Et□□hos of Community Gardens: Multi-species Entanglement & The Study of Understanding How Differences Shape Realities

Kovač, Paula

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Sol Omnibus Lucet

S2543222

Paula Kovač

Supervisor: Dr. E. de Maaker

MSc Cultural Anthropology & Development Sociology

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Leiden University

Faculty of Social and Behavioural Sciences

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To all you bright Stars out there – remember to love and remember to always shine your Light.

Introduction

If life is envisioned as a star-crossed endeavour, then the journeys we take illuminate differences which make up our core essence. It is through these journeys we encounter each other. We merge and weave the intricate constellation of connections, ever so lightly taking note of how the same affects our journeys. We live, and continue living so, bound to effortless obscurity in recognizing the beauty of diversity. As we delve into this thesis, let us proceed with the sentiment of compassion towards our inner differences, and recognize how the same play a large role in establishing a world in which we can learn, grow, and expand.

Mary[1] and I just finished our second interview. Although I have already visited the garden Ons Buiten twice now, Mary wanted to give me a guided tour. She was one of the elderly gardeners who have been there the longest. In fact, for around 20 years now; first as a gardener, and soon after a board member overlooking the inner workings of the community garden. Her presence was fierce; she talked with such kindness yet moved with determination. Everything she said held structure and truth to it. She was quite a reliable interlocutor and made for an even better company. So naturally, I was delighted to be given a tour of the place with Mary by my side. Although, I must admit, walking through the garden alone made for some interesting observations as well. It brought a serene sense of simply being. I watched kids play with animals at the entrance. I saw doves flying over our heads and comfortably nesting in the nearby trees. The soft blow of Dutch winds pressed on as the day advanced, bringing about dynamic and movement to an already bustling atmosphere of the garden; it was rich with smells, sights, and sounds. Everywhere I looked, I experienced life in all its shades and colour palettes. As if the garden simply existed by the virtue of all of its inhabitants - human, animal, plant, and spirit alike. At the same time, listening to Mary's stories about the garden made it seem alive in a completely different manner. What I first saw as a magnolia tree now turned into a magnolia that was someone's; someone who took care of it. Who nurtured it and guided it to grow in a way they deemed necessary. Someone who gave it their time. What I saw as a wildlife garden now turned into a piece of land intended for educating children about local fauna, insects, and amphibians. A place made with patience and purpose. What once was perceived as a human working, now became John or Stacey - the gardeners. The garden suddenly became alive by piecing together all the details and histories as seen through her eyes. It all seemed to morph into one unified assemblage of plants, animals, and small houses. There was indeed a sense of spirit tying together even the smallest unit of dirt with the tallest treetop arching over garden's olive hedges.

Spread on the outskirts of bustling Dutch urban landscapes, where crowds are many and solitaries a few, dwell community gardens; havens of interconnected life, blending nurture and nature

[1] [1] *Note: All of the names used are pseudonyms as to protect the privacy of my participants.

seamlessly and fostering a vibrant habitat of mutual dependence and entangled multi-species growth. In contemporary urban settings, community gardens have emerged as vital green spaces that foster both environmental sustainability and social cohesion (Firth, *et.al.,* 2011). These gardens are not merely patches of cultivated land but exist as entangled ecosystems where intricate relationships between humans and other Earth beings[2] unfold. This thesis delves into the practice of collective gardening within community gardens in the Netherlands, specifically in the cities of Leiden and Utrecht, to explore how these spaces mitigate, shape, and facilitate relationships between gardeners and the myriad forms of life that inhabit these gardens.

What my experience has shown is that what many Dutch citizens identify as the issue is the lack of people's 'connectedness' to non-urban nature, whilst at the same time either glorifying it or using it for survival; e.g., demolishing green spaces to build new houses. By 'connectedness' I have found that most of my interlocutors imply or refer to three categories of conceptualization: a) the amount of time people spend in green spaces, or non-urban nature, b) the extent to which people interact with it, and c) individual's attempts to decrease their carbon footprint. I challenge this idea by posing another relevant issue which has come up during my fieldwork: people rarely understand that nature cannot be distinguished from the urban. It is part of the same; where there are people, there is also nature, because it is everywhere. To say that an urban city acts as an antithesis of nature is debatable. A city is shaped by the very resources given through and by natural ones; the sand and stone for cement, the water which flows through Dutch canals and sewers, or fuels for mobile vehicles (see: Harvey, 1996 in Faulkner, 2021). At the same time, however, lack of inclusion of green spaces, or investing in the same is present, and that is where the issue lies. By increasing urban parts of nature, people are simultaneously decreasing the space and means for green spaces. These green spaces are important because they are places in which multi-species entanglements have the potential of happening. In other words, by allocating all resources to urban infrastructures, other Earth beings are rendered incapacitated at surviving, or having to adapt to these changes significantly, which does not always fare well. Recent studies (see: Ayeni, *et.al.,* 2023: Davis, 2023) show how urban development frequently leads to habitat loss, fragmentation, and degradation, which act as primary threats to wildlife and biodiversity. With the former discussion in mind, I open the discussion on the following questions: how do other Earth beings find ways to survive and blossom in urban settlements? How do people push against these increasingly industrialised spaces? In what contemporary ways can species experience each other and live cohesively?

Community gardens seem to act at the forefront of these paradoxical, yet ever-present, issues. They serve as unique microcosms within urban environments, where the act of gardening transcends the simple cultivation of plants. It becomes a form of engagement that intertwines the lives of gardeners

[2] I borrow the term 'Earth Others' from Van Dooren & Bird Rose (2016) as it fits the nuanced approach in acknowledging and researching all living beings distinct from humans. In the spirit (pun intended) of animism, this also includes landscapes and 'spirits' or in the case of this thesis, 'energy'.

with those of plants, insects, birds, and other organisms. People are increasingly getting interested in finding ways to practice sustainable acts, partly influenced by the current climate change trajectories, but also by the desire to 'reconnect' with nature, nurture a sense of belonging, and cultivate alternative food production systems (Firth, *et.al*, 2011). As a response to these longings, urban gardens have increasingly gained popularity in The Netherlands; specifically, the Dutch volkstuinen and community gardens. Recent studies (see Wakefield, *et.al,* 2007 in ibid: 2011) on urban gardens have shown that engagement with such places allows for individuals to enjoy a variety of benefits; from enhancing social capital to developing new skills, and even sustaining better health conditions. These results by no means come as a surprise. Given the nature (pun intended) of both community gardens and volkstuinen, coupled with the lack of green spaces in larger Dutch cities such as Utrecht, participating in them somehow seems to provide a positive alternative for local residents. In community gardens, the relationality between gardeners and other Earth beings is constantly negotiated and expressed through various practices and interactions, as is explored throughout this thesis. This relational perspective emphasizes the interconnectedness and interdependency that underpin these urban green spaces; in order to fully understand the garden as a unified space brimming with life, one simply must acknowledge the web of connections between Earth beings which inhabit it (plants, humans, animals, and spirits alike).

This thesis seeks to uncover the ways in which the practice of gardening in community gardens acts as means for establishing and nurturing relationships between humans and other Earth beings. It investigates how these relationships are traced, maintained, and engaged in, highlighting the dynamic interplay between cultural practices, ecological processes, and spatial arrangements. The significance of this research lies in addressing pressing issues related to urban sustainability and multi-species interactions. In an era marked by rapid urbanization and environmental degradation, understanding the dynamics of urban green spaces like community gardens is crucial. Existing research demonstrates that community gardens contribute to urban biodiversity, provide ecosystem services, and enhance residents' mental and physical well-being (Armstrong, 2000; Barthel, Folke, & Colding, 2010). This is of quite importance for cities like Leiden which increasingly aims to work on improving its biodiversity levels through projects such as *Singelpark* (Gemeente Leiden, 2014). Moreover, studies in multi-species ethnography highlight the importance of recognizing the agency of non-human entities in shaping social and ecological landscapes (Kirksey & Helmreich, 2010; Tsing, 2015); where centralizing power to human agents is looking more and more like a thing of the past. Rather, space is open to acknowledge the entangled ways in which our lives are shaped even in the 'mundane' practices, such as gardening; I argue that it is often the simple realm of existence that can give greater meaning to our lives.

Furthermore, community gardens seem to play a pivotal role in fostering environmental stewardship and a sense of ownership among urban residents. By actively engaging in gardening, individuals develop a deeper appreciation for urban nature and are more likely to participate in sustainable practices (Glover, 2004; Okvat & Zautra, 2011). These spaces provide a platform for

environmental education and community building, promoting social inclusion and resilience in urban areas. Ons Buiten, for example, provides a significant amount of education for young children in teaching them how to garden and grow their own vegetables, fruits, or flowers[3] (Tuinenpark Ons Buiten).

There lies another significant factor overlooked insofar in academic research – plants in community gardens as active research agents, being participants in said communities. What sets apart community gardens from the rest is the emphasis on loving nature, plants, and gardening. Can we then assume, given how central plants and animals are to gardens, that these are somehow integrated in being a part of this community? Or at the very least impact its formation in some way? Although the practice of gardening and its effect on human well-being has been discussed in the context of urban gardens, the development of connections between humans and plants found in those gardens is still largely missing (ibid: 2017), along with how these relationships find ways to be maintained from both human and non-human perspectives.. The significance of researching these types of connections lies in what Myers (2015) labels as 'planthropocene'; working together with plants in order to gain a better insight in healing the environment and treating it properly, thus bearing an assumption of a more sustainable, pivotally liveable future. Apart from enhancing social cohesion, one crucial aspect of community gardens is the push for sustainable ways of living through gardening. This can in turn result in self-sustainable food production, making urban settlements 'greener', education of chosen populations on gardening practices, but also highlighting personal connections individuals form with plants. Given plants' significant presence in community gardens, the lack of including aforementioned connections between them and humans in research is highly redundant; a whole sphere of existence and perspectives are thrown out the window. Perspectives which could push us for living a more sustainable future – perspectives through which we might learn to re-connect with our natural environment again. Especially in the context of community gardens which aim to reduce climate anxiety amongst young people, such as de Tuinders[4] in Utrecht. If treating plants and our environment as a commodity partly led to the rise of current negative climate impacts (Myers, 2015), then taking a different position within research is a much-needed step forward. Rather than being treated as a consequence of the 'space' around us, plants, and other non-human agents, should become a starting point of urban sustainability research. Understanding how plants and animals in gardens fit into the framework of a community, as well as how people negotiate these relationships themselves, could aid in understanding our connection to natural environment outside of gardens as well. By 'negotiate' I refer to subjective and inner ways of knowing and understanding specific types of plants and how these influence decisions made by participants when treating the same. I put forward the assumption that such ways of knowing are subject

[3] See: Tuinenpark Ons Buiten: https://www.onsbuitenutrecht.nl/dit-is-het-park/kindertuintjes/

[4] De Tuinders is a community garden located in Utrecht. Their main goal, as advertised on their website, seems to be educating people on gardening practices, in order to propagate and inspire sustainable food production lifestyle. For more information, see: https://detuinders.nl

to constant change and influenced by other external factors such as the presence of others practicing their ways of knowing in the context of treating plants. As such, a relationship can be negotiated if, for example, an individual has been educated anew by their respective gardener; suddenly, their previous way of knowing a plant has changed (or not). Unveiling the depth of such connections and personal sense-making processes could further provide a push to treat our world more kindly.

By focusing on the community gardens in Leiden and Utrecht, this research provides a nuanced understanding of urban gardening practices in the Dutch context. These cities, known for their rich cultural and historical heritage, offer a compelling backdrop for examining the intersection of human and non-human life in urban green spaces. Through qualitative methods, including participant observations, interviews, gardening, and utilizing a form of soundscaping - allowing humans to listen to plants - this work aims to illuminate the ways in which collective gardening fosters a sense of entanglement and interdependency between the natural world.

Lastly, with this research I hope to shed light on the following: a substantial contribution to broader discourses on urban sustainability, community building, and human-environment interactions. The following ethnography underscores the significance of community gardens as spaces where relational practices between humans and other Earth beings are traced, maintained, and celebrated, ultimately offering insights into the potential for these practices to inspire more harmonious and sustainable ways of urban living. It also underscores the importance of learning and adopting new ways of living with our planet which could result in humans becoming a de-centralised force, and more importance could be given to other Earth beings. Aforementioned discussion clearly highlights the lack of understanding of how relationships maintained in community gardens can contribute to a more meaningful way of life in the urban context. Understanding alternate ways of interacting with plants, such as the ones suggested in community garden research, could further push for larger population taking initiative in sustainable ways of living which would be beneficial for our planet; especially when it comes to reducing climate change impacts. Such methods are important when it comes to Western societies which have adopted an urbanised way of living, where the non-urban landscapes end up being demolished, used, or exploited for the purposes of enlarging cities and making them more people-friendly. These locations, supposedly, also suffer from a lack of knowledge on how to properly take care of nature – an issue which some community gardens in The Netherlands are aiming to tackle (e.g., Ons Buiten, Utrecht). The question remains, however, to what degree are they successful in such endeavours. By researching connections between human and non-human actors in community gardens, I had an opportunity to explore to what degree are plants equally important to us, our well-being, and the way people shape their realities, instead of being seen as products of leisure, a commodity, or glorified beyond reasonable measure. Additionally, if and how are they a part of a ‘community’, and what this notion entails in the first place; what are practices which make up the previously discussed ‘dependency’? How are plants taken care of and approached in establishing relationships with other Earth beings, be it plants, humans or animals surrounding them? For this reason, I use the term

disciplining rather than care; for it is not always a singular plant that is prioritised, but the garden as a whole (or benefits for the humans working in gardens). As such, the term 'care' signifies a false sense of positive intentions or interactions aimed at both plants and animals. Whilst the overall well-being is a driving force for community gardens I have conducted research in, survival of the products and gardens as a whole unity takes precedence over single life organisms. In other words, when necessary, certain animals and plants will be limited in their growth or 'hurt' in order to accommodate human standards and expectations. Another aspiration of this research is to discuss results which could in theory challenge climate-change induced anxiety. With the popularity of mainstream media, majority of information centres around the possibility of a negative future as being the only option, and how people *should* engage in states of worry and / or paranoia. Oftentimes, these tactics are used to induce panic or as a call to action to make a meaningful change. However, the promise of a pre-determined, hopeless future is not entirely true; and as much as being an activist and raising awareness is noble, so is adopting alternative practices of treating our planet, and acknowledging the agency of the same in shaping our own perceptions and relationships with each other. What this type of research could generate is further exploration regarding the degree to which human social connections and groups are dependent on the space, environment, and agency of all Earth beings.

The thesis is structured as follows. After the previous passage, I delve into the theoretical framework which is used to substantiate my ethnographic results. I bring focus to discussing concepts of 'lively ethnographies' and 'ēthos' put forward by Van Dooren and Bird Rose (2016), which serve as the backbone of my ethnographies. Next, I turn to De La Cadena & Blaser's (2018) ontological concept of 'pluriverse' to provide a lens through which distinct ēthea of Earth beings (humans, animals, plants, and landscapes) is able to form a unified form of multiplicity, i.e., one world made up of multiple distinct worlds. To further substantiate this abstraction, I turn to the concept of *gurrutu* (Bawaka Country, Wright, *et.al.,* 2016) which provides practical examples of aforementioned meta-notions and can thus be used to compare and guide the analysis of my fieldwork data. The theoretical framework assesses three distinct concepts: interdependency, spatiality, and community.

After presenting the research context and theory which further grounds the upcoming analysis, I discuss the methods utilized during my fieldwork and thesis writing, as well as ethics behind it and my positionality as a female non-Dutch student performing research in Dutch urban environments. The chapter is divided into two sections, one which expands on the former and the other on the latter. In my methodology chapter I also illustrate the multi-modal ways of performing ethnography and reflect on such approaches in the context of my research; to what degree these methods helped and worked, what are their downsides, and possible remarks for future utilization. This specifically concerns the usage of a sonification tool called Plantwave, developed by the company PlantWave (see *Methodology*). Here I focus on expanding the notion of engagement with our other Earth being counterparts and what can this do for ethnography. The ethics chapter covers a range of potential concerns I faced prior to conducting fieldwork, whilst being present there as well as the process of writing the thesis and thoughts on sharing

it with my interlocutors. After that, I introduce the gardens Het Zoete Land, Groentepark Bontekoe and Ons Buiten; both as a way to provide research context, but also to acknowledge the three gardens for what they are – active and alive places which should be referred to as such.

The three chapters which follow after are discussions and presentations of my ethnographic fieldwork experience in Dutch community gardens of Het Zoete Land, Groentepark Bontekoe, and Ons Buiten. I combine the aforementioned theory together with vignettes and put them together in a joint conversation, thus slowly inviting for answers to my main research question. The first chapter, *Harmonic Entanglements*, delves deeper into what it means to establish a relationship with plants. In order to do so, I reflect on utilization of the plantwave device which allowed both myself and my participants to engage in a particular sensory form of interaction with plants. The chapter discusses what this specific form of engagement encompasses and means for tracing of relationships between gardeners and plants in urban settlements. The following chapter, *Relationships in Space; Gardens in Lieu of Stars* offers a comprehensive analysis of how spatiality is able to be embodied in the context of community gardens through practices of collective gardening, infrastructural layout, and what these components mean for maintenance of relationships between Earth beings – by which I include humans, animals, plants, and landscapes. The last chapter engages in the formation of community in community gardens by reflecting on two specific stages. One being the intricacies of behavioural patterns which act as main components through which relationships are continuously negotiated in community gardens between all present Earth beings. The second stage is an analytical discussion on how organizational structure (human-based) of community gardens, as well as their relationships with surrounding neighbourhoods and municipalities, establishes previously covered behavioural patterns, including both humans and non-human beings. It brings authority and governance into a two-sided conversation through which I analyze certain social aspects concerning the gardens' influence on their inhabitants and surrounding social circles. The thesis ends with a conclusion which brings aforementioned chapters and topics together, reflecting on main points, offers an open-ended answer to the research question, and invites for further elaboration and potential research in the domain of sustainability, urban settlements, and our relationship with other Earth beings.

Theoretical Framework

Prior to my fieldwork experience, the object of my study related to the building of communities in community gardens in Leiden and Utrecht. Specifically, the way in which a community is presumably shaped by and through actions of gardening, as well as informed by different spatial locations (three different community gardens), physical organisation of gardens, and most importantly, informed by the care humans display towards plants. As such, objects of my study initially included not only shaping of communities, but spaces and construction of identity through external physical activities related to interactions with non-human beings; in this case animals and plants gardeners interact with.

Through my fieldwork experience the aforementioned objects took on a slightly different shape; on one hand they seem to be more defined, and on the other, the line between abstract and concrete blurs significantly. For example, the building of community in community gardens – it relates to a newly introduced concept of "guidance" and "discipline" by which it is showcased that all species in the garden depend on each other's interactions as a way of growing, changing, and producing shared knowledges. Furthermore, these relation negotiations surpass what I assumed to be my initial field. I have often engaged with human, animal and plant species who do not necessarily habit the location of the garden but act as equally important contributors to aforementioned processes. A good example are animals (e.g., birds) which frequent gardens and pose a threat against sprouting products. Another example is surrounding neighbourhoods and municipalities – where people contribute to the garden through monetary donations or joint leisure activities but do not actually work in them.

The field of study, as suggested by Gupta & Ferguson (1992), has surpassed the normative definition of a 'place' limited by specified borders or social groups, and now includes the social processes present in the chosen research scope. This of course, has shown itself true in my fieldwork experience as well. Prior to conducting it, I defined my research site as community gardens in Leiden and Utrecht; apart from the physical space and location, I have also assumed human, animal and plant participants found in those places to be my research site as well, together with relationships curated within. The field site now greatly broadens from the aforementioned subjects and includes social processes specific to and outside of gardens. Inter-species relations of gardens do not actually *start* in them. On the contrary, they initially start to take shape outside of the geographical place, informed by external agencies such as respective local municipalities. They have the overseeing power of making decisions regarding how much funding the gardens are able to receive. Another example is Het Zoeteland's initiative to seasonally include people who harvest produce. These people are neighbourhood residents which do not volunteer in the garden otherwise. They come in for a week and are told what they are allowed to take home with them; the process of inclusion takes place through filling an online form allowing one to become a harvester. As for the multi-species participants, animals that exist outside of gardens seem to be equally needed, but also detrimental, to gardens' choices of implementing particular infrastructure layouts; gardeners build wooden structures for hedgehogs to

reside in during winter months, or place cloths over newly-planted beddings to protect them from winds and birds.

As such, the object of my study strays away from 'community-building', which now becomes a sub-category of my academic inquiry. Rather, I turn my focus to already existing multi-species relations in community gardens and their continuous negotiation by all Earth beings present in the same. Consequently, the field of study now relates to gardening as a process through which the aforementioned object is able to be expressed by my interlocutors. By this I imply gardeners, animals, and plants which play a role in shaping an ēthea of Ons Buiten, Groentepark Bontekoe, and Het Zoete Land. The next part of this section introduces the main concepts against which I further explore my ethnographic findings, as well as the theoretical debates drawn from the same. These concepts include interdependency, which explores various ways in which gardens are able to take shape, and what does the term imply for inter-species modes of engagement. The second concerns spaces and spatiality; by which I refer to the notion of both the physical landscape, and the landscape which is directly dependent on merging of ēthos between distinct multi-species worlds, both of which aid me in understanding the thin line between community gardens as geographical locations, and places of entangled and negotiated ēthea. The last concept deals with community.

Interdependency

Mathews (2020) offers a detailed and descriptive account of what the term Anthropocene encapsulates according to different scholars; at its essence, however, Anthropocene deals with the impact on natural environment, focusing humans at the very centre of its making / foundations. This in turn opens room for discussion regarding the implication of the word "human"; to what extent can the aforementioned impact be generalised across all human cultures? In the line of such thinking, Kinder (2014) offers a different kind of argument where the concept of anthropocentrism actually proves to be more harmful than beneficial for anthropological inquiries. Rather than establishing the "human" as the core issue which perpetuates current and future environmental risks, Kinder (2014: 465) invites us to re-conceptualise such claims and recognise that industrialism is the underlying factor which acts as the key element of climate-change. Additionally, academics have proposed new perspectives of conducting anthropological research whilst recognising such nuances; by focusing on the relationship between human and non-human agents, as well as transdisciplinary multi-species ethnography, the effect of Anthropocene could be successfully dealt with (Kaşdoğan, 2022). Myers (2015) on the other hand offers an even more detailed argument and introduces the concept of "planthropology", where thinking and being with the plants aids researchers to practice the agency of plants, ultimately de-centring humans from the discourse.

Myers (2018: 116) defines gardens as places where people re-negotiate their relationship with plants. To accomplish this, Myers (2018: 115-117) builds on juxtaposition of different garden

infrastructures by analysing the relationship between aesthetics and politics in two specific cases. Gardens by the Bay, located in Singapore, are both a visual and architectural marvel which displays the beauty of plants as a part of an urban settlement. Weinberger's gardens in Vienna, on the other hand, celebrate the decomposition of plants; i.e., call to recognise plant life in all its stages, rather than contextualising its visual appeal within capitalist-led frameworks. Myers (2018) draws on these differences to induce the importance of aesthetics when renegotiating relationships between humans and plants in a time that is still recognised as Anthropocene. Additionally, this also invites to think about the ways in which state gardens are structured; they often re-inform capitalist notions by focusing on the visual appeal and in turn, prioritise the enjoyment of people visiting them, ultimately perpetuating the effect of Anthropocene. Weinberger's way of designing an imperfect garden, one which clearly showcases both the aesthetics but also the decay of plant life, exemplifies the idea that human agency within gardens should be less focused on plant life as a commodity for leisure, but rather to be used to nurture, tend, and grow with plants in order to combat potential environmental destruction envisioned by Anthropocene. This way human influence is de-centralised, and space is created for non-human agents to assert their significance in planet's future.

Unfortunately, however, planthropology and planthroposcene do not offer a substantial way of conceptualising what it means to live with plants. Van Dooren's (Van Dooren & Bird Rose, 2016: Van Dooren, 2014) concepts of care and lively ethnographies thus serve as a necessary extension to Myers' (2015:2018) propositions. According to Van Dooren (2014: 294), to care about something or someone, means to engage in the process of worlding; of becoming different versions of ourselves upon acting on our innate curiosity to engage further with the world and species around us. Caring then assumes a three-dimensional lens. It depends on the emotional reciprocity and dependency on that which gives care to another; it deals with semantics of ethical obligations towards that which care is acted upon; last, it manifests as a practice – for caring necessitates an act of *doing* to ground it (ibid: 291). Much more than the act of care, I am interested in the process of implementation what my interlocutors might deem as care for other Earth beings. Some explicitly equate their actions of gardening with caring for plants. However, the line is quite blurry, as what some might consider to be caring, might imply hurt for others (ibid: 292); take for example pruning of rose bushes, or preventing birds from eating the seeds. As such, I turn to the concept of lively ethnographies; a conceptual framework of analysis which concerns different ways of knowing and engaging with Earth others, ultimately being more aware of each other's ēthea and how it respectively shifts our own (Van Dooren & Bird Rose, 2016: 77). What the authors argue is how each species, and each individual within a species sub-group, forms a particular and embodied form of life. This form of life is both distinct from others yet has to find a way to merge with the same in order to remain in the same place (ibid: 79). In short, one's character is specifically assumed according to that of others which are in continuous interactions. We can then say that species largely depend on each other; not in terms of transactional reciprocity (one gives, other gets), but rather

in a way where regardless of the intention, ethical obligation, or acts of caring, one remains equally susceptible to constantly negotiating their ēthos, as well as their relations to Earth others.

The main debate drawn from the aforementioned arguments are the role of community gardens; either as spaces through which the multifaceted layer of interdependency takes place, or as spaces cultivated by human-centred involvement as an effort to inspire movements against inducing negative climate-change effects. Additionally, the concepts which arise (community) gardens, "planthropology" and interdependency. In Myers (2015 & 2018) case, both gardens and "planthropology" are analysed through the effect gardens' aesthetic produces on people interacting with them, specifically with plants which can be found in such spaces. In other words, the extent to which people engage, visit, or interact with plants and the way in which these interactions are made; tending to gardens, destroying the plants, organisation of which plant will be taken and replaced, and which will not, and lastly, the question of decision-making. By analysing the key informants' decisions responsible for organisation of gardens, a deeper understanding of gardens' political infrastructure is gained. Van Dooren & Bird Rose (2014: 2016) take this notion further by providing a conceptual framework of care and lively ethnographies. Through these lenses, multi-faceted constellations that gardens are, are able to be substantiated through an ethnographic analysis, whilst recognising how each interlocutor, human or other Earth being one, possesses a degree of ēthos which directly impacts decisions, performances, and motivations developing in community gardens.

Spaces & Spatiality

The concept of 'space' in anthropological theory has taken different meanings and ways of interpretation in academic research. It provides a lens through which studying political economy and culture, specifically the notion of social injustice and exclusion, becomes a leeway for anthropology to further engage with the wider public sphere (Low, 2011: 390-391). This in turn creates a possibility for the audience to re-conceptualise physical places which they otherwise occupy on a daily basis (ibid: 391). For example, one can investigate different types of domains used to either exclude or include certain social groups; practices which are otherwise invisible to extract applying epistemologies other than 'space'. In order to strengthen these assumptions, Low (2011) draws on the concept of 'spatialised culture'; that is, how culture becomes spatialised through a dialect between socially producing space and socially constructing space. Where the former focuses on creating a material setting through social and economic processes, the latter instigates a social transformation of space - through social exchanges, emotions, images, feelings – into actions which carry certain meanings (ibid: 392). To further establish this argument in methodology, Low (2011: 392-393) also includes the concept of an 'embodied space', arguing how places and landscapes are structured through pattering people's movements between and within territories. The structure is possible due to the fact that people, as complex social units, carry within preconceived meanings which are later utilised to maintain or enact social connections.

However, as Corsin Jimenez (2003) points out, the proposed arguments made in Low's (see: 1996 in Jimenez, 2003) earlier work still emphasise the concept of 'space' as being directly associated to a specific location, or a territory, rather than constituted through people's values. This can be seen in the arguments presented above as well. Although acknowledging the fact that some degree of agency is given to people's sense-making processes in academic research regarding space, according to Corsin Jimenez (2003: 140) it should be a concept which comes after and during establishment, re-negotiation, and maintenance of social relationships. In other words, how space, rather than being a non-changeable unit, is now a property of emerging social connections which is able to take different shape whilst being inhabited by different groups of people; it becomes an alive and mobile capacity for relationships to take form (ibid: 140). Additionally, Dirlik (2006) argues how majority of suggested literature on space and place, specifically in Low's works, leaves out two major sectors: one being the lack of literature on the effects production of place and space has for political economy, and second being the lack of significance to anthropological and political theory. This in turn results in fragmentation of existing knowledge regarding the topic yet missing in a coherent overview of the same (ibid: 231).

There lies another important overlooked component; conceptualisation of space does not include spatiality or other Earth beings. In order to account for this, I turn to the previously discussed concepts of lively ethnographies and ēthos. Additionally, however, I introduce the concept of *gurrutu*; also known as co-becoming with one's space through both occupying it and relating to all Earth beings in the same (Bawaka Country, Wright, *et.al.,* 2016: 460). Through this lens, I am able to ground my findings on how spatiality informs the connections gardeners create with animals and plants. Furthermore, the concept enables me to critically assess how space is formed by the doings and undoing of those same relations; how do people know where their responsibilities lie? What plays a role in a layout of a garden? How are gardeners and other Earth beings disciplined? In order to be able to conceptualise this further, I turn to De la Cadena's concept of political ontology and pluriverse (De la Cadena & Blaser, 2018). Its intention? To provide an analytical framework for ethnographies which deal with heterogenous worlds coming together in their distinct ecologies of practice (ibid: 4). These ecologies of practice include both political and economic ones which designate and govern the relations between multiple worlds coming together, forming one world shaped and defined by the political ecologies, and ēthea, of already existing ones (ibid: 5-7).

Out of these discussions, two main concepts arise: spaces and spatiality, additionally informed by *gurrutu* and pluriverse. On one hand, have spaces located and limited in a context which is physical, yet socially formed by people's intrinsic set of histories and personalities, and on the other, space as spatiality, or the process of co-becoming between all Earth beings occupying a certain location. It opens room for the following discussion; how do inter-species entanglements inform political ecologies and the very process of co-becoming?

Community

Seligman, *et.al* (2015) highlights the need to learn to live with differences and recognise 'difference' as a shared asset when creating a 'community'. In other words, how a community can be made through differences, rather than on shared 'images'. What Anderson (2016) labels as a 'nation' or an 'imagined community', Seligman, *et.al* (2015) term 'community of belonging'; one is born into them and actively chooses to remain and identify with one on the basis of shared knowledge (Durkheim-ian spirit), given trust and credited moral values. Similarly, the authors also ascribe the limitations of space and borders as being the prevalent theme in what constitutes a community to various groups of individuals; e.g., one cannot assert themselves in a globally constituted group as it becomes 'too wide'. As such, for different communities to be able to ascribe themselves into one, Seligman, *et.al* (2015) argue how building trust on the premises of foregrounding a shared space of knowledge is needed. This is done by embodying shared experiences; partaking in public religious rituals whilst maintaining 'loyalty' to one's self-appointed religious group. In essence, a community based on differences is able to sprout and remain maintained only if those are rooted in shared, embodied *experiences* rather than 'ideologies' (Seligman, *et.al*, 2015: 57-58); an ideology standing for an imagined creation of an individual.

However, this line of discussion only fits the creation of a community between people. If one talks about differences, would it not make sense to include those of distinct species? As Haraway (2003: 15) neatly puts it, species are defined by and through doctrines of cause and their mutual distinctions. It is about what each individual can do for the other whilst jointly living together. An example put forward is the domestication of dogs as companion-species of humans; where domestication is, much like care, not about making the dog feel loved or safe with the owner. The process is much more intricate than that. It involves different degrees of agencies and considers processes which imply hurting the dog or a human, as a way of *co-habiting* life and space (ibid: 30). As such, the previous notion of living with difference is challenged on two major accounts. One is the lack of including other Earth beings in the involvement of shaping a community under specific practices and in particular spaces. Another is that, regardless of the species in question, this process of learning to live with difference does not imply positive results. It also considers the awkward, semi-hurtful bits which necessitate the process of shaping a community.

The main debate derived from the aforementioned discussions can be highlighted as the following: How is a community created and according to which criteria can it be classified and / or maintained? Seligman, *et.al* (2015) argue how a community can come about despite people's differences in place; they emerge through shared 'embodied' experiences. These entail shared practices, which to a large extent are described in a religious context as that is the topic of the authors' work. I use this notion coupled together with my own lane of work – gardening as a practice through which differences emerge. However, given the lack of multi-species inclusion, or acknowledgement of living with differences also

constituting unpleasantries, I move forward keeping Haraway's (2003) modes of multifaceted engagement between species close to heart.

The next sub-chapter ties the previously discussed theories and debates and contextualizes them in the framework of gardening, community gardens, and relations which these categories emerge by and through in my research.

Operationalisation

Based on the three main concepts and their debates, I introduce the following as my guiding research question:

How does collective gardening in urban environments express relationships which people trace, maintain, and engage in with other Earth beings?

In this case, 'gardening' refers to all the variations of my findings regarding ways in which people interact with plants. This includes both subjective and abstract ways, by which I refer to people's emotional reactions and recollections of personal histories, which I was able to gather through plantwave device[5] usage, gardening practices related to 'disciplining' plants' growth, infrastructure of gardens (i.e., their layout), and socio-political systems of hierarchy enacted by each garden; i.e., board supervision, entry level processes, distribution of resources, cultivation, and infrastructure planning.

'Relationships' refers to ways in which humans are entangled with other Earth beings; throughout my work I use van Dooren's expression instead of 'other-than-human beings, as this neatly ties together the notion of equity amongst species. I evaluate these entanglements through actions and reactions which come about either emotionally (as seen through plantwave exercises), physically (gardening, infrastructure), or non-linearly; each relation is, instead of being two-sided, constantly changing and in conversation with each other, as well as other surrounding relationships. For example, the way in which a gardener tends to their household plant is directly put in conversation with their practices of discipline with plants of the garden. Simultaneously, these practices are contextualized in a broader framework in which I acknowledge gardeners' life histories, as well as their dynamics with other people in the garden; other gardeners, visitors, or garden managers.

The next part introduces three sub-questions which aid me in constructing the narrative of the thesis and answer the aforementioned research question. Each chapter is directly associated with each sub-question; i.e., *Chapter 1: Harmonic Entanglements* aims to discuss sub-question one, and so on.

Sub-Questions:

1. **To what extent is plant growth disciplined by gardeners and how does this reflect interdependency between humans and other Earth beings?**

   The two main components here are interdependency and disciplining plants. By interdependency I refer to ways in which humans rely on gardens and plants for a sense of comfort, safety, well-being, and personal use. I parallel this conceptual idea with physical practices employed

[5] More on this method is covered in the *Methods, Ethics & Context* chapter.

by gardeners in order to negotiate their relationships with other people and / or animals and plants in gardens. Furthermore, through methods of observation and interviews, I compare distinct ways in which the aforementioned practices influence gardeners' intent and motif for continuously choosing to volunteer in community gardens. In other words, I assess ways in which engaging with plants can either bring people together, offer a mental space of clarity and solitude, or alternatively, be a way for individuals to distance themselves from social interactions. As for interdependency of plants and animals on humans in gardens, I look towards ways in which a) a symbiosis is achieved between Earth beings and b) how do gardeners react to plants (through the use of plantwave device). I compare these reactions with techniques of disciplining plants against each other to see distinct versions of dependency between humans and plants. As such, interdependency extends beyond simply a positive reciprocal relationship of give and take. Rather, it assumes a practice of integrating disciplining techniques in order to achieve a certain goal, and ways in which this affects other Earth beings, as well as people's intrinsic and inner emotional processes.

2. **How does spatiality of community gardens in urban environments inform connections made between gardeners and other Earth beings present in the same?**

As briefly discussed in the *Theoretical Framework* section, spatiality extends the notion of physical space, or even a set of internal social processes people embody in order to create one. Spatiality refers to ways in which a geographical location is able to gain a certain ēthos; a way of being and *responding* informed by specific sets of behaviors, norms, and intervention techniques employed by people in the gardens. A few examples are the infrastructural layout of each garden; the motivation and reasons for implementing them in such particular ways, and cultivation plans enacted and proposed by each garden manager. This allows me to observe and assess modes of engagement between all Earth beings, but also, to see if plants are actually able to grow and give produce as initially intended. Furthermore, spatiality also includes ways in which plants and animals are disciplined to inhabit the gardens in particular ways. This is done by examining ways in which Earth beings respond to each other, informed by aforementioned choices of layouts and garden designs.

3. **How do urban citizens create the notion of community in community gardens, and through which methods can these creations manifest across distinct interactions between gardeners, plants, and animals?**

'Community' assumes ways in which differences between species, as well as differences between individuals, are guided and informed through acts of discipline. However, discipline in this case refers

to choices of management employed by each garden. I compare these to the output which is actually given by gardeners; what are similarities and inconsistencies employed by gardeners compared to what is asked of them. In other words, what do rules imposed by each garden actually contribute, and in which ways do they shape the practices of Earth beings living together in a shared space of difference. As such, I look at strategies in which people of gardens (volunteers, managers, and visitors) act, either alone or in relation to others, ways in which the garden associates themselves with the surrounding neighbourhood, and gardens' relations to external agencies crucial for their future survival.

Methods, Ethics, & Context

Working With Earth Beings

> *"... ethnographic love combines moral reflexivity, affection, solidarity, and an embrace of the ethnographic process as an experience of becoming someone other than who we are now." – Besteman in Sanjek, 2014: 284*

Fassin (2013: 8) writes how ethnography essentially yields to an open conversation, one led with reflexivity, action, and reaction; how it is a form of co-producing knowledge with a capacity of bringing change. I take my starting point to be exactly that. Before I discuss the methods employed throughout my research, I would like to hold myself accountable in the following regard; choices I made when associating myself with people, plants, and animals I have worked with were driven by the very notion of ethnographic love. Of indeed, striving to learn and grow as a student, and of loving the world in ways previously overseen. It is with these intentions against which my methods and ethics continue to be driven.

During my fieldwork, I implemented different methods and strategies to reach meaningful insights into my chosen topic. Thankfully, I was able to employ most of the methods that I initially set out to do. However, the way in which I applied these methods, the extent and with whom varied greatly. I was also able to approach my fieldwork with multimodal methods which enabled me to delve into certain topics in a more meaningful way than simply talking and / or observing my participants and the field. These choices were highly inspired by the material of multi-modal engagement shown in one of the master's classes; a website used as a platform of human-other than human interactions and information (Tsing, *et.al.,* 2020), which prompted me to find new angles of engaging with my other-than-human participants[6]. The following paragraphs illustrate some of the most important methods and how I believe they shaped my findings, as well as the limitations the same yielded.

The first method, and the one I looked forward to the most, is the practice of gardening itself. My research encapsulates 3 different garden locations: Het Zoete Land (Leiden), Groentepark Bontekoe (Leiden), and Ons Buiten (Utrecht). Out of the three locations, I was able to fully participate, by which I mean volunteer as a gardener, in only one; Groentepark Bontekoe. Having experienced only a partial immersion in the field vs. a 'complete' one, it definitely changed the type of data gathered, the level of trust earned from my participants, and personal involvement in my field. A fairly good example which illustrates this point is the way I have been both introduced and perceived by other gardeners in these two distinct situations; where close-to-full immersion resulted in other gardeners often forgetting I am there as a researcher and treated me as if I was simply a young, fresh volunteer, the partial immersion led to people growing cold towards me. If I were to join a conversation in the latter example, gardeners

[6] For access, refer to: https://feralatlas.org/

would often stop talking, switch to less personal subjects (e.g., the weather – *a classic*), and even fully stopped engaging with me and continued their work. In Groentepark Bontekoe, I was able to connect with more participants and listen to their stories. I do not believe that either scenario is better than the other; but the level of built rapport is quite striking when labelled as a 'researcher' vs. 'my name'.

Interestingly enough, the method which worked better in Het Zoete Land is observation; by which I mean observing the way in which gardeners performed their work, drawings of the garden, photo elicitation and soundscaping. These methods enabled me to focus more on the practical workings of a community garden. I was able to notice and observe different wildlife present, as well as details through which the gardeners aim to keep the spirit of symbiosis alive. For example, ponds barricaded with wooden piles as to protect fish and frogs from storks, or a batch of salads meant exclusively for snails to eat them and thus preserve products meant for human intake. In short, where I thought I lacked in full immersion turned out to affect only the level I was able to participate in human-human relationships and aspects of my research.

The third method which yielded most results are semi-structured interviews as well as informal conversations with participants; this includes volunteers at gardens, garden managers, and certain board members overlooking the workings of gardens and their management. Inspired by Beck & Malda's (2013: 2-3) push for meaningful engagement with research participants, the way in which I engaged in these conversations was led with immersing myself with my interlocutors in a meaningful and personal ways; ones which have the potential to inspire, and yield results memorable for each side. I have to be honest, at times I could not make a distinction between a formal interview vs. an informal conversation. Some of them simply 'happened'; in retrospect such conversations were some of my favorites. I would often run somewhere afterwards and jot down everything I could remember about the conversation in my notebook; from the topics of conversation to body language of my participants, and how they made me feel. As for semi-structured interviews, I made sure to always record them. They were recorded using my phone, and then transferred onto my laptop in a separate password-protected file. I made sure to make a double copy of each, which was kept in a separate, yet still protected, file on my laptop. Alternatively, I also encouraged for my participants to choose the time and place as to account for the level of discomfort they might have felt. The difference in two illustrated how much more people are inclined to open up when a) not being recorded and b) when they start the conversation themselves. However, due to the last method, explained in the paragraph below, I simply had to rely on recorded, semi-structured interviews as well.

The last method which I found essential to my research is the use of a device called PlantWave. As mentioned before, I was adamant on finding new ways of engaging with my participants, whilst enabling them to engage in a unique conversation between each other as well. I was deeply inspired by Howes' (2019) concept of 'sensorium'; placing research participants in an environment of sensing, whilst simultaneously accounting for the context-specific meaning-making processes and how senses are continuously reshaped (see: Howes 2005: 7: Pink, 2009: 25 in Howes, 2019: 20). Essentially, it is a

device resembling a mini speaker, which enables one to measure the changes in electrical conductivity of plants. The device comes paired with a set of two electrodes which are first connected to the speaker and then gently placed on two different leaves of a plant. The changes are graphed onto the device as waves, and electrical impulses. Once the device is paired with a phone via Bluetooth, the app – created by the same developers – enables one to experience the aforementioned output as music; the electrical pulses are merged with a set of pre-made sounds and melodies yielding harmonies. I made use of this device in the following way; participants were given a pair of earphones, and my fieldwork notebook. They had 3-5 minutes of listening to the plant of their choosing and writing / drawing / mapping out their experience on one page in the given notebook. They were debriefed on the workings of the device beforehand. This was done in order to avoid confusion on what they are experiencing, thus enabling them to map out their experience. Of course, I do believe it would have been more authentic to just avoid explanation of the device prior to listening to the melodies. However, I was more interested in the way my participants explain to themselves what it is that they are experiencing; for which, some type of background knowledge was needed. This last method yielded most of the data I personally fell in love with. People genuinely opened up, had at times meaningful emotional reactions, and simply let their guard down. Not only did this produce an interesting set of results to work into my thesis, but it often led to deeper connections with people I was working with and an even greater appreciation for human need to discover our world through different lenses.

Ethics

The way in which I made sure to handle the well-being of my participants and myself is highly inspired by Sanjek's (2014: Introduction) discussion of mutuality, whereby anthropologists aim to engage in mutually constitutive relationships with their interlocutors to enhance their personal growth, and maintain the well-being of participants, and AAA's statement on ethics, which provided practical means of ensuring safety during fieldwork. Luckily, I had a fortune of finding agreeable and open participants. In turn, I have rarely dealt with morally questionable situations or sensitive personal circumstances. However, there are certain concerns which need and / or needed attention. Lastly, I made sure to inform all my participants that their names will be anonymous and under protection of pseudonyms. This does not include the name of gardens I worked in, as all have given me consent to name them in my research. Furthermore, I do not believe that my findings and discussion bring harm to these places. I have divided these ethical concerns into different sub-sections, as highlighted below for an easier flow of information.

Data Gathering

The first concern which I already thought about prior to starting in the gardens is the how to keep plants and animals inhabiting and co-habiting community gardens safe. By safe, I imply putting into practice substantial knowledge on how to handle plants whilst gardening without harming them; how to plant the seeds, how to work the soil, what kind of tools can be used for which specific practices, which parts of the garden I am allowed to step on and which are forbidden due to plants' growth, and finally, how to distinguish between waste and reusable materials (e.g., when weeding, certain parts are kept for the purposes of reusing them as compost, while others are disregarded and thrown into trash, such as wet soil). This was done by informing myself, prior to conducting fieldwork, on how to perform gardening; examples include weeding (discern weeds from plants and take them out of the ground), or planting seeds (covering them with proper amounts of soil and at specific distances, depending on the type of a seed). The second way was to always ask questions to other gardeners and those in charge. At times, this proved to be a rather humbling experience as people would get upset with me if I asked too many questions and still 'messed up' (e.g., did not allocate waste from compost material properly or eft gardening tools behind), but it kept me from making lethal mistakes for both the gardeners as well as plants and animals residing there.

The second example concerns the usage of plantwave device. This is mainly for two reasons. First one being that I had to delve into detailed research on whether I can use this device for my thesis as dictated by the organization in charge of making it (PlantWave). In the beginning, it was quite unclear if I am allowed to share the findings curated by the device as a part of my MSc thesis; but upon getting into contact with them, the uncertainty was cleared up. The second, more pressing issue, was how to present this to my participants without spreading misinformation? On one hand, I wanted to avoid

giving away too many details on the workings of the device since it could a) increase bias in participants' answers and b) quite literally bore them. My group is simply not affiliated with this kind of knowledge and technology, so I had to find a way to make them want to participate without coming across as 'serious'; the point of that type of data was to understand authentic expression of affiliating oneself with a plant through hearing them. What I did to avoid this issue was made a series of short pitches to my co-workers and friends and asked for honest feedback. It also showed to work with many of my participants (discussed in the second section).

Interviews / Conversations

Most of my interviews happened in a rather informal way; be it a spontaneous one-on-one conversation or a group hang-out during coffee breaks in-between gardening. This oftentimes led me to either forget or glaze over the fact that I am a researcher. In turn, this led to sometimes forgetting to remind and inform people of my background. Granted, all gardeners have been informed by garden managers, whom I have made an official agreement with (via emails), yet I will most likely avoid including any vignette or a case in which a participant was not fully aware of my position and purpose for working with them. Any time I started a conversation with a new gardener, I made sure to introduce myself as a researcher who is doing her fieldwork in this given place. I asked my participants to openly tell me in case they are not comfortable by being observed and explained that these observations will make their way into the thesis, albeit anonymized. Although informal and at times 'random', these conversations are extremely important, however, as they yielded significant observations and data for my research; an example being the way in which gardeners interact with each other by teasing with embarrassing stories, or inside jokes which they might refrain from telling me had they known I was making notes for my thesis. However, as previously mentioned, these were analyzed in the form of refined notetaking, and such cases will not be openly discussed throughout my thesis.

Another pressing concern is the actual performance of plantwave exercises. Most, if not all, of my participants have delved into quite personal stories and reactions while performing the exercise and whilst talking about their impressions. This resulted in quite sensitive situations and information that I did not anticipate yet am glad to have gathered; an example being people crying or getting sentimental over dear memories. I have gathered consent to share this information in my thesis, however I still feel obliged to both anonymize my participants as well as refrain from explaining how these stories came about. It's a delicate line between using this data for the purpose of analysis vs. painting a life story of a person in front of me; for this reason, I decided to abstain from using life histories as a method of data gathering.

Data Analysis & Thesis

The last section deals with concerns regarding my data protection and the process of writing the thesis. Most prominent way of data collection was notetaking, sketching, and sound recording. These are kept in one notebook to which I am the only one with the access to. The notes are refined in a separate word document to which, again, I am the only with access and it shall remain so. The sound recordings from plantwave device are stored on my phone and will be put on a locked file on my laptop throughout my thesis writing. They will be deleted from the phone thereafter. As for other multimodal data, such as photographs taken, I have already acquired consent to share them in my thesis. However, due to the delicate nature of human tendency to change our minds on already agreed-upon decisions, I will make sure to double-check with participants if the usage of photographs displaying their faces is

permittable. The names of my participants will be anonymous. This is because, as mentioned in the section above, some information which is detrimental for my research analysis, is quite personal and could cause discomfort with my participants if shared so openly. Furthermore, some analysis of results comes directly as a form of private conversations I had with people about other gardeners they are working with; if not anonymous, this could cause conflict within communities. Additionally, some topics deal with a sensitive nature of dependency of community gardens on their respective municipalities. For this reason, I would still like to ensure the safety of my participants by making their identity anonymous. Lastly, I would like to share not only my thesis, but the recordings of plants with my participants as well as PlantWave company itself. I still have to discuss this with my supervisor, but I believe this could further improve my collaboration and trust between myself and the aforementioned groups.

Storying the Three Gardens

Before presenting the theory, which drives this thesis, I offer a context of places where my research blossomed (pun-intended). Although an exact definition of a community garden does not exist, the way in which they can be characterized is through particular set of 'requirements. For one, a community garden has to be located in a nearby urban settlement, usually on the outskirts of cities where land is big enough to be worked on. Second, it needs to have a motif. Most gardens fall under the same category of initiative-driven components: they rely on natural gardening[7], improving biodiversity of the local wildlife, and in some way educating the local population on practices of gardening, thus allegedly contributing to a more sustainable future for urban settlers. In the context of The Netherlands, there exist two types of such gardens: the *volkstuinen* and *community gardens*. Although bearing many similarities, such as the ones I previously mentioned, there seems to be quite a difference in how they operate and what they are able to provide for the people affiliating with such places. Where volkstuinen provide private parcels of land for members to rent, community gardens offer an easier access with no additional expanses. Furthermore, volkstuinen focus largely, if not exclusively, on providing their members with private spaces they can enjoy at their own leisure. Community gardens by contrast are maintained and built on the idea of social cohesion; hence the emphasis on "community" as the name itself suggests. One does not need to pay an extra fee to join a community garden, and nobody actually owns the land. Instead, the presence and engagement of an individual becomes the requirement itself; gardening and working on soil simply for the environmental and / or personal benefit. In short, community gardens are shared sites with no land division, additional communal spaces (e.g.,

[7] This means that no pesticides are used when gardening and working the ground. Furthermore, the gardens need to ensure that animals in their premises are not to be harmed and are actually working on improving the biodiversity of the surrounding area. The exact ways in which this is done is up for each garden to decide, and thus room is left for vague interpretation on what 'biodiversity' entails.

shared kitchen), and lack of individual land ownership. Volkstuinen are gardens which are divided based on who owns (rents) a piece of land, with strong emphasis on individual work. Whoever owns the piece of land is, in theory, the only person with access to that specific plot. Certain exemptions are made for members of overseeing boards in charge of organizing gardens and administrative work required to sustain them (e.g., process of applications or delegating funds). With this explanation in mind, I now turn to the three gardens I conducted my fieldwork in: two community gardens, by paper-definition – Het Zoete Land and Groentepark Bontekoe in Leiden, and one volkstuinen, also by paper-definition – Ons Buiten in Utrecht.

In recent years, Leiden has increasingly become a city which aims to improve its biodiversity as well as the green infrastructure of its layout; it is one of many Dutch cities which prides itself in implementing various techniques, such as having facilities running on solar power, to become a more sustainable city[8]. One of many interesting products of such intentions are community gardens, including Het Zoete Land and Groentepark Bontekoe. Het Zoete Land started in 2015, with Essie being the sole founder; initially studying geography and later humanities at the university level. After quitting her studies, Essie volunteered at a garden in Utrecht, which significantly influenced her decision to pursue agriculture. She founded Het Zoete Land in 2015, supported by a group Community Supported Agriculture (CSA)[9], with the intention of using green manure to improve the soil quality. Het Zoete Land operates under a foundation (*stitching*) that rents the land from the municipality. Essie is the only paid employee, responsible for organizing the entire season, including buying plants, ordering seeds, compost, tools, and coming up with the cultivation plan. Cultivation plan encompasses all the produce which the garden wishes to grow as well as the exact layout of each plantation. Furthermore, Het Zoete Land has around 30 volunteers and 150 harvesters. The difference is the following: where volunteers work in groups throughout the entire year and are responsible for planting the seeds, growing the produce, and ensuring the overall well-being of the garden, harvesters come only for one day or a week to extract specific plants previously agreed upon with Essie through filling in online forms. Volunteers work in groups, and many are also harvesters. The garden operates on a subscription basis for harvesters, who pay for a whole year and can harvest for up to 30 weeks. It is also an open space, meaning anyone can come in if the main gate is open (which it usually is). As explained to me by Essie, the garden is there for people to enjoy its aesthetics, relax in it, but also to learn from it. Which is why Het Zoete Land also participates and offers a range of workshops, especially for children during summer, on how to garden and work the ground in a way that promotes natural gardening, as explained to me in the interview with Essie. See *Figure 1.* below, taken from Het Zoete Land's webpage showcasing the

[8] This also includes engaging in interdisciplinary research aimed at biodiversity, governance of sustainability and similar. For more information, see: https://www.leidenconventionbureau.nl/en/why-leiden/sustainability

[9] A community led network with the aim to help farmers who engage in sustainable ways of working the land, such as no use of pesticides, and thus seek to improve the food system in The Netherlands: https://www.stadsgroenteboer.nl/csa-en

aforementioned workshops[10]. Given that these take place in the summer, I was not able to participate myself.

Locally, as a Foundation, we work together with the Leiden School Gardens, farmers and gardeners from the area, and we organize activities in the garden for primary and secondary schools, or we provide farm education to young children.

Farm education at Het Zoeteland

Figure 1. Children's Workshop

Similar to the ideas and aspirations of Het Zoete Land, Groentepark Bontekoe is also a community garden which facilitates sustainable gardening and food production by restraining from using pesticides and harming animals. Groentepark Bontekoe is a much smaller garden in comparison to Het Zoete Land. Where the latter offers a larger geographical space, thus able to cultivate more variety of flora, bushes, trees, herbs, vegetables, and fruits, Groentepark Bontekoe is much smaller in comparison and thus prioritizes specific produce. These choices are highly dependent on Food Bank Leiden; an NGO community which aims to provide citizens with healthy and fresh groceries, specifically for financially disadvantaged groups. In other words, whatever the garden produces goes to the organization, with some exceptions being made in case Food Bank does not take a certain product. In that case, it goes to one of the volunteers of the garden. As for the process of integration to the community, Groentepark Bontekoe is more of a low-entry barrier in comparison to Het Zoete Land. This means that becoming a volunteer is a simple endeavour, oftentimes achieved by simply contacting one of the two garden managers: Jo and Lilly. Out of the three gardens, this one is also the youngest, starting in the last 2 years. It is also fully funded by the municipality, as explained to me by Jo.

Figure 2 Ons Buiten, Utrecht

[10] Access to the webpage: https://hetzoeteland.nl/over-ons/stichting-leiden-oogst/

Last, but certainly not the least, Ons Buiten is officially recognized as an allotment garden, or *volkstuinen*. It is the oldest of the three gardens, starting in 1929, with the current location being established from 1963. It is also, by size, the biggest, covering around 100 gardens altogether. As mentioned before, this by definition implies how the garden is run by gardeners who rent a parcel of land and in theory have unlimited options on how to run their plots. However, in reality, this proves to be quite different. In order to become a part of the community and have a plot of land, one needs to undergo a selection process which includes an interview regarding previous experiences, strengths, talents, and motivations for wanting to join. This selection process is overlooked by the board consisting of people who are also gardeners in Ons Buiten themselves. At the entrance of the garden, one can find a wonderful animal farm, where cattle, ducks, and rabbits are held. Another interesting component of Ons Buiten is its 'wildlife' section: this is a part specifically catered to improving the local biodiversity and amphibians. The land is not cultivated, nor is anything planted on the ground. It contains a small stream, two levels covered in dirt and mud, and an abundance of overgrown shrubbery and trees. Same as the gardens before, Ons Buiten also implements natural gardening as its technique and prides itself in establishing a tight-knit group of gardeners[11]. I include three images, each showing one of the three gardens. Each image is taken directly from their websites or social media and referenced properly in the references list.

Figure 3 Het Zoete Land, Leiden

The last remark which I believe is important to note is the involvement of surrounding neighbourhoods with all three gardens. What I was able to observe is how organically people seem to move across these locations. Unless one carries a rake or any other gardening tool, you would not be able to recognize the 'citizen' compared to a 'gardener'. If we want to understand the intricate constellation of relations which take place in community and allotment gardens, then we must do so bearing in mind the already existing openness these places seem to curate. It is a delicate conversation between the external and internal associations between humans and other Earth beings. After conducting my fieldwork, it became clear why there is no concrete definition of a community garden; it is not about the lack of substantial definition of a 'community', or even a 'garden'. It is because these places seem to blend in

Figure 4 Groentepark Bontekoe, Leiden

[11] For more information see: https://www.onsbuitenutrecht.nl/

so smoothly with the rest of the lively urban atmosphere, that each individual somehow claims the meaning of it to themselves. In other words, I argue how a community garden is a living space of becoming and re-connecting with nature, subject to individual interpretations, and led by emotional sentiments. It is with this notion I gently urge to proceed with the following thesis.

Chapter 1: Harmonic Entanglements

"…lively ethographies… it is an engagement with the joys, passions, desires, and commitments of Earth others, celebrating their ēthea in all their extravagant diversity."

- Van Dooren & Bird Rose (2016: 91)

Response-ability

To tell stories of others is a great ethnographic endeavour. Indeed, above anything else, there lies both a desire and a sense of duty in re-telling, as well as constructing a narrative based on the observations made in the field. This great constellation of meanings, knowledge production and merging with one's surrounding as a way to produce data certainly appears to be quite a challenge; even more so once the scope of research starts to include participants other than humans. How can we tell a story of that which we cannot understand? Of course, simply because one understands the words spoken to them by others (in the case of some human-human relations), it does not imply understanding by default; meaning making tends to be much more tedious than that. In that moment, it is merely the *mode* of communication that is familiar. Alas, human consciousness renders us incapable of fully recognizing ourselves within our environments (Dudley, 2023); we cannot perceive ourselves in relation to the distant *other*. We cannot fully perceive what "ourselves" even means. Even if, in good spirit, one attempts to pretend to be a tree in order to better understand it, or themselves, the action is futile. You are still a human, and the tree is still a tree. None the wiser. This also leaves out the possibility of quite a significant portion of modes of communication with other Earth beings – so how do we tell their stories? Despite the evident, inherent limitations of the human mind, there is an ability shaped as we embody the environments around us, as well as ourselves while occupying the same. One which might offer a more sustainable way of researching Earth beings; through processes of embodiment and immersion, often a result of meaningful historical processes, we spin a delicate web of inter-actions and responses. And that which responds by extension has capacity to be responsible. The ability to respond - otherwise known as *responsibility* - is a trait visible in all Earth beings (Van Dooren & Bird Rose, 2016: 89). It is an innate capacity through which we recognize different *kinds* and the diversity of life; different species give distinct responses based on their intrinsic biological nature (ibid.). A cat shows to be at ease - with its eyelids half closed – rather differently than a dog who will prompt their owner to play. A human vocalizes when not to be touched – a plant might exert a harmful toxin as a protection method against unwanted troubles (see: Hall, 2011 in ibid.). Does it not make sense then to acknowledge that each of us possessing this ability to respond, also bear duty in aiming to *understand* each other, not through pretending to *assume* our nature, but instead translate it through *communication* and *engagement*? We surely cannot and should not speak for other species when it comes to duty. Yet us

humans, with our expanded skills of perception, should certainly make use of them by opening our minds and hearts, and find alternate ways of engagement with other Earth beings. It is through different modes of engagement we end up with different forms of communication which can in turn allow us to experience each other more deeply and recognize that we are indeed shaped by our shared presence. As we engage, so we become entangled. All in hopes of recognizing a world intertwined; after all, as Tsing (2012: 141, abstract) neatly puts it: "*Human nature is an interspecies relationship.*"

The following chapter explores ways in which different modes of engagement with other Earth beings yields an interesting narrative regarding human connection with plants. I borrow the opening quote from Van Dooren and Bird Rose (2016) through which I hope to shed light on the conceptual method I refer to throughout this chapter in order to bring the aforementioned abstractions closer to understanding – lively ethnographies, coupled together with ecological animism (ibid.). Both are extensions of each other, and both signify the importance of recognizing and tending to diverse forms of life; where the former acts as the mode of *knowing* and the latter a mode of *engaging* or *encountering* the world around us. The end goal? To both recognize and nurture the unspoken ēthos, or ēthea (plural) of other-than-human beings. Prior to understanding community gardens as a unified body of agency and life, it is essential we understand the ground through which this entanglement sprouts. As such, our narrative begins where, I would argue, all things noteworthy of researching begin – at home, where most is known. The chapter offers illuminative examples taken from my ethnographic experience. Specifically, experiences and results acquired through a series of short exercises I performed with my participants using a device called PlantWave – the way of its working is described in the section below. The design of these exercises and some of the influential results are followed by an in-depth analysis, relying on the spirit of ecological animism and lively ethnographies, to discuss the affect, as well as effect, to which gardeners' lives are entangled with that of plants. Through a series of reactions and responses my participants have shown upon experiencing a specific type of engagement (see section below) with our little green friends, it is shown how ēthea are intrinsically susceptible to being re-shaped and constantly in conversation with one another. Rather than emerging in a separate, alienated environment, they act as a product of inter-species immersion; as they become entangled, they are re-created.

Plantrhythm

In the previous two sections, I talked about different modes of engagement between us and other species. What I specifically refer to, as taken from my ethnography, is the mode of *hearing* or *listening* to plants; which strikes as quite a loaded statement. How can we, humans, hear a tree? A flower? Or perhaps a salad that grows in a garden? The current wave of scientific and technological advancements has certainly taken us far. However, the ability to have a two-sided communication – at least, one which we are aware of and understand – is still quite a long journey ahead. There are some alternatives which have come into fruition; ones that utilize the method of 'soundscaping'[12]. Plantwave is a device which acts as the perfect example of such, as well as how to find alternate ways of experiencing that which our human senses do not permit us. Indeed, recent research shows us how plants are both reactive to sounds[13], as well as *produce* vibrations which in some instances manifest as sounds[14], albeit on a level of frequency our human ear cannot experience. Plantwave offers the latter; the ability to hear the sounds produced by plants in a way where vibrations of the plant are recorded and graphed on the device. The information from the device is then transferred via Bluetooth connection to a phone that has an app specifically designed for plantwave; there, the data is combined with a set of pre-recorded melodies, developed by the company PlantWave, and the final output is music. For privacy reasons, I am unable to share my own recordings of these exercises. However, to paint a more engaging picture, I offer an example found on the company's website[15]. Below, I showcase an illustrative example of the workings of the device (*Figure 1.*)

[12] A method of work through which one is able to record a sound from a certain place and use it to further enliven the experience of inhabiting the same.
[13] See Jung (et.al.), 2018: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5797535/
[14] See Yovel & Hadany: https://english.tau.ac.il/plants_emit_sounds
[15] For music, see: https://youtu.be/TBonJM6VmqM

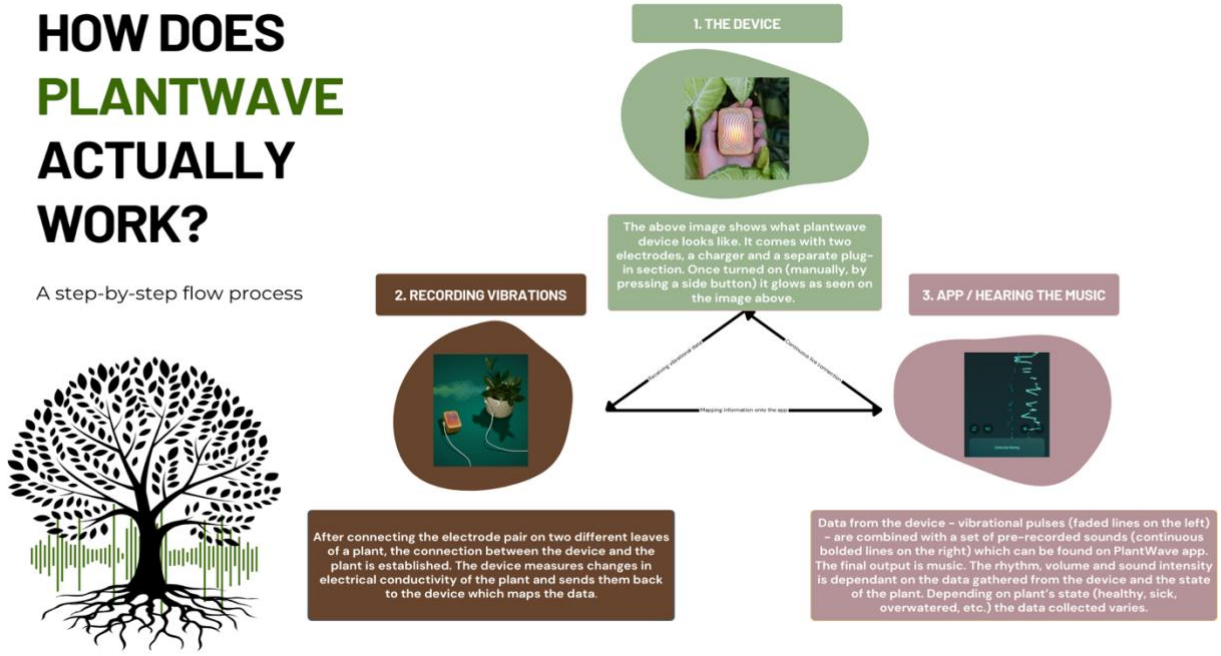

Figure 5: Infographics on the workings of the plantwave device

So how does plantwave tie to my research? As mentioned in the *Methods* section of the thesis, this fascinating device played a significant role in my fieldwork. I used plantwave to observe and gather data on the way in which people experience plants once presented with a different mode of communication, or, better yet, different type of engagement with them. My point of departure was the idea that gardeners, once exposed to music produced by the mix of vibrational data and pre-recorded melodies from the app, will somehow react and in turn respond to such stimuli; we are sensory beings after all. All of the gardeners are accustomed to seeing plants and working with them; by which I imply touching them, looking at them, observing them, and in some instances, even talking to them whilst tending to their well-being, as explained to me once by one of my participants:

Me: "And when you talk to them [plants], what do you say?"

Her: "I talk to them, I pet them and caress them…I ask them: 'What do you need? Maybe a little sun? Or more or less water?' before I take them to another place. You know… I talk to my cat. I talk to my plants. I don't talk to my ***things****."*

However, being able to listen to their frequencies is a phenomenon none of them have experienced before. This method of work thus enabled me to tackle a new form of engagement between gardeners and plants. I now lay out a brief description of the exercises performed by some of my participants and their plants, which they chose on their own accord.

The first step is to inform my participants on the workings of the device[16]. I also explained to them how to use the app - these can be found in the visuals above. Most of them, save for one person, have never encountered such a method of experience. This worked out well in my favour as the whole exercise was more authentic by default; it was as new for my participants to hear the sounds coming from plantwave as it was for me to see their reactions. After being properly informed on the technicalities of the device and what they were about to witness, I gave a second round of information: that the sounds produced will be recorded and, if expressed as such, sent to them after the exercise. The important notice here was that the sounds produced and sent as files were not allowed to be shared for commercial use. After providing all the necessary information, the participants were given a pair of earphones through which they were able to listen to music. They were exposed to the melodies for a range of 3-5 minutes. During that time, participants were also given my fieldwork notebook and asked to either write or draw their ongoing thoughts and feelings whilst listening. After the exercise a further conversation was held between me and them in regard to what they put on paper. Needless to say, the results were as intriguing to them, as they were to me. The next part of the chapter shows some of these examples; in the spirit of ecological animism, these encounters indeed show that we do not know, and should not assume, all diverse ways in which our world breathes with life and responds to us (Van Dooren & Rose, 2016: 83). The beauty of life lies in its discovery, after all.

[16] I was initially debating whether to inform my participants on this. On one hand, not telling them what they are about to experience would provide, supposedly, for a more 'authentic' or perhaps 'organic' reaction which is interesting and fruitful in its own way. However, I was more interested in the process of conceptualization of my participants' connection to plants. I wanted them to be able to 'prepare' themselves, their opinions, and biases on what they are about to go through so that we can have a conversation afterwards. Additionally, it provided a chance for them to immerse themselves in their own stories of what they are experiencing; a sound? A plant? Music?

The Sound of Flowers

Soft music waterdrops

I feel the spring feeling of

primula vera

sleep softly awakens

maybe pain because of…?

what a peaceful plant

I'm here for a long long time

This was my second time visiting the garden Ons Buiten in Utrecht. The weather seemed promising. Contrary to the usual Dutch winds, the air was still, with first rays of sunshine signalling early spring. Ons Buiten looked truly stunning under such warmth; the difference between the garden and the rest of the city was incomparable. I barely recognized the metal fences shielding the place, covered by the lush blossoming trees and overgrown sapphire bushes. Once I stepped in, my senses were immediately overcome with soft humming of birds, leaves giving sway under a gentle breeze and distant laughter of children visiting the animal farm. Before I knew it, a sense of peace washed over me. Entering the garden meant entering a different world; it was a hidden gem you would never associate with a bustling student atmosphere Utrecht usually holds. And, to my surprise, it still seemed undiscovered; the people I found within its premises appeared as accustomed to garden's habitat as if it was their usual place of lodging. As if everybody there was already familiar with the place. As if the garden, in its gentle slumber, was still waiting for newcomers to make it their own.

Figure 6: A stream in Ons Buiten

I sat in a garden house with one of my participants – Mary. She was one of the main gardeners of Ons Buiten; previously a member of the association board which overlooks the activities, organization, and administrative work necessary for the upkeep of the garden and its inhabitants. She was also one of the participants I have enjoyed conversing the most; like myself, albeit to incomparable measures, Mary happened to be a retired anthropologist. She was an elderly woman, with a particular fierceness in her posture, and grand determination lurking behind her eyes. Above all, she was friendly. And she strongly believed in the benefits of community gardens. Her garden house was a modest one: a one-bedroom condo, with a small kitchen, a storage unit, a couch, and a dining table. All of it was painted blue - it reminded her of the sea. She kindly poured me a warm cup of tea

and offered a short tour of her garden. I noted how her garden was one of the few that was not surrounded by fences or hedges and asked her why that is.

It's very important to us… to let nature grow in our community garden... And we do not like fences, we do not like the borders. They are too strict." - Mary

She then continued explaining her favourite plants to me whilst re-telling how and why she planted them in the first place. It was a rather interesting sight; it seemed almost all her little green friends had a story tied to their very existence. When we sat at the table in her garden house, she told me about its history and how she did all the work around it; how her plot of land was initially covered in weed, half-alive plants, a big tree which nobody tended to properly, thus wilting away, and the house being a semi-run-down lodge - completely forgotten. She gladly took matters into her own hands and re-build the whole place from scratch. As she was telling me this, she kept smiling throughout. A thought overcame me in that very moment: how interesting it is that places we physically build for ourselves can act as both our sanctuary and an extension of home. I understood now why she was so excited to welcome me there compared to her own house. It was rich with history - *her*story.

As we enjoyed the tea and her garden stories, I asked her to find a plant from the garden she would be willing to propose as an additional participant as a part of my ethnographic method involving the plantwave device (see sections above). She went outside and quickly came back with a yellow flower freshly plucked from the batch - *primula vera* or primrose. At first, I did not think much of this. After all, she was not the first participant I did this exercise with, and definitely not the first to choose a plant with a personal meaning behind it. I briefly explained to her the workings of the plantwave device: a sonification tool, in looks resembling a small wooden speaker box, with a pair of electrodes tied to it. Its functionality provides one to listen to microbiological processes within plants which produce an output of electrical impulses turned into musical compositions. The exercise was performed as follows: after providing necessary information regarding the plantwave device, I connected the electrodes to the leaves of the flower. I gave Mary my earphones and showed her how to use the app through which one can listen to the aforementioned output. The melody produced was soft. It was quiet at first and the plant needed some time before we could hear it sing. Sounds coming from the device were mellow, gentle; I felt as if moving an inch of my body would make them fall asleep. Mary then had 3-5minutes to either write down, draw, or express her experience of listening to the plant in my fieldwork notebook. The opening poem was the result of this exercise. Primula vera's song slowly faded out, until none was left for us to hear.

The poem acts as Mary's reminder of her childhood. As she ever so kindly explained to me, the flower used to grow in abundance around her family home. Due to the negative environmental effects, it does not grow there anymore. Mary reflected how listening to the flower made her not only think about home and the past, but on some level *relive* it; alas, the two ēthea became entangled, and suddenly linear workings of time stopped existing. Additionally, she expressed how she always believed plants,

much like animals and humans, are able to communicate with sounds as well, just not in the way humans can hear and comprehend. As such, being able to hear a plant, especially one with such strong past connection, brought up strong emotions. I noticed she was content, almost happy. Not in a way which makes one jump out of their seat, but that which makes you appreciate the quiet and get lost in stillness. She seemed to be somewhere else - and indeed, that is exactly how she described her present state; calm, and unmovable. I also noticed it took her quite some time to write the poem. When I asked her about this, Mary simply replied how - much like the growth of a flower - writing about one takes patience and time. It always surprised me how well-adjusted she seems to be with her garden.

What this experience, amongst other examples, brought about is the depth to which plants are able to affect people's state of being and internal processes. What absolutely struck me is how distant Mary seemed to be; not 'getting lost in thought' type of way, but rather genuinely experiencing a time which is not the present. Like most of my plantwave experiences, the best and most insightful moments took place while I was observing my participants 'reactions whilst being exposed to plant music. This case was no exception - all stimulated by sounds and music produced by the mixture of human-driven products and a flower. The significance which was put on the flower during and after listening to it acted as an extension of already existing attachment between Mary and primula vera. In that moment, Mary's understanding of herself, as well as the way in which her world emerged, was uniquely tied to that of the flower in front of her. It was through the musical engagement with that specific plant that her ēthos assumed a new shape; one which previously was not able to emerge through sensory experiences she was already accustomed to (e.g., touch, smell, or vision). Furthermore, what is interesting is the way in which she was able to recall a memory of that same plant. More so than just a memory, she was able to exert specific moments and states of inner well-being associated with that same plant, years ago. Ēthea, an emerging property not bounded by time or a fixed place, seemed to flow through both of my present participants (Van Dooren & Rose, 2016: 80). The next section of the chapter delves deeper into the ways in which the immersion and co-shaping of interspecies ēthea is able to reflect entanglements surpassing the one which is taking place at the present moment; how particular engagements with plants remind us of our relationships with other species. And perhaps, relationships with ourselves.

The woman in front of me had kind eyes. She glanced at me with a mixture of tremor and curiosity at what will happen next. It was an interesting experience to marvel at such a paradox; I could almost taste her enthusiasm, yet she seemed reclusive. Interested, yet waiting for the whole thing to blow over. I instinctively understood then and there that this conversation will bear fruitful insights and an even more fruitful experience for my research.

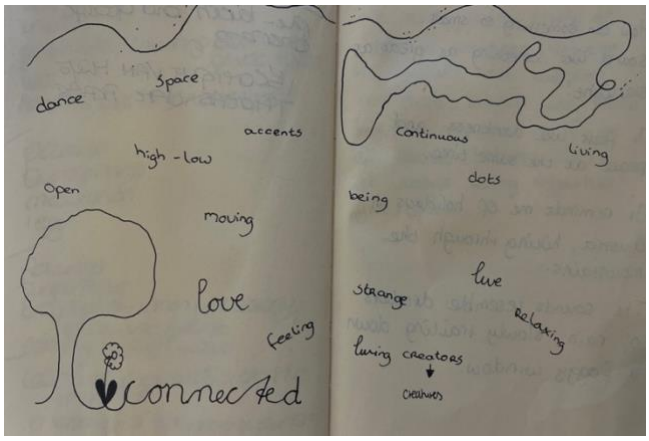

Figure 7 Lisa's Plantwave Exercise

She was a volunteer out of many gardeners from Groentepark Bontekoe. Lisa was a middle-aged Dutch woman living in Leiden with her family of two. One of the first topics we bonded over was her child and arts. When we first worked together, planting the seeds on one of the beddings in the garden, I immediately felt at place when she started asking questions about me and my life in The Netherlands. Conversations I had with her made me forget, for brief moments, my position as a researcher; I often allowed myself to simply be myself around gardeners such as herself. It made me feel relaxed and appreciative of the fact that people really do not require much to feel a sense of safety. Lisa was one of the first people that welcomed me with a genuine look of interest and an honest intent to help with my research project. When I first visited the garden, I was prepared to encounter a largely Dutch community of participants who primarily spoke Dutch with a semi-lack of interest to switch to English simply because a random anthropologist entered the scene. To my surprise, I was only 80% correct in this assumption; an outlier being two women who later became gardeners I relied on for both comfort purposes and conversational partners. One of them was Lisa. Before I even knew it, she decided to approach me and offer her help and assistance with my fieldwork, primarily for interview purposes. This was a rare sight for me. People generally tend to look the other way when it comes to a barely Dutch speaking researcher suddenly taking interest in their lives and inner worlds. It was exhilarating to be presented with such a chance.

I remember the day being covered in sunshine and warm weather. This allowed us to have a conversation in her garden at Lisa's house which, for me, was always a more convenient solution. What I recently discovered is that people, at the very least my participants, relax more when they are in either their living room or a terrace. I was warmly welcomed into her family home. One could definitely tell there was a toddler occupying the space; there was a strong presence of youthful spirit, used toys scattered around and funny objects placed on the floor that grown-ups forget about. She apologized for "the mess", but I remember reveling in this sight; the place was not messy. It was used. It was lived in. It provided solid ground for a new person to be shaped. I could tell Lisa really cared about that which

occupied her life. I was curious to see how the conversation, then, would pan out. Needless to say, I was far from disappointed; one of the many perks working with people who enjoy spending time in nature (whatever one may define the term as) is that 'deep' meanings are oftentimes implied. There is always a subjective and personal explanation for anything that takes place in one's life; for the gardeners I worked with, these explanations seemed to seep from their personas as easy as it was to breathe. It cultivated a rather insightful and inspiring atmosphere for a young anthropologist.

Since we spent the early noon together, I asked Lisa to perform the exercise with Plantwave. At this stage, I was pretty much carrying the device everywhere I went. It could always be an opportunity to introduce the intricate nature of its function to somebody. Lisa's choice of the plant was, again, highly personal, albeit not for the same reasons as with Mary. Her choice was a strawberry plant; her first ever plant she took home from Groentepark Bontekoe. She patiently explained to me how, at times, Food Bank Leiden does not include certain vegetables from displayed batches due to the lack of visual appeal; coming from a background where everything was always bought fresh and natural over 'pretty', I was stunned at the fact that a food provisioning organization nitpicks their produce in such a way. After listening to the plant, I noted down several interesting instances which stood out to me. One, Lisa took significantly more time than other people to perform it, which resulted in me extending the exercise time to almost 10 minutes. She played around with different sounds, ranging from the playful, celestial intonations to vibrations resembling a heartbeat. Second, Lisa was the first one who also drew something; an example of her exercise can be found in *Figure* 3. It is a compilation of words that she ascribed to the sounds she was hearing next to two drawings; one being a continuous line which, as explained by her, was Lisa's way of imaging a dance choreography (she was previously also a dancer), and the tree with a flower which flows into the word "connected". She explained to me how the sounds from the strawberry reminded her of this unspoken, almost invisible connection behind all living creatures; an entanglement which, as I have seen, sprouts into bloom once being properly tapped into. Last, I noticed tears in her eyes as she was listening and drawing. She later explained to me how, after a series of personal harsh experiences, she found it hard to express her feelings without crying as a release method, and not to worry about it. Needless to say, I was not worried. I was touched at the level of transparency and the time given from her side. I made sure to reciprocate this act.

This state of hers led to another insightful topic; the level of acceptance in Groentepark Bontekoe. To Lisa, it was a place that immediately welcomed her. People were friendly, nice, engaged in small conversations with her, and nobody batted their eye if she released her feelings at times. To her, that created an immediate trust - she could "*be herself*". "How funny," I remember telling her, "That is exactly how you welcomed me too.".

This experience led me to understand two major components - first is that plants not only have the ability to inspire reactions and feelings of people, but quite literally extort the person's emotions. It's almost as if the music played consumes their personality after a while. Similar to the described experience with Mary, this example goes to show the practical way in which plant's ēthea emerges as

an intertwined body of existence with that of Lisa's. Without each other, they could not have been shaped in that particular time-continuum; of course, we cannot say whether that is necessarily the case for the plant as we do not have a form of communication whereby, we could assess this like we do with other human being. However, the fact remains that in that specific instance, the two co-created a space through acts of responding to each other's shared presence. What this inspired in Lisa was more than simply a matter of momentary reactions. Indeed, what the experience of listening brought about was a reflection on her inner states and recent struggles; struggles of going back into the working environment, as well as doubts regarding the level of acceptance from other people. The intricacies of how these came about are still unclear to me and indeed, more research is needed; one which would look at the correlation / causality aspect in more detail. Regardless, for my present participants – the little strawberry and Lisa – cause and effect did not play a significant role; what struck me as important, and a reason for making a claim on intertwined ēthea is the uniqueness of that very moment and exchange. Exchange through looks, observation, and deep acknowledgement that, although living in different bodies, the shared responses yield an effect of significance to her. Interestingly, however, Lisa explained how she was not sad while listening to the sounds. What made her release her feelings in such a way is because of her own reflections on what the melody inspired. From a third perspective it did seem like she was lost in another world; I wondered what difference it would've had I not been physically present at that very moment. The second insight concerns that of the welcoming nature of gardeners and how accepting the group tends to be; the outcome of entangled ēthea (Lisa's and strawberry's) yielded a reflection of how the gardeners at Groentepark Bontekoe treat Lisa as well as what that meant to her; emotional support and presently needed strength and confidence. It is heart-warming to see how sensitive people are to being seen, heard, and accepted. Quite frankly, the gardens show that it does not take as much to do so.

The two examples illustrated above both show the extent to which ēthea is, albeit quite abstract, very much presently emergent, non-fixed, co-existing with other species, and influential in the world of us humans. As mentioned before, we cannot know, and even at a lesser rate try to assume, the inner workings of plants' ēthos. Until presented with a more technologically advanced solution which would enable a two-sided communication between humans and other Earth beings, that remains a far-fetched dream. What is important to note here are the emerging properties of responses exerted by human participants after being exposed to a different, new, and *particular* mode of engagement. One which enabled both Lisa and Mary to experience, and in turn respond to the experience containing a personal meaning, whilst co-creating it with their chosen plants. It is through this mode of engagement that the interdependency of plants and people is able to be documented; and as such, relations between Earth beings traced. This chapter was dedicated to emerging ēthos and ēthea between gardeners and plants as a starting point for my analysis on the ways in which a people of Ons Buiten, Het Zoete Land and Groentepark Bontekoe trace their relations with plants; not through the means of gardening, but through intricate ways in which they are able to depend on each other. The next chapter focuses on the inter-

species relationships taking place within the geographical locations of the aforementioned gardens; the ēthos which brings about the agency of gardens, beautifully mixed into an entanglement of relationships both human-human based, and inter-species related.

Chapter 2: Relationships in Space; Gardens in Lieu of Stars

*"…a **garden is you**. You come here and if you are lucky, the rest of your life, you have this allotment garden. It's not like in a car - after ten years, it doesn't work anymore. It [garden] gets better and better. And you don't realize it at first, but **you came for a garden**." – Mary (29th January, 2024)*

One of the most delicate, yet uniquely rewarding processes we are able to experience is growth. It comes in waves. It is a never-ending phenomenon, subject to frail interpretations and filled with even more fragile meanings. Growth, much like the world it encompasses, continuously shifts and changes; it does not pertain a clear end or a definite beginning. It demands a difference in its exegesis. It demands to be perceived and experienced rather than observed. Through experiencing growth, the world it is nested in, in turn, is able to act – re-act. However, such an abstract and quite a loaded term deserves some further elaboration – what exactly is meant by growth? Biology teaches us that it is a process of an increase in both cell size (mass) and its number within a living organism throughout its life[17]. Math suggests different kinds of growth: linear, exponential, logistics. Each concerned with a way in which quantity of a value increases or decreases over time, and at what rate.[18] Both providing a tangible pattern or size or matter expansion. Alternatively, philosophy – specifically, Aristotle - argues for a much more 'spiritual' approach when defining the term. One which considers the soul (*anima*) of a living organism; where growth acts as a set of constrained developmental patterns, following a distinct structure with a set end-goal.[19] All of these examples, albeit quite different and distinct in their epistemologies, provide a common denominator: it is a *process* unique to the experience of *living creatures*. And a fundamental aspect of a process is that it is always marked by *change*; once you are able to recognize change across a period of time, you are able to either trace the steps back or anticipate certain patterns occurring and re-occurring.

I borrow the metaphor of growth for the purposes of highlighting the main notion behind the following chapter: maintaining relations in community gardens requires a degree of patience and growth which is highly affected by space Earth beings embody through the convergence of their ēthea. By space, I refer to previously discussed concept of spatiality; where ēthea emerge, and the place is that of becoming. Furthermore, the ēthea is able to blend and is subject to re-shaping itself through practices of discipline. By discipline, I refer to forms of guidance which can be interpreted as either positive and / or negative for Earth beings present in the garden. The end-goal of this guiding process is for community gardens to be able to meet the initial expectations; food provision, biodiversity increase,

[17] Taken from: https://www.britannica.com/science/growth-biology
[18] Taken from: https://www.investopedia.com/terms/e/exponential-growth.asp
[19] Taken from: link

and providing communal space for people. I argue how this is done in two steps: one being distinctions in specific layouts of each garden which set a precedence for inter-species interactions. The second are particular gardening practices which both inform and elicit certain human behaviors and reactions. Much like the introductory quote by one of my participants suggests, a garden is something that is both personal because you made it happen, yet it also grows alongside you. It is a direct product of how much care has been shown and practiced, and as time goes on, so does the movement and the nature of the garden itself. The previous chapter deals with the ways in which particular modes of engagement are able to yield understanding and communication between plants and humans necessary for tracing and maintaining inter-species relations community gardens of Groentepark Bontekoe, Ons Buiten and Het Zoete Land. The second stage of this intricate endeavour is a longitudinal practice of relations between species, by which I refer to human, plant, and animal kin, in gardens. What this chapter aims to discuss is essentially the following: How does spatiality of community gardens in urban environments inform connections made between gardeners and other Earth beings present in the same?

I argue how the three community gardens serve as examples of co-becoming. They are both places that are made, and at the same time, places which exist *because* the pre-existing interspecies relations already take place. They are as tangible as they are abstract, since they rely both on material infrastructure and organization (e.g., supervisory hierarchy, garden infrastructure) as they do on already established, yet still susceptible to re-negotiation, relationships between species. In order to substantiate this notion further, I rely on two conceptual frameworks. Both are offered by branches of environmental sciences and anthropology and concern multi-species research. Furthermore, they encompass the notion of spatiality as well as relationality: 'pluriverse' (De la Cadena & Blaser, 2018) and '*gurrutu'* (Bawaka Country, Wright, *et.al,* 2016). The former encompasses an analytical framework able to grapple with heterogenous worlds coming together and, in their intricate multiplicity, emerge as a set of different political practices which tie them together (De la Cadena & Blaser, 2018: 4). On the other hand, *gurrutu*, is a concept specifically developed within an ethnographic framework of Bawaka Country and its indigenous communities. It is a way of understanding space by taking into account the kinship relationality, where other-than-human kinship relations are included, which ultimately sets a precedence for obligations one has towards others in a specific geographical location; through *gurrutu*, people of Bawaka Country know where the individual's responsibility lies and to whom (e.g., children, gardens, land), and ultimately ties them all together into a set of diverse relationships which constitute *one* ever-changing, subject to re-shaping, world (Bawaka Country, Wright, *et.al.,* 2016: 460). These relationships, as well as their agents, are bounded by each other's presence, actions of care, and constant interventions. Much like the two concepts, gardens and their inhabitants also enact a set of different relations which come together in a form of political ecologies and are bounded by and through each other's presence and processes of gardening, structuring, caring, and sharing. With this chapter, I aim to highlight the following argument: gardens are *alive*. Although seemingly abstract statement at first, it carries both conceptual and ethnographic bearings. What I imply by 'alive' is the ability to *respond* (as discussed in

the previous chapter). Anything that is able to *give* something in return, be it a product, a reaction, or any other mode of engagement, holds a degree of agency. For the ability to give necessitates the capacity to take; both being very active modes of existence, recognized and shared across all living creatures. Through interactions between species the gardens take shape as a unique world already existing as a product of different worlds constituted by inter-species relationships. The garden is not a 'place' of making or to-be-made; much like growth, it is a *process* of communication between gardeners - outside sources, such as neighbourhoods and municipalities - and inter-species relations. It is a world existing by tying together other worlds into a co-creative, entangled conversation; it is a pluriverse made up of multi-species relations and human-human connections which need to be situated in particular socio-political contexts, by which I refer to a lack of evident or transparent hierarchy in community gardens yet filled with discrete and delicate political systems of power. As all of the aforementioned agents in gardens respond, so too does the garden assume the ability, as well as the *capacity*, to respond. In this case, responding takes a rather different degree of response than a human one; gardens *take* and *give* produce. Produce, which is a direct consequence of all things living and coexisting within that space; from humans seeding the ground, to nurturing it, to snails eating the plantations to worms, spiders, and bacteria[20] in soil, as well as soil itself, actively making it possible (or not) to make a successful harvest. By further extent, it is also the symbolism of the produce and what people do with it; do gardeners take it home for themselves and their families? Does it get distributed across other networks such as in the case of Groentepark Bontekoe and Food Bank, where produce is cultivated from the garden and then given to the Food Bank which afterwards distributes it to people in Leiden, for free, who otherwise lack sufficient monetary means? Or does it serve as a call and invite for other, non-volunteering members of the neighbourhoods and towns to partake in joint harvests? In short, all three gardens continuously respond by repetitive food (vegetables and fruits) and or aesthetic (flowers) provision. As such, through entanglements of inter-species relations and the products, both tangible and intangible which gardens provide, they emerge as alive and responsive spaces of co-becoming as well as fluid bodies of multi-species existence.

This chapter aims to delve deeper into the aforementioned arguments by relying both on the conceptual and analytical frameworks previously provided, as well as the ethnographic accounts of my time spent there. This includes observational techniques, soundscaping methods (audio recordings of gardens as a way to elucidate engagements between participants otherwise hard to gather), conversations, interviews and experiences drawn from my own time gardening in Groentepark Bontekoe. The chapter is divided into two main sub-chapters which illustrate the previously discussed notion further: one being the physical, tangible organization of the gardens and how this affects the interspecies relationships present in the same places. This includes the location of gardens; Ons Buiten in Utrecht, Het Zoete Land in Leiden, and Groentepark Bontekoe in Leiden. Each of these gardens has

[20] Some other examples include birds that eat the seeds, birds that eat other animals in gardens, cats which frequent it, hedgehogs and bees nested in their quaint 'hotels', and bumblebees which pollinate the flowers.

a unique way of working which both indirectly and directly shapes distinct ēthea of multi-species relationships found within the same. For example, in Het Zoete Land, there are particular infrastructures made to keep certain animals away from those which are more vulnerable (e.g., a wooden structure placed over a garden pond where frogs frequent). As such, the first part discusses results gathered from observation techniques whilst being present in the gardens, overseeing the different relations taking place between Earth beings, as well as interviews and talks I had with my human participants where I was explained the details of inner workings (e.g., cultivation plans) of gardens. The second part discusses results of the actual gardening practices; how different people implement their own techniques, how this affects present non-human agents, and the organizational structure and 'hierarchy' of the gardens. What the second part of the chapter aims to answer is the following: Who is *responsible* for the well-being of gardens, what is meant by the same, and how does this translate in practice?

Species Stories

And there came a man and he could maintain a garden, but he didn't do that…he was a very nice person, was mixing in with the other people very well. But his garden didn't work. So, after two years, we said it's a mess. So, he went away. There came another guy [architect]. "Oh," he said, "Oh, I like this [the garden he was given] very much. Oh, yes. That's the way I would organize this garden." And he started to dig up all the plants and I said, "No, this is a history of this garden. ***This beautiful rose has a name and it's very special****. Don't do that."*

Much like the introductory excerpt suggests, each garden has a name, a story, a history particular only to itself. Apart from specific backgrounds, each garden also exercises a degree of agency and multi-species relationships to a different extent and quite distinctive ways. In the midst of the similarities and differences showcased in the three gardens, one is able to observe three seemingly alike living organism. However, upon further inspection, the gardens remain individual, authentic branches of existence; a paradox set in motion. Indeed, the gardens all share quite similar fundamentals: they enact the practice of natural gardening (i.e., no use of pesticides in gardens and giving space for surrounding wildlife to flourish) and include the surrounding community in their cultivation processes (i.e., people from the cities each occupies). On the other hand, there are particular contrasts in the way each garden works. One of such striking differences is the fact that while Groentepark Bontekoe and Het Zoete Land are both community gardens – meaning all the gardeners are helping out during the year whilst working on a common piece of land, not owned by the respective members – Ons Buiten in Utrecht is an allotment garden. This means that gardeners there 'own' a small parcel of land (cca. 5m^2) or, more accurately, rent it. This also means that each gardener is required to tend to their own land and there are more rules which are set by the supervisory board of Ons Buiten. More on these intricacies and relationship dynamics is covered in the third chapter of the thesis. Going back to the comparison in the fundamental workings of the three gardens, it is evident how they might appear both similar, given their strict values on how to garden and who or what these in turn include. However, upon a closer look, these contingencies emerge as quite distinct in practice.

The introductory quote nicely provides an overview of my main findings in regard to multi-species relations in gardens and their 'place' in providing a meaningful answer to the question of how spatiality informs inter-species connections emergent in community gardens. The story was told by one of my participants from Ons Buiten garden – Mary (previously introduced in *Harmonic Entanglements*). She was telling me about the thin line between keeping up the well-being and interest of humans in Ons Buiten, whilst simultaneously keeping track of the well-being of gardens. If someone does not take care of their garden it means they essentially get cut-off. But what does it mean to 'take care of your garden'? I have seen different gardeners explain and / or refer to this emic term in various ways. However, the

way ‘care’ takes shape when it comes to interacting with gardens, plants or animals is highly affected by and through interspecies’ actions, consequently creating a specific garden *layout*. This simply refers to a physical organization in which plants, roads, and houses are positioned. As Mary explained it to me, each gardener has their own way of working with plants. In turn, each plant responds differently to various practices of gardening. Furthermore, each animal responds to different plants in distinct ways, and by extension, people in gardens find ways particular to guide these interactions. This includes, but is not limited to, the actions taken when preparing the soil, building specific types of infrastructure, changing layout of the garden itself, and particular sensory methods people implement when interacting with plants and / or animals (e.g., expressing a degree of emotional connection by speaking to them). Each of these differences is distinct and rooted in a persona, or ēthos, of an individual, and should be respected as such. However, there also needs to be a degree of understanding the environment one is working in and with. The opening quote puts forward this exact dilemma; something which is more often than not quite difficult to bridge, due to its subjective and delicate nature as it relies mostly on the interpretation of other human agents. The quote tells a story of one of previous members of Ons Buiten. They were eager to work on a plot of land that was previously left unattended by an older gardener. Mary told me how, at first, the newcomer seemed quite eager and positively determined to make changes to the garden. However, they soon started to disregard what Mary referred to as the ‘history’ of the garden; the garden was quickly treated as a project idea to showcase the person’s professional background and flash its aesthetics. It was missing the aspect of ‘care’; one which is nested in an individual organically, on its own. One which seamlessly shifts from the inside to the outside. One through which plants are able to gently sprout and grow alongside the gardener. Given Mary’s long experience in both working with gardeners and working with plants, she immediately recognized it and warned caution; a rose carries history – you cannot cut it down.

On the other hand, these distinctions do not always have to be as drastic or dramatic as previously shown. On the contrary, it is exactly through these differences in caring for plants, or disciplining them, that gardeners’ ēthea slowly morphs and shapes into a world of multiplicity; in which they [differences] are able to not only co-exist with one another, but simultaneously exert a new degree of political ecology. By which I refer to the imaginary politics specific to the context of the space-place it encompasses, together with all the actions, hierarchies and modes of engagement between these worlds and agents within them. One which is shared by gardeners to an extent where some practices are taken as a given, even though performed with different subtleties. This topic will be covered in more depth in the next section of this sub-chapter, where I explore various gardening practices and the way in which they shape, as well as give, agency particular and specific for each of the three gardens.

Going back to the topic at hand, I have observed this intricate mixture of caring for the gardens, where the line between harm and care is quite blurry at times. As mentioned in the introductory quote, each garden contains a history – this goes beyond just documentations of who rented the land, how it was used, or what plants were seeded. It also includes *how* the land was upheld: was it trimmed

properly? Was the soil cultivated in a way which would amount to healthy produce? Were the parts cemented? The 'hows' of human interaction with the gardens is of great essence, mainly due to the fact that it both indirectly and directly affects ways in which other Earth beings interact with each other. If, for example, an elderflower that grows in a garden is surrounded by other herbs and spices, chances are that the roots will grow deeper and not get entangled with each other, which would otherwise prove lethal for both plants in question. Another example is covering the freshly planted beds (ground specific for a particular cultivation product) with a dotted net. This is done to provide plants with warmth during harsher weather conditions, while simultaneously protecting them from birds pecking out the newly planted seeds. The reason for the blankets to be dotted is to ensure enough sunlight passes through, thus enabling plants to grow. To illustrate this further, I offer a vignette; one in which I was earnestly humbled whilst working in Groentepark Bontekoe.

The day started off slow. It was quite sunny and warm – a lovely start of the day for a Tuesday morning. As I came to the garden, the rest of the group already started taking notes on what we were meant to work on that day; with J, our garden manager, ever so patiently explaining all the steps and expectations. The moment I stepped into the shared communal space, she switched to English and greeted me with a smile on her face I have gotten used to by now. There was one other gardener in the group I have not recognized before; she was quite rested and eager to work. After short introductions, we decided to work together during the morning. Our task seemed simple at first – plant the beans and cover the beds with dotted blankets. As we made our way to do exactly that, we got caught up in an amazing conversation inspiring personal topics and motivations behind working in Groentepark Bontekoe. I found out about her personal background, her family, career, what motivates her and in return gave the same information. It was a striking connection. After we finished our task, we moved on to to the same on a second bed. Before we could get to it, a rather frustrated sound came through: "Who covered the bean bed? It is all wrong!". We silently went back and re-did our tasks. I have come to realize that gardeners often forget that through working the ground together and help plants grow and blossom, so do too plants support our personal growth. I felt like a child having to le-rean basic steps.

Humility is a researcher's greatest strength. Being comfortable with the unknown and often having to teach yourself practices one so often takes for granted. As seen from the vignette, it is of great importance to cover the beds of gardens. This practice is the same in all three gardens and carries the same set of meanings; protect the plants from weather, protect them from other unwanted spectators, and ensure their growth. And although my fellow gardener and I had a particular way in which we spread the blanket, there are still certain rules to be followed if we want the previously explained set of meanings to manifest accordingly. Another way in which human intervention specifies the behaviour of species in the garden is clearly illustrated in the case of Het Zoete Land in Leiden. I offer two

Figure 8. Wildlife bee hotel in Het Zoete Land

examples (Figures 4 & 5). The former example shows an installation gardeners of Het Zoete Land made possible; a wildlife bee hotel. Around it are planted specific flowers, which come into blossom during spring season, which attract bees. This is done specifically for them to seek shelter in the hotel in the case of not belonging to a colony. The reason for this installation is two-sided. On one hand, it is to ensure the prolonged life of bees, a terribly endangered species which is quite valuable to our eco-system, and on the other, to have a beautiful batch of flowers for the garden and gardeners who harvest them. As bees pollinate the flowers, they grow more abundantly and the seeds are spread across the ground, making way for new batches to be cultivated. The latter figure shows quite a striking, yet innovative way of ensuring safety of animals in Het Zoete Land. It is a web of wooden sticks covering a small pond which is home to insects and frogs. The sticks are used to disable herons from eating the frogs and making a mess of the pond, while at the same time allowing frogs fresh air and light. At times it does not work, as herons break through the sticks. For the most part, however, they give up, making the effort successful.

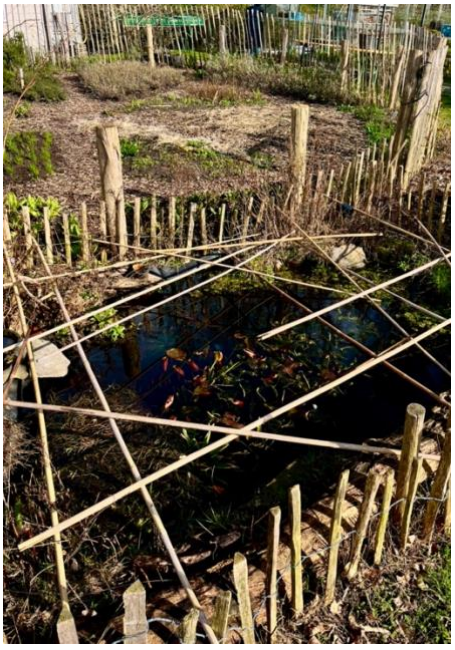

Figure 9. Wooden fence over a pond

As I have shown with previous examples, the level to which humans 'interfere' with gardens' infrastructure highly affects other Earth beings found within. This is also the reason for each garden having a distinct version of the way in which they [other Earth Beings] emerge and their ēthea converge. Where Het Zoete Land places high emphasis on the symbiosis of all species, Groentepark Bontekoe focuses primarily on the well-being of plants and cultivated products. This results in less integration between animals and plants, and mostly focuses on the inter-relations between plants. Another common denominator of each garden is the cultivation plan. All of the community gardens I have visited use the method of rotating crops; this means each season a crop is moved from one place to another. For example, a potato crop, which uses quite a lot of soil and the minerals within it, will be placed on a bed where the flowers were previously planted, which do not use the soil minerals as much, making it fit for produce such as potatoes. This type of cropping ensures the health of soil, but also of plants themselves; for a healthy soil yields capacity for healthy growth. Yet the way in which this is done for each garden, as well as which specific plants are used in gardens, is a subtle yet meaningful difference. Where Groentepark Bontekoe focuses primarily on edible plants, Het Zoete Land and Ons Buiten also include decorative flowers and bushes. As such, each of

these minor differences give breath to a specific way in which a garden grows. I must say, all three gardens are quite striking examples of successful self-sustainable food production. The way in which plants are treated, along with other Earth beings in them, is remarkably gentle and taken greatly into account. And each garden is, through the aforementioned examples and practices, able to give back to gardeners who make all the work happen. What the ground receives, so it warmly gives. It is exactly through these sets of engagements that ēthea is able to converge, and emerge as a product of multiplicity, ultimately authentic and specific to each garden: where Groentepark Bontekoe will produce quite an abundant spread of fruits and vegetables, Ons Buiten provides a plethora of smaller gardens merged into one, and Het Zoete Land lieu of possibilities for harvesting both food and decorations for homes. Furthermore, all of these gardens are accustomed to the ways people interact and intervene with them, specific for each. A heron knows it will be restricted of food in Het Zoete Land. Birds which frequent Groentepark Bontekoe anticipate freshly planted seeds to be out of reach. Frogs and insects look forward to exploring Ons Buiten, particularly a space provided specifically for the wildlife to flourish in it, resembling a miniature swamp. It is through these interactions a way of living is formed, with a clear hierarchy; one specific to each of these worlds, or what de la Cadena & Blaser (2018) refer to as a political ecology. The next section takes a closer look at how gardening and the distinct implementations of disciplining gardens forms an additional world found within the same.

Guiding Nature

As we made our way to the community house where gardeners usually spend time together, someone was trimming their rose bushes. "It might hurt them," Mary meekly reminded me. "But we need to do that. Otherwise, they become too wild. They need to be healthy and not hurt other nearby plants." Discipline; temporary hurt for the greater good of the garden. Before we reached the house, we visited the place next to it where compost and manure were being made. "See, this is very wrong," Mary pointed out in a rather frustrated and agitated tone. "This is not how you pile the soil." She invited me to take a closer look. The pile which was meant for the compost had large pieces of soil coupled together with the weeds of plants. During my gardening work, I have come to learn that this is not good for the compost-making: one wants as less soil present as possible in order for it to be usable later on. "We keep telling this to gardeners, but they don't always listen. I will check who made this later. They need to learn." Discipline, yet again; temporary awkwardness for the greater good of the garden. Once we finally reached the house, Mary started looking for a book to gift me. It was the history of Ons Buiten. It was quite a cosy place, the house. Simple in its layout, with a few tables spread around its dome-shaped living space. On the left side there was a kitchen, crafted with beautiful wooden pieces and flower motifs. Three women were sitting on one of the tables, and Mary took it upon herself to introduce me and my research to them. They were also working as volunteers in Ons Buiten. I was met with welcoming smiles, words of support, and wishes of luck and good fortune in my future steps. As I made my way out and said my goodbyes, I saw a child playing with goats next to the house. One of the goats bit the little girl, and her guardian let out a worried, yet commanding shout in Dutch. But one could not hold the goat responsible for doing what it's supposed to do. A child, despite their innate aptitude for curiosity, was simply taught discipline – for the greater good of learning to live with the natural world.

Growth and discipline lie in two parallel lines; they might never meet or cross each other's path, yet they journey in the same direction. Where there is growth, there has to be discipline. By discipline, as already discussed in my *Operationalization* sub-section, I refer to ways in which an entity is able to become through a process of guidance. This means that the place of becoming is essentially marked both by particular ways in which one chooses to implement the process of guidance, as well as personal interpretations which drive the same. Actions which arise from these choices may not always be seen as 'positive', or something that is enjoyable. On the contrary, guiding can often imply a degree of discomfort and or hurt; if a goat bites a child that interfered in their space, should the goat be held responsible for reacting out of instinct? Or should this be a teaching moment for the kid to better understand how to engage with the world around them, despite their innate curiosity? I argue for the latter. I use this analogy to showcase the second step in which spatiality is able to inform the relationships between Earth beings in community gardens. Through specific ways of engaging and disciplining plants, animals, and people in gardens, a certain ēthos is established. Consequently, it is

exactly through this process that ēthos manifests itself as the well-being of gardens; and by extension, is able to be continuously maintained. By 'well-being' I allude to performance which gardens give assessed by the quality of a) the ability to meet the expectations of gardeners which is specific to each garden and person, and b) different Earth beings being able to converge in shared space. In the previous sub-section of this chapter, I discussed how infrastructure is used to guide animals towards or away from plants. How covering beddings of newly planted seeds is crucial in aiding plants to grow. This is also a way of disciplining. However, this section deals with a form of discipline enacted by people directly onto other Earth beings, by which I also include other humans in the gardens.

Before a garden is able to become and act as a space of shared togetherness, certain backbone needs to be established. Much like in the case of *gurrutu* where, due to its historical practice, people are able to understand where their responsibilities lie and to whom, people in community gardens exercise sets of behavioural modes that give structure in how one is expected to interact with plants, animals, but also other people. The discourse is discussed further in *Chapter 3: Sprouting Communities*. However, it is important to mention this, as this section of the chapter deals with how a well-being of a garden, also known as its ēthea, is both established and maintained. Reason why people and animals are able to understand their responsibilities are through acts of discipline and guidance. The starting point of the process comes from the overseeing boards. Each community garden is a part of an overseeing board which is in charge of providing funds, establishing a communication between garden managers and municipalities, but also in providing a basic structural layout of how a garden is expected to work. This includes behavioural rules, how much land each gardener is able to get (in the case of Ons Buiten), and what a garden needs to provide in terms of produce and social cohesion. The last part is something I have already mentioned in the *Introduction* section; that for each of the three gardens there are certain goals or driving points. These are clearly and transparently displayed on their respective websites. Furthermore, each garden manager was eagerly open in explaining their gardens' goals when in conversation with me or during interviews. These goals are important as they set precedence for guiding newcomers into the workings of gardens. Where Groentepark Bontekoe and Het Zoete Land attend more to ensuring that their volunteers adhere to daily tasks set by garden managers, Ons Buiten focuses on the overall maintenance of its cobbled roads, animal farm and the communal house. The reason for this being that first two gardens work on the principle of providing the local neighbourhood with food sustenance, whereas Ons Buiten works as an independent body of authority; meaning that it is of pertinence that food is successfully planted, maintained, and harvested in the case of Het Zoete Land and Groentepark Bontekoe, ultimately leading to day-to-day tasks performed by gardeners bearing great value.

Apart from the boards, the biggest factor which aids in building gardens' ēthos and a sense of responsibility, is the garden manager. This is not the case for Ons Buiten, as the gardeners there do not engage in gardening jointly, but rather individually. In instances where a unified work is conducted, the previously mentioned board allocates what is to be done. In the case of Het Zoete Land and Groentepark

Bontekoe, things are differently structured. Three garden managers I had a chance of meeting all have the following quality in common: they are resourceful. Given gardens' young nature (they have been around for not even a decade altogether) and dependency on voluntary work, the funds tend to get quite low. Additionally, due to one of the goals being social cohesion, both gardens aim to include whoever wants to willingly participate, regardless of their gardening knowledge and expertise (or lack thereof). This oftentimes leads to a significant portion of cohesion and guidance needed if the gardens are to be successful in what they are able to produce. It is the managers who come up with cultivation plans and execute them accordingly. They welcome new gardeners to their respective networks. They are also the ones in charge of marketing themselves, upholding most of local administrative work (e.g., replying to email correspondence), and maintaining the order amongst their respective people-based communities. As such, the first and foremost form of discipline as a gardener is listening to garden managers. This goes beyond simply agreeing or disagreeing with what tasks of the day are; the way in which a garden manager explains something should be performed, such as weeding the ground, is expected to be replicated in the same way. Especially due to the fact that many gardeners do not possess an actual expertise, outside of catering to their personal households.

The last human-based step in establishing an ēthos of responsibility and discipline is through gardening itself. Regardless of what the expectations for gardeners are, each person is an individual actor, and as such, interprets the 'behavioural rules' or 'gardening rules' in their own way. A great example of this finding is a vignette I offer in the previous sub-section where one of my participants and I performed rather poorly on what was asked of us. We covered the beds using and applying our own logic. Neither one of us had previous experience in covering the beds of newly planted seeds, and so, we tried mimicking the covered beds we observed around us. Although with good intentions, we still did not manage to meet the required task, according to our manager Jo. Whether or not this would have real consequences for the way in which seeds grow, I remain unsure. However, it is not up to a volunteer to question the manager who has more experience; simply through such virtue we were disciplined in adhering to what was asked of us. On quite a distinct note, as provided by the same interlocutor, working under the second manager came with more relaxation. The way she put it was the following: "With this one I *learn* more. With the second, I have *fun*." (Lyla, 19th March). So, it seems that the personal ēthea - or approach - each manager takes does signify quite a difference in the way gardeners approach the practice of gardening, and thus, plants themselves. Indeed, as I have observed and spoken to with other gardeners in Groentepark Bontekoe, the same distinction has been made by many. One experience provides learning with plants, while the other having fun. And both of these approaches are a way of disciplining the gardeners; for if they are able to perform with accuracy and the plants successfully grow, then the job is done. However, given that the main concern of Groentepark Bontekoe remains providing Food Bank Leiden with edible products to be distributed with those lacking in monetary means, it is of essence that such kind of guidance process takes place. This counters the way in which, for example, Ons Buiten aims to discipline their gardeners. Ons Buiten, being an

allotment garden with each gardener renting a piece of land for themselves, enacts the process of overseeing the way in which gardens are maintained much more scarcely. However, by setting up clear expectations of both inter-human behaviour and what *not* to do in one's garden, guidance is put forward. The former part is discussed in the last chapter, *Sprouting Communities*. An example of such restrictions are houses which are situated in most gardens in Ons Buiten. The rule is simple; one may sleep over in a house only once a year, usually encouraged during summer.[21] Another rule is the limitation of fences. Gardeners are allowed to have some kind of a label which clearly marks each person's land. However, applying tall fences is not possible. This is for two reasons; one being that tall fences imply dissonance between people, which goes against establishing social cohesion or unity, important to Ons Buiten. Second is the wish for 'nature', or plants, to be able to spread out on their own, thus providing some degree of agency to them:

"It's very important not to have all those artificial things, but to let nature grow in our community garden, in our allotment garden. And we do not like fences, we do not like the borders. They are so strict." – Mary (January 29th, 2024)

This brings me to my last point; the way in which gardens' ēthea, or well-being, is established and maintained also extends other Earth beings. A part of this was already covered in the previous sub-section. There, I discuss how various methods of infrastructural layouts, such as putting sticks over ponds, highly affects the way in which animals will interact with both each other and plants in gardens. Another additional finding I would like to avert attention to is the level of expectations also placed on other Earth beings. This includes both plants and animals. If the garden is not able to produce the products planted beforehand, new arrangement must be made in order to change this. If a snail still eats the salad meant for gardeners to take home, instead of eating the small batches planted around, then a new system needs to be arranged. Much as the introductory vignette suggests, an animal or a plant is not held to same standards as humans, given that the level of consciousness significantly differs; plants and animals usually act and re-act as they are approached, not as they presumably want to (if such a concept is even true for them). At the same time, the expectation remains the same; and it is through these choices of managing the expectations that plants and animals are disciplined in gardens. Even though Essie, the manager of Het Zoete Land, may not be able to stop snails from wanting to eat salads, she can indeed re-direct them by planting other edible batches for them. If Jo has an issue with birds pecking out the seeds from beds, she cannot dictate them away. She can, however, cover the beds. And if gardeners in Ons Buiten don't want for a plant to overgrow into a neighbor's piece of land, you do not cut it out, or build a large fence. Instead, you trim and prune the plant.

To conclude this chapter, I humbly borrow the words of Bawaka Country & Wright *et.al*., (2016: 469): "*With this in mind, relational place/space takes on a new meaning – place/space becomes author,*

[21] This is because Ons Buiten is not registered as a rental property, but an allotment garden. As such, people are not allowed to use the space as housing.

humans become place/space." As evident from the previous discussions, gardens surpass the conventional idea of what 'space' constitutes; they are far from mere geographical locations in Dutch urban settlements. Rather, they are places of spatiality – of *becoming*. It is through the process of becoming, by which I refer to the merging distinct ēthea of Earth beings by implementing forms of discipline and particular structural layouts, that relations between them are able to be traced, and further maintained. It is through the process of becoming and guidance that each garden is able to perform a degree of agency; for a garden now becomes a set of components, of distinct worlds of ēthea merging together which are together able to create (or fail at) food products and shared communal places. A garden, once a place limited by its own fences, hedges, and inner politics, now becomes 'you' – the gardener, the plant, the ground, and the animal.

Chapter 3: Sprouting Communities

It is through differences we recognize each other's souls. The world of the same is not a representative one, for it does not exist. The way in which we sprout and persist is through shared embodied experiences, each distinctly shaped and intrinsically woven into a greater tapestry of meanings, knowledge, and behaviour making. As we delve into the last chapter, I invite to turn the focus on recognizing these differences; both between individuals and between species.

The following chapter discussed exactly these distinctions. More specifically, in what ways the differences emerge in community gardens, both as subjective thoughts, opinions, and motifs, and as behaviors displayed on the outside. Furthermore, I discuss how these behaviors aid in re-shaping and negotiating relationships between all Earth beings present in the garden. The second stage of analysis concerns the question of ownership and governance in and over community gardens. I use the previously discussed behaviors and their roles in shaping particular hierarchies in and over community gardens. It is important to mention that for the most part, these last findings cover the topic which I was highly limited, both by time and lack of access, in getting sufficient or meaningful data. As such, the questions of internal dynamics, and external influence, especially that which concerns municipalities, is discussed with limited data. Instead of providing finite answers, I offer the following chapter as a way to start reconceptualizing what living with differences, acknowledging them, and utilizing our own means for the gardeners and for the potential future development of community gardens Ons Buiten, Het Zoete Land, and Groentepark Bontekoe. In order to do so, I rely on Seligman's *et.al.,* (2015) concept of learning to live with difference, where the main argument lies in the following; for the community to be able to take shape, one must bounce off of each other's distinctions. These encompass subjective worldviews, displays of behaviour, expression of opinions, and reactions to other people. However, I extend this notion by introducing other Earth beings in the picture. Given a stark difference in biologics between people, animals, and plants, each species not only reacts differently, but also displays their respective ēthos in ways we cannot necessarily perceive in full capacity. What I mean by this is exactly what I have shown and discussed in *Chapter One: Harmonic Entanglements* with the usage of the plantwave device. There, we have seen how plants do exert some sort of reaction to particular stimuli; touch, type of a plant, or their general health and well-being. These reactions are recorded as vibrational frequencies which the device is able to grapple with and transform into pitches. Combined with pre-recorded melodies, these pitches and vibrations now manifest as sounds and melodies. As such, we (people) are bound to constant interpretation of how other Earth beings communicate with us, or simply of their sole existence; perhaps plants exert these frequencies not *to* us, but rather, they simply do. Nevertheless, due to aforementioned distinctions, learning to live with other Earth beings can prove to be quite challenging; we cannot understand what is hurtful for them, or what caters to their well-being. We cannot even fully comprehend ways in which our meaningful counter-beings perceive or negotiate worlds themselves. For this reason, I refrain from including ēthos of other Earth beings as a clearly

defined realm of existence for myself. Rather, I compare and contrast ways in which animals and plants are able to respond to human behaviours; ones which are particularly informed and guided by either other gardeners, garden managers, or rules set in place for each respective garden. In doing so, I am able to analyse to what degree other Earth beings are part of built communities. More importantly, what role do they play in negotiation of relations people enact between themselves.

Behaviour & Governance

I met Lilly for the first time that Thursday. It was quite a beautiful day, seamlessly blending into the early start of spring. I was rather excited to meet the second garden manager of Groentepark Bontekoe. I have never worked with her before, yet I heard only words of praise for how positively she approaches working with plants and gardening. As I made my way to the garden, Lilly greeted me from inside one of the three garden sections. She was still working, and so, I was politely asked to wait before we start our interview. I did just as asked and sat myself down in a shared communal space of the garden; it was the first garden section, back when Groentepark Bontekoe just started their work. Like all three sections, this one is cleverly distinguished from the cemented roads by lines of sapphire hedges enveloping its premises. The entrances are marked by an empty space where the hedge stops in its tracks. Inside this particular section, there stands a large wooden table, situated next to a tree. This table is of quite significance for gardeners; each garden contains a similar structure such as this one, where gardeners are able to sit down during breaks and enjoy some small-talk, food, and spend time together when they are not required to work. After a while, Lilly finally made her way to me. We engaged in an insightful conversation; what prompted her to start gardening in the first place, her previous expertise and experience, and her worldviews regarding non-urban nature, plants, and animals. At some point, she started to describe the community of gardeners in Groentepark Bontekoe. She was stumbling over her words to make a point out of shared unity and an overall sense of peace each gardener adheres to (almost organically). While this was happening, two men crashed into each other with their bikes, just outside of the garden. There came shouting and displeasing exchange of unkind words, and soon after, a conflict broke out. It was mediated by nearby passers. When the whole ordeal ceased to an end, Lilly turned back to me and half-laughingly said: "See? That would never happen here in the gardens!"

Conflict and conflict resolution; two guiding arches interesting for observing what constitutes a community. One of the many things community gardens pride themselves in is the very notion of community. Of shared values regarding non-urban nature, and the importance of working with the same. Of treating animals and plants with the equal amount of care and attention as other people. Unfortunately, however, there always remains residues of conflicts. Although quite a loaded term, often bearing negative connotations, I argue that, as collected through methods of observation, conflict is exactly where differences between people come about. Rather than alluding to conflict dissipating in

community gardens, I propose the following; although prevalent, conflict is particularly guided and maintained in community gardens. This is done by and through collective gardening efforts, by sharing experiences of disciplining plants with groups of people which more or less remain same (as gardening is always done in shifts with specific groups), and by constantly making choices on how to garden, with whom, and what kind of gardening one performs; weeding, planting, covering beds, pruning, and so on. Before I continue with further analysis, I offer one generalized instance in which gardening takes place in community gardens. This specific example is a combination of what I have observed, and participated in myself, in Het Zoete Land and Groentepark Bontekoe.

The first in the garden is the garden manager. First shifts start as early as 9am sharp. A group of gardeners slowly starts coming in. This constitutes anywhere around 6-10 people, including the manager. Greetings are shared shortly. Afterwards, the manager introduces the work which needs to be done; either this week, or today, but usually the former. The manager shows all the tools which are needed for that day, and in the case of seeding, all the available produce gardeners can work with. In the case something drastic has happened, a tool is missing, a shipment of products and soil is delayed, or a personal issue has come up, this is addressed at the very start of the day. If the aforementioned issue somehow poses a threat to productivity of the expected work, then solutions are drawn up by the manager. Next, gardeners are asked to choose which tasks they wish to work on; usually, people tend to go for what they have already encountered and know how to do. In the case they don't, the garden manager demonstrates in front of everybody how to perform the task at hand. For example, when I needed to 'clean' the beds to prepare them for new seeds, Jo used the rake to show me how it's done. In general, you can ask multiple times to for the explanation. However, given that the managers are quite busy themselves, I personally refrained from abusing this option. From what I have seen and observed, people tend to try out the process themselves, often relying on their counterparts for aid in the case they have some doubts or new questions. After choosing what each gardener wants to work on, there the process of immersing yourself in a group starts. For many newcomers, this does not signify much of a difference; after all, it is not like they know other gardeners at this point. Another observation I have both observed and experienced myself, is that there are moments, especially when you are not familiar with the rest yet, where one chooses work which does not preclude talking to others as much. These are often mundane jobs such as weeding the ground. After around hour and a half, the break starts. This lasts for around 30mins. During that time, gardeners enjoy some leisure time at a communal space drinking coffee and sharing food. Often is the case that gardeners bring something themselves; cookies, sweets, and at one point, someone brought a cake due to them celebrating their birthday. At Groentepark Bontekoe, food and drinks are provided by Food Bank Leiden center. The building is 5mins away with a bike. The manager always makes sure to get things for gardeners, and after the break, brings it back. The second shift also extends for an hour and a half, and during that time people continue working on what they initially started with. If someone is finished with their tasks, they do not leave early. Rather, they take up work with another group in need of assistance.

The former paragraph shortly describes, and in very general terms, a depiction of working a 'shift' in gardens of Het Zoete Land and Groentepark Bontekoe. I would like to point out one difference in the way these groups are organized between two gardens. In Het Zoete Land, the groups are predetermined through WhatsApp group chats. People often stick to these schedules. As such, groups are more or less consistent, and one can expect who to find and at what time. This also allows the garden manager to anticipate what work should be done each day, and the level of more experienced volunteers present. In the case of newcomers, Essie tends to focus largely on showing them all the details of the garden work and what is expected of them. This, for example, was quite noticeable when I was asked to not come in on certain days for observation, because the group would consist largely of new volunteers. Alternatively, Groentepark Bontekoe takes a slightly different approach. Everyone is always shown how to do something, even if they have previously done so already. The groups are semi-structured; people also choose their slots over shared WhatsApp group chats but are not strictly expected to show up. However, the norm is to always let one of the managers know in advance if they are coming or not or changing groups.

Figure 10. Gardener planting bean seeds

What the previous example has shown is the following; people actively choose which species and individuals they will engage with. This is mainly to accommodate for feelings of safety, well-being, and subjective preferences. From what I have gathered in my interviews and observations, social interactions do not take priority when people decide to join community gardens. It is mostly about a) garden's initiative and or b) the fact that they want to work with non-urban nature for personally driven reasons. Some examples include inducing their mental health, spending time outdoors, enhancing their skills of gardening, or simply passing time in what they consider to be productive and meaningful manner. As it stands, people then tailor their choices of who they want to spend time with while gardening according to what need they wish to fulfil that day. What is striking in this choosing process is the fact that, if somebody wants to spend time alone, it is not frowned upon. Nobody forces each other to actually participate in social gatherings. Indeed, there is not even an ounce of awkwardness in the air if a particular gardener decides to drink their coffee and eat their snack in the company of none other but themselves. The same analysis stands for interaction with plants. People tend to choose to work with plants which directly fulfil the required and subjective need of the day. I have experienced this event myself; if one wishes to put their mind at ease and simply drift away in their head, they are more likely to choose jobs and tasks which they have either done multiple times already, or which are

repetitive in nature (again, pun most certainly intended). A great, and a quite frequent, example of this is weeding out plants which might potentially harm newly planted seeds, or the soil. This is a task performed with much diligence and requires repetitive work. It is not hard to get a grasp of per se. To be honest, this does depend on the tool a gardener uses; a rake is much more efficient when weeding out the beds which have piles of soil coupled together. If used on ground that's thin, it is both hard to insert it in the soil and control your movement, thus increasing the potential of harming animals living in there and nearby plants. In any case, once you get used to it, it's shows to be a relatively easy job. On the other hand, if gardeners wish to get challenged or do something different, they will go for the seeds.

The second way in which differences emerge and test the degree to which gardeners share their space and work together, is through a set of imposed rules. These rules necessitate how one is supposed to act in the garden. Furthermore, I also refer to rules set by municipalities and or overseeing boards which evaluate if gardens have met their expected goals (as explained to me by one of the volunteers from Groentepark Bontekoe who just so happened to work in one such board). For one, these rules are not written out as policies. This means, each person is explained what is expected of them prior to entering as a volunteer. This differs in the case of Ons Buiten, who conducts a thorough initiation process; gardeners are explained in detail the workings of the garden, rules, and code of conduct. Whether or not they get a written agreement or some kind of a contract, I remain unaware as I was not able to get access to this information. From what I have seen and heard; I would assume so. Nevertheless, the point does remain the same: each gardener, as well as the garden itself, has a certain degree of responsibility to uphold to. For gardeners this includes, but is not limited to, remaining polite and civil towards other gardeners, not cause harm to plants by doing things without garden managers' notice, and to not take products without informing someone beforehand. Not everybody adheres to these rules, however. From what I have observed, the longer people stay in the garden, more likely they are to bend some rules. At the same time, bending rules does not equal breaking them. It is through this thin lens that gardeners negotiate which behaviours to enact and which to refrain from. For gardens, this is much broader. All of this information has been previously shared and discussed and can be found on gardens' websites; each garden has a specific goal to which it works towards. It is against these points, as well as others which I was not able to retrieve in such a short amount of time, that they get evaluated. The issue is, however, that there is a constant thin line against which community gardens thread. Although not likely from what I was able to gather, there always lies an uncertainty of getting funding from municipalities. A paradox, since municipalities do rely on community gardens for local food provision, enhancing biodiversity and sustainability efforts, and advancing social cohesion amongst citizens. The former remains true. A good example of this silent tension is the event which took place at Ons Buiten. As Mary explained it to me, allotment and community gardens are continuously moved to the outskirts to make more space for new building projects and housing. This almost happened to Ons Buiten in Utrecht some years ago; however, due to the joint effort of the local neighbourhood

residents and gardeners, the municipality sustained their efforts. As a retaliation against these efforts, allotment gardens often join communities and unions which encompass gardens at a national and or international level[22]. By doing so, gardens protect themselves from being displaced as they are protected on the basis of interest of the unions and communities.

What this chapter shows is different ways in which people in community gardens, as well as those outside of them, enact certain behaviours which cater to their subjective well-being. Furthermore, these choices are in direct parallel to how relationships are maintained. This goes for both human-human relations, and human-other Earth beings relations. It is through these behaviours and choices, often influenced by rules and tasks given to gardeners, that differences of ēthea come about. However, it is exactly by catering to own individual needs that gardeners tend to continuously shape their relationships to other Earth beings, but also to keep a certain dose of harmony in their shared workspace. On a 'grand scheme of things', this bodes well for gardens too; for unified agreements amongst gardeners set precedence for continuous working of the garden, ultimately increasing chances of successfully cultivating necessary products. Garden managers and boards rely on gardeners to mend these relations and find ways to work in them, despite the prominent contradictory distinctions. As seen from the chapter before, they even managed to do so in regard to relations concerning other Earth beings. The next part of the thesis briefly concludes all the aforementioned discussions posed throughout chapters.

[22] An example of this, as provided by Mary: https://www.kleingarten.de/english

Conclusion

Based on the previous discussions and built arguments, let's turn back to my initial research question:

How does collective gardening in urban environments express relationships which people trace, maintain, and engage in with other Earth beings?

The collective gardening is utilized as a technique through which people trace, maintain, and engage in relations with other Earth beings in three distinct components. For one, it is a form of personal connections, of entangled ēthea between plants and people. This was shown through plantwave exercises; people experiencing plants through a particular mode of engagement, in this case sound, yielded reactions illustrating a relationship which encompasses a continuum of sensorial manifestations. By hearing the plants, not only was the love for plants accentuated, but also affiliations with personal memories, social groups, and ongoing life challenges. Entering a conversation with plants through listening to their vibrations brought out feelings of care which extend beyond the relationship with just the plant in front of them; it is care for their worlds and relationships with other Earth beings present in them. Furthermore, this entanglement of ēthea between plants and people manifests as the act of gardening itself; in which case, regardless of how a person initially feels about a plant, or expresses their care for them, is sometimes in contrast to what is enacted when a gardener disciplines a plant (e.g., hurting them by pruning them). A personal way of acting towards plants is diminished. Instead, focus is put on what is expected of them by the groups they are a part of; either in Ons Buiten, Het Zoete Land or Groentepark Bontekoe. There is a constant conversation between a personal and specific way in which each person gardens, whilst simultaneously keeping to the previously mentioned standards as a way of fitting in and remaining a part of a group. These two categories of engagement show the dependency of humans on plants in a way where such particular forms of care, physical practices, and emotional responses would otherwise not be possible if it were not for: a) ability to listen to plants and b) being able to garden and work with them. On the other hand, plants survival in gardens and at people's homes, as well as their well-being and quality of life, is highly dependent on how the person treats them in return. As such, it is shown that both human and plant ēthos is expanded and simultaneously limited when put in conversation next to one another; the way a plant would grow without human interaction differs with that of enacting discipling methods of gardening. At the sam time, people's subjective and inner emotional processes are susceptible to resurfacing when engaging with plants. Thus, both are influenced by each other's presence, cohesively existing in a newly formed body of existence in community gardens.

Next comes the process of becoming, or spatiality. It emerges as inter-relations between Earth beings change and shift; rather than a physical location, or a fixed moment in time, spatiality includes

a degree of agency enacted by each garden. By this I mean both the agency which has to do with human attributes (i.e., disciplining animal behaviour through implementation of particular infrastructures), but also the agency of the garden as an embodiment of inter-relations of Earth beings. This particular agency is seen through what garden is able to give in return to being taken care of; i.e., cultivated products. It is important to note how food provision and harvesting fruit and vegetable produce is neither extraction nor plants giving by themselves. It is both at the same time. As plants grow, they cultivate a product. Gardeners will take those products, as that was the main purpose of plant's disciplining which took place beforehand. This part is extraction. At the same time, extraction bears negative connotations; it implies something being taken away by force. This is not something I have observed; as gardeners take, they also give back. It is both self-serving / human-serving as it is nature-serving. Taking from the plant in a way that it doesn't kill the plant and ensures its further growth is the key difference between extraction, which implies force and hurt, and symbiosis. In the case of flower cutting, that indeed necessitates flowers' hurt. This process is mainly for human pleasure and education. However, if pruned properly, flowers can grow as long as the weather conditions allow them to. Furthermore, through this process, gardeners teach other harvesters, especially children, how to take care of plants without killing it, whilst potentially still hurting it. It is a beneficial relationship, albeit primary rooted in benefits for humans over plants.

The biggest influencer of this are differences in expectations from each garden; Ons Buiten, an allotment garden, has quite a stark contrast to Het Zoete Land and Groentepark Bontekoe when it comes to inner workings. Ons Buiten is mainly focused on individual gardens which together make up the whole. Het Zoete Land focuses on food provision and decorative flower distribution to harvesters that come during harvesting season. Groentepark Bontekoe focuses on cultivation of products meant for Food Bank Leiden where it later gets distributed to the people lacking sufficient funds for buying them elsewhere. Because of these different expectations and intentions, the inter-relations between Earth beings in each garden also emerge as distinct. The second biggest influencer of these contingencies are the infrastructure of gardens and the level of human intervention in its display. Ons Buiten, the one which has the biggest level of human intervention when it comes to the display of the garden, also seems more tailored-for-humans and structured as a space where humans can easily mingle through. This is exemplified by cobbled streets, signs, fences, marked territories, and garden houses. Het Zoete Land falls in between, whereas Groentepark Bontekoe seems to be the garden which focuses primarily on its tasks and less on the human aesthetic an appeal. For this reason, different types of gardeners join these groups, and as such, different animals frequent each garden / different plants and produce is able to grow. In other words, by enacting spatiality, a becoming of a newly formed ēthea able to emerge through particular forms of guidance and discipline, relations between Earth beings are able to be traced, and further maintained by each of the three gardens. It is also what gives each garden a distinct breath of life; a specific way of operating and relating to gardens, which now surpass the conventional understanding of a geographical location.

Last component concerns the creation of community in community gardens, which can be separated into two main categories for an easier understanding. First comes the immersion of Earth beings, by which I refer to human, animal, and plant kin, through joint labour in the garden. When people work the ground together, there is an unspoken understanding of doing a joined activity with the same goal. In those instances, personal distinctions seem to be at bay and a role of a gardener is assumed; this means working together despite differences otherwise deemed contradictory. A student and an elder will work together. A person with injuries and able-bodied individual will help each other out. Even those that do not speak the same language will find a common one in the ground and amongst plants. At a closer look however, these harmonies are carefully chosen by each gardener as to accommodate their well-being; it is not a given that social unity exists in community gardens simply by the virtue of gardeners just *being*. They also connect with plants in order to, for example, avoid human interactions. As such, it is fair to conclude that plants and gardening assist gardeners in making choices through which they first tailor to their own inner processes of well-being, and second to propel relations with other gardeners. Either to get closer to them or avoid them. Furthermore, plants and animals are equally as affected by these processes of joined labor; their level of growth and survival depends on the quality of execution of gardening. The second component of community building has to do with overseeing boards and municipalities. These are agents which influence the process of entry to the gardens, their monetary means (more funding gets you more assets to work the garden), and land division (more land means more people to join and more produce to be made). These two components are not always seeing eye to eye. A point in case is the previously discussed experience of Ons Buiten where it was almost closed off because the municipality of Utrecht almost displaced the land on which the garden operates. It took a joined effort from gardeners and surrounding neighbourhood to retaliate against this proposition. Although successful in their endeavour, Ons Buiten now has to continuously justify its worth to the municipality. The same goes for Het Zoete Land and Groentepark Bontekoe. These tensions work as instigators of who enters a garden, how big they can get, what exactly gets invested in them, and their future existence. It is both a dependent and inter-dependent relationship; for without community gardens, municipalities lose a significant amount of sustainability efforts, biodiversity of their respective cities, and connection to nature. To prevent this, the spirit of comradery is encouraged and given full attention in community gardens.

For my closing remark, I would like to once again turn to the notion of living with difference. More than anything else, this research has shown how beautiful it is to strive for acknowledging and engaging with the diverse ēthea of Earth beings. Community gardens are particular places which initiate a direct conversation between humans, animals, and plants. They ask us to reconsider how to both show care for our environment, but also for each other, despite potentially conflicting differences. How even the simplest forms of life are able to make us question the actions we take in learning to live and engage with our world. And if it takes as little as growing a garden to initiate a process of inner expansion, imagine what tending to inner love for diversity in all its shapes might bring.

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