for Murunwa explained to me and Rebecca her belief that Murunwa was suffering from *muthi*, and should visit a 'TshiVenda doctor' (*maine/*healer), but should first 'get oxygen' and 'gain weight for another week' in hospital. Driving home from this visit, shocked by the deterioration of her friend, Allie choked back tears while trying to make sense of her friend's decline. Between sobs she commented on Murunwa's frail stature, reflecting on the opinions of some family members, that this was cancer. Allie was willing to accept this diagnosis until Rebecca's reminder that Murunwa's aunt believed her suffering resulted from *muthi*. Rebecca explained, 'Otherwise, Murunwa would be getting better,' echoing Khumbu's suggestion that Ruby's suffering from *muthi* was confirmed by her failure to respond to biomedicine.

In the second week of July, when I arrived at the Camp to visit Khumbu, she told me Murunwa had died.[323] As we embraced, crying, she said: 'Remember what I told you about Ruby? This is the same, but maybe it is now all over.' Mirroring Khumbu's interpretation, 'Now Tanga believes it is *muthi*', Allie told me. Murunwa's in-hospital deterioration signalled that the family was, in fact, victims of *muthi*. Khumbu's explanation of Ruby' death resulting from *muthi* brought on by Ori's choice not to adhere to her betrothal to the Gokwe boy was seemingly carried through to her sister. *Muthi* extends beyond family as well; Khumbu linked Ori's social transgression and the jealousy surrounding Ori 'getting a white man' to the suffering experienced by Mr. Mashudu, and speculated that another ex-employee of the Camp, Onda, might also be suffering *tshipfula* as a result of having been supportive to Ori's family during this period.

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[323] That same week my mother's breast cancer was confirmed.

Although I did not raise the connections between Mr. Mashudu, Ori, Ruby, Murunwa and Onda that Khumbu had made, Onda also made connections in their suffering *tshipfula* that he linked to their relationships with the Trust. At the end of 2014, Onda's experience of ill-health – weakness, exhaustion, stomach and leg pains, and an inability to concentrate, paired with a rash on his stomach which he understood indicated *tshipfula* – forced him to give up a bursary at the University of Venda. Reflecting on the previous two years while lamenting the loss of his scholarship, Onda pointed out that when he resigned from his position at the Trust in 2013 to begin studies, he was healthy, as were his colleagues, Ori, Brody and Mr. Mashudu. In the intervening years, he noted, 'much had changed' at the Trust[324], and with limited opportunity for HaMakuyans to equally benefit, he believed that those who did were becoming targets of jealousy. Echoing the same phrase as Mr. Mashudu, Onda perceived his *tshipfula* to be caused by 'jealous neighbours.' Onda noted that since the change in the Trust's management, which also coincided with Ori and Brody's relationship becoming public, *tshipfula* burdened many people who had been linked to the previous Trust management.[325] His own suffering, examined alongside Ruby's, Murunwa's and Mr. Mashudu's was not a random pattern, he suggested. The fact that all of these people were connected to one another through relations strengthened through their engagement with the Trust (and thereby access to steady work) was not a coincidence, according to Onda.

Jealousy of what Ori is perceived to have gained by negating her social obligations to the Gokwe boy might link all these people, but Onda additionally noted that Camp staff with *tshipfula* also shared potential hope-filled futures – i.e., a steady job or the opportunity for tertiary education - linked to opportunities or relationships that emerged through the Trust. Onda suggested that his scholarship, achieved through partnerships with the Trust, might be a reason for others' jealousy leading to his *tshipfula*.[326] Onda also suggested that Ori, having benefitted from her time at the Trust – in meeting Brody, traveling, education overseas – and Mr. Mashudu, having

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[324] A new board of trustees resulted in financial changes at the Camp, and reduced the role of foreign volunteers. In some months, Khumbu and Takalani confided that the Trust was not paying their full salaries which made for intense gossip when Mr. Mashudu was sick (March – April 2015) but still receiving his salary.

[325] Internal fighting between some Trust founders led to local factions - beyond the scope of this thesis, although interesting future research.

[326] For Onda, his wellbeing, including the opportunity to study, and his physical comfort have been interrupted by *tshipfula*. Onda's *tshipfula*, unlike Ruby's and Murunwa's has not (perhaps, yet) manifested in an open wound or tumour, but he told me he knows it to be *tshipfula* – the rash on his stomach and the way he feels, combined with the interruption to his education make it so for him.

maintained a job with paid sick leave, were substantial reasons for provoking other's jealousy, and thereby their (Onda, Mashudu, Ruby) suffering.[327]

The Camp and the park, as colonizing and capitalistic forces that commodify nature (cf. Brockington et al. 2008; Garland 2008; Igoe et al. 2010) and generate new frontiers of land control (Peluso and Lund 2011), create potential employment that spurs jealousy, which influences interpersonal relations by provoking social tensions that, in turn, magnify *vhivo* (jealousy). These tense social relations impact local ecologies of wellbeing by increasing *vhulwadze* through *muthi*. The effects of non-local capitalistic forces on communities where social relations are mostly egalitarian are noted elsewhere in anthropological literature. For instance, Izquierdo (2005:780) argues that among the Amazonian Matsigenka increased interactions with capitalist enterprises have provoked emerging forms of and reasons for jealousy that disrupt social relations.[328] These examinations of the disruptive emergence of jealousy support Ralushai's earlier observation, that *muti* murders only began occurring outside of the chief's purview in Venda when non-local businesses emerged.

The park informs edge-dwellers' sociality in other ways. For example, Mr. Mashudu, who worked briefly as a park ranger, explains:

> 'When my wife died I returned here to work as a ranger. But, it was not a good job. Dangerous. Also, one day, when I was in the Park, I would be patrolling and then maybe I would have to shoot, or arrest someone trespassing. Then I would be off, in my village, and I would have to see these people. It was not a good job.'

Mr. Mashudu resigned because he perceived the job created strife in his home life. Tensions arose as Mr. Mashudu tried to adhere to a set of conservation standards that did not align with local lived realities including the boundary set by the fence, a ban on hunting, and re-framed relationships with plants and animals; creating a situation where he was forced to act at the interface of two intersecting, but different ways of engaging with the contested local landscapes (cf. Green 2013). Norton suggests that fisheries management officers, at the 'interface' between the government and 'its fishing citizens,' are put in an equally conflicted position,

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[327] Onda suggested his wife's struggle to conceive was also linked.

[328] One *maine* suggested that church influences created jealousy between local residents. McCormack and Barclay (2013) draw on Yang's (2013) work among the Bugkalot of the Philippines that links jealousy with inequality brought through capitalism.

which 'exacerbate[s] existing suffering in the ecology of relations between state, science, public' (2014: i). Just as South African fisheries management officials are in the liminal position of 'being at the interface,' rangers, who live among edge-dwellers face hostility and conflict in order to fulfil their work roles. These conflicts may spark increased *vhivo* and add further obstacles for navigating one's local ecologies of wellbeing.[329] Although for some edge-dwellers, one 'benefit' of the park may be potential 'jobs for our children in the future,' the reality of maintaining a park job as an edge-dweller, for individuals like Mr. Mashudu has resulted in more harm than good.

There are additional examples of social tension arising in the context of the park, which potentially spark *vhivo*, *muthi* or *vhulwadze*. Consider Penny's suggestion that some Musundians spy for the park. Penny's accusation of 'spying on those who shoot lions' highlights frictions and tensions between Musundians willing to shoot lions that enter Musunda and those who report these shooters (the spies) to park staff. Tensions among HaMakuyans arise as they variably respond to the park; for example some edge-dwellers embrace conservation ideas, such that their actions of 'spying' resonate with Agrawal's (2005) concept of 'environmentality' [330] (2005:166). As some residents adhere to and seemingly internalize conservation demands, forming new relations with lions (as something to be protected, rather than shot or otherwise engaged with, perhaps even as family) and the park (as a governing body to be reported to) while others do not.

THE PARK, A HARM OR BENEFIT? CONCLUDING THOUGHTS

My research shows that in a setting where social tensions, or perceived social transgressions can result in suffering like *tshipfula*, the park exacerbates the multiple flows, substances, power relations and concerns that edge-dwellers must consider when engaging in local ecologies of wellbeing. I show the park's role in inciting *namanda*-sapping jealousies that can translate into physical suffering. Also, this chapter describes the park's role in shaping healing choices, as limitations on

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[329] A female TshiVenda speaker, formerly employed by the park, explained that she was perceived to be 'the meat police'. The betwixt and between nature of 'working at the interface' adds not only to concerns around *muthi* but also to concerns of getting caught in poachers' crossfire.

[330] Agrawal's (2005) environmentality explores the ways in which governments (in his case, India) exert technologies of power (including fences and legislation) to frame citizens interactions with the environment in ways favourable to their efforts to govern (and maintain resource availability). These efforts make citizens accomplices in the State's effort to save environments; these top-down approaches may 'save' environments, but this begs the question, saved from whom?

accessible space influence the type of healing that healers can offer, which may affect the ways in which sicknesses are classified.

The constant flux in ecologies of wellbeing means that nothing can be neatly compartmentalized. My efforts in this chapter to describe social relations, external impositions and current healing choices force a neat compartmentalization of the social. Jackson in drawing on Gibson's notion of 'affordances', Sartre's 'exigencies', and Merleau-Ponty's phenomenology of 'continual birth', asserts that humans are continually in the position of becoming; that choices are made, not with rationality at the fore of the mind, but as lived-in-the-moment responses moulded by history, culture, environmental and economic conditions (Jackson 2005: xiv–xv). In fact, HaMakuyans do not compartmentalize social life, resource access or dietary changes into realms unto themselves, nor do they neatly categorize the park as detrimental to their wellbeing. While many complain about aspects of the park, edge-dwellers also invariably describe some perceived benefits. Certainly identifying benefits could be understood to be polite discussion, or fear of retribution from the royalty for dissent, but perhaps there is more in edge-dwellers' ambivalent relations with the park? My research suggests that such relations remain possible, even while facing mounting challenges, because Musundians remain hopeful for productive engagements with the park, highlighting the power of hope. The park not only contributes to harms, or 'problems,' but also simultaneously provides 'good things' that factor into Musundian local ecologies of wellbeing – I briefly explore these while engaging with the anthropology of hope in the final chapter of this thesis.

CHAPTER 8: Conclusion – Hope, Wellbeing and Makuya Park

INTRODUCTION

On June 27, 2017 an op-ed piece exploring the future of Kruger suggested that there are 'close to 2 million people living along the boundary' of the 350 km long park.[331] The piece highlights the tenuous position of Kruger and its reliance on eco-tourism and governmental support/subsidization. At the same time, in Tanzania and Kenya, over the past year, people living on the boundaries of protected natural areas have engaged in violence over land and resource access, leaving several conservation practitioners dead.[332] With violence arising nearby linked to conservation and edge-dwelling, and keeping in mind HaMakuyans' safety concerns, among other park-related complaints, attending to HaMakuyans perceptions of the park to better understand local ecologies of wellbeing can also provide insight into the current context and potential future engagements between protected areas and edge-dwellers.

The park appears to harm edge-dwellers if the exploration remains focused on its role in for example, influencing dietary practices, housing efforts, and relations. Combined with Musunda's history, where peoples were coercively moved to set the park's boundary fence, which led to inaccessible spaces, and natural resources, the park might symbolize 'strands in the web of racial discrimination, and white political and economic domination' (Carruthers, 1995: 2), explaining why conservation efforts often face resistance. However, Musundians do not frame the park in this way. While the park poses 'problems' these are not totalizing. Despite the fact that this thesis highlights multiple deleterious impacts of the park on local ecologies of wellbeing, edge-dwellers' generally exhibit ambivalence towards it, often offering 'good things' alongside the park's negative impacts on wellbeing. Before addressing how these 'good things' imply the usefulness of the ecologies of

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[331] https://www.dailymaverick.co.za/article/2017-06-27-op-ed-tough-choices-ahead-for-kruger-national-park/#.WaVtJcaB0ki (accessed 29 June 2017)

[332] In Kenya two conservationists were shot in conflicts around land access - see http://www.aljazeera.com/news/2017/04/gunmen-wound-conservationist-drought-stricken-kenya-170423144926618.html and http://www.telegraph.co.uk/news/2017/03/05/former-guards-officer-shot-dead-tribal-warriors-ambush-ranch/ (accessed 1 September 2017). In Tanzania, an elephant conservationist was shot; (https://www.washingtonpost.com/news/worldviews/wp/2017/08/18/renowned-anti-poaching-leader-shot-dead-by-gunmen-in-tanzania/?utm_term=.bcfd79cf9180; accessed 1 September 2017). In both countries, killing animals as resistance to conservation is documented (Neumann 1992; Western 1994).

wellbeing approach, I offer a summary of arguments addressed in this thesis thus far.

SUMMARY OF THE THESIS AND ITS CONTRIBUTIONS TO ANTHROPOLOGICAL SCHOLARSHIP

This thesis aimed to understand how, if at all, a protected natural area influences the wellbeing of edge-dwellers. Drawing on Cohen's (2013) exploration of 'ecologies of wellbeing' as a framework for discussing wellbeing in HaMakuya, I came to understand that the park didn't just influence, but rather became incorporated (both good and bad features) into local ecologies of wellbeing. Relatedly, consistently emergent in this research is the reality that the realms of environment and wellbeing are not easily divisible for many people's lived reality, adding to a large body of literature that critiques nature/culture divides. While contributing to environmental and medical anthropology, this research also highlights the limitations of these created, or artificially bounded fields, and the obscuring qualities inherent in adhering to a canon or particular theoretical perspective. Research in silos - focused on specific fields - risks the potential of imposing epistemological limitations on realities that do not adhere to such boundaries, just as much as edge-dwellers do not stay in their place.

This thesis has explored some wellbeing-related experiences of Musunda's edge-dwellers, while considering the impacts of dwelling on the boundary of a protected natural area thereby contributing to scholarship at the intersection of social, environmental and medical anthropology. This thesis highlights gaps in literature on contemporary rural TshiVenda speakers, and contributes to filling that lacuna. My research contributes a TshiVenda perspective; for example, extensive Southern African research highlights the variety of ways in which community conservation projects play lip-service to community empowerment, and resource access equality (see Hasler 1999; Mashinya 2007; Bologna 2008).

Chapter 1 suggested the need to tell multiple stories (cf. Adichie 2009), explaining why I drew on different literatures and fields. In Chapter 2 I outlined why my methodological approach centred around ethics and, following Malkki (2007), improvisation. I suggest that in engaging with wellbeing and health, an ethic of extreme care and sensitivity is necessary. I also contribute a participatory method of

collaborative botanical field-guide editing that emerged out of my research, which could assist in ethnobotanical research more widely.

Building on Carruthers (1995) argument that conservation in the form of South Africa's protected natural areas is tied to colonial and Apartheid processes of land and resource disposition, Chapter 3 contributes to the environmental anthropology of settler colonialism.[333] By tracing the colonial and Apartheid extractive histories alongside Musundians' process of becoming edge-dwellers I show how contemporary edge-dwellers' boundary position ties them to extractive practices of the mine and trophy hunting. While describing the specific ethnographic context, I engage literatures on structural violence (Galtung 1969; Farmer 1992, 1999, 2003) to advance a notion of infrastructural violence that attends to the rural, post-Apartheid context. I argued that historic infrastructural violence, combined with difficult terrain, remoteness and a governmentality that focuses investment on conservation concerns over that of its citizens (cf. Harper 2002; West 2004), shapes edge-dwellers' lives. I draw on political ecology, adding in a consideration of conservation, thereby contributing to a South African perspective on the ways in which history, politics, conservation and ecology propel territories of difference (cf. Escobar 2008). In this way, this chapter contributes to growing literature on South African land claim processes, especially in relation to conservation areas (see Kepe et al. 2005; Kepe 2008; Ntshona et al. 2010).

Chapter 4 attended to the first research questions; How do Musunda's edge-dwellers understand, discuss, and enact wellbeing? How, if at all, do their understandings of "nature" pertain to health? Drawing on literatures that question established knowledge hierarchies (see Levine 2012; Green 2013), and following Lambek (1998), I described *mutakalo* (health/wellbeing) by positioning TshiVenda perspectives at the centre and using local nomenclature. Explaining why I approach 'wellbeing' rather than strictly 'health,' I show how Cohen's (2013) notion of 'ecologies of wellbeing' is particularly suited to the HaMakuya context, especially in light of local notions that tether *nungo* (strength) and *namanda* (power) to engagements with *mupo* (nature), which are central to obtaining *mutakalo*.

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[333] See https://aesengagement.wordpress.com/thematic-series/life-on-the-frontier-the-environmental-anthropology-of-settler-colonialism/

Engaging with critical medical anthropology by acknowledging multiple ways of embodying wellbeing (Lock and Farquhar 2007) while exploring the wellbeing-related consequences of those most marginalized by conservation initiatives, I stressed that place, relationships, diet, and work factor into local ecologies of wellbeing, that are preventative, not just reactionary. As such, living in a good way in HaMakuya is inextricably linked to local resources, and relations, which the park negatively impacts as detailed in the subsequent chapters. This chapter contributes to literatures that consider intangible relations and explore personhood cultivation in the context of wellbeing (Conklin and Morgan 1996; McCallum 1996; Csordas 1994; Sullivan 2016, 2017), adding TshiVenda-speaking edge-dwellers' perspectives to literatures that tend to be dominated by South and Central American examples (exceptions include Morris 1998, 2000), in an effort to contribute to South-South discourses.

Drawing on 'medical anthropology in ecological perspective' (McElroy and Townsend 2009), Chapter 5 focused on resource access limitations that the park's fence imposes, while engaging with the second and third research questions; 2) How and when, if at all, are natural resources used toward achieving wellbeing?; 3) Does land access shape land use in terms of wellbeing and in what ways? Have shifts in practices occurred as a result of the formation of protected areas? I outlined the park's impacts on health-related priority resource access, illustrating the ways in which basic needs - water, housing and food - draw on the local environment, and are integral to local conceptions of wellbeing, yet, are inaccessible because of the park. Considering the local environment, body cultivation and efforts to nurture wellbeing together highlights the imposition of a nature/culture divide. This reveals 'frictions' in trying to align conservation modes of environmental engagements with ecologies of wellbeing, implying the need for a 'more than human' approach (Haraway 2015), not just when thinking through peoples' relations with their surroundings, but also when considering health/wellbeing.

Drawing on literatures focused on the intersection of political ecology and health (Harper 2002; McElroy and Townsend 2009), I provided evidence of the ways in which the park creates territories of difference (Escobar 2008) and extends Apartheid-era dispossessions. I touch on the limitations of an analysis that narrowly focuses on 'ecological perspectives' (McElroy and Townsend 2009) and 'local

political ecologies of health' (Harper 2002), which I suggest, obscures the park's impacts on intangible relationships or 'a more than human sociality' (Tsing 2013), including relations with ancestors, specific places, or non-humans. This chapter suggested that being cut off from vital resources interrupts flows of materials and energies (and thereby relations) intrinsic to local ecologies of wellbeing (Ingold 2011; Cohen 2013). The park and its fence force edge-dwellers to engage with their surroundings in new ways, thereby altering ecologies of wellbeing.

Chapter 6 contributes to the growing field of food studies, while continuing to address the second and third research questions by suggesting that the park influences diets, contributes to food deserts and propels generational dietary anxieties. Here I contribute TshiVenda perspectives to literatures that explore the important relational and social aspects of food (Caplan 1997; Counihan 1984, 1999, 2013) especially in cultivating wellbeing. Adding to literatures acknowledging the importance of relations of care with intangible forces (cf. Peluso 2004; Morris 2000; Sullivan 2016, 2017), this chapter raises discussions around the park's influence in re-shaping ancestral reverence practices, which are linked to subtle shifts in sociability (Kohn 2005, 2013; Descola 2013). For example, through the practice of providing trophy-hunt leftovers the park feeds Musundians' their ancestors. In this way, the park imposes on intangible relations that are vital to personhood and local ecologies of wellbeing. Rather than allowing for co-respondence (Ingold 2012), the park reframes edge-dwellers' expectations and practices which in turn positions non-humans in opposition to, rather than relationally engaged with edge-dwellers. Such repositioning drives safety concerns, and challenges local ecologies of wellbeing.

Chapter 7 explores the park's impact on relations that are central to local ecologies of wellbeing. While addressing the park's role in affecting intangible relations, I illustrate how it impacts ancestors' knowledge and thereby healers' ability to heal which in turn influences edge-dwellers' care-seeking options. This contributes to a dearth of contemporary regional work exploring causal links for understanding, categorizing and explaining disease, which engages with medical anthropology that challenges systems thinking (cf. Thornton 2010). Shifting focus to the park's impacts on interpersonal relations, I discuss how it creates particular types of jealousies that propel *muthi* (sorcery). In a setting where social tensions/perceived

transgressions can result in *vhulwadze* (sickness), I asserted that the park adds to the multiple flows, substances, power relations and concerns that edge-dwellers must consider when navigating local ecologies of wellbeing.

Now, I consider the final research question; how do people understand and relate to the adjacent protected area? Below I explore how, despite the negative impacts of edge-dwelling, HaMakuyans remain ambivalent to the park. Drawing on processes of 'active' (Macy and Johnstone 2012) and 'radical hope' (Lear 2006), I explore how the park has become part of local ecologies of wellbeing. Here, my considerations of the park's role in providing hope draws on anthropological discussions of the future, contributing to a growing body of literature focused on hope, and to Fischer's (2014) argument that aspiration has a significant role in wellbeing. In attending to the importance of narratives of hope in local ecologies of wellbeing, I consider how Musundians' hopes for the future expose the park's enmeshment in local lifeworlds, as a component of ecologies of wellbeing, offering possibilities, not just dispossession.

HOPE AND 'GOOD THINGS': PERCEPTIONS OF THE PARK AND THE FUTURE

When presenting some research at the Royal Anthropological Institute, someone asked, 'Why don't people move to other areas that get more governmental support? Why stay?' I contemplated this since my fieldwork; pondering why, in the face of so much adversity, Musunda continues to grow. Although the park poses 'problems' for edge-dwellers, ultimately its prospects for future benefits encourage hope. Hope, according to Solnit 'is a gift you don't have to surrender, a power you don't have to throw away. And though hope can be an act of defiance, defiance isn't enough reason to hope. But there are good reasons' (2016a: ix). Although my analysis of edge-dwellers experiences draws extensively on historic patterns of dispossession that propel wellbeing-related challenges, here I discuss of edge-dwellers' 'good reasons' for hope. As Solnit (2016a) suggests, the power of hope is a gift, one that I argue, Musundians made use of regularly when discussing 'good things'.

Edge-dwellers suggestions that a number of 'good things' result from living on the edge, sheds light on another way in which the park has become integrated into local ecologies of wellbeing. For example, Fiona lists the 'meat' or 'money' generated

from trophy hunts, and for Gloria, 'the rangers' who 'come and inform people' of a breach in the game fence provide protection against what Noretta called 'damage causing animals.' Some Musundians, especially healers like Precious, suggest that the park's ability to protect species is a benefit for future generations. Musundians also repeatedly expressed hope that partnerships with the park would eventually provide access to park resources and jobs.

HaMakuyans who had relocated to Musunda often explained their move by stating, 'things are easier here without cash because of the things we can collect from around (here).' Unlike 'the city' there are *miri* (trees) to provide 'foods and fire.' HaMakuyans stay because this land is 'home', and for many, Makuya and Kruger parks are the places of their ancestors. Jansen and Lofving suggest that home is where 'familiarity marks processes of emplacement (Hillier and Rooksby 2002) where we are a community (Douglas 1991) and where we are certain of our place in social structures to the extent that we can make plans for the future' (2009:150). This ability to 'make plans for the future' is important to understanding Musundians' relations with the park as many perceived benefits of edge-dwelling rest on the hope that the park offers a better future for edge-dwellers' children. For many Musundians the park 'protects animals and trees' and is perceived to be a source of 'jobs and teaching our children about animals.' The perception by some edge-dwellers that the park positively contributes to local ecologies of wellbeing is embedded in visions of accessing future park or eco-tourism jobs.

Engaging with the park in hopeful ways aligns with some Musundians' expectations that the ancestors and animals are engaged with edge-dwellers in care relationships that build bodies and wellbeing,[334] thus many Musundians cultivate such relationships as central to local ecologies of wellbeing. As such, life and wellbeing are embedded in the land, its resources, and relations (cf. Morris 1998, 2000; Shipton 2009 for an East African Luo peoples example). Juxtaposed to Agrawal's 'environmentality' that looks at how technologies of power combine with technologies of self to create new subjects attentive to conservation and government-imposed environmental concerns (2005), I suggest many HaMakuyans make use of what I would term an 'environment-mentality'. This 'environment-mentality' emerges from a history of carefully navigated social relations that

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[334] VhaVenda folklore supports the importance of these care relations (see Lestrade 1942).

maintain wellbeing; 'ways of being and doing' (Cohen 2013:92) that cultivate relations with one's surroundings. For example, caring for ancestors ensures that ancestors care back; this care is often reflected in productive relations with the local landscape, from bountiful harvests and appropriate rainfall, to ensuring that ancestral spirits do not send 'damage causing animals'. I suggest that such ways of being and doing contribute to a sense that the surrounding environment will continue to sustain and provide for life as long as care relations, especially with ancestors, are maintained.[335] At the same time, Musundians also know that their expectations of *how* the local landscape will provide for them are changing. The park changes the ways in which relationships and engagements central to local ecologies of wellbeing can take place. Acknowledging change while maintaining the expectation that one's surroundings will provide and sustain life if local ways of being and doing are adhered to - for example, the rains will come if the ancestors are provided with appropriate ritual offerings -, Musundians look towards engagements with the park as a way forward.

According to Solnit, 'hope locates itself in the premises that we don't know what will happen' (2016b); 'the spaciousness of uncertainty' gives people 'room to act' and to 'recognize' their ability to influence outcomes; offering 'an alternative to certainty' (ibid).[336] Thus, hope may indicate that change is desired, and that a different future is possible. Historically anthropological literature focused heavily on the 'past in the present' at the cost of exploring the future (Munn 1992:116; also Persoon and van Est 2000:7). This has recently shifted with attempts to understand the ways in which the future impacts on decisions, and lived realities in the present (e.g. Pedersen 2012; Piot 2012; Kleist and Jansen 2016). Edge-dweller's perceptions of the park, in relation to wellbeing, tend to draw on visions for the future linked to, for example employment aspirations. Drawing on Fischer's (2014) assertion that one central component of wellbeing is aspiration, I suggest that hope for tangible, beneficial engagements with the park is a form of aspiration that factors into edge-dwellers' ecologies of wellbeing, as with Frank's vision of a future where his grandchildren might have a park-based business.

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[335] This is not a call to understand HaMakuyans as noble savages, connected to mother earth in some mystical way, but rather to understand that the dichotomies/compartmentalisations/secularisations historically imposed through biomedical interventions, missionization, colonization, conservation and Apartheid are not HaMakuyans' lived reality.
[336] https://www.theguardian.com/books/2016/jul/15/rebecca-solnit-hope-in-the-dark-new-essay-embrace-unknown (accessed 20 July 2017).

Increasingly academics discuss the intersection of hope and possibility (Jansen and Lofving 2009), hope as potentiality (Jackson 2013:212), or as method (Miyazaki 2004, 2006), while others critically reflect on 'hope as engagements with the future' (Kleist and Jansen 2016:373). Lear (2006) suggests that Crow peoples responded to environmental degradation that challenged their ways of living with 'radical hope.' Macy and Johnstone describe the importance of 'active hope' (vs. passive) pointing to the 'enlivening' value of finding purpose (2012:14, 118), similar to Fischer's (2014) suggestion that aspiration and purpose are central to achieving wellbeing.

'Active hope' requires embracing a 'larger view of time,' 'an inspiring vision,' and 'dar[ing] to believe' (Macy and Johntsone 2012:163, 185). I suggest that these ways of remaining engaged with the reality around oneself, in trying circumstances, are already undertaken by Musundians in their efforts to 'live in a good way,' and their 'environment-mentality'. I am not suggesting that Musunda's edge-dwellers engage in 'irrational optimism' which Pedersen (2012) suggests creates a different version of place and time, but rather, that they engage in 'Active Hope' (Macy and Johnstone 2012); looking to a future beyond themselves (for their children and children's children), inspired by potential (business opportunities or jobs) while daring to believe in a better future – something different from what is happening now (cf. Lear 2006) – that includes the park.

Frank's discussion of his family's land claim is an example of active hope, illuminating his perception of the land as a productive space with the potential to improve his children's future. 'Since 1994 to today' Frank has been *hoping* to build 'a lodge or a shop, owned by the family. We want our children to have land, so that [they] can benefit from this park. That is the legacy we want to leave our children . . .We don't want our children and their children to say that we sold off the land.' Frank stakes a claim to the land as a place, particular and imbued with meaning when he reminded me of 'family members that are buried in the park.' Frank' s long-term visions invoke his children's children, and the potential value in eco-tourism emerging from engagements with the parks, and continued engagement with the land that was once home. This speaks to the complexity of edge-dwellers' relationships with conservation, emphasizing that some edge-dwellers see benefits in conservation, if engagement is realized.

'Active Hope is a readiness to engage,' according to Macy and Johnstone (2012:35) who along with Solnit (2016) suggest the importance of hope in situations of extreme adversity. I argue that HaMakuyans have been working with hope as a practice, using it to envision a future – towards a 'project' as Fischer (2014) suggests is necessary for a good life – since I arrived and began asking questions (and likely long before that). Thus to answer the Royal Institute question, people stay because they have a relationship with the place, and hope to cultivate one with the park, which has become a feature of local ecologies of wellbeing that people want to engage in relations (of care) with.

In HaMakuya, the Trust and Camp assist in creating visions for productive future engagements with the park. Elsewhere research has shown that on national borders hope is inextricably linked with NGOs (Norum et al. 2016:4). In HaMakuya NGOs and tourism combine to offer hope-filled future visions (cf. Norum and Mostafanezhad 2016), such as through the Camp, when HaMakuyans witness the successes of other edge-dwellers who pass through. For example, Allie is one of a number of South African edge-dwellers – her village borders Kruger in the former Gazankula homeland - who move through the Camp, successfully capitalizing on eco-tourism; developing friendships with HaMakuyans and sharing stories of success (also challenges[337]), financial security, and skills development resulting from engagements with eco-tourism.[338] The Camp attracts many new flows, materials and relations that alter social networks and thereby resources to call on when care is needed, as with Allie and Murunwa (Chapter 7).

Embracing these potential benefits means accepting changes (cf. Lear 2006). Eric, a municipal employee, married to Noretta, explained; 'We saw that there is no life in traditional practices, it was taking us nowhere. . . The changes and development, it is ok. It doesn't really bother us that much.' For Eric, whose brick and tiled home was one of the largest in the village, embracing 'development' means, 'we accept the changes because we don't need those things like grasses like before - we use other materials for roofs. Those grasses are eaten by the animals that they shoot, and now

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[337]Alani's (Allie's boss) work travel through Kruger led to an arrest for poaching, and jail (because bail was unaffordable) for many months. He was eventually exonerated, but the time spent in jail, unable to support his family significantly impacted on his wellbeing according to his narrative.
[338] See Philips Story; appendix 8.1

they provide us with meat . . . we need to leave these changes, accept them, and not worry.' Lear (2006) suggests a similar acceptance of change took place among the Crow led by Plenty Coup, in the way the good life was understood. Similarly, HaMakuyan practices of 'taking the dogs to the bush to help with hunting' were traded for the meat that the park 'provides.' As such, the ways in which the park, and eco-tourism affect local ecologies of wellbeing becomes apparent, as many local residents (but certainly, not all) embrace changes alongside visions of a future that includes for example, road infrastructure as a trade-off for resource access. However, as one of very few HaMakuyans with a municipal job, Eric has the capital to accept that thatched roofed houses are no longer accessible, while not all HaMakuyans do.

Hopes for the future are predicated on tangible engagements with the park, which have become increasingly frustrating as many Musundians suggest the park and Makuya royalty do not respond, especially regarding safety (Chapter 6). In fact, Frank explained that prior to 2011 the park engaged with Musundians, providing them with opportunities to enter and learn about conservation, selling notions of hope for a charismatic animal-filled future for their children. This type of tangible engagement is something that he believes, if started again, will ease relations between residents and the park.

Tangible engagements with the park become central to continued hopes in what it might offer future generations. Almost every organization (from churches, to educational non-profits), and many researchers who engage with HaMakuya offer workshops. Workshops are a form of training and central component to job access.[339] Returning to an example described briefly in Chapter 2, I explore the importance of workshops in the local context. When Sarina and I travelled to a Domboni orchard where her grandmother and other elders worked the land together, a woman introduced as 'a traditional healer' sat in the shade of a tree, de-pitting marula fruit with a klipspringer (*Oreotragus oreotragus*) horn. While teaching me (Figure 8.1), she asked about my research.

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[339] Workshop 'certificates' are locally perceived to assist in accessing paid work or Community Works training. Gonçalves Martín (2016) indicates how for Yanomami, paperwork allows paperwork holders to engage in relational activities that open up pathways, and connections to others, as with workshop certificates in HaMakuya.

Responding to my explanation, she explained, 'I sit on the local council for traditional healers [and] there are things we can still learn. You can bring a workshop to teach first aid. Sometimes, someone gets hurt in the bush. Here, no cellular signal, and bad roads make it difficult to get to the clinic. If someone gets hurt deep in the bush, they cannot call the emergency. So maybe they walk, and make the injury worse. If there was a workshop, then all the healers, and others could learn how to help someone who breaks a bone, or is not breathing.' This suggestion for a first-aid workshop, was not the only request for workshops – in more than half of over 80 interviews, and in almost every informal group discussion, people asked 'what do I get out of this?' My learned response, 'What do you suggest?' 'Workshops' were the recurring answer.

Figure 8.1: Marula preparation; Domboni orchard.

Frank and Ruth suggested workshops about the importance of conservation for future generations, while Takalani wanted one focused on the impact of deforestation. Lily – 17 when pregnant with Pfanu - suggested a workshop on teenage pregnancy. Fulu had many workshop suggestions; from one where social workers assist residents in fulfilling the (extensive) requirements needed to register

the crèche, to one fostering direct communication between park staff and HaMakuyans, opening up space for collaborations to develop economic opportunities for edge-dwellers.

I argue that many workshop suggestions assert a discomfort with park relations. Many HaMakuyans emphasized a need for more engagement, as one Musundian explained:

> 'those who live here should benefit from the park. Makuya Park is more focussed on the commercial aspect of the business. . . The park does not involve the community in any development projects within. We only hear about [them]'

Fulu suggests that a true partnership and shared sense of responsibility between edge-dwellers and park representatives would benefit both conservation efforts, and residents, bringing an end to the 'problem with poaching because the community would have participated. . . [and] would have felt that it's their park since they would have been involved in its affairs. . . at the moment residents do not have a sense of ownership, because they are never involved in the planning and affairs. . .' This sense of ownership would, according to Fulu result in less friction between edge-dwellers and the park, while creating a space that Musundians could be 'proud of, and market.' Fulu stresses the importance of wide stakeholder engagement in building partnerships: 'If I was in charge, I would involve all stakeholders. . . meaning getting ideas from all the people, and this would ensure buy-in from the community and we would all move in one direction.' She suggests that partnerships with the park need to be directly fostered with Musundians, instead of select HaMakuyans.

Musundians also offered ideas for productive engagements with mutual benefits for the park and themselves. For example, Fulu suggested that HaMakuyans be given permission to hunt antelope, which she suggested need to be culled anyway. This meat could launch a local biltong business, catering to hunting parties, and supplementing HaMakuyans' protein sources, providing locally acceptable meat (antelope). Instead of paying people in hunting-trophy leftovers, or feeding Musundians their ancestors, edge-dwellers could continue hunting preferred species, while providing a service (culling) for the park.

The hope for productive engagements with the park was also the explanation Fulu offered as to why she volunteered for six weeks with the hunting concession. 'I do this for free because in the future, I hope we can benefit more. I hope to learn how to run this business so that the Council will trust us. Then we can make sure that more people here benefit from these hunts.' I suggest Fulu's hopeful approach, including visions of the future, despite all the 'problems' she raised, is based on a potential rendering of relations between edge-dwellers and the park. Such a rendering of the future, where more edge-dwellers benefit, is central to understanding how Musundians engage with the park, highlighting its importance as it provides a space to imagine future possibilities and focus aspiration.

Considering the *namanda*-building benefits alongside the vitality sapping challenges that the park poses to edge-dwellers' local ecologies of wellbeing, Musundians do not only see 'problems' with the park, they also see hope in it. Jackson suggests that a 'sense of hope,' can offer a 'sense of a way out' making hope 'crucial to the ability to endure' (2011:184). Fischer suggests that aspiration is 'hope for the future informed by ideas about the good life' which directs one's 'power to act and the sense of having control over one's own destiny' (2014: 207). Edge-dwellers' aspirations to engage more actively with the park reflect a 'capacity to aspire' (Appadurai 2013) which may reflect a sense among edge-dwellers that change is desired, and that the future holds possibilities we do not yet understand (Lear 2006:91). Similar to Solnit (2016b), Lear (2006:103) suggests that the unknown quality of the future offers 'radical hope'.

Returning to Jackson (2011:184) who offers the idea that 'equally crucial' to hope 'is a sense that one is able to act on the situation that is acting on you.' The aspirations of edge-dwellers, for jobs/businesses within the park, or their requests for workshops represent a form of hope that speaks to the need to have the ability to act on/with/in response to the park; it also seemingly reflects a sense among edge-dwellers that current relations between themselves and the park should change. The park, in providing potential future possibilities, allows Musundians to aspire, and aspiration counters the depressing realities of 'unfreedom' (Sen 1999). Imagining a potential future, with economic opportunity, or using hope as a method (cf. Miyazaki 2004) to explore future potentialities opens space for Musundians to have

a positive outlook for the future, thereby allowing edge-dwellers to engage in an 'ethics of possibility' that can be enlivening (Appadurai 2013: 299).

LaDuke's (1999) exploration of North American First-Nation residents' struggles for 'life and land' suggests that environments are simultaneously sources of harm and wellbeing. The park as a significant shaper of the local environment and lands is seen by edge-dwellers as both an imposition that causes challenges, and a source of hope. The hope linked to the park is similar to how West's (2006) respondents perceived the protected area that they lived adjacent to as a potential benefit source, especially in light of the lack of other investments in the area by government authorities (see also Kirsch 2006). In this setting, conservation is the clearest evidence to edge-dwellers that a government exists. HaMakuyans' lived experience of government interventions is often most evident in conservation policies and policing, making it seem like 'conservation is our government now' (West 2006: 120). In this context, the park becomes both a sign of dispossession and reduced resource access, while also being a symbol of not-yet attainable hope for future economic opportunity. While hope as simply a vision for the future can be limiting (Zournazi 2002: 15, in Miyazaki 2004: 2), hope as a method (Bloch 1959; Miyazaki 2004) suggests possibilities of change, and action (Miyazaki 2004; Macy and Johnstone 2012; Solnit 2016b). This second type of hope is a method with which many edge-dwellers engage when describing the park's impact on their wellbeing, and emphasises just how much the park has been incorporated in local ecologies of wellbeing.

THE FUTURE - IMPLICATIONS AND FURTHER RESEARCH
If nothing else, this thesis has taught me how little I know. Further engaged, long-term research is necessary to develop topics that I have touched upon as being beyond the scope of this thesis. This includes engagement with the ways in which climate change impacts edge-dwellers' wellbeing, including how water access, cultivation and bodily practices change (or don't) as climate pressures mount.

For public health practitioners, this research raises points for critical reflection, including the difficulty of accessing emergency services, and secondary/tertiary healthcare. Having uncovered serious discrepancies between reported and available primary care services, this research indicates a need for the Limpopo Department of

Health to attend to these discrepancies, including forensic accounting. I suggest that healthcare service providers engage with HaMakuyans directly, cutting out middlemen and royal/traditional leadership representatives, because my research indicates that the concerns of such leaders do not necessarily reflect the concerns of 'common' village residents. In order for South Africa to meet its goal of health for all, further context specific, ethnographic engagement is needed in multiple contexts, to understand the place-based priorities and challenges in providing acceptable health-care for all, especially in remote contexts, and particularly along the boundaries of protected areas.

For applied conservationists, this research is a good starting point to understand some aspects of human/wildlife conflict and implies the importance of tangible engagements. My research offers conservation practitioners suggestions for ways forward, including edge-dwellers' suggestions addressing challenges that are most salient to their experiences; and indicates a need for conservation professionals to understand context specific ways of 'being and doing' in order to avoid providing 'benefits' that radically undermine residents' beliefs and practices. This highlights the importance of anthropological engagements prior to and in support of conservation initiatives.

One specific medical anthropological implication is the need to continue to de-centre biomedicine from explorations focused on health and wellbeing. However, at the same time, ignoring biomedicine, and focusing solely on other forms of healing obscures the layered and complex engagements that peoples have with biomedical and other forms of healing. With this in mind, approaches that consider contingency as part of health-related analysis, like the matrixes of 'ecologies of wellbeing', offer ways of thinking through health and wellbeing without imposing external categories – the implication is that such a form of analysis can provide insight into practices using local ways of thinking about the world.

A further implication evolving from this research is the reality that the realms of environment and wellbeing are not easily divisible for many people's lived reality. Thus as many anthropologists before me have argued, many of the binaries that are imposed on peoples around the world, are exactly that, impositions which imply the continued need to engage with and develop frameworks for thinking and analysing

that move away from binaries and silos (fields) of thought. Such thinking must also be collaborative; anthropologists, conservation biologists, toxicologists, public health practitioners and in this case, edge-dwellers must collaborate and build knowledge together.

Other implications of this research for anthropology in general are subtle and diverse. For example, TshiVenda speakers are one of the smaller language groups in South Africa, often framed as having moved from Zimbabwe. This historical tracking starts muVenda history just before colonial contact, but in reality HaMakuyan TshiVenda speakers largely track their lineage from the Congo – such that anthropological and historical renderings that often position people as "without a history" (Wolf 1982) are being pushed against, and as anthropologists, we need to attend to these renderings in an effort to never tell a single story.

Musundians' perspectives on the importance of baboons and elephants requires more exploration, as does edge-dwellers' management of non-visible relations in the context of wellbeing, and how such relational matters impact other aspects of life, for example, shifting definitions of 'family'. In addition, teasing out the various influencers and their specific impositions on present day HaMakuyan values is an important avenue of future inquiry. Similarly internal fighting between some of the non-local founders of the Trust led to local factions, an interesting angle for future research that tethers eco-tourism and 'community' projects to the intersecting questions around wellbeing and conservation that I proposed; such dynamics provide an opportunity to 'study up' (cf. Nader 1972).

Topics like *muthi* need further exploration in this TshiVenda context, as do readings of 'social death' in the context of secrecy and fears around publicly sharing plant-based knowledge – all of which could contribute to ethnobotanical research. Also, because this research explores a population in a specific positionality – the edge – further research is required that is not constrained to TshiVenda speakers, so that other edge-dwellers' including Shangaan, or Tsonga speakers' perspectives could be compared to address the variety of South Africa's edge-dwellers' experiences.

In establishing a link between health-seeking behaviours and people's lived-in environment, it follows that development practices that look to shape protected

spaces should be critically reflected on with a gaze related to wellbeing. Conservation is often wrapped up in development initiatives through community-based conservation, (Berkes 2004) as with the Trust/Camp. How these organizations have shaped the local context with regard to wellbeing has been touched upon here, but such an analysis could be expanded, contributing to development studies, and providing evidence for critical engagements with the impacts of eco-tourism, voluntourism, and community-based resource management.

Future research should also attend to Agard-Jones' (2013:182) rendition of 'body burden,' that suggests the need to account for the material and metaphorical ways in which bodies are entangled with the forces of capital, and why certain peoples are 'disproportionately porous' to toxic materials (2013:182). In HaMakuya, residents are exposed to DDT, and mine polluted river water– these are toxic exposures that are specific to their location, and ones that most other South Africans (especially non edge-dwellers) do not have to contend with. Conservationists, policy makers, healers, anthropologists and toxicologists could partner to understand body burdens in ways that reflect the realities of those who experience them.

A pressing avenue for future research would be finding ways to create the tangible engagements with the park that Musundians 'actively' hope for – thereby also contributing to research focused on the anthropologies of hope, and of futures. My concern is for how far the 'non edge-dwellers' will go in their efforts to create wildlife corridors, and to bask in the glory of large charismatic species, or shoot animals that edge-dwellers once considered family. How long will edge-dwellers willingly find ways to adapt as their spaces are squeezed? How long will someone, like Noretta, 'waiting for water' willingly sit by and watch as 'professional hunters' and their tourist clientele speed through her village - visible in the backs of pick-up trucks, rifles tucked under arms, drinking deeply from bottles of cold water - to enter the park at a gate she cannot access, in order to shoot some animal once considered family, in the name of conservation? Imagine how much longer Noretta might be willing to witness that if cattle, eaten by lion, were already compensated for? Or imagine how short her patience might be, if instead Noretta saw that pick-up truck on a morning when she discovered missing livestock? What comes after active hope - 'no hope' (Miyazaki 2010)?

The August and March 2017 murders of Tanzanian and Kenyan conservationists may indicate how the future will unfold in HaMakuya. Drought, and the resource limitations imposed by the park will increasingly be felt with climate change, adding to pressures that may eventually be too much of a burden for HaMakuyans to maintain 'active hope.' Thinking through the service delivery protests that turned violent in nearby districts, alongside the on-going conservation and extraction practices that maintain edge-dwellers at the bottom of resource access hierarchies, I wonder how long edge-dwellers will remain patient as requests for meetings and tangible engagements with the park are ignored? It is clear that conservation practitioners need to engage not only with ethnographic researchers, but more importantly, embrace local priorities through wide engagement beyond royal channels, through direct communication and modes of interaction to offset building frustration.

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APPENDICES

CHAPTER 2

2.1 Data Collection

2.1.1 Photo Voice Instruction Card Example
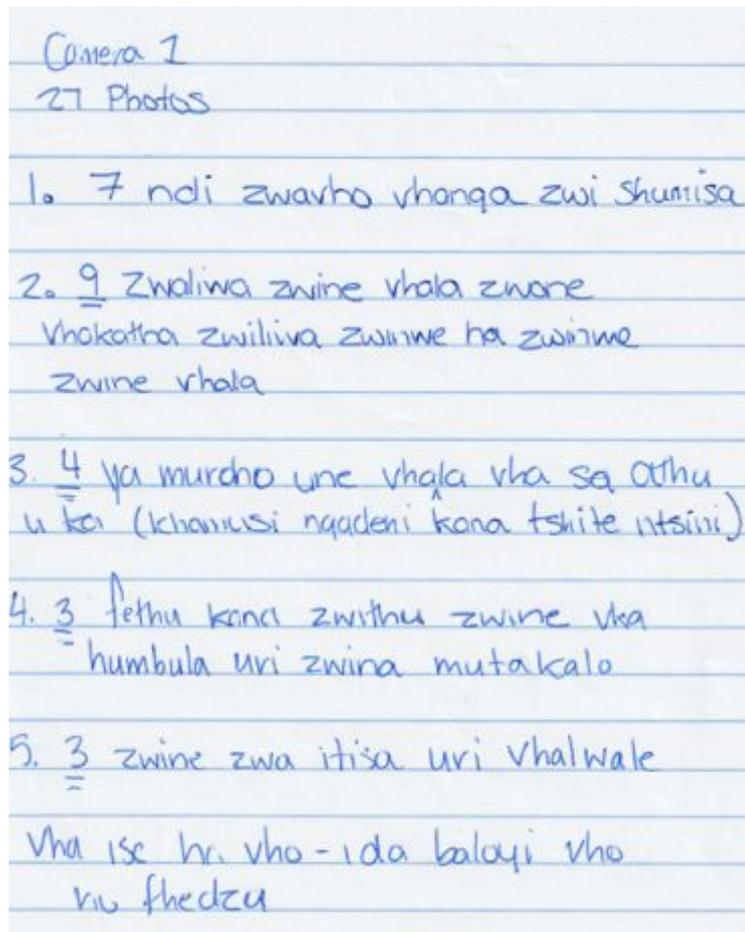
Translation:
1. 7 photos are for you
2. 9 photos are for a food diary (this was then explained in detail, asking residents to take one photo for each meal they ate for 9 photos, if possible in a row)
3. 4 photos are for foods that you can gather or collect around here
4. 3 photos should be of places or things that you think are healthy or can bring health
5. 3 photos should be of places or things that you think can make you sick

The other two cameras - handed out to people who returned the first camera - focused on different themes, however all cameras instructions included the first two directives. For camera two, the remaining three sets of instructions focused on requesting photos of natural resources that were gathered locally and for photos of natural resources that brought health or sickness, while the final camera focused on

understanding people's perceptions of challenges that the park posed, asking for photos that highlighted challenges, as well as a prompt specific to transportation.

2.1.2 Ethnobotanical Survey Extract Example

2. What bushes or shrubs have you planted? What do you use that for?
Ndi madaka kana zwiri zwifhio zwe vha tavha? Vha zwi shumisa mini?

Bush/Shrub madaka kana zwiri	Use/mishumo	Who taught you about it? Vho gudisiwa nga nnyi
orange tree	shade, fruits	Father
mango tree	fruits, shade	Father
flowers	decoration	mother
morani	shade, morani worms, firewood	mother

3. Did you plant morojo? What species?
vho fana muroho? Ndi u fhio?
Phuli
murawa
green beans
spinach
cabbage

4. What plant is the most important to you? Why?
Ndi zwi fhio zwilinwa zwine ndi zwa deme khavho? Ngani?
Maize maelwto cook pap
all mutho → to eat with pap and for
vitamin

2.2 Additional Notes on Methods that did not work

2.2.1 Focus Group Reflections

I had intended for focus group activity to develop into resident-led workshops. I imagined that focus groups would become a venue to foster community driven projects to solve health-related issues that arose; that I could offer my assistance in facilitating activities that the group decided were needed to improve wellbeing and potentially, relations with the nature reserve. I imagined that role-playing, and interactive mapping or drawing might emerge from these group efforts. Scheper-Hughes notes that a 'critically applied medical anthropology' can be achieved by taking on the role of the 'court jester', and using irony (1990: 194–195; see also Haraway's 'joker' 1991: 149) – methodological tools that when handled with sensitivity and awareness can assist in spurring dialogue and uncovering hidden connections about topics that are difficult to discuss (Diamond 2007). Diamond, drawing on Boal (1979), and Freire (1970), positions himself as the 'Joker' with the aim 'not to give strategic instructions, but to create an environment in which

meaningful change is likely to occur' (2007: 16). The grandiose aim is achieved by 'investigating ways to help us live together in healthier ways' through facilitating interactions that do 'not polarise the living community', but instead 'recognises that the community is an integrated, and perhaps dysfunctional organism that is struggling to resolve difficult issues' (2007: 24). The Joker, like the medieval court jester, can mock the ruling establishment and address inconvenient truths (2007: 17), making theatre a vehicle for 'living communities to tell their stories' and workshop problems (Diamond, 2007; Stuttaford et al. 2006).

However, once the pilot aspect of this research was completed (i.e., field visit prior to commencing long-term field engagement) my understanding of the potential benefits of focus groups were outweighed by inter-group dynamics, and an awareness of the local efforts of most women to 'stay away from stress and gossip.' The limitations of focus groups, such as the potential for personal information to be more widely shared, the tendency for the perspectives of dominant perspectives to stifle other voices, and relatedly the fear of persecution, made the formal focus group gathering one that I did not want to force upon my neighbours. Instead, I found accessing group dynamics through the group meetings that I was invited to, or came upon were much more productive than trying to convince people to gather for yet another group meeting – and there were plenty of those; some were locally generated (village meetings), while others were government sponsored (agricultural briefings) or NGO driven (Malaria Awareness Programme MAP).

2.2.2 Food Security Questions Sample
As noted in Chapter two, food security questions challenged my ethical approach and were thus carefully constructed, re-evaluated, and rewritten. Here I provide an example of some of the food security questions that were developed by drawing on Coates et al (2007), but adapted with the help of Sarina.

1. In the last month has there be any times when you did not have enough food?
   Nwedzi wofhelaho vho fhilela uri a vhana zwiliwa zuvo linganaho ?
2. In the last month did you eat your favourite foods?
   Minwedzi yo fhelaho vha khou lazwiliwa zwine vha zwifuna?

3. Besides pap what other foods have you eaten this month?
   Nga nndani ha vhuswa ndi zwi-fhio zwinwe zwiliwa zwe vhala?

4. In the last month have you had to eat foods that you did not want to eat?
   Vho nola zwinwe zwiliwa zwene a vha zwifuni ngauri a vhana zwiliwa?

CHAPTER 3

3.1 Rainfall Data

A resident in the neighbouring chieftaincy, who relocated from Johannesburg and ran a nearby eco-tourism accommodation, collected rainfall data (pers. comm. Hawkings 2015). Annual rainfall was calculated for August–July.

Year	Rainfall (cm)
2012/13	827
2013/14	655.5
2014/15	214

This indicates a more than 600mm difference from July 2013 to 2015 in a region that averages between 500-600mm annually

3.2 Settlement, Lineage, Contestation and Forced Removals

3.2.1 Settlement Narratives of Elders (excerpts)

Oral histories amongst TshiVenda speakers agree on two things: at some point the Singo (clan) conquered Venda chiefdoms (the extent to which the conquering took place, and its effects on the ways of life across the Venda speakers is contentious) and what was once seen as more cohesive group fragmented into independent chiefdoms (Huffman and Hanisch 1986). Archaeological research from the 1980s purports to confirm that the Singo consolidated the 'Venda state' under their rulership between 1700–1725 (ibid). TshiVenda (the language) is said to have emerged in the sixteenth century from melding two language groups – Shona and Sotho-Tswana – through increased trade and intermarriage, thus questioning past Africanists claims of Singo as the 'original' Venda (Loubser 1989; Huffman and Hanisch 1986). My own research reveals that local elders understand themselves to be linked to the Limpopo River Valley and before that the Congo.

From Congo . . . some settled at the Limpopo River. The white people dispersed them from Limpopo River and then they spread [across] Venda land.
    (Ramashia elder, Musunda village, 70s, Singo clan)

From Zimbabwe they came to settle at Madavhila, that side of Vhembe [the other side of the Limpopo River]. From there they then spread to the entire land south of Limpopo River today known as Venda . . . I heard that VhaVenda ancestors came from Congo. They spread to the South in generations of clans. Other clans remained behind at ancient settlements between Congo and Venda.
   (Netshipale elder, Musunda village, Makuya clan)

3.2.2 The Lineage of HaMakuya - according to one oral historical account

Debate surrounding VhaVenda consolidation and ancestry continues today as many self-identified mu-Venda challenge the 2012 ruling that confirms the current paramount chief. This is a complex situation where apartheid efforts to install

compliant leaders are only part of the reason that such contestation exists. Contestation over royal claims pre-date colonial and apartheid contact as the account below evidences.

The following account, and related figures are provided to illustrate the history of this space as it relates to power and leadership in the area, the relationships between the various people who live in this space, and the history of colonial/apartheid influences on HaMakuya (the following information is paraphrased from Lishivha 2010; www.luonde.co.za; accessed 10 January 2013).
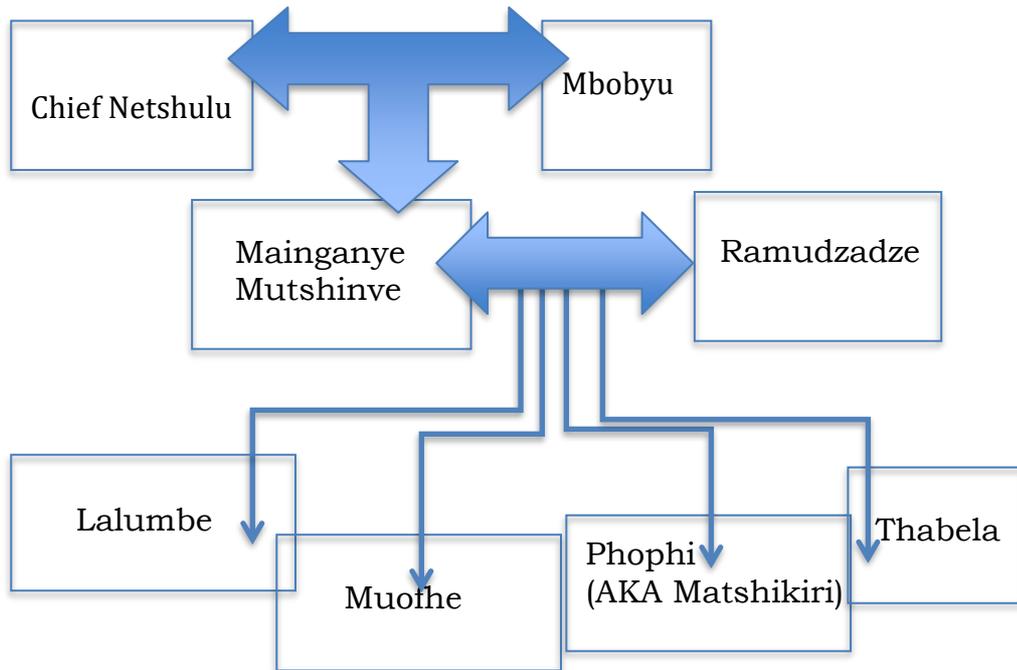
Mainganye returned to Tshulu after her mother's death, and took over as the new chief of Tshulu. Lalumbe married Khosi Lambani of Ha-Lambani. Muofhe settled at Mainzwi Ha-Tshisinavhute, while Phophi Matshikiri followed his mother to Tshulu, and Thabela settled at Fandani. When the Tsonga-Shangaans of Nkotswi tried to conquer Tshulu, the attack was repelled. The people of Tshulu, led by Muofhe who came to his mother's assistance, violently retaliated against the Nkotswi. Following this, Muofhe gave himself the name of Makuya, meaning pulveriser.

When Mainganye died she was succeeded by her son, Phophi (Matshikiri) who requested that Mantsha Radaimane, Muofhe's son, take over as the chief of Tshulu in an effort to honour tradition. Mantsha became the chief of Tshulu, and like his father, called himself Makuya. The land of Tshulu became known as Ha-Makuya, meaning the land of the Makuya.

Mantsha later attacked his uncle, Matshikiri (Phophi) - who had offered him the chieftainship of Ha-Makuya - with the help of the Tshivhases, and drove Matshikiri out of Ha-Makuya. After three years, Matshikiri settled in Membe as the chief. While at Membe, Matshikiri repelled attacks from Mantsha who was assisted by the people of Ha- Tshikundamalema, Ha-Tshivhasa, Ha-Mphaphuli, and Ha-Mashudu.

He moved from Membe to Tshamiulwi, but had to move back to Membe after Mantsha's second assassination attempt on him.

Matshikiri and his sons (Mashila, Muvhali, Ramashia, Maphiri, Maluta, Phophi, Tshikalange, Lavhengwa, Makwarela, Nkhumeleni, Mavhungu, Ramudzuli, Hiri, and Makungo) plotted to drive Mantsha from Tshulu/Makuya. Matshikiri pretended to have fallen out with Ramashia to befriend and thereby spy on Mantsha. Matshikiri and his sons, using intelligence gathered by Ramashia, attacked Tshulu and killed Mantsha. Matshikiri again became the chief of Tshulu, and called himself Makuya.

In Matshikiri's old age Tshikalange cared for him and thus took over as Ha-Makuya's chief after his death. Mashila and Phophi contested this on the basis that he was their younger brother and thus not eligible for the throne. According to oral accounts of Tshikalange's sons - Musuthu, Mutshokotiki, Tshilima, Nthomeni, Ndanganeni, and Ngigideni - Ngigideni's mother was chosen for the current chief by the royal household to bear the future chief (Mufumakadzi wa Dzekiso). This is usually the chief's first wife's role, and her eldest son is designated future chief irrespective of whether or not he is the chief's eldest son. Some argued Ngigideni was the heir to Ha-Makuya throne despite the fact that he was the youngest of Tshikalange's sons. Tshikalange died in 1956. Ngigideni was installed as the new chief of Ha-Makuya on 20 December 1958. Ngigideni was succeeded by Ntsweteni in the early 1990s.

Today a faction contests Ha-Makuya's chieftainship. It claims that Ngigideni was installed by the 'Boers' who viewed him as co-operative. This faction argues that Tshikalange's eldest son, Musuthu, should have taken over after Tshikalange's death. They also question Ntsweteni's legitimacy since he is the son of Ngigideni. Ntsweteni's supporters argue that Tshikalange indicated, long before he died, that Ngigideni should succeed him. They argue that this, coupled with the fact that Ngigideni's mother was Mufumakadzi wa Dzekiso, means that Ntsweteni is the legitimate Khosi of Ha-Makuya. The issue of the Makuya chieftainship was addressed in the Ralushai Commission, the final results of which were never released into the public domain.

3.2.3 Frank's Statement Staking Claim to KNP

'Some of those things are now in a museum in Cape Town. In 2005 we were invited and sponsored to Cape Town by the gallery hosting these artifacts, to come and view them. These are things that were taken by the white people who were trading with the chief. At the chief's graveyard, there was gold and some of the beads in his grave. There was a white man who exhumed the chief's body and removed those artifacts. He took them to the museum. So as the grandchildren of this family when we wanted to have a share in the land, we wanted to have a piece of KNP.' Frank Ndlovu

3.2.4 The Ndlovus, Makuya Chieftaincy and Headman Distinctions
Frank's discussion of 'giving land' is a way to explain the complexity of inheritance around power and land. Ndlovus were given land within the Makuya Chieftaincy as a result of marrying a Makuya, and moving nearby – they were not given a chieftaincy as such, but rather the 'headman' status of Musunda village. A chieftaincy is inherited and cannot be given, whereas a village headman, although most often an inherited position, can be 'given' – hence the Makuya bestowing land to a Ndlovu both creates a new village and a new headman, albeit still within the HaMakuya chieftaincy. However, this has caused contemporary contestations around who is the rightful headman of Musunda:

> My grandfather was given the chieftaincy because Makuya married into Ndlovu, but since the chieftaincy cannot be given as a gift to other people, land was given instead. When our grandfather passed on, we did not continue. That's why this family no longer has that role. We are trying to get it back now though. If we were to claim it back though there would be problems, because the chieftaincy is now with the Makuya people.

3.3 PNA Legislation
When read together, the listed purposes of protected areas cater to the varied needs of many of the stakeholders who might lay claims on land. However, just one word, the 'or', in this legislation becomes extremely problematic for those who live on the edge (as those most marginalized), and in this way, PNAs challenge the rights laid out in section 24 of the South African Constitution.

3.3.1 Section 24 South African Constitution's Bill of Rights
Everyone has the right
  a. to an environment that is not harmful to their health or well-being;
  b. to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that
      (i) prevent pollution and ecological degradation;
      (ii) promote conservation; and
      (iii) secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.
http://www.justice.gov.za/legislation/constitution/SAConstitution-web-eng.pdf (accessed 10 June 2016).

3.3.2 Purposes of a PNA
As outlined in the National Environmental Management: Protected Areas Act 57 of 2003, the purposes of the declaration of areas as protected areas are:
'(a) to protect ecologically viable areas representative of South Africa's biological diversity and its natural landscapes and seascapes in a system of protected areas;
(b) to preserve the ecological integrity of those areas;
(c) to conserve biodiversity in those areas;

(d) to protect areas representative of all ecosystems, habitats and species naturally occurring in South Africa;

(e) to protect South Africa's threatened or rare species;

(f) to protect an area which is vulnerable or ecologically sensitive;

(g) to assist in ensuring the sustained supply of environmental goods and services;

(h) to provide for the sustainable use of natural and biological resources;

(i) to create or augment destinations for nature-based tourism;

(j) to manage the interrelationship between natural environmental biodiversity, human settlement and economic development;

(k) generally, to contribute to human, social, cultural, spiritual and economic development; **or**

(l) to rehabilitate and restore degraded ecosystems and promote the recovery of endangered and vulnerable species' (**my emphasis**).

3.4 Mine Closure Plan:
Cornish (2012) claims that the mine is 'putting together a comprehensive mine closure plan'– which will 'look at the mine's environmental footprint and other post closure activities, including infrastructure, employees, after-care requirements and compliance to our social and labour plan'. The article then outlines the 'upskilling projects' that Exxaro has initiated:

'1. Exxaro has invested in the establishment of Sanari Skills Development centre in the area aimed at teaching sewing, welding, carpentry and computer skills – the centre is up and running;

2. The establishment of the Musunda citrus farm – a mango planation where the trees are currently growing;

3. The Makuya cattle feedlot. This is due to be commissioned later in 2012 following finalization of the infrastructure, and;

4. Mukomawabani vegetable garden – currently being established' (Cornish 2012).

The article continues by claiming that such plans, and related discussions with its employees resulted in a 'less hostile' workforce. My attempts to research this closure plan further were thwarted by the fact that the Tshikondeni page on the Exxaro website returned a '404: File directory not found' server error (7 March 2016).

During the course of my research, I engaged with people involved in some of these projects, while others, to my knowledge, never came to be (#4 above). While these up-skilling projects were meant to mitigate impacts on the villages surrounding the mine as it closed, Musunda included, I have met very few people who benefitted from these projects. The feedlot, where Fulu's husband works, employed only 12 people, and once the mine was closed, no longer supported the project, which by 2013 was regularly facing security breeches, loss of cattle, and imposing financial burdens on individuals who felt responsible to keep the project going. The Musunda citrus farm continues to run, but agricultural legislation that required costly fruit-fly traps if fruit was to be sold on the commercial market cut into profits. Drought, even with irrigation infrastructure provided by the mine, created further challenges that

were insurmountable without ongoing support from the mine. In other words, the mine created a costly irrigation system, which was impossible to maintain without funding. In this way, both projects lacked sustainability.

3.4.2 Mine Closure Influence on Wellbeing
I saw first-hand how the mine's closure impacted the wellbeing of an entire family; a mother of three who worked at the mine was transferred to a new mine more than four hours away when the mine closed. The long commute meant that she had to stay at the mine hostel during the week. As the weeks wore on, she gained weight and her mood and energy levels sunk – she complained of missing her family, and of having little option of foods to eat at the hostel. Her children also complained as they struggled to adjust to living without their mother during the week. In addition, a South African Broadcasting Company news article (June 2014) outlines some of the outcry related to the mine closure, including being transferred to far-off alternative mine locations, without the option of a severance package, and the collapse of local businesses built around serving mine staff.

See<http://www.sabc.co.za/news/a/8ae8ec80445cbf53b257be83e4a2b8b3/Limpopo-coal-mine-closure-prompts-outcry-20140614> (accessed 7 March 2016).

3.5 Recommendations for Public Health Delivery Ignored During Apartheid
Despite recommendations in the 1920s and 1940s (Loram and Smit Committees) to train black healthcare workers, or to expand health care services for 'urban natives', and a call to create a national health care service for primary care provision as a result of the Gluckman Commission (1942–44), Apartheid-era legislation continued to further fragment the nation's health care services (Horwitz 2009: 3). With the National Party's rise to power in 1948 came the suppression of the Gluckman Commissions' developments. The Public Health Amendment Act of 1952 consolidated National Party control over health provision by disallowing local community clinics any autonomy, creating policies and services that were not locally acceptable. The 1957 Nursing Amendment Act created separate training institutions for nurses according to race – as with Bantu education policies, these separate institutions even had different curriculums – and the 1977 National Health Facilities Plan and Health Act set out admissions policies to hospitals based on race (Horwitz 2009: 3).

3.6 Herbarium Samples

Figure A3.4.1: An array of samples collected during research – items that others pointed out to me as important

Figure A3.4.2: This plant was picked and shown to me on the walk to a memorial service – it was described as a plant 'good for showing where water is' and was known both by its leaf structure and its lavender-like smell. This was the same plant shown to me on the day of the Chopping Story (see Chapter 3) when my research assistant indicated that they were evidence of underground springs; she explained that they can also be burned to scare off mosquitos.

Figure A3.4.3: This plant was shown to me at the homestead of one of my regular interlocutors. She had planted it around the entry gate to her homestead, and explained that it was very useful in the treatment of colds, flu or allergies.

Figure A3.4.4: Same as above.
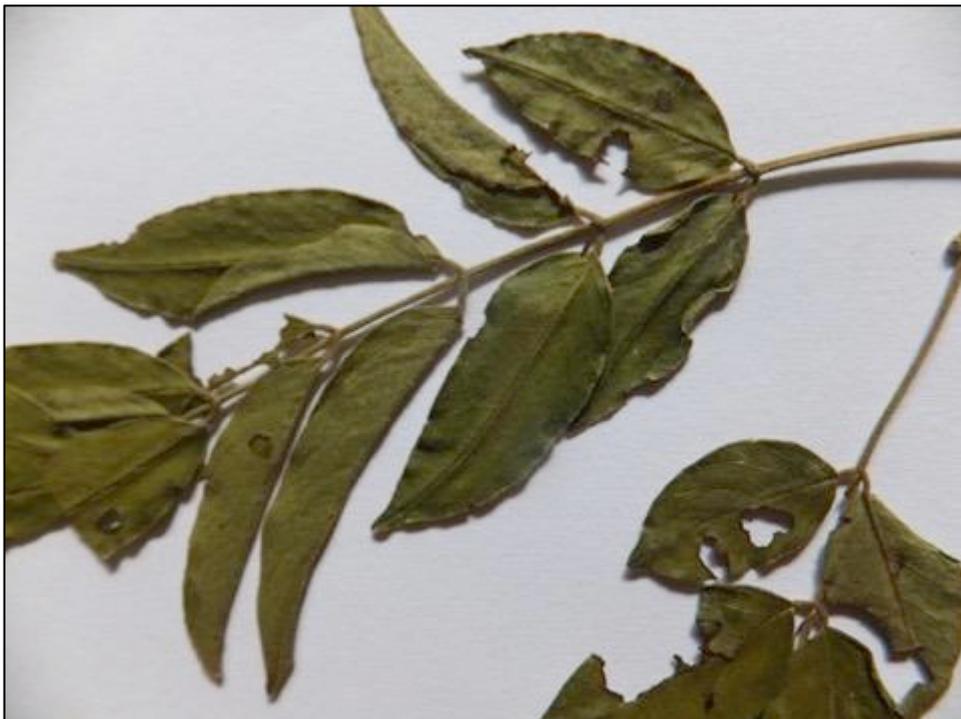
Figure A3.4.5: Same as above

Figure A3.4.6: A seedpod from a plant favoured for gathering to supplement goats' diets.

Figure A3.4.7: A bulb, uncovered while working with CWP crews to refurbish a road; this bulb was described as 'very good for pain relief', inducing 'tingling' wherever the cut open surfaces of the bulb touched skin.

Figure A3.4.8: Same as above.
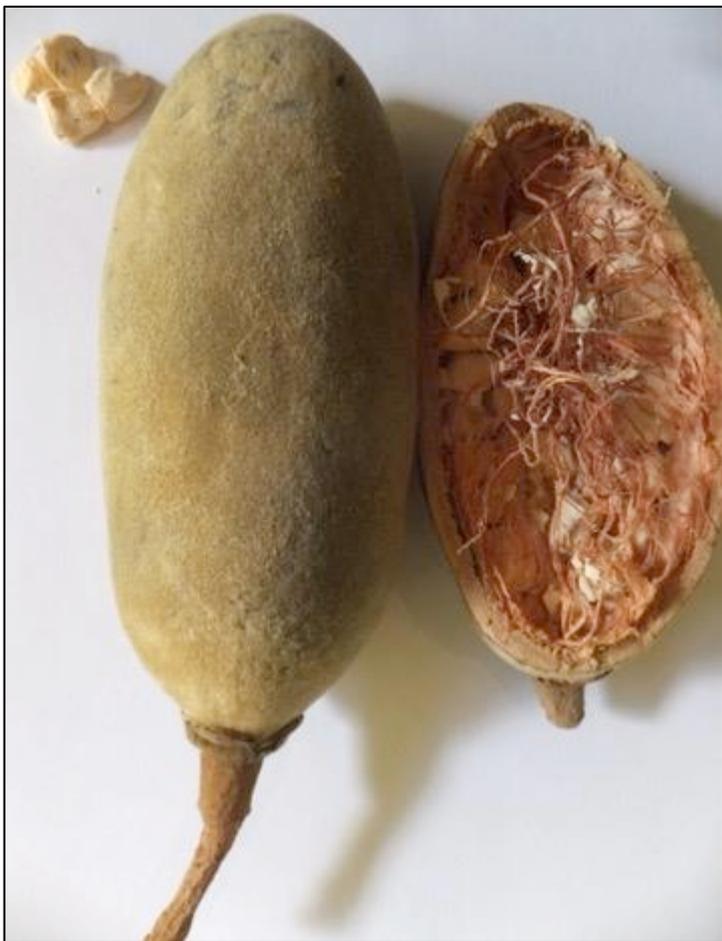
Figure A3.4.9: Baobab fruit; the white chalky material to the left of the pod is the seed surrounded by fruit, very high in vitamin C and used for many local dishes, remedies and as a supplement when children are failing to thrive.

Figure A3.4.10: Baobab fruit.

Figure A3.4.11: Baobab fruit.

Figure A3.4.12: Pods from a tree that a number of locals, including Fulu and the veterinary gate guard identified as 'birth control.'

Figure A3.4.13: Pods from a different, but very similar tree, identified by both Fulu and the veterinary gate guard as useful for 'birth control.'

CHAPTER 4

4.1 Mr. Mashudu's Story

Mr. Mashudu is the night security guard at the Camp. From the end of March 2015, Mr. Mashudu battled with malaria, and had been out of work for the better part of April and May.[340] When I heard about Mr. Mashudu's increasingly worsening condition in May from Sarina, I asked her to join me to visit him. 'He is just not right, you will see. It was malaria, but then he went to the hospital and got better. Now it is something else. They say it is very bad. I saw him, he does not look right.'

As we pulled up and parked under the tree, he marched outside. He was a bit thinner than when I had last seen him, but what struck me was the tension in his face, the clear agitation and darkness in his eyes. His movements had changed; from the soft, relaxed and almost-slow, but deliberate movements of the fatherly figure who had taken me under his wing and spent innumerable nights practicing my TshiVenda pronunciations over candle light, to an edgy, and cagey set of movements, that seemed rushed, disjointed and almost painful. 'I am not well,' he said, as looked down at his hands.

'I am sick. In my head. Crazy, I am going crazy.'

'Can you tell me about it? Can I help?'

'No, it is them (nodding his head to the house caddy-corner). My neighbours, eish. It started as malaria.'

'You had malaria? Last month?'

'Yes, I went to the clinic and then the hospital released me, but since then I have stayed sick. It has changed, when it was malaria it was like the flu and headache, but now, now it is *tshipfula*, like with these pains up my leg. And last night, I did not sleep at all. I could see, I could see that they did this to me. They are jealous. I could see that they had spread these bad medicines at my gate, and so I used a different entrance, but still I did not sleep. These thoughts. It is very bad, I think I will die. But, eh, I am waiting for transport to Moria.'

I understood that he was referring to a long-haul trip to a large city-centre (also called St. Pietersburg) where the ZCC church leaders reside. I asked, 'What transport?' as I looked up to Mar for some input.

'You see, this is very bad' Mar said. Knowing that Mr. Mashudu was waiting for a lift to Moria on a taxi, she was concerned that the long and costly trip would get him to Moria too late to find a place to stay the night. He had been waiting all morning for the taxi to arrive, but now it was 2pm. Sarina wanted to find him some immediate help, and asked me if I would be willing to drive somewhere. I agreed.

Sarina spoke to Mr. Mashudu about visiting a *maine* ('a TshiVenda doctor'). The look on his face showed that he was dubious about this. She laughed, catching the meaning in his expression, and explained that she too had gone to visit this 'TshiVenda doctor' who might save him from making the long trip to Moria. She

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[340] Despite being unable to work, his salary was paid, according to other staff of the Camp in gossip around salaries - gossip around salaries was not uncommon, especially since February 2014 when the Trust reducing the salaries of its workers, claiming no funds were available to pay them.

also explained that she didn't tell people at her church that she went to the *maine*, adding 'You don't have to tell the people at ZCC.'

This stately figure who I knew to silently command the Camp looked up at me, confused. My biomedical, public health training made me wonder if he perhaps had cerebral malaria, and I tried to press him for what the doctors had said about his malaria. He responded directly, asserting that he knew it was not malaria, but jealousy and he 'knows who did it,' as he sadly shook his head saying 'but they are my neighbours' and looked in the direction of the house he was suspicious of.

Mar encouraged him to visit the *maine* she had visited. He looked up at Mar and asked in English 'Is it strong? Good?'
Mar nodded, 'eh,' she said confidently. He got up and went inside the house, emerging with a winter coat.

Mar explained to me, 'You see, you know his wife died. So, we have to find him someone to go into the healer with him to listen to what they say and to follow those instructions. It must be someone close who will care for him. Do you know if he has any family?' 'I know it is just him and his sons. When his wife died, he returned from Joberg to help his mother care for his sons, but his mother died as well. So, it is only his sons. Can you listen and then maybe we can explain to his sons?' I asked, thinking that the sons should stay in school, but Mar said it would be best to get his son. We drove to the school where Mr. Mashudu spoke to his two eldest sons and a teacher. One son took the other's school bag as he jumped into the car.

We arrived at the healer, in a town about 60km away from HaMakuya, in the middle of the afternoon. The others were invited into the rondavel beside the home of the healer. She looked at me with suspicion, and Mar explained that I was a friend. After some whispered discussion Mar asked if it was ok with me that I stay in the car. Deflated, but not willing to push myself on the healer, I agreed. Two hours later, they emerged from the healer's rondavel. Mr. Mashudu looked up at me shocked. He said, 'How did I get here?' I looked at Mar, and she explained, 'He does not remember anything from before.' Mar described 'strong magic' that was making Mr. Mashudu feel unwell, but suggested that the healer also had strong counter medicines. Reflecting on the healers' strength Mar said: 'We did not tell her what was wrong with him, but she threw the bones and then she knew. She knew about his head, and that he could not sleep. Her medicine is strong. I think he will get better now.'

As we drove homewards, we chatted, and Mr. Mashudu began to warm up. He looked like himself again; he relaxed, smiled even, and closed his eyes. Just as we got to the dirt road of HaMa he asked me to stop, and jumped out to get a plant – this plant he explained was something that the healer said he should grind into medicine. I asked him what she said it would do and he said he did not know, but he explained that he recognized it as a plant used often for healing; 'this plant is strong'.

Mr. Mashudu's story so far offers further evidence of the importance of the *nungo* (strength) as a wellbeing-related theme, while providing some insight into how social influences impact care-seeking. When I left him, Mr. Mashudu expressed confidence in the *maine* visit, and in his prospects of getting better. As I reflected on the day, the shock of seeing him look so exhibited the power of belief when it comes to our embodied life experiences. His belief that this healer would make a difference to the bad magic that had been placed on him created a visible, tangible difference in his stance, body language, and demeanour, not unlike the notion of symbolic efficacy that links belief to the efficacy of healing (Levi-Strauss 1963; see also Stoller and Olkes 1987; Favret-Saada 2012).

Despite his (sceptical) belief in the healing potential of the healer he visited (cf. Macdonald 2012), Mr. Mashudu continued to be harassed by dreams, and insomnia. Within the next month, he abandoned remedies suggested by the *maine*; trading them for the healing power of visiting Moria (the birth-place of ZCC; a pilgrimage) and ZCC teas. In Moria he stayed at an official church hostel, and for a month, abided by their healing practices including the use of 'holy water', the healing hands of a prophet, ZCC teas and *thabelo* (prayer). When I first asked him about his time in Moria (in mid July 2015, after he initially returned) he again had confidence that he would get better. He told me that his time in Moria was difficult, but showed me, with great pride, the ZCC tea he had been given. He held the box of tea up for me (see Figure A4.1), and as I reached out to grab it, he pulled it away, explaining: 'Women must not touch this tea, this one is for the man. If a woman touches it, it no longer has power.' When I left HaMakuya to journey to New York to be with my mother for the start of her chemotherapy treatment at the end of July 2015, Mr. Mashudu believed his time in Moria, and the ZCC teas would bring an end to his suffering.

When I returned in July 2016, Mr. Mashudu had left the church. 'I even gave my uniform to Onda's brother, and my star. I am not a member of the ZCC any more,' he explained looking forlorn. Mr. Mashudu's efforts to abide by the church rules with regard to his ancestors were 'creating problems for me; problems in my head, and my legs.' I asked him about the month he spent in Moria, and this time he explained that Moria was 'terrible,' especially considering that he did not get better. So, why did Mr. Mashudu abandon the church he had belonged to his entire adult life? What had changed that made Mr. Mashudu feel his ancestors, rather than his neighbours, were the source of his suffering? Mr. Mashudu and his sister, Joy, who I first met in July 2016, explained his process of leaving the church.

In July 2016, Mr. Mashudu was wearing beads around his neck and a copper bracelet around his wrist; two things, that in the three years I had known him, I had never seen him wear. I asked about them immediately, and he became shy. 'I am wearing these things, but eish, I do not want to,' he told me, as his sister jumped in. As Mr. Mashudu shook his head and fumbled with the bracelet on his wrist, Joy

took over, becoming the bearer of his story, which reflected in some ways, how she had become the navigator of his path to healing apprenticeship.
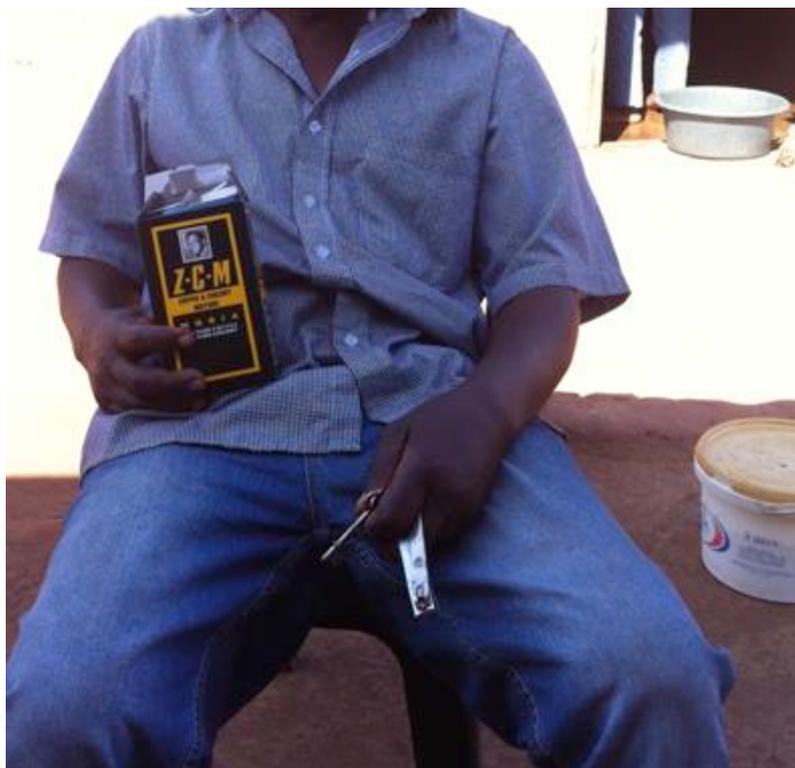

Figure A4.1: An example of ZCC tea

Joy explained that in early 2016 her husband decided to 'chase' her from their village – ending their relationship because he had found another wife. Joy moved back to HaMakuya, and settled next door to her brother, Mr. Mashudu, and realized that he was 'very sick'. She then explained that their grandfather had been a *maine*, and a cousin who had trained under this grandfather, working as a *maine* as well, had passed away during 2015.

Following this death, his 'belongings' were brought back to HaMakuya including the 'bones' that the cousin had used to communicate with his ancestors. This, according to Joy, coincided with Mr. Mashudu's sickness. Joy opined that the end of her marriage was brought on by her ancestors to ensure that she returned to HaMakuya to assist her brother. Joy believed her ancestors created her husbands turn of favour forcing her to return to HaMakuya to remind her brother of his ancestral link to healing, and to ensure that Mr. Mashudu sought the necessary care of a 'TshiVenda doctor'.

Mr Mashudu offered that when he left the church, and engaged with healers, they confirmed what his sister had told him – that his ancestor, who had once been a healer, was unhappy. In the first five months of 2016, Mr. Mashudu had followed the healing advice of this *maine*, including bringing offerings to the healer, consulting with his ancestors before making decisions and wearing the prescribed beads and bracelets. Joy explained that this process had cost them a lot of money; the cost of a goat (R800), the consultations with the *maine* (between R100 – R400

per visit) and transportation costs nearly exceeded Mr. Mashudu's monthly salary of, at most, R2000.

She explained that the first *maine* Mr. Mashudu had visited 'took a shortcut' with his healing as an attempt to avoid Mr. Mashudu going through the entire training to become a *maine*. She conjectured that this was in part due to their own financial constraints, but also, that the *maine* was attempting to avoid competition. The initial hope was that the ancestors would be appeased by visits to a *maine*, but since his symptoms continued to plague him, Joy and Mr. Mashudu decided that he needed to complete the training to become a healer.

The 'biggest problem' was 'money'; the cost of the training, while at the same time losing Mr. Mashudu's income was not something that could be juggled while still feeding his three sons. Mr. Mashudu, although grudgingly, had accepted a fate he contended he previously had not believed in, was constrained financially in trying to follow through. He explained that he now took snuff[341], and used that as a means to communicate with his ancestors. He complained that this meant that his life was not his own, as he was having to live at the will of his ancestors; 'I cannot even sleep in my own house, these ancestors, they want me in my father's place, in Guyuni, and they make it hard to sleep or work if I go anywhere else.' Yet, both Joy and Mr. Mashudu explained that he was 'much better' now than before he had visited the *maine*, hoping that he would be 'healed' if he could complete training. In sum, when Mr. Mashudu tried clinic or church healing, his symptoms got worse; when he consulted a *maine*, but did not engage in training, his symptoms also increased; when he agreed to undertake training, and accepted his calling, his symptoms improved, but the cost of training was a serious burden, and he was more committed to feeding his sons, than to ensuring that the harassment of his ancestors ended.

4.2 Local Ecological Knowledge vs. Traditional Ecological Knowledge
Local ecological knowledge, in my opinion, is the most appropriate nomenclature as it most aptly reflects the type of knowledge and process by which this knowledge is accumulated, i.e., through local engagement. Traditional ecological knowledge is problematic in the assumptions that often come with terms like 'traditional' that situate the knowledge in the past, or disregard the dynamic processes that build knowledge. In making the knowledge seem atemporal and ahistorical, the term does not provide for the reality that these knowledges are ever-changing, adapting and developing in line with lived experiences. Hence such knowledges accumulate, change or adapt to changing situations or new knowledges. 'Indigenous knowledge', on the other hand, suggests that the knowledge is only gleaned from indigenous peoples, which is not always the case, as knowledge itself is known to be built upon, grow, develop and shift through interchanges with others, and in exchanges between places.

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[341] Commonly used by healers in order to interact with the ancestors.

CHAPTER 5

5.1 PHOTO-JOURNAL INDICATING THE IMPORTANCE OF DONKEYS
'Donkey cart, use it for transport, collect maize, cement, sand, water from anywhere'

5.2 Distinction Between Mind and Body in Memory
Spiegel (2004) describes that land claimants could not recognize places that had been transformed into forest plantations, but claimants whose lands were still 'wilderness,' were able to recognize and know places by walking the land. Drawing on Lambek (1998) and Scheper-Hughes and Lock (1987) considerations of the mind/body dichotomy, acknowledging simultaneously the imposition of the dichotomy while also its usefulness to 'think with', Spiegel (2004) questions whether memory exists in the body or the mind. This raises a struggle for me – in biomedicine it seems simple to discuss mind and body, mental and physical health as separate although increasingly we understand these to be interlinked and not so easily divisible, but in HaMakuya, discussions around wellbeing did not focus on distinct spheres of health in relation to compartmentalized sections of the body/mind. Rather, wellbeing is approached in a holistic manner that takes social interactions, mental health, and physical feelings into account together and not separately. I am well if I feel well; feeling well does not end at physical pain but emotional wellness is centrally significant to self-analysis when it comes to health and wellbeing; friendships, stress and domestic strife were sources of sickness. Following Lambek (1998), I have sought to use local nomenclature to ensure that this biomedical Cartesian duality is not imposed s – as such, making distinctions about where memory is situated, in the mind or body, provides little insight into the lived experience as mind and body work together through sensory, social, embodied knowledges.

CHAPTER 6

6.1 Morohos listed by Musundians

mavhele, phuri, mudedzi, munawa, muphapha, mutshatsha, mubvani, mandande, muvhazwi, muxe, tshitapota, nnduhu, mugwadi, mushideni, muranga, mulumanama, murudi and cabbage

6.2 Examples of Musunda shops lists and photos

Figure A6.1.1: Price list for one of the three shops in Musunda

47. FIVE ROSES	R10-00
48. F.G TEA	R15-00
49. LUX SOAP	R7-50
50. HAMBURG TEA	R16-00
51. POLISH	R11-00
52. TREKER	R15-00
53. RAZOR	R4-00
54. EBONY (KHASHO)	R10-00
55. JOKO 250 G	R29-50
56. ZWITAVHULA	R12-00
57. TISSUE	R3-00
58. KLOOF TEA	R11-50

59. TOP SOCIETY	R14-50
60. CAR OIL	R28-50
61. BB SMALL	R10-00
62. GREEN BAR	R14-00
63. TSHIKIRIPOTO	R4-00
64. SMALL BATTERY	R3-00
65. MEDIUM BATTERY	R4-00
66. MAKWANDA	R15-00
67. MALA	R10-00
68. VOROSI	R12-00
69. PADLOCK (Ganzhe)	R13-00
70. SOUPACK	R22-50

71. YEAST	R4-00
72. HAIR FOOD	R13-00
73. TSHIPIRITI	R17-00
74. RAJAH	R15-50
75. BUTTER	R25-00
76. Gentle Magic Lotion	R15-00
77. Gentle Magic Cream	R15-50
78. GENTLE Magic Soap	R11-00
79. 500G SALT	R4-50
80. 1 KG SALT	R7-00
81. SMALL SIMBA	R1-00
82. SIMBA BIG	R3-50

83. SPAGHETTI	R6-50
84. LIFE BOUY	R7-50
85. PROTEX	R7-50
86. JAM	R15-50
87. SMALL BISCUITS	R1-50
88. MILKIT	R1-00
89. SUNLIGHT LIQUID	R16-50
90. XXX MINT	R3-00
91. DIRECTO Super Black	R16-50
92. VASELINE	R8-50
93. ZAM-BUK	R6-00
94. VICKS	R8-00

Figure A6.1.2: Same as above

95. GRAND PA	R3-00
96. HALLS	30 c
97. CHAPIES	30 c
98. ICE MINT	30 c

Figure A6.1.3: As above

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Figure A6.1.4: Second shop list for a store in Musunda

Tshimangoho Trading Store

5kg	~~brown~~ white sugar	R 60-00
Hugos jam	large	R 24-00
salt	large	R 7-06
"	small	R 5-00
rajah satchet		R 3-00
sweet aid packet		R 23-00
sugar white 500g		R 12-00
2,5 kg tafelberg		R 23-00
spices		R 10-00
2,5 tafelberg		R 23-00
periperi		R 3-00
1kg flour		R 12-00
plastic 12×20		R 8-00
" 10×17		R 8-00
" 10×19		R 8-00
5lt cooking oil		R 75-00
2lt " "		R 27-00
750ml/s " "		R 16-00
500 mls " "		R 12-00
375 mls " "		R 10-00

Figure A6.1.5: Data of shop prices from a shop in HaMakuya centre

Mukwevho (Musunda)

5 kg sugar		R 50
cooking oil 2lt		R 35
Beet root	large	23.50
" "	small	14.00
fish tinned	big	19.50
	medium	11.00
	small	9.00
2 kg rice		25.00
Salt 500g		2.50
juice		10.00
1 packet soup		5.00
Mayonaise	large	28.00
"	small	22.00
ultra mel	large	15.00
" "	small	10.00
biscuits		6.00
spices		7.50

Figure A6.1.6: Data of shop prices from the third store in Musunda

CHAPTER 7

7.1 Malaria in Vhembe

Malaria is endemic in the Vhembe district where HaMakuya is located. While a number of strains of the plasmodium parasite result in malaria including *Plasmodium vivax*, *Plasmodium malariae*, *Plasmodium ovale* and *Plasmodium knowlsi,* in the South African context *Plasmodium falciparum,* and less often *vivax* are responsible for human malaria cases. The *falciparum* parasite is most common in tropical climates (vivax only survives in temperate climates), and responsible for the most severe iterations of the illness, including cerebral malaria which can lead to coma, impaired consciousness, seizures, severe anaemia, developmental delay in children, miscarriage, renal failure in adults, and death.

Malaria symptoms most often manifest in intense headaches at the front of the head, spiking fevers, sweats, and can develop into diarrheal and vomiting. Adding to an already challenging diagnosis due to its flu-like symptoms, the falciparum strain has become multiply drug resistant. Elderly people, children under five and pregnant women are most at risk for severe malaria. People with comorbidities, like HIV, tend to have worse outcomes. Malaria, even when not severe, impacts immune systems, resulting in physical strain, exhaustion, and dehydration – all of which add to an already challenging lived-experience, especially for edge-dwellers attempting to access care. Diagnosis in resource-constrained settings is significantly more difficult, as access to parasitology tools (including microscopes to confirm parasite loads) are costly, and require skilled human capacity (already limited), while rapid diagnostic tests (RDTs) require cold-chain storage (a challenge in HaMakuya's context of poor road infrastructure and geographic remoteness).

7.2 South African Government's Malaria Services

Government supported prevention, treatment and surveillance, is described here to provide context, before explaining some Musundian responses to the government's malaria interventions. Then I describe the Malaria Awareness Program (MAP).

7.2.1 Prevention, Treatment and Surveillance

The South African government funds a malaria programme, centralized through the National Institute of Communicable Diseases (NICD), but run by individual provinces where malaria is present; thus KwaZulu-Natal, Limpopo and Mpumalanga provinces, each have dedicated malaria-specific units funded by the National Department of Health (NDoH), used for malaria control (e.g. Indoor Residual Spraying [IRS]) and treatment. The rapid malaria tests, microscopy in hospitals and prescription treatments are fully funded, and treatment/diagnosis are free to any patient with malaria (citizen or not) who presents at public biomedical delivery points (personal communication, L. Blumberg – NICD Malaria Directorate, 12 August 2016). See (http://www.dhsd.limpopo.gov.za/docs/malaria/Malaria%20info%20for%20intranet%20March%202011.pdf (accessed 8 August 2016)).

Malaria and (the limits of) State Surveillance:

Malaria is a notifiable disease, meaning that people who present with malaria must be reported to the provincial malaria control programme; a form of surveillance, and a method of biopower, exerting control over the body politic (Foucault 1980; Scheper-Hughes and Lock 1987). A provincial database consolidates cases of malaria, used for monitoring the malaria distribution in the province. The Limpopo Department of Health claims that with each new case, 'a definitive diagnosis' is obtained from either blood smear or a rapid diagnostic test. However, this process only captures those with malaria who present at the clinic, ignoring the challenges and physical strain of traversing long distances to clinics with malaria symptoms; made more challenging, in the HaMakuya context, by the complete lack of a district hospital. Biomedical knowledge rests at the pinnacle of information hierarchies, where ample resources are dedicated to surveillance and IRS in the State's approach to malaria management, but not to the wider socio and environmental factors that contribute to malaria burdens.

Treatment - Artemesian Combination Treatments (ACTs):

Historically malaria treatment relied on quinine, then chloroquine or sulfadoxine-pyrimethamine (S-P) until more effective treatments in the form of Artemesian Combination Treatments (ACTs; often artemeter-lumefantrine (A-L)) came into use[342]. Currently, according to NICD, stockouts – a lack of stock in a particular clinic setting - are rare in South Africa. Admitting that 'it is quite difficult to get actual figures on this', Dr. Blumberg explained that, 'if a clinic runs out they will phone around for extra stock. Malaria case thresholds are monitored and if the numbers go up, additional treatment stocks and RDTs are delivered to that area' (pers. comm. L. Blumberg). Although some HaMakuyans reported stock-outs of other medicines (like pain pills), malaria treatment was available to everyone I spoke with. In fact, in speaking with residents, and tourists alike, malaria treatment at the clinic was lauded, whereas in other engagements with the clinic, people did not always have such positive experiences.[343] Unlike quinine, ACTs are more costly, which shifts care-giving practices. For example, the higher priced ACTs, paired with lessons learned from S-P and chloroquine resistance means that malaria treatment must be targeted as opposed to past practices that treated all fevers as malaria[344] (Bosman and Mendis 2007: 196). Yet, parasitologic confirmation of malaria is challenging in HaMakuya due to the requirements of a cold-chain distribution system for RDTs and the work needed to change the practice of treating fevers as malaria, regardless of parasitologic test results (ibid).

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[342] ACTs were also favoured because quinine is known for poor tolerability, and compliance with complex dosing regimens (Achan et al 2011).

[343] A number of Bennde Mutale residents – white, Johannesburg natives who had moved to the area to 'live in nature' - confirmed that their local clinic's malaria care was better than the private care they had previously sought. HaMakuyans were provided with care and follow-ups to confirm parasite eradication. Albeit rare, some people complained that nurses were short, rude, or abusive during other visits for clinic services, but not in the context of malaria.

[344] Perhaps a reason why locally 'dali' means both fever and malaria, as the distinctions made in biomedical settings are relatively new, especially in the tropical context where all fevers had historically been treated as malaria.

Prevention - Indoor Residual Spraying (IRS):

Malaria prophylaxis is available for those with short-term exposure (e.g. malarone, melanin), but these medications impact kidney and liver functions if taken long-term, and are known to complicate diagnosis, thus people who permanently dwell within malaria areas are not advised to take prophylaxis.[345] Indoor residual spraying (IRS) is the government's mandated response to seasonal malaria exposures. IRS programs attempt to keep records of sprayed dwellings through 'hutcards' which indicate the date, and spray operator's details on each card (Brooke et al 2013). Although these vector control programs have reduced malaria transmission, operational challenges exist, for example, the continued growth of populations in endemic areas now exceeds the capacity of the spray teams (ibid). Brooke et al (2013) maintain that DDT remains effective for the whole transmission season thus households could be protected with just one spray per year emphasizing similar sentiments to Packard's (2009) support for DDT due to its coverage, and relative cost-effectiveness. However, IRS is not accepted by all HaMakuyans as the IRS Resistance section below indicates.

7.2.2 Indoor Residual Spraying (IRS): Musundians and Resistance

While the government attempts to curb malaria through indoor residual spraying (IRS), not all residents are accepting of this as the following example highlights. In the final week of the Malaria Awareness Program's (MAP) Musunda workshops (workshops intended to raise awareness about malaria run by US undergraduate students, described below), participants performed a role-play. At the first MAP workshop, participants were primed that a role-play would be expected of them in the third week, and the group planned their role-play within CWP working hours. The role-play opened with three different scenes simultaneously taking place; one group was sitting in their house with a 'sick' patient, shivering and vomiting, while family members cared for and worried over him; another group of three was waiting at the clinic on benches, discussing their symptoms and the reason they chose to attend the clinic, various clinic staff were bustling around; the third trio of actors was the spray team, with a borrowed insecticide sprayer.

When the spray team approached the house of the 'sick' patient, the family with the patient 'chased' the spray team away; onlookers (actors) commented on the laziness of the people reluctant to make the effort to remove all of their belongings from the house, and their distrust of the sprayers. At the same time, dialogue was happening within the clinic skit as well; in fact by the end all three groups were speaking simultaneously. The play ended with the 'sick' patients' family being scolded for not permitting the sprayers in. Since this all happened simultaneously, the role-play took place in two different rooms, and thus following all of the different skits was impossible. However, important themes and social commentary surrounding the spray teams surfaced in the moments I did follow. After the play, I asked Fulu about the spray teams. She explained: 'People often refuse the spraying. They think the spray is the cause of malaria.'

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[345] Sometimes Intermittent Preventative Treatments (IPTs) are used, but are costly, and can lead to increased instances of resistance.

Local residents' responses to certain interventions might indicate resistance to the biomedical/vector control-related causal explanation of malaria. Resistance to IRS pushes against the vector model and highlights a moment where HaMakuyans exert some agency in their engagements around malaria. The role-play from the MAP workshop indicates that some understand IRS refusal as laziness – born out of disinterest in removing all items from the home – while for others such refusal may be a form of resistance to allowing state control (in the form of biopower) into their homes. Musundians are not the only residents in malaria endemic areas to resist IRS. While considering the challenges facing IRS coverage, Brooke et al (2013) explains that both of the concerns raised in Musundians' role-play are reflexive of wider reactions throughout South Africa: 'Dwellings have become more sophisticated with extensive furnishings that inadvertently provide more vector mosquito resting sites. High IRS coverage is difficult to achieve in such dwellings. **The deposits left on walls by DDT are also not always accepted by communities**' (2013:787 - my emphasis). Perhaps some Musundians resist IRS specifically because of the chemicals they introduce into the local surroundings?

Reflecting on the uncertainty around service delivery, others might not be willing or able to take the time to annually remove all items from their home and wait as many days as necessary, as the spray team makes their way through the village. While IRS resistance may be seen as commentary on relations with the State and biomedical interventions, at the same time, local residents overwhelmingly report using the clinic when they suspect malaria. Therefor resistance is not necessarily a reflection of engagement with the State, but I suggest it reflects a wider and deeper understanding of engagement with their local environment than the park policies, and malaria prevention strategies consider – this wider and deeper understanding is reflected in the blaming of park animals for malaria, but also in the depth of knowledge about the malaria cycle that HaMakuyans exhibit, an example of which is outlined in the following section.

7.3 Malaria Awareness Program (MAP) Case Study
According to Michel-Rolph Trouillot, 'There exist today, throughout the world, billions of objects and living beings whose very presence testifies to the links between the apparently remote place where they are found and the rest of the world. Part of the ethnographic enterprise is to identify them as signs of that encounter' (in Agard-Jones 2013:187).

When I first arrived back in HaMakuya in July 2016, after being gone for a year, I drove in, watching intently the space I had occupied for more than two years, and immediately saw 'signs of that encounter'. The general shape of life appeared, from my car, to be the same. The sandy road was perhaps a bit deeper, but overall nothing stood out as very different in the landscape. I did however notice, as I drove through HaMakuya to Musunda, 15 people walking on the road. Of the 15, four were yellow ANC/Zuma t-shirt – not surprising during election season – and another four wore t-shirts branded with 'MAP'. I marvelled at these MAP t-shirts; a useful reminder of

the material and other impacts of the Malaria Awareness Program (MAP). The t-shirt was a 'testament' of the encounter between this 'apparently remote place' and 'the rest of the world.' The following sections provide background and context for my engagement with (and distancing from) the Malaria Awareness Program (MAP). Throughout, I offer reflection on my involvement and related ethical concerns, some of which led to questions and critical engagement with MAP itself.

7.3.1 Emergence and Initial Engagement: Malaria Awareness Program
Although I explained that my role as a researcher was not related to biomedical practices in any way, my former position at the South African Medical Research Council was known to Trust affiliated academics – they had my CV. Not long after I confirmed interest in HaMakuya as my research site, I was asked by Gert, (the conservation botanist who introduced me to the area), to review a potential Trust-affiliated independent project. The US undergraduates proposing this malaria awareness-raising project had been to HaMakuya in 2011 for ten days as students on a summer study-abroad course. They proposed MAP as a result of their own three-day HaMakuyan homestay, where they conducted small-group field surveys with residents. From these brief encounters, these students concluded that HaMakuyans had 'inadequate' malaria knowledge. From this perspective, they developed, and planned to deliver a malaria awareness-raising program, MAP and bed-net distribution.

Before visiting HaMakuya, I provided feedback on this project. The project proposals' language was imperialistic; it suggested that 'education' was needed, feeding into the trope that edge-dwellers/black Africans if enlightened (in this case through biomedical knowledge), could change the context and challenges they faced; education as the magic bullet. My feedback suggested the need to seriously reformulate the proposed project; re-write the proposal using more humble language; determine salient topics; and build some sustainability aspects into their program. I suggested that the students look to develop a method that was less top-down.

I considered the ethical quagmire of being affiliated with this project in the context of a space where I wanted to conduct my own research, especially in light of my aim to unpack locally salient wellbeing related concerns, and the response bias I might encounter if involved. In addition, as a former staff-member of the MRC, a question of personal ethics arose in the context of supporting the project: since the government already had malaria control measures in place, and the project proposal provided no indication of efforts to work within that framework, I suggested there was a need to consult the relevant government officer (Limpopo's Malaria Control officer). I advised Gert that South African health intervention protocol required a local university Human Research Ethics Committee review the project, and then with that feedback incorporated, approval from the Limpopo Department of Health (LDoH) could be sought. Having just jumped through various hoops to inform the LDoH that I was conducting 'non-intervention, social science, but health-focused'

research, I suggested they sought approval as soon as possible. This was in April, and they intended to arrive in HaMakuya to start their program in June.

At the same time they launched a US-based NGO to administer the ample funds raised by US students in private universities - often with matched university funding through 'engagement' and 'service learning' grant schemes. The NGO focused on MAP in HaMakuya, and a bed-net/sewing cooperative initiative with sewing groups from HaMakuya and Mpumalanga. The NGO was started by two of the four initial 'MAP girls' (as they were commonly known around HaMakuya).

MAP 2012 – 2014 developments and ethics:
After refusing to mentor the project, I learned that MAP had run in 2012 in six pilot villages in HaMakuya, and appropriate ethical approval had not been finalized. The group had been incorrectly advised by the academic that they had worked with initially on their study-abroad course (a European medic, employed by a local university), that her go-ahead was enough. This lecturer had withdrawn from her advisory role on MAP after the 2012 workshops, but not before mis-advising her mentees on the necessity of local government buy-in and approval, along with local ethical review. However, I later found out that between my own dis-engagement with the project and their arrival in HaMakuya, Dr. V (of Limpopo's malaria control office) had learned of MAP plans and forced a revamp of the protocol in line with my suggestions, specifying the need for local department of health engagement. Aware that their actions had irked a number of highly regarded malaria and national department of health experts, I was happy to have distanced myself from the project. Yet, I was concerned by the impact of their presence, not only on my research, but also on expectations of what a foreigner engaging in health-related research might be able to offer local residents (including HaMakuyans' expectations of participation coming with t-shirts, and certificates). While I focused on my own work, I occasionally needed to explain that I was in no way affiliated with the 'MAP girls.'

In June 2013, while I was in HaMakuya, MAP launched training campaigns with two of the originators and two new volunteers. The program took place over four weekly meetings, and aimed at raising awareness of malaria symptoms, with an overwhelming message, according to participants I informally chatted with, of symptom identification, and the importance of clinic visits. Some residents recalled a song that was taught in the workshop that described malaria symptoms, laughing as they mimed diarrheal and vomiting. I did not attend in 2013, or 2014, but did attend the workshops, with Fulu's 2015 CWP work group, in Musunda.

MAP 2015 - An Inadvertent Connection:
By 2015 the program was run by students who were not the originators of MAP – these volunteers happened to be former students from the 2014 'Global Health' course I lectured on, at the Trust's Camp. Cindy and Hailey joined MAP to 'come back to HaMakuya, because I vowed, after I left, that I would make sure to come

back' (pers. comm. Hailey, June 2015; 21 year old female, US citizen) - described 'three days of pretty lame training, in Pretoria' before arriving in HaMakuya.

Cindy and Hailey were meant to first train local community home-based healthcare workers (HBCW) to run their workshops – an attempt at encouraging project sustainability. Then, their role was to monitor and oversee the workshops in HaMakuya, generating a plethora of 'data' from before and after surveys, and 'focus groups'[346]. They also were tasked with running additional training programs in six new villages, in another Chieftaincy. The pair decided to condense the training into three days, instead of four, acknowledging lessons learned from their three-day homestay, and my advice – that people do not have extensive free time to give to, and are already burdened with a number of workshops.[347]

7.3.2 MAP 2015: HaMakuyans Know Malaria

Critically engaging with and questioning projects like MAP is where global health critiques hold power; for example by asking, for whom does malaria awareness need to be raised? Who needs education on malaria? By virtue of where they live in this malaria endemic zone HaMakuyans 'know' malaria in many ways, from first-hand experience, or in caring for a family members. While MAP continues to roll-out a program of education, drawing on already limited resources to teach about malaria symptoms, the reality is that HaMakuyans 'know' malaria. Although a three-day project identified confusion around the biomedical model, this does not mean that malaria was unknown to locals, rather that the biomedical model did not sit at the fore of all people's minds. At the same time, for many, engaging with the biomedical model was not a problem either, as shown in the following engagement with home-based care workers (HBCW) undergoing MAP training.

Training the Trainers and Malaria Knowledge:

I asked permission to attend the training sessions. On the first day of training, home-based care workers (HBCW) confirmed that local residents are not only knowledgeable about malaria vectors, but their understanding of malaria draws on a wider understanding of ecological relations, beyond that commonly espoused in biomedical training; they framed malaria more widely and beyond the narrow

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[346] These were small group discussions (4 -5 people) in which the HBCW handed a piece of paper with some questions to the group, and the group was left to discuss and write down answers.

[347] My advice to the volunteers to limit time-consuming workshops developed after the following conversation with Fulu when I fetched her from a workshop and she showed me a bible. She laughed and asked, 'Why didn't they just take that money and give it to us? We already know about the bible, and I already belong to a church. I will not follow that lady's church. Do you know what, she told us that the new car she was driving was given to her by the head of that church. But, I am ZCC. So, you know the children need to learn to read, and count. We all have churches already, so this was not a good use of funds. But, they have asked me to run the workshop with some other ladies in the future. I am happy to do that.'

'But you just said that you thought it was not a good use of the money.'

'Yes, but if they are going to do it anyway, I am happy to help spread the word. Next month we were told there is a financial workshop for the crèche too.'

'Oh, that sounds good. Which one do you think is more useful to you? This one or next month?'

'Next month, because financial planning is useful and needed for the crèche. We already know the bible' (20 June 2015).

renderings of MAP and biomedicine. As noted in my field reports, 'The vector cycle activity was particularly interesting, because it showed the HBCW depth of knowledge in comparison to the volunteers' (19 June 2015). This depth of knowledge became most evident when one HBCW engaged with a diagram of the larvae to human cycle. The MAP volunteers picked a HBCW to explain the vector-cycle, already drawn, and hanging at the front of the room.

After looking at the cycle for a long time, she stepped back, shaking her head. This pause spurred the MAP volunteer sitting next to me to look through her teaching materials for an example of the vector explanation, in the event that the HBCW could not provide an explanation. However, the HBCW rifled through the box of supplies until she found a blue/green marker, and then added a puddle to the cycle before the larvae (see Figure A7.3.1) explaining that the puddle was where the *lunyunyu* (mosquito) came from; this was important, she asserted. Then she explained the cycle, following the arrows, highlighting the back and forth transmission that makes humans integral to the malaria parasite's survival, while also stressing the role of the puddle.

Figure A7.3.1: MAP HBCW training, photo taken after HBCW added to it

Her assertion, that the training materials were 'wrong' because the cycle was not 'complete' indicated knowledge of the wider ecological factors that contribute to malaria. Such nuanced understanding impressed upon me, once again, the different ways of 'knowing' malaria, highlighting that local residents not only know malaria, as they must live with it, but they also know **about** its biomedical symptoms, explanations and vectors.

The HBCW asserted her knowledge of the malaria cycle by adding the water source. This example of local malaria knowledge – one that highlights an understanding of the parasite cycle, beyond the narrow renderings of the biomedical focus on humans and mosquitos without accounting for the other materials (in this case, water) that are involved in the cycle – is not isolated. From observing the Musunda workshops, it is apparent that in-depth knowledge of symptoms is widespread beyond HBCWs as evidenced in discussions around malaria in mapping activities (see Figure A7.3.2). My field notes from Musunda MAP workshops state: 'Conversations around words associated with the illness were richly complex and exhibited a deeply nuanced understanding of the parasite life cycle as well as vector transmission (1 July 2015).' These observations led me to consider that perhaps blaming the parkfor malaria was not about lack of knowledge, but rather spoke to something else?

Figure A7.3.2: 26 June 2015; A 'malaria map' - local words associated with malaria are written down, reviewed and discussed as a group with the HBCW as facilitator

In HaMakuya, malaria knowledge is varied. Thus, some workshop participants really did gain information, especially in small-group discussions with other residents. However, debates among group members in the workshops were self-regulating. In other words, when biomedical misconceptions were discussed in the small groups I took part in, someone always knew the 'correct' biomedical perspective; for example, one group member clarifying to the rest that malaria actually came from a mosquito, correcting another group member's use of 'dirty water'. MAP provides obvious benefits in its ability to spark discussion, and clarify what biomedical understandings would deem 'misconceptions'. But, can we assume that such discussion would not have happened otherwise? In a setting where HBCWs visit people weekly, if not daily, and they have asserted clear knowledge of malaria, its symptoms and its vectors, why is there an assumption that awareness-raising is needed? Why develop a workshop on symptoms when symptom identification is not a problem?

Additionally, local actions and perceptions about malaria might enforce behaviours that provide some protection from malaria, even among those who do not have experience with or biomedical/vector knowledge of malaria. For example, when asking about Ruth's daughter's comment '*Some of the wild fruits make us sick with malaria,'* Fulu explained, with the local ecological context in mind, that wild fruits, especially marula, are left in large piles to ripen, and then once processed for marula beer, are again left to rot. These piles provide shelter for *lunyunyu* larvae, as rainwater can accumulate in the empty shells of the marula fruit. Avoiding wild fruits, with this in mind, might reduce potential bites. Relatedly, some spoke of a sickness called *nyongwe,* 'which leads to dali[348]' as different still. Vhuthu asserted that no sickness could come from wild fruits – *'wild fruits are good for you, they come without people interfering'* - but rather an excess of domestic fruits. Thus, fruits and sugar excess results in fevers, sweats and sometimes exhaustion, not a surprising narrative in the context of park driven influences on diet, and increased incidence of diabetes. This shows that although Musundians 'know' malaria and its biomedical symptoms, they do not adhere solely to biomedical explanations.

When considering these factors together – the HBCWs knowledge; that local residents can identify symptoms; and have already engaged in these workshops - some questions arise: If these HBCW knew enough to stress where the *lunyunyu* came from, then why was there still a narrative that blamed the park for malaria? While watching the HBCW engage with the vector-cycle map, I conceded to myself that HBCWs had different sets of knowledge (specific to their training as HBCW) that other edge-dwelling residents may not have, but perhaps there was more to blaming Makuya Park for malaria than just not knowing the vectors? Narrow and imposed biomedical engagement with malaria means that the MAP workshops, while providing some with certificates of attendance obscure the reality of what is being said when people assert that malaria is a pressing problem. My research shows

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[348] Historically used to refer to both fever generally, and malaria more specifically.

that malaria awareness-raising is not a top-priority for HaMakuyans; HaMakuyans know malaria symptoms, and that free treatment is available at the clinic. Similarly, knowledge, attitudes and practices surveys conducted in South Africa in 2005 and 2006 indicate widespread awareness in malaria endemic areas (Rollback Malaria South Africa Country Report 2013). Musundians live with malaria, and they know (about) it.

7.3.3 Critical Engagement with MAP – is awareness really what is needed?
As I conducted this research I discovered that from 2005 – 2012 malaria incidences decreased. In fact, when MAP originators first arrived in HaMakuya as students, in 2011 malaria cases were amounting to less than 1,000 per year in Vhembe. In this context, malaria cases were relatively low, seasonal, and other, more pressing problems, like access to water could certainly improve quality of life for local residents - more than a certificate confirming workshop attendance. Could these funds not have been used more wisely? With foundational research available (knowledge surveys) to ensure that interventions on malaria could be directed to local wants and needs, and in light of South Africa's (and HaMakuya) rapidly declining malaria incidences and deaths (from 2005-12), it is fascinating that a program like MAP would emerge, especially in the context of so many other pressing needs (i.e., water access).

I found myself repeatedly asking: How could so much money and effort be focused on malaria awareness-raising in this context? With malaria being so contingent on local ecological conditions, could awareness-raising through workshops make a difference if ecological conditions remained the same? How could student research that lasted three days form the basis for an entire campaign? Does the existence of MAP undermine Musundians' exertions that malaria is a locally salient health concern? Does malaria sit at the fore for people because it is work-shopped on an annual basis? Does that mean that people's perception that malaria is a problem reveal the influence of MAP? Can it be said that MAP is effective, because people are raising the issue of malaria with me? Or, does MAP create a response-bias? Does MAP create fear of malaria – one that makes MAP volunteers' presence necessary? Can the fact that malaria is reported as a priority issue be taken at face-value in light of MAP's interventions?

The ethical decision I made to develop an iterative approach was based on the fear that I might influence others by asking disease-specific questions. I did not imagine, at the time, that workshops like MAP might influence my research, but could response bias resulting from MAP interventions, alone, explain why residents described malaria as a concern of high salience, explicitly linked to the park? In such a context, might residents see malaria as more of a problem than if the MAP intervention had not existed? Do discussions of malaria arise out of the expectation that I would want to hear about it, since residents are used to white 'health' researchers engaging around malaria? I do not pretend to offer insights into how malaria might fit the ontological, epistemological or otherwise relevant world-view

of HaMakuya residents, yet in almost every single interview it comes up. People are not uncertain of it – they 'know' malaria, they know its symptoms, and the course it takes. What might it mean that people are not requesting workshops on malaria symptoms, but asserting that malaria is a result of close proximity to the park?

In questioning the awareness/education focus of the MAP intervention specifically, I am asking why there is an 'ignored transcript' (drawing on Scott's (1990) notions of hidden, and public transcripts). What happens when a transcript is public, but ignored? For example, why do local residents continue to link malaria to their local environment, specifically the park, and animals, not get any attention? Even the initial findings of the MAP team in their first visit to HaMakuya acknowledge the environmental links that local residents made with regard to malaria (i.e., their research report which motivated for the MAP initiative highlights that residents consistently linked malaria with dirty foods/water and mangoes specifically). Yet, people's relationships with the environment are all but ignored in MAP outreach.

I marvelled at how funds came together in the US around causes like symptom education, again circling the question of whether awareness really needs to be raised. Problematic images of African children in television charity advertisements kept surfacing in my imagination, as if to offer explanation. Like the malaria carrying *lunyunyu*, the power to mobilise funds around foreign, international causes that impose 'needs' and reliance (Moyo 2009), is not new. The emergence of the MAP efforts in the HaMakuya context is a case study in top-down decision-making with little to no input sourced from local knowledge holders. Top-down efforts continuously fail, in healthcare (Brown 1997) and in conservation (Abrams et al 2009); numerous research projects have shown that without widespread local buy-in, or engagement, educational campaigns fail. Yet, top-down projects emerge consistently in 'developing contexts' where well-intentioned do-gooders use scarce resources to impose health priorities and/or frameworks for understanding (Brown 1986, 1997; Dugas, Dube and Bilbeau 2009) that essentially miss the mark by directing funds away from other higher priority areas, or obscure intrinsic problems in, for example, service delivery, and government accountability. The MAP efforts and resultant NGO development - a non-profit that raises funds to 'educate' 'rural' Africans - while paying for service learning and the salary of at least two middle-class US-based 20-somethings, are extensions of, and suffer the same issues raised (Brown 1986) in past global efforts to curb malaria; highlighting the reality that malaria is political (Cleaver, 1977). If people are 'suffering' from malaria, and the suffering is felt by 'mostly everyone' as Nancy explained to me when I asked who experienced malaria, then surely awareness raising is not the most productive and effective focus for funding?

7.3.4 Top Down – Historical and Contemporary Impositions
As described in Chapter 3, Musundians were pushed to the peripheries and lands not wanted by colonial forces, which largely left them in areas with endemic diseases, like malaria. Parks were specifically carved out of land that was otherwise not habitable for white colonists, and thus, edge-dwellers also largely became people

dwelling in malaria endemic areas. At the same time, these peripheries were associated with problematic narratives of development (Packard 2009), where malaria was seen as a barrier to economic 'development' and malaria control programs became necessary precursors for formal development (Packard 2009:57).

Brown (1986; 1997) argues that a 'Malaria Blocks Development' (MBD) model became the primary justification for vertically-organized malaria campaigns that assumed production would increase with the eradication of malaria (Packard 2009: 56) – MAP seemingly assumes the same. However, Packard (2009) points out the importance of considering scale, and suggests that in the long-run malaria eradication might actually impact GDP more than malaria (as more members of the population live longer). Drawing on Brown's (1986) exploration of malaria impacts on Sardinia and in comparison with Sri Lanka, Packard highlights the point that a persistent focus on malaria as a hindrance for development 'deflects attention from many of the wider political, economic, and historical forces that have contributed to the underdevelopment of these two islands' (2009: 80). Similarly, the focus on malaria 'as a primary cause of Africa's underdevelopment' increases the risk of:

> 'losing sight of factors such as the extremely high debt levels under which African countries attempt to maintain services and promote economic growth. Moreover, by measuring economic success and failure in terms of changes in per capita GDP, we mistake economic growth for social and economic development more widely (Packard 2009:80).'

Malaria eradication programs, like MAP, assume education around malaria will act as a magic bullet to under-development; these assumptions obscure the reality of HaMakuya's edge-dwellers who live within the flight range of the Reserve's mosquitos. In this way, an intervention like MAP is a useful proxy for understanding the impositions and top-down decision making that has historically been hoisted upon these edge-dwellers. The overview of the MAP efforts provided should be illustrative of the danger of a 'community' Trust drawing on student research to inform further health-related engagements. At best these engagements fail to meet their goals as their intentions are not salient to local needs, wasting much-needed funds. At worst, the engagements create paranoia and fear around a wellbeing related challenge that locals have been living with long before external engagements (i.e., government biomedical services, missionary, or NGOs) gave it a specific name.

The evolution of such a reliance on student work does not happen in a vacuum, which must be reflected on. That there exists so little social science or qualitative research on the actual lived experiences in this region, is reflected in the fact that the entire SANParks research compliment for social scientists is comprised of two researchers for the entire nation, whereas the Savannah and Arid Research Unit (of SANParks) alone, employs 14 scientists, 14 specialists and 21 general support staff[349] – to say that conservation is positioned above wider socio-political research

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[349] https://www.sanparks.org/conservation/scientific_new/savannah_arid/ (accessed 3 Feb 2017)

in the knowledge hierarchy is an understatement. Also the fact that the 'Malaria comes from the Park' narrative is not being taken seriously and at face value reflects an ongoing problem of public and global health interventions, which privileges biomedical ways of knowing and relies on experts (educated, university affiliated people) who lack situational knowledge. My critical engagement with MAP doesn't mean that I discount malaria as a top priority among edge-dwellers. Instead, understanding that MAP's efforts, which centre malaria symptom awareness-raising as a top priority, obscures the reality that 'the problem of malaria' does not emanate from a lack of symptom knowledge, but rather from malaria's on-going presence linked to edge-dwelling.

MAP provides insight into some ways in which health concerns are influenced by close proximity to the park. MAP students came to the Trust. The Trust is marketed as a 'remote' and 'under-researched' area, which attracts people as an eco-tourism accommodation, due to its close proximity to the park. This influx of people feeds on the hopes and expectations of conservation as created by the State – hopes and expectations that eco-tourism accommodations will bring economic opportunity, to a place otherwise lacking in economic opportunity or infrastructure. The Trust, and the type of educational engagement it provides to students makes many of them keen to return to HaMakuya out of a sense that they 'can do some good.' Thus MAP emerges out of these voluntourism[350] motivations that are closely tied to media portrayals of an African imaginary (Abrams 2008) and to 'remote' 'rural' imaginings of the needs of Africans; namely, education, and development, in many forms. The educational discourses around, for example, malaria, rely on tropes and stereotypes wrapped up in discussions around poverty – a recurring set of themes links development, and education to poverty eradication (Brown 1986; Packard 2009; Packard 2016), as if education can solve environmental, social and political inequality. This analysis highlights top-down decision-making on multiple levels and the ways in which these decisions impact on messages and program intentions – e.g., a focus on education and awareness-raising. However, local knowledge and understanding of malaria, if taken seriously – actually engaging in discussion with local people rather than 'educating' them - sheds light on more productive forms of protection and prophylaxis. When outsiders impose interventions, they often miss the mark and waste precious resources that could be better used if direct communication between funders (MAP) and local residents was fostered.

7.4 Selected Musundians' Quotes Linking Malaria and Mosquitos

Mr. Nzezele(in his 50s): 'Problem is mosquitoes. Mosquitoes are dangerous for us. The thing is we always visit clinics because of mosquitoes after being infected with malaria.'

Vhuwani (in her 20s): 'Malaria, because there are lots of mosquitoes.'

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[350] See Wearing, and McGehee (2013) for a review on voluntourism; Sujarittanonta (2014) for voluntourism in conservation; and for examples of critical engagement with health-related voluntourism see McCall and Iltis (2014); Wallace (2012); McLennan (2014).

Julia (Vha Masanda's wife; in her 40s): 'There are different kinds of mosquitoes and the problem is that the ones that are in that area are malaria mosquitoes.'

Jayne (in her 50s): 'Many people who get sick around here are because they have malaria, because of the mosquitoes and the heat.'

7.5 Superstition and African Witchcraft

I wish to push against the notion that 'African' superstitious beliefs are any different from my own. For an example from my own life: As 2015 came to a close, many aspects of my life were in turmoil, and I began to realize that 2016 might be even more challenging, I decided I needed some luck. Near the end of 2015 a friend, returning from Turkey, had given me a key ring made of glass – the round blue, turquoise and white protection symbol common in the Mediterranean. As 2016 started, I decided to use it as my key ring for my temporary life in the UK.

In March 2016, a colleague commented on the key ring, reminding me that it was a sign, a mark of attempted self-protection. In that moment I reflected on this 'eye' symbol linking it to the red pepper worn by many of my Italian-American high-school classmates (explained to me at that time as a means of warding off the 'evil eye'). Not long after that conversation, another friend/colleague noticed this key ring, and, knowingly commented 'I see we have the same key ring, possibly for similar reasons?' She winked. She had recently faced a number of her own unexpected life challenges. We laughed together in commiseration, and perhaps shared hope that the token we both carried would do its intended job.

I carried this token to avoid a combination of illness, danger, jealousy and/or death; in effect, I carried this thing to cultivate wellbeing, and I knew I was not alone in hoping it worked to protect. Within the context of the challenges I had faced over the past year, having very little control over many things that impacted my life significantly, I began to believe that the mounting obstacles could be, in part, a result of someone's jealousy or 'evil eye.' The promise, or the potential of protection in a desperate time, led me to, if not believe, at least carry the token with the hope of avoiding some of the bad luck that I had perceived was flowing through me. I sceptically believed in the keychain (see Macdonald 2012).

7.6 Reflections on African Witchcraft

In writing grant applications, I was asked a number of times to situate my work within the available literature on 'health in Africa.' Often, I was asked to discuss how I would deal with witchcraft in my considerations of health, as commenters on my pieces were conditioned to acquaint 'African health' with witchcraft (Evans-Pritchard 1937; Douglas 1967). While witchcraft and magic did arise in my work, I actively push against situating my work within the context of other people who explore health in Africa, or for that matter, witchcraft on the continent. Africa is a giant continent, with nearly as much diversity of approaches to healing, as there are healing practices in the world; to situate my work within an 'African context' does it a dis-service of de-contextualizing the specific and dynamic realities of the place I lived, as much as a general reference to 'traditional medicine' oversimplifies the

complexity of practices that might fall into this category. Marked by remoteness (geographical, logistical, infrastructural), but also a cosmopolitan meeting of many ways of being, my research and research site must be seen in light of the specific South African (and independent nation of Venda) history from which this space that I lived, evolved.

Despite the area being a former Venda homeland, TshiVenda was not the only South African language spoken in the village (Shangaan, Tsonga, Tswana) and the ZCC was one of four different churches. 'So much variety, indeed, is apparent even within the same society that to talk of 'traditional healing', or for that matter 'biomedicine' as if the term denotes a homogeneous social reality would be a serious misapprehension of ethnographic description' (Kleinman 1995:23). With so much difference within such a small space, efforts to describe the literature related to health of people inhabiting an entire continent, seems to be a futile exercise; Africa is not a country, language group or logical 'boundary' for practices. Drawing on past 'Africanists'' conjectures about the place of witchcraft and magic, to make some statements about the health-related magical interactions that people I lived among took part in, or felt imposed on them, reduces their specific and particular experiences to continental tropes and patterns; a violence I am not willing to take part in. In fact, reifying notions that link Africa specifically to witchcraft also ignores ample literature on witchcraft and health-related practices throughout the world (for example Favret-Saada 1980, 1989). Instead, I have sketched some stories of local experiences to provide the reader with insight into the ways in which, in this particular moment in time, local notions surrounding illness and death were explained to me. All of this effort is to highlight the ways in which cultivating wellbeing in HaMakuya is a social activity.

CHAPTER 8

8.1 Phillip's Story

I had the opportunity, while exploring the potential of doing my research in HaMakuya, to spend time in Kruger National Park at the Skukuza research and staff village. During this time, I was able to join in field research – mostly re-setting camera traps to track the dispersion of marula seeds (i.e., who does the dispersing) and stomping on elephant dung to determine if their diet includes seeds. As with all research conducted in the field in Kruger, we needed to have a field guide as protection from roaming hungry lions, or other predators, or from charging/goring game. We were lucky enough to have the opportunity to spend a few days with Phillip as our field guide.

After about four days of getting to know Phillip, and putting our lives in his hands, I learned some very interesting things about him that made me seriously consider how I think about conservation, and the professional choices that people face. Phillip's job is to keep us safe, to ensure that we do not lose our way in the bush, and to kill anything that challenges that safety – he carries a gun, and has extensive training to ensure awareness of any animals threats. So trusting him is important. Generally, on our adventures he is quite restrained and quiet. He urges us to carry on moving, to

keep up the pace; 'lets go' he would shout as he wandered away ahead of us as I sifted through dung. Generally quiet, on my final day in the field with him, he uncharacteristically jumped into the driver's side of the car. We took off with the radio on. I don't know if it was the fact that he was driving and thus, a little more in control, or if it was the fact that he knew this was his last chance to tell me his story before I left, but he started in the following way with a subtle chuckle:

'When I was a young man, you know, I grew up in Bushbuckridge, all I wanted to do was go to Johannesburg. I hated the bush. I just wanted to go to a city. I hated the bush. It was just land, with trees and nothing.' Phillip then continued to explain his path to becoming a Kruger National Park field guide.

The way he told it when he went to the city of Johannesburg he had a 'bad time trying to find a job.' He kept having people tell him to join them in the pick-up work available sometimes in Skukuza, but he explained that he kept resisting out of want to be in the city. He explained that after months of looking for work, and following up on promises for work that never came through, he grudgingly took work in Skukuza. When he started working in Skukuza, he realized he didn't hate the bush so much, and was in fact very good at the skills required, especially after a childhood of herding in that 'very same' type of environment. He then decided to take a tourism course, and as he continued with more courses, he explained that he realized the importance and potential of education.

With the tools gained from the tourism course, he once again tried to return to Johannesburg and 'make a living in that city,' but 'no luck.' He did, however, continue to be offered part-time work in Skukuza, which he took. Then a job opened up; he applied and was told he had the job, but he suggested before he signed the contract 'someone soiled' his name. Instead of the field job he interviewed for, he was given a non-field job of gardening at KNP corporate services. After working there for 'ages,' a superior who was impressed with his work asked if he had matriculated from high school, and could provide a certificate of proof. In response, he asked, 'Can I give you my CV?' which he provided that afternoon. He explained that this superior was appalled that 'someone with degrees was gardening.' Shortly after that he was informed that he was accepted into the SANParks training program where he worked his way up to a senior level field ranger. He explained that even though he hated the bush, and the idea of living in a non-urban area, a conservation job offered him an opportunity for work that was not arising in a city. Now, he says 'I love the bush,' as he hums the gentle melody to the gospel song he made honouring his favourite bush co-resident 'Beautiful Zebra.'