



NATURE



NOSTALGIA



GARDENING



PEOPLE



FUNCTIONALITY

GARDEN EXPERIENCE OF THE HARD-TO-REACH GROUP IN SCHUYTGRAAF-ZUID, ARNHEM (NL)

A qualitative analysis & elaboration of the Garden Experience Model using a Thematic Analysis of Interviews and the Elaboration Likelihood Model

DISCLAIMER

This thesis report is written by a student of *Wageningen University and Research* (WUR) as part of her MSc-programme in Communication & Innovation (MCH). It is not an official publication of the WUR, and the content herein does not represent any formal position or representation by the WUR. No part of this publication may be reproduced or distributed in any form or by any means, without the prior consent of any of the people involved in its creation.

TITLE

Garden Experience of Hard-to-reach Groups in Schuytgraaf-Zuid, Arnhem (NL)

COURSE CODE

CPT81336

MASTER PROGRAM

Msc Communication & Innovation (MCH)

AUTHOR

Niamh Bosch (1040451)

SUPERVISORS

Rolien Willmes, teacher & researcher at the Strategic Communication Group (COM, WUR)
Fokke de Jong, researcher at the Climate Resilience Group (WECR, WUR)

DATE

16 March 2025

PREFACE

This thesis is about how the people who are generally hard to reach when it comes to urban greening initiatives experience their own private garden in the neighbourhood Schuytgraaf-Zuid in Arnhem (The Netherlands).

Before starting this thesis, I had only just decided to do a double masters at Wageningen University (WUR), where I combine Environmental Sciences – I already completed the bachelor's Environmental Sciences - with Communication. I strongly believe that most of the environmental issues we are dealing with can be solved through strengthening communication and so involving “normal people” in solving these issues. That is also exactly the reason why I choose to incorporate the Communication aspect in my studies and why I basically started from scratch going into this thesis. Initially I was very enthusiastically and naïve, thinking that I could research the entire range of environmental issues, but gladly my supervisors understood my mission and directed me towards the topic I feel most strongly about.

Although I was warned quite a few times about my decision to follow a double masters as it requires me to write two theses, I really enjoyed doing this research. I actually am almost sad that it is already over while writing this. I learned so much during the entire process, from understanding new social sciences concepts to engaging in social research methods. Above all, this thesis gave me the opportunity to put my knowledge into practice for one of the first times ever. I felt like I was doing something real, something that mattered, and something fun, all at once. And that's partly due to my infectious enthusiastic supervisors.

Major thanks go out to Rolien Willmes, my communication supervisor, for her guidance, patience and enthusiasm. I would also like to express my gratitude to Fokke de Jong, my life sciences supervisor, for his endless ideas and positive outlook. I am also thankful for all the students around me who helped me write this thesis by giving great advice and proofread some parts. Lastly, I'd like to acknowledge the people who helped me brainstorm ideas without being involved in the topic. Thank you all!

Enjoy reading!

Niamh Bosch
Wageningen
25 February 2025

ABSTRACT

The changing climate pressures cities to implement measures like urban greening to become more climate resilient. Especially private gardens play a big role in this as they make up an essential part of urban green all the while not living up to its full greening potential. In the Netherlands, only 36% of private gardens consist of greenery on average. It is hypothesized that this can partly be attributed to the considerable role of the hard-to-reach group who are generally not involved in communication strategies to take climate action. This thesis therefore investigates the link between hard-to-reach groups and urban greening of private gardens in Schuytgraaf-Zuid, Arnhem (NL). Ten semi-structured interviews were conducted with the aim of finding out how the hard-to-reach group experiences their private garden. The model of the 4 modes of occupation as proposed by Stenner et al. (2012) functioned as the starting point. This shows that there are 4 main modes of occupation people assign to their garden: The Naturalistic Mode (nature), The Nostalgic Mode (memories), The Pragmatic Mode (gardening), and The Mimetic Mode (social interactions). The thematic analysis performed on the interviews led to the inclusion of a 5th mode of occupation: the Functionalistic Mode (practical). Overall, The Naturalistic Mode and Functionalistic Mode were most applied, concluding that the interviewees value nature in their garden as long as it is practical. Important recurring themes are related to children, comfort, low maintenance and enjoying the outside.

CONTENTS

PREFACE	3
ABSTRACT	4
CONTENTS	5
INTRODUCTION	7
Hard-to-Reach Groups in Urban Greening	7
The Case of Arnhem: Schuytgraaf-Zuid	7
Societal & Scientific Relevance	8
Structure & Aim	8
CONCEPTUAL FRAMEWORK	9
Garden Experience	9
Stenner's Garden Experience Model	10
Seasonal Variation in Perception	16
Important Functions of a Garden	16
Visual Representation of the GEM	17
CASE-STUDY: DISTRICT IN ARNHEM	18
Case-study Selection	18
METHODS	22
1. Interviews	22
2. Thematic Analysis	24
RESULTS	26
1. Naturalistic Mode	26
2. Nostalgic Mode	35
3. Pragmatic Mode	39
4. Mimetic Mode	46
5. Functionalistic Mode	51
Updated Model Visualisation	60
Seasonal Variation	62
Future Perspective	66
Recurring Topics	68
Garden Experience: Perceived vs Theoretical Mode	71

CONCLUSION	72
DISCUSSION	74
Starting Point: Theory vs Practice	74
Garden Experience: Perceived vs Theoretical Mode	75
The Role of Language	75
House & Garden Type	75
Model Review	75
Limitations	76
Recommendations	76
BIBLIOGRAPHY	77
Introduction	77
Conceptual Framework	78
Case-study	79
Methods	80
Discussion	80
APPENDIX I: CODEBOOK	82
APPENDIX II: INTERVIEW QUESTIONS	88
APPENDIX III: AI STATEMENT	91

INTRODUCTION

Urban greening can provide the first step in moving towards more climate resiliency in cities (Ellerbeck, 2022). Urban areas currently contribute 70% to global CO₂ emissions, so enforcing the already ongoing climate change (UN Environment Programme, n.d). At the same time, they also heavily experience the effects in the form of more frequent extreme weather events (IPCC, 2023). Through adding plants and other types of greenery to the city, its ability to absorb water, reduce heat, and improve air quality creates a more favorable environment within the city (Quaranta, Dorati & Pistocchi, 2021). Urban green exists in many forms, from street trees to green roofs and facades (Schneider et al., 2024). But to fully reach a city's greening potential, it is essential that its citizens play their part too. Private gardens make up for an essential part of urban green (Cameron et al., 2012). Yet, in the Netherlands, on average only 36% of people's private gardens exist of greenery (Deloitte, 2019). That translates to a total greening potential of 1.4 billion square meters or 140 hectares in the Netherlands. It is therefore key to be able to address and involve the people whose private gardens are not sufficiently contributing to urban green to reach the Dutch greening potential.

HARD-TO-REACH GROUPS IN URBAN GREENING

It is hypothesized that the people with a largely paved garden belong to the hard-to-reach group in urban greening communication. Yet current climate communication is mainly targeted towards the groups in society that already care about climate change, a mere 32% in the Netherlands (Gunster, 2017). The hard-to-reach group is not likely to respond to sustainability campaigns, which shows in their approach to their private garden. Although this group is generally difficult to define, for the purpose of this research, this group is described as *those whose private garden exists mostly of paved surfaces*. To be able to reach out to them, a crucial first step is understanding this audience by finding out how they experience their private garden.

THE CASE OF ARNHEM: SCHUYTGRAAF-ZUID

Zooming in on city-level, Arnhem makes for an interesting case. Although the city has already achieved its CO₂ emission targets for 2026 (60% reduction) (Gemeente Arnhem, 2024), there is still a lot to be gained regarding soil sealing. The large number of paved areas in the city cause it to heat up quicker and add to its inability to deal with the consequences of climate change (Ellerbeck, 2022). The Steenbreek Guideline is set up to combat soil sealing in private gardens and measure to what extent they adhere to its proposed optimal situation: a patio the size of maximum 15m² and the rest of the garden for maximum 20% tiled (Stichting Steenbreek et al., 2024; Jak, 2024). In Arnhem, only 10-25% of private gardens adhere to this guideline. This not only shows that Arnhem has a large greening potential, but also that the share of people belonging to the hard-to-reach group is likely significant. Within Arnhem there is a great variety of both people and gardens. The neighbourhood of Schuytgraaf-Zuid is chosen as the neighbourhood of

interest, because it shows high levels of soil sealing while at the same time being advertised as sustainable (Schuytgraaf Arnhem, n.d.). This duality asks for a deeper investigation into the role of people's private gardens in this.

SOCIETAL & SCIENTIFIC RELEVANCE

As currently climate communication is largely aimed at climate conscious groups in society, the need for audience-specific messaging rises (Gunster, 2017; Moser, 2009). Only a few studies address the communication issues that underly the challenge of involving everyone (Moser, 2009; Hampton & Whitmarsh, 2023). Especially hard-to-reach groups in the context of urban greening appear to be a significantly under researched target group. Citizens are most often approached as an entire group without differentiating based on climate engagement. Literature focusses on the policy level (e.g. the relationship between local authorities and citizens) (Romero-Muñoz et al., 2024; Aalbers et al., 2019; Jansen, 2019), developing tools to encourage action for climate adaptation (Weppelman & Patuano, 2024), and the decision-making process underlying citizens' paved private gardens (Grieco et al., 2016). Literature about hard-to-reach groups focusses largely on topics of health issues (Wilkin et al., 2011), social research (Ellard-Gray et al., 2015), and issues of power (McEwen et al., 2022; Uittenbroek et al., 2019) and are often specific to a country other than the Netherlands. Besides, the concept of hard-to-reach groups is context-dependent.

The knowledge gap that thus arises is that of combining the topic of urban greening communication with the target audience of hard-to-reach groups. That is where this thesis comes in, investigating how hard-to-reach groups experience their private garden as a first step to bridge this gap. Understanding this audience is crucial in effectively communicating with them. Arnhem, in particular, can benefit from this research as it provides the first step in improving the city's soil sealing situation, a problem that cannot be solved without the engagement of all citizens. This highlights the societal relevance.

STRUCTURE & AIM

This thesis aims to formulate an answer to the main research question **“How does the hard-to-reach group in Schuytgraaf-Zuid, Arnhem (NL) experience its private garden?”**. A qualitative research method is applied, starting with 10 semi-structured interviews that provide the basis for the Thematic Analysis. A conceptual framework is used to structure the research, distinguishing between 4 modes of occupation people assign to their garden based on the theory on garden experience by Stenner et al. (2012). It is the question whether this framework is in line with what the participants of the interviews experience in their garden or requires an elaboration. The Results section will make this clear, analysing what is said in the interviews using this framework as a basis. The Conclusion section provides the answer to the main research question following from the Results, and the Discussion section dives into the most outstanding findings of this research and places them in a bigger scientific context. Furthermore, this thesis also includes a chapter introducing the case study of Schuytgraaf-Zuid (Arnhem, NL).

CONCEPTUAL FRAMEWORK

This chapter dives into the theory behind garden experience. It establishes a conceptual framework to be used as an initial guide in analysing the garden experiences of interviewees in this research. It also gives an insight into the current state of research in the field of garden experience amongst citizens. As the concept of garden experience is not often connected to the hard-to-reach groups, especially when it comes to the Netherlands, it uses a theory by Stenner et al. (2012) to structure it. This theory originates from the UK and is therefore expected to not entirely explain the situation in the Netherlands. Nevertheless, it provides a good starting point for further research on this topic. After a clarification of the concept of “garden experience”, this chapter is structured according to Stenner’s framework. Then, the floor is given to a few extra aspects of garden experience, namely seasonal variation in perception, and important functions of a garden. The Elaboration Likelihood Model (ELM) is introduced to help explain the concept of garden experience. This chapter is finally summarized by means of a visualisation.

GARDEN EXPERIENCE

Garden experience, in this thesis, refers to the feelings that arise when a person finds themselves in a garden, combined with how he or she sees the world around them. The definition by Merriam-Webster gives a clear insight into the concept of experiencing: “to come to a knowledge of (something) by living through it” (Merriam-Webster, 2025). The Cambridge Dictionary adds to this by saying “If you experience something, it happens to you, or you feel it” (Cambridge Dictionary, 2025). Coupling both these definitions to gardens leads to the conclusion that everything a person does in their garden shapes their experience of it. It is the past experiences that determine how a person perceives a place, which can lead to differences in perception between people (Ribeiro, 2023). And that exact difference is what adds value to this concept. Garden experience is thus a totality of the elements once experienced before by a single individual, be it in that exact garden or in other gardens. The result of this is the overall formation of an idea of a garden, both informed by feelings and cognitive processes that are linked to experiences in the past. Translating this to “normal people”, garden experience is the totality of the most important aspects of a garden to that person, a combination of what people say they add most value to in their garden and what they between the lines do.

To motivate different groups in society it is important to tailor the message to resonate with the intended audience, avoiding a “one speech for all” and considering different levels of knowledge and awareness (Andrade, 2024). Communication with a specific audience is considered effective when this audience’s needs and unique characteristics are taken into account (Bourne, 2016). Experience provides a first insight in this as it shows how the audience sees the world and what they pay most attention to. This frames how information is preferably received and how it is interpreted. Linking this to a dual process theory, like the Elaboration Likelihood Model (ELM), is especially powerful. It is believed that when we understand how gardens are experienced, and how choices take

form following either of the two ways of processing information, we understand what input people use to make decisions. Once this is known, messages can be shaped to respond to this, leading to more targeted communication and a higher likelihood of resulting in adoption of a pro-environmental approach in the garden.

Dual Process Theory: Elaboration Likelihood Model

An example of a dual process theory is the Elaboration Likelihood Model (ELM) first introduced by Petty & Cacioppo (1986). This model suggests that there are 2 routes to persuasion: the central and the peripheral route. The person's motivation and ability determine their elaboration likelihood – the likelihood of cognitive effort being used to understand and process messages (Kitchen et al., 2014). This, in turn, determines which of the two routes is going to be used by that person in a specific context. In case of a high elaboration likelihood – a person is eager to think about a topic more elaborately – the central route is being used for information processing. Whereas a low elaboration likelihood leads to processing via the peripheral route.

The central route to attitude change is characterised by the careful consideration of information, evaluating arguments and weighing pros and cons (Petty & Cacioppo, 1984). The person is in this case motivated to elaborately think about the information he/she receives. Attitude change will therefore occur in the direction of the advocacy.

Via the peripheral route attitude change occurs through the presence of cues. These can be in the form of a positive experience, but also any other link to emotions. This route is thus rather intuitive, making decisions based on likes and dislikes for example.

STENNER'S GARDEN EXPERIENCE MODEL

Although gardens are shown to have an important value to people and could provide a lot of beneficial functions, people experience their gardens in very different ways (Cameron et al., 2012). To analyse how Hard-to-Reach groups experience their gardens, a framework has been established as starting point. This conceptual framework is largely based on the findings by Stenner et al. (2012), who investigated how “ordinary people” experience the concept of human-landscape relations. It is one of the first and only papers linking the topic of private gardens to garden experience amongst “ordinary people”. Scientific literature in this domain is more often directed towards the experience of gardening as an activity (Evans et al., 2016; Unruh & Hutchinson, 2011), human health benefits (Owen, 1994), other types of gardens (e.g. school (Blair, 2008), urban/community gardens (Partalidou & Anthopoulou, 2015)), or other target groups (e.g. patients (Hsieh et al., 2021), visitors (Connell & Meyer, 2004)).

The theory by Stenner et al. (2012) is based on two important pillars: introducing a new theory to describe and understand human-landscape relations between ordinary people and private gardens and, secondly, applying this theory to qualitative data on everyday experiences of private gardens in the UK. Above all, the theory aimed to find out what people find most important about their garden experiences and how they used language

to express this. They used a nationwide archive in which the thoughts, feelings, memories and activities of people all around the UK are recorded and stored: the Mass Observation Archive (MO). The results should therefore resemble the population of the UK, and the analysis represents an overview of the garden experiences of “ordinary people” in the UK. The data is categorized based on the recurring themes in the types of occupation people assign to their gardens.

The analysis by Stenner et al. (2012) resulted in four distinct modes of occupation people assign to their private gardens when discussing their garden experiences. These, in short, include the garden as a representation of nature (Naturalistic Mode), the garden as a basis for memory and nostalgia (Nostalgic Mode), the garden as place to perform gardening activities (Pragmatic Mode), and the garden as setting for social interactions (Mimetic Mode). A more detailed elaboration of each mode is presented in this chapter, extended with relevant studies that underpin the findings by Stenner et al. (2012).

1. The Naturalistic Mode (NAT)

The naturalistic mode is used when people refer to their garden as a representation of nature, putting the word “being there” central (we occupy the garden) (Stenner et al., 2012). The garden can provide quasi-spiritual experiences, emphasising the (great) importance of the garden or place to the person. The naturalistic mode is thus largely defined by the outer sensory observations that are central.

The naturalistic mode is supported by The Naturalistic Theory of Perception by the Senses as described in a study by Dewey (1925). He explains that through sensory perception of the outer world, we can gain a thorough understanding of the world. Our senses do not only teach us the particular functions of different organic structures, but also the intricate processes that are linked to this. Examples of such processes are colour blindness and other aspects related to the functioning of the eye, and the contribution of the nervous system to the sensory experience. He also emphasises that sensing is a rather subjective activity and thus the qualities of objects that are sensed are not necessarily true. Yet, Dewey underlines that the sensory nature of perception is characteristic for the naturalistic point of view. There are even cases in which the situation can only be described and understood using the senses (and not the object it concerns), e.g. water making the objects look bent or the change in sound when an ambulance (or other source of sound) passes. It is that exactly that shows the great importance of using the senses in the naturalistic mode. Besides the senses, the element of contrast is also mentioned in Dewey’s study. As with the examples of sensory processes, a clear distinction is made between the “object” and the “sensation”.

Contrasts

The naturalistic mode centralizes the concept of Contrast (Stenner et al., 2012). For example, a garden can be perceived as a beautiful natural place that is in contrast with the awful things happening in the world. Besides, people can see their garden as a space to get away from daily life, from busy routines and crowded places and so find pleasure

and solitude. This way, the naturalistic mode can be seen as the opposite of the mimetic mode as people withdraw themselves from busy social situations rather than engage themselves in them.

Quasi-Spiritual Experiences

The pleasure people experience in their garden relates to the mysteriousness of the universe. It is thought that through a garden people gain access to understanding the bigger picture of the universe and slightly uncovering its mysteries. In a way, nature is seen as a force that is beyond our power or understanding. The garden stimulates thinking about nature's processes and its interconnectedness and so provokes the feeling of being part of a bigger whole.

Connected to this, a study by Bhatti et al. (2008) puts emphasis on enchanting encounters within someone's private garden. These enchanting encounters relate to three themes of everyday life: the sensory side to gardening practices based on touch experiences (also known as haptic perception), cultivation or caring for the garden and people, and emotional attachment. All three of which are considered important aspects of the naturalistic mode.

Sensory Perception

Humans do not only experience the world around them with their vision, but with other senses as well (Eriksson, 2023). The naturalistic mode thus puts important emphasis on sensory perception (Stenner et al., 2012). The strong link between people and nature is experienced through aesthetics (vision), sounds (hearing), different materials (touch), cultivation of edibles (taste), and smells (smell). These are often described as unexplained and so encourage wonderment of the natural scene. Yet, garden designs are often not aimed at incorporating sensory experiences of all kinds and limited to the visual sense predominantly (Lambe, 1995).

Sound - Auditory Stimuli

When it comes to hearing in the garden, it often translates to the concept of "soundscape", the collections of sounds with a complex underlying explanation forming the totality of what a person can hear in their garden (Grinfeder et al., 2022). Zhao et al. (2020) found that the soundscape highly affects how people experience their garden. There is a link between the soundscape and the characteristics of the garden as well as the timing of activities. The noise level differs strongly depending on the time of day it was measured. A perceived higher level of loudness is associated with a lower level of favourability of the area, while the favourability increases with more coordination between the landscape and soundscape. The soundscape can be categorised into three distinct aspects:

- ♣ natural sounds: birdsong, leaf movements, wind, and water sounds
- ♣ human sounds: conversation, play, peddling, and entertainment activities
- ♣ artificial sounds: traffic, construction, entertainment equipment sounds

Residents showed a strong preference for natural sounds and generally disliked the sounds of traffic the most. The same distinguishment of sound types is made by Bian et al. (2022) who looked into the seasonal and diurnal variation in the soundscape. They found that nature sounds are mostly related to the rhythms of birds and insects, contradicting the daily fluctuations in sounds as produced by human activity. Mechanical sounds do not show clear temporal patterns.

Smell - Olfactory Stimuli

The element of smell is often described in literature as “smellscape”, which refers to the holistic odour experience of a place (Pálsdóttir et al., 2023). Hedblom et al (2019) emphasise the importance of considering and integrating the olfactory part of perception. Olfactory stimuli - and to some extent auditory stimuli - have proven to be more effective in reducing stress compared to visual stimuli, which currently receive the most attention from urban planners. This indicates the need to also include other senses in the design of (urban) green. Pálsdóttir et al (2021) also show a positive connection between nature smells (such as herbs, flowers, fruits, wood etc.) and perceived pleasantness and feelings of calmness and happiness. On top of that, the olfactory stimuli proved to increase the feeling of connectedness with nature.

A strong distinction is made between natural and unnatural scents (Pálsdóttir et al, 2021). The latter are artificial smells that are considered unpleasant and sharp and generally evoke negative emotions. Even though natural scents are usually preferred, they can also give rise to negative associations, especially in the case of allergies or simply a dislike for a certain smell (e.g. a flower scent that is too strong).

Sight - Visual Stimuli

The visual aspect is perhaps the most prominent part of a garden design (Hedblom et al., 2019). It often gets the overhand of all senses even though the combination of the senses is what truly supports garden perception. One of the first things most people notice about a garden are the colours and shapes of everything (Thrive, n.d.a.). Still, sight is a subjective thing. Where some people like organised, calming gardens, others are more drawn to wild gardens. This preference can also be linked to memories, therefore being part of the mimetic mode as well. Great aesthetics can have an effect of enjoyment or relaxation for people simply by observing the surroundings. The most important elements of sight are colour, texture (visual), shape, movement, and light.

Touch - Tactile Stimuli

Although the sense of touch is talked about less in the context of gardens, it is proven to be the sense which is least susceptible to deception and thus most trustworthy (Tuan, 2020). In the world around us, our hands provide a tool to get to know more about an object by picking it up and examining its form, size, weight and texture. The urge to touch things is clearly visible in everyday life - young children are a great example - and arises when we are interested by an object and want to understand it (Thrive, n.d.c.). The information processing through touch occurs in 2 steps: the sensory part that determines

the facts describing the object such as temperature and texture, after which the emotional or social meaning behind the act is discovered. Touch is therefore mainly related to the variety of materials in a garden. The other way around, the physical environment we find ourselves part of feels tactile even though we only actually touch a small part of it (Tuan, 2020).

Taste - Edible Stimuli

The sense of taste in a person's private garden can be somewhat more abstract as a person is not sensing its garden straight away like is the case for touch. Yet, indirectly, through growing your own food, it is an essential part of garden perception (Thrive, n.d.b.). A kitchen garden full of edible plants, flowers, herbs, fruits, and vegetables can therefore already contribute to this type of sense. Even outside harvest seasons, the sense of taste can be incorporated into the garden as there are plants that can be harvested at other times of the year and herbs that can be grown year-round. Besides, growing your own food can bring about feelings of joy, calmness, and connectedness.

2. The Nostalgic Mode (NOS)

The nostalgic mode concerns the memories and self-reflection a garden provides (the garden occupies us) (Stenner et al., 2012). The attention is directed inwards - to a person's self-reflection linked to their memories - in this mode rather than outwards - to the whole of the natural world - in the naturalistic mode. It is about what's (or rather who's) absent more than what's present. Elements in a garden, for example, can function as a representation of a loved one from the past or present. Thus, gardening provides a tool to keep those memories and relationships alive - whether the people linked to them are deceased or not.

Memories of People-in-Gardens Situations

The memories a garden evokes are often memories of gardens or people-in-gardens situations. These, again, are strongly linked to sensory incentives. For example, a particular smell can bring you back to a certain time, place or person. The same goes for activities: potatoes can remind you of the happiness with which a loved one dug them out of the garden, or the plants remind you of the person you learned their names from. Yet, there are many more ways in which this recalling of memories in the garden can occur. It is the inner contemplations that define this mode.

According to Hanson et al. (2021), some people even use nostalgia and memories as a source of inspiration for their own gardens. They mainly refer to childhood garden experiences, which led them to make certain decisions in their own garden.

Nostalgic Return

Hewer (2003) adds to this idea by saying that the garden can feed the desire of a Nostalgic Return through its ability to offer an escape attempt. In other words, the representations of the past which are present in the garden, and its promise to offer a paradise or sanctuary completely free of the everyday situation can give a person the ability to escape

to the past. The past, in this case, is defined as the times when everything was better, evoking feelings of safety amongst others.

The naturalistic & nostalgic mode together form the so-called two-fold unity: we occupy the garden and the garden occupies us.

3. The Pragmatic Mode (PRA)

The pragmatic mode is based on the perception that the garden is a workable space where tasks and activities are part of the gardening practices, referring to it as some sort of profession (Stenner et al., 2012). This mode is therefore oriented towards the actions within a garden. It emphasises the pleasures and pains one can experience while performing gardening activities such as weeding, planting, mowing, building etc. Where some people perceive gardening as an enjoyable activity, others might not.

Pleasures of Gardening

The pleasures of gardening are explained by enjoying the feeling of your hands in the dirt or mixing with the earth in other ways. Although it is often hard work, people look forward to this physical engagement with the garden. It can even have therapeutic meanings for a lot of people or evoke feelings of satisfaction as one gets great honour of their work. It can even be linked to a sense of freedom (Hanson et al., 2021). Through gardening, a person's own life story can be aligned with the story of the garden, resembling intimate relationships (Stenner et al., 2012).

Pains of Gardening

The pains of gardening can come from enjoyable experiences in the past that are hindered by the physical health of people (e.g. not being able to perform gardening practices due to old age for example). On top of that, Bhatti et al. (2008) mention that garden work can easily become one of the many chores of life or can be contradictory and frustrating.

This mode thus shows a duality. Where some people perceive their garden as an important part of life, others might perceive it simply as a parking spot or as one of the many chores of life (Cameron et al., 2012).

4. The Mimetic Mode (MIM)

In the mimetic mode the garden is seen as a possession which can function as a space for social interactions (Stenner et al., 2012). It is thus a populated garden, the opposite of the quiet garden in the naturalistic mode. Yet, in line with the populated garden of the nostalgic mode, albeit on a more present level. The garden in the mimetic mode can be full of stresses and conflicts, which the pragmatic mode tries to solve.

In the mimetic mode, the garden is perceived as a place for social interactions, but more extremely, can be interpreted as a territory or trophy which is subject to social dynamics such as conflicts and relations of power. For this mode to outshine the others, people focus on the social interactions and the issues of ownership, making the other modes,

albeit still relevant, move to the background. Thus, it is not the garden but rather the other people that occupy us in this mode. It is the interpersonal issues that are considered more important than the actual garden itself, which is more of a setting for which the issues are relevant. It is the perceived feelings, desires and experiences of others that moves us to make certain decisions within the garden.

The study by Hanson et al. (2021) even showed that this is (by far) the most mentioned aspect of a garden, with all respondents referring to social bonds such as “small talk with neighbours over the hedge, barbeques with friends and family, and children activities”. It is therefore expected that this mode will also play a big role in the interviews for this research.

SEASONAL VARIATION IN PERCEPTION

What Pálsdóttir et al (2021) rightfully point out is that there is a variation in garden or nature perception across the seasons. The participants of this study reported differences in smells depending on the time of year. For example, during the winter, the most prominent smells were those of the plants in the greenhouse as they were not able to have a sensory experience of plants outdoors. Thrive (n.d.b.) supplements this with the notion that taste is also not consistent throughout the seasons, because even though food can be grown and harvested year-round every food has its own harvesting period. That means that in the winter other vegetables are available than in the summer. When it comes to sounds, Bian et al. (2022) found that a seasonal variation in the soundscape is linked to the natural rhythms of birds and insects. Insects, for example, contributed most in the summer season while the acoustic activity of birds is highest in spring and autumn. Human contribution to the soundscape is generally not in harmony with nature sounds, and mechanical sounds show no significant temporal pattern. Lastly, with the annual patterns in plant growth, both sight and touch change accordingly (Li et al., 2019). For example, during winter a lot of plants lose their colours, and the dry leaves feel different in your hands than the green leaves in summer.

IMPORTANT FUNCTIONS OF A GARDEN

Looking at the function of a garden on a smaller level, distinguishing the aspects of a garden that people perceive as important may underly the understanding of the modes discussed below. Bhatti & Church (2004), for example, investigated the role a garden can play in a home and concluded that it is often perceived as an integral part of the home. The most important meanings participants in this study attributed to their garden are “‘privacy’ (71 per cent), ‘makes a house a home’, ‘getting away from it all’ (70 per cent) and ‘a place to relax’ (75 per cent)” (Bhatti & Church, 2004). These mainly relate to the naturalistic or mimetic mode (depending on how privacy is interpreted).

Hanson et al. (2021) found that the functions that were most often attributed to the private garden include, in order of most to least important: social bonds (MIM), recreation (NAT/FUN/MIM), nature experiences (NAT), relaxation (NAT/PRA), sense of place (NAT),

physical activity (PRA), aesthetic appreciation (NAT/FUN), cultivation of edibles (PRA), and learning and education (NAT). Only one person in this study showed an interest in the biodiversity quality of a garden, while others only did indirectly through emphasising the importance of aesthetic for example. That also shows that taking care of the garden is for most people not the first priority and that garden owners perceive their garden mainly as contributing to feelings or simply providing space for activities.

VISUAL REPRESENTATION OF THE GEM

The GEM, short for Garden Experience Model, is a summary of all aspects mentioned above. Visualising this results in the model presented in Figure 1 below.

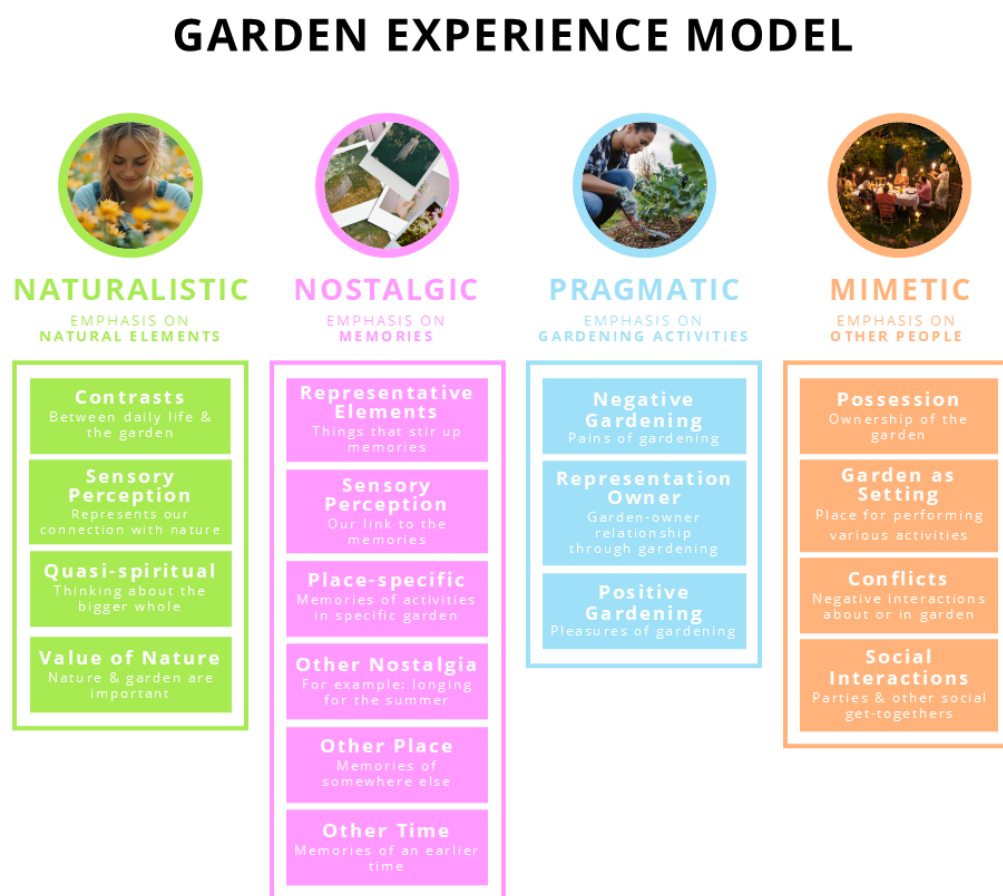


Figure 1: The Garden Experience Model based on the theory in the Conceptual Framework. The order of the subcodes is random. The order of the modes is based on the order in the Conceptual Framework.

CASE-STUDY: DISTRICT IN ARNHEM

The definition of hard-to-reach groups in climate change issues translates into a case-specific target group for the city of Arnhem. Given that the diversity of people living in a city is significant, focussing on a specific part of that city might decrease the spectrum of differences. For this thesis, the focus will be on the smallest city part: neighbourhoods. Considering, however, that the population in a specific neighbourhood is rather small, the selection requirement of participants focusses solely on people living in this part of town and owning a private garden to find enough participants for the interviews. This assumes that people who are hard to reach in issues around climate change translate that perspective into the choices they make in the design of their private gardens, which is reflected in the number and size of paved surfaces applied in the garden. In other words, selecting people solely based on soil sealing percentages is considered acceptable.

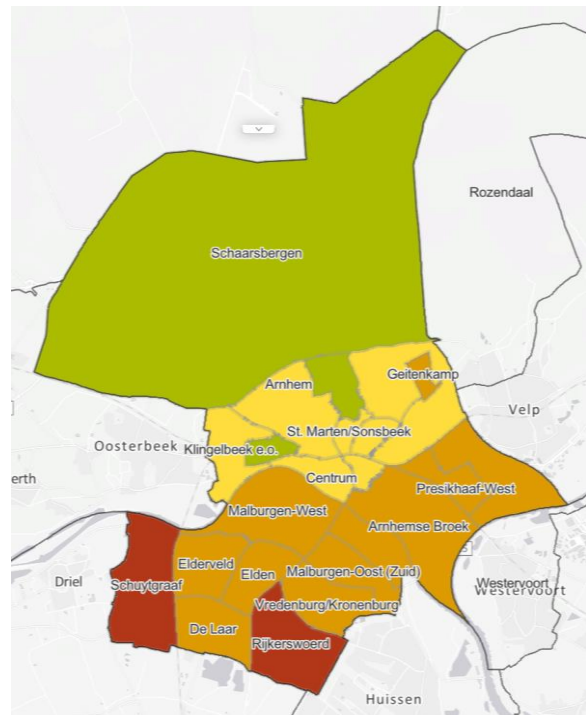


Figure 2: Map of Arnhem's districts (Stichting Steenbreek et al., 2024).

CASE-STUDY SELECTION

The different districts of Arnhem are shown in the map in Figure 2 (Stichting Steenbreek et al., 2024). To determine the most suitable neighbourhood for the case study, first a distinguishment is made between the Northern and Southern parts of Arnhem, after which the district with the most soil sealing is picked. Within this district, a selection of the most fitting neighbourhood is made based on soil sealing levels and the types of houses (with/without garden).

1. Geomorphology & Soil Types of Arnhem

Selection of a suitable case study within Arnhem requires an investigation into the geomorphology and soil types of the area to find out how prone the area is to climate change (European Environment Agency, 2023). The maps below (Figure 3) show this type of information respectively (BROloket, 2023). As in Arnhem the river Rhine functions as the border between the Northern and Southern parts of Arnhem, it can be deduced from the maps that these areas have rather different characteristics. On map 3a, the Southern part is clearly green-coloured, meaning that it is rather plain, with only small height differences and occasional excavated areas, and ponds (grey) or dumps (pink). This part

is largely defined by the river. In map 3b, the Southern part is again green-coloured, showing that this area is characterized by clay soils, with embankments and mounds to protect the area from high water levels. The centre of Arnhem shows to have large amounts of built terrain. Northern areas are represented in the opposite colours. Where clay soils characterize Arnhem-South, Arnhem-North is built largely on sandy (and loamy) soils. It is created during an ice age, leading to moraines (or hills) that cause the landscape to have greater height differences (BROloket, 2023; Mijn Gelderland, n.d.).

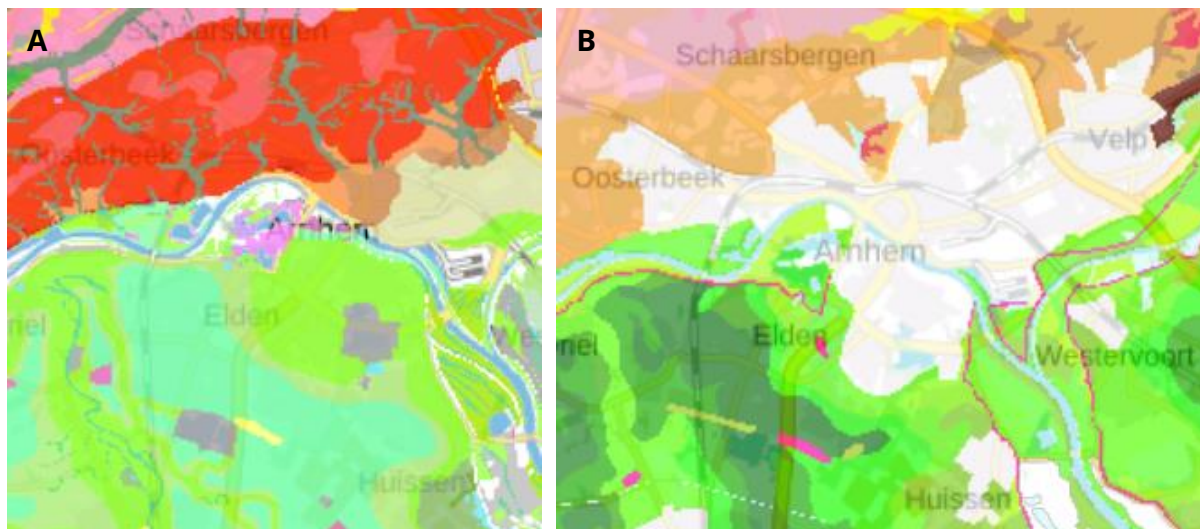


Figure 3: Geomorphology (a) and soil types (b) of Arnhem (BROloket, 2023). Arnhem-North is the part above the Rhine, Arnhem-South the part below.

Low-lying areas are more prone to climate change impacts such as extreme rainfall and the subsequent flooding due to their location beneath or at sea level and their soil type (clay) and geomorphological characteristics (Lo, 2022). Therefore, the Southern part of Arnhem is considered more suitable as a case study for this thesis.

2. Soil Sealing per District

The Steenbreek IVN Atlas (Stichting Steenbreek et al., 2024) gives insight into the levels of soil sealing in citizens' private gardens in the different districts and neighbourhoods in Arnhem. This Atlas is based on five aspects (Jak, 2024):

- **Steenbreek guideline.** Based on the 15-20 principle, 15m² of a person's private garden is allowed to be paved, the other part can only be paved for 20%. A garden complies with this guideline if it has less than this amount of area paved.
- **Soil sealing level.** The percentage of public space that is paved. Generally, this is for public space, but the Atlas adds the percentage for private space as well.
- **3-30-300 rule.** This is a rule based on the relationship between human health and greenery in the surrounding. The 3 refers to the number of trees that one should be able to see from their home. The 30 stands for 30% of tree canopy cover that is required within a radius of 500m from a house. This weighs heavier than the other two rules. Lastly, a house should be within 300m from a park.

- **Heat risk.** Based on the surface temperature, the heat risk is determined, with a higher surface temperature leading to a greater heat risk in the future.
- **SES-score.** This number shows how a certain area performs in relation to other areas. Generally, for the Netherlands, the average SES-score is 0. A higher score correlates with a higher level of education, higher income or longer working time (Centraal Bureau voor de Statistiek, n.d.).

The maps in Figure 4 show the districts' scores on the 3-30-300 rule (a), soil sealing (b), the Steenbreek rule (c), and the heat risk (d) respectively. Schuytgraaf stands out as one of the districts in the Southern part of Arnhem that perform the poorest on all these aspects. This district meets the Steenbreek guidelines in only 7% of the cases, private gardens are for 58.2% paved, it scores bad on the 3-30-300 rule, and there is a risk of severe heat stress in the future. Taken together, this district has one of the lowest scores of all districts in Arnhem, especially of the Southern part. That makes Schuytgraaf an interesting district to look into further.

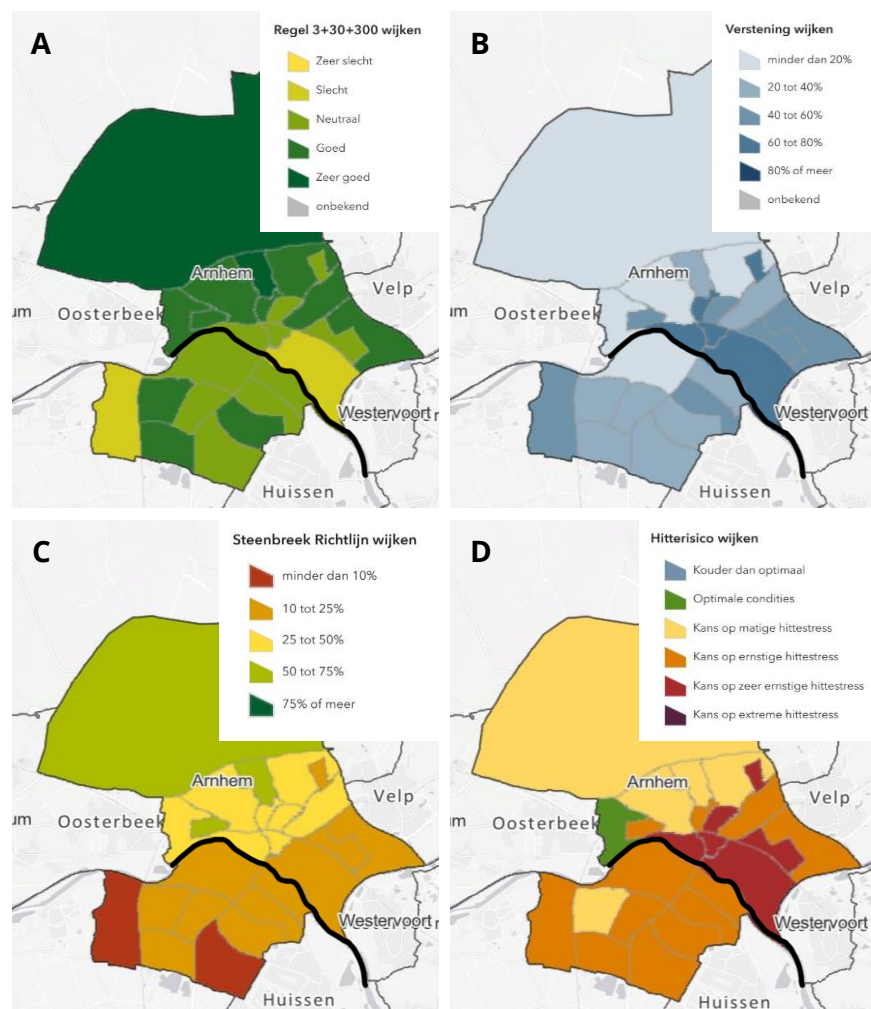


Figure 4: Maps showing the districts in Arnhem and how they score based on the 3-30-300 rule, soil sealing, the Steenbreek Richtlijn, and heat risk (Stichting Steenbreek et al., 2024).

3. Schuytgraaf as District of Interest

This finding is particularly strange knowing that Schuytgraaf is almost always being advertised as sustainable (Schuytgraaf Arnhem, n.d.). The construction of buildings happens environmentally conscious, there are only trolleybuses, the district is completely gas-free and connected to the district heating system. On top of that, the management of greenery and water plays a big role in the district's sustainability. It is also advertised that Schuytgraaf is surrounded by beautiful nature areas. The discrepancy between the way Schuytgraaf is drawn up and the data the Steenbreek Atlas shows is what makes Schuytgraaf an interesting district to focus on in this thesis.

4. Schuytgraaf-Zuid as Neighbourhood of Interest

Yet, within a district there remains to be a great diversity of people. Therefore, focusing on an even smaller level - neighbourhoods - might provide more information on the choices people make in their gardens. Schuytgraaf is divided into three distinct neighbourhoods: Schuytgraaf-Noord, Schuytgraaf-Centrum, and Schuytgraaf-Zuid. The map in Figure 5 shows these neighbourhoods including their level of soil sealing (Stichting Steenbreek et al., 2024). In the Southern and Centre part of the district, 40-60% of the soil is sealed. Yet, the type of housing differs between Schuytgraaf-Centrum, where a lot of flats and small houses are located, and Schuytgraaf-Zuid, where a lot of bigger houses are. Schuytgraaf-Centrum is also less densely populated (AlleCijfers, 2024a). Therefore, this thesis will use the neighbourhood Schuytgraaf-Zuid as a case study.

According to the IVN Steenbreek Atlas, Schuytgraaf-Zuid only complies with the Steenbreek guidelines in 4,87% of the time (Stichting Steenbreek et al., 2024). Private gardens are for 66,7% paved, whereas the soil sealing in public spaces is 46,87%. The neighbourhood also scores badly on the 3-30-300 rule, with only 2 trees in sight and 11% tree canopy cover. The average temperature of the surface is 37,9°C. The neighbourhood scores a 0,43 on their SES.

On a less technical level, the neighbourhood Schuytgraaf-Zuid has 6025 citizens (3000 male) and 2102 homes of which 72% is owner-occupied and 87% is a single-family home (AlleCijfers, 2024b). The houses are all built after 2000. Only 15,4% are apartments, which leads to the assumption that the other part of the homes in this neighbourhood all own a garden. Regarding the inhabitants, 1545 people are between the ages of 45 and 65, and 385 older than 65, resulting in a relevant target group of 1930 people. 50,2% is highly educated, and 18,8% low. The public spaces are generally maintained by the municipality.

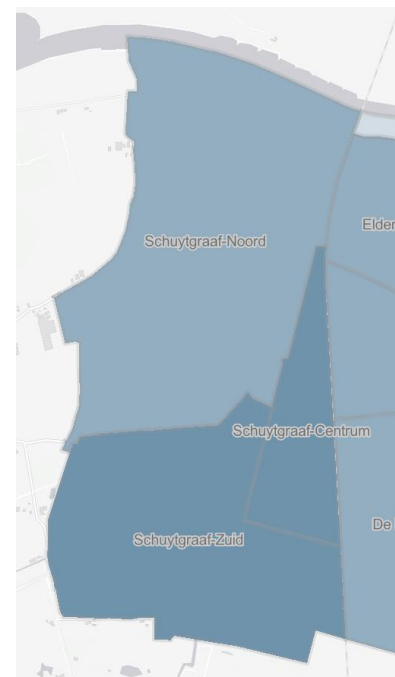


Figure 5: The district of Schuytgraaf in Arnhem divided into neighbourhoods. Darker blue means more soil sealing (Stichting Steenbreek et al., 2024).

METHODS

This master thesis is focused on finding an answer to the main research question: **How does the hard-to-reach group in Schuytgraaf-Zuid, Arnhem (NL) experience its private garden?** To do so, a total of 10 semi-structured interviews were conducted amongst people that meet the criteria of the hard-to-reach group in this study. These interviews functioned as a basis for the Thematic Analysis performed in the next step. The Conceptual Framework structured this by categorizing what the interviewees say into the 4 different modes of occupation, while leaving room for new emerging themes. These methods are explained in detail below, following a chronological order.

1. INTERVIEWS

As a first step in this thesis, ten interviews were conducted. Interviews are a qualitative data collection method that allow the interviewees to explain their point of view in more detail (Knott et al., 2022). It can give insights into the experiences of others, showing how they view and understand the world. Due to the relatively casual setup, an interview can reflect real-life conversations and so can feel familiar. Only in an interview the questions are pre-determined and primarily asked by the interviewer, slightly steering the conversation to a specific goal. As the nature of this thesis is exploratory, aiming to find out what guides people's decisions, the interviews were semi-structured (George, 2023). It gives the flexibility needed for understanding the individual choices and situations of the interviewees. It is about understanding what is important for the people who are often not involved in urban greening, for how to address them in future communication strategies (McEwen et al., 2022).

1.1. Designing the Interview Questions

The interview questions were designed to be stimulating conversation, unambiguous, neutral and without bias, flexible and not in a yes/no format (George, 2023). Considering this thesis is aimed at talking about a topic that is likely not on the top of the minds of the participants, questions have been designed to not directly ask for how they experience their garden. Rather, the questions were phrased in such a way that they are easy to answer by the participants yet also give enough input for the research to deduce important things. They were formulated in Dutch and scientific words or advice were avoided as much as possible. The interview guide is added as an appendix ([Appendix 2](#)).

1.2. Sampling & Recruiting

The target group was defined as *those whose private garden exists mostly of paved surfaces*, to make the recruitment process slightly easier. Participants were selected based on their front garden. The requirement being that they own a front garden which is almost entirely made up of tiles or other impermeable materials in the neighbourhood of Schuytgraaf-Zuid in Arnhem. As the research is of qualitative nature, participants were gathered by the method of non-probability sampling (McCombes, 2023). Recruiting occurs according to the convenience sampling method in which people are selected based on accessibility

to the researcher: people that are thought to belong to the target group who open the door and agree to be interviewed. This finally resulted in a sample size of 10 participants.

1.3. Conducting the Interviews

A total of 10 semi-structured interviews were conducted amongst the people who meet the requirements set for the target group of this research. The interviews were held at the homes of the interviewees themselves to ensure they feel at ease and are comfortable enough to share information about their decisions in the garden. This also allowed the interviewer to view the private garden herself and take a picture for administration and recall purposes. At the end, the interviewees are thanked by means of a suitable present. The interviews, including introduction, small talk, tour through the garden and ending took approximately 1 hour, of which half an hour was recorded.

1.4. Transcriptions

Before the interview started, the interviewee was asked permission to record the session for research purposes. Afterwards, the audio recording was uploaded to GoodTape, a paid automatic transcription tool. The initial transcription results were then checked and adjusted by the researcher. The final transcripts, together with the notes made during and after the interviews then formed the basis for the Thematic Analysis.

1.5. Dealing with Possible Limitations

An important thing that should be considered when designing the interviews is the possibility for biases to occur. The demand characteristics - small hints that give people an idea of what the research is about - can make people change their behaviour according to what they think the research is about and how they should behave (Bhandari, 2023). To combat this, part of the preparation time scheduled for designing the interviews is dedicated to think of ways to minimize the likelihood for biases to occur. The study title, setting and procedure are carefully picked as well as the tools used. Rumours about the study can easily be set aside as a problem for this thesis as it is highly unlikely there will be any rumours, it not being a large-scale investigation and the small likelihood that interviewees know each other. The trickiest thing to deal with regarding demand characteristics is the interaction between the researcher and the interviewees. To stop this from becoming an issue, every situation as far as possible was carefully prepared and thought through beforehand and limitations are discussed in the final chapter.

1.6. Data Management

Personal and interview data were handled with care. Personal data is only incorporated in the thesis if it is in line with the AVG rules on privacy. People's names and personal characteristics are not mentioned in the interview transcripts (an interviewee is referred to as e.g. "interviewee 1") nor in the actual thesis report. Personal details are only saved temporarily by the researcher itself in order to contact the interviewees about the results of the study or in the case of mistakes or unforeseen circumstances. The interview data is saved both locally (on the computer of the researcher) and on a Drive location that only

the researcher and supervisors can access. The data is stored for the duration of the thesis and 5 years thereafter for examination purposes.

2. THEMATIC ANALYSIS

The qualitative nature of this study asks for an analysis method that is in line with an interview approach. As the aim is to find out how interviewees experience their garden and what themes they touch upon when describing this, the most fitting strategy is to apply a Thematic Analysis. This type of analysis is focused on *"identifying, analyzing, and interpreting patterns of meaning ('themes') within qualitative data"* (Clarke & Braun, 2016). It is not based or limited by an already existing social theory which makes it applicable in a great variety of cases and thus a rather flexible method.

2.1. Conceptual Framework as Basis

As a basis for the Thematic Analysis, a [Conceptual Framework](#) was set up. This was based on a literature review of the most relevant literature covering garden experience. As the framework consisted of a division into the 4 modes of occupation people assign to their gardens as found by Stenner et al. (2012), the thematic analysis used this same division as a basis. That means that the initial deductive codes were: Naturalistic Mode, Nostalgic Mode, Pragmatic Mode, and Mimetic Mode. These modes are then provided with 3-6 subcodes, also based on the theory. A visualization is created to summarize this. After the thematic analysis is performed, the conceptual framework is updated to cover the data neatly and include the inductive codes and themes.

2.2. Performing the Thematic Analysis

Thematic analysis is based on selecting important elements in texts - codes - that together can form patterns of meaning. The aim of this method is to find the most important or prevailing characteristics of the data and make sense of them (Clarke & Braun, 2016; Maguire & Delahunt, 2017). It provides a very thorough and high-quality analysis method.

For this thesis, the Thematic Analysis had a largely deductive basis, basing the codes on the conceptual framework. As expected, these codes were supplemented by a few inductive codes to elaborate the conceptual framework. Together, they make sure that the theory properly covers the data. The analysis thus used a largely top-down approach, with elements of a bottom-up approach (guided by the research question but corrected for the data). Besides, it analyses the data on a semantic level mostly, paying attention to the explicit words people use rather than their underlying meanings (Clarke & Braun, 2016). The analysis resulted in a new transcription file including the thematic analysis.

The analysis was performed in Atlas.ti 25, a qualitative analysis tool. The steps used are described in Braun & Clarke's six-phase framework (Maguire & Delahunt, 2017):

1. Familiarization with the data. To start your analysis, it is important to get familiar with the data you are working with. The first step is thus to read the transcripts and keep notes of early impressions while doing so.

2. Creating codes. This is the first step in organising the data: highlighting elements in the transcript that seem important and labelling them based on their contents (Caulfield, 2023). This needs to be done thoroughly.
3. Find themes. If patterns emerge in the coding, the codes forming this can be combined to create a theme (Maguire & Delahunt, 2017). These themes should already be more directed towards the research question.
4. Review themes. After the themes have been defined, it is important to check whether they cover the contents of the data accurately.
5. Define themes. This is where the themes are given a definition, a description of what that theme means, and a fitting name. It is also important to show how it helps understand the data.
6. Write up. The last part is to write down the analysis for the report.

RESULTS

This chapter shows the results of the Thematic Analysis. The first part consists of the mode-specific findings, structured following the Conceptual Framework of the 4 modes and elaborated with a 5th. Within the modes, findings are sorted based on the subcodes, and themes are assigned to understand these subcodes. A new visualization is created to align with the updated model, thereby finalizing the first part of this chapter.

The second part consists of the overarching findings relevant to all modes of occupation. It dives into the seasonal variation in garden experience, the future perspectives of interviewees on their garden, a description of recurring topics, and a comparison of self-estimated and theory-based garden experience amongst the interviewees.

1. NATURALISTIC MODE



In the Naturalistic Mode, emphasis is put on the natural elements in the garden, such as the plants, insects and trees. It is believed that nature is important to people (code: *Value of Nature*), and that sensory perception forms our connection with nature (code: *Sensory Perception*). This connection can even be lifted to a higher level when a person is stimulated to think about nature's processes and its interconnectedness, provoking the feeling of being part of a bigger whole (code: *Quasi-Spiritual*). Contrasts are another central concept in this mode, emphasizing the difference between everyday life and the garden (e.g. busy vs quiet) (code: *Contrasts*). During coding, the inductive code *Joy* was added to the Naturalistic Mode, defining this as the feeling of joy people experience by simply being in their garden, being surrounded by natural elements (code: *Joy*).

The Naturalistic Mode was the most applied overarching code in the Thematic Analysis of the interviews. Interviewees often mention the importance of certain natural elements or experiences in or around the garden.

Value of Nature

The *Value of Nature* code is defined as the intrinsic value people assign to nature, emphasizing the importance of plants and other natural elements in the garden. Overall, the interviewees tend to value nature, which often translates into the desire or even the criterium of having a garden. The way in which they value nature, however, varies a lot. It ranges from actively engaging with nature to liking the idea of natural elements.

Theme: Desire to have a Garden

Most interviewees emphasize the importance of having a garden as it provides the opportunity to go and enjoy the outside:

Ja, ja. Ik wilde zeker een huis met een tuin. Ik wilde geen appartement of nee. Gewoon puur voor het in de zomer lekker buiten kunnen zitten en ik vind het ook wel leuk om een klein beetje in de tuin te werken. (Interview 7)

This desire to have a garden shows, between the lines, an embedded naturalistic view on the garden. It shows that interviewees value the outdoor space, often without being able

to explain why. It is therefore assumed that they cannot put in words this naturalistic feeling of joy when being in nature. This lack of reasoning also comes forward when interviewees describe their happiness for plants or insects:

Het was wel heel bijzonder dat we zo zaten in de tuin en dachten van he we zien voor het eerst, hoe noem je dat, beesten zeg maar ofzo zie je in de tuin. Dat vond ik wel heel bijzonder. Ja zeker. Vlinders, dat soort dingen allemaal. Ik denk van ja die hebben we nooit gezien want ja als je niks in de tuin hebt dan... (Interview 2)

The same goes for the inability to express the reason behind the desire to have a garden:

Ja, we wilden wel graag een tuin omdat we gewoon graag naar buiten willen en ook dat de kinderen naar buiten kunnen. (Interview 9)

Again, it is assumed that whenever an interviewee is unable to express what having a garden or being in nature means to them, it belongs to the Naturalistic Mode.

Theme: Type of Nature

Two interviewees mentioned seeking out nature areas like a forest or a specific type of garden which, in their perspective, is not achievable in their own gardens:

Oh ja, wij vinden het ook wel heel erg fijn om bijvoorbeeld lekker in een bos te wandelen. Vinden we heerlijk. Dat is ook wel lekker als je die tuin nog iets meer natuurlijk hebt of zo. Ik heb geen groene vingers dus voor mij wordt het echt een oerwoud in plaats van een leuk bos. Dus dat is wel eentje waar ik me in kan vinden. Alleen dan ga ik toch liever gewoon naar het bos. (Interview 4)

Dus ja, engelse landschapstuin. (...) Ja, daar ga ik wel naar op bezoek. Maar inderdaad, dat vind ik wel het mooiste soort tuinen. (Interview 8)

Theme: The Function of Plants

The concept of Nature is often brought down to single plants, which can be viewed as a positive or negative element of the garden. There is a difference in how interviewees perceive the function of plants. Where a few interviewees talked about the needs of certain plants, the majority focused more on the function a plant can have for themselves. The latter is brought forward in the following quote, saying that Hedera is dirty stuff ("vies spul" in Dutch), a reason for the owner to get rid of it:

Dus toen wij het huis kochten, was zowel tussen de burens als achter werd het opgeleverd met hedera. Alleen die hebben we dan maart, april achter helemaal weggehaald. Ik was er helemaal klaar mee. (Interview 2)

On the contrary, a plant's needs are considered when someone brings up the elements a plant needs to fully function and grow. This is stated by an interviewee who was sad to see that his grass and plants were not able to properly develop themselves:

Maar omdat het op het noorden is, we hebben ook een Rhododendron. Die heeft geen bloemen gehad dit jaar. (Interview 1)

Taking into account the plant's needs – or not – also shows a slight resemblance to the Pragmatic Mode as it is closely linked to the actual gardening activity.

Sensory Perception

Sensory Perception is when through sight, smell, taste, touch, and hearing a person can feel closer to nature, observing nature elements. As sensory perception plays a big role in the Naturalistic Mode, it posed as a separate question in the interviews. Although interviewees generally already brought up their senses, they were encouraged to think more elaborately about their senses in the garden with this question.

Theme: Perception of Natural Elements

Overall, interviewees were inclined to describe mostly natural elements when referring to their senses in the garden. Below, this theme is grouped based on the senses.

Sight in the garden translates to the blooming of plants, bursts of colour, greenness, but also to the fauna in the garden:

(...) van de zomer zag ik in een keer allerlei wespen, hommels en beesten in mijn tuin die we nooit gezien hebben. Dat komt denk ik ook door de nieuwe planten en dat soort dingen. Het was wel heel bijzonder. (Interview 2)

Nou ja, het zicht, kijk als je hier aan de voorzijde of achterzijde van de tuin, dan vinden wij het mooi om wel groen te zien. Dus die heg aan de achterzijde, die zou ik nooit een schutting van maken. (Interview 5)

je hebt altijd een heel mooi, als je dan op de loungebank zit, mooi boven je met blaadjes van de appelboom, van de vijgenboom en dan die rode blaadjes van de Japanse esdoorn. Dat is altijd wel, en dan de blauwe lucht. Oh ja, dat is helemaal zoals ik het fijn vind. (Interview 4)

De zomer is super mooi, allemaal witte, roze, blauw, oranje, alle kleuren. (Interview 1)

Smell is only referred to half of the time, it is the only sense that has a positive non-natural aspect (see [Theme: Positive & Non-Natural](#)). It is described as the smell of nature after rain, the smell of grass, of flowers, of herbs or other plants:

Ik moet dan altijd meteen denken, gewoon meer natuurgeur. Als het dan net geregend heeft of zo. Als het zomers heet is en 's ochtends, gewoon de geur van de ochtend zeg maar. (Interview 4)

Oh, de geur van gras trouwens. (Interview 1)

Ja, dus geur van bloemen. (Interview 9)

Ik vind het leuk in de voortuin, dan hebben we dat tijm en munt... en die kruiden. En dan heb ik altijd, als ik in de zomer of in de lente, dan loop ik langs of ga ik eraan ruiken, zo met mijn handen zo. Oh, heerlijk! (Interview 9)

Die dropplant die ruik je. Dat is ook de enige plant in de tuin die ik ruik hoor.
(Interview 7)

Sound, although being the sense that is most often also linked to negative experiences, (see [Theme: Negative Experiences & Non-Natural Origins](#)), is mentioned in a positive sense when people refer to the sounds the (long) grass makes in the wind, the humming of bees, the chirping of birds, or animal sounds from the neighbours:

Gehoor denk ik. Het ritselen van het gras. Dat is ook wel de reden dat ik dat gras heb. (Interview 8)

Nou als ik dan zo'n 's morgens met mijn kopje koffie daar vooraan sta dan hoor ik de bijtjes daar bij die vlinderstruiken. En er zitten nog wat andere planten waar de bijen op afkomen. (Interview 7)

Het is voornamelijk denk ik horen. Want daar hebben ze kippetjes. Die hoor je ook regelmatig. (Interview 6)

Qua gehoor vind ik het altijd wel leuk om de vogeltjes ook te horen. Die zitten vooral ook bij de burens wel regelmatig in de tuin. Dus ja, dat vind ik altijd wel lekker vrolijk. (Interview 4)

Taste was one of the hardest senses to register in the garden. It was brought up in the context of a kitchen or herb garden, and referred to edible plants and fruits:

Proeven heb ik nog niet, maar ik wil wel een keer een kruidentuintje, zoals met dit soort dingen, een kruidenafel er neerzetten. Dat wil ik wel gaan doen.
(Interview 3)

Nou die laurier proeven we wel. (Interview 1)

Oh ja, dus ik vind het ook wel leuk dat we dan de appelboom nog hebben en de druivenstruik. En de vijgenboom van de buurman. Dus ja, daar denk ik ook wel weer een beetje aan bij de smaak. (Interview 4)

Touch was almost always interpreted as feelings. Yet, this is not seen as part of the sensory perception in the Naturalistic Mode. The sense of touch explicitly was only mentioned once, referring to different textures in the garden:

Voelen? Ga je denk ik ook wel weer een beetje meer wel richting de planten enzo die wel in je tuin staan. Wat dat betreft ben ik toch ook wel blij dat we wel, ook al zijn het een paar grote items groen zeg maar, dat het er wel is. De druivenstruik, die geeft ook een heel leuk effect tegen die muur als het zomer is met de blaadjes. (Interview 4)

Table 1 shows the sensory perception amongst interviewees, making a distinction between perception of natural and non-natural elements in the garden.

Table 1. Sensory perception as described by the interviewees. A filled dot ("●") means that the sense was brought up and had a natural origin. An open dot ("○") means that the sense was brought up but did not have a natural origin. Half dots ("◐") refer to half answers, like agreeing with the interviewer. A double star ("**") refers to people talking about a feeling rather than a sense.

Interview	Sight	Smell	Sound	Taste	Touch
1	●	● ○	● ○	●	◐
2	●		●		**
3	●		○	●	
4	● ○	●	●	● ○	●
5	●		○		◐
6	●		● ○		**
7	●	●	● ○	●	**
8	◐	○	●	○	
9	●	● ○	● ○	●	
10			○		

Theme: Positive Experiences

On top of the general natural basis of the sensory perception interviewees report in their garden, they also tended to share only the positive experiences. Even when specifically asked about the negative side, interviewees did not have any negative associations:

Ik heb eigenlijk weinig negatieve associaties bij mijn tuin. (Interview 4)

Positive sensory experiences are about the sensation of being outside, surrounded by nature (or nature elements) and the positive feelings that arise when one becomes aware of the sight, smell, sound, taste, or touch of nature. A prime example is that of an interviewee who shares the joy she feels when she experiences a moment alone in her garden, surrounded by nature:

Nou als ik dan zo 's morgens met mijn kopje koffie daar vooraan sta dan hoor ik de bijtjes daar bij die vlinderstruiken. En er zitten nog wat andere planten waar de bijen op afkomen. Die dropplant die ruik je. Dat is ook de enige plant in de tuin die ik ruik hoor. Ja en ik vind het leuk als de vlinders in de vlinderstruik zitten. (Interview 7)

Other positive experiences are about the blooming and growing of plants, butterflies, birds, insects and other fauna in the garden, the aesthetics of the garden, and sunshine.

Theme: Wooden Elements

Linked to the theme of *Positive Experiences* is *Wooden Elements*. This theme is also only approached from a positive point of view but discusses the likes of specific elements

rather than experiences. A few interviewees brought up the sight and overall appearance of wooden elements, saying that they like the look of it:

En nu vonden we het toch een mooie uitstraling hebben van dat douglashout.
(Interview 10)

Want aan die kant hebben we een schutting, die hebben we zelf geplaatst, zelf gemaakt van allemaal losse latjes. Die vind ik heel mooi. Het liefst had ik daar (te duur) eikenhout gewild. (Interview 7)

Nou misschien dat ik ooit wel het kunstgras eruit wil doen om een houten vlonder neer te leggen. (...) Dat vind ik dus weer heel sfeervol. (Interview 6)

It is unclear, however, if the positive sensory perception linked to wooden elements as described above is strictly related to the Naturalistic Mode as it is a natural element yet not comparable to alive elements of a garden, like plants and insects for example.

Theme: Positive & Non-Natural

An example of the positive sensory experiences not related to natural items is the positive association interviewees mention when thinking about the barbecue:

Barbecue geurtjes, fantastisch. (Interview 1)

Nou ja, misschien reuk, omdat ik het natuurlijk ook gebruik, ohja om te barbecuen, dat is ook nog een reden. En dan komt ruik wel naar voren ofzo. Dus dan heb je zo'n zomers barbecue geurtje. En ja smaak dus dan ook. Ja, dus dat past daarom er wel bij. (Interview 8)

Theme: Negative Experiences & Non-Natural Origins

Negative experiences almost only related to non-natural origins of sounds and sights, like neighbours making a lot of noise or scooters disturbing the sight of the garden:

Dus als er veel mensen buiten zitten, of er spelen veel kinderen, ik heb zelf ook kinderen, maar als er veel kinderen buitenspelen en die zijn heel erg lawaai aan het maken, dan kan het zelfs veroorzaken dat ik naar binnen ga daarvoor. Dus ik vind geluid wel een belangrijke in mijn tuin inderdaad. Maar dat is niet zozeer het geluid dat mijn tuin me geeft, maar meer de omgevingsgeluiden. Dat is wel wat je ervaart als je in je tuin zit. (Interview 10)

Dus dan komt een leuke uitkijk, dat je weer leuk kunt weggijken, nou daar helpt de scooter weer niet heel erg voor, maar op zich als die storende elementen weg zijn dan is het best wel prima om naar buiten te kijken. (Interview 8)

Theme: Sun Orientation

Related to sensory perception is how interviewees experience their garden with respect to its sun orientation. Having enough sunlight in the garden appears to be a requirement:

Nou, ik vind een tuin zonder zon, dat is voor mij geen tuin, zeg maar. Er moet in ieder geval zon in komen, dat je daar ook gewoon lekker kan genieten van de zon en de warmte. Dus dat vind ik wel belangrijk in een tuin. (Interview 4)

A few mention that their garden is not located ideally when it comes to the amount of sunlight it receives:

Nee, er had wel iets meer zon ingemogen af en toe, maar het is wel fijn dat je een koele plek hebt. Als het echt zo hoog zomer is, is het een fijne tuin. (Interview 9)

On the other hand, this perspective is adjusted often, arguing that a garden in full sunlight in summer is not ideal as it quickly becomes too hot:

Dus het heeft niet de ideale ligging qua zon. Had voor mij iets meer zon in de tuin gemogen, maar aan de andere kant als het echt hartje zomer is, is het helemaal niet zo erg als je niet vol bak zon hebt. (Interview 3)

Eigenlijk is het best wel goed, want je hebt een stukje schaduw en een stukje zon eigenlijk. (Interview 1)

Theme: (Mis-)Interpretation of Touch

When it comes to the sense of touch (translated to “gevoel” in Dutch), interviewees struggled with the exact definition of the Dutch word. Overall, they were more likely to refer to their feelings (as opposed to their sense of touch) when they are in the garden:

Een gevoel is dat ik dan een blij mens ben. (Interview 6)

Nou ja, gevoel is gewoon, ja, als ik er sta of als ik in mijn tuin ben, gewoon dat het mijn tuin is. Ja. Het is meer het geheel met woning erbij. Dat ik denk van, ah. (Interview 7)

Only one interviewee brought up the actual sensory definition of “touch” and referred to the types of materials within a garden, mostly focussed on the plants. She does, however, mention that she is more aware of her sense of touch because she has two little children who are eager to touch anything they see. She describes her touch experience as follows:

Dus ja, bij voelen heb ik dat ook al een beetje. Gewoon dat je blaadjes voelt en dat is ook al een beetje nu meer, nu je kids hebt en dan, die zijn nog klein en die vinden het allemaal interessant, dus die gaan er ook aan voelen en kijken en zo. Dus dan ben je er ook iets bewuster mee bezig ofzo. (Interview 4)

This difference in interpretation of the word “touch” shows the duality in the definition of its Dutch translation (“gevoel”), which translates to both touch and feelings.

Contrasts

The code *Contrasts* is defined as the contrast between daily life and the garden, which often resembles a stark difference (e.g. busy vs quiet). The interviewees quite often brought up the concept of contrasts, either directly or indirectly.

Theme: Direct Contrasts

Mentioning contrasts directly required the interviewee to show this duality in the form of a comparison between the garden and other elements of life. For example, when an interviewee mentions he likes to enjoy his garden when he comes home from a long day of work. This shows the contrast: busy everyday life vs relaxation in the garden:

Maar ik vind het wel lekker als ik gewerkt heb de hele dag. Om s'avonds lekker in de tuin te gaan zitten. (Interview 2)

Het is natuurlijk, als je het in de zomer hebt, dan heb je het over als je klaar bent met werken of in het weekend. Dat je er gewoon echt even rustig kan zitten. (Interview 5)

Theme: Indirect Contrasts

Indirectly, contrasts are mentioned whenever a person states the feeling of relaxation and quiet when in the garden, without linking this to the other end of the contrast:

Als ik aan de tuin denk dan denk ik aan dat ik lekker in de loungebank lig, lekker te chillen. Ja, vroeger met een boekje tegenwoordig met de twee kleintjes niet zo vaak met een boekje maar wel lekker. Gewoon lekker, lekker rustig. (Interview 4)

Dat je gewoon kan genieten, van de rust. (Interview 5)

Contrasts were also mentioned between the lines, whenever an interviewee brings up elements linked to finding relaxation in the garden, such as sitting outside in the summer:

Het meeste in de zomer om buiten te zitten. (Interview 7)

Though, stating that a person “enjoys sitting outside” might also point to the presence of the Mimetic Mode, depending on how they define this.

Quasi-Spiritual

Initially, the code *Quasi-Spiritual* was defined as thinking about the bigger picture, the universe and the reason why. It is about the connectedness with nature that answers questions. This, however, appeared to be not in line with the data. Interviewees did not mention any form of spirituality with regards to nature in their garden by their own initiative. Only one person stated a feeling that comes close to the code *Quasi-spiritual*:

Nou ja, dat is het eerste wat ik zomers dan doe als ik naar beneden kom. Ik ben altijd vroeg wakker en vroeg is dan kan zomaar 7 uur zijn of 6 uur. Dan neem ik een kopje koffie en dan ga ik even op het randje staan. En dan geniet ik van de rust en de stilte en van de omgeving. (Interview 7)

Yet, in the sense that a garden can make a person start to think about the bigger whole, even this interviewee did not come close to the initial definition of *Quasi-spiritual*. There were, however, some interviewees that mentioned feelings of mindfulness, but this was related to a gardening activity such as picking weeds, and did thus also not correspond

to the *Quasi-spiritual* code. In the end, this code was slightly adjusted to also fit these types of descriptions. Defining Quasi-spiritual as: “The indescribable feelings close to the spiritual realm (e.g. mindfulness) that are induced by being in the garden”.

Joy

During the coding process, the code *Joy* (“genieten” in Dutch) arose as interviewees often describe the joy they feel when simply being in the garden or having the possibility to go outside. Therefore, this code is defined as enjoying the garden as it is, it being a space to enjoy the weather, to just sit outside and feel good.

Theme: Joy & Nature

In a few cases, the interviewees connect the feeling of joy to elements in their garden, which are largely natural. They say that they like sitting outside because of the plants and nature around them:

Wij proberen wel even in de zomer de leuke plantjes, dat je als je daar zit en dat je even geniet. (Interview 9)

Nou ja goed of dat je ergens gewoon in de natuur zit met helemaal niks, gewoon wat te drinken. Zo'n gevoel (...). (Interview 1)

Theme: Indescribable Joy

There are a lot of examples in which this link between nature and joy is much less clearly explained. In this case, the interviewees describe the feeling of joy without explanation, saying that they just like to be outside and like their garden for it:

Ik vind het gewoon heerlijk wat ik al zei, lekker buiten te zijn. (Interview 1)

Ik vind het een heerlijke plek. (Interview 3)

Een tuin is voor mij in de zomer heel belangrijk omdat ik het heerlijk vind om buiten in het zonnetje te zitten. (Interview 6)

These descriptions of feeling joy generally do not include an explanation. That lack of explanation shows that interviewees are not able to describe why it feels good to be in the garden, deducing from this that it is the general natural environment that brings joy. Therefore, these types of quotes – albeit multi-interpretable – are assumed to be part of the Naturalistic Mode.

2. NOSTALGIC MODE



In the Nostalgic Mode, emphasis is put on memories, on the elements or people who are absent rather than present. The memories can be of another time (code: *Other Time*), or another place (code: *Other Place*). It is the elements in a garden that represent an aspect of this memory and which, when sensed, can take a person to that specific memory (code: *Representative Elements*). Sensing is in this case a key element as it is believed that sensory perception functions as our link to these memories (code: *Sensory Perception*). This can also generally be the garden itself, which takes a person back to the things that have happened in that garden specifically (code: *Place-Specific*). Nostalgia can, however, occur in many more forms (code: *Other Nostalgic Feelings*).

The Nostalgic Mode turned out to be the least applied in coding. Interviewees did not mention having memories by themselves often. Not every interviewee even mentioned an aspect of their garden that could fall into this mode, resulting in an application of this mode to only 7 out of 10 interviews.

Other Time

The *Other Time* code is defined as thinking about the garden or being in the garden, which can take a person back to a memory of the past. Although the past is not often explicitly brought up when interviewees talk about their memories, most memories in general are of another time. The only time this was made clear was when an interviewee talked about his memory of gardening for his dad, which he now, when looking back at it, does not like anymore. This resulted in him disliking gardening work:

Vroeger moest ik van mijn vader altijd in de tuin van alles doen. Dus we hebben van alles gedaan. Tomaten, van een paar dingen. We moesten altijd helpen in de tuin. Het was een grote tuin ook. En ja, ik denk nu... Dat wil je niet meer. (Interview 9)

This was the only negative memory shared. Other memories, although being of a past, generally fit more into other codes and are therefore not listed here.

Other Place

In the *Other Place* code, elements in the garden can remind a person of memories of another place. A prime example of this is the interviewee who shared his olive trees, and grapes remind him of Greece, where his father-in-law lives and where he wishes to live himself when retired:

Ja, het doet me wel... als ik dat olijfbompje zie, dan denk ik, ja, oké, dan denk ik aan die olijven van haar vader, zeg maar. Ook die druiven hoor, die maken ook wijn en dingetjes. Ja. Ja, dat zet mijn geest, mijn gedachten wel even naar daar. (Interview 1)

The *Other Place* code coincides with other codes more often than it was explicitly stated by itself. Yet, these other codes are considered more applicable, resulting in the above-mentioned interviewee being the only one specifically placed in *Other Place*.

Place-Specific

In the *Place-Specific* code, being in the garden can take a person back to things that happened in that same garden. This appeared to be the most dominant Nostalgic code.

Theme: Actively Making Memories

When talking about memories in the garden, the interviewees tend to focus on actively making memories rather than passively having them. They often refer to enjoyable activities performed in the garden through which memories are created, like enjoying the pool with family in summer:

Want wij hebben natuurlijk in de zomer ook een zwembad. En dan komt hij op het gras terecht. Nou die jongens en wij zitten er ook wel eens in. En dan maak je mooie herinneringen natuurlijk. (Interview 5)

This difference was also clearly stated by one interviewee who distinguishes between having and making memories. She underpins this by explaining a situation which she likes the most, that can be seen as both having and making memories:

Ja, dat kun je op twee manieren opvatten. Natuurlijk herinneringen die je zelf hebt, (...) of dat je herinneringen maakt, zeg maar. Ik vind het altijd vooral lekker als het 's avonds is en je hebt wat te drinken en we doen een spelletje of je leest even wat ofzo. Dat vind ik wel lekker in de tuin. (Interview 9)

This shows a slight link to the Mimetic Mode in the sense that memories are made during activities that belong to the Mimetic Mode and looked back upon in the Nostalgic Mode.

Theme: Summer Season

The memories shared are most often place-specific, referring to the activities that took place in that specific garden, but almost always relate to the summer season:

Te genieten van de tuin. En deze herken ik vooral nu met die jongens ook. Afgelopen zomer ook heel veel feesten hieronder gegeven. Een barbecue aan. We zetten hier een tapje bier. (Interview 2)

Die herinneringen, dat klopt wel. Want als het lekker zomer is en de zon die brandt lekker en je komt thuis uit je werk en je gaat lekker in je tuin zitten met een biertje. Ja, dan denk je toch, oh, dat is nostalgie van vroeger, weet je wel. (Interview 1)

Theme: Positive Memories

Even though the Nostalgic Mode was not applied that often, interviewees, when asked about it, did mention that memories are an important aspect of the garden to them. They mention that making memories is the thing they do most often in their garden, which results in them having only nice memories about their garden:

Nou herinneringen denk ik dus sowieso. Want dat is hetgeen wat we het meest doen met de tuin. Weet je. Ook als ik eraan denk. Dan denk ik het meest aan fijne herinneringen die we hebben in de tuin. En we hebben eigenlijk bijna alleen maar fijne herinneringen in de tuin. Dus ik denk dat dat wel het hoofdthema is. (Interview 4)

Herinneringen, absoluut. Ik denk dat drie kwart van de foto's worden genomen in de tuin. Want je hebt natuurlijk een mooie lichtval en dan heb je altijd leuke dingen. En dan komen ook mensen bij elkaar. Dus ik denk dat die twee een beetje bij elkaar: samenkomen en herinneringen. (Interview 8)

Besides, the largest share of all quotes in the Nostalgic Mode is oriented towards positive experiences in the garden.

Sensory Perception

The code *Sensory Perception* is applied whenever sensory perception brings up memories. People connect smell, taste, touch, hearing and sight to memories. However, whenever memories in the garden were brought up by the interviewees, they did not once relate this to the sensory perception in the garden. At least, not in a way outside of the *Representative Elements* code, which is largely based on the sense of sight. Though, one interviewee mentioned looking back at the situation before they redesigned their garden, saying that she sometimes feels sad thinking that the garden used to be much greener than it is now:

Toen we hier kwamen wonen was de tuin dus heel groen. Veel gras, veel bomen, planten. Wat wel oprecht heel erg leuk was. Ik vind het ook soms wel jammer dat we het er allemaal uitgejast hebben. (Interview 4)

Still, senses are not explicitly mentioned with regards to nostalgia in the garden.

Representative Elements

The code *Representative Elements* refers to cases where there might be elements in the garden that remind someone of someone, someplace or something else. It is about the specific things (bench, plants) that can stir up memories.

Theme: Self-Made Objects

In the interviews, the objects that reminded the interviewees about a certain memory were largely self-made. These objects are things that people built themselves or with the help of someone else, which remind them of this process, often evoking feelings of pride:

O ja, dat ik het helemaal zelf heb gedaan. Dus inderdaad, dat was ook. En ja, het is ook met name de vlonder waar ik heel trots op ben. Die zit goed stevig aan elkaar. (Interview 8)

Ja trots en tevreden. En ik heb er ook wel warme gevoelens bij ja, leuk samen met mijn schoonvader aangelegd. (Interview 3)

Linked to this, one interviewee brought up the nostalgia he felt whenever he looked at his vines, saying that it gives him the feeling of being in a vineyard:

Ja. Waar doet dit je aan denken? Ja, door die wijnstokken toch wel wat... Ja, hoe zeg je dat? Iets... Of dat je in een wijngaard zit, zeg maar. Ja. Toch wel een klein hintje, zeg maar. Het zijn er maar drie vandaar. (Interview 1)

Besides the self-made objects and the vines, there were no other cases in which objects or other elements in the garden provoked feelings of nostalgia. However, in some cases a combination of the pre-defined codes was most suitable. For example, the self-made objects were coded *Representative Elements*, *Place-specific*, and *Sensory Perception*.

Other Nostalgia

This code was created for cases in which the codes *Other Time*, *Other Place*, *Place-Specific*, *Representative Elements*, and *Sensory Perception* were not able to fully define the situation at hand. The code *Other Nostalgia* is therefore defined as feelings of nostalgia that do not necessarily relate to other people, places, times or elements, but to a certain situation for example. At first, this addition seemed redundant until a second analysis of the data showed that there were some cases that could be classified as nostalgia without referring to the existing codes. The themes that were brought up most in this code are summer nostalgia and nostalgia as a feeling. Summer nostalgia refers to the longing for summer:

Dus ik denk dat dat soort dingen, gewoon de hele sfeer erbij zeg maar, dat het lekker, weet je ik zit nooit in de tuin als het vies weer is zeg maar. Dus ik denk van oh ja het is altijd altijd fijn in de tuin. Ik ben er alleen echt mee bezig als het lekker weer is weet je. Oh ja oh lekker weer dan komt het gewoon al in de goede herinneringen. (...) Dus daar kan ik wel weer naar uitkijken of gewoon lekker 's avonds hier voor op de bank zitten, kan ik echt naar uitkijken en met heel veel plezier op terugkijken. Zo lekker als dat weer kan. Dus het is ook een beetje de sfeer eromheen zeg maar. (Interview 4)

Nostalgia as a feeling is best described as looking back at how far you have come in life, the things you have achieved. It is not necessarily related to the past, a different place or the garden itself, but has some elements of all these codes. It is feeling happy in the moment because you know everything that you have had to get through to get there. One interviewee tried to explain this feeling himself:

Die herinneringen, dat klopt wel. Want als het lekker zomer is en de zon die brandt lekker en je komt thuis uit je werk en je gaat lekker in je tuin zitten met een biertje. Ja, dan denk je toch, oh, dat is nostalgie van vroeger, weet je wel. En je herinnert je toen, dat was daar, dat was dus op dit punt. Ja, ook het gevoel van herinneringen. (Interview 1)

3. PRAGMATIC MODE



In the Pragmatic Mode, the emphasis is on gardening as an activity. This can be in a negative sense, referring to things that are frustrating, the so-called pains of gardening (code: *Negative Gardening*). But it can also be positive, the pleasures of gardening: enjoying the physical engagement with the garden, sometimes even assigning therapeutic meaning to it (code: *Positive Gardening*). A special desire is expressed for having a kitchen garden (inductive code: *Kitchen Garden*). As not everyone is either positive or negative about gardening, neutral gardening as a concept arose, taking together all times interviewees did not connect feelings to the act of gardening (code: *Neutral Gardening*). It is believed that through working in the garden, a special connection between the owner and the garden starts to arise, making the garden a reflection of its owner (code: *Reflection Owner*). Connected to this is the will to have an external gardener who can perform the gardening activities that are often perceived as a chore (code: *External Gardener*). People who have negative associations with gardening create gardens that only require little amounts of work (code: *Maintenance Free*).

The Pragmatic Mode was an often-recurring topic of discussion. Mainly in a negative way, the interviewees describe the gardening activities they had to or did not want to do in their garden. Therefore, the interviewees were predominantly pain-oriented, leaving little room for the positive side. The relationships between the owner and the garden were also more oriented towards creating a garden design that fits the owner's desires.

Negative Gardening (Pains)

The code *Negative Gardening* is defined as the pains of gardening, describing situations in which people dislike the act of gardening. This code got the most attention during the interviews. Although not mentioned by everyone, the negative side of gardening was often brought up.

Theme: Negative Experiences & Letdowns

Negative gardening is often about the negative experiences in the past, relating to the times when a gardening idea did not turn out the way it was envisioned by the interviewee (pains of gardening). For example, one interviewee mentioned that he tried to maintain his garden but accidentally put too much weed killer on his grass:

Qua bijhouden vond ik het helemaal niks. Het wordt er gewoon niet mooier op. Ik heb ooit een keer, was ik niet helemaal slim, had ik zo'n potje van dat onkruidspul gekocht voor. Daar heb ik wat meer in gedaan. We zijn op vakantie gegaan, ik kwam terug, zaten er helemaal bruine vlekken in enzo. Ik had gewoon veel te veel in gedaan. Dat wordt niks voor mij. (Interview 2)

This can also be due to a comparison with others. In the interviews, someone mentioned she did not have the patience to garden as it never worked out the way it does on a television show:

Altijd als ik twee minuten in de tuin iets aan het doen ben, denk ik, ja dit ziet er altijd toch anders uit als ik dat ergens op een tv-programma of in een blad zie. Bij mij wordt het dan toch nooit helemaal. En het gaat altijd dood. (Interview 9)

The pains of gardening can also be about letdowns, like plants not blooming the way the interviewee expected it to:

Maar omdat het op het noorden is, we hebben ook een Rhododendron. Die heeft geen bloemen gehad dit jaar. (...) We hebben twee Chinese rozen en die hebben ook geen bloemen gehad dit jaar. (Interview 1)

Theme: Maintenance-Free

It is due to these pains that people decide to make different choices in their private gardens. A lot of interviewees, for example, intentionally created a maintenance-free garden to not have to deal with negative gardening experiences anymore:

Het is wel ook echt een bewuste keuze geweest om dus... voor een onderhoudsvriendelijke tuin te kiezen, dus kunstgras. En planten die niet teveel verzorging nodig hebben. (Interview 5)

We wilden eigenlijk, we hebben niet zulke groene vingers, we wilden vooral onkruid en zo voorkomen, dus we hebben gekozen voor grote tegels in de tuin, zodat je zo min mogelijk voegen hebt waar ook weer onkruid tussendoor kan groeien. En ja, dus we hebben bewust gekozen voor een stukje aan de zijkant waar de glijbaan op kan staan. En de rest eigenlijk gewoon dicht gegooid. En waar we dus met potten, met planten en dergelijke willen aankleden. (Interview 10)

They also often show contentment with the maintenance free elements in their garden, e.g. artificial grass, arguing that it keeps being aesthetically pleasing and practical:

Dus, en het blijft gewoon mooi, weet je. We hebben nu voor en achter weer nieuw [kunstgras] gelegd en het ziet er strak uit. Het is gewoon heel praktisch, onderhoudsvrij. (Interview 2)

Theme: External Gardener

When asked about their ideal garden, a few interviewees mentioned the desire to have a (slightly) bigger garden, but on the condition that it comes with an external gardener. Otherwise, they would not change the size and design of their garden significantly:

Met een tuinman mag die nog een stukje groter. Zonder tuinman niet heel veel groter. En dan komt het denk ik alsnog aardig hier in de buurt. (Interview 4)

Nou is dat natuurlijk wel betrekkelijk. Als ik de staatsloterij win dan zou je waarschijnlijk wel naar een groter huis gaan met een grotere tuin, maar dan neem ik er ook een tuinman bij. (Interview 3)

Nou ja, als ik nergens rekening mee hoeft te houden, dan zou ik dus wel eigenlijk een veel groenere tuin hebben. Want dan zou ik misschien een tuinman of tuinvrouw hebben die het tuinonderhoud voor mij doet. Dus als ik geen grenzen heb, dan zou ik wel gewoon van een tuin met een mooie wilde, of nouja niet zozeer mooie wilde, maar gewoon mooie beplanting in de grond. Meer van die stukken die je dan in je tuin hebt. Vol beplant, om het zo maar te zeggen. (Interview 10)

This is often a requirement as they are not willing to deal with issues of maintenance themselves. As the last quote already shows, it is that issue of maintenance that often forms a barrier for people to start gardening and create a green and natural haven.

Theme: Barriers for Gardening

Throughout the interviews, a list is kept of the barriers the interviewees mention that cause them not to garden. The result is listed in Table 2 below.

Table 2. Reported reasons for not gardening and their occurrence in the interviews. A dot (●) means it was mentioned by the interviewee. The last column shows the total number of interviewees that reported the barrier during the interview.

	1	2	3	4	5	6	7	8	9	10	Total
Allergies		●									1
Fear	●										1
Physical ability	●						●				2
Lack of Knowledge					●						1
Don't feel like it			●			●					2
Money	●		●								2
Feeling incapable		●		●		●			●	●	5
No interest										●	1
Children		●	●	●	●						4
Time / Effort	●	●	●	●							4
Not fun			●	●					●	●	4
Maintenance		●	●	●	●	●	●	●	●	●	9
Imposed Rules	●	●			●						3
Weather	●	●	●					●	●		5
Garden Layout				●					●		2
Soil Type: Clay					●			●	●		3
No Patience									●		1

This table shows that maintenance poses a barrier for most interviewees, indicating that this is something to investigate further. It also shows that not everyone sees the same

things as barriers. Where an allergy or a fear can be very personal, imposed rules are at the other end of the spectrum (top-down). Both these types of barriers are not easy to deal with. Other things, like money, time, children, and knowledge might be easier to deal with on a larger scale as more people experience the same issues related to resources.

Theme: Gardening as a Job

In the last question of the interview, people were asked to estimate for themselves which mode they resonated with most. As for this question the theory about garden experience and the modes of occupation was simplified, the categories were formulated as follows: Own Part of Nature ("Eigen stukje natuur" in Dutch), Memories ("Herinneringen" in Dutch), Gardening as Job ("Tuinieren als baan" in Dutch), and Coming Together ("Samenkomen" in Dutch). Especially the category Gardening as Job got a lot of response. Interviewees often said that they intentionally made sure gardening would not be a job:

Maar die tuinieren als baan, met name om het niet te doen. Want ik heb al een baan. (...) Dus ja, behalve, ja, en ook de tuinieren als baan, maar dat is dan, ja, die heb ik ontslagen, zeg maar. (Interview 8)

Tuinieren als banen komt ook wel een beetje overeen. Maar ik heb dus gezorgd dat dat zo min mogelijk een baan is. Ja. Door het allemaal een beetje eruit te halen. Dus dat probeer ik te minimaliseren, omdat we daar dus niet zo heel sterk in zijn. (Interview 4)

Ja eigenlijk wel alle drie behalve het tuinieren als baan. Ja dat moet ik het vooral niet laten zijn zeg maar, want dat vind ik niet zo leuk. Nou dat doen we omdat het moet. Je wilt iets leuks hebben, dat moet, het hoort erbij. Je wilt een mooie tuin, het hoort erbij. Maar het is niet dat ik het echt leuk vindt om iedere dag in de tuin te gaan werken. (Interview 9)

Most interviewees do acknowledge that gardening is not a job in their eyes as they minimized the tasks they have in their garden, leaving only the doable and nice tasks:

Drie wel, die tuinieren als baan niet. Die valt voor mij echt af. Hetgene wat ik moet doen vind ik ook leuk om te doen en het is niet echt een job voor de hele dag ik noem maar wat. Dat is hier en daar even wat onkruid weghalen en dan ben je ook klaar dus. (Interview 6)

Though, there were a few interviewees who really did not mind working in the garden:

We vinden het niet erg om in een tuin bezig te zijn. (Interview 5)

Positive Gardening (Pleasures)

The code *Positive Gardening* is defined as the pleasures of gardening, describing situations in which people like the act of gardening or even find it enjoyable. Although not omnipresent, some interviewees shared their positive outcome on gardening practices. These often revolved around the topics of small tasks that can be described as mindful and rewarding and children that enjoy gardening practices.

Theme: Enjoyable Small Tasks

Picking weeds and other small tasks in the garden were reported as a positive experience in the garden, describing it as a mindful task that brings relaxation:

Want op zich vind ik het echt een heerlijk mindfull klusje. Om bijvoorbeeld, voor hebben we nog wel eens wat onkruid, om gewoon onkruid te plukken. Dat vind ik echt heerlijk. Maar dan moet ik er wel tijd voor hebben. En gewoon even lekker denken "Oh vanavond ga ik even lekker onkruid plukken". En dan zet ik daar lekker een muziekje aan op de grond en dan zit ik een beetje te plukken. En daar word ik helemaal rustig van. (Interview 4)

It is even considered a plus if the possibility to pick weeds exists:

Ja. Ja, ik hoef ook niet het hele uur of dagen of zo, maar gewoon als ik 's avonds na het eten even denk, nou, ik ga even een beetje onkruid plukken, dan kan dat. (Interview 7)

As long as it does not become a big task, one interviewee even liked keeping his garden tidy through small gardening activities:

Maar ik moet zeggen, als de tuin mooi is en het is een klein stukje, vind ik het zelfs wel leuk om hem netjes bij te houden. Maar dat moet geen dagtaak zijn, want, ja, daar heb ik gewoon geen zin in. (Interview 3)

Theme: Children like Gardening

In some cases, children can be the reason some interviewees are more involved in gardening practices. They say that some elements in their garden exist because of their children, like a kitchen garden:

Ja, want we verbouwen ook wat groente en fruit. Dat doen de meiden altijd vooral. Ja, heel klein stukje. We hebben fruitboompjes en dingetjes, struikjes. (...) Meer voor de kinderen een beetje. (Interview 9)

Or that their personal interest grows as they can now garden together with their children:

(...) dan plant ik het samen met mijn zoontje die het nu heel leuk vindt. (Interview 10)

Theme: Kitchen Garden

A few interviewees point to the importance or desire of having a kitchen garden in their garden:

Proeven heb ik nog niet, maar ik wil wel een keer een kruidentuintje, zoals met dit soort dingen, een kruidentafel er neerzetten. Dat wil ik wel gaan doen. (Interview 3)

En ik heb nog zo'n kweekkastje op pootjes voor mijn tomaatjes en mijn munt en de aardbeien. (Interview 7)

Relationship between Owner & Garden

Results

The original, pre-defined, definition of the code *Reflection Owner* was based on the (rather spiritual) thought that the act of gardening can make the owner closer to the garden, shaping it to his taste and resulting in a relationship between the owner and the garden. This appeared to not be in line with the data in this research and therefore, along the way, the definition of this code was altered to fit the data. The code *Reflection Owner* was redefined as “The garden reflects the personality of the owner as it is adjusted to the owner’s desires”, thus not focusing on the spiritual element. This led to the inclusion of garden makeover stories.

Theme: Garden Makeovers

Garden makeovers were mentioned quite often, varying from elaborate garden design plans to easy quick-to-apply garden elements. Creating a garden that fits you as the owner can bring about a different perception of the garden and positive feelings:

(...) dat is denk ik ook omdat ik hem zelf heb gemaakt, dan kijk je er anders naar. En omdat je het zelf hebt gemaakt kun je alles makkelijker, iets makkelijker fixen. Want dan weet je hoe het in mekaar zit. Dus als ik naar mijn tuin kijk dan denk ik praktisch en ook een beetje trots dat ik het zelf heb gedaan. (Interview 8)

Ik heb toevallig vorig jaar mijn hele tuin afgerond en daar ben ik ook hartstikke trots op dus ik vond het ook wel leuk. (Interview 3)

There also seemed to be a difference between first residents and residents that bought an older house. In the first case, interviewees say that they often choose easy and cheap options in their garden as the costs of a new garden design would interfere with the costs of the new house. One interviewee showed this struggle of turning the weed plain into a livable garden:

Ja, weet je, als je het huis koopt, dan is het natuurlijk één grote onkruidvlakte. Dan moet je al plannen gaan bedenken, want je moet allemaal tuinbedrijven inhuren. (Interview 7)

The same interviewee mentioned the application of tiles in the front garden to get rid of the weed plain fast.

People living in houses of which they are not first residents had a slightly easier start as they bought the house complementary with a designed garden. This released the pressure of garden design, leading to more thought-through designs:

Dus ik heb echt een jaar lang overal ideeën van verzameld en bedacht van hoe of wat en uitgetekend en bekeken wat er mogelijk is en alles afgewogen en ook echt gekeken van hoe komt de zon erin en wat wil je nou echt qua functies in de tuin. Ik heb me daar echt in verdiept zeg maar terwijl ik er eerst van te voren niks van wist. (Interview 3)

Yet not being the first resident of a house does not always lead to more elaborate garden planning. For one interviewee it brought up a feeling of sadness as she felt incapable of maintaining the luscious garden she started with:

Toen we hier kwamen wonen was de tuin dus heel groen. Veel gras, veel bomen, planten. Wat wel oprecht heel erg leuk was. Ik vind het ook soms wel jammer dat we het er allemaal uitgejast hebben. Maar ik heb geen groene vingers en ik maak er ook geen tijd voor. Dus op een gegeven moment is zo'n tuin gewoon niet meer te doen. Want dan ziet het er natuurlijk ook gewoon niet uit. Dus toen we het huis kochten was het wel. Het was gewoon een leuke gezellige tuin zeg maar. (Interview 4)

When asked about the ideal garden, a few interviewees said they felt like they already had created their ideal garden for their current family situation:

Ik denk dat we voor ons dan, voor ons gezin, het maximale er op het ogenblik uit gehaald hebben. (Interview 2)

4. MIMETIC MODE



In the Mimetic Mode, other people are central. It is the social interactions, such as garden parties and other social get-togethers that are thought to be most important (code: *Social Interactions*). The garden is therefore only a setting for these kinds of activities to take place (code: *Garden as Setting*). That means that the garden is seen as a possession, something people own, which gives them the right to do whatever they want with it (code: *Possession*). But this concept of the garden as a possession can also give rise to conflicts about ownership or other conflicts related to the garden (code: *Conflicts*).

The Mimetic Mode, although not being applied the most during coding, was the mode interviewees verbally added most value to. By emphasizing the social situations in the garden, they showed how important this aspect was to them.

Social Interactions

The code *Social Interactions* is defined as the garden being a place for social interactions, like barbecuing, garden parties, eating together etc. These social interactions take on many forms, from who they are shared with to the nature of the activity. Family, friends and neighbours are most often included, and the social interactions are in the form of having people over, celebrating birthdays, hosting parties & socializing with neighbours.

Theme: Family

Interviewees almost always assigned the greatest value to using the garden as a place for social interactions, mostly in the form of enjoying the garden together with family:

Ja, of met de familie of gewoon lekker in de tuin zitten. Of met de buren, lekker een wijntje of een biertje drinken. (Interview 2)

Het is natuurlijk leuk als je gewoon met familie buiten kan zitten of als er bezoek komt dat je lekker buiten zit. (Interview 7)

As the quotes above already suggest, the family activities are in most cases not restricted to family but reach to friends and neighbours as well. Besides, family can be perceived as the people already living there or the family members you invite over on occasions. A little more specific to the family sphere, one interviewee describes all activities he likes to use his garden for and then summarizes them as family activities:

Recreatief, ontspannen, barbecueën, borrelen, ontspannen, televisie kijken, muziek luisteren, de motor poetsen, badmintonnen met m'n zoon, voetballen met m'n zoon. Dat soort dingetjes, echt de gebruikelijke familie dingen zeg maar. Ja. (Interview 3)

Theme: Friends

Linked to the *Family* theme is the *Friends* theme, which translates to inviting people over and having the possibility to sit in the garden together. This is often with people who are not specified as family, therefore assumed to be friends or other acquaintances:

Ook met visite buiten te ontvangen, als het zo is, of ook met verjaardagen is het heel erg prettig dat je ook naar buiten kan uitwijken en je ook best wel wat ruimte hebt. (Interview 10)

Of met vrienden onder het genot van een barbecue. (Interview 10)

En ik denk ook wel in de vriendengroep die we hebben, we zijn niet één van de enigen met een tuin, maar past het hier wel vrij makkelijk ofzo. We hebben best een grote tafel, twee zitplekken en dan ben je al snel 10, 12 mensen kwijt. (Interview 8)

Theme: Neighbours

Another group of people sometimes included in the discussed social interactions are the neighbours. This inclusion ranges from more formal social interactions like making decisions about the garden together to having a bond with those people. Both are social interactions, yet on another level. This difference is shown by the quotes below:

Wij zitten met de buurman natuurlijk vast, dus dan heb je dus ook met je burens rekening te houden. (Interview 5)

En we hebben een doorgang achter in de tuin, dus we kunnen zo naar elkaar de tuin in. Dus de hond die komt dan op visite. (Interview 7)

Of met de burens, lekker een wijntje of een biertje drinken. (Interview 2)

Theme: Parties

When it comes to the type of activities performed during these social get-togethers, these are most often parties, celebrating birthdays and having people over. The frequency or the level of casualness of these get-togethers differs per person. Where some often host parties, others only have people over on birthdays:

En dus ook wel een plek om mensen te ontvangen. Maar voor mij, zeg maar, dat is meer dan echt op gelegenheid met een feestje of zo, weet je wel. Het is niet zo dat hier elk weekend de tuin helemaal vol zit met vrienden, omdat dat allemaal zo chill en lekker is zo dan is het misschien... Nou, het is niet te klein, helemaal niet, maar ik weet niet, dat doen we niet zoveel ofzo. (Interview 4)

In this theme, the people are central, not the activity (when the emphasis is on the specific activity, it is categorized under the code *Garden as Setting*). The garden is perceived as a crowded place, where you can surround yourself by people if you wish:

En als je de drukte op wilt zoeken in de tuin, dan moet dat ook kunnen. (Interview 5)

Parties are often described as joyful activities:

Met het warme weer gezellig en het meest geniet ik ervan als ik een verjaardag of een feestje heb in de tuin. (Interview 3)

Maar ook als je inderdaad wel een feestje hebt of verjaardagen. Ik ben dan in augustus jarig en dat vier ik eigenlijk altijd in de tuin. Gezellig onder de overkapping met de warmtelamp een beetje aan als het 's avonds wat koud wordt. Dat is gewoon gezellig, zeg maar. (Interview 4)

Garden as Setting

In the code *Garden as Setting*, the garden only functions as a setting and is not the main focus of the interviewee. It is perceived as a space where other activities can take place and where there is no clear connection with the garden itself other than the setting. Humans in and around the garden are perceived as more important than the garden itself. Though the distinction between the codes *Social Interactions* and *Garden as Setting* is not as clear as with other codes in the codebook, *Garden as Setting* is about using the garden for semi-social activities that are not necessarily in a big social setting. The focus is thus on the activity in *Garden as Setting*, while on the people in *Social Interactions*.

Theme: Barbecue

A lot of people connect the garden to the activity of barbecuing, whether they did this themselves, with friends, or experienced garden smells of their neighbours. People generally refer to barbecuing in the garden as a positive experience, something they enjoy using their garden for:

In de zomer doen we barbecue en lekker zitten. (Interview 1)

Of met vrienden onder het genot van een barbecue. (Interview 10)

There are even a few who do not feel strongly about barbecuing themselves, but do connect the smells and overall experience of a barbecue to their overall garden experience, often positively contributing to it:

Al doen we dat niet zo super vaak ook. We zijn niet zo van die barbecuers. Maar dat is toch een beetje wat hoort bij de tuin he. (Interview 4)

Theme: Outdoor Cooking & Eating

Using the garden solely as a setting is also about other types of eating and cooking in the garden. It is the outdoor cooking and eating that adds to the experience of the garden:

Ik hou van koken met mijn gezin of mijn familie of mijn vrienden samen te zitten. Dus ik wilde een plek met een grote eettafel waar je samen buiten kan eten. (Interview 3)

(...) zou ik ook een mooie buitenkeuken [willen] ofzo. Dat je nog meer het buitenleven hebt in de zomer. Of in de winter, dat je een keer in de winter iets, een barbecue aan kan zetten. Dat doe je nu ook niet (Interview 5)

Het liefst ook buiten eten inderdaad. (Interview 6)

Theme: Children Playing

Interviewees with little children often refer to the garden being a place for their children to play in. Though this does not necessarily have to be linked to the garden itself, playing is perceived as a social interaction in which the garden is merely a setting. Interviewees point to the importance of having a garden for their children to play in:

En nu we kindjes hebben, dan spelen de kindjes ook wel lekker veel buiten dan. Het is ook gewoon fijn dat dat in de tuin kan. (Interview 4)

Wij hebben drie kinderen en die zijn alle drie wel van het buiten spelen, van het buiten zijn. En voornamelijk de jongens. Die houden van voetballen, ravotten. Ja, en dan heb je een tuin nodig. (Interview 5)

Yet, if the children become older, they do not require the safety of a garden to play in anymore, leading to a shift in the function of a garden. It is still suggested though that children above a certain age use the garden as a place to play, just not exclusively anymore as they can also play outside the garden:

Ja op dit moment eigenlijk gewoon een plek voor de kinderen om te spelen maar ze zijn ondertussen al wat ouder dus dan hebben ze niet meer die opportunity nodig van de tuin en niet meer die beschutting nodig. (Interview 8)

Garden as Possession

The code *Possession* is assigned when the owner of a garden is focused on the fact that he/she owns it rather than what functions it fulfills. Overall, interviewees did not refer to their garden as a possession directly, but they did so indirectly by seeing it as part of the house they bought or as an achievement. Status also shows that a person thinks about what he/she comes across, emphasizing ownership.

Theme: Indirect Ownership

In one case, the interviewee indirectly labelled the garden as a possession, for example by seeing it as a form of achievement:

Nou, dat die van mij is. Maar dat heb ik ook met het huis, maar ook met de tuin denk ik. We hebben toch wel mooi voor elkaar dat we zo'n mooi huis hebben en een fijne tuin. (Interview 7)

The garden also functions as an item of status, therefore representing the garden as a possession to others passing by. This was mentioned by one interviewee:

Dus in plaats van een traditioneel hekje of zo hebben we daar een palmboom. En aan die kant hebben we ook voor wel een combinatie met wat groen gekozen. Een hekje vonden we ook zo ouderwets of zo traditioneel. (Interview 10)

Another reference to status was made by an interviewee who explicitly mentioned he wanted his garden to be an inspiration to others. He thoroughly investigated the ideal

garden design for him using Pinterest and states that he wants to do something in return for this platform by sharing his own garden design:

Ik hoop dat hij ook andere mensen inspireert. Ik heb hem ook, wat ik jou al vertelde, ik heb heel veel van mijn inspiratie van Pinterest afgehaald. En ik had zoiets van, omdat ik daar heel veel inspiratie vandaan heb gehaald, heb ik zelf ook foto's gemaakt van mijn eigen tuin en die weer terug op Pinterest gezet, zodat andere mensen hopelijk ook inspiratie hebben aan mijn tuin zeg maar. (Interview 3)

Theme: Preference for House

A form of seeing the garden as a possession is when an interviewee refers to it as part of the house, something he / she received as a bonus when buying the house. This shows that the garden was not the main point of interest, but rather the type of house:

Ja, we wilden wel graag een tuin omdat we gewoon graag naar buiten willen en ook dat de kinderen naar buiten kunnen. Maar het belangrijkste was eigenlijk dat we binnen het gewoon goed konden aanpassen dat dat zou kunnen lukken. Dat was onze hoofdeis. (Interview 9)

Indirectly, interviewees stated this difference in importance by saying that the garden “came with the house”:

Nou, het zat bij het huis. Het stond niet hoog op de prioriteitenlijst. Ik bedoel, het hebben van een tuin wel, maar wat voor een tuin niet per se. (Interview 8)

There was one interviewee who owned a house that came with a communal garden. Even though it wasn't necessary for her, she referred to it as partly her property, giving her feelings of responsibility for its maintenance amongst others:

Want voor één achtste ben je wel eigenaar. Dus je zal het wel moeten onderhouden. (Interview 6)

Conflict

The code *Conflicts* is defined as the ownership of a garden which can lead to conflicts in situations where neighbours do not agree about joint parts (like a fence) or about the ownership itself. In the interviews, conflicts, or references to conflicts, were almost never mentioned. Only one interviewee brought up possible conflicts with his neighbour, immediately stating that this was never an issue:

En geen gezeur met de burens over de tuin he. (Interview 5)

During coding, a fifth mode emerged from the data. In the Functionalistic Mode (FUN), the interviewee puts emphasis on the use of the garden and makes choices based on practicalities. The garden should align with the needs of the owner, be easily accessible and usable, and have the extra function of providing outdoor space for recreational activities not related to nature. In this mode, the family situation of the interviewee often determines the garden design, paying specific attention to children (code: *Children*). At the same time, the garden is an extension of the house or the living room, providing extra functionalities in the summer season mainly (code: *Extension House*). External facilities, in the shape of a park, playground or sports field, are believed to determine the function of the garden in the sense that they decrease the number of requirements in the garden (code: *External Facilities*). The garden is also seen as a place for recreational activities, in this case with a non-natural origin, like washing your motorcycle, storing trashcans and having a pool (code: *Recreational (non-natural)*). Related to this, space is highly appreciated, whether it provides the opportunity to go outside, encompasses the concept of space, or relates to the accessibility of the garden (code: *Space*). Lastly, in the Functionalistic Mode, the front garden is also perceived to have a function: providing a barrier between the house and the outer world (code: *Front Garden*).

Children

In the code *Children*, people take into account their children's needs when designing their garden. It is one of the most important aspects of the Functionalistic Mode and relates to the entire family situation. Part of the interviewees reported that the choices in their garden were largely based on the needs of the family and children:

Ja, ik heb heel erg denk ik de tuin gebouwd op basis van het gezin, dus de samenstelling. (Interview 2)

We wonen hier met het gezin, wij samen en drie kinderen. En die kinderen zijn leeftijd basisschool. En daar zijn natuurlijk ook een hoop keuzes op gemaakt voor de tuin. (Interview 5)

Theme: Children's Needs

The choices in the garden that take into account the needs of the children were mostly based on the idea that children should get enough space to move around and play:

En dat ze de ruimte hebben om zich te kunnen bewegen. (Interview 5)

En met oog op een kindje natuurlijk. We hadden wel het idee, het hoefde geen mega grote tuin te zijn, maar er moet wel een tuin bij zitten om in ieder geval iets van het speeltoestellen of gewoon lekker in de tuin, een zandbak, dus lekker te kunnen spelen in de tuin. Ja. (Interview 10)

En dat we een lekkere plek hadden om te zitten en dat ook die meiden kunnen spelen. (Interview 9)

This requirement for the garden to provide a space for children to move around and play is also linked to this environment being safe and child-friendly, which becomes less important once the children become older:

Ja op dit moment eigenlijk gewoon een plek spelen voor de kinderen om te spelen maar ze zijn ondertussen al wat ouder dus dan hebben ze niet meer die opportunity nodig van de tuin en niet meer die beschutting nodig. (Interview 8)

Sometimes, this need for space leads to the desire for a bigger garden:

Ja, dus uiteindelijk hebben we gekozen omdat we natuurlijk, moet ik niet liegen, de oudste was net twee of zo en jongste die kwam eraan. Dus we wilden toch wel een stukje grotere tuin hebben. (Interview 2)

Alleen dan zou ik dus inderdaad nog wel iets met gras willen. En dat we iets meer ruimte hebben voor de kindjes om lekker te spelen. Dus dat zou het helemaal afmaken. (Interview 4)

The elements within a garden that were adjusted for children mostly relate to having an area where they can play (e.g. a trampoline), plants that are vandal-proof (“hufferproof” in Dutch, e.g. artificial grass), and safety precautions (e.g. a shallow waterfall). This becomes apparent through the following quotes respectively:

Nou, toen hebben we dus echt het gras en de trampoline voor de kinderen gekozen. (Interview 5)

En het is ook gewoon een tuin die tegen een stootje kan. Dus je kunt best wel echt rondrennen over de grond en over de planten. (Interview 8)

Ik had bijvoorbeeld graag een wat diepere, iets van een vijverachtig iets in willen hebben. Ik heb er nu wel een waterval in, maar die is kindvriendelijk. (Interview 3)

Theme: Changing Garden Needs

When interviewees were asked to think about an ideal garden without boundaries, the ones with small children said that they would make different decisions if they did not have to consider their children:

Ja, wat we net al zeiden, als we niet met kinderen rekening hoeven te houden, dan wat meer hoekjes, wat meer groen, wat meer de hoogte in. Wat knusser, gezelliger. (Interview 5)

This indicates that the center of gravity in decisions shifts as a family moves through different stages. The needs in the garden change going from a childless couple, to one with small children, to older children and eventually to children moving out. This is clearly explained by one interviewee in particular:

Je onderzoek zal ook wel in fases zijn weet je. Als je bijvoorbeeld net gaat samenwonen ja dan weet ik niet of je de rust en tijd en zin hebt in een tuin. Dan krijg je kinderen. Ja goed dan krijgt je tuin denk ik een beetje ja allerlei planten en tegenwoordig heb je ook allerlei gifplanten en die meuk. Dat wil je dan ook niet met kinderen. Ja. En dan op een gegeven moment worden je kinderen ouder en dan ja, er zullen ook wel stappen zijn denk ik in fases van de inrichting van je tuin. (Interview 1)

That garden needs change over the course of a lifetime ties in with the absence or presence of barriers to gardening. One interviewee, for example, envisioned that, later, when she is retired and would have lots of time, she could pick up gardening again:

Maar als je met pensioen bent heb je natuurlijk veel meer tijd. (...) Dus ik kan me wel voorstellen dat het heel veel later (...) het iets meer groene misschien juist wel weer gaat komen. Zullen alle kinderdingen ook weer de tuin uit zijn, dus dat scheelt dan weer. Dus ja, dat kan ik wel voor me zien dat dat zo een beetje verandert weer. En eerst stond ik daar nooit zo bij stil, zeg maar, dat je behoefte in een tuin ook wel verandert. En nu (...) wil je toch weer even net wat andere dingen. Ja, het verandert wel, zo'n behoefte zeg maar, wat je met je buitenruimte wil doen. (Interview 4)

Applying the same type of reasoning yet for the current stage of life, some interviewees mentioned the resemblance between the family and the garden. They argue that the garden is in line with the phase the owner is in at the time, providing both relaxation for the parents and places to play for the children. That means that they think the optimal situation in the garden was already reached for this specific phase in life:

Ik denk dat als ik nu aan mijn tuin denk, denk ik gewoon aan de fase waarin je nu zit in je leven. We zijn allebei veertig. Nou, dan wil je rust. Dan wil je je soms ook even terugtrekken. Maar je hebt ook kinderen die de ruimte nodig hebben, die af en toe willen spelen in de tuin. Dus ik denk dat het gewoon een familiesfeer uitstraalt. Voor iedereen wat. De tuin is een algemeen gebruik dus het moet ook niet siergras zijn waar je niet op mag lopen of plantjes waar je heel voorzichtig mee zou moeten zijn. Nee, het is gewoon een combinatie van. Net als onze woonkamer eigenlijk. (Interview 5)

Ik denk dat we voor ons dan, voor ons gezin, het maximale er op het ogenblik uit gehaald hebben. (Interview 2)

Theme: Dilemma's

Changing needs links to the topic of dilemmas (*Afweging*). As the garden is strongly influenced by the owner's personal situation (e.g. time, money, family situation, space etc.), he or she is often confronted with dilemmas, forcing them to choose between desire (what they actually want in their garden) and functionality. Most of the time the functionality aspect wins. For example, using the sun-drenched place in the garden for

sunbathing instead of grass, using practical and cheap tiles instead of nice tiles, and choosing plants that can take a beating:

Ik wilde een overkapping en ik wilde een plekje waar ik lekker kon zonnen zeg maar. En daar staat dus ook in die hoek staat de meeste zon. Maar goed dat ging dus wel ten koste van het gras. (Interview 4)

Verder hebben we deze tegels eigenlijk gewoon overal en nergens hier in de buurt vandaangehaald. Want dat zijn gewoon nog die nieuwbouwtégels. Dat was denk ik een bewuste economische keuze in die zin. Gewoon een praktische keuze. Met de gedachte om het eventueel later nog een keertje te vervangen. Ja, het was al zo lang geleden dat ik had gestraat, ik denk van nou ja, als het dan niet goed gaat, dan is het helemaal niet een mooie tegel die scheef gaat liggen of gaat barsten. (Interview 8)

En natuurlijk de planten. Die moeten ook tegen een stootje kunnen. Oh ja. Want als je allemaal dure, niet flexibele plantjes erin zet en die bal gaat er elke keer tegenaan. Dan is de tuin zo kapot natuurlijk. (Interview 5)

Going one step further, one interviewee mentioned the dilemma of creating a forest-like garden herself or visiting a forest. Again, the practicalities of not having to maintain a forest-like garden win over the desire to have this type of garden:

Oh ja, wij vinden het ook wel heel erg fijn om bijvoorbeeld lekker in een bos te wandelen. Vinden we heerlijk. Dat is ook wel lekker als je die tuin nog iets meer natuurlijk hebt of zo. Ik heb geen groene vingers dus voor mij wordt het echt een oerwoud in plaats van een leuk bos. Dus dat is wel eentje waar ik me in kan vinden. Alleen dan ga ik toch liever gewoon naar het bos. Maar ik kan me er wel in vinden. (Interview 4)

Extension House

The code *Extension House* is defined as the garden being an extension of the house, it enlarges the living room as people spend a lot of time here. This is mainly in relation to the summer season, but in case of a canopy this period can be extended.

Theme: Summer

When it comes to the interviewee's perception of the private garden, a lot mentioned that they view their garden as an extension of their living room, especially in summer:

Rustig kunnen zitten ook, een soort verlengd stuk van je huiskamer denk ik. Dat voor nu in elk geval voor mij het belangrijkste zou zijn. Ja, een verlengd stuk van je huis. (Interview 8)

Ja, vooral eigenlijk gewoon als het mooi weer is, als een soort verlengstuk van het huis. (Interview 9)

En gewoon in de zomer is het toch een beetje een verlengde van je huis zeg maar. Dus dat vind ik wel heel erg leuk. Ja, voor mij voegt het wel wat toe ook aan mijn woonplezier zeg maar. (Interview 4)

Onze tuin is eigenlijk een soort tweede huiskamer geworden. Waar je in de zomer, is dat je hoofdhuiskamer en in de winter zitten we hier zeg maar. (Interview 3)

De belangrijkste functie van mijn tuin zie ik dat het het verlengde is van mijn huis. (Interview 2)

Theme: Canopy

This ties in with the notion that canopies form an important part of the garden. They can provide shelter to perform recreational activities such as barbecuing, listening to music and relaxing, due to its comfort.

Ontspannen. Achterin hebben we een overkapping en daar heb ik normaal gesproken een loungeset onder staan. Ik heb er een tv tegen de muur aan hangen. Ik heb er een internet aansluiting. Ik heb er stroom. Een regelbare verlichting. (Interview 3)

Ja daarom hebben we denk ik ook de overkapping want dat merk ik wel als het gewoon lekker, stel februari, maart het zonnetje begint te schijnen dan is dat gauw 18, 19 graden in de overkapping. Dan kun je daar al zitten. En hij is vrij ruim ook dus je kan daar lekker, ik heb daar tv, muziek kan ik aansluiten. Je kan er gewoon lekker zitten. (Interview 2)

Even in times of rain or other unfavoured weather conditions. Therefore, a canopy can extend the period in which the garden can be used, minimizing the effect of the seasons:

Dus door die overkapping kun je eigenlijk eerder al genieten van de tuin. (Interview 2)

Een soort van afgeschermd plekje waar je kan genieten in de winter met een kachel of iets, weet ik niet. Gewoon, zodat je buiten kan. Ja, iets anders als je buiten zit dan als je binnen zit. Dus het gevoel is ook anders. (Interview 1)

This perception of the garden as an outdoor extension of the house also shows that the main purpose of a garden is its functionality. The option to go and enjoy the outdoors even in times of less favorable weather emphasizes the needs of the owner above other elements in the garden.

External Facilities

The code *External Facilities* is defined as the facilities that are close to the garden, such as parks (and other landscape types), playgrounds and sports equipment, which help in determining the function of the private garden. This perception was supported by three interviewees in particular. They argue that whenever the municipality arranges facilities such as parks (and other landscape types), playgrounds, sports equipment and other

types of facilities close by, the function of the garden changes. Therefore, in a way, the municipality helps make decisions about the design of the garden:

Verder, ik heb geen, niet of nauwelijks speeldingen in de tuin. Want we hebben hier achter de schutting zit een speeltuintje. (Interview 2)

We hebben een vlonder, die hebben we laten aanleggen. Omdat we natuurlijk aan de sloot zitten. Dachten, misschien ga je ook nog eens een keer met een bootje, weet ik veel wat. Gaan we niet doen, maar goed. (Interview 7)

Maar verder ja, dat komt denk ik ook omdat je hier zo tegen het park aan woont. Dat die functie van een tuin iets anders is dan wanneer je geen grote buitenruimte tot je beschikking hebt. Een nicht van mij heeft de tuin half omgebouwd tot fitnessruimte, met allemaal van die pergola-achtige dingen in de tuin dat je kunt trainen. Maar dat hebben wij nu hier bij het park ook en richting Rijkerswoerd hebben we het ook. In die zin bepaalt de gemeente welke noodzaak het is voor je eigen tuin. (Interview 8)

Theme: Landscape Types

External facilities in the form of a landscape type such as a forest or park can make interviewees prefer to visit above creating that type of garden themselves. It can also cause interviewees to create a less natural garden than they want because this facility is close by and replaces the garden in that sense. For example, one interviewee talked about his ideal type of garden being an English landscape garden. Yet, also saying that this is not realistic for him as his own private garden due to the size and the amount of maintenance:

Als ik hem niet zelf zou hoeven te onderhouden, ik vind Engelse landschapstuinen wel gewoon mooi, met veel nisjes en hoekjes, een vijver. Maar dan ga je wel in surrealistische formaten bedenken. (Interview 8)

Therefore, he chooses to visit this type of garden whenever he gets the chance:

Ja, daar ga ik wel naar op bezoek. Maar inderdaad, dat vind ik wel het mooiste soort tuinen. (Interview 8)

The same goes for another interviewee who mentions that she likes forest areas, but has no interest in creating this type of garden herself, thus choosing to visit rather than own:

Oh ja, wij vinden het ook wel heel erg fijn om bijvoorbeeld lekker in een bos te wandelen. Vinden we heerlijk. Dat is ook wel lekker als je die tuin nog iets meer natuurlijk hebt of zo. Ik heb geen groene vingers dus voor mij wordt het echt een oerwoud in plaats van een leuk bos. Dus dat is wel eentje waar ik me in kan vinden. Alleen dan ga ik toch liever gewoon naar het bos. Maar ik kan me er wel in vinden. (Interview 4)

Non-Natural Recreational Functions

The code *Recreation* is defined as the activities performed in a garden that do not relate to natural elements or gardening, like having a pool, playing and cleaning bikes etc. Such recreational activities were brought up quite often, seeing the garden as a place to perform those activities. In that sense, this code links to the Mimetic Mode, only is this code not focused on other people as well. Non-natural recreational activities that were mentioned in the interviews include smoking, having a pool, washing the motorcycle, playing soccer, barbecuing, watching television, listening to music, reading, playing outside (children), doing repairs and small domestic jobs, and other hobbies:

Recreatief, ontspannen, barbecueën, borrelen, ontspannen, televisie kijken, muziek luisteren, de motor poetsen, badmintonnen met m'n zoon, voetballen met m'n zoon. Dat soort dingetjes, echt de gebruikelijke familie dingen zeg maar. (Interview 3)

Maar die is dus wel het hele jaar door ook wat meer bezig in de tuin met zijn hobby, maar het is niet per se dat de tuin zijn hobby is, zeg maar. Het is meer dat hij buitenruimte heeft om wat te doen. (Interview 4)

Een boekje lezen, het zwembadje in de zomer opzetten, barbequeën, dat soort dingen. Het liefst ook buiten eten inderdaad. (Interview 6)

Ja, het stukje klusruimte, daar gebruik ik het soms wel voor, maar dan heb ik het natuurlijk meer over het schuurtje ook. Maar ik denk dat die rol nog iets meer zou kunnen vervullen. (Interview 8)

Ja, roken. (Interview 1)

Ja, wij hebben die plek expres achterin, speciaal voor een zwembad. We hebben er twee jaar ook een opgezet. Dus we hebben daar echt, toen met dit ontwerp hebben we daar rekening mee gehouden. We dachten oké, die plek zou mooi zijn voor een zwembad voor de kinderen. (Interview 9)

Relaxation on its own, however, is perceived to be part of the Naturalistic Mode.

Not so much recreational, but more functionality oriented is the function of using the garden as a space to store your stuff and protect it against weather conditions:

(...) we hebben in principe maar een heel klein schuurtje die je standaard bij de woning krijgt en onder die overkapping kan je dan in ieder geval ook gewoon nog wat spullen plaatsen zonder dat het meteen nat wordt zeg maar dus ook om een beetje wat spullen onder te kunnen plaatsen. (Interview 10)

Yet, the garden as storage was only mentioned twice during the interviews.

Space

In the code *Space*, the amount of space the garden provides is referred to, whether this is combined with accessibility or garden layout. The size of the garden was brought up a

few times in the interviews, generally emphasizing the contentedness with the amount of space the garden occupies or the desire of increasing the size slightly:

Wat ik wel fijn vind is wel de ruimte zeg maar. (Interview 2)

Want ja, we hebben wel gewoon, het is een twee-onder-een-kap, we hebben een redelijke tuin, een oprit. Het voelt allemaal wat vrijer. We hebben aan deze kant een burens, maar die kant is los. Dus ja, je hebt ook wel gewoon een lekkere ruimte. (Interview 3)

Als we dan gaan verhuizen, dan willen we wel een iets grotere tuin. Er moet wel iets meer ruimte in zitten. In dat gezegde is deze tuin twee keer zo groot als de tuin die we hadden in Zuid. Dus het is al wel een vooruitgang in die zin. (Interview 8)

Ja, eigenlijk zijn we nu op zoek naar een koopwoning. Maar een beetje in het buitengebied. Het is niet te vinden. Maar het liefst hebben we wel een stukje grond erbij, ja. (Interview 1)

Theme: Accessibility

The size of the garden is often related to the overall accessibility of the garden. This aspect was especially emphasized by an interviewee with a wheelchair bound child:

We hebben heel veel rekening mee gehouden. Bijvoorbeeld als je naar buiten kijkt, dan zie je tegels, een stukje gras. Geen vijver, want dat is niet handig. Ja, dat je met de rolstoel makkelijk in en uit kan. (Interview 10)

Yet, accessibility is also about the layout of the garden, with its functional pathways and ease of use:

Eigenlijk gewoon dat het een fijne tuin is. (...) Ik denk toch met de uiteindelijke indeling waarvoor we gekozen hebben en de grootte van de tuin. (Interview 10)

Verder vond ik het belangrijk dat je makkelijk met de fiets en met de motor van de garage naar de straat kan, dus dat moest ook een beetje praktisch te doen zijn. (Interview 3)

Dus dat is toch wat ik denk van, oh ja, de logische gangpaden zeg maar in de tuin, die blokkeren soms een beetje de ruimte die je wel of niet kan benutten. (Interview 4)

Theme: Opportunity to go Outside

Space can also link to the opportunity to go outside and enjoy the extra space:

Ook met visite buiten te ontvangen, als het zo is, of ook met verjaardagen is het heel erg prettig dat je ook naar buiten kan uitwijken en je ook best wel wat ruimte hebt. (Interview 10)

Als er dan inderdaad iemand even op bezoek komt, mijn ouders komen op bezoek of die eten een keertje mee, dat we ook gewoon lekker in de tuin kunnen zitten. En wel die mogelijkheid hebben om buiten te eten. (Interview 4)

Front Garden

The code *Front Garden* is applied when the front garden is described as having an important function for the owner. The front garden of a house is received differently across the interviewees.

Theme: No Specific Use

Some people report not using their front garden at all:

Ik ga eigenlijk niet in de voortuin zitten of zo. (Interview 6)

Nou, ik heb altijd gezegd, het lijkt me wel leuk als ik dan in de ochtend een kopje koffie kan drinken. En dan een kopje koffie aangeven door het raam. Nouja, dat is één keer gebeurd. Dus nee, dat gaat niet heel erg snel gebeuren. Maar de kinderen gebruiken het wel bij het spelen. Dus ja, dan heeft het wel een goede functie. Dus er wordt zeker wel op gezeten. Maar niet door mij. Je zit er ook echt pal in de zon. In de zomer is het natuurlijk echt, je zit er eigenlijk wel lekker. In die zin. Maar ja, nee. Maar het gebeurt niet. (Interview 8)

Theme: Functional Space

For some interviewees, the front garden added great value to their living experience. The extra meters in front of their house give them feelings of safety and freedom as it separates the house from the outside world, thus creating a barrier.

We maken het meest gebruik van onze achtertuin, maar uiteindelijk vind ik de voortuin ook heel fijn. Ook al is het maar een kleine voortuin, juist om de functie die die voortuin voor mij heeft als in die kleine afscherming van de gewone straat, weg, voetgangerspad. (Interview 10)

En ik vind de voortuinen ook wel iets, omdat ze niet het voetpad pal tegen je huis aan ligt. Nu heb je nog een stukje van vrijheid waar je zelf wat mee kan bepalen. Dat ze niet meteen je ramen aan tikken of de muren aan tikken. (Interview 5)

Only one interviewee mentioned the actual use of her front garden as a place to sit and relax in the summer evenings mostly:

Dus we hebben eigenlijk van 's ochtends zon in de zomer tot een uurtje of 5, 6. Maar dan staat de zon heel hoog, gaat die over het huis heen en dan komt het eigenlijk in de voortuin. Maar dat is ook wel lekker, want als het dan avond is, dan zitten we nog wel eens voor lekker even op het bankje. (Interview 4)

UPDATED MODEL VISUALISATION

The Results ask for an updated model visualisation including the inductively retrieved 5th mode of occupation and the new subcode *Joy*. This leads to the model in Figure 6 below. This model shows the 5 different modes of occupation, including a photo to clarify their orientation, and their subcodes with a small explanation. The order of the subcodes is random and the colours are in line with the coding process. The order of the modes is not random but based on the order in which they are discussed in the Results and Conceptual Framework.

EXTENDED GARDEN EXPERIENCE MODEL

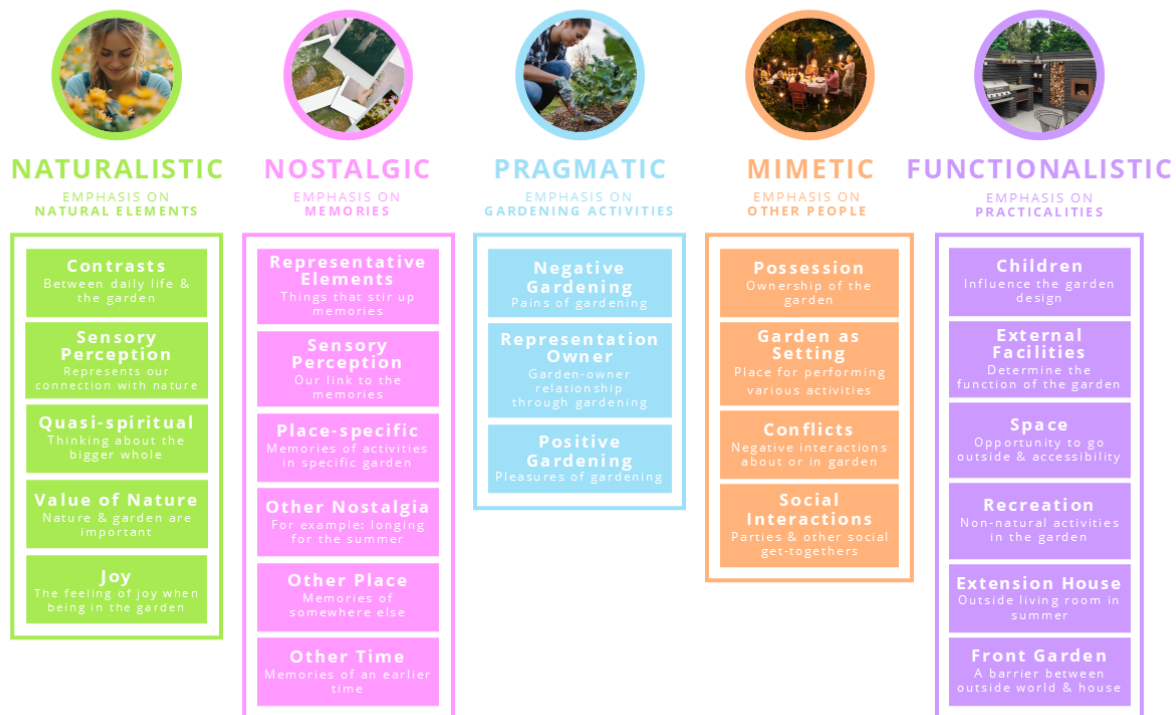


Figure 6: Updated Garden Experience Model including the Functionalistic Mode and the subcode *Joy* in the Naturalistic Mode. The order of the subcodes is random.

Considering the Functionalistic Mode is largely based on rational weighing of pros and cons with respect to the garden design, it is suggested that this mode is more oriented towards the Central Route in the ELM. With Children, External Facilities, Space, and Recreation belonging to the Central Route solely, and Extension House and Front Garden somewhat in the middle between the Central and Peripheral Route. The subcode *Joy* can be found in the Peripheral Route as this is associated with emotions. This is presented in Figure 7 below. The representation is based on the input of the interviewees.

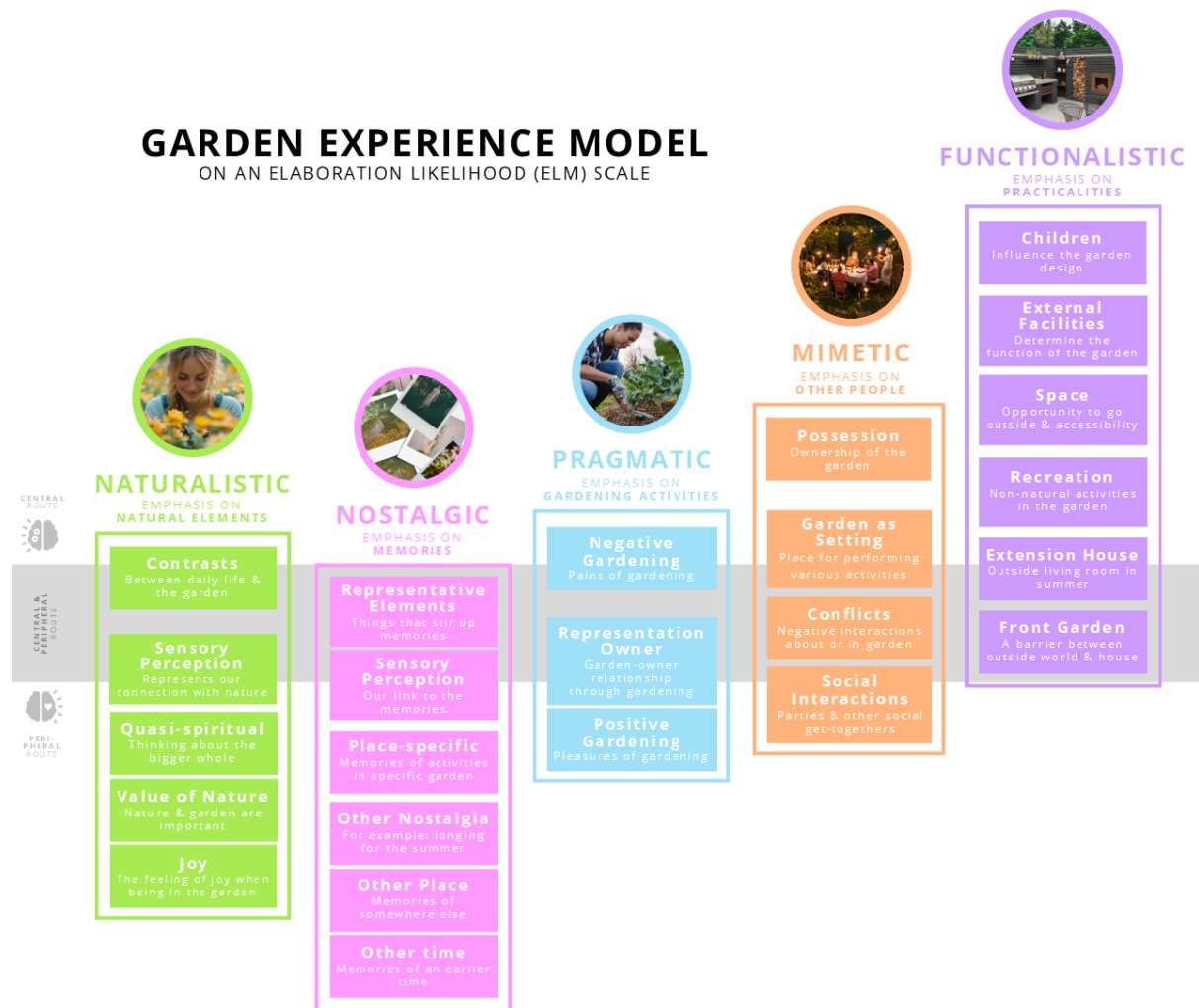


Figure 7: Updated Garden Experience Model including the Functionalistic Mode and the subcode Joy in the Naturalistic Mode. The subcodes are placed on a scale that is based on the ELM, with the upper part referring to the Central Route, and the lower part to the Peripheral Route. The grey area in-between represents a combination of both routes of reasoning. The Functionalistic Mode is assumed to be located largely in the Central Route whereas Joy is oriented towards the Peripheral Route. This model representation is based on the input of the interviewees in this thesis.

SEASONAL VARIATION

Interviewees generally report enjoying their garden least in the winter season and using it only for functional purposes. At the same time, they perceive their garden as an extension of their home in the summer season. For this category, only one code was created: *Seasons*, but for the analysis, the code is split into *Winter* and *Summer*.

Winter

The subcategory *Winter* covers all quotes linking the garden to the winter season. This part of the year is generally not preferred amongst interviewees.

Theme: Dislike & Pains

Overall, quotes addressing the winter season are oriented towards functionality and often show forms of dislike. This is related to the flowering season of the plants in a garden and less favorable weather conditions, describing a garden as “not beautiful” in the winter:

Nee, maar sowieso, kijk de beplanting nu ziet er niet uit in de winter. Maar in de zomer, ja, dan staat het allemaal mooi, of in de lente staat het mooi in bloei en dan is je zicht natuurlijk ook vele malen mooier. Dan zit je er ook met een veel prettiger gevoel. Ja. Dan ben je eigenlijk gewoon blij met wat je dan op dat moment ziet. (Interview 5)

En in de winter is het wel een beetje... Ja, dan is het een beetje druilerig. Dan is het niet per se de meest mooie tuin om te zien, denk ik. Dan mis je al die zomerse en voorjaarsdingetjes. Maar dan huppelt er een konijn rond. (Interview 8)

Jeetje... Ja als je het nu vraagt, dan denk ik echt helemaal... Bah, wat ziet dat eruit, echt vreselijk. (Interview 9)

Winter experiences in the garden are also related to the pains of gardening:

Het gras overleeft alleen geen winter, zeggen we nog steeds. (Interview 9)

Theme: Sight Pleasing

There are, on the other hand, also interviewees who appreciate their garden even during the less favored winter season. They generally refer to the sense of sight, which can be naturally pleasing or enhanced by lights in the garden:

Ik vind hem zelfs in de winter, terwijl dat het slechtste seizoen is voor de tuin, vind ik hem trouwens nog wel mooi om te zien. (Interview 3)

En we hebben het nu continu over licht, maar als het donker is, hebben we nu kerstlampjes wat een harstikke leuke sfeer geeft. We willen nog een keertje mooie buitenlampen in de tuin wegzetten zodat je het in de winter ook wat meer ziet. (Interview 5)

This is also the way in which interviewees try to create a nice enjoyable space in the winter season. They take (or are planning to take) measures like installing lights, but also choosing plants that remain green throughout the year:

Najaar, blijft die eigenlijk nog vrij lang goed, omdat die grassen helemaal niet veranderen in die zin. En eigenlijk die druif blijft ook nog wel vrij lang groen. (Interview 8)

En dan is natuurlijk die haag aan de achterzijde. Nou kom ik heel snel even niet op de naam van de haag. Maar die is ook wintergroen. Dus je hebt het hele jaar door groen. Dus dat vind ik voor mezelf sprekend. (Interview 5)

Linked to this, one interviewee pointed to snow as being a positive aspect of the winter in his garden:

Ja, goed als het sneeuwt is het leuk hè. (Interview 1)

Theme: Canopy

Another way to be able to enjoy the garden more and for a longer time in and outside the summer season is by installing a canopy. This is perceived to be an important element in the garden by almost all interviewees:

Ja, je kan vroeg in het voorjaar en tot laat wanneer het weer het een beetje toelaat. Wanneer het niet te koud is, kun je tot laat nog buiten zitten inderdaad. Onder zo'n overkapping kan je er lang gebruik van maken. (Interview 3)

Ja daarom hebben we denk ik ook de overkapping want dat merk ik wel als het gewoon lekker, stel februari, maart het zonnetje begint te schijnen dan is dat gauw 18, 19 graden in de overkapping. Dan kun je daar al zitten. En hij is vrij ruim ook dus je kan daar lekker, ik heb daar tv, muziek kan ik aansluiten. Je kan er gewoon lekker zitten. Ja 's morgens ook, op zaterdag of zondag ga je er lekker ontbijten en dan ja dan zit je er heerlijk. En dan ja, wat is het in april, mei, dan kun je pas naar buiten gaan. Dus door die overkapping kun je eigenlijk eerder al genieten van de tuin. (Interview 2)

Ja, overkapping. Zodat je ook in de winter buiten, zomaar buiten kan zitten. (Interview 5)

Theme: Functionality

When it comes to the use of the garden, however, interviewees, although enjoying the sight, still report not using it in the winter other than for functional purposes:

Nu kom je er eigenlijk vooral functioneel. Het is een keer de fiets pakken als we James naar school brengen. Iets in de klink gooien die aan de zijkant van het huis staat. En dat was het dan wel. Dan moet ik nog zeggen, dat het dan nog leuk is omdat hij nu mooi aangelegd is. (Interview 3)

One interviewee emphasised that she uses her garden mostly in summer and seeks out nature areas in winter as the feelings she attaches to her garden in relation to the nature areas differ:

Maar dat is misschien ook een beetje verschil, want in de zomer doe ik dat sneller in mijn tuin en in de herfst, winter, een stukje voorjaar, dan doe ik dat eigenlijk liever in het bos. Omdat je dat dan in je tuin natuurlijk niet zo hebt. (Interview 4)

Summer

The subcategory *Summer* covers all quotes linking the garden to the summer season. This part of the year is generally referred to most when talking about the garden and receives mainly positive attention.

Theme: Joy

All interviewees directly refer to the summer season when asked about their garden. They report that this is the time they enjoy it most:

Nu word ik er niet zo blij van. Maar over het algemeen, als het weer zomer klaar is en alles staat er weer netjes op, dan word ik er wel blij van. En dan ben ik ook nog steeds wel blij dat we gewoon ook een lekker tuintje hebben waar je op uit kan kijken. En gewoon in de zomer is het toch een beetje een verlengde van je huis zeg maar. (Interview 4)

This is related to the flowering season and the abundance of plants:

Ik vind het in de zomer gewoon leuk dat we veel planten en bloemen hebben. (Interview 9)

Going hand in hand with bursts of colour:

Ja, het voorjaar begint het natuurlijk. Dan heb je hier al bij wijze van spreken, met viooltjes, een klein beetje groen aanbrengen. Een beetje kleur, groen. (Interview 10)

And, largely underlying all reasoning, the temperatures in the summer:

Ja, vooral de temperatuur denk ik. Dan is het wat leuker in de tuin, wat gezelliger, dan zoals in dit seizoen. Ja. (Interview 9)

Theme: Social Functionality

The summer season is also related to the ability to use the garden for parties and other social interactions. It gives rise to social settings, an added functionality:

Afgelopen zomer ook heel veel feesten hieronder gegeven. Een barbecue aan. We zetten hier een tapje bier. Ze hangen wat van die gekleurde lampjes hangen ze eraan. De barbecue gaat om 5 uur aan, om 10 uur aan en s'nachts om 2 uur zetten ze het nog een keer aan. Dus ja, dat is gewoon geweldig weet je, lekker genieten. (Interview 2)

Ik ben überhaupt wel een zomermens en ik houd van warmte dus dan is de zomer altijd voor mij een fijne periode. En ja dan denk ik daar wel aan. Maar ook wel aan gezelligheid. Veel van ons zijn in de zomer jarig dus dan ons verjaardag vieren dan kan het gelukkig vaak buiten. (Interview 4)

Theme: Longing for Summer

Some interviewees also report longing for the summer in the winter season as they believe this is the time of joy, colour, life, and beauty:

En in de winter is het wel een beetje... Ja, dan is het een beetje druilerig. Dan is het niet per se de meest mooie tuin om te zien, denk ik. Dan mis je al die zomerse en voorjaarsdingetjes. (Interview 8)

Ja, maar als ik nu kijk, heb ik geen gevoel bij of zo van mooi of niet mooi. Het is allemaal echt uitgebloeid, dus we moeten maar weer gewoon wachten tot... (Interview 7)

Nu word ik er niet zo blij van. Maar over het algemeen, als het weer zomer klaar is en alles staat er weer netjes op, dan word ik er wel blij van. (Interview 4)

Theme: Garden as Second Livingroom

A garden is perceived as an extension of the house or even a second living room in the summer season, with a changing role throughout the seasons:

Ja, vooral eigenlijk gewoon als het mooi weer is, als een soort verlengstuk van het huis. (Interview 9)

Waar je in de zomer, is dat je hoofdhuiskamer en in de winter zitten we hier zeg maar. Dat is eigenlijk het ding. (Interview 3)

FUTURE PERSPECTIVE

The final question of the interview consisted of a look into the future. The interviewees were asked to describe how they think about their future and what role their garden will play. Although most people said they think the role of the garden would not change significantly, small adjustments in design and use are likely to take place:

Het blijft een beetje zo denk ik, zoals dat het nu is. (Interview 9)

Ja ik denk zeker wel dat ik de komende 5 tot 10 jaar niks anders ga doen. Misschien een plantje erbij of een plantje eruit. (Interview 2)

Ja, misschien dat ik dan nog wat kleine details aanpas met een waterpartijtje ofzo, die iets groter is of iets dieper, maar dat zijn eigenlijk maar kleine details. Ik denk dat deze tuin wel echt, deze blijft wel een jaar of 10 misschien wel 15, 20 jaar. Daar is die ook wel redelijk op gemaakt. (Interview 3)

Theme: (Grand-)Children

The future perspectives mainly entailed the role of children and the changing situation once the interviewees are retired. Generally, people with small children hope their garden is going to play a bigger role in providing a safe space to play for their children and their friends:

Ja, nou ik denk dus wel dat de kinderen nog een iets grotere rol gaan spelen in de toekomst. Dus toch iets meer ruimte voor hen creëren. (Interview 4)

Niet heel anders verwacht ik eigenlijk. Ik denk misschien nog meer omdat mijn kinderen nu jong zijn, dat het misschien nog meer zal zijn dat er meer gespeeld gaat worden in de tuin, als in met vriendjes, vriendinnetjes. Dus dat die rol nog meer gaat veranderen of gaat meer richting het spelen en het herinneringen maken in de tuin gaat zijn. Wat het nu al doet. (Interview 10)

This also counts for retirement, the outlook for having your own grandchildren running around in your garden:

Later, later, later dat je kleinkinderen in de tuin kunnen spelen, dat is natuurlijk wel leuk. Dat zie ik bij mijn ouders ook. Dan komen de kinderen daar en zijn ze gewoon lekker in de tuin aan het spelen. (Interview 8)

Theme: Removing Barriers

But retirement is more often discussed in relation to removing barriers. As a lot of interviewees listed reasons why they do not engage in gardening, they also argue that some barriers would be removed once they reached retirement. They expect to have more time and interest by then:

Ja, als ik ooit wat meer tijd zou voelen, dan zou ik wel wat meer in de tuin willen doen. Het ontbreekt ook gewoon vaak aan tijd en als je het dan niet echt, het is niet echt mijn hobby om nou van alles te doen dan doe je dat niet maar dat zou ik me wel voor kunnen stellen als ik wat meer tijd zou hebben. Dan denk

ik wel altijd oh dan zou het wel leuk zijn om wat meer in de tuin te kunnen doen. (Interview 9)

Meer zeg maar richting gepensioneerde leeftijd, dan kan ik me ook wel voorstellen dat het misschien juist wel weer ietsje groener wordt. Want ik zei net dat ik het niet leuk vind om in de tuin te werken. Dat is niet helemaal waar. Ik vind het nu vooral niet leuk omdat ik er geen tijd voor heb. En ik vind het in deze fase van mijn leven niet zo leuk dat ik er tijd voor ga maken, zeg maar. (Interview 4)

Or, in one case, the interviewee mentioned that once retired he could finally fulfill his desire to go to Greece and create the ideal garden situation there:

Ja, oefenen voor later als we met pensioen gaan en naar Griekenland verhuizen. (Interview 1)

RECURRING TOPICS

During the interviews there were a few topics, spread over multiple modes, that were mentioned by multiple interviewees as being important in the garden. These – including their occurrence in the interviews - are listed in Table 3 below.

Table 3. Recurring topics within the interviews. On the left are the topics and on the right are the interviews. A “●” means that it is mentioned as an important element of the garden. A “**” means that the item needs some more explanation, which is provided in this section.

	1	2	3	4	5	6	7	8	9	10
Barbecuing	●	●	●	**	●	●		●		●
Canopy	**	●	●	●	●	●	●			●
Artificial Grass		●		●	●	●	●	●		●
Children		●	**	●	●			●	●	●
Party/having people over	●	●	●	●	●	**	●	●	●	●
Maintenance	**	●	●	●	●	●	●	●		●
Bigger Garden with Gardener	**		●	●			**	●		●
Extension House (Summer)		●	●	●		**		**	●	**
Lounge Sofa / enjoy sitting outside	●	●	●	●	●	**	●	●	●	●
Possibility to go Outside		●		●			●			
Garden Makeover		●	●	●	●		●	●	●	

Barbecuing

At least 7 out of 10 interviewees mention barbecuing as an essential part of their garden experience, whether it is barbecuing by yourself in your garden, with family or friends, or sensing the barbecues of neighbours (e.g. the smell (**)).

Canopy

At least 7 out of 10 interviewees expressed their desire to have a canopy area in their garden, of which a few had already realized this. In their explanation of why they wanted this they said that it could extend the period they could enjoy their garden, thus lengthening the seasons. The ** in this case means that the interviewee does not directly mention the canopy but suggests the idea by saying she wants a place to sit outside in the wintertime.

Artificial Grass

Out of 10 interviewees, there were only 3 who did not have artificial grass in their gardens for reasons of naturalness and aesthetics mainly. Others almost paid tribute to artificial grass, saying that it is maintenance free, insect and pollen free and always looks nice and green.

Children

As most interviewees were parents of children ranging from the age of 1 till 29, they often said that their children influence the decisions they made in their garden. The way in which the children do this depends on the age of the children. Younger children, for example, are often more accounted for in the design, making the interviewees create gardens that are child friendly. The children's influence was also determined by the identity of the child. Where some kids are more attracted to nature, others like to use nature as a place to play. Only one person clearly stated he did not design his garden for his child but rather for himself, nevertheless taking his child into account with safety precautions. Interviewees with children in or almost reaching adulthood did not say they take their children into account.

Party / having people over

All interviewees said (or implied (**)) they liked having people over in their garden or having a party in the garden. It was even a requirement of the garden to provide the opportunity to go outside yourself and with visitors. It is therefore often designed to have seating areas for a number of people.

Maintenance

Almost all interviewees bring up issues of maintenance by themselves. Whether this is in the form of showing all elements in the garden that do not require to be maintained (e.g. maintenance free tiles, steady structures), explaining choices like artificial grass and certain types of plants that do not require much attention, or emphasizing the preference of having a garden that only requires little to no maintenance. There is a case, however, where the interviewee did not report maintenance directly as an issue (**).

Bigger Garden with Gardener

Asking the interviewees about their perception of an ideal garden often results in the notion that a bigger garden would be preferred on the condition that it comes with an external gardener. If this is not the case, they argue that their garden stays the same as they are not willing to pay more attention to their garden to create their ideal garden. Out of 6 people who mentioned the desire to have a bigger garden, 2 did not refer to the external gardener. Thus, assuming that they are willing to maintain it themselves (**).

Extension House

Most interviewees refer to their garden in summer as an extension of their living room, saying that a lot of activities are located outside when possible. This is an important aspect for most, though only in the summer months. Interviewees with ** do not directly mention this but rather imply it by saying that a lot of activities take place outside.

Enjoy sitting outside

An often-mentioned sentence is "I enjoy sitting outside", which does not receive a clear explanation. In combination with the fact that a lot of interviewees emphasize the

importance of having a lounge sofa or area in their garden, however, it is assumably linked to finding relaxation in the garden. Interviewee 6 does not clearly mention this but keeps talking about her seating area under the canopy.

Possibility to go Outside

Some interviewees also express their happiness with the fact that they have the opportunity to go outside and enjoy their garden. This is also linked to having children as people are pleased with the safe space the garden provides for their children to play outside.

Garden Makeover

Again, supported by the majority of the interviewees, is the notion that a garden makeover can result in a happier place that fits the owners needs. It is an often-discussed topic that generally brings about feelings of pride, satisfaction and happiness.

GARDEN EXPERIENCE: PERCEIVED VS THEORETICAL MODE

As a test to find out whether the perspective of the interviewees is in line with the theory, an extra question was added at the end of the interview. It asked the interviewees which of the 4 pre-defined modes of occupation of a garden speak to them most. The result of this is then compared with the theory, resulting in the table below. It should be noted, though, that the 5th mode (FUN) did not yet exist at the time the question was posed.

Table 4. Perceived garden experience modes. The white dot ("○") is the self-estimation of the interviewees, the black dot ("●") is the researcher's estimate. The last column (FUN) did not exist yet at the time the question was asked.

Interview	NAT	NOS	PRA	MIM	FUN
1	○ ●	○ ● ●	○ ●	○ ○	
2	○ ●		● ●	○ ○	●
3		○ ●	● ○	○ ○ ●	● ●
4	● ●	○ ○ ●			●
5	○ ●	○ ○	●	○ ○	● ●
6	○ ●	○	● ●	○ ● ●	
7	○ ● ●		○ ● ●	○ ○ ●	
8	○	○ ○	○ ● ●	○ ○ ●	● ●
9	○ ●	○	● ●	○ ○ ●	● ●
10		○	●	○	● ●

CONCLUSION

This thesis aimed to formulate an answer to the main research question “**How does the hard-to-reach group in Schuytgraaf-Zuid, Arnhem (NL) experience its private garden?**”. To do so, a quantitative research method is applied in the form of a Thematic Analysis of 10 interviews. A conceptual framework was used to structure the research based on the theory behind garden experience. The Results show that the model by Stenner et al. (2012) did provide a good starting point for research into garden experience, but a proposal is made to expand this model with a 5th mode.

The Naturalistic Mode shows that interviewees inherently value nature in their gardens and having a garden overall, but the way they embed this differs greatly. Where some just enjoy being outside, others create tiny natural spaces - emphasising the happiness they feel with plants and insects in their garden - or purposefully seek out nature areas they cannot create themselves. Still, there remains a division between the prioritisation of plants’ needs vs the needs of the owner. Sensory experiences in the garden are predominantly positive and of a natural origin. Contrasts between the garden and other elements of life (quiet vs busy) are repeatedly described, both directly and indirectly.

The Nostalgic Mode is less present in discussions about the garden, but reportedly very important to people. The garden is described as a place for actively making memories, moving away from passively having memories. The emphasis is largely on place-specific memories, brought up when being or sensing in the garden, which are positive and relate to the summer. The garden thus functions as a representative element. At the same time, self-made elements in the garden can bring a person back to the garden makeover, stirring up feelings of pride and warmth.

The Pragmatic Mode is a recurring topic of discussion, often focused on the negative aspects of gardening. Negative experiences in the past - centred around frustration - result in barriers for gardening, predominantly directed towards maintenance. This leads to people opting for a maintenance free garden where the barriers are minimized. Though less present, positive gardening relates to the mindfulness experienced while picking weeds, children’s interest in the garden, and the desire to have a kitchen garden.

The Mimetic Mode is mostly underlined by interviewees, reporting social interactions with family, friends and neighbours and garden parties as the activities they enjoy the most. The garden functions as a setting for barbecuing and other types of outdoor cooking and eating. It is not often seen as a possession, but rather as an achievement or element exuding status, or something that comes with the house that holds the initial interest. Conflicts are not reported.

The Functionalistic Mode is the proposed 5th mode identified during coding. In this mode, the emphasis is put on the practicalities of a garden, designing it to align with the current family situation – paying specific attention to children – and the needs of the owner. These often translate to the garden being an extension of the living room in

summer, emphasising the need for a canopy to lengthen this season. The garden as a space should be accessible and provide the owner with the opportunity to go outside. The garden is used for recreational activities not related to the garden itself and its design is guided by the presence of external facilities. The front garden is seen as a barrier between the house and the outside world, inducing feelings of safety and freedom.

Seasonal variation in sensory perception is described as going from almost all senses in summer to one sense in winter (sight). In the summer, the garden is occupied by all modes, whereas in the winter it is only by two modes - the Functionalistic and Naturalistic Mode. Only the summer and winter seasons were compared.

Taken altogether, the interviewees in this research predominantly show signs of the Naturalistic Mode and the Functionalistic Mode throughout the seasons. They argue that their garden should be to their taste, but above all should provide the functionalities they need. Thus, the hard-to-reach group in Schuytgraaf-Zuid experiences its garden mainly naturalistic, with great emphasis on functionality.

DISCUSSION

The aspects of the Thematic Analysis that stood out the most provide a starting point for further investigation. This chapter aims to place these findings in a scientific context, followed by a model review, discussion of limitations and recommendations.

STARTING POINT: THEORY VS PRACTICE

The most striking finding is the difference in starting point between the theory and the interviews, where the theory is much more nature-oriented than the interviewees' points of view. It is hypothesized that this is either due to cultural differences (the Netherlands vs the UK) or target group differences (hard-to-reach groups vs ordinary people).

Cultural Differences: the UK vs the Netherlands

The differences between the Dutch and British culture could account for the difference in findings between this research and the model by Stenner et al. (2012). In the UK, for example, Chalmin-Pui et al. (2021) pointed to the popularity of gardening as a pastime to show that people mainly garden for pleasure instead of possible health benefits. Yet, in the Dutch culture this nature orientation is much less present. This is clearly underpinned by Lauwerijssen et al. (2024) who found that part of the Dutch interviewees prefers having a maintenance free garden due to their personal situation or a general disinterest in gardening. Some even perceived garden maintenance as a chore while being aware of the potential benefits of a garden.

On top of that, there appears to be a discrepancy between garden preference and design. Stobbelaar et al. (2021) note a significant trend in sealing of surfaces in the Netherlands, which is found to only be slowed down, not stopped, by initiatives such as Steenbreek. Such design for paved and low maintenance gardens occurs despite a large part of people preferring lush and green gardens (Beumer, 2017). The same is concluded by Tilley (2015) who found that what people do - as opposed to what they say - emphasises the significance of the relationship or even hierarchy between the senses. In the study by Van Den Berg & Van Winsum-Westra (2010), this discrepancy is attributed to factors such as children, status, and maintenance, all of which strongly linked to the Functionalistic Mode (FUN). This, therefore, leads to the assumption that functionality is the most weighed aspect of a garden in the Netherlands.

Target Group

The meaning people assign to their garden is also likely to be different as this research focused specifically on hard-to-reach groups compared to the ordinary people Stenner et al. (2012) focus on. Though there is a significant chance that this group also includes hard-to-reach groups, the fact that these are not the only subjects researched makes their influence on the results weaker. This possibly resulted in a different dominance of garden experiences (e.g. not acknowledging the Functionalistic Mode). Additionally, the exact definition of hard-to-reach groups likely varies between the UK and the Netherlands.

GARDEN EXPERIENCE: PERCEIVED VS THEORETICAL MODE

Table 4 shows that the self-estimation and the theoretical estimation of the garden experience modes amongst the interviewees do not match. Overall, participants deem the Nostalgic and Mimetic Mode as most important, while focusing more on the Pragmatic and Functionalistic Mode throughout the interview. At the same time, some describe their general tendency to not think about their garden as elaborately as was asked in the interviews. This is in line with the Dunning-Kruger effect, suggesting that incompetence (i.e. lack of knowledge in a certain field) leads to an overestimation of abilities or, in other words, a faulty self-evaluation (Kruger & Dunning, 1999).

THE ROLE OF LANGUAGE

Interviewees in this research sometimes struggled with describing their feelings with regard to their garden. This leads to the hypothesis that a lack of interest or connection is related to a not yet fully formed vocabulary. This showed when people applied dual definitions. For example, the word “groen” (*green*) was used to describe plants as well as the colour. The definition of nature in relation to the garden was questioned, which could be explained by the Theory of Three Natures (St-Denis, 2007) or nature connectedness (Samus et al., 2022). Lastly, “gevoel” is most often translated to feelings rather than the sense of touch, which could be explained by the definition of the Dutch word “gevoel” and the verb for touching: “voelen” (Gunst, 2012; VanDale n.d.a.; VanDale, n.d.b.).

HOUSE & GARDEN TYPE

The type of house and accompanying garden is also believed to play a role in the overall garden experience of the interviewees. Rental homes often have restrictions that discourage tenants from investing effort into their garden, while owner-occupied homes allow more freedom and attention to garden design. In addition, older homes often have an existing garden design, which facilitates garden redesigns. While newly built houses require more effort and investment as they are delivered bare, which can lead to prioritization of other house preparations over the garden.

Lastly, moderate external pressure from communal gardens is hypothesised to lead to more engagement with gardening activities as well as an increased connectedness with nature in the garden. Pierce et al. (2003) confirms this but distinguishes between formal and psychological ownership, of which the latter is expected to have more beneficial effects like increased satisfaction, motivation and performance (Bremer, 2024).

MODEL REVIEW

As a final note to this research, an analysis of the effectiveness and accuracy of the model by Stenner et al. (2012) is performed. Overall, the model was rather helpful in defining and categorizing the garden experiences of the participants in this research but required refinement for the Dutch case. Therefore, the Functionalistic Mode (FUN) was introduced, emphasizing the practical side of garden experience, important to most interviewees.

The Elaboration Likelihood Model by Petty & Cacioppo also proved to clarify the decision-making process amongst the interviewees. It was used to place the model by Stenner et al. in perspective, showing that the interviewees are more eager to apply the central route for decisions in the garden (Functionalistic Mode). Combining the Elaboration Likelihood Model (ELM) and the Garden Experience Model (GEM) is especially powerful as it gives a full picture of what aspects of the garden are prioritised in the decision-making process of the hard-to-reach group and how these come to be. Knowing this will make it easier to design communication strategies aimed at the hard-to-reach group in urban greening.

LIMITATIONS

Although measures have been taken to prevent this, the research process of this thesis comes with limitations arising from assumptions and other research biases. To start, the target group was selected based on the assumption that a hard-to-reach group translates to people who have largely paved front gardens (sampling bias) (Scribbr, n.d.). The participants that signed up for an interview were likely already interested in the topic (volunteer bias), others might also still be part of the target group (nonresponse bias). Furthermore, the conversations were likely slightly steered arising from the phrasing of the questions, based on the researcher's own beliefs and expectations (researcher bias). The same goes for the way the researcher asks and responds to questions and her general appearance showing her identity (interviewer bias). At the same time, this research was performed by only one researcher, possibly leading to judgement errors or other personal biases steering the outcome of the research. On the participants side, how they respond to questions can lead to a distorted projection of the truth as they might have trouble recalling information from daily routines (recall bias) or are inclined to give socially desirable answers (response bias). Finally, it is possible that there were some demand characteristics showing as some interviewees sought validation of their answers.

RECOMMENDATIONS

The results of this research ask for a more in-depth continuation. Future studies should focus on defining hard-to-reach groups in the Netherlands across different contexts, what is needed to properly address them and how this can finally lead to their effective involvement in climate action of different sorts. Besides, applying this thesis' methods to different Dutch case studies and comparing the results can provide interesting insights in the motivation and orientation of hard-to-reach groups. In the same line of thought, the same research but on a greater scale, with a different target group (people without garden), or with non-Dutch participants could further improve the Garden Experience Model. This thesis has also found that examining the role of definition duality and language use in engaging hard-to-reach groups can provide a good starting point to improve communication strategies. Lastly, future research is necessary to elaborate on how this thesis' insights can be translated into effective communication strategies for urban greening initiatives targeting hard-to-reach groups in the Netherlands.

BIBLIOGRAPHY

To make the list of references used for this thesis comprehensible, the references are grouped by the heading they were used in.

INTRODUCTION

- Aalbers, C., Kamphorst, D., & Langers, F. (2019). Fourteen local governance initiatives in greenspace in urban areas in the Netherlands. Discourses, success and failure factors, and the perspectives of local authorities. *Urban Forestry & Urban Greening*, 42, 82–99. <https://doi.org/10.1016/j.ufug.2019.04.019>
- Cameron, R. W., Blanuša, T., Taylor, J. E., Salisbury, A., Halstead, A. J., Henricot, B., & Thompson, K. (2012). The domestic garden – Its contribution to urban green infrastructure. *Urban Forestry & Urban Greening*, 11(2), 129–137. <https://doi.org/10.1016/j.ufug.2012.01.002>
- Deloitte. (2019, October 14). *Data-analyse Deloitte: Nederlandse tuin kan drie keer groener*. Emerce. <https://www.emerce.nl/wire/dataanalyse-deloitte-nederlandse-tuin-kan-drie-keer-groener>
- European Environment Agency. (2024, October 11). *Extreme weather: floods, droughts and heatwaves*. <https://www.eea.europa.eu/en/topics/in-depth/extreme-weather-floods-droughts-and-heatwaves>
- Ellard-Gray, A., Jeffrey, N. K., Choubak, M., & Crann, S. E. (2015). Finding the hidden participant. *International Journal of Qualitative Methods*, 14(5), 160940691562142. <https://doi.org/10.1177/1609406915621420>
- Ellerbeck, S. (2022, October 31). *Cities are warming 29% faster than rural areas. Is urban greening the best way to fix this?* World Economic Forum. <https://www.weforum.org/agenda/2022/10/cities-heat-urban-greening/>
- Gemeente Arnhem. (2024, September 18). *Klimaatplan gemeente*. https://www.arnhem.nl/stad_en_wijken/Duurzame_energie/duurzame_energie/Projecten_en_netwerk/en/Klimaatplan_gemeente?utm_source=Rx.Front&utm_medium=redirect&utm_campaign=stad_en_wijken%2FDuurzame_energie%2F1%2FProjecten_en_netwerken%2FKlimaatplan_gemeente
- Gemeente Arnhem. (2024, September 18). *Klimaatplan gemeente*. https://www.arnhem.nl/stad_en_wijken/Duurzame_energie/duurzame_energie/Projecten_en_netwerk/en/Klimaatplan_gemeente?utm_source=Rx.Front&utm_medium=redirect&utm_campaign=stad_en_wijken%2FDuurzame_energie%2F1%2FProjecten_en_netwerken%2FKlimaatplan_gemeente
- Grieco, K., Ooms, C., Prins, L., Syaifudin, A., & Verberne, J. (2016). Unharden the Garden. In *Academic Consultancy Training* [Report]. Wageningen University and Research centre. https://www.wur.nl/upload_mm/1/f/1/770c035b-93cd-4a53-a6e1-8ca3af59b2f9_Final_Report_Unharden_the_Garden.pdf
- Gunster, S. (2017). Engaging climate communication. In *Routledge eBooks* (pp. 49–76). <https://doi.org/10.4324/9781315668734-3>
- Hampton, S., & Whitmarsh, L. (2023). Choices for climate action: A review of the multiple roles individuals play. *One Earth*, 6(9), 1157–1172. <https://doi.org/10.1016/j.oneear.2023.08.006>
- IPCC. (2023). Summary for Policymakers. In Core Writing Team, H. Lee & J. Romero (Eds.), *Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* (pp. 1–34). IPCC, Geneva, Switzerland. DOI: 10.59327/IPCC/AR6-9789291691647.001
- Jak, T. (2024, July 26). Handleiding Steenbreek IVN Atlas. ArcGIS StoryMaps. <https://storymaps.arcgis.com/stories/60c13e06bdf44fa5bcd8d16b6f4657c9>
- Jansen, A. (2019). *How to communicate change: communication between municipalities and community gardens* [Masterscriptie, Wageningen University & Research]. <https://edepot.wur.nl/510227>
- McEwen, L., Holmes, A., Cornish, F., Leichenko, R., Guida, K., Burchell, K., Sharpe, J., Everett, G., & Scott, M. (2022). Rebuffing the “Hard to reach” narrative: how to engage diverse groups in participation for resilience. *Journal of Extreme Events*, 09(02n03). <https://doi.org/10.1142/s2345737623500021>
- Moser, S. C. (2009). Communicating climate change: history, challenges, process and future directions. *Wiley Interdisciplinary Reviews Climate Change*, 1(1), 31–53. <https://doi.org/10.1002/wcc.11>
- Quaranta, E., Dorati, C., & Pistocchi, A. (2021). Water, energy and climate benefits of urban greening throughout Europe under different climatic scenarios. *Scientific Reports*, 11(1). <https://doi.org/10.1038/s41598-021-88141-7>
- Romero-Muñoz, S., Sánchez-Chaparro, T., Sanz, V. M., & Tillie, N. (2024). Urban Greening Management Arrangements between Municipalities and Citizens for Effective Climate Adaptation Pathways: Four Case Studies from The Netherlands. *Land*, 13(9), 1414. <https://doi.org/10.3390/land13091414>

- Schneider, A. E., Neuhuber, T., & Zawadzki, W. (2024). Understanding citizens' willingness to contribute to urban greening programs. *Urban Forestry & Urban Greening*, 95, 128293. <https://doi.org/10.1016/j.ufug.2024.128293>
- Schuytgraaf Arnhem. (n.d.). *Duurzaamheid*. <https://www.schuytgraaf.nl/duurzaamheid>
- Stenner, P., Church, A., & Bhatti, M. (2012). Human—Landscape relations and the occupation of Space: Experiencing and expressing domestic gardens. *Environment and Planning a Economy and Space*, 44(7), 1712–1727. <https://doi.org/10.1068/a44378>
- Stichting Steenbreek, IVN & Cobra Groeninzicht. (2024). Steenbreek IVN Atlas. <https://steenbreek.nl/steenbreek-atlas/#toggle-id-3-closed>
- Uittenbroek, C. J., Mees, H. L. P., Hegger, D. L. T., & Driessen, P. P. J. (2019). The design of public participation: who participates, when and how? Insights in climate adaptation planning from the Netherlands. *Journal of Environmental Planning and Management*, 62(14), 2529–2547. <https://doi.org/10.1080/09640568.2019.1569503>
- UN Environment Programme. (n.d.). *Cities and climate change*. UNEP - UN Environment Programme. <https://www.unep.org/explore-topics/resource-efficiency/what-we-do/cities-and-climate-change>
- Weppelman, I., & Patuano, A. (2024). Motivating Climate-Adaptation actions in Dutch private gardens: Developing an effective communication tool. *Science Communication*. <https://doi.org/10.1177/10755470241277199>
- Wilkin, H. A., Stringer, K. A., O'Quin, K., Montgomery, S. A., & Hunt, K. (2011). Using communication infrastructure theory to formulate a strategy to locate "Hard-to-Reach" research participants. *Journal of Applied Communication Research*, 39(2), 201–213. <https://doi.org/10.1080/00909882.2011.556140>

CONCEPTUAL FRAMEWORK

- Andrade, F. (2024, May 6). *Are we communicating climate change wrong? Here are five ways to improve*. UNDP. <https://www.undp.org/blog/are-we-communicating-climate-change-wrong-here-are-five-ways-improve>
- Bhatti, M., & Church, A. (2004). Home, the culture of nature and meanings of gardens in late modernity. *Housing Studies*, 19(1), 37–51. <https://doi.org/10.1080/0267303042000152168>
- Bhatti, M., Church, A., Claremont, A., & Stenner, P. (2008). 'I love being in the garden': enchanting encounters in everyday life. *Social & Cultural Geography*, 10(1), 61–76. <https://doi.org/10.1080/14649360802553202>
- Bian, Q., Wang, C., Sun, Z., Yin, L., Jiang, S., Cheng, H., & Zhao, Y. (2022). Research on spatiotemporal variation characteristics of soundscapes in a newly established suburban forest park. *Urban Forestry & Urban Greening*, 78, 127766. <https://doi.org/10.1016/j.ufug.2022.127766>
- Blair, D. (2008). The Child in the Garden: An Evaluative review of the benefits of school gardening. *The Journal of Environmental Education*, 40(2), 15–38. <https://doi.org/10.3200/joe.40.2.15-38>
- Bourne, L. (2016). Targeted communication: the key to effective stakeholder engagement. *Procedia-Social and Behavioral Sciences*, 226, 431–438. <https://www.sciencedirect.com/science/article/pii/S1877042816308941>
- Cambridge Dictionary. (2025). experiencing. In *Cambridge Dictionary*. <https://dictionary.cambridge.org/dictionary/english/experiencing>
- Cameron, R. W., Blanuša, T., Taylor, J. E., Salisbury, A., Halstead, A. J., Henricot, B., & Thompson, K. (2012). The domestic garden – Its contribution to urban green infrastructure. *Urban Forestry & Urban Greening*, 11(2), 129–137. <https://doi.org/10.1016/j.ufug.2012.01.002>
- Connell, J., & Meyer, D. (2004). Modelling the visitor experience in the gardens of Great Britain. *Current Issues in Tourism*, 7(3), 183–216. <https://doi.org/10.1080/13683500408667979>
- Dewey, J. (1925). The naturalistic theory of perception by the senses. *The Journal of Philosophy*, 22(22), 596. <https://doi.org/10.2307/2015056>
- Eriksson, P. (2023, 22 May). Domestic Soundscapes. <https://www.diva-portal.org/smash/get/diva2:1767724/FULLTEXT01.pdf>
- Evans, A., Ranjit, N., Fair, C. N., Jennings, R., & Warren, J. L. (2016). Previous gardening experience and gardening enjoyment is related to vegetable preferences and consumption among Low-Income elementary school children. *Journal of Nutrition Education and Behavior*, 48(9), 618–624.e1. <https://doi.org/10.1016/j.jneb.2016.06.011>
- Grinfeder, E., Lorenzi, C., Haupt, S., & Sueur, J. (2022). What do we mean by "Soundscape"? A functional description. *Frontiers in Ecology and Evolution*, 10. <https://doi.org/10.3389/fevo.2022.894232>
- Hanson, H. I., Eckberg, E., Widenberg, M., & Olsson, J. A. (2021). Gardens' contribution to people and urban green space. *Urban Forestry & Urban Greening*, 63, 127198. <https://doi.org/10.1016/j.ufug.2021.127198>
- Hedblom, M., Gunnarsson, B., Iravani, B., Knez, I., Schaefer, M., Thorsson, P., & Lundström, J. N. (2019). Reduction of physiological stress by urban green space in a multisensory virtual experiment.

- Scientific Reports*, 9(1).
<https://doi.org/10.1038/s41598-019-46099-7>
- Hewer, P. A. (2003). Consuming gardens: Representations of paradise, nostalgia and postmodernism. In *European Advances in Consumer Research* (Vol. 6, pp. 327–331) [Journal-article].
<https://pure.strath.ac.uk/ws/portalfiles/portal/64371178/strathprints004508.pdf>
- Hsieh, C., Chen, C., Yang, J., Lin, Y., Liao, M., & Chueh, K. (2021). The effects of immersive garden experience on the health care to elderly residents with mild-to-moderate cognitive impairment living in nursing homes after the COVID-19 pandemic. *Landscape and Ecological Engineering*, 18(1), 45–56.
<https://doi.org/10.1007/s11355-021-00480-9>
- Kitchen, P. J., Kerr, G., Schultz, D. E., & McColl, R. (2014). The elaboration likelihood model: review, critique and research agenda. *European Journal of Marketing*, 48–48(11/12), 2033–2050.
<https://doi.org/10.1108/EJM-12-2011-0776>
- Lambe, L. (1995). Gardening: a multisensory experience. In *Springer eBooks* (pp. 113–130).
https://doi.org/10.1007/978-1-4899-4487-0_7
- Li, S., Wang, X., Zhang, Y., Zhang, Y., & Lan, L. (2019, December). *Study on the Influence of Seasonal Diversity Deduction of landscape plants on Landscape Vision*. ResearchGate.
https://www.researchgate.net/publication/337865324_Study_on_the_Influence_of_Seasonal_Diversity_Deduction_of_Landscape_Plants_on_Landscape_Vision
- Merriam-Webster. (2025). *Thesaurus results for EXPERIENCING*.
<https://www.merriam-webster.com/thesaurus/experiencing>
- Owen, P. J. (1994). The Influence of a Botanical Garden Experience on Human Health (Doctoral dissertation, Kansas State University).
<https://krex.k-state.edu/server/api/core/bitstreams/a37d4e27-abf3-4b60-881f-30b675dc75e8/content>
- Pálsdóttir, A. M., Spendrup, S., Mårtensson, L., & Wendin, K. (2021). Garden Smellscape-Experiences of Plant Scents in a Nature-Based Intervention. *Frontiers in Psychology*,
<https://doi.org/10.3389/fpsyg.2021.667957>
- Partalidou, M., & Anthopoulos, T. (2015). Urban allotment gardens during precarious times: From motives to lived experiences. *Sociologia Ruralis*, 57(2), 211–228.
<https://doi.org/10.1111/soru.12117>
- Petty, R. E., & Cacioppo, J. T. (1984). The effects of involvement on responses to argument quantity and quality: Central and peripheral routes to persuasion. *Journal of Personality and Social Psychology*, 46(1), 69–81.
<https://doi.org/10.1037/0022-3514.46.1.69>
- Ribeiro, R. (2014). The role of experience in perception. *Human Studies*, 37(4), 559–581.
<https://doi.org/10.1007/s10746-014-9318-0>
- Stenner, P., Church, A., & Bhatti, M. (2012). Human—Landscape relations and the occupation of Space: Experiencing and expressing domestic gardens. *Environment and Planning a Economy and Space*, 44(7), 1712–1727. <https://doi.org/10.1068/a44378>
- Thrive. (n.d.a.). *Engaging our sense of sight in the garden*.
<https://www.thrive.org.uk/get-gardening/engaging-our-sense-of-sight-in-the-garden>
- Thrive. (n.d.b.). *Engaging our sense of taste in the garden*.
<https://www.thrive.org.uk/get-gardening/engaging-our-sense-of-taste-in-the-garden>
- Thrive. (n.d.c.). *Engaging our sense of touch in the garden*.
<https://www.thrive.org.uk/get-gardening/engaging-our-sense-of-touch-in-the-garden>
- Tuan, Y. (2020). The pleasures of touch. In *Routledge eBooks* (pp. 74–81).
<https://doi.org/10.4324/9781003135463-10>
- Unruh, A., & Hutchinson, S. (2011). Embedded spirituality: gardening in daily life and stressful life experiences. *Scandinavian Journal of Caring Sciences*, 25(3), 567–574.
<https://doi.org/10.1111/j.1471-6712.2010.00865.x>
- Zhao, Z., Wang, Y., & Hou, Y. (2020). Residents' spatial perceptions of urban gardens based on soundscape and landscape differences. *Sustainability*, 12(17), 6809.
<https://doi.org/10.3390/su12176809>

CASE-STUDY

- AlleCijfers. (2024a, November 6). *Buurt Schuytgraaf-Zuid (gemeente Arnhem) in cijfers en grafieken (bijgewerkt 2024!)* | *AlleCijfers.nl*.
<https://allecijfers.nl/buurt/schuytgraaf-zuid-arnhem/>
- AlleCijfers. (2024b, November 6). *Wijk Schuytgraaf (gemeente Arnhem) in cijfers en grafieken*.
<https://allecijfers.nl/wijk/schuytgraaf-arnhem/>
- BROloket. (2023). *Ondergrondmodellen*.
<https://www.broloket.nl/ondergrondmodellen/kaart>
- Centraal Bureau voor de Statistiek. (n.d.). *Hoe interpreter je de SES-WOA-scores en hoe zijn deze bepaald?* Centraal Bureau Voor De Statistiek.
<https://www.cbs.nl/nl-nl/faq/infoservice/hoe-interpreteer-je-de-ses-woa-scores-en-hoe-zijn-deze-bepaald->
- European Environment Agency. (2023, August 29). *Soil, land and climate change*.
<https://www.eea.europa.eu/signals-archived/signals-2019-content-list/articles/soil-land-and-climate-change>

- Jak, T. (2024, July 26). Handleiding Steenbreek IVN Atlas. ArcGIS StoryMaps. <https://storymaps.arcgis.com/stories/60c13e06bdf44fa5bcd8d16b6f4657c9>
- Lo, J. (2022, December 8). Which countries are 'particularly vulnerable' to climate change? Climate Home News. <https://www.climatechangenews.com/2022/12/08/which-countries-are-particularly-vulnerable-to-climate-change/>

- Mijn Gelderland. (n.d.). *Ijstijd en stuwwal*. <https://mijngelderland.nl/inhoud/canons/arnhem/ijstijd-en-stuwwal>
- Schuytgraaf Arnhem. (n.d.). *Duurzaamheid*. <https://www.schuytgraaf.nl/duurzaamheid>
- Stichting Steenbreek, IVN & Cobra Groeninzicht. (2024). Steenbreek IVN Atlas. <https://steenbreek.nl/steenbreek-atlas/#toggle-id-3-closed>

METHODS

- Bhandari, P. (2023, March 13). *Demand Characteristics | Definition, Examples & Control*. Scribbr. <https://www.scribbr.com/research-bias/demand-characteristics/>
- Caulfield, J. (2023, June 22). *How to Do Thematic Analysis | Step-by-Step Guide & Examples*. Scribbr. <https://www.scribbr.com/methodology/thematic-analysis/>
- Clarke, V., & Braun, V. (2016). Thematic analysis. *The Journal of Positive Psychology*, 12(3), 297–298. <https://doi.org/10.1080/17439760.2016.1262613>
- George, T. (2023, June 22). *Semi-Structured Interview | Definition, Guide & Examples*. Scribbr. <https://www.scribbr.com/methodology/semi-structured-interview/>
- Knott, E., Rao, A. H., Summers, K., & Teeger, C. (2022). Interviews in the social sciences. *Nature Reviews*

- Methods* *Primers*, 2(1). <https://doi.org/10.1038/s43586-022-00150-6>
- Maguire, M., & Delahunt, B. (2017). Doing a thematic analysis: A practical, step-by-step guide for learning and teaching scholars. *All Ireland journal of higher education*, 9(3). <https://ojs.aishe.org/index.php/aishe-j/article/download/335/553.%20Accessed%2025%20February%202021>.
- McCombes, S. (2023, June 22). *Sampling Methods | Types, Techniques & Examples*. Scribbr. <https://www.scribbr.com/methodology/sampling-methods/>
- McEwen, L., Holmes, A., Cornish, F., Leichenko, R., Guida, K., Burchell, K., Sharpe, J., Everett, G., & Scott, M. (2022). Rebuffing the “Hard to Reach” Narrative: How to Engage Diverse Groups in Participation for Resilience. *Journal of Extreme Events*, 09(02n03). <https://doi.org/10.1142/s2345737623500021>

DISCUSSION

- Beumer, C. (2017). Show me your garden and I will tell you how sustainable you are: Dutch citizens' perspectives on conserving biodiversity and promoting a sustainable urban living environment through domestic gardening. *Urban Forestry & Urban Greening*, 30, 260–279. <https://doi.org/10.1016/j.ufug.2017.09.010>
- Bremer, S. (2024). *Motivaties en Obstakels: Bewonersparticipatie in de binnentuinen van Den Haag Zuidwest* [Thesis]. Erasmus Universiteit Rotterdam. https://www.scripiewerkplaats-dhzw.nl/uploads/cfswdhzw/attachments/GVBMasterThesis_SerahBremer691996.pdf
- Chalmin-Pui, L. S., Griffiths, A., Roe, J., Heaton, T., & Cameron, R. (2021). Why garden? – Attitudes and the perceived health benefits of home gardening. *Cities*, 112, 103118. <https://doi.org/10.1016/j.cities.2021.103118>
- Kruger, J., & Dunning, D. (1999). Unskilled and unaware of it: How difficulties in recognizing one's own incompetence lead to inflated self-assessments. *Journal of Personality and Social Psychology*, 77(6), 1121–1134. <https://doi.org/10.1037/0022-3514.77.6.1121>
- Lauwerijssen, R., Mell, I., & Barker, A. (2024). Exploring domestic garden identities: personal histories from

- older people in the Netherlands. *Landscape Research*, 1–19. <https://doi.org/10.1080/01426397.2024.2428811>
- Pierce, J. L., Kostova, T., & Dirks, K. T. (2003). The State of Psychological Ownership: Integrating and Extending a Century of Research. *Review of General Psychology*, 7(1), 84–107. <https://doi.org/10.1037/1089-2680.7.1.84>
- Samus, A., Freeman, C., Dickinson, K. J., & Van Heezik, Y. (2022). Relationships between nature connectedness, biodiversity of private gardens, and mental well-being during the Covid-19 lockdown. *Urban Forestry & Urban Greening*, 69, 127519. <https://doi.org/10.1016/j.ufug.2022.127519>
- Scribbr. (n.d.). *Types of Bias in Research | Definition & Examples*. <https://www.scribbr.com/category/research-bias/>
- St-Denis, B. (2007). Just what is a garden? *Studies in the History of Gardens & Designed Landscapes*, 27(1), 61–76. <https://doi.org/10.1080/14601176.2007.10435457>
- Stenner, P., Church, A., & Bhatti, M. (2012). Human—Landscape Relations and the Occupation of Space: Experiencing and Expressing Domestic Gardens. *Environment and Planning a Economy and Space*, 44(7), 1712–1727. <https://doi.org/10.1068/a44378>

- Stobbelaar, D. J., Van Der Knaap, W., & Spijker, J. (2021). Greening the City: How to Get Rid of Garden Pavement! The 'Steenbreek' Program as a Dutch Example. *Sustainability*, 13(6), 3117. <https://doi.org/10.3390/su13063117>
- Tilley, C. (2006). The Sensory Dimensions of Gardening. *The Senses and Society*, 1(3), 311–330. <https://doi.org/10.2752/174589206778476252>
- Van Dale. (n.d.-a). Van Dale. <https://www.vandale.nl/gratis-woordenboek/nederlands/betekenis/voelen>
- Van Dale. (n.d.-b). Van Dale. <https://www.vandale.nl/gratis-woordenboek/nederlands/betekenis/gevoel>
- Van Den Berg, A. E., & Van Winsum-Westra, M. (2010). Manicured, romantic, or wild? The relation between need for structure and preferences for garden styles. *Urban Forestry & Urban Greening*, 9(3), 179–186. <https://doi.org/10.1016/j.ufug.2010.01.006>
- Van Gunst, S. (2012). De tastzin. *Tijdschrift Voor Praktijkondersteuning*, 7(3), 78–79. <https://doi.org/10.1007/s12503-012-0047-4>

APPENDIX I: CODEBOOK

Before coding the data, 4 deductive codes are drawn up. These codes are based on the findings and descriptions of nature or garden perception in scientific literature. In this case, a choice is made to include only the 4 modes of occupation as described by Stenner et al. (2012) as these are considered most fitting for the purpose of this research. This results in the list of codes, their definition and use as shown in Table I below.

Table I. Codebook with umbrella codes based on the 4 modes of occupation. The codes' definitions and uses are in Dutch to avoid confusion during the coding process as the interviews were also performed in Dutch.

CODE	DEFINITION	USE
Naturalistic mode (NAT)	Als we in de tuin zijn, zijn we er onderdeel van. Door zintuigelijke waarneming creëren we een band met de natuur. Het brengt ons rust, maar kan ook quasi-spiritueel zijn doordat het aanzet om na te denken over het grotere geheel. Contrasten worden benadrukt en vormen de basis van onze connectie met natuur.	Wanneer iemand praat over de band met de natuur in de tuin, de contrasten tussen tuin en dagelijks leven, zintuigelijke waarnemingen, of nadenken over het grotere geheel.
Nostalgic mode (NOS)	De tuin houdt ons mentaal bezig door ons te herinneren aan wat er in die specifieke tuin is gebeurd, ons terug te brengen naar gebeurtenissen in het verleden of andere plaatsen, en andere nostalgische gevoelens op te wekken. Tuinieren wordt hier gezien als een manier om herinneringen levend te houden en omvat vaak het bijhouden van elementen die representatief zijn voor deze herinneringen.	Wanneer wordt uitgelegd wat de persoonlijke waarde van een tuin is dmv herinneringen aan een andere plek of tijd. OF Wanneer wordt benadrukt dat het maken van herinneringen voor later belangrijk is.
Pragmatic mode (PRA)	De tuin functioneert als een plek waar gewerkt in en aan kan worden. Het vraagt om tuinier activiteiten, waardoor het gezien kan worden als een van de (vervelende) taken van het huishouden of zelfs als een soort baan, maar ook als iets leuks. OF De tuin reflecteert de persoonlijkheid van de eigenaar doordat de persoonlijke verhalen van de eigenaar en de tuin verbonden zijn dmv tuinieren.	Wanneer iemand in positieve, neutrale of negatieve zin praat over tuinieren en de activiteiten die hiermee verbonden zijn. OF Wanneer wordt gezegd dat de tuin heel erg past bij de eigenaar.
Mimetic mode (MIM)	De tuin is een eigendom en vormt de basis voor sociale interacties en settings. Het is een bevolkte tuin waar mensen centraal staan en zelfs belangrijker gevonden worden dan de tuin zelf, die alleen de setting biedt. Deze sociale interacties kunnen gaan over het eigendom van de tuin, in positieve en negatieve zin (bijv.	Wanneer wordt gesproken over de tuin als bezit. OF Wanneer wordt gesproken over sociale situaties in en rondom de tuin.

	conflicten), maar ook over andere onderwerpen.	OF Wanneer anderen mensen als belangrijker worden gezien en de tuin alleen een setting is.
Functionalistic Mode (FUN)	De tuin biedt extra functionaliteiten, maar moet wel praktisch zijn. Voorkeur is gegeven aan elementen die het leven makkelijker maken, zoals onderhoudsvrije oppervlakken en begaanbare paden. Aan keuzes gaat een overweging vooraf, kies je wat je leuk vindt of wat handig is? In deze modus wint het functionele aspect. Alle functies die niet toehoren aan de eerste 4 modi worden gezien als onderdeel van de Functionalistic Mode. Hieronder vallen: kinderen, overkapping, externe faciliteiten, recreatieve activiteiten met een niet-natuurlijke bron, ruimte en toegankelijkheid en verlengstuk van het huis. De voortuin heeft ook een functionele rol.	Wanneer de praktische kant de overhand krijgt in het gesprek. OF Wanneer keuzes gebaseerd zijn op kinderen, externe faciliteiten, ruimte en begaanbaarheid. OF Wanneer wordt gerefereerd naar niet-natuurlijke onderdelen van of activiteiten in een tuin.

Within those overarching modes subcodes are formed. These codes are largely based on literature (deductive), supplemented by codes from the data (inductive). The result is shown in Table II below. Inductive codes are marked with a star (*).

*Table II. Codebook with deductive and inductive codes. The first column states the umbrella code, the second column the name of the subcode (with a * if inductive), the third column the definition of that subcode and the last column an example from the data. When a code definition change occurred during coding, the initial and adjusted definitions are given both, separated by "OR". Both the code names and the examples are in Dutch as the interviews and coding process were performed in Dutch as well.*

CODE	SUBCODE	DEFINITION	EXAMPLE
NAT	Contrasten	The contrast between daily life and the garden, which often resembles a stark difference. For example, busy and zen, ugly and beautiful, crowded and alone.	"Het is natuurlijk, als je het in de zomer hebt, dan heb je het over als je klaar bent met werken of in het weekend. Dat je er gewoon echt even rustig kan zitten" (Interview 5)
	Quasi-spiritueel	Thinking about the bigger picture, the universe and the reason why. It is about the connectedness with nature that answers questions. OR The indescribable feelings close to the spiritual realm (e.g. mindfulness) that are induced by being in the garden.	"Nou ja, dat is het eerste wat ik zomers dan doe als ik naar beneden kom. Ik ben altijd vroeg wakker en vroeg is dan kan zomaar 7 uur zijn of 6 uur. Dan neem ik een kopje koffie en dan ga ik even op het randje staan. En dan geniet ik van de rust en de stilte en van de omgeving." (Interview 7)

	Waarde van Natuur	The intrinsic value people assign to nature, emphasizing the importance of plants and other natural elements in the garden.	“(…) Wat dat betreft ben ik toch ook wel blij dat we wel, ook al zijn het een paar grote items groen zeg maar, dat het er wel is” (Interview 4)
	Zintuiglijke waarneming	Through sight, smell, taste, touch, and hearing a person can feel closer to nature. It is about observations of nature elements.	“Gehoor denk ik. Het ritselen van het gras. Dat is ook wel de reden dat ik dat gras heb” (Interview 8)
	* Genieten	Enjoying the garden as it is. It being a space to enjoy the weather, to just sit outside and feel good.	“Een tuin is voor mij in de zomer heel belangrijk omdat ik het heerlijk vind om buiten in het zonnetje te zitten.” (Interview 6)
NOS	Gebeurtenis in tuin specifiek	Being in the garden can take a person back to things that happened in that same garden.	“Want wij hebben natuurlijk in de zomer ook een zwembad. En dan komt hij op het gras terecht. Nou die jongens en wij zitten er ook wel eens in. En dan maak je mooie herinneringen natuurlijk.” (Interview 5)
	Verleden	Thinking about the garden or being in the garden can take a person back to a memory of the past.	“Vroeger moest ik van mijn vader altijd in de tuin van alles doen. Dus we hebben van alles gedaan. Tomaten, van een paar dingen. We moesten altijd helpen in de tuin. Het was een grote tuin ook.” (Interview 9)
	Andere plek	Elements in the garden can remind a person of memories of another place.	“Ja, door die wijnstokken toch wel wat... (..) Of dat je in een wijngaard zit, zeg maar. Ja. Toch wel een klein hintje, zeg maar.” (Interview 1)
	Andere nostalgische gevoelens	A garden can stir up memories about a place or time, but also about other things. These might be more difficult to describe in words but fit into this category.	“Dat is gewoon omdat het in Nederland wat vaker vies weer is, omdat het iets normaler is. Dus daar kan ik wel weer naar uitkijken of gewoon lekker 's avonds hier voor op de bank zitten, kan ik echt naar uitkijken en met heel veel plezier op terugkijken. Zo lekker als dat weer kan” (Interview 4)
	Representatieve elementen	There might be elements in the garden that remind someone of	“(…) dat ik het helemaal zelf heb gedaan. Dus inderdaad,

		someone, someplace or something else. It is about the specific things (bench, plants) that can stir up memories.	dat was ook. En ja, het is ook met name de vlinder waar ik heel trots op ben. Die zit goed stevig aan elkaar.” (Interview 8)
	Zintuiglijke waarneming	Sensory perception can bring up memories. People connect smell, taste, touch, hearing and sight to memories.	“Toen we hier kwamen wonen was de tuin dus heel groen. Veel gras, veel bomen, planten. Wat wel oprecht heel erg leuk was. Ik vind het ook soms wel jammer dat we het er allemaal uitgejast hebben.” (Interview 4)
PRA	Negatief tuinieren	The pains of gardening describe situations in which people dislike the act of gardening.	“Ik heb ooit een keer, was ik niet helemaal slim, had ik zo'n potje van dat onkruidspul gekocht voor. Daar heb ik wat meer in gedaan. We zijn op vakantie gegaan, ik kwam terug, zaten er helemaal bruine vlekken in enzo. Ik had gewoon veel te veel in gedaan. Dat wordt niks voor mij.” (Interview 2)
	Positief tuinieren	The pleasures of gardening describe situations in which people like the act of gardening or even find it enjoyable.	“(…) ik vind het ook wel leuk om een klein beetje in de tuin te werken.” (Interview 7)
	Reflectie eigenaar	Through gardening, a garden can be shaped to match the personality of the owner. This can be in a spiritual manner or simply by creating the plan the owner envisaged for the garden. OR When a garden matches the personality or situation of the owner, be it established through gardening or a garden makeover.	“Ik denk dat als ik nu aan mijn tuin denk, denk ik gewoon aan de fase waarin je nu zit in je leven. We zijn allebei veertig. Nou, dan wil je rust. Dan wil je je soms ook even terugtrekken. Maar je hebt ook kinderen die de ruimte nodig hebben, die af en toe willen spelen in de tuin. Dus ik denk dat het gewoon een familiesfeer uitstraalt” (Interview 5)
MIM	Eigendom	The owner of a garden can be focused on the fact that he/she owns it rather than what functions it fulfills.	“Nou, dat die van mij is.” (Interview 7)
	Sociale interacties	The garden is a place for social interactions, like barbecuing, garden parties, eating together etc.	“Ja, of met de familie of gewoon lekker in de tuin zitten. Of met de burens,

			lekker een wijntje of een biertje drinken" (Interview 2)
	Tuin als setting	The garden only functions as a setting and is not the main focus of the interviewee. It is perceived as a space where other things can take place and where there is no clear connection with the garden itself other than the setting. Humans in and around the garden are perceived more important.	"Aan een plaats voor gezelligheid." (Interview 6)
	Conflict	The ownership of a garden can lead to conflicts in situations where neighbors do not agree about joint parts (like a fence) or about the ownership itself.	"En geen gezeur met de burens over de tuin he" (Interview 5)
Seizoenen		People perceive their garden differently per season. If someone speaks about this difference, it falls within this code.	"Maar dat is misschien ook een beetje verschil, want in de zomer doe ik dat sneller in mijn tuin en in de herfst, winter, een stukje voorjaar, dan doe ik dat eigenlijk liever in het bos. Omdat je dat dan in je tuin natuurlijk niet zo hebt." (Interview 4)
* FUN	* Kinderen	People take into account their children's needs when designing their garden.	"En met oog op een kindje natuurlijk. We hadden wel het idee, het hoefde geen mega grote tuin te zijn, maar er moet wel een tuin bij zitten om in ieder geval iets van speeltoestellen of gewoon lekker in de tuin, een zandbak, dus lekker te kunnen spelen in de tuin." (Interview 10)
	* Verlengstuk huis	The garden is an extension of the house, it enlarges the living room as people spend a lot of time here. This is mainly in relation to the summer season.	"Onze tuin is eigenlijk een soort tweede huiskamer geworden. Waar je in de zomer, is dat je hoofdhuiskamer en in de winter zitten we hier zeg maar." (Interview 3)
	* Externe Faciliteiten	The facilities that are close to the garden, such as parks, playgrounds and sports equipment. These determine the function of the private garden.	"ja, dat komt denk ik ook omdat je hier zo tegen het park aan woont. Dat die functie van een tuin iets anders is dan wanneer je geen grote buitenruimte tot je beschikking hebt." (Interview 8)

	* Recreatief	The activities performed in a garden that do not relate to natural elements, like having a pool, playing and cleaning bikes etc.	"Een boekje lezen, het zwembadje in de zomer opzetten, barbequeën, dat soort dingen." (Interview 6)
	* Ruimte: grootte & toegankelijkheid	The amount of space the garden provides is referred to, whether this is combined with accessibility or garden layout.	"Verder vond ik het belangrijk dat je makkelijk met de fiets en met de motor van de garage naar de straat kan, dus dat moest ook een beetje praktisch te doen zijn" (Interview 3)
	* Voortuin	The front garden is described as having an important function for the owner.	"En ik vind de voortuinen ook wel iets, omdat niet het voetpad pal tegen je huis aan ligt. Nu heb je nog een stukje van vrijheid waar je zelf wat mee kan bepalen" (Interview 5)
	* Overig	All other elements that fit the description of the Functionalistic Mode, but do not fit the subcodes. Examples are dilemmas on what elements to include in the garden and aesthetics not related to nature.	"Ik wilde een overkapping en ik wilde een plekje waar ik lekker kon zonnen zeg maar. En daar staat dus ook in die hoek staat de meeste zon. Maar goed dat ging dus wel ten koste van het gras." (Interview 4)

APPENDIX II: INTERVIEW QUESTIONS

Intro

Mijn naam is Niamh, ik ben 23 jaar en ik studeer aan de universiteit in Wageningen. Voor mijn masterscriptie kijk ik naar de tuinbeleving van mensen in Schuytgraaf-Zuid. In totaal ga ik 10 mensen interviewen over hun tuin en jullie/jij zijn/bent daar dus onderdeel van. Ik wil je dus een paar vragen stellen over je tuin, wat je belangrijk vindt en hoe je je erbij voelt. Er zijn geen goede of foute antwoorden. Alles wat je zegt is vertrouwelijk en de data wordt behandeld volgens de regels van de AVG. In het verslag ben je anoniem en staan geen persoonsgegevens. De gegevens die ik zo van je vraag zijn puur en alleen voor mijn eigen overzicht (zodat ik niet interviews door elkaar ga halen en om je eventueel later nog te contacteren. Mocht er een vraag zijn die je liever niet beantwoordt, zeg het mij dan, dan kunnen we die overslaan. Ik schat in dat het interview ongeveer een uur tot anderhalf uur duurt.

Ik wil je ook vragen of je het goed vindt als ik het gesprek opneem? Alleen het geluid, geen beeld. Dan kan ik een verslag maken van het gesprek zodat ik hier later op terug kan vallen. Dit is allen voor mij voor de duur van mijn onderzoek. Ondertussen maak ik ook nog een paar snelle aantekeningen, ook weer voor mezelf.

Heb je voordat we beginnen nog vragen voor mij?

Achtergrond info

Ik wil eerst iets meer over jou weten:

- Kun je jezelf aan mij voorstellen?
naam | leeftijd | woonsituatie | partner/kinderen | studie | baan | interesses

Belangrijk: studie / leeftijd of generatie / partner & kinderen / werkgebied

Openingsvragen: woonsituatie

Ik heb ook nog wat meer informatie nodig over je woonsituatie:

- Zou je mij kunnen vertellen wat je woonsituatie is en hoe je hier bent gekomen?
 - o Hoelang woon je al in Schuytgraaf?
 - o Waar heb je hiervoor gewoond?
 - o Waarom heb je (nu) voor Schuytgraaf gekozen?
- Waarom heb je voor dit huis gekozen?
tuin | ligging | wijk | baan | andere redenen

Belangrijk: waarom Schuytgraaf?

Openingsvragen: tuin

- Heb je bewust voor een huis met tuin gekozen? Kun je daar wat meer over vertellen?
- Wat vind je in het algemeen van je tuin?
positief | negatief
- Welke keuzes heb je bewust gemaakt bij de inrichting van je tuin?
- Wat zijn je persoonlijke eisen aan een tuin? Welke onderdelen zijn belangrijk?

- Wat vind je fijn aan je tuin?
 - o Welke onderdelen van je tuin horen hierbij?
 - o Waar ben je tevreden mee?
- Wat vind je minder fijn aan je tuin?
 - o Welke onderdelen van je tuin horen hierbij?
 - o Zou je ze willen veranderen? Hoe?
- Waar gebruik je je tuin voor?
tuinieren | sociale situaties | genieten van de natuur | herinneringen
- Waar doet je tuin je aan denken?
eerste gevoel | functie | gebruik

Belangrijk: reden tuin / gevoel & functie tuin

Functie van de tuin

- Wanneer geniet je het meeste van de tuin?
seizoen | dag | tijdstip | wat is ervoor nodig?
- Hoe ziet jouw ideale tuin eruit?
- Wat zie je als de belangrijkste functies van een tuin? Kun je daar meer over vertellen?

Belangrijk: reden tuin / gevoel & functie tuin

Waarneming in & rondom de tuin

- Wat valt je op als je denkt aan kleuren, planten en bloemen in je tuin?
positief | negatief | soort
- Wat valt je op als je denkt aan geluiden in je tuin?
positief | negatief | soort
- Wat valt je op als je denkt aan geuren in je tuin?
positief | negatief | soort
- Wat valt je op als je denkt aan materialen/gevoel in je tuin?
positief | negatief | soort
- Wat valt je op als je denkt aan eten in en proeven uit je tuin?
positief | negatief | soort

Belangrijk: associaties met reuk, zicht, smaak, gevoel en gehoor bij de tuin

Seizoenen

- Verandert de manier waarop je kijkt naar je tuin per seizoen? Kun je daar wat meer over vertellen?
geuren | geluiden | aesthetics | kleuren | gevoel

Hoe mensen naar hun tuin kijken: literatuur

Ik heb in de literatuur gevonden dat er eigenlijk 4 manieren zijn van het kijken naar je tuin. Je tuin is (1) je eigen stukje natuur, (2) een plek vol herinneringen, (3) een plek waar je tuiniert als een soort baan, en (4) een plek waar je samenkomt met mensen.

- In welke groep zou je jezelf plaatsen?
uitleg | voorbeeld | vergelijk anderen

Belangrijk: hoe zie je jezelf in relatie tot je tuin? (later: in lijn met de rest?)



Eigen stukje natuur



Herinneringen



Tuinieren als baan



Samenkomen

Afsluitende vragen

- Welke rol verwacht je dat je tuin gaat spelen in de toekomst?
woonsituatie | kinderen | belangrijke momenten

Belangrijk: mening & rol tuin / toekomst

Heb je nog een toevoeging of opmerking op wat we besproken hebben? Iets wat je nog graag kwijt wilt?

Bedankje

Als laatste zou ik je willen vragen of je het oke vindt als ik een foto maak van je tuin? Deze kan ik dan gebruiken als voorbeeld in mijn verslag of voor mijn eigen overzicht, dat ik weet welke tuin bij welk interview hoort en zo de informatie beter kan verwerken.

Zou je het daarbij ook leuk vinden om de resultaten van mijn onderzoek te ontvangen? Dit stuur ik je dan via WhatsApp op nadat mijn onderzoek is afgerond.

Om je te bedanken voor je hulp bij mijn scriptie bied ik je een chocolaatje aan. Heel erg bedankt voor de gastvrijheid!

APPENDIX III: AI STATEMENT

For the creation, writing and design of this study, no Artificial Intelligence was used.