LUND UNIVERSITY

The Green In-between

A Cultural Analytical Study of Small-Scale Urban Greenery

Svea Anstis

Master of Applied Cultural Analysis
Department of Arts and Cultural Sciences
TKAM02 - Spring 2021

Supervisor
Charlotte Hagström

Abstract

The Green In-between: A Cultural Analytical Study of Small-Scale Urban Greenery

Svea Anstis

Interaction with nature, especially in cities, is important for both physical and mental wellbeing and comes with many benefits. Unfortunately, as cities continue to grow and densify access to nature in urban environments is becoming increasingly difficult to find. Cities have therefore had to turn to methods to maximize urban greenery through small-scale green features. The aim of this thesis is to understand and explore how city residents interact with and experience small-scale nature in primarily urban environments. In order to answer what kind of role and significance this urban greenery has in the daily lives of city residents, ethnographic observations were conducted at nine areas around Malmö, Sweden, containing small-scale green features including trees, flower plantations, and decorative planters. Surveys were conducted both on the spot at each of these areas as well as distributed online. Drawing on a threefold theoretical framework with ideas from Henri Lefevre, Jan Gehl, and Anna Tsing, this study reveals how urban residents perceive nature at this small scale, and what functional, symbolic and aesthetic roles it plays in the city.

Keywords: cities; urban; natural features; greenery; small-scale; densification; ethnographic

Sammanfattning

Interaktion med naturen, särskilt i städer, är viktig för både fysiskt och psykiskt välbefinnande och har många fördelar. Men i takt med att städer fortsätter att växa och förtätas minskar tillgången till natur i stadsmiljöer. Att maximera stadsgrönskan genom småskaliga gröna element är därför en metod som många städer har använt sig av. Syftet med denna uppsats är att förstå och utforska hur stadens invånare interagerar med och upplever småskalig natur i främst stadsmiljöer. För att kunna svara på vilken betydelse denna urbana grönska har i invånarnas vardag genomfördes etnografiska observationer i nio områden runt Malmö, Sverige. Dessa innehöll alla småskaliga gröna element som träd, blomplanteringar och dekorativa krukor och urnor. Undersökningar genomfördes dels genom studier på plats i vart och ett av dessa områden, dels genom en enkät som distribuerades online. Utifrån en tredelad teoretisk ram baserad på perspektiv från Henri Lefevre, Jan Gehl och Anna Tsing klarlägger

denna studie hur stadsborna uppfattar natur i denna lilla skala och vilka funktionella, symboliska och estetiska roller den spelar i staden.

Nyckelord: städer; urban; naturliga egenskaper; grönska; småskalighet; förtätning; etnografi

Acknowledgments

I would first like to thank my supervisor Charlotte Hagström for her comments and input which greatly helped me through the writing process. Thank you to my family for all their support and for being wonderful sounding boards for my (sometimes failed) ideas. Also, a big thank you to the wonderful students of the MACA 2019 program.

Finally, I would like to thank Jonas for reassuring me time and again that everything will work out, he hasn't been wrong yet.

Malmö, 2021-06-07

Svea Anstis

Table of contents

Abstract(s)
Acknowledgements
Table of Contents

Chapter 1. Introduction.....7
1.1 Framing the Issue
1.2 Aims and Research Questions
1.3 Chapter Layout

Chapter 2. Background.....9
2.1 Conflicts and Solutions: Green Space and Urban Densification
2.2 Malmö City of Parks

Chapter 3. Previous Research.....14
3.1 Psychology and Mental Health
3.2 Physiology and the Healthy City
3.3 Urban Ecology and Environmental Services
3.4 Sociology and Ethnography Based Studies
3.5 Human-Nature Relations and Environmental Preservation
3.6 Environmental Aesthetics and Noticing Nature
3.7 Contribution to the Existing Literature

Chapter 4. Theoretical Framework.....18
4.1 Lefebvre's Signs of Nature
4.2 Jan Gehl's Inviting City
4.3 Anna Tsing's Arts of Noticing

Chapter 5. Methods and Empirical Materials.....22
5.1 Choosing, Defining and Entering the Field
5.2 Observation Areas
5.3 Observations
5.4 Questionnaires and Survey Process
5.5 Source Selection and Limitations/Delimitations
5.6 Bricolage: Online Resources
5.7 Bricolage: Photographs
5.8 Analytical Methods
5.9 Ethical Considerations

Chapter 6. Analysis and Discussion.....37
6.1 Interacting with and Perceiving Urban Nature
6.1.1 What is Nature? Inside and Outside the Urban
6.1.2 Signs of Nature
6.1.3 Acting with Respect and Disrespect
6.2 Roles of Urban Nature
6.2.1 Inviting Cities and Healthy Cities

6.2.2 Ecosystem Service
6.3 Noticing Nature
6.3.1 The Senses
6.3.2 The Unusual and Out-of-Place
6.3.3 Taking in Your Surroundings
6.3.4 Curiosity
6.3.5 The Importance of Trees

Chapter 7. Conclusions and Applicability.....58
7.1 Conclusion and Reflections
7.2 Applicability and Further Research

References.....62
References
Empirical Material

List of Figures.....67

Appendices.....68
Appendix A. In-person questionnaire.
Appendix B. Page from fieldwork diary.

"This is one of the blessings of the urban nature project: without the overtly magnificent to stop us in our tracks, we must seek out the more subversively magnificent. Our sense of what constitutes *wildness* is expanded, and our sense of wonder along with it."-Lyanda Lynn Haupt (2009)

Chapter 1. Introduction

1.1 Framing the Issue

When I moved away from my island home as a young adult, I feared I would miss the wide-open nature of my childhood, but as I gained experiences of urban living, I found a different kind of nature, one that was smaller and more concentrated but no less enjoyable. Malmö, Sweden's third largest city and my home of three years, offers all the experiences of city living including finding your favourite peaceful green spots and learning how to share them. As an avid walker I have found pleasure, peace and even at times the same kind of freedom exploring city parks or simply enjoying a colorful spring plantation as I do when vacationing in a more remote or isolated nature. However, as the human population continues to grow it is predicted that over the next ten years more than half the global population will be living in urban areas (United Nations, "World Urbanization Prospects 2018: Highlights," 2019, p. 1). Seeking out and accessing nature both in urban and wild contexts has become increasingly difficult as we split, share and wrestle for green space. Studies show how contact with nature is important for urban residents and has mental (Carrus et al., 2015), physical (Qin et al., 2013), and social benefits (Zhang et al., 2014). However, with growing densification it is hard for cities to prioritize the incorporation of new large green areas for recreation and space-demanding activities. This puts stress on older and already established green spaces such as urban parks through a growing pressure on ecosystem services, ultimately negatively influencing the overall life quality of a growing urban population (Grêt-Regamey et al., 2020, p. 1). Cities have therefore had to turn to methods to maximize urban greenery through small-scale, sometimes isolated natural features including trees, small flower plantations, decorative planter pots, green walls and roofs, and bushes. A study by Cox et.al. shows that most common form of nature experience for urban populations involves not actually being present in nature, with a significant portion of people indirectly or unintentionally experiencing nature as they glance out of their office window at work or pass by on their way home (2017, p. 79). Small-scale green features are becoming more and more important as a way to provide urban dwellers

with a sense of nature connection. While these features make up a significant portion of city greenery few studies concentrate on urban nature at this small scale.

1.2 Aims and Research Questions

As someone who seeks out nature experiences in the city, I am often witness to other people's daily interactions with it. On a walk perhaps I will see someone stopping to let their dog relieve itself on the flowers planted along the road, a woman flicking her cigarette butt into the bushes, a couple admiring the new flower planters in the city square. In taking notice of these everyday interactions I began to wonder how city-dwellers in Malmö experience and perceive small-scale nature in their urban environment. Malmö city and its contrasts and connections to nature and how it affects the lives of its residents provides a rich field for ethnographic research. Cultural analysis provides the tools and framework with which to study everyday occurrences, bringing to light unnoticed or unremarked upon habits and routines, helping to reveal the deeper meanings behind them.

The aim of this thesis is to understand the urban dweller's attitudes towards and relationship with small-scale nature in the city by:

(1) Exploring, through observations and questionnaire responses, how urban dwellers interact with, use, and experience small-scale green features, and;

(2) Exploring what roles small-scale green features play in the urban environment and in everyday life.

This thesis addresses four research questions:

- What are the preconceived notions people have about nature and how does this affect their interactions with small-scale urban greenery?
- What kinds of symbolic and functional roles does small-scale urban nature have in the city and for urban residents?
- Is this type of nature 'seen' or 'noticed'?
- Is urban nature comparable to non-urban nature, or does it hold a different kind of power?

1.3 Chapter Layout

This thesis is structured in seven chapters. The first chapter situates the thesis topic, describing the issue of urban densification and rising urban populations and the use of small-scale urban nature as a possible solution to providing residents with adequate nature experiences. This chapter also details the aims of the thesis and the research questions to be answered. Chapter two gives background information on the urban densification trend and describes the field site in which this study takes place. Chapter three provides an overview of the existing literature on the topic of urban nature in order to situate this study in the academic field. Research on urban nature can be found for example in the areas of psychology, physiology, sociology and ethnography, urban ecology, environmental preservation and environmental aesthetics. Chapter four explains the theoretical framework supporting the analysis of the collected empirical data. Theories and ideas are borrowed from French philosopher Henri Lefebvre, Danish architect Jan Gehl, and American anthropologist Anna Tsing. A thorough account of the fieldwork is provided in chapter five. This includes descriptions of field sites, data collection methods, analytical methods and ethical considerations. In chapter six the empirical data is analysed, and major findings are discussed. Chapter six is organised into three sections, each with their own sub-sections: Interacting with and Perceiving Nature, Roles of Urban Nature, and Noticing Nature. Finally, chapter seven summarizes and reiterates the major findings, describes possible applications of this study, and indicates where further research may be needed.

Chapter 2. Background

2.1 Conflicts and Solutions: Urban Green Space and Densification

It is not difficult to imagine that in a few years' time the majority of the global population will inhabit urban areas, as such a significant portion of us already do. Cities are being challenged to provide for and maintain green space while accommodating for urban densification. But what exactly is meant by densification and what does it look like in the Swedish context? In May 2017 the Swedish National Board of Housing, Building and Planning (Boverket) published a document entitled *Urban Density Done Right: Ideas on densification of cities and other communities*, which tackles these questions. The document states "the discussion on densification is often about constructing as much housing as possible, as quickly

as possible" (Boverket, UDDR, 2017, p. 6), most often to accommodate growing urban populations, however, densification is more than just filling physical space.

Densification is actually a planning trend in which cities build inwardly as a strategy to combat the tendency to otherwise spread outwards into suburbs, claiming valuable natural and agricultural land (Boverket, UDDR, 2017, p. 7). The idea behind creating more compact cities is to lessen the distance of travel routes and make services more easily accessible (Jabareen, 2006, p. 40). Densification is framed as a sustainable urban planning strategy, "not just for ecological sustainability but also for social sustainability" (Boverket, UDDR, 2017, p. 7). Creating a more connected city is meant to give greater access to different activities, increase the likelihood of spontaneous encounters, reduce segregation, and increase security (Boverket, UDDR, 2017, p. 7). However, densification does come with several challenges. Often at the same time as densification is occurring, green space, among other amenities including natural light sources and good acoustic environments (Boverket, UDDR, 2017, p. 7), is being sacrificed for development. In their article exploring the challenges and strategies for urban green space planning in cities undergoing densification, Haaland & Konijnendijk van den Bosch point out, "there is evidence that urban green space is under pressure due to densification processes such as infill development" (2015, p. 761) and Anna Maria Insulander, in her exploration of the life and death of large city parks, notes that "city densification often means exploitation of green area and green space near people's homes. City growth will also increase the already high pressure of visitors on existing green space" (2015, p. 33).

In Swedish cities "people and buildings are becoming more numerous…but the amount of green space remains constant or is declining" (Boverket, UDDR, 2017, p. 19). To combat this, existing green space is evolving, acquiring and sharing new functions. The document from Boverket highlights the example of cemeteries, which beyond being places to tend graves, are being used as "parks, where people go jogging and walk their dogs" (Boverket, UDDR, 2017, p. 20). Undeveloped land is being left to grow wild to ensure spaces for fundamental natural processes, nature experiences and sites for educational purposes (Boverket, UDDR, 2017, p. 20), and guerrilla gardening and small-scale nature has become more prevalent. In his analysis of sustainable urban forms Yosef Jabareen categorises and defines the compact city approach. One strategy of this approach is intensification (2006, p. 40). While both densification and intensification share the process of constructing new buildings on undeveloped land, intensification also includes the "redevelopment of existing buildings or previously developed sites, subdivisions, conversion and additions and extensions" (Jabareen, 2006, p. 40). Many of

the aforementioned strategies for solving conflicts between densification and urban green space can be seen in Malmö.

2.2 Malmö City of Parks

Malmö, located in the southern Skåne region of Sweden, is a mid-sized city of around 350,000 inhabitants. Malmö was first established as a working-class city with a focus on harbour industry and manufacturing but has since evolved into a multicultural city with a high presence of companies supporting the transport, entertainment, leisure, construction, and financial and business services. Malmö seeks to maintain an image of environmental sustainably, taking into consideration waste disposal, sustainable energy, ecological diversity, water and traffic systems. "The population of Malmo has grown every year since the 1980s and growth has been particularly sharp in the past ten to 15 years" (Boverket, UDDR, 2017, 15), leading the city to join in the urban densification trend. The Comprehensive Plan for Malmö, adopted by the Malmö city council in 2018 discusses the principle development strategy to create a mixed-function, dense, green and close city:

> Malmö shall mainly grow by inward expansion. This means mainly expanding within the city's outer ring road. Creating a more dense city will lead to a reduced consumption of resources. Malmö will develop as a mixed-function city in order to generate a rich and vibrant urban life which still retains strong elements of greenery. Walking, cycling and public transport will form the basis of the transport system. (Malmö City Council, "Comprehensive Plan for Malmö Summary in English," 2018, p. 3.)

This makes Malmö an excellent field site for this study as the city is balancing social and economic prospects with environmental sustainability, urban greenery and standard of living. For Malmö, retaining green qualities is crucial in a dense city. To accommodate for urban densification Malmö employs several greening strategies including developing green lanes, reusing already developed building space, employing an innovative system for integrating green space into building projects, and encouraging joint utilization.

Greenspace per person in Malmö has seen a steady decline since 2005 due to an increase in inhabitants "which has amounted to about 5,000 people annually since 2006" (Malmö Stad, Miljobarometern, "Grönyta per invånare," 2021). As a rule of thumb, the World Health Organization states "urban residents should be able to access public green spaces of at least 0.5-1 hectares within 300 meters liner distance (around 5 minutes' walk) of their homes"

(WHO, "Urban green spaces: A brief for action," 2017, p. 11). As of 2015, nearly 85% of urban residents in Malmö had access to green space of less than 0.2 hectares within 300 meters distance and 87% had access to green space of less than 1 hectare within 500 meters distance (Malmö Stad, Miljobarometern, Grönyta per invånare, 2021). Malmö has worked hard to provide access and nearness to green space by developing its green lanes and connections around the city, as seen in figure 1. These green lanes criss-crossing the city connect larger green spaces such as parks and playgrounds through small-scale urban greenery located along roads, cycling routes and public spaces.

Fig 1. Map of Malmö's green lanes and connections.

For the last several years Malmö has worked to revitalize, renovate and reuse industrial buildings. A good example of this strategy can be found along Industrigatan in the Norra Sorgenfri district of Malmö. As the name suggests, the area hosted several industrial activities including tramway services, gasworks, and shoemakers. Two years ago, the historic shoe factory established in 1907 underwent renovations to become attractive condominiums, as did several other industrial-age buildings in the area. Concomitantly the area became greener with the addition of new tree plantations along the road as well as the creation of an outdoor gym, seating and children's play area nearby.

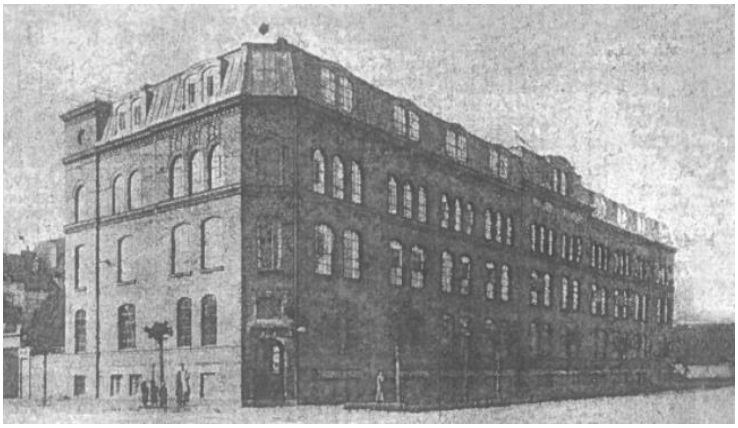


Fig 2. Malmö Skofabriken, 1907.

Fig 3. Malmö Skofabriken 2019.

Fig 4. Industrie lekplats near Malmö Skofabriken.

Malmö's Western Harbour (Västra Hamnen) has also seen significant growth as it has transformed from the former shipyard area and industrial wasteland into an ultramodern district crisscrossed with small green spaces and artificial water courses. The harbour is an example of another significant urban greening strategy being used in Malmö called the Green Space Factor (GSF). GSF a tool for calculating green space requirements for new development and works in tandem with the Green Points System (GPS), a checklist of 30 green and blue infrastructure options for urban planners and developers. A minimum GSF requirement is calculated in order to "secure a certain amount of green cover in every building lot and minimise the degree of sealed or paved surfaces in the development" (Kruuse, 2011, p. 4). The GPS then assigns values to certain types of green space. Green space with important qualities such as supporting wildlife biodiversity are given higher values. Developers are required to choose ten green points to achieve (Kruuse, 2011, p. 5), the higher the green points, the higher the green space factor.

Along with green lanes, renovating industrial buildings and implementing the GSF/GPS strategies, a fourth important strategy to mention is joint utilization or joint use. "Joint use refers to premises and outdoor environments being used not only by those involved in the basic

operations, but by others as well" (Boverket, UDDR, 2017, p. 15). A good example of this is Sjöhästens Förskola (Sjöhästens Preschool) which allows their school yard to become a public meeting place and playground in the evening and on weekends.

Fig 5. Sjöhästens Förskola. The sign on the gate reads "Welcome into the park, don't forget to close the gate, many children are playing here."

Chapter 3. Previous Research

Because studies concerning urban nature can be found in so many different disciplines, I have structured the literature review to include the following areas of existing research which are most relevant to my particular examination of urban nature: psychology, physiology, sociology and ethnography, urban ecology, environmental preservation, and environmental aesthetics. I have chosen this combined body of literature as I believe it can help to situate and give context to my investigation of the kinds of daily interactions urban residents have with nature in the city, and the exploration of different symbolic and functional roles of urban greenery. I will draw on each of these areas of existing research in the process of addressing the questions and aims of this thesis.

3.1 Psychology and Mental Health

There is an abundance of research concerning the mental health benefits provided by urban greenery. Public health is of particular concern in densely populated cities where

residents are habitually exposed to a myriad of sensory stimuli which demand a great deal of attention causing mental fatigue and stress (Centre for Urban Design and Mental Health, "How The City Affects Mental Health," 2021). Peschardt and Stigsdotter (2013) led a study in Copenhagen, Denmark, to examine how certain physical characteristics of small public urban green spaces (SPUGS) are associated with perceived restorativeness. Their study discovered that spaces with 'serene' (e.g. silent and calm) and 'social' (e.g. entertainment, exhibitions, restaurants) characteristics were perceived to provide the most mental restorativeness. Carrus et.al. (2015) aimed to discover if the benefits and reported well-being by urban residents who visited urban green areas was in fact due to the biodiversity of these spaces. Their study discovered a positive correlation. A study by Greg Watts (2017) considers the effects of greening urban environments to enhance tranquility, well-being, and health benefits, assessing the auditory tranquility behind natural and manufactured noise barriers in city squares. In chapter six this thesis will expand upon and explore the mental health benefits of urban nature. These studies can help to explain and put into context why urban residents seek out nature and discuss feelings of tranquility, calm, comfort and wellbeing. While these texts focus on relatively larger urban green spaces which can be said to shield from stressful urban activity by providing noise barriers and dedication to calm activities, the small green features examined in this thesis do not share this characteristic as they are often situated in areas of high urban activity (e.g. near major roads, in the middle of pedestrian walkways), yet they are still considered to bring some form of peace.

3.2 Physiology and the Healthy City

Physical health is another important consideration for maintaining better overall urban public health. The attraction to an urban lifestyle must be constantly weighed against factors affecting health including noise and air pollution, crowding, disease, sedentary behavior and poor sanitation. An article by Jun Qin et.al. (2013) examines the influence of urban green spaces on human physiology by collecting data on perceived satisfaction and physiological benefits and studying electrocephalogram (EEG) and electrocardiogram (ECG) results from urban residents in Shanghai, China. Qin et.al. found that heart rate was lower in subjects who spent time in greened spaces and higher in those who spent time in a non-vegetated environment. A study by Vienneau et.al. (2017) found consistent evidence that the presence of residential greenery reduced the risk of mortality through positive effects on physical activity,

mental health and the reduction of air pollution which is associated with cardiovascular, respiratory and natural cause mortality. These physiological studies open up an interesting discussion for the role of urban nature and the tangible effects it can have on human wellbeing.

3.3 Urban Ecology and Environmental Services

Previous studies in the discipline of urban ecology focus on the important environmental services provided by urban greenery. Heidt and Neef (2008) examine the role of urban green space in moderating and improving urban climates, a study by Rudd, Vala and Shaefer (2002) concentrates on urban green space connectivity in Greater Vancouver, Canada, as a conservation strategy and a way to mitigate habitat fragmentation, and Aram et.al. (2019) investigate the role of urban green space in providing cooling effects to reduce urban heat islands. Like the existing studies in physiology and mental health, these articles help in understanding, what roles urban nature plays in the city, concentrating in particular on the functional values of urban nature.

3.4 Sociology and Ethnography Based Studies

Previous research on urban nature in the areas of sociology and ethnography give good examples of how to structure an ethnographically based study of urban residents and their interactions with one-another and with nature in the city. Priego, Breuste and Rojas (2008) conducted a comparative study of how the perceptions, uses and behaviors of people from different social and cultural backgrounds in Chile, Germany and Spain, conflicted or coincided when it came to urban nature and landscapes. Through the use of questionnaires, they discovered that the preference for specific types of nature depended on social status, cultural elements, accessibility and tradition. Clare Risbeth and Jo Birch (2020) explore the ways in which migrants living in a city in the UK engage with urban nature. Drawing on interview data, their study focused on narratives of urban nature and migration experiences.

3.5 Human-Nature Relations and Environmental Preservation

An interesting aspect of this thesis is the symbolic value of urban nature and the resurgence of human and nature connectivity. As I have discovered there is a push to reunify humans as a part of nature and not apart from nature which has important consequences for how urban dwellers perceive and interact with nature. Edward O. Wilson (1984) coined the

term ‘biophilia’ to describe what he believes is humanity’s innate affinity for the natural environment. His book *The Biophilia Hypothesis* provides a powerful argument for environmental conservation and preservation efforts through nurturing human and nature relations. This idea has caught many people’s attention. Several studies examine how exposure to nature in childhood can promote pro-environmental tendencies later in life (Cheng & Monroe, 2012; Collado & Corraliza, 2015; Colding et.al., 2020), and how seeking greater connection with nature positively shapes attitudes towards the environment and environmental protection (Hartig & Kahn, 2016; Tam, 2013; Church, 2018).

3.6 Environmental Aesthetics and Noticing Nature

One of the goals of this thesis is to discover if small-scale green features are seen or noticed. In order to address this question, this thesis employs theories and ideas from the works of Jan Gehl, a Danish architect and urban design consultant, and noted anthropologist Anna Tsing. Gehl helps to bring forth the eye-catching sensory and aesthetic qualities of urban greenery, while Tsing discusses how knowledge of nature can capture our curiosity. Other studies have been conducted which help in quantifying the perceptual and symbolic effects of urban greenery and expand on its role in city beatification.

A study by Richard Smardon reviews the role urban vegetation plays in regard to the perception of urban environments, including perceptual functions, the visual and sensory benefits, and symbolic aspects. Smardon discusses aesthetic appreciation of natural vegetation structure, form, foliage pattern; the changing nature of fruits, flowers and leaves, additional characteristics such as silhouettes, reflections, intricacy and geometry, and sensory stimuli such as smell and sound (1988, pp. 89-90). Smardon takes a particular interest trees as they have both important aesthetic and symbolic functions (1988, pp. 90 & 94).

Yang et.al. (2009) evaluate the visibility of urban forests, proposing a new index called Green View to address just how visible urban forests are to city residents. Their study indicates that the use of large-size trees is important for creating a view with more greenery in a city. Their study draws upon the work of Donald Appleyard (1978) who summarizes three functions that trees fulfill; sensory (visual effect), instrumental (ecological and economic benefits), and symbolic (people’s feelings and attitudes). Amati et.al. (2018) set up an experiment in which they used eye-tracking technology to determine what natural features their participants dwelt the longest on and what they noticed first when viewing videos showing walks through

different parks in Melbourne, Australia. Their study found participants dwelt on trees and bushes more than other natural objects while overall time was spent examining artificial objects such as lampposts, distant buildings and benches.

3.7 Contribution to the Existing Literature

My contribution to this body of work is an ethnographic and culturally analytical based study of urban nature which takes a broad approach to understanding the value and role of urban greenery in the lives of city residents in Malmö. The use of cultural analysis as a method for data collection, analysis, and theoretical framework building is meant to contribute not only to the field of cultural analysis, but also to promote its use as a tool for bringing together knowledge from multiple disciples and as a 'lens' through which to discover cultural representations and practices which become lost in the activity of everyday life.

This thesis focuses on a type of urban nature which has yet to be fully investigated. A majority of the existing literature examines already established larger green spaces including parks and small public urban green spaces (SPUGS) while very few address small-scale individual green features. Like larger urban nature, these features play important roles in the city and for urban residents that must be investigated. These features represent an easy, though perhaps only temporary, solution for cities facing difficulties creating or maintaining existing larger green spaces as these smaller features are compact, can be placed or planted in low-vegetation/high urban activity areas to create nature connectivity, help with maintaining ecosystem services, and give city residents access to nature and more opportunities to experience its various benefits. The contents of thesis will hopefully provide inspiration for landscape architects, city planners and policy makers for the future planning of dense city areas, direct the attention of urban residents to the importance of small-scale green features, and contribute to the existing research in cultural studies on human interaction with urban nature.

Chapter 4. Theoretical Framework

The purpose of this section is to establish and discuss the 'theoretical toolbox' which I have assembled in order to unravel the empirical data, give it context and find meaning. I have chosen works by French philosopher Henri Lefebvre, Danish architect Jan Gehl and American anthropologist Anna Tsing.

4.1 Lefebvre's Signs of Nature

During his long life French philosopher and sociologist Henri Lefebvre contributed many ideas and notions on the human condition. He wrote extensively on urban and everyday life, critiquing the banality of everydayness and the cycle of urban life through industry, infrastructure, community and individuality. This thesis draws from the translated text *La Révolution Urbaine* (The Urban Revolution), written by Lefebvre in 1970, outlining his analysis of the urban environment and society, identifying the long historical shift from agriculture to industry to globalized urbanity. While Lefebvre's consideration of nature is not central to his grander arguments, it does serve as a way to define the urban and its negative effects on the natural world. In following the historical narrative of Lefebvre's text, I have chosen three main concepts relevant to the discussion of urban nature including the development of the Nature-Culture dichotomy, the simultaneous fetishistic obsession and ravaging of nature, and the reproduction of nature and supplanting of nature by 'signs.'

In his exploration of this shift from rural to urban Lefebvre argues that the changing emphasis from products of the soil (1970, p. 11) and attachment to land were replaced by the heterotopic city, creating a divide between people and nature. Essentially what Lefebvre is touching on is the development of the Nature-Culture dichotomy which I will discuss further in chapter six in an exploration of my observations on perspectives and interactions with nature, as well as the respect and disrespect for urban nature. To visualize the emergence of the urban, Lefebvre employs a 'space-time axis' (1970, p. 8), a theoretical line running from left to right on which at the extreme left is the complete absence of urbanization and on the extreme right is the presence of urbanization. Along this axis are "signposts" (1970, p. 7), historical happenings which led to the development of urbanization. What this axis fails to reflect is the genealogy of the idea of nature and its development. Acknowledging this, Lefebvre wonders during this shift from agrarian to urban what happened to the relationship between nature, or 'physis,' and reason, or 'logos.'

One result of this shift was the emergence of a fetishistic obsession with nature. The sudden inclusion of urban nature was meant to smooth the glaring divide between industry and rural however, according to Lefebvre, industrialization and urbanization undeniably ravage nature (1970, p. 26), creating a scarcity of essential goods such as space, time, desire, water, earth and light (1970, p. 27) and that in order to maintain life everything that was "nature" must be reproduced. This he argues is the problem of urban nature that it is simply a reproduction,

"theoretically nature is shrinking, but the 'signs of nature' and the natural are multiplying, replacing and supplanting real "nature" (1970, p. 27). This is the crux of Lefebvre's theory, the urban nature we see today, trees, parks, flower plantations "become signs of absence: of an illusory and fictive presence" (1970, p. 27).

At the same time as these signs are multiplying, ideological naturalization becomes obsessive (1970, p. 27). Nature is referenced in all areas of advertising including food, housing and femininity (1970, p. 27). Parks and open spaces which were meant to actively function as a bridge between city and nature become neutral spaces and places for passive observation, they are a "poor substitute for nature, the degraded simulacrum of the of the open space characteristic of encounters, games, parks, gardens and public squares" (1970, p. 27). These poor substitutes come to represent a nature that has been "reduced to being a vehicle for regret, melancholy, and seasonal decoration" (1970, p. 107).

While his overall tone is rather morbid, drawing on Lefebvre's theories helps put into context certain attitudes and interactions towards urban nature. Much of what Lefebvre discusses can aid in understanding the preconceived notions people have about nature, how they are being challenged, and why now we are trying to reconnect with it. His discourse on how greenery in the city, a representation of non-urban nature, is reflected in answers given by informants in their attempts to define nature in an urban context and how it does or does not differ from nature elsewhere.

4.2 Jan Gehl's Inviting City

In order to delve a little deeper into the revival of nature in the city and one of its important roles which Lefebvre identified as "seasonal decoration" (1970, p. 107), I turn to Jan Gehl and his notions on the inviting city. Jan Gehl is a Danish architect and urban design consultant most well-known for his focus on the human element in city design and planning. This thesis draws on his book *Cities for People* published in 2010. Gehl emphasizes the human aspect of cities and provides a toolkit with which to reconfigure cityscapes on a more human scale. For Gehl the urban landscape must be considered at eye level and at a much slower pace. Drawing mainly from chapter 4, "The City at Eye Level," and a little from chapter 3, "The Lively, Safe, Sustainable, and Healthy City," I have adapted Gehl's discourse on urban forms and designs to help in the exploration of the diverse symbolic and functional roles of small scale urban nature. This is done through looking at urban nature's connections with and

influence on human movement and stationary activities, health and sustainability, and sensorial experiences, which will be further discussed in chapter six.

Gehl gives us much in the way of understanding why certain interactions with nature in the city take place and why urban greenery draws city residents in. While Lefebvre despairs for a nature reduced to pure ornamentation, Gehl's discussion of city aesthetics gives a much deeper look into how urban greenery creates beautiful cities and good experiences.

4.3 Anna Tsing's Arts of Noticing

An important focus of this thesis is learning how nature in the city is set into the urban environment in order to understand both the physical and symbolic 'place' of green features in the city. A question this thesis aims to answer is 'are these small green features noticed?' This question springs from my own assumption, formed at the very outset of this study, that they are seldom noticed or remarked upon due to how removed they seem from the type of nature that exists outside the city, how prevalent the Nature-Culture dichotomy appears, the focus on larger green spaces, and as Gehl helps to show, how hard a city must work to include nature. However, as my informants reveal, these green features are very much noticed but perhaps in ways that do not appear so obvious at first. Gehl is particularly helpful in showing how nature in the city can be made eye-catching through evoking certain sensorial responses which work on a psychological level to bring enrichment and stimulation. While this does contribute to the understanding of how and why certain interactions with urban nature take place, the focus is more on the physical attributes of urban nature which eclipses the more intangible or culturally motivated reasons to pay attention. For this we can turn to Anna Tsing. American anthropologist Anna Tsing is well known for her contributions to an interdisciplinary body of work in the fields of humanities, natural sciences, social sciences, and the arts. Through combining ideas and concepts taken from her texts *More-than-Human Sociality: A Call for Critical Description* and *Arts of Inclusion, or How to Love a Mushroom,* two of the more subtle arts of noticing can be made evident.

In *More-than-human Sociality* Tsing explores those "social relations that do not come into being because of humans" (Tsing, 2013, p. 27). By this she means the connections between non-human entities which have often been ignored in the scientific world and "commonly dismissed as 'mere description" (Tsing, 2013, p. 72). She argues, in this increasingly anthropogenic world in which humans are everywhere and involved in shaping everything "we

need to know what more-than-human socialites are being made, with or despite of clearly formulated human intentions" (Tsing, 2013, p. 28). Like Lefebvre, Tsing explores the history behind the disconnect from nature which has led humans to ignore natural interactions of which they are not a part of while simultaneously seeking to insert themselves where they do not belong. In order to combat this, Tsing argues for studying non-human social worlds in which we are non-participants by noticing and paying attention to assemblages and form (Tsing, 2013, p. 31). In *Arts of Inclusion, or How to Love a Mushroom*, Tsing (2010) discusses how the sharing of knowledge, hobbies, tasks and common goals induces humans to pay attention. By learning the language and practices of a hobby, such as mushroom foraging or botany, one can begin to seek out more knowledge and experience, becoming drawn into a world you can finally 'notice.' This kind of noticing takes advantage of human curiosity and the need to understand the world around us.

In chapter six I will apply Tsing's concepts to understand how urban nature is noticed or stands out to city residents beyond purely aesthetic enjoyment.

Chapter 5. Methods and Empirical Materials

5.1 Choosing, Defining and Entering the Field

Malmö was first established as an industrial port city with a bustling harbour dedicated to ship building and industrial construction. Today Malmö is touted as the 'City of Parks,' owing to its mild climate much of the inner city is abundant with large green features, including the historical Kungsparken, Pildammsparken and the Old Cemetery. Malmö is also highly pedestrian and cyclist friendly allowing city-goers the freedom of leisurely sightseeing. However, what prompted this thesis was an appreciation for the smaller less obvious green features dotted around the city. The first consideration when choosing what areas around Malmö to focus on and apply empirical methods was to define exactly what is meant by a small-scale green feature? How small is small and what makes these natural features different from others? The small green features described in this thesis include single trees or stands of trees, planter basins, small flower plantations, bushes (often in trimmed hedges used to delimitate seating areas or boundaries of public squares), small grassy areas, and green planted areas between roads. These features are mostly isolated within the urban environment and do not belong to larger green areas. While they are still somewhat available to the public, these features are often contained in fenced off areas or set apart in pots, basins or other receptacles.

Unlike public parks which often constitute areas where city residents are invited to enjoy a green oasis large enough to set it apart or shield from the urban environment, these features serve to create small resting areas or visual decoration within highly urban surroundings including busy roads and pedestrian shopping streets. In choosing to call them "small" green features I may be falsely leading readers to think that physical size is the most important defining factor. But these features can include trees of impressive height and girth such as one notable European Beech tree in Kungsparken measuring 6.50m in diameter (MonumentalTrees.com, 2019). It might be more prudent to say small and isolated green features or green features found in predominantly urban spaces, e.g. paved, primarily non-vegetated. Small is simply a way to distinguish from "large" green features and spaces like public parks which include a wide variety of green features within a large boundary such as Pildammsparken with its 45 hectares of lawns, ponds, wetlands and landscape gardens.

5.2 Observation Areas

Nine locations within Malmö were chosen in which to conduct observations and gather material. Each area was chosen based on certain criteria: the area must include either single or multiple small green features, the area must be primarily urban or dedicated mainly to urban activity, the area must not include or be too near a large green feature, such as a park or open grass area, and the area must have multifunctional capabilities, for example shopping, sitting, dining. The areas were also chosen based on their location within an easily walkable radius. The locations are divided into three defined areas: three public squares: Davidshalltorg (fig. 7), Stortorget (fig. 8), Gustav Adolfs Torg (fig. 9); three areas along roads or green strips: Södra Promenaden (fig. 10), Nya Sjögatan (fig. 11), Neptunigatan (fig. 12); and three smaller isolated areas surrounded by an urban environment far from other large green spaces: Anna Lindhs Plats (fig. 13), Norra Vallgatan (fig. 14), Östervärnsgatan (fig. 15).

Fig 6. Map of central Malmö with each field site marked and labelled.

Fig 7. Davidshallstorg is a city square located in the central district of Malmö. Green features include several small flower plantations, large trees, one large central planter pot, and bushes demarcating the corners and boundaries of the square.

Fig 8. Stortorget is Malmö's largest and oldest public city square. The green features found at Stortorget include a semi-circle of pollard Plane trees, several flower planter basins placed around the square, several large trees and a central area with benches and large planter pots.

Fig 9. Gustav Adolf's Torg, located at the southern end of Malmö's Gamla Stad (Old City), is Malmö's main public square. The 15,000 ft^2 area of the square is decorated with groups of smaller trees and several venerable Plane trees, hedges, two small lawn areas, planter basins, benches, sculptures and decorative fountains.

Fig 10. Södra Promenaden is a green promenade along Malmö's canal. This thesis concentrates on the semi-open seating area of Altonaparken at the corner of Södra Promenaden and Amiralsgatan. The small green features here include a large tree choked with climbing ivy at one corner and another large tree at the other, three flower planter basins at the centre and a border of trimmed bushes separating the seating area from the rest of the promenade.

Fig 11. Nya Sjögatan is a cul-de-sac road near Malmö's central train station and several of Malmö University's student buildings. The area is decorated with many small mixed birches, evergreen, rowan and ginkgo trees set into gravel and several built up woodchip plantations with elephant grasses and small bushes with benches for seating.

Fig 12. Anna Lindhs Plats encompasses a small area along the Hjälmarekajen wharf close to Malmö's western harbour. It is also the name of a major bus stop just opposite the wharf across the busy road Neptunigatan. The bus stop itself is decorated with four metal sided planter boxes with ginkgo and evergreen trees, holly bushes and creeping ivy plants.

Fig 13. Norra Valgatan is a long road that runs parallel to Malmö's canal beginning from the Slussen district and ending near Kungsparken. Along the road close to Drottningtorget is a stand of nine large trees. The trees serve as a barrier between the busy road and a residential parking lot and there are often idle city or long-distance busses parked nearby.

Fig 14. Neptunigatan is a major dual road running from Malmö Central train station, past Malmö University, merging into another major route further along. Along the road is a lookout and seating area overlooking the canal. Small planted plots with grasses, trees and small bushes separate benches from the cycling rout and busy road.

Fig 15. Östervärnsgatan is a semi-pedestrian residential street in the Midhem district of Malmö. At The head of the street is a small seating area with three large trees acting as a barrier between Östervärnsgatan and the busy Sallerupsvägen. There are also three small planted and fenced in plots with smaller trees, climbing vines and flowers.

5.3 Observations

Clifford Geertz writes, "doing ethnography is like trying to read a manuscript –foreign, faded, full of ellipses, incoherencies, suspicious emendations, and tendentious commentaries, but written not in conventional graphs of sound but in transient examples of shaped behaviour" (1937, p. 314). Observation serves as one of the key methods in cultural analysis allowing the researcher to decode this manuscript by gathering information through the five senses and learning about their subjects within the subject's own context. I chose to do observation in tandem with the other methods mentioned below as it offers a way to work through the incongruity of what is said versus what is being done, "we are constantly faced with the everyday discrepancies between what people say matters to them and what they actually give their attention to" (Miller, 2002, p. 13). Observation also produces fieldnotes which become a main data set from which an ethnographic researcher draws findings.

Observations were made at each of the nine locations in Malmö several times over the months of February and March, each lasting 20-30 minutes. The type of observation method used was covert non-participant observation as I did not engage in the activities performed by the subjects nor engaged with the subjects in order not to influence their actions. These observations closely followed the three-stage 'funnel' process described by James Spradley (1980, p. 73) beginning first with a general descriptive observation in which I carried out observations seeking only to answer general questions such as: what is happening here? Descriptive observations take in a broad scope of information including the physical space, the actors involved, activities being performed, objects in the space, time, and emotions (Spradley, 1980, p.78). The type of descriptive observations I made at each location included what kinds of small green features were present, what they consist of (ex. trees, flowers, and hedges) and how they are arranged, who uses the space and how (ex. pedestrians, cyclists, runners, families, groups, singles, sitting, walking), objects within the spaces (ex. benches, fountains, types of buildings, statues) and what kind of space these locations could be described as (ex. transitory, multipurpose, spaces for resting, decorative, busy and populated, calm and pedestrian).

The second stage of the observation process moves onto focused observation (Spradley, 1980), in which I began to pay attention to a narrower portion of the activities that interested me most. Here my observations focused on how people interact with the natural features, including how they talked about them, what language they used, if they stopped to look, smell or touch them, if they let their pet stop to sniff or relieve themselves on the features, as well as

other actions being performed in these spaces for example sitting, eating lunch on benches, shopping nearby, chatting with one another or using a mobile phone. Finally, the third type of observation performed was selected observation in which I investigated relations among the elements I selected as being of greatest interest (Spradley, 1980.) Certain themes or ideas were discussed such as how fencing in or isolating natural features limits certain types of interactions or how transitory or multipurpose space affects how people interact with nature features.

As with any empirical method, covert non-participant observation has its merits and disadvantages. While having no interaction with the subjects being studied gives the advantage of recording actions and interactions as they happen in real-time without influencing the subjects, this also has the disadvantage of only gaining a somewhat superficial knowledge of the actors, actions and their underlying meanings. However, being covert may have given the advantage of witnessing actions that might be omitted if the subjects knew they were being watched. It falls to the researcher to interpret what they are seeing, and this may not always be correct, challenging the researcher's ability to be objective (Lui & Maitlis, 2010) and interpret true meaning. Any instances of how my intimate knowledge of the city, for example being able to picture the locations in different seasons, notice changes, or my knowledge of specific plants, influenced how the collected information was being interpreted, were noted down in my fieldnotes.

5.4 Questionnaires and Survey Process

Two questionnaires were used to collect empirical data, one online questionnaire and one in-person questionnaire. The in-person questionnaire consisted of eight short answer questions and four interval scale questions which aimed to establish and gather information on what activities the survey taker performed at the location, how aware they are of the small green features at the specific location, what stood out to them most, their thoughts, feeling and opinions on the small natural features and their role in their personal lives and in the city. For this study it was not only important to determine the type of interactions city residents have with small-scale green features but also how the space around these features influences how they are seen. Fifty copies of the questionnaire were printed to be distributed to Malmö city residents who were present in each of the nine study locations. Initially the goal was to collect at least five filled in questionnaires from each location however, certain locations were far less populated, influenced in part by the cold weather, and only a few questionnaires were collected

while at others more than five were collected. The surveying process took place over several days and visits to each location took place at different times during the day. Altogether eighteen questionnaires were collected.

As an accompaniment to the in-person questionnaire, an online questionnaire was created in Google forms and distributed to classmates, friends and family members who were also encouraged to share the questionnaire with their acquaintances. The online questionnaire was divided into three sections. The first section gave an explanation of the aim of the study and a picture and description of one of the nine locations (Davidshallstorg) with examples of the small green features found there. Sections two and three consisted of six short-answer questions and four interval scale questions which aimed to gather more general information on opinions and attitudes towards nature in an urban context and nature 'in the wild' as well as establish personal feelings towards nature in cities and small-scale green features. Because potential online responders may not have been located in Malmö nor have visited there, the online questionnaire gathered more general information on urban nature rather than the natural features in each specific location in Malmö. Altogether the online questionnaire received eighteen responses.

Using a combination of in-person and online questionnaires provided both advantages and disadvantages associated with each data collection method. By conducting the questionnaire survey in-person I was able to collect synchronous (in real time) answers, engage with the responder and gage their understanding of the questions through discussion, and read both verbal and non-verbal ques. Unfortunately, because respondents were approached presumably on their way somewhere else or engaged in other activities, answers given were sometimes short with little detail or depth. Conversely answers given to the online questionnaire were often longer and more in depth as the responder could reply at their own pace (asynchronous non-real time). However, as Kate Stewart and Matthew William discuss, "identifying and gaining access to populations for research purposes is very often the first milestone to overcome. Researching Internet populations is no exception" (2005, p. 398), this is why already established online populations, such as Facebook groups, were asked to fill out the questionnaire.

In order to avoid ethical dilemmas both questionnaires were completely anonymous, however this does pose difficulties when considering how one's personal background can affect one's views of nature and urban living. "Nature is seen by humans through a screen of beliefs, knowledge and purposes, and it is in terms of their images of nature, rather than of the

actual structure of nature, that they act" (Rappaport, 1979, p. 97). However, unprompted, certain respondents gave some background information which helped a little in establishing how their personal and cultural background influences their views of urban nature.

5.5 Source Selection and Limitations/Delimitations

Respondents for the in-person questionnaire were chosen based on two categories. Different 'types' of subjects (single individuals, couples, small groups) were approached and were further divided by 'activities' (passing through, running, walking, cycling, sitting) Individuals who were quickly passing through, either running or cycling, were not approached due the limited time spent in the location. Potential responders were also selected based on my personal evaluation of friendliness or willingness, subjects who appeared deeply engaged in activities or who had more 'closed' body language, for example crossed arms and legs, were not approached. While neither gender, age, nor nationality were recorded, both questionnaires were in fact completely anonymous, individuals of varying estimated gender, age and nationality were approached to ensure the study included a diverse group of subjects.

Respondents for the online questionnaire were found through accessing already established online groups. By asking these respondents to consider sharing the questionnaire with friends or acquaintances a snowball effect was created in which one subject can help recruit another, and they in turn can bring you in contact with another subject and so on (Valentine et.al., 2005, p. 117). However, because the snowball effect when used for online communication allows for contact with many people in all different areas of the world and therefore in the case of this study, respondents who do not live in Malmö, the online questionnaire was adapted to ask more general questions about urban nature and not just urban nature specific to Malmö. Respondents to the online questionnaire can be loosely divided into those who live in Malmö or other areas of Sweden, and those in Copenhagen, Finland and Canada.

5.6 Bricolage: Online Resources

Orvar Löfgren emphasizes an interest in the focus on methodological experimentation within non-representational studies, studies that observe the enacted or performed practices within human and non-human formations. Experimentation helps to "capture dimensions of actions that are hard to verbalize" (Löfgren, 2014, p. 79). One form of methodological

experimentation is bricolage. Bricolage refers to "combining different materials and approaches, inviting dialogues with art, popular culture, and fiction" (Löfgren, 2014, p. 79), the result of which is "a strong interweaving of theory and methodological approaches in an attempt to find new ways of doing ethnography and often learning from approaches outside academia" (2014, p. 79).

Online resources provided a wealth of easily available and well archived information which played a useful role in supplementing my observations and questionnaire responses. Information about the city of Malmö found on their website, which includes a page called Miljöbarometern (Malmö Stad, Miljöbarometern, 2021) helped to establish the city's environmental and city greening policies as well as their climate and environmental sustainability programs, and various useful statistical data. Also interesting is Malmö's online Blomsterprogram (Malmö Stad, Blomsterprogram, 2021) which details the city's plantation themes from each year from 2012 up to 2021. Looking at these themes helps to give an example of how a city works to make urban nature aesthetically pleasing and noticeable and deepens an understanding of certain roles nature plays in the city. A digital overview plan map of Malmö city adopted by the municipal council in 2018 shows overlays of greened areas, parks, waterways and greenways (Malmö Stad, "Översiktsplan för Malmö," 2018), providing valuable information on greening methods used by the city. Other sources of information which contributed to this study include online newspaper and journal articles.

5.7 Bricolage: Photographs

Photographs can also be counted as part of the bricolage method, helping to open up new aspects of research, acting as illustrations for giving emphasis to theories or assumptions, and capturing and preserving important moments. Like observation of events, photographs can be interpreted by the researcher in many ways. A single photograph "may serve a range of different personal and ethnographic uses; it may even be invested with seemingly contradictory meanings" (Pink, 2007, p. 67). It is important to note that, again like observation, what is photographed and how something is photographed is informed by the researcher's interests and background. "A reflexive approach to ethnographic photography means researchers being aware of the theories that inform their own photographic practice, of their relationships with their photographic subjects, and of the theories that inform their subjects' approaches to photography" (Pink, 2007, p. 67). Multiple photographs were taken at each of the nine locations

in Malmö. These photographs focus on the different types of small green features found at each location as well as the environment around these features including signs, fencing, seating areas, and more. These photographs establish the layout of the locations and as well as capture seasonal changes. Because the photographs were taken over the late winter and early spring months there is little in the way of greenery to be seen. Screenshots taken from Google Maps of each location in different seasons help establish changes in themes, colours, layout, construction and other interesting differences. Photograph of other areas or green features in Malmö are also included. In the data analysis in chapter six these photographs help to illustrate informant's answers, provide visual details and support the discussion.

5.8 Analytical Methods

Choosing your field methods and collecting data is only half the work. Methods for analysing empirical material should also be carefully considered. In order to organize my data in a coherent way that would lead me to interesting and relevant findings, I took inspiration from Barney Glaser and Anselm Strauss' (1967) Grounded Theory. Grounded Theory applies inductive reasoning where specific experiences and observations are brought together to discover a general truth, for example, if one observed that people prefer to eat red apples over green apples one could 'induce' that red apples are tastier. A key method of Grounded Theory is tagging ideas and concepts emerging from data as it is reviewed with codes and categories to organize, summarize and ultimately lead to a cohesive narrative. These ideas and concepts appear through the researcher's subjective selective process both when in the field and when reviewing data. Ideas, concepts and theories develop out of data through iterative relationships. Data can be 'chopped up,' reordered and reassembled to produce theories. Ian Crook and Mike Crang (1995) describe this process which I have summarized in five steps:

1. **Reread your primary materials (e.g. field notes, transcripts) to:** "remind yourself of the contexts in which these were constructed as your research progressed and what your thoughts were on this at various times" (Crang & Crook, 1995 p. 77).

2. **Prepare for a more in-depth study of your primary materials, think about:** "what was being said and what the meaning and intent of each statement might have been…Anselm Strauss (1987) has termed this process 'open coding'… codes may cover a single word, line, feeling or a whole chunk of text" (1995, p. 78).

3. **Note down and review your codes, this will:** "allow you to see how many categories you have, whether there are any very similar categories that might be usefully amalgamated, and what categories you have already found/invented" (1995, p. 79).

4. **Take note of your insights and hunches, these notes:** "should help you in making sense of your materials and in developing new ideas about how your codes relate to each other" (1995, pp. 81-82).

5. **Sort through connections and relations, here the focus of analysis:** "shifts from the individual statements to the ways in which they relate to each other" (1995, p. 82). Here the iterative process can help to clear contradictions.

In following these steps, they need not be followed sequentially, large amounts of seemingly disparate empirical material can be made to make sense. However, as a method of data analysis this can be time consuming and as a researcher, I had to be wary and reflect on what guided my subjective selective choices to understand bias and the effect of my position. Step four of the process I mainly performed in the field in tandem with writing down observations in my field notes. In the following examples from my fieldwork diary you can see I often pose my insights as questions.

Ex. *Most people walk through the square quickly with some purpose* ***(a transitory space? are they familiar with w/ the green features or simply don't notice/pay attention to them?)*** (Fieldwork Diary, Gustav Adolfs Torg, February 11, 2021)

Ex. *Flower stalls in the square* ***(=nature you can take home?)*** (Feildwork Diary, Davidshalltorg, February 19, 2021)

Because I visited each of the nine areas in Malmö multiple times, I was able to review the sets of notes I had written from previous dates to inform me what to concentrate on and look for the next time I came to observe in the same area. Later, I transcribed and collected my observation notes and survey responses into word documents where I could easily carry out steps 1 to 5. I was then able to group ideas and responses, cutting and pasting similar concepts, key words, and repeating themes together and investigate the use of allegories, analogies, metaphors and symbolism.

5.9 Ethical Considerations

Given the close interaction between the researcher and their subjects during a qualitative study such as those carried out in cultural analysis, "researchers face ethical challenges in all

stages of the study, from designing to reporting" (Sanjari et.al., 2014, p. 1). There are two important sets of ethical considerations relevant to this study. The first concerns taking responsibility regarding the subjects, this includes anonymity, informed consent and confidentiality.

Charlotte Davies makes clear that, "as far as possible sociological research should be based on the freely given informed consent of those studied. This implies a responsibility on the sociologist to explain as fully as possible, and in terms meaningful to participants, what the research is about, who is undertaking and financing it, why it is being undertaken, and how it is to be disseminated" (2008, p. 46). This goes for similar kinds of research such as cultural analysis and ethnography in which a researcher engages with and studies other people and cultures. During the in-person survey process potential responders were approached and told what the questionnaire concerned, why it was being conducted, which university it is associated with, and how and where the information they gave would be used. The questionnaires were handed out and respondents, who agreed to participate, were asked to complete the questionnaire on-site. Any questions or concerns they had about the study were addressed. Similarly, the online questionnaire included a written explanation. Both questionnaires were completely anonymous and no personal information was collected. Certain respondents did voluntarily give personal information such as name, gender or contact information, but this information has been omitted from the thesis.

My photographic material also needed to be considered in terms of ethics. In the field I tried to make sure to excluded human subjects in my photos, otherwise identifying features in those photos with human subjects have been blurred. By choosing to be a covert non-participant during observation sessions I did wonder about the ethics behind observing my subjects without their explicit consent but weighed this against the advantage of witnessing actions that might be omitted if the subjects knew they were being studied. A report by the Swedish Research Council states that covert forms of observation should be "the exception rather than the rule" (Swedish Research Council, "*Good Research Practice*," 2017, p. 26) with the ideal situation being "that those to whom the research applies should be informed that they are the subject of research" (Swedish Research Council, "*Good Research Practice*," 2017, p. 26). I decided the best course of action was to sit out in the open to be visible to passers-by. Though I did not invite conversation, and no one was curious enough to ask, I was ready to answer questions and explain the purpose behind my actions.

The second set of ethical considerations concerns the use of autoethnography and reflexivity. Simply put it is unrealistic for a researcher to be completely objective, "all researchers are to some degree connected to, a part of, the object of their research" (Davies, 2008, p. 3). Because of this, reflexivity is an important factor in cultural analytical investigations in which the researcher relies on their relationship and interactions with their subjects. I have mentioned already several times in the methods section instances where I have been aware that I am making subjective choices informed by my own interests and background (e.g. choosing what to photograph and how to interpret my empirical material) and how I have at times used an autoethnographic approach during my observations. Taking a reflexive approach is welcomed as an opportunity to "…address ethical concerns about the anthropological endeavour and its links to exploitation" (Davies, 2008, p. 178).

Learning to think reflexively is also important out in the field as I realized how my position as researcher, and even simply how my presence, can influence the actions of my subjects. For instance, I have noted in my fieldwork diary, "*my observing the flower planters has made other people curious, they want to see what I am looking at*? (Fieldwork Diary, Stortorget, February 19, 2021). This is an interesting observation because it also becomes part of my data. This thesis asks, is this type of nature seen or noticed? Even though other people have stopped to look at the flower planters I cannot clearly state that yes, they notice this type of nature because I cannot say for sure they would take note of it even if I were not there. However, this does play into Anna Tsing's theory on the arts of noticing which takes advantage of human curiosity. In order to maintain some objectivity, I did choose to keep distance through covert-nonparticipant observation, keeping my interactions to a minimum and thus hopefully "reducing or controlling the effects of the researcher on the research situation" (Davies, 2008, p. 4).

Chapter 6. Analysis and Discussion

6.1 Interacting with and Perceiving Nature

An important theme I noticed in my collected data is how urban residents perceive nature and how this affects their interactions with it. For many of my informants, nature is seen differently depending on whether it is found within or without the urban environment, however there are some who do not distinguish between the two. A brief look at history can help to reveal where these perspectives come from and how today they are being challenged and reinterpreted.

6.1.1 What is Nature? Inside and Outside the Urban

When Lefebvre says that signs of nature are supplanting real nature (1970, p. 27), what does he mean by 'real' nature? When asked to define nature in general, informants supplied a number of different responses, which altogether create quite a clear and consistent picture of an objectively more 'real' nature as it exists outside of the city. For them this kind of nature is something wild, untouched by humans and not made to look pretty or gentle. It is vast, endless, large or expansive and can be found far from the city and from human influences. Nature is also dynamic and messy, with layers and textures. In opposition, urban nature is small-scale, limited to pockets that only hint at nature. It is often planted, planned and controlled. However, nature in the city is also seen as an oasis, providing the green, alive, breathing spaces to escape from the stress of urban life. These two types of nature are often seen as very distinct:

> *A park inside the city centrum isn't nature for me. I consider nature to be "natural" and without the touch of humans to some extent. If an area is planned precisely (park, green area) I don't consider to be nature*. (Online Questionnaire)

> *I would say nature is wild, not man-made, spaces away from the city with lots of wildlife, birds, bugs, water, and greenery. Spaces which are subject to 'natural' cycles of life, like where you can see the effect of Spring, Summer, Autumn and Winter. That makes it hard to define in an urban context because I feel like it is the 'non-urban' world. But in an urban context I would view it like 'pockets' of nature, like the botanical gardens, or parks. Ponds, earth, grass are all like hints of nature*. (Online Questionnaire)

But where does this distinction arise from and why is human intervention a determining factor in what makes nature 'real'? Intrigued by the idea of the separation of humans from nature Lefebvre queries, in the development of the urban, what happened to the relationship between physis (nature) and logos (reason)? This in other words is a reflection on the Western cultural construct known as the Nature-Culture dichotomy. The basic idea is that since humans can think, reason and self-reflect, they are unique and separate from the natural world. To better understand where and how this dichotomy originated it is important to look at a brief history of European perceptions of nature and wilderness. This history highlights the startling contrast between the rejection and then subsequent embracing of nature.

Owing to strong biblical influences, in the early 18th century wilderness was held in quite a negative light. It was a place of untamed disorder, a barren wasteland cursed by the Fall of

Man (Kirchhoff & Vicenzotti, 2014, p. 446). As Europe emerged into the Age of Enlightenment and philosophers and scientists spread their ideas, Christian perceptions of wilderness changed fundamentally. The wild landscape became a place in which to witness God's glory and creation, a place where the supernatural lay just below the surface. Concurrently with the emergence of modern sciences new secular ideas began to circulate, wilderness became tangled in discussions of state, order and human nature. Wilderness symbolised "the pre-societal state of nature" (Kirchhoff & Vicenzotti, 2014, p. 447), a place for liberation and non-conformity and therefore had to be controlled just as the wild nature in men that lead to violence had to be moderated by the state, "inner wilderness continues to constitute a latent threat to this unstable state of society. Accordingly, outer wilderness (i.e. unexplored and uncontrolled land of sea) is perceived as being chaotic and dangerous" (Kirchhoff & Vicenzotti, 2014, p. 448). Immanuel Kant, a highly influential figure of the Enlightenment, perceived wilderness "as the domain of instincts and passions, and thus lack of freedom" (Kirchhoff & Vicenzotti, 2014, p. 449). To be free and act autonomously and embrace reason rather than emotion, the unregulated part of inner nature had to be mastered. Throughout European history wilderness and nature have either been embraced as a site for tranquillity, harmony and escape or rejected as something wild, and chaotic needing to be conquered or vanquished. The perception that wilderness represents a primitive state of human development and a baser and less reasonable part of human nature has caused it to be left behind, enforcing the notion that humans are not an inherent part of nature, set apart from non-humans.

However, more recent transformations of the traditional notions of wilderness are helping to fight this divide. "With the rise of the modern environmental movement in the 1960s, the term 'wilderness' acquired the positive meaning of an area where ecological conditions are 'natural, --that, is where they have been unchanged by humans" (Kirchhoff & Vicenzotti, 2014, p. 454). Human presence and interference are now regarded as a disturbance of 'natural order.' Nature outside the immediate realm of human control is seen as more genuine.

Unfortunately, this position still somewhat encourages the separation of humans from nature, albeit in a more positive way, helping to mitigate negative anthropogenic activity. Environmental historian William Cronon challenges this construct of human-free wilderness. Cronon argues that wilderness "is quite profoundly a human creation" (Cronon, 1995, p. 69) and that it is "a product of that civilization, and could hardly be contaminated by the very stuff of which it is made" (Cronon, 1995, p. 69). Several informants challenge this nature-culture

divide, claiming that urban nature, as close to humans as it is, is still a part of nature. Nature itself encompasses more than just what we see, it is also a feeling and something very difficult to separate from ourselves:

> *I would define nature as an agentic being that encompasses all aspects of the physical, spiritual, material world. Humans are part of nature as are cities and urban areas. I don't like furthering the human/nature divide rhetoric.* (Online Questionnaire)

> *Nature is the four elements: earth, wind, fire, water. Nature is peace, nature is freedom, nature surrounds us everywhere. It's a vital condition for life. Nature in cities is also vital but exists in smaller ways.* (Online Questionnaire)

> *Nature is everything, without it neither we nor animals would be able to live. Nature can be brought to the city on a smaller or larger scale, can be anything from planters to parks.* (Online Questionnaire)

> *Nature to me is any organic life such as plants or animals. In the city a flower pot or seeing wildlife would be a part of enjoying nature in the city*. (Online Questionnaire)

This somewhat newer way of perceiving nature is one of many concepts and measures related to the human connection to nature which have and are currently being studied to build closer human-nature relations, encourage peaceful interactions, and promote environmental awareness. Unfortunately, as Kim-Pong Tam writes, "the inevitable dominance of urban life may cost modern people an intimate relationship with nature" (2013, p.64).

6.1.2 Signs of Nature

Lefebvre pinpoints the latter half of the eighteenth century and beginning of the nineteenth century as the start of a fetishistic obsession with nature (1970, p. 25). In the later part of the 18th century, a critique of Enlightenment thinking emerged propelled by philosophers such as Jean Jacques Rousseau. "Rousseau linked the transformation of landscape from a genuine wilderness to an agricultural countryside with the development of human capacities" (Kirchhoff & Vicenzotti, 2014, p. 450). Wilderness instead became a symbol of simple agrarian life, unspoiled by modern urban society. Although some frowned upon this simpler mode of society as a more primitive state of human and technological development, 19th century Romanticism, bolstered by pastoral poetry, idealized visions of country life and harmony with nature as people became disenchanted with the harsh realities of reason, "the

Romantics placed their hope in a positive utopian future, and wilderness" (Kirchhoff & Vicenzotti, 2014, p. 451). This reunification with nature transformed the urban environment creating the city which "appeared as a second nature of stone and metal, built on an initial fundamental, nature made of earth, air, water, and fire" (Lefebvre, 1970, p. 25).

Along with the fetishization of nature came commodification, which is often cited as one of the common barriers to generating greater nature-human connectivity (Tam, 2013; Colding et.al., 2020). In the city nature is bought, sold and reproduced, it is used to create aesthetically pleasing environments to invite tourist into shops and cafes and boost housing prices. These decorative reproductions of nature are what Lefebvre calls, "signs of nature." Dutch artist and philosopher Koert Van Mensvoort writes, "at the edge of the woods along the motorway near the Dutch town of Bloemendaal, there stands a mobile telephone mast disguised as a pine tree. This mast is not nature: at best, it is a picture of nature. It is an illustration, like a landscape painting hanging over a sofa" (Van Mensvoort, 2006).

However, commodification is a double-edged sword. With the wider availability of small-scale urban nature sequestered urbanites are being brought closer to a kind of nature which, as we have learned, many do not separate from non-urban nature. Even these illustrations of nature, man-made things disguised as natural features, are curiously enough accepted. On a breezy yet sunny May day a friend and I met at Café Element in Malmö. As the weather was nice, we sat in their outdoor seating area. At one point my friend broke off from our conversation and, peering at the potted plant, seen in figure 16, on the table she asked, "is this real?" No, this was in fact a fake lavender plant in fake soil. What made it seem real was its imperfections. It had been designed to mimic features we'd see in a live lavender plant, branches that stuck out at awkward angles, broken stems and folded leaves. Though it was fake my friend still thought it brought 'something nice and inviting' to the café setting. During a bus trip from Malmö to Lund I noticed the lamp poles at a bus stop had been cleverly disguised as birch trees which, rather than something negative or unnatural, I thought was a clever way to bring a man-made technology together with the aesthetic appeal of nature.

Though there is certainly some truth to the doubts voiced by Lefebvre, among others, who question whether the reunification of the spontaneous and the artificial represent an effective space for the correspondence between the two opposites (Lefebvre, 1970, p. 26), the growing perception of a genuine nature being found both within and without the city are challenging the nature-culture dichotomy, bringing humans within the scope of nature.


Figs 16 and 17. The plastic lavender plant at Café Element in Malmö (left) and the light poles disguised as birch trees at a stop along the Malmö-Lund bus route (right.

6.1.3 Acting with Respect and Disrespect

I am sure at some point we've all seen signs demanding "keep off the grass," "caution new bulbs planted," or "keep dogs on leash," and other similar messages aimed to protect urban greenery. One of my favourite signs can be found on a fence running along the St. Paul's Central Graveyard in Malmö which reads, "hundskit, nej tack" or "dog shit, no thanks." Many of our interactions and relationships with nature are based on respect and concern for the environment as well as the mental peace or visual delight it brings. My four-year-old nephew is notorious for berating anyone who steps on the flowers even accidentally, stating, *"they're growing, don't hurt them,"* while one informant of this study enthusiastically claimed, "*of course I think nature in the city is important, it is the green lungs, we must take care of it to take care of ourselves!*" (In-person Questionnaire). Yet, as I have discussed, both Lefebvre and Tsing mention there is a distinct disconnect from the natural world in which humans distinguish themselves as apart from nature. Lefebvre described this as "thoughtful people no longer see[ing] themselves reflected in nature, a shadowy world subject to mysterious forces" (1970, p. 11). Perhaps this disconnect is a vehicle for a conscious disrespect for nature which leads Lefebvre to question the simultaneous obsession with and destruction of nature.

When I look over my fieldnotes I find several instances of what I have labelled as "mild disregard and downright disrespect." Here I note cases of letting dogs walk or relive themselves

on flower plantations, trees or bushes, garbage strewn around green spaces or caught in trees, and even large trees being tagged with graffiti.

Figs 18 and 19. One of the oldest Plane trees in Gustav Adolfs Torg has been graffitied (left). An impressive swan's nest built with canal reeds and discarded plastic (right).

Bad behaviour, however, does not go unnoticed. While individuals will take matters into their own hands to monitor one another's behaviour, for example I have one fieldnote entry which reads, "*person with off-leash dog just got yelled at for letting the dog run around in the flowers, distinct air of guilt when dog was quickly re-leashed*" (Fieldwork Diary, Davidshalltorg, February 11, 2021) the fencing in of natural features can also discourage the general public from misbehaving. I began to notice a number of green features that were fenced in with small railings or walls and wondered, *"does fencing in parts of nature keep people from being able to fully interact? Does it reinforce ideas of taming nature, or does is signal nature needing to be protected from people?*" (Fieldwork Diary, Gustav Adolfs Torg, February 27, 2021). Signs and fencing however have mixed results. By creating barriers this can encourage people with a natural inclination to break the rules. A study by Nicole Ruedy et.al. demonstrated that "some unethical behaviours not only fail to trigger *negative* affect but can in fact trigger *positive* affect" (2013, p. 542) which they term the "cheater's high." The unconscious destruction of not just nature, but what we simply find around us also occurs. Perhaps you find yourself in idle contemplation absentmindedly tearing up the grass where you're sitting or shredding leaves that you've torn from an overhanging branch. There are many theories as to why this behaviour occurs from commanding a sense of power or control to the

human inclination to learn about the world around us by breaking things apart. Quora user Danny Woodring writes:

> I am a very curious person so destroying things, for example I remember I used to like cracking cassette tape cases (hard but brittle material) by breaking these things I learned a lot about its properties and what I could use them for. That goes with any other material, by knowing its strengths and weaknesses I could use the materials for different projects or creations/inventions. (Danny Woodring, Quora, 2016).

While most cases of disrespect are relatively mild, in December of 2020 a number of trees in different areas of Malmö were attacked. Dubbed the 'Malmö tree marauder' by public newspapers the attacker apparently damaged anywhere from 80 to 250 trees in and around Malmö, stripping or removing pieces of bark with an axe or knife (TricksFast, "Malmö police call for help after latest tree attack," 2020). The public reacted strongly with feelings of incredulity and even disgust, "it is completely incomprehensible to me that you can walk and damage trees in this way…what do you get when you damage a tree?" (TricksFast, "Malmö police call for help after latest tree attack," 2020) and the police were involved. As I will discuss in an upcoming section on noticing nature, trees hold important symbolic values for people. Malmö's 'weapon' against the tree vandal was to "plant a new tree for each attack…through this we show that the vandal will never win" (SVT Nyheter, "Malmö's weapon against tree vandal," 2021) The new trees would act as "memories of the old, but also a symbol of the future" (SVT Nyheter, "Malmö's weapon against tree vandal," 2021).

Fig 20. Damaged tree trunk at Gamla kyrkogården in Malmö.

6.2 Roles of Urban Nature

As part of the exploration of urban dweller's experiences of small-scale green features, I ask what roles urban nature plays in the city. How are they used and what kinds of functions are they assigned in the urban environment? In this section Jan Gehl's ideas on the inviting city and what makes cities liveable for humans are applied to urban nature.

6.2.1 Inviting Cities and Healthy Cities

Inviting Cities

Looking through my empirical data I found several uses of the words "cosy," "welcoming" and "inviting" used to describe the important properties of small green features, "*nature soothes, calms down, makes a city more cozy, friendly, absorbs noises, makes it more welcoming*" (Online Questionnaire). I remarked that in particular being able to sit down, rest and take a moment to restore often contributed to the welcoming feeling.

In his discussion of human movement in cities Gehl finds that 'stationary or staying activities' are an important feature of urban life, "city quality is so crucial for optional activities that the extent of staying activities can often be used as a measuring stick for the quality of the city as well as of its space" (2010, p. 134). Green features are often paired with benches and other seating spaces such as walls or steps, creating inviting and sometimes peaceful places for rest or rejuvenation. Gehl describes a phenomenon which he calls the "edge effect" in which people seek out places along the edges of spaces (2010, p. 137), he attributes this to a primal need for protecting one's back while keeping an eye on the view (2010, p. 137). In large open spaces such as city squares, green features for example trees, can make up a kind of edge space to lean against and encourage staying activities. When paired with seating options green features create small protected islands set apart from busy activity, little niches where the "individual has the option of pulling back and becoming almost invisible, as well as being able to move out again if something exciting beckons" (Gehl, 2010, p. 139).

Design and spacing should also be considered. Corners, semi-circles and partially enclosed spaces offer the same kind of benefits as the "edge effect," while single features left unanchored in the middle of a space are psychologically less inviting. Close and intimate spaces create warmth and intensity in cities while wide open and transitory spaces are unfavorable:

> In narrow streets and small places, we can see buildings, details and the people around us at close range. There is much to assimilate, buildings and activities abound and we experience them with great intensity. We perceive the scene as warm, personal and welcoming. This is in sharp contrast to the experience in cities and urban complexes where distances, urban space ad buildings are huge, built-up areas are sprawled out, details are lacking and there are no or few people. This type of urban situation is often perceived as impersonal, formal and cold. (Gehl, 2010, p. 56)

Green features greatly help to fill empty space, inviting visual attention and positive mental stimulation, "*a city without green area or random small green space would be really unwelcoming. Makes the city feel super industrial and empty*" (Online Questionnaire). Another interesting thing I noted was the association of cleanliness, safety, and "happy" nature with the feeling of being invited. Unhappy green features, those that were dying, diseased or broken, reflected powerfully on the mental state of certain informants who found their stress amplified. Clean green space "*implies that the place is taken care of. But if the green space is filled with graffiti and rubbish then it is not taken care of and does the opposite*" (Online Questionnaire). My informants also mentioned other major properties of green features which create a welcoming atmosphere, including mental and physical health, and ecosystem services.

Mental Health

One of the most evident roles urban nature plays in the lives of city residents is as space or objects for mental peace and restoration. Green features, both big and small, are found to create pockets for calm contemplation and places to retreat from the hum and movement of city life. The positive affects we feel can be both psychological and physical. Stress is not an illness per se, rather it is an evolved reaction which allows an organism to respond to a perceived threat (Kemeny, 2003, p. 124). In an urban environment these 'threats' come from stimuli or emotions that are found to be unpleasant or overwhelming. This can negatively affect "a variety of physiological systems, including the autonomic nervous system, the hypothalamic-pituitary-adrenal axis, and the immune system" (Kemeny, 2003, p. 124).

There are a variety of studies which correlate interaction with nature with mental restoration, one of the most well-known is the Attention Restoration Theory (ART) developed by Rachel and Stephen Kaplan (1989) in their book *The experience of nature: A psychological perspective*. ART posits that the ability to concentrate may be restored by exposure to natural environments which meet a series of characteristics summarized as Fascination: the ability of an environment to call forth involuntary attention (1989, p. 184), Being Away: both a

psychological and physical feeling that a person can be far away from a stressful location or can let the mind wander from everyday worries, (1989, p. 189), Compatibility: characteristics of an environment that meet the preferences and goals of a person (1989, p. 185), and Extension: a feeling that you can travel freely in an environment and gather the information it provides (1989, pp. 183-184).

Along Lefebvre's space-time axis are three periods, rural, industrial and urban. Lefebvre corresponds each of these to a "tripartite division that is found, although with a slightly different emphasis, in every social practice, need, work, enjoyment" (Lefebvre, 1970, p. 32). Need, he says, corresponds to the agrarian period subject to the forces of nature and interspersed with catastrophe, famine and scarcity. Work corresponds to the industrial period where industry and productivity are key in driving the destruction of nature, "including the nature that lives or survives in a human being" (Lefebvre, 1970, p. 32). By that logic then urban society correspond to enjoyment. Today we are no longer fighting against nature (need), and although we continue to destroy it (work), those who are lucky to no longer need to work so hard their human nature is broken by labor are able to find time for leisure. This may be why parks and urban nature in general have become places for passive observation, for peace, and contemplation, and function as visual stimulus and space for idle diversions.

Informants found that being near nature makes the city "*feel like a more calm place"* (In-person Questionnaire) and that they felt happier, more comfortable, at ease and grounded when nearby to nature. Letting one's mind wander was cited as being a particularly important part of experiencing urban nature. "Forcing oneself to pay attention to something that is not particularly interesting requires a great deal of effort" (Kaplan & Kaplan, 1989, p. 179). This is what Kaplan and Kaplan describe as directed attention which when exerted too often leads to fatigue and is expressed through irritability (1989, p. 181). The idea of being able to react, interact, and take in the environment around you without having to think too hard about it, "*I let my mind wander and stop thinking about work and focus more on what's around me, flowers, the feeling of grass*" (Online Questionnaire), is known as involuntary attention, that is "attention that requires no effort at all" (Kaplan & Kaplan, 1989, p. 179).

What I found most curious was that while I can understand how parks and larger green spaces have the size capacity to both visibly and audibly shield from the urban environment, the small green features I focused on, while they can be placed or planted to create barriers between seating and traffic for example the plantations along Neptunigatan, were found in highly urban spaces humming with activity. However, one informant wrote that just simply

being able to see trees "*sway in the wind, hear the leaves ripple and the birds sing*" brought them *"peace and allows me to appreciate the fact that I am but just a speck on this big beautiful planet. It's almost meditative in the sense that wherever I am, I can just close my eyes and listen. I can be transported to my happy place*" (Online Questionnaire), while another found that "*even seeing some greens (or the sky above!) around makes me happy as I feel more connected to the earth and more alive. It also brings my attention to the present moment*" (Online Questionnaire). Peschard and Stigsdotter found that not only were the serene characteristics of green space, e.g. clean, safe, silent or calm spaces where people are undisturbed by crowds or vehicles (2013, p. 32), important for mental restoration, but also social characteristics including entertainment, restaurants and plenty of people. Despite the busy-ness of their surrounding environments, small green features are an important source for easing mental fatigue.

Physical Health

In chapter three of *Cities for People* Gehl (2010) discusses how cities can make improvements to encourage healthy activity such as walking, running and cycling. Greenery in the city contributes in no small way to urban health by creating visually appealing space, supporting both individual and organized exercise, and naturalizing exercise as a part of daily life. Green features are found to bring a "*healthier feeling to the city and make the city lively/more alive*" (In-person Questionnaire). For informants, urban greenery works to maintain health and healthy habits through symbolic values and associations and functional roles including mental and visual stimulation and spatial definition.

The word "green" has become synonymous with health and sustainability. Natural elements are present in all areas of advertising, while many environmental sustainability organizations incorporate green into their names, for example Greenpeace, Green Cross International, Green Action Center, and Green Alliance among others. For residents in Malmö nature symbolizes freshness, clean air, growth and freedom. Being out in nature or close to nature feels like a healthy activity, "…the green elements in the city have a symbolic value. The presence of green elements passes on a message about recreation, introspection, beauty, sustainability and the diversity of nature" (Gehl, 2010, p. 180).

Gehl states that "cities must provide good conditions for people to walk, stand, sit, watch, listen and talk" (2010, p. 118). Walking is the most basic of human movements and pedestrian

traffic makes up a large part of city flow. Walking can include a leisurely stroll to enjoy the sights or a fast-paced trot from A to B, "walking is a form of transport, but it is also a potential beginning or an occasion for many other activities" (2010, p. 120). It is important for cities to provide both space and visual stimulus to engage pedestrians and create an environment that encourages walking. Green features such as large flower planters or rows of trees lining pathways give added interest, "landscaping and greenery in front of housing, offices and institutions can make valuable contributions to interesting experiences on walks" (Gehl, 2010, p. 129), as well as define walking space, leading or guiding pedestrians along or demarcating spaces for walking versus, cycling or parking (see figures 21 and 22).

Fig 21. The impressive tree alleyways in the St. Peter's Graveyards in Malmö create visual impact and clearly defined walking paths.

Fig 22. Trees line and separate the walking, cycling and parking areas along Kungsgatan, Malmö.

In cities that provide for and encourage greener forms of transportation, cyclists are a prevalent, albeit, faster form of foot traffic. Having green features either decorating or delineating cycling paths can encourage bicycle traffic, "another link in the city's bicycle system is green bicycle routes…these paths are intended for bicycles in transit and are viewed as supplementary opportunity, a sightseeing possibility and a green option for bicycles" (Gehl, 2010, p. 185).

6.2.2 Ecosystem Services

Nature in the city provides a number of important ecosystem services which range from provisioning services such as providing food and water, regulating services such as pollination, and climate regulation, cultural services, such that inspire art, and supporting services, such as photosynthesis and nutrient cycling. Informants mainly focused on how green features provide clean breathable air and spaces for urban animals:

> *…they offer micro habitats for animals, insects, and other creatures. I think they help with air quality*. (Online Questionnaire)

> *…it encourages nature, allowing places for birds and bugs etc*. (Online Questionnaire)

> *I feel plants in particular are important as they bring some fresh air, some interesting colour, and somehow some well-being*. (Online Questionnaire)

There is a strong perception that all green spaces have biodiversity value, but not all have equal value. For my informants, urban greenery is seen to provide only limited support and because of its small-scale has the capacity to support mostly small animal life. Nevertheless, animals of any size are thought to be important parts of urban ecosystems. My informants explain that not only do urban animals provide extremely valuable services such as pollination and pest control but also remind us that humans are also animals and that we share the planet. Studies link empathy and the human tendency to anthropomorphize or project human characteristics onto animals with the strong bonds we have to them (Serpell, 1986). Andrew Goatly examines the ideological implications of different interpretations of the statement "humans are animals." Goatly finds that this statement is both literal in that we share close DNA as well as behavioural patterns with animals, and metaphorical in that humans are more or less animal (2006, p. 22).

Out of curiosity I asked my informants what animals they have encountered in green spaces or around green features. Birds and insects were the most commonly sighted animals, followed closely by rats. Spotting a rat was mostly seen as negative due to connotations of disease, "*unfortunately I see a lot of rats in town*" (In-person Questionnaire), however one informant found they did not mind them, "*I think they are quite clever, very good survivors and really they're here because we're here*" (In-person Questionnaire).

6.3 Noticing Nature

One chilly observation session at Nya Sjögatan I sat taking notes while trying to use my scarf as a wind buffer. The weather was dismal, and the green features seemed more grey than anything. I wondered, because of the how these green features stood in such a clearly urban environment, surrounded by concrete and busy streets, how does the city make them stand out, how do they make them matter? My notes read, "*obviously what makes large parks and smaller green areas so attractive is their ability to create a quiet green oasis, but these little hints of green can't do the same. They can't be used to shield people from urban activity, so how do they stand out?*" (Fieldwork Diary, Nya Sjögatan, February 15, 2021) I pondered this for a minute and finally wrote, "*by being colourful, interesting and varied*" (Fieldwork Diary, Nya Sjögatan, February 15, 2021).

Nature is highly appreciated for its aesthetic qualities and greenery plays a major role in the beatification of the urban environment providing a number of economic benefits such as boosting occupancy rates and inviting tourism. But these benefits are not felt if this nature isn't noticed. I asked my questionnaire respondents why small-scale urban greenery is important for them, for the city and do they take notice of it? Their answers revealed that green features evoke comfort, extending an invitation to take a break from busy urban life. Survey participants also claimed how for them small-scale green features provide visual stimulus and bring mental peace, breaking up the monotony of greys and concrete:

> *It gives the city much more inviting and fresh look. I absolutely agree with this. Especially in big cities.* (Online Questionnaire)

> *I notice them most of the time, especially when they are more colourful or intricately designed.* (Online Questionnaire)

> *Yes, I always notice. They make the city beautiful.* (Online Questionnaire)

These answers prompted me to delve deeper into the perceptual functions of nature in the city. Jan Gehl's discussion of city aesthetics gives a closer look at how urban greenery creates beautiful cities and good experiences. Central to providing good environments and atmosphere for activities at eye-level are the aesthetic qualities of the city. Concentration on aesthetics alone can cause functional aspects to be neglected, while city space designed solely to meet practical requirements may not be visually appealing (Gehl, 2010, p. 176). Urban

greenery, especially small-scale green features, fall into a midpoint between aesthetics and functionality. Green features can bring unity and enrichment to an architectural space through combinations of proportions, colors, shapes and materials.

6.3.1 The Senses

"Naturally, squares and streets can also be designed specifically to provide visual experiences…The main attraction of these spaces is not just city life as such, but rather a potpourri of sensory impressions" (Gehl, 2010, p. 178). The diversity of plant life allows urban greenery planners to mix and match colors and forms to create unique visual combinations and themes. Each year Malmö chooses a theme for their planting program. Flower plantations are carefully curated, paying particular attention to aesthetic qualities that both fit the particular theme and mesh well together to be visually appealing. The theme for 2021 is LOVE, in honor of LGBTQ WorldPride. Malmö's Blomsterprogram website states:

> LOVE represents a variety of colors, scents, shapes and expressions. Due to WorldPride, we have chosen to include all the colors of the rainbow, but in bright and transparent colors as in a rainbow in the sky. The pattern in the flowerbeds is also taken from the rainbow where airy brushstrokes with blurry borders and color shades flow into each other. It is both dramatic and soft, just like the shifts in the sky on a summer evening. (Malmö Stad, Blomsterprogram, 2021.

Fig 23. The flower plantation in Gustav Adolfs Torg in Malmö displays the combination of bright yet transparent rainbows colors focusing on pastel pinks, yellows and oranges, together with deeper hues of blue.

In noticing urban nature several survey participants found that they paid close attention to seasonal changes. Seasonal changes can produce visual effects through shifts in color, the development of fruit or berries and the dropping of leaves or petals. One informant reflected that the change in seasons appears disrupted by how climate controlled the urban environment is, "*I mean I can buy fruits and flowers that don't belong in December and that can feel weird like something is off, but I can appreciate the outdoor nature, the stuff that is affected by natural cycles, you know, trees that lose their leaves in fall*" (Online Questionnaire).

During my observations I took note of the Gingko trees at Nya Sjögatan and Anna Lindh's Plats. These trees make for very good natural features as they live long and are very hardy. They also produce beautiful green leaves in spring and summer that turn a warm bright yellow in the fall. I also found that many of the small trees and plants in the plantations around Malmö were evergreens such as ivy and conifers which keep their leaves and remain green throughout the winter.

Figs 24, 25 and 26. The same stand of nine tree along Norra Vallgatan in Winter (left), Fall (center), and Summer (right) display how seasonal changes affect the visual impact of the natural features.

Beyond visual stimulation, green features can be designed and planned to produce other sensory impressions through smells, for example strong smelling plants such as eucalyptus or mint, or fragrant flowers such as hyacinth or jasmine, textures, for example Plane trees, which are abundant in Malmö, have rough and smooth bark in irregular patches, Hawthorn trees grow sharp thorns, and Lamb's Ear plants are named after their velvety soft leaves, and sounds, the wind rustling through the leaves of the Quaking Aspen tree is said to sound like a rain shower. One survey participant complained that urban nature tended to be, "*mostly plain and boring,*

often too small with only one 'level'" (Online Questionnaire). The idea of levels is interesting as visual stimulation is not only about color but also dimensionality. Differences in height and shape reflect the visual unevenness of our lived environments. Trees, containers and plantations set at different levels and heights create layers and add depth, "any difference in height can enhance experiences for pedestrians…new views and experiences pop up" (Gehl, 2010, p. 177). I observed during my walks how Malmö City gives a sense of dimension to their small-scale greenery by exaggerated height differences within the same plantation or playing with combinations of different levels.

Fig 27. These raised beds are a good example of creating visual dimensionality through height differences with the tall birch tree placed in the middle of much lower greenery.

Fig 28. This green feature in Malmö's harbour area is sunken into the ground to create a neat effect.

6.3.2 The Unusual and Out-of-Place

Another aspect I found that drew the attention of many informants was nature that seems unusual or out of place. Over the years I have been in Malmö I have noticed city plantations which use herbs or other typically kitchen garden plants in their displays. During an observation session in Stortorget I overheard an older couple discussing the purple kale in the flowerpots, "*Åh, jag har odlat det här tidigare, titta på den underbara färgen. Jag gillar inte riktigt hur det smakar--Oh, I have grown this before, look at the lovely color. I don't like how it tastes though"* (Fieldwork Diary, Stortorget, March 8, 2021). Perhaps these plants seem curious

because they are more usually found close to home in gardens or even ready picked at the grocery store and thus more closely associated with food than with ideas of nature. However, like flowers, herbs come in a variety of attractive colors and shapes and many are very aromatic. They also offer a rare sensory opportunity as children and adults alike enjoy sneaking a taste. Exotic plants or those that don't necessarily belong in the Nordic regions also make odd and interesting additions. I caught up with a couple on their daily walk along Neptunigatan who found the tall Napier or Elephant grass, which is native to Africa, stood out to them as unusual but very pretty.

6.3.3 Taking in Your Surroundings

Not only do the visual aspects of the green features themselves play an important role in noticing and drawing attention, but also the space around them. Small green features will usually be accompanied by various seating arrangements including benches or low walls. These in combination with the urban nature create inviting spaces and encourage 'staying activities' (Gehl, 2010, p. 134). For each of the nine observation areas I asked my informants what kind of activities they usually do there. In each area informants consistently wrote that they usually sat either to take lunch, "*when I'm here I often sit with my lunch or buy flowers*" (In-person Questionnaire), enjoy the weather, "*jag sitter och njuter av solen—I sit and enjoy the sun*" (In-person Questionnaire), or simply to pause and relax, "*I like to sit on the benches, take some time to relax*" (In-person Questionnaire). This allows them to take the weight off their feet, relax their body and let their eyes and mind wander, becoming more inclined to stop and notice their surroundings.

6.3.4 Curiosity

Beyond the outward and obvious aesthetic qualities of nature, Anna Tsing (2013) explains how nature can also draw our attention and curiosity through understanding the ecological relationships between non-human entities, which are often less visible at eye-level. Tsing describes the symbiotic relationships between certain plants and fungi which feed off of and supply nutrients to each other as an example of a kind of assemblage. "Assemblages are just those we find assembled: the plants that grow around each other on a particular landscape, for example" (Tsing, 2013, p. 31). I asked my survey participants if they were interested in knowing what kinds of plants they were seeing assembled together in plantations or flowerpots.

While I found the majority simply preferred to enjoy nature's aesthetic qualities, there were a fair few who either actively sought or took some interest in looking up plants they had seen to learn about names, histories and taxonomic classifications. Along with functionality, form is also a distinctive visual feature of nature. However, Tsing encourages the examination of bodily forms as materializations of non-human social connections which can reveal interesting histories, for example "a tree with thick lower branches probably grew up without too many neighbors…if it had grown up in the shade of others , those thick lower branches would not have developed" (Tsing, 2013, p. 32).

But this type of noticing takes curiosity. We cannot get to know other-than-human interactions if we do not properly understand the language surrounding them or actively seek knowledge about them. Sharing facts or stories about nature can make us want to know more. Tsing describes how she was told the story of Elias Fries, the father of modern systematic mycology. As a boy Fries discovered a particularly impressive species of mushroom and from then on "Fries noticed fungi everywhere and, indeed, devoted his life to noticing them. Through his taxonomy, Fries brought fungi to public attention. His enthusiasm encouraged the founding of a line of systematic mycologists…" (Tsing, 2010, p. 194). This kind of noticing takes advantage of the fact that humans are naturally curious, continuously learning about and consciously or subconsciously classifying the world around us. A good example of this can be seen in botanical gardens like the one in Lund, a small town about 16km from Malmö. Small signs identify each of the roughly 7000 species of plants ("Botaniska trädgården (Lund)," 2020) found there. In Malmö information signs, as seen in figure 29, can be found tied around certain trees which let passers-by learn important facts. This sign tied to one of the large Plane trees in Gustav Adolfs Torg reads:

> I am a Plane (tree). I have a leaf surface of 3918.8 m^2.
>
> I am important because:
>
> Every year I produce as much oxygen as a person breathes for 60 days.
> Every year I reduce the water runoff in case of heavy rainfall by 11300 liters. Every year I reduce the amount of air pollutants by 5031 grams. Every year I store 51 kilos of carbon dioxide. In my lifetime, I have stored a total of 5,992 kg of carbon dioxide. This corresponds to 201732 kilometers driven with an average petrol-powered car.
>
> …download the Trees in Malmö app.
> Or do you want to know what kind of trees you are looking at? Download the Curio-xyz app.

Applications like the Curio-xyz app are another example of information sharing. An article by McEwan et. al. describes the development of the Shmapped app, an app that "acts as a novel dual data collection tool and well-being intervention, which prompts users to notice the good things about their surroundings" (2019, p. 723). The app collects data on user's well-being and relationship with nature to improve nature connections. Many plant identification apps exist across multiple platforms, providing widely available and easily shareable plant classification information.

Fig 29. Information sign on one of the large Plane trees in Gustav Adolf's Torg in Malmö.

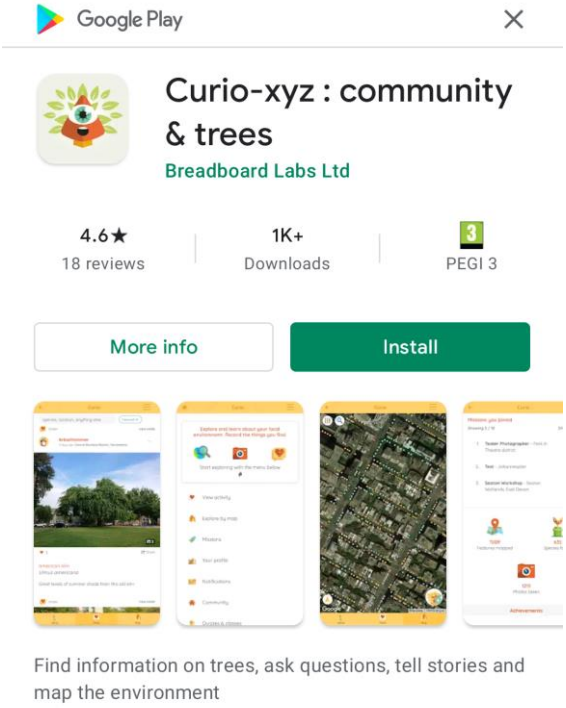


Fig. 30. The Curio-xyz app can be found among many similar plant identification apps available on Google Play.

6.3.5 The Importance of Trees

In asking are small green features seen or noticed, I also wanted to explore what kinds of individual features are most remarked upon and why. When reviewing my data, I found that trees were regularly mentioned. But why among all the colorful flowers do trees stand out the most? As the largest kind of individual green feature trees take up a lot of visual space. As Richard Smardon says, "trees are easy on the eyes!" (1988, p. 90.) With their overarching crowns, trees "filter and reflect the light, making ever-changing patterns, provide a much

needed contrast to the reds, whites, and greys, the often coarse and barren texture, the hard reflections and glare of the static, constructed environment" (Smardon, 1988, p. 90). In just this sentence alone there is a lot to unpack. Trees fill many aesthetic and sensory roles, creating movement and color in urban environments. When trees are removed or cut down, we can experience a sudden uneasy absence, "*there used to be a venerable old birch tree here, they cut it down and not even the stump is left, feels…weird*" (Personal Correspondence, 2021). Jan Gehl briefly discusses both the ecological and space defining role trees play in cities, "trees provide shade in warm summer months, they cool and cleanse the air, define city space and help accentuate important sites. A large tree on a square signals: "This is the place." Trees along boulevards underscore a linear sequence…" (Gehl, 2010, pp. 179-180).

Trees also have significant symbolic meanings. For many informants, solitary trees were thought to be a good representation of urban nature while forests and oceans best represented non-urban nature. Smardon says, "trees are the primary and sometimes last representatives of nature in the city and thus individuals or groups may see trees as anchors of stability" (1988, p. 94). In reviewing the available literature of the time Smardon describes a study by Sanford and Neumann which found that "urban trees are artefacts reflecting both synchronic and diachronic cultural features, and as artifacts, may be used to understand cultural change" (Sanford and Neuman, 1987, as quoted in Smardon, 1988, p.94). Smardon says trees can also "become symbolically associated with a particular place, street or community…we may think of the chestnuts of Paris, the cypresses of Rome, the plane trees of London, or palms in Hawaii" (Smardon, 1988, p.95). Birch trees are of particular importance to Sweden which takes the Ornäs Birch as its national tree.

Chapter 7. Conclusions and Applicability

7.1 Conclusion and Reflections

The broad aim of this thesis was to learn about how urban dwellers, or more specifically Malmö residents, experience small-scale urban nature. In order to achieve this aim I wanted to explore the attitudes, perceptions, experiences and relationships of residents with and towards small green features in nine different areas of Malmö. In doing so I found it necessary to address several questions.

The first question asked is what are the preconceived notions people have about nature and how does it affect their interactions with small-scale urban greenery? To answer this

question, I looked to Lefebvre's historical exploration of the making of nature alongside the emergence of the urban. Lefebvre identifies three periods in the development of urban society, these are the rural, industrial and urban periods. In the transition from the rural to the urban Lefebvre recognizes a distinct disconnect between humans and nature. The development of the Nature-Culture dichotomy can be traced through European thinking, guiding how we have thought about and interpreted nature and wilderness and our place within it. In my data I found that the dichotomy still governs the separation of humans and nature but has been flipped so now we see that it is humans needing to be separate from nature and not nature from humans in order to preserve it. However, many informants reconcile urban and wild nature, saying there is no difference. They find it difficult to split themselves from nature as it is not only present in the physical material world but also exists as an almost spiritual feeling. These informants respond positively to urban nature. Lefebvre on the other hand sees the embracing of nature in the urban environment as a kind of fetishist obsession where urban greenery becomes a usurper replacing real nature. However, in talking with my informants I found that these signs of nature are accepted and can help in unifying man-made objects with the natural environment. Even with this positive outlook, I did observe negative interactions with nature which I posit are a remnant of the Nature-Culture dichotomy which has irrevocably distanced humans and nature leading at times to a distinct disrespect for nature.

To understand resident's experiences with small-scale urban greenery I found it important to ask what kinds of symbolic and functional roles small-scale urban nature has in the city and for urban residents. Jan Gehl's (2010) book *Cities for People* provides a good framework for understanding the assigned roles of nature and how it contributes to creating liveable cities.

I found that the inclusion of nature creates a welcoming feeling in cities that is associated with creating comfortable spaces in which to escape the sometimes-overwhelming atmosphere of cities and provides space for mental and physical health. The role of urban nature in mental health has to do with both the positive psychological and physiological effects it has. Nature's cultural associations to peace and serenity contributes to the expected and perceived restorative effects. Urban nature, by virtue of its availability and even embeddedness in the urban environment, is considered to have important and positive effects on mental health. Urban greenery encourages physical activity through its symbolic associations to health, growth and freedom as well as its role in defining space and providing visual stimulation. It is also seen to have a valuable role in maintaining urban fauna.

The third question I address in this thesis, is this type of nature seen or noticed, comes from my own doubts about how we as humans value nature that is close versus far from human intervention. By discovering the roles urban nature plays in the city and in the lives of city residents I found that this type of nature is indeed noticed. However, I wanted to probe this idea of is it seen and examine the aesthetic functions of small-scale urban greenery. Jan Gehl highlights the sensorial impact of urban nature inviting us to take closer look, to appreciate the scents, sounds, and dazzling colours of the seasons. Urban greenery is also seen in part due to cultural and geographic connotations which put certain species out-of-place. Anna Tsing brings our attention to the non-aesthetic modes of noticing nature. Tsing argues for the sharing of knowledge and the prominence of human curiosity in inspiring and leading humans in learning about nature. This kind of seeing or noticing is exemplified by the sharing of information and facts.

In summarizing the major discoveries of this study, I am confident in giving a positive answer to the final question: is urban nature comparable to non-urban nature, or does it hold a different kind of power? In many ways small-scale urban nature is comparable to non-urban nature as we discovered that many residents do not see a difference between the two. Urban nature plays many of the same roles as non-urban nature including the provision of mental and physical health benefits. That being said, urban nature does have a unique power in that rather than being minimized by its limited physical size or close association with human intervention, i.e. its "urban-ness," these characteristics give small-scale urban nature an amplified intensity bringing the most valued symbolic and functional features of nature within the scope of human perception.

7.2 Applicability and Further Research

Maintaining Human-Nature Relations

The cultural study of nature in general and its relation to humans has wide reaching applications for environmental management. The results of this thesis project bring to light the issue of urban densification and population escalation and the use of small-scale urban nature as a key element for environmental preservation and the maintaining of positive human-nature relations. Learning how urban residents perceive the nature around them can help us understand human actions, both positive and negative, towards nature. The results of this thesis can be specifically applied to understanding the current trend of "pandemic planting." As the

pandemic continues to isolate residents and prohibit travel, green space continues to prove to be a valuable resource for relaxation, fresh air and socially distanced interaction. Understanding the roles of urban nature in mental diversion and rejuvenation and incentive for physical movement are helping to unveil why now more than ever, we value and are being drawn to nature.

Knowing the Roles

The mental and physical benefits of urban nature studied in this thesis may be instrumental in advising urban planners and policy makers in the designing of more 'human friendly' cities, cities that account for stress and the effects of the urban environment on health. Malmö and other cities worldwide can learn how to create spaces that invite physical and social activity. The study of the aesthetic impacts of small-scale green features can guide landscape architects in arranging these features to produce the best possible sensorial effects and maximize opportunities for urban residents to experience the benefits of nature.

Further Research

This examination of urban nature through small green features required a limitation of scale. This creates an opportunity to study nature at an even smaller level. A similarly constructed cultural analytical study of commercialized nature, that is cut flowers or plants on root, could prove to be an interesting facet of how humans interact with nature. I suggest further studies concentrate on nature that can be brought into the home and how urban residents create and control nature experiences from their own windowsills.

References

Amati, M., Parmehr, E.G., McCarthy, C., & Sita, J. (2018). How eye-catching are natural features when walking through a park? Eye-tracking responses to videos of walks. *Urban Forestry and Urban Greening*, *31*(2018), 67-78.

Appleyard, D. (1978, November 13-16). *Urban Trees, Urban Forests: What Do They Mean* [Conference Session]. Proceedings of the National Urban Forestry Conference. Washington, D.C.

Aram, F., García, E.H., Solgi, E., & Mansournia, S. (2019). Urban green space cooling effect in cities. *Heliyon*, *5*(2019), e01339.

Botaniska trädgården (Lund). (2020, January 4). In *Wikipedia*. https://en.wikipedia.org/wiki/Botaniska_tr%C3%A4dg%C3%A5rden_(Lund).

Boverket, Swedish National Board of Housing, Building and Planning. (2017). *Urban Density Done Right: Ideas on densification of cities and other communities*. https://www.boverket.se/en/start/publications/publications/2017/urban-density-done-right/.

Carrus, G., Scopelliti, M., Lafortezza, R., Colangelo, G., Ferrini, F., Salbitano, F., Agrimi, M., Portoghesi, L., Semenzato, P., & Sanesi, G. (2015). Go greener, feel better? The positive effects of biodiversity on the well-being of individuals visiting urban and peri-urban green areas. *Landscape and Urban Planning*, *134*(2015), 221-228.

Centre for Urban Design and Mental Health. (2021). *How The City Affects Mental Health.* https://www.urbandesignmentalhealth.com/how-the-city-affects-mental-health.html.

Cheng, J.C.H., & Monroe, M.C. (2012). Connection to Nature: Children's Affective Attitude Towards Nature. *Environment and Behaviour*, *44*(1), 31-49.

Church, S.P. (2018). From street trees to natural areas: retrofitting cities for human connectedness to nature. *Journal of Environmental Planning and Management*, *61*(5-6), 878-903.

Clifford, N., French, S., & Valentine, G. (Eds.). (2005). *Key Methods in Geography*. (2nd edition.). SAGE Publications Inc.

Colding, J., Giusti, M., Haga, A., Wallhagen, M., & Barthel, S. (2020). Enabling Relationships with Nature in Cities. *Sustainability*, *12*(2020), 4394. doi:10.3390/su12114394.

Collado, S., & Corraliza, J. (2015). Children's Restorative Experiences and Self Reported Environmental Behaviours. *Environment and Behaviour*, *47*(1), 38-56.

Cox, D.T.C., Hudson, L.H., Shanahan, D.F., Fuller, R.A., & Gaston, K.J. (2017). The rarity of direct experiences of nature in an urban population. *Landscape and Urban Planning*, *160*(2017), 79-84. https://doi.org/10.1016/j.landurbplan.2016.12.006.

Crang, M., & Crook, I. (1955). *Doing Ethnographies*. Geobooks, Norwich.

Cronon, W. (Ed.). *Uncommon Ground: Rethinking the Human Place in Nature*. W.W. Norton & Co.

Davies, C. (2008). Ethics and Politics. In C. Davies, *Reflexive Ethnography* (53-74). Routledge.

Davies, C. (2008). Reflexivity and Ethnographic Research. In C. Davies, *Reflexive Ethnography* (4-25). Routledge.

Davies, C. (2008). Researching selves: The uses of autobiography. In C. Davies, *Reflexive Ethnography* (179-189). Routledge.

Geertz, C. (1973). *The Interpretation of Cultures*. Basic Books HarperCollins Publishers, Inc.

Gehl, J. (2010). *Cities for People*. Island Press, Washington, DC.

Glaser, B.G., & Strauss, A. (1976). *The Discovery of Grounded Theory: Strategies for Qualitative Research.* AldineTransactions, Transaction Publishers.

Goatly, A. (2006). Humans, Animals and Metaphors. *Society & Animals*, *14*(1), 15-37.

Grêt-Regamay, A., Galleguilles-Torres, M., Dissenga, A., & Weibel, B. (2020). How urban densification influences ecosystem services—a comparison between a temperate and a tropical city. *Environmental Research Letters*, *13*(2020), 1-15.

Haaland, C., & Konijnendijk van den Bosch, C. (2015) Challenges and strategies for urban green-space planning in cities undergoing densification : A Review. *Urban Forestry & Urban Greening*, *14*(2015), 760-771.

Hartig, T., & Kahn, P.H. (2016). Living in cities, naturally. *Science*, *352*(6288), 938-940. doi: 10.1126/science.aaf3759.

Haupt, L.L. (2009). *Crow Planet: Essential Wisdom from the Urban Wilderness*. Little, Brown Spark.

Heidt, V., & Neef, M. (2008). Benefits of Urban Green Space for Improving Urban Climate. In: Carreiro M.M., Song YC., Wu J. (eds) *Ecology, Planning, and Management of Urban Forests* (pp. 84-96). Springer, New York, NY. https://doi.org/10.1007/978-0-387-71425-7_6.

Insulander, A.M. (2015). The life and Death of Large City Parks [Degree Project, Swedish University of Agricultural Sciences]. Epsilon Archive for Student Projects. https://stud.epsilon.slu.se/8102/1/insulander_a_150624.pdf.

Jabareen, Y.R. (2006). Sustainable Urban Forms: Their Typologies, Models and Concepts. *Journal of Planning Education and Research*, (26), 38-52.

Kaplan, R., & Kaplan, S. (1989). *The Experience of Nature: A Psychological Perspective*. Cambridge University Press.

kartor.malmo.se. (2018). *Översiktsplan För Malmö*. http://kartor.malmo.se/rest/ol/2.1/?config=../configs-2.1/config_op.js.

Kellert, S.R. (Ed.)., & Wilson, E.O. (Ed.). (1993). *The Biophilia Hypothesis.* Island Press, Washington, DC.

Kemeny, M. E. (2003). The Psychobiology of Stress. *Current Directions in Psychological Science, 12*(4), 124–129. doi:10.1111/1467-8721.01246.

Kirchhoff, T., & Vicenzotti, V. (2014). A Historical and Systematic Survey of European Perceptions of Wilderness. *Environmental Values, 23*(4), 443-464.

Kruuse, A. (2011). The green space factor and the green points system. *Green and Blue Space Adaptation for Urban Areas and Eco Towns*. Expert Paper 6.

Lefebvre, H. (2003). *The Urban Revolution*. (R. Bononno, Trans.). University of Minnesota Press. (Original work published 1970).

Löfgren, O. (2014). The Black Box of Everyday Life: Entanglements of Stuff, Affects, and Activities. *Cultural Analysis, 13*(2014), 77-98.

Lui, F., & Maitlis, S. (2010). Nonparticipant Observation. In A.J. Mills, G, Durepos & E. Wiebe (Eds.), *Encyclopedia of Case Study Research* (609-610). SAGE Publications Inc. https://www.doi.org/10.4135/9781412957397.n229.

Malmö City Council. (2018). *Comprehensive Plan for Malmö Summary in English*. https://malmo.se/Sa-arbetar-vi-med.../Hallbar-utveckling/In-English---Sustainable-Malmo/Sustainable-Urban-Development/Sustainable-Urban-Planning.html.

Malmö Stad. (2021). *Blomsterprogram*. https://malmo.se/Uppleva-och-gora/Natur-och-parker/Blomsterprogram.html.

Malmö Stad. (2021). *Miljobarometern Grönyta per invånare*. http://miljobarometern.malmo.se/natur-och-odling/arealer/gronyta-per-invanare/.

Malmö Police Call for Help After Latest Tree Attack. (2020, December, 26). *TricksFast*. https://tricksfast.com/sweden/malmo-police-call-for-help-after-latest-tree-data-attack/.

Malmös vapen mot trädvandalen: Platerar nytt träd för varje attack. (2021, March 16). *SVT Nyheter: Lokalt*. https://www.svt.se/nyheter/lokalt/skane/malmos-vapen-mot-tradvandalen-planterar-nytt-trad-for-varje-vandaliserat.

McEwan, K., Richardson, M., Brindley, P., Sheffield, D., Tait, C., Johnson, S., Sutch, H., &Ferguson, F.J. (2019). Smapped: development of an app to record and promote the well-being benefits of noticing urban nature. *Translational Behavioural Medicine, 10*(3), 723-733.

Mensvoort, K.V. (2006). *Real Nature is not Green*. https://www.nextnature.net/story/2006/real-nature-isnt-green.

Miller, D. (2002). *Material cultures: Why some things matter*. UCL Press Limited.

MonumentalTrees. (2019). *European beech in the kungsparken in Malmö, Skåne, Sweden*. https://www.monumentaltrees.com/en/swe/skane/malmo/21643_kungsparken/.

Neuman, T.W., & Sanford, R.M. (1987). The urban tree as cultural artefact. *Northeastern Environmental Scieces*, *6*, 46-52.

Peschard, K.K., & Stigsdotter, U.K. (2013). Associations between park characteristics and perceived restorativeness of small public urban green spaces. *Landscape and Urban Planning*, *112*(2013), 26-39.

Pink, S. (2007). Photography in Ethnographic Research. In S. Pink, *Doing Visual Ethnography* (2nd edition, 65-95). SAGE Publications Inc. https://dx.doi.org/10.4135/9780857025029.

Priego, C., Breuste, J.H., & Rojas, J. (2008). Perception and Value of Nature in Urban Landscapes: a Comparative Analysis of Cities in Germany, Chile and Spain. *Landscape Online*, *7*, 1-22.

Quin, J., Zhou, X., Sun, C., Leng, H., & Lian, Z. (2013). Influence of green spaces on environmental satisfaction and physiological status of urban residents. *Urban Forestry & Urban Greening*, *12*(2013), 490-497.

Rappaport, R.A. (1979). *Ecology, Meaning, and Religion*. North Atlantic Books.

Risbeth, C., & Birch, J. (2020). Urban nature and transnational lives. *Population, Space and Place*, *27*(2021), 1-15.

Rudd, H., Vala, J., & Schaefer, V. (2002). Importance of Backyard Habitat in a Comprehensive Biodiversity Conservation Strategy: A Connectivity Analysis of Urban Green Spaces. *Restoration Ecology*, *10*(2), 368-375.

Ruedy, N.E., Gino, F., Moore, C., & Schweitzer, M.E. (2013). The Cheater's High: The unexpected Affective Benefits of Unethical Behaviour. *Journal of Personality and Social Psychology*, *105*(4), 531-548.

Sanjari, M., Bahramnezhad, F., Fomani, F.K., Shoghi, M., & Cheraghi, M.A. (2014). Ethical challenges of researchers in qualitative studies: the necessity to develop a specific guideline. *Journal of Medical Ethics and History of Medicine*, *7*(14), 1-6.

Serpell, J. (1986). *In the Company of Animals: A Study of Human-animal Relationships*. Cambridge University Press.

Smardon, R.C. (1988). Perceptions and Aesthetics of the Urban Environment: Review of the Role of Vegetation. *Landscape and Urban Planning*, *15*(1988), 85-106.

Spradley, J.P. (1980). *Participant Observation*. Holt, Rinehart and Winston.

Stewart, K., & Williams, M. (2005). Researching Online Populations: The Use of Online Focus Groups for Social Research. *Qualitative Research*, *5*(4), 395-416.

Swedish Research Council. (2017). *Good Research Practice*. https://www.vr.se/english/analysis/reports/our-reports/2017-08-31-good-research-practice.html.

Tam, K.P. (2013). Concepts and measures related to connection to nature: Similarities and differences. *Journal of Environmental Psychology*, *34*(2013), 64-78.

Tsing, A. (2010). Arts of Inclusion, or How to Love a Mushroom. *Mānoa*, *22*(2), 191-203. https://www.jstor.org/stable/4147949/.

Tsing, A. (2013). More-than-Human Sociality: A Call for Critical Description. In K. Hastrup (Ed.), *Anthropology and Nature* (27-42). Routledge, Taylor and Frances Group.

United Nations, Department of Economic and Social Affairs, Population Division. (2019). *World Urbanization Prospects 2018: Highlights* (ST/ESA/SER.A/421). https://population.un.org/wup/Publications/Files/WUP2018-Highlights.pdf.

Vienneau, D., Hoogh, K., Faeh, D., Kufmann, M., Wunderli, J.M., Röösli, M., & The SNC Study Group. (2017). More than clean air and tranquility: Residential green is independently associated with deceasing mortality. *Environment International*, *108*(2017), 176-184.

Watts, G. (2017). The effects of "greening" urban areas on the perceptions of tranquility. *Urban Forestry & Urban Greening*, *26*(2017), 11-17.

Woodring, Danny. (2016). *Why is it fun to destroy things?* https://www.quora.com/Why-is-it-fun-to-destroy-things.

World Health Organization. (2017). *Urban green spaces: a brief for action*. https://www.euro.who.int/__data/assets/pdf_file/0010/342289/Urban-Green-Spaces_EN_WHO_web3.pdf%3Fua=1.

Yang, J., Zhao, L., Mcbride, J., & Gong, P. (2009). Can you see green? Assessing the visibility of urban forests in cities. *Landscape and Urban Planning*, *91*(2009), 97-104.

Zhang, J.W., Piff, K. P., Iyer, R., Koleva, S., & Keltner, D. (2014). An occasion for unselfing: Beautiful nature leads to prosociality. *Journal of Environmental* Psychology, 37(2014), 61-72.

Empirical Material

Online Questionnaire Responses.
In-person Questionnaire Responses.

Fieldwork Diary, Gustav Adolfs Torg, February 11, 2021.
Fieldwork Diary, Davidshalltorg, February 19, 202.1
Fieldwork Diary, Stortorget, February 19, 2021.
Fieldwork Diary, Gustav Adolfs Torg, February 27, 2021.
Fieldwork Diary, Nya Sjögatan, February 15, 202.1
Fieldwork Diary, Stortorget, March 8, 2021.
Personal Correspondence, 2021.

List of Figure

*Photo taken by author.

Figure 1. Map of Malmö's green lanes and connections (http://kartor.malmo.se/rest/ol/2.1/?config=../configs-2.1/config_op.js).
Figure 2. Malmö Skofabriken, 1907 (https://www.skofabrikenmalmo.se/).
Figure 3. Malmö Skofabriken, 2019 (Google Maps).
Figure 4. Industrie lekplats near Malmö Skofabriken.*
Figure 5. Sjöhästens Förskola.*
Figure 6. Map of Central Malmö with each field site marked and labelled (Google Maps).
Figure 7. Davidshallstorg (Google Maps).
Figure 8. Stortorget (Google Maps).
Figure 9. Gustav Adolfs Torg (Google Maps).
Figure 10. Södra Promenaden (Google Maps).
Figure 11. Nya Sjögatan (Google Maps).
Figure 12. Anna Lindhs plats (Google Maps).
Figure 13. Norra Vallgatan (Google Maps).
Figure 14. Neptunigatan (Google Maps).
Figure 15. Östervärnsgatan (Google Maps).
Figure 16. Plastic potted lavender plant at Café Element in Malmö.*
Figure 17. Birch tree light posts along the Malmö-Lund bus route.*
Figure 18. Graffitied Plane tree in Gustav Adolfs Torg.*
Figure 19. Swan's nest built with canal reeds and discarded plastic.*
Figure 20. Damaged tree trunk in Gama Kyrkogården in Malmö (Johan Dernelius/SVT, 2020, https://www.tellerreport.com/news/2020-12-26-%0A---tree- marauders-continue-to-ravage-malm%C3%B6-s-parks%0A--.SJx7EFbHTP.html).
Figure 21. Tree alleyway in St. Peter's Graveyard (@teatime.charlie, 2020, Instagram).
Figure 22. Walking and cycling paths along Kungsgatan in Malmö.*
Figure 23. Flower plantation at Gustav Adolfs Torg.*
Figure 24. Stand of trees along Norra Vallgatan in Winter*
Figure 25. Stand of trees along Norra Vallgatan in Fall (Google Maps).
Figure 26. Stand of trees along Norra Vallgatan in Summer (Google Maps).
Figure 27. Raised plantations decorating Fredmansgatan in Malmö.*
Figure 28. Green feature decorating Skeppsgatan in Malmö.*
Figure 28. Information sign attached to tree in Gustav Adolfs Torg.*
Figure 30. The Curio-xyz app available on Google Play (Google Play).

Appendices

Appendix A. In-person Questionnaire.

LUNDS UNIVERSITET

1/2

'Green Features' Survey

1. **Kommer du hit ofta eller har du varit här tidigare?** // *Do you come here often or have you been here before?*

2. **Vilka aktiviteter gör du vanligtvis här?** // *What activities do you usually do here?*

3. **Känner du till de 'gröna elementen' här? (t.ex. träd, planteringar, buskar etc.)** // *Are you aware of or have you noticed the 'green features' here? (ex. trees, flower planters, bushes etc.)*

4. **Hur märkbara är dessa 'gröna element'? Sticker de ut för dig? Vad tycker du är mest synligt här?** // *How noticeable are these 'green features'? Do they stand out to you? What stands out the most?*

5. **Vad tycker du om dessa 'gröna element'?** // *What do you think or how do you feel about these 'green features'?*

6. **Känner du att dessa 'gröna element' är viktiga att ha i staden? Varför, varför inte?** // *Do you feel these 'green features' are important in the city? Why, why not?*

7. **Känner du att dessa 'gröna element' är viktiga för dig? Varför, varför inte?** // *Do you feel these 'green features' are important to you? Why, why not?*

2/2

8. **Har du någonsin sett djur vid dessa 'gröna element'? Vilka sorter? (t.ex. fåglar, bin, fjärilar etc.)** // *Have you ever seen animals at these 'green features'? What kinds? (ex. birds, bees, butterflies, etc.)*

9. **Att se dessa 'gröna element' runt staden gör mig glad.** // *Seeing these 'green features' around the city makes me happy.*

	1	2	3	4	
Tar helt avstånd / Strongly Disagree					Instämmer helt / Strongly Agree

10. **Jag tycker om att titta på säsongsbetonade förändringar genom dessa "gröna funktioner" (t.ex. att se blommor blommar, knoppar växer).** // I enjoy watching seasonal changes through these 'green features' (e.g. watching flowers bloom, buds grow).

	1	2	3	4	
Tar helt avstånd / Strongly Disagree					Instämmer helt / Strongly Agree

11. **Jag gillar att veta vilken typ av växter jag ser i dessa 'gröna element.'** // *I like to know what kind of plants I am seeing in these 'green features.'*

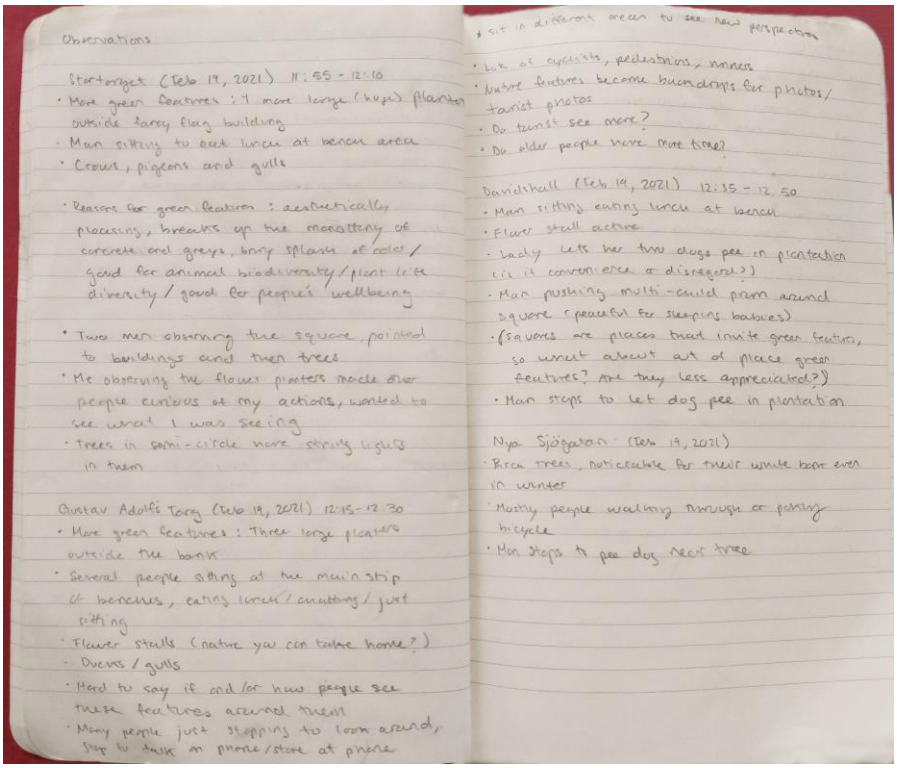
	1	2	3	4	
Tar helt avstånd / Strongly Disagree					Instämmer helt / Strongly Agree

12. **Jag tycker att dessa 'gröna element' är onödiga.** // *I feel these 'green features' are unnecessary.*

	1	2	3	4	
Tar helt avstånd / Strongly Disagree					Instämmer helt / Strongly Agree

Tack så mycket! Thank you for your time!

Appendix B. Page from Fieldwork Diary.



Observations

Stortorget (Feb 19, 2021) 11:55 - 12:10
- More green features : 4 more large (huge) planters outside fancy fancy building
- Man sitting to eat lunch at bench area
- Crows, pigeons and gulls

- Reasons for green features : aesthetically pleasing, breaks up the monotony of concrete and greys, brings splash of color / good for animal biodiversity / plant life diversity / good for people's wellbeing

- Two men observing tree square, pointed to buildings and then trees
- Me observing the flower planters made other people curious of my actions, wanted to see what I was seeing
- Trees in semi-circle have string lights in them

Gustav Adolfs Torg (Feb 19, 2021) 12:15 - 12:30
- More green features : Three large planters outside the bank
- Several people sitting at the main strip of benches, eating lunch / smoking / just sitting
- Flower stalls (native you can take home?)
- Ducks / gulls
- Hard to say if and/or how people see these features around them
- Many people just stopping to look around, stop to talk on phone / stare at phone

* sit in different areas to see new perspectives
- Lot of cyclists, pedestrians, runners
- Nature features become backdrops for photos / tourist photos
- Do tourist see more?
- Do older people have more time?

Davidshall (Feb 19, 2021) 12:35 - 12.50
- Man sitting eating lunch at bench
- Flower stall active
- Lady lets her two dogs pee in plantation (is it convenience or disregard?)
- Man pushing multi-child pram around square (peaceful for sleeping babies)
- (squares are places that invite green features, so unsure about art of place green features? Are they less appreciated?))
- Man stops to let dog pee in plantation

Nya Sjögatan (Feb 19, 2021)
- Birch trees, noticeable for their white bark even in winter
- Mostly people walking through or passing by cycle
- Man stops to pee dog next tree