



UiT The Arctic University of Norway

Department of Social Sciences

Gardener's confession

A study of the botanical and communal garden in Tromsø

Katarína Boldižarová

Master's thesis in Visual Anthropology

SVF-3903

Supervisor: Bror R Olsen, Trond Waage

May 2023

Abstract

During the three months of the summer 2022, the gardeners, interns, and volunteers of the botanical garden in Tromsø and the community garden Holt agreed on being filmed and participated in a project that examines the importance of these two gardens in the city of Tromsø located in Northern Norway. The botanical garden in Tromsø and the community garden Holt are different gardens with different functions but with the similar interest and passion for gardening. Through the personal narratives collected from the gardeners, interns, and volunteers in both gardens and through the audiovisual recordings of the processes in the gardens, this study investigates the significance of the two gardens and the gardening activities. It explores the connection of the participants to nature, the passion that gardening evokes in them, and the dedication required to cultivate a garden even when the conditions are not ideal. By analyzing the stories of the subjects, this thesis clarifies the multifaceted benefits of gardening and its importance to the individuals and communities. It presents the significance of these gardens and its influence on the lives of those who cultivate it and those who visit it.

Keywords: anthropology of gardens, gardening, plant, enthusiasm, relationship with plants

Acknowledgements

I would like to thank all my supervisors for their guidance and help throughout the research, filmmaking, editing and writing process. Thank you, Bror R Olsen, and Peter I. Crawford for helping me to become a better writer. Thank you, Trond Waage, Julián David Loaiza Pineda, Rachel Gomez, Andreas Buch Prudence Francisca Uriri and many others that helped during the filmmaking and editing process.

I would like to also thank the staff of the botanical garden in Tromsø and the community of the communal garden Holt. Thank you for opening your doors for me and welcoming me as one of you and supporting me during the whole process. It was one of the best summers I have experienced thanks to you. There are many memories I will carry with me.

In the spirit of this project, I would also like to thank several nonhumans who helped me along the way in the botanical garden and in Holt, especially to the different kinds of blue poppies that I was admiring every day and to *Equisetum*, for giving us enough work around the gardens and creating space for various conversations. Thanks to all the vegetables in Holt that I could harvest. Thanks to all the bumblebees in both gardens and the bees in Holt that loved my microphone.

Contents

1. Introduction.....	5
2. Context of my project.....	6
2.1. Forming an idea.....	6
2.2. Gardens on Tromsø island.....	7
2.2.1. Botanical garden in Tromsø.....	8
2.2.2. The community garden Holt.....	11
3. Methodological reflections.....	15
3.1. Being part of the community; them vs. me.....	15
3.2. A camera in the garden.....	18
3.2.1. During the fieldwork.....	18
3.2.2. After the fieldwork.....	19
3.3. Fieldwork notes, audiovisual material.....	20
4. The Anthropology of gardens.....	22
4.1. What is a garden?.....	22
4.2. The role of the gardener.....	23
5. Why gardening?	25
5.1. Reasons and purposes of the gardening.....	25
6. The value and relationships with plants	30
6.1. Value.....	30
6.2. Building relationships through the interactions with the garden.....	31
6.3. From the seed to the mature plant.....	32
7. Knowledge and enthusiasm.....	34
8. Closer look to Tromsø gardens	35
8.1. Interactions with the garden.....	35

8.2. Passion for learning	38
8.3. Passion for sharing.....	40
8.4. Passion to preserve.....	44
9. Conclusion.....	46
10. References	47
11. List of figures	50

1. Introduction

“The best thing about this job is the fascination of people who are on the knees next to the same flower, and they see this small flower which is hard to keep alive. Especially when people who travel the world come to knees like in front of the altar and take many pictures because it is a small miracle on which you wait for a long time. “

Martin Hajman

Martin is a gardener from the botanical garden situated 69 degrees north in the Norwegian city of Tromsø. The garden is located on Tromsø island where long winters and low temperatures usually last from November till the end of April. There is only a short time used for gardening activity. People seem much more aware of the time and difficulties connected with gardening and weather conditions here. Growing plants in such conditions can be challenging but also brings space for fascination and motivation to try something which might appear impossible at first. However, there is a threat – further urbanization of the island. Inside of the botanical garden we meet with Martin and other enthusiastic specialists and many more who are interested in gardening and go together through the challenges of locations and conditions in Tromsø, but they also express what gardening means to them. Alongside Martin and his colleagues from the botanical garden, there are also enthusiastic gardeners from the community garden Holt, also located on Tromsø island, who are facing similar challenges and express what gardening means to them. In this thesis, we will explore the experiences and perspective of those involved in those gardens.

This project specializes on the small society of people in the botanical garden of Tromsø and partially on the community garden Holt. The final thesis is based on fieldwork from the summer 2022 and the audiovisual material collected during that time. Our main goal was to find the answer why the botanical garden and the communal garden in Tromsø are worthy to be saved from urbanization and to understand the importance of gardening through the stories of the project’s participants.

2. Context of my project

2.1. Forming an idea

The main idea from the beginning of my project was to focus on something that interests me and could be also interesting for my readers. I wanted to focus on the nature around Tromsø, especially the mountains around the city and the humans visiting them. As I tried to explore the topic more, I realized that the project would be particularly challenging in terms of looking for the right participants, as well as carrying the whole filming equipment to the mountains. My other option was to focus on something that was connected to nature but located on Tromsø island. Finding the right idea was challenging but it became clearer after talking to the staff from the botanical garden. I had an interview with one of my participants, Martin, and I could relate to him. He was also one of those who did not like gardening while growing up but later he fell in love with a gardener and met several people who studied horticulture which eventually inspired him to pursue a career in the same field.

I grew up in a village area in Slovakia. It was quite common in this area to have a garden and to try to cultivate as many plants for decoration and food as possible. My first ten years I used to live with my grandparents and parents together. The garden my parents still own nowadays was not enough for all of us during the time we lived with my grandparents, therefore we had to buy a small field where we grew plants like potatoes and other vegetables that did not fit into our garden at home. I still have nice memories of gardening with my grandparents as this was one of the activities where you get to discuss things and free your mind. I must admit that as a teenager, after my grandparents died, I was no longer interested in this activity as we stopped gardening together in a group and gardening became a chore in our family. I was no longer inspired to garden. I immediately found myself in a comparable situation to Martin because my relationship with gardening transformed when I started the fieldwork with my participants, and they helped to bring me back to my memories and to my love for plants. This inspired me to continue, explore more and find the answers for my questions.

2.2. Gardens on Tromsø island

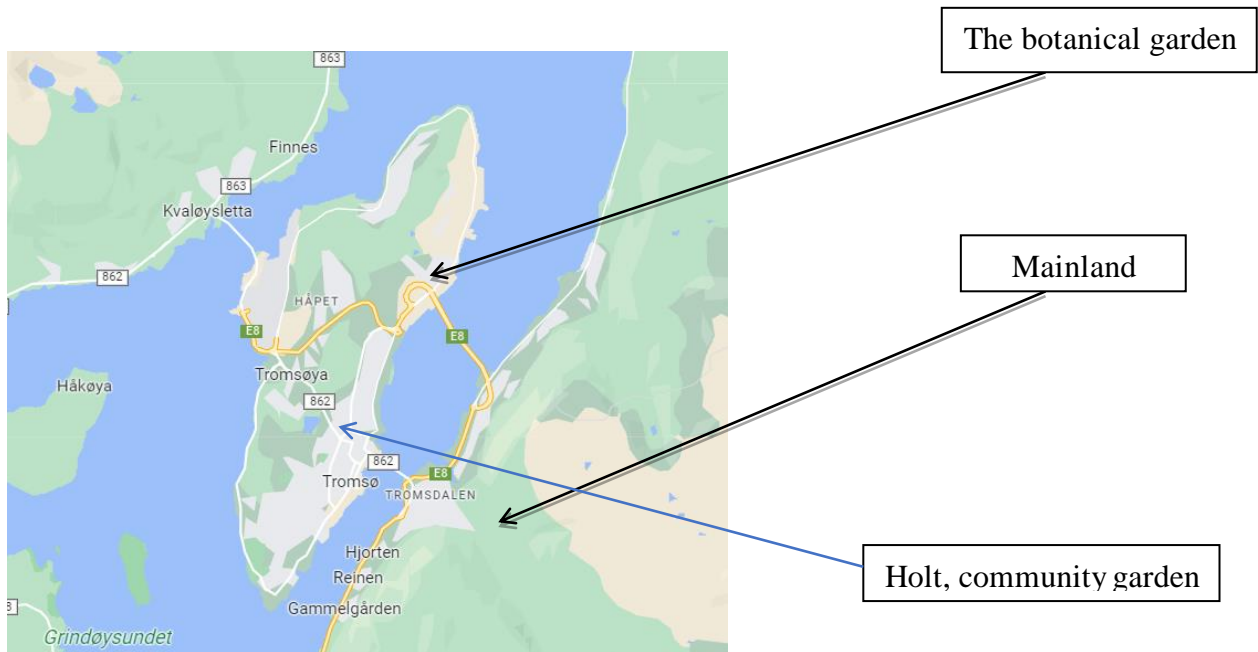


Figure 1: Tromsø

The municipality of Tromsø is located on three different geographical places – on Tromsø island, Kvaløya island and the mainland of Norway. The area is surrounded by mountains from each side and when someone mentions the term *nature in Tromsø*, people usually think of the mountains they see from the mainland or mountains and fjords of the island of Kvaløya. People often forget that there are also green areas on Tromsø island, and they play a significant role for the people living on island, but they are not always protected or seen as important. Due to the location of the city, the climate can be characterized by long and cold winters and short, mild summers. There is, therefore, only a short gardening season. The season usually starts at the beginning of May and lasts until early October (depending on the weather conditions each year). Those that have a private garden in Tromsø, are usually cultivating native and non-native plants that can withstand the cold in the area. Many people in Tromsø do not own any garden and they visit communal gardens where they can learn how to garden and cultivate something for their own needs. One of the places with this purpose is Holt, the communal garden located on Tromsø island. Those who want to admire decorative plants and the aesthetic of the garden or to learn about the plants from Arctic and alpine regions around the world can visit the botanical garden in Tromsø. The Arctic-Alpine Botanic Garden and Holt, a communal garden featuring vegetable and partially arctic garden are two gardens on Tromsø island that will be further explored in this thesis.

2.2.1. Botanical garden in Tromsø



Figure 2: satellite view of the botanical garden and areas around it

Cultivating plants in cold environments can present challenges, but it can also be advantageous for species that do not thrive in warmer temperatures. These plants can often be found in remote mountainous areas, inaccessible to the public. In response, a botanic garden was established in Tromsø, Norway, specifically designed to highlight such flora. The Tromsø Botanic Garden is the northernmost botanical garden in the world and features a diverse collection of Arctic, Antarctic, and Alpine plants from all continents. Located near the city's industrial district Breivika with the harbor, the garden is surrounded by a lot of sites producing great amounts of pollution.

We define the botanical garden as “a space for cultivating, collecting, and studying plants.” (Carrus et al 2017: 1) The botanical garden in Tromsø is home to twenty-five collections of Arctic and Alpine plants and over seven hundred plants brought in from old gardens of North Norway that form North Norwegian traditional garden. The garden is used as an important research facility but also as a multifunctional place to visit by locals and tourists. Most of the parts of the landscape in the botanical garden is organized systematically according to the plants, their geographical origin, and their function. The botanical garden in Tromsø plays a vital role in plant conservation by providing a space for endangered species from arctic and alpine regions. The garden also contributes to research in plant biology, ecology, and evolution and offers services for educating different age groups who are interested in these topics.

The first versions of botanical gardens were created by “monks in the medieval age, when they cultivated medicinal plants in open spaces that were called physic gardens.” (Carrus et al 2017: 1) Botanical gardens changed over the years and they do not only collect or present plants for research or conservation purposes. Botanical gardens offer visitors and community members an opportunity to gain new experiences with nature and to learn about the world's plant diversity and its role in human culture and history. The botanical garden of Tromsø hosts guided tours with gardeners, temporary exhibitions, concerts and serve as cultural and educational institution. (Carrus et al 2017)

The botanical garden in Tromsø is affiliated with the University of Tromsø and receives a grant from the university to employ permanent workers but also volunteers and interns, enabling several individuals to spend weeks or months working in the garden to help the permanent staff. For the purposes of this study, the focus in the botanical garden was placed on the garden's permanent employees and three volunteers/interns who remained for extended periods, providing greater opportunities for in-depth observations and interactions.

Participants of my project in the botanical garden

a) Permanent staff

The botanical garden in Tromsø had four permanent employees responsible for the gardening activities during my stay from May to mid-August 2022. The employees worked in the garden from the beginning of May to the end of October each year, with their working time limited by weather conditions, as frost and snow are typically present from October until the end of April in Tromsø. During the other months, three employees worked in their offices at the local museum, which is also a university institution, and they usually authored articles or prepared for the next season. The fourth employee Sirkka had a different job during the off-season. While conducting my fieldwork, I learnt that some of the employees in the botanical garden were working the last season there before their retirement.

Sirkka

One of the employees in the botanical garden, Sirkka from Finland, had a supportive role in the garden and she was responsible for the maintenance of traditional plants in the North Norwegian traditional garden. She was not educated as a gardener but gained experience over the years. Sirkka was also a filmmaker involved in multiple projects during the year, however,

she usually spent summers in the garden. Gardening has been a hobby for Sirkka since her student days and then later ultimately lead to her current job. We met together during her last working season before the retirement.

Arve

The year of my fieldwork was also the last year for Arve, the daily leader of the botanical garden. Besides leading the botanical garden, he was also a well-known mycologist and professor working for the Arctic University of Norway. His duties in the botanical garden involved a lot of paperwork, publishing, collaboration with other institutions and organization. Despite the huge amount of work and responsibilities, Arve was able to create a welcoming atmosphere for those working with him and was able to inspire employees and interns by giving informal lectures during coffee breaks in the botanical garden. Arve was a storyteller who aimed to help others expand their knowledge of horticulture. He was from my point of view, a remarkably interesting lecturer and mentor for the interns and volunteers. He enjoyed spending time with interns and volunteers and teaching them about the plants and spread his knowledge of gardening.

Kristian

Kristian, one of the main gardeners, had a strong connection to nature from an early age, having grown up on a farm. Like Arve, he used to teach in the past. Kristian's main role was to collaborate with Arve and Martin about the decisions in the botanical garden, and connecting the visitors to the botanical garden through guided tours where he shared information about the various plants in the garden. Kristian enjoyed fieldworks where he could connect the work in the botanical garden with being in the wilderness and then collecting seeds and samples there. He paid attention to the importance of the recognition of the plants also outside the botanical garden and encouraged interns and volunteers to go hiking and exploring Norwegian nature with the knowledge they gain in the garden.

Martin

Martin used to live in the bustling environment of Prague, where he had a gardening job in one of the prestigious gardens in the Czech Republic. He moved to Tromsø from the Czech Republic with his wife, seeking a slower pace of life. After being hired in the botanical garden in Tromsø, he became an inseparable part of the team. Now, Martin enjoys living in Norway and finds that this job provides him with a sense of peace and perspective. He is enthusiastic

about not only the alpine plants but also potatoes and roses, and he enjoys gardening in his free time.

b) Interns / volunteers

In addition to the permanent staff, my observations also included two French students named Vicky and Ethan, as well as a German volunteer named Michel. Vicky and Ethan were both studying landscape architecture, and their experience at the botanical garden in Tromsø was their first practical exposure to this field. Despite their limited experience, they were highly adaptable individuals with a strong interest in plants and wilderness. They were able to learn a great deal during their time from everyone in the botanical garden and contributed to the reshaping of some areas in the garden.

Michel, on the other hand, had previous experience working in botanical gardens in Italy and Germany. His prior experience in this field made him highly knowledgeable about plants, and he enjoyed spending time outdoors. In terms of personality, Michel was reminiscent of Martin, one of the permanent employees at the botanical garden.

2.2.2. The community garden Holt



Figure 3: satellite view of Holt

The second institution I focused on was a community garden based on Tromsø island close to the agricultural research center NIBIO, called Holt Økopark. Holt serves as a community garden, emphasizing urban gardening as a practical means of learning. The land on which Holt Økopark is situated is available for individual, non-commercial gardening and is located away from the residential areas of the users. The land is divided into small, private plots and

assigned to individuals who rent it. In addition, there is a shared area, managed collectively by a group of individuals, and used by those without their own parcel due to the limited space available. The shared area is tended by the community but also used to grow produce which is harvested and used by the community garden members. Some of the produce is also transported to a local kindergarten to provide food for their kitchen, while the rest is sold on the market organized by the community garden.

This place provides a unique opportunity for individuals to learn about gardening and agriculture while also fostering a sense of community and social network. In addition to providing fresh produce, the garden serves as a venue for workshops and educational events, offering participants the opportunity to gain experience about gardening techniques, soil health, and sustainable practices. The community garden also offers opportunities for socializing which contributes to the development of social bonds among participants or creates a safe space for members.

The community garden operates on distinct principles compared to the botanical garden, as it does not function as a professional workspace. Therefore, although membership rules are necessary, individuals have complete freedom to organize the rented parcels and design them as they wish. At the beginning of the season, individuals were allocated to various tasks, with small groups being formed and each group being assigned distinct responsibilities. These responsibilities included a wide range of activities, including seed care, planting, cleaning, and facility maintenance. Members were motivated to help not only because it was their duty but also it provided cheaper seeds at the beginning of the season and other advantages.

From my observations, the sense of community and collaboration between participants worked well. People were more social while working in the shared area or during shared tasks than working on their own plot. This sense of mutual support and cooperation was evident in the care that was taken to maintain the shared garden, from watering the plants to keeping the pathways clear and accessible.

Members of Holt

In Holt, we focused on Rune, the daily leader of the community garden. Rune studied agriculture and possessed a great amount of knowledge about the sustainable ways of gardening. He was responsible for the garden and the members. From my observation, Rune had strong authority among members as they worked harder while he was around in

the garden. Rune's conduct towards the volunteers under his supervision was characterized by both admiration for their efforts and a remarkable degree of patience. Although originally coming from Tromsø, he had previously resided in the southern region of the country before returning to his hometown. In addition to his duties as a garden leader, he volunteered for the Blue Cross.

A partial emphasis was placed on the community of the garden as a unit, due to the presence of numerous individuals who expressed a desire to remain unmentioned during the project, and who preferred not to be filmed. I must acknowledge that this was a significant challenge for me. Therefore, I adopted a more holistic approach to the research in Holt. This way I aimed to provide an understanding of the community garden but also respecting the privacy of those who wished to remain anonymous.

Holt was full of skilled members who used to garden already for many years. New members were also welcomed, and I had the chance to meet and talk with Grete and her daughter, Siren, from Tromsø, who never cultivated plants in their life before and wished to have their own garden in the future and plant a lot of rhubarbs there. They started learning from Rune and taking his advice while working in the shared area. The connection between the professional Rune and newcomers or less skilled gardeners was fascinating. At the beginning they were clumsy and needed help from others. After three months they had their own garden and there was clear progress in their gardening.

During my fieldwork, I realized how many people (some of them who joined Holt) in Tromsø do not have any space for gardening or any previous experience with gardening. Tromsø has been an expanding city and it is visible that the population grows over the time which causes losing green spaces and an extinction of nature experiences for urban communities in Tromsø.

Holt, situated on Tromsø island, presents a unique area for individuals to integrate themselves into a welcoming community while immersing themselves in nature and harvesting. As someone who conducted research in the area from May to August 2022, I can attest to the popularity of the community garden, which was open every day and attracted people of all backgrounds. My fieldwork in Holt lasted from May to October. I joined different kinds of activities and Rune showed me different kinds of areas of Holt, but I usually joined the workshop taught by Rune. The workshop was attended by a diverse group of individuals,

including Grete, Siren, and others, regardless of whether they owned land or not. Everyone was welcomed in Holt and later could also participate in different kinds of social activities.

3. Methodological reflections

The research of this project was already underway when the project officially began because I started to communicate with my participants at the beginning of the year 2022, before the actual fieldwork. However, we started our official cooperation at the beginning of May after the gardening season started and the ice melted. The research was conducted in two arenas – the botanical garden and Holt. I was more focused on the botanical garden because of the greater number of the participants. The film is made only about the botanical garden due to the large amount of the audiovisual material captured there but it includes topics concerning both Holt and the botanical garden.

My research was designed to produce an ethnographic study. Participant observation, filming, interviews, and discussions were used to collect and to analyze the data. Longer interviews were always filmed, however, I also participated on many activities that included long discussions without the camera. I usually made notes after the discussions. The interviews and discussions were partially spontaneous and partially planned.

Working in the botanical garden and Holt required a certain level of pre-established and conscious application of methodological approach to ensure that my fieldwork would be effective and efficient. Before I started a day in the botanical garden or Holt, it was important to plan. This included identifying the specific tasks that needed to be done, the timeline for completing the work. Observing the gardens and my subjects was a second task as it was important to understand their needs, moods, their work structure, relationships between my subjects, participants and plants or participants and the neighborhood. I was also observing the process of work and their approach to it. The third, crucial thing was to keep records of my observations and then evaluate my work and goals. In the following subchapters I will further elaborate on my fieldwork and collaboration with my participants and consequences of this.

3.1. Being part of the community; them vs. me

In the context of my thesis, I had trouble in distancing from my individual experiences. Therefore, it is partly formed by my subjective perspective. Despite this challenge, I would like to point to the significant aspects of my fieldwork such as engaging in activities with my

project participants and volunteering in both arenas of my fieldwork and how this influenced my whole project.

- **Communication with my project participants**

Effective communication and collaboration between me as a researcher and my subjects were identified as critical factors in facilitating a harmonious working relationship and achieving shared objectives. By establishing clear expectations and open communication, all parties were able to ensure that everyone was working towards their goals and respected the work of each other. I shared my ideas and objectives to my subjects, and I always got a clear response and comments about my project and their role in it. We established clear communication in the beginning of our collaboration when I presented my project, and we came to common agreements about what is suitable and what is not. It involved open dialogues and discussions between me and my participants. Providing the opportunities for my subjects to express their opinions, concerns and ideas about my project helped to build trust between us and gave my participants a sense of sharing the project.

- **Gaining trust of my project participants**

As mentioned above, I tried my best to stay open and sincere about my project and to fully engage my participants in the decisions regarding my project. This was, however, not enough to make some of my participants feel comfortable around a “researcher,” especially the one with a camera. It was easy to gain trust among the permanent workers of the botanical garden as we came to a mutual understanding in a very early stage of my fieldwork and both parties expressed how they imagine this collaboration to work out. They were informed early that there will be a person in the botanical garden filming them and gathering information valuable for the project. The interns did not have such option and when they arrived to Tromsø they were asked if they would like to participate in my project. Everybody agreed with the terms, but it was not enough to make these young people comfortable around me with the camera. Spending free time with my research project participants resulted in being a valuable approach to build a relationship between us. By sharing activities outside the project, I developed more understanding of the participants' lives and interests and built personal connections with them. The participation on the activities was voluntary.

- **Activities with my informants, participant observation**

I usually spent a couple of days per week in the botanical garden and stayed entire days with my participants and followed their daily activities and routines which helped me to fully understand their job and to strengthen my relationship with them. It was easy as they had a fixed working schedule from 8:00 to 15:30. I was meeting them in the morning, then we usually had one common task to do. There was a lot of space for talking and getting know my informants better. In the morning, we also had a coffee break which mostly included coffee lecture with Arve who educated us about some new gardening techniques or about the following tasks that were waiting for us. I learned not only how to work with people but also to understand what my participants were doing and why it was important or challenging for them. Then we continued with the tasks, we had lunch and after that we started with new tasks. There were also fieldwork trips and small beach breaks and I participated also on many outdoor and indoor events with them, for example, guided tours, a flower market, exhibitions.

The activities in the community garden were different from the botanical garden. I did not have any schedule there. I was mostly meeting Rune in the community garden a couple of times per week at the beginning of my fieldwork. He was teaching me how to seed plants and how the plants were developing to the stage they could be planted outside. When we moved to the outside arena, I focused on the workshop. There was a workshop every week where I could meet Rune but also newcomers coming to learn more about gardening and techniques for cultivating eatable plants in the North. Not everybody there was willing to speak with me, but I tried to spend most of the times with Rune.

I tried to be active and participated in different kinds of activities which helped me to fully understand the relationship of my participants towards the gardening but also getting to know them better and earn their trust. My participant observation was very intensive, and it included doing all the activities with my subjects. It was beneficial, and I have learnt and understood a lot of the processes in their work, however, it got me sometimes to the situation when gardening was expected from me, but I had to choose the camera instead. There were not so many activities in the film, and I felt like I needed to build a good relationship with Rune, so I started with helping and seeding in a barn and I fully emersed myself in filming only after we moved to the communal area outside. The most special thing in Holt was to see and understand how large plants can grow from a small seed.

- **To give something back**

In both gardens I worked as a volunteer as well. It was not only about conducting my research but also participating in activities and helping them. There was always a need for more hands in Holt and I was working in the botanical garden for free unlike the other interns or volunteers which was beneficial in terms of giving something back to my participants as they could also invest some time to me and to interviews after I helped them doing the job faster. During my fieldwork, there were many journalists in the area who attempted to make an interview with my participants but there was usually no time for that. Helping them in the garden was a huge advantage for me. I invested time in them so they could also invest some in exchange in me. They started to include me, and it changed my role, and I became a part of their communities, not just being a researcher or a filmmaker. I was trying to work hard and help as much as I could and in exchange, I got a good environment for filming and the acceptance.

3.2. A camera in the garden

Working with the camera was the most essential part of my project in terms of memorizing and saving the information. The camera gave me another consciousness and the way to capture the connection, hidden interactions, and emotions. In addition, it was a great tool to refresh my memory while I was authoring my thesis.

3.2.1. During the fieldwork

The beginning was, however, hard. I think the most demanding thing to cope with during the whole fieldwork was to establish the comfortable relationship between some of my subjects and my camera at the beginning of my fieldwork. It was challenging because I had a feeling that I was bothering people by my presence, and I struggled with getting out of the comfort zone. In the first weeks I was trying to overcome this feeling. I was trying to approach people more, but I also wanted to give them enough space to see what I am doing. I was always honest about my intentions, and I tried to find the moments when my subjects started to feel more comfortable around the camera and they asked many questions about the fieldwork, about the project, and the outcome of it.

My technique was first to film my subjects from a distance and then to come closer so they would not feel intimidated from the beginning. I was trying to give them sufficient breaks and not to film them entire day. Slowly I started to realize that they were more curious about my project, and they found being filmed natural over the time. Some of them even stopped to care about the presence of the camera.

However, it was not the case for every subject during my fieldwork. It was significantly better to collaborate with my subjects from the botanical garden. The permanent employees were already used to being filmed as it was also required sometimes for their job and for the presentations they were making. The young interns were a bit scared at the beginning as they were not informed that they would be filmed before coming to Tromsø and they thought I was going to use all my material. We were all shy and it made it difficult for both sides however as we became friends and we got to know each other better, this approach completely changed, and it was extremely easy to film them and interview them.

I had more difficulties connected with filming in the community garden as I had to accept a lot of negative answers when asking if I could film people and those who agreed to be filmed were not often in Holt. I felt that my subjects in the communal garden were not sharing as much as when the camera was not there. This was not the case of the botanical garden and people there. My only solution of filming in Holt was to focus more on Rune, but he was also one of those who were not used to be filmed. I was expected to help more in the garden and participate in the activities than to have the camera in my hands. It was struggling in that situation as I wanted to help but I knew how important it is to film the activities and processes also in Holt.

3.2.2. After the fieldwork

After completing my fieldwork, I took some time to go through the video footage that I had captured. As I watched the recordings, they helped me to refresh my memory and put together a more cohesive understanding of the work I have been doing. However, I also realized that my filming in the communal garden was not the same or as sufficient as it was in the botanical garden. As such, I decided to use only the footage from the botanical garden for my final film.

One thing that I found particularly interesting as I watched the footage was how the camera allowed me to observe the emotions of the people I was interviewing. When I had been

filming before, I had been so focused on filming the shots I needed that I had not fully appreciated the power of the camera to capture people's interactions between each other and their emotions or feelings towards gardening. Watching the footage now, I understood how much more connected I felt to the people I had been filming. I could see their expressions and reactions in a way that I had not fully appreciated at the time, and it was a powerful experience especially while recording an interview with Martin from the botanical garden or listening to what Michel said about the botanical garden.

In addition to this, I had also time to reflect on the ambient sound in the botanical garden or also in Holt. A large number of shots also captured the noise from traffic and the construction sites close to the botanical garden or Holt and helped me to go through this experience once again. During my fieldwork I focused on getting clear and focused shots and I was sometimes disappointed how the ambient noise destroyed my shots. However, watching the footage again after the fieldwork helped me to understand how much value the ambient noise added to the overall feeling of my film. The noise helped to create a sense of threat that was, for example, behind the entrance of the botanical garden. I learned how to work with the ambient noise to give it more power to make my audience understand that the unpleasant noise in places which are usually considered as “oasis of peace” is present and it can destroy the imagine we all have in our heads about the gardens. It added an extra layer of depth and texture to the footage, and helped to bring the scenes to life in a way that would not have been possible without the noise. Focusing on sound was done to gain a deeper understanding of the sensory experiences of my participants or people visiting those places and this approach made a significant difference in the quality of my final product.

Overall, going through my video footage was valuable in helping me to reflect on my fieldwork and to gain a deeper understanding of the people that I have been working with or the arenas I worked in. It was a reminder of the importance of taking the time to reflect on our experiences, the footage and to appreciate the small details that can often be overlooked in the moment but luckily, I had my camera, and I was able to capture those details.

3.3. Fieldwork notes, audiovisual material

The essential data I collected during my fieldwork were captured by audio or audiovisual recordings and the notes from my fieldwork. I used audio recording during the situations that could not be filmed or were too casual and only added some value to my audiovisual material.

I also recorded my thoughts after the fieldwork when I felt too tired to write everything down or when there was a lot to write. The video recordings were used to capture visual and audio data to analyze not only the verbal communication but also the body language, non-verbal communication, facial expressions, processes, activities, and events.

Unfortunately, both of my primary research locations were situated near the roads with very frequent traffic and near the building sites which sometimes caused audio quality issues during filming, despite my use of proper microphones and filming techniques. As a result, not all my footage is of perfect quality for use in the film, however, they still provide valuable information. While most of the events are supported by visual material, I also analyzed situations that could not be filmed, and I collected written notes about them.

As I mentioned before, the audiovisual data I have captured are beneficial for my project but writing down notes was also an important part of my fieldwork. The notes I collected had value for my written thesis, but I also kept a small diary to document my thoughts and experiences. During the intensive fieldwork, there was not always space to go through all my footage. The notes I wrote down proved valuable during the fieldwork due to being short and to the point. This way I could already work with my notes and widen my understanding of the arenas and the subjects while doing the research. I also established a small diary which proved to be helpful during the challenging times when I struggled to connect with my subjects or when I doubted myself.

4. The Anthropology of gardens

4.1. What is a garden?

Gardens are “nature put into the right place” which man has artificially enclosed with either a “physical or visual boundary”. (Cunningham 1996: 38) There is an entire world in the garden that is put into the order and there is a wildlife outside of the garden. Inside of the garden, there is “rationality, care, nurturing and outside we have raw nature and savage”. There is a real natural world outside of the garden meanwhile inside of it we have a small world that was put together to create an art or display. The line between the garden and the wilderness is small because a plant can easily escape over the walls of the garden and what had been treasured in the garden can suddenly become “a weed and nuisance.” (Cunningham 1996: 38)

A garden is made up from both natural and man-made materials and serves different kind of purposes that reflect the local culture. Garden can have different form and purpose over the time. It is a constantly changing area which combines natural and cultural elements. (Hunt 2000)

In the Christian tradition all other gardens except Eden have been made by men often seeking to recreate the whole remembrance of the paradise and “to remove God's curse from the ground.” (Cunningham 1996: 38) *Paradise*, a world originated in old Persian and later adopted by Greeks meant “an enclosed park or garden”. (Cunningham 1996: 39) People understood that to make a paradise on the earth could be done by making a garden. The gardens’ central function was in that time spiritual renewal. The gardens are often experienced as an “escape” from the public world and the place full of creativity where man can build a relationship with nature. (Bhatti & Church 2001)

Gardens were “a place of peace and harmony, place to promote well-being, place of refreshment for the soul.” (Cunningham 1996: 39) From the modern perspective and particularly from the perspective of the naturalists, in the past the gardens were not particularly used to conserve plants which is probably the first thing that we think of today with respect to gardens and with passion for gardening. (Cunningham 1996)

4.2. The role of the gardener

The gardens in the West are often one of the few possible places where people living in the cities can build relationships between humans and nonhumans. The botanical gardens are, however, seen as fixed in their landscapes and experienced in this way by people who visit them but for the gardeners it is a as “a constantly changing living space in which the nonhuman has its own ideas of what it wants to do and what helps.” (Neves 2009: 146)

In the botanical garden, the intern Vicky, is replanting flowers from one area to another. She carefully searches for five plants from the area full of variety of flowers and different kinds of weed which represents a huge ecosystem and then tries to separate these five plants. She must be patient and, she must pay attention to the proper cleaning to not harm the plants. There can be only a small movement by which she could easily destroy these fragile plants in her hands. The plants are lying on the rocks while she prepares the suitable soil for them. We can see five individuals completely dependent on Vicky’s next action and separated from other plants. “Taking seriously these more-than-human forms of ‘relatedness’ requires leaving from dualistic notions of nature and society as bounded and mutually exclusive realms of life. Rather, it invites us to approach nonhuman entities as active and relational participants in the production of bodies and persons, within and across species lines.” (Chao 2021: 247)

After the detailed preparation, Vicky uses soil mixture which she puts later to the specific place between the rocks in the garden and she carefully places the tiny plants to it. Vicky prepared the conditions for the plants and tried to meet the requirements and plants’ needs. The successful growth and development of the plants in the garden will depend on the interplay between the plants and the soil Vicky prepared. Notably, the transition to a garden setting presents a distinct environment for the plants that requires attentiveness and patience from the gardeners tending them. “Plants can grow freely in the forest, lake area, fields but if you want to have them in the garden and grow them there you need to pay attention to their needs. The difference between plants in those areas and the gardens is that in the gardens, more is done to assist the growth of plants.” (Ingold 2002: 87) We can speak about the process of “constant negotiation” between the gardeners and plants, the dialogue in which the gardener slowly learns from the interactions with the plants which allows him to “bring a particular garden into existence”. (Neves 2009: 146)

All my subjects in the garden had to understand that being in the garden was not just about the admiration of the plants. Within the garden and esthetic prevails beauty and this art comes from rearranging nature. This rearrangement needs work of all gardeners who keep constantly nurturing. The role of the gardener is to shape and take care of the garden's identity. Without the gardener's action the landscape of the gardens could change back to "non-gardens." (Cunningham 1996: 38)

Certain actions were needed to reach the common goal in both gardens, for example, weeding, planting, replating, or watering to prepare the conditions for their development and growth. If the garden looked well and everything was prepared, the plants could also thrive well. Creation of the environment in the gardens usually started with preparing the area for planting. In the community garden of Holt, volunteers had to dig the grass or weeds and then to prepare the soil in the area that would be used for planting. It was important to understand that plants are not only the part of our natural environment but the actions we did in both gardens were creating the environment for the plants and other non-humans visiting the area. Both humans in the garden and non-humans were depending on each other and they were "components of each other's environments." (Ingold 2002: 87)

5. Why gardening?

This project focuses on two types of gardening - gardening that includes the cultivation of plants for the harvesting and consumption, but also gardening that focuses on preserving the plants, displaying them and aesthetic purposes. (Chalmin-Pui et al 2021) The botanical garden focuses primarily on the ornamental plants with the minimum of plants used for the consumption meanwhile Holt has the opposite purpose of the gardening. In conjunction with Holt, we can also mention the term urban gardening which represents the “the growing, processing, distribution of food and nonfood plant and tree crops, and the raising of livestock, directly for the urban market or private needs, both within and on the fringe of an urban area.” (Ruggeri 2016: 2) These are the main objectives of the two studied areas but within the garden we have also individuals that consider gardening in these gardens more than what was so far presented. In this chapter I would like to further explain what gardening means for humans and why they continue doing this activity.

5.1. Reasons and purposes of the gardening

Humans have different reasons and purposes for gardening. Being in natural surroundings often has a positive appeal for human beings. Connecting with wilderness, nature, and trees provides a way for individuals to step away from the demands of everyday life, refresh their minds and experience feeling relaxed at a peaceful place. (Carrus et al 2017) The people I met during my fieldwork had different reasons and purposes for being in the garden and for gardening. Even though it was a job for some of them, compulsory internship, fieldwork or just a hobby, they all shared similar feelings of being in the garden. The garden influenced their mood as my subjects were connected to the environment in these gardens.

Botanical gardens

Botanical gardens offer a valuable opportunity for city dwellers to connect with nature inside of it and take a break from urban stressors such as crowds, noise, air pollution, and heat. Unlike typical urban green spaces like parks, playgrounds, and forests, botanical gardens are known for their exceptional biodiversity, richness, and variety of species. Recent research has demonstrated the positive impact of biodiversity in green areas on well-being, highlighting the importance of botanical gardens as a unique type of "restorative environment." (Carrus et al 2017: 2)

From a psychological perspective, the botanical garden provides a setting that promotes psychological restoration for those gardening but also for the visitors. The concept of a restorative environment encompasses four fundamental elements. The first, "being-away," involves a change of scenery or experience from one's everyday routine. (Carrus et al 2017: 2) The second, "fascination," refers to the ability of aesthetically pleasing surroundings to capture one's attention without requiring significant mental effort. (Carrus et al 2017: 2) The third, "extent," relates to the interconnectedness and coherence of all elements within an environment, as well as the potential "to engage one's mind" beyond what is immediately apparent. (Carrus et al 2017: 2) Finally, "compatibility" concerns "the level of perceived congruence between the characteristics of the environment and people's needs" and preferences. (Carrus et al 2017: 2)

Community gardens

Not everyone has the possibility to have their own garden at home. Therefore, people seek communal gardens many times as a substitute for a domestic garden but find much more than when they would expect from the domestic garden. To compare the communal garden with the domestic garden I have visited during my research, the community gardens have generated particularly strong local neighborhood involvement with bonding activities that does not involve only gardening but also meeting locals and creating a community.

Community and home gardens were popular and helped with food supplies and well-being since the first and second world war. (Amstrong 2000) In the 1970s, community gardening became a way to be self-sufficient and to resist the destructive urban development. (Lawson 2005) Community gardens are nowadays used to produce and distribute local, fresh food. They provide us with green spaces, ecological services and they offer many opportunities to engage in gardening.

Communal gardens have been associated with numerous benefits, including a reduction in "social, emotional, and behavioral difficulties". (Chalmin-Pui et al 2021: 2) They can have an impact on "physical and mental well-being", they reduce and prevent stress and they reduce the risk of depression developing. (Chalmin-Pui et al 2021: 2) Communal gardens can also have a strong restorative function. Moreover, "growing one's own food" in the communal garden can provide a strong sense of purpose". (Chalmin-Pui et al 2021: 2) According to Ruggeri and his research about urban gardening in Milan, people are gardening because of

the several reasons, the most common ones were to have healthier food, personal well-being, and pleasure. (Ruggeri 2016) Some people are motivated by the intellectual challenge gardening can offer, “the chance for self-expression, aesthetic, an opportunity to be creative”. (Chalmin-Pui et al 2021: 2)

Gardening in general offers an escape from negative thoughts and a place for leisure activities. Gardening can be a creative, can help to develop skills and social relationships. Additionally, it promotes physical fitness. (Chalmin-Pui et al 2021) According to the researchers, the physical contact with nature also provides us with close contact to a soil derived bacterium which activates “serotonergic neurons” and “induced antidepressant-like behavioral responses”. (Logan & Lowry 2022: 6)

Personal purposes and reasons in Holt and the botanical garden in Tromsø

In Holt, one of the main purposes for the gardening was to produce food. Growing vegetables, fruits, edible plants, or herbs provided them with healthy and fresh produce. The community was aware what kind of actions were required to grow the produce. This had positive impacts on the environment around them as they became more self-sufficient. Some of the plots were full of decorative plants and people cultivated them for aesthetic reasons. People in Holt increased their self-reliance, improved their gardening skills as well as the skills to communicate with other people. Holt provided a lot of opportunities for locals to meet and create a vivid neighborhood.

Gardening in both Holt and the botanical garden provided a safe space. During my fieldwork I met with community members or workers with different kinds of illnesses, disabilities, and backgrounds. Others accepted them in both gardens and helped them to have a welcoming environment around. Love for plants and passion for gardening brought everyone together. Especially in the botanical garden, it seemed like my participants were part of a big family, however, everyone had a right for a personal space and respect. Both gardens were able to build “a sense of unity” among staff or members where everyone was equal irrespective of their age, skills, health, or social status. (Poulsen et al 2014)

During the group activities, the participants in Holt were mentioning that gardening activities are like meditation. Surrounded by nature and tending plants helped them to reduce their stress and clear their minds. The physical contact proved to be crucial because it provided

more complex experiences for my participants with “higher degrees of altered states of consciousness and energy. “ (Freeman et al 2012: 136)

The restorative environment also helped my participants with personal problems and difficult emotions. After going through a challenging emotional period, the garden became a source of comfort and healing for Sirkka. With the support of the colleagues around her, she gradually regained her confidence and reconnected with others. The shared happiness that she experienced and the enthusiasm and good environment in the botanical garden had a profound healing effect, but it required her open mind to fully embrace those benefits.

My participants started with gardening for different kinds of reasons. For some of them, like Kristian, it was because of the family background. His family owned a farm and the interest in nature developed over the years and stayed with him. His early childhood experiences could play a significant role in shaping his preferences and interests. However, there are many factors that can influence an individual’s interests. The passion for gardening does not have to grow slowly or relate to an early interest in the gardening. It is enough to evoke it and it is contagious as I observed on my participants and on myself. Even Martin was not interested in plants as a young adult. His family had a garden, and he was forced to help his parents while his peers were playing outside or spending time together. This made Martin resentful, and he promised himself that he would never work in a garden when he grew up. One day, he fell in love with a gardener, a student at a gardening school. While he was meeting with her, her friends and waiting for her in front of the gates of the school, the passion for gardening blossomed in him too and he began to see the beauty and value in cultivating plants and eventually, he applied for horticultural studies too. Michel also has a garden at home, but it took him a while to understand he would like to pursue a career in the gardening. His parents own a big garden, but he tried different kind of jobs before doing a horticulture internship. He liked this experience, and it was different because a lot of people go to work to only get the money, do what they are supposed to do, but it was different in the garden. This job gave him more satisfaction and he could also connect deeply with nature. “You connect yourself little bit better to your own nature and environment as a gardener.”

One of the purposes of the gardening is also to bring joy and happiness to other people. This applies more to the botanical garden. The visitors of the botanical garden often expect to see only grass, moss, and threes to grow in Tromsø, but they are pleasantly surprised when they explore the area and realize the variety of the plants in the botanical garden. My participants

in the botanical garden are greatly motivated when they see people appreciating their work, taking pictures of the areas. An even stronger motivation comes when they see children talking about the plants and taking pictures.

6. The value and relationships with plants

6.1. Value

Plants are a crucial part of human life, even nowadays in the era of technological advances. Humans rely on plants for a multitude of things, from the clothes we wear and the transportation we use, to the paper we write on and the food we eat. “We exchange plants to express to communicate condolences, congratulations, or care.” (DelSesto 2019: 201) Plants are part of our lives in multiple events and we use them to express various kinds of emotions. There are only few arenas where plants do not have any significant role. (Balick 2020) They provide us with oxygen and healing medicines that we need. Despite this, humans often fail to appreciate the significance of plants and they take them for granted. It is easy to overlook a deeper meaning, value, and adaptability that plants offer us in our daily lives. (DelSesto 2019)

Balick points to the fact that “the relationship between plants and people is often clearer in indigenous societies than in our own since the link between production and consumption is more direct.” (Balick 2020: 3) According to Balick, the indigenous people have a deeper knowledge about the ecological systems and the plants around them. They are depending on this knowledge for their survival. People in bigger societies lost much knowledge about the plant cultivation strategies, plants origins, or they cannot even recognize the plants. (Balick 2020)

The general public's awareness of plant ecologies is limited, particularly in heavily urbanized and industrialized societies, where the “intrinsic value” of plants has been ignored. (DelSesto 2019: 202) The plants are often seen as objects to control and to exploit for economical gain. This is called “plant blindness” that highlights the human centered and animal focused mindset and prioritizes larger organisms over smaller ones. (DelSesto 2019: 202) It is common for people to think of plants as just the background for animal life, and to overlook their significance in our daily lives. This often leads to a lack of understanding about what plants need to survive, and a failure to observe or identify local plants. A lack of appreciation of the beauty and the aesthetic of the plants can contribute to a lack of awareness and knowledge about plants which leads later to lack of supporting a life on Earth. (Wandersee & Schussler 1999)

The gardeners I met loved specific plants more than others and their preferences varied over the time during the gardening season, but they also seen themselves as plant and gardening lovers in a general sense. The gardeners from the botanical garden usually highlighted aesthetic over the use in the botanical garden by cultivating ornamental plants for their beauty and the love of the plants rather than for their commercial value even though the collection in the botanical garden has value also in saving the plant species in case they would perish from wilderness. The community from Holt was paying more attention to the nutritional value of plants and the possibility to harvesting them. (Archambault 2016)

6.2. Building relationships through the interactions with the garden

Engaging with soil and seeds can evoke various sensations at the beginning, some of which may be met with resistance by humans. There may be a fear of touching plants because not all people know how to keep them alive, and they are afraid that their actions could lead to damage. However, using the senses, especially “the sense of touch” offers a gradual approach to develop a physical relationship with plants. (DelSesto 2020: 205) DelSesto also analyses the meaning of the touch. A hand has a significant symbolic and practical value for humans since it enables the creation of “new meanings to the perception of physical objects, language, and sensory engagement with the world”. (DelSesto 2020: 208) The hand symbolizes the human ability to interact with the world through touch and gain knowledge about it. (Delsesto 2020)

Relationships within gardens are dynamic, organic, and constantly evolving, rather than remaining static. In gardening, humans engage in a mutual challenging relationship with nature, and they try to have control over it, commodify it and shape it to attract and support more wildlife. “In urban areas the values that gardens offer to people and wildlife can be seen as mutually reinforcing.” (Freeman et al 2012: 136)

Plants are giving something to all our senses. We can touch them, admire them with a look, smell them, eat some of them but we can also talk to them. Some of my participants have a special relationship with the plants, especially while the plants are growing. Sirkka greets the plants like her old friends. Some of the plants are more special for her than others, she visits them more often. Michel talks to the plants especially when they are not thriving well. When the plants are struggling, he believes that speaking to the plants can help them thrive and grow. Michel was making efforts to connect to the plants also in the botanical garden.

In the garden, he built a relationship with the plants *Gentiana*. The special relationship to those plants emerged when Michel planted *Gentiana* in the botanical garden and regularly wished them well. He decided to keep an eye on them and nurture them also during the whole internship.

6.3. From the seed to the mature plant

Both the process and the result of gardening are important for my participants. Planting a flower can be a thrilling experience full of adrenalin from a seed that has to grow to a mature plant. There is always an uncertainty of whether the plant will survive or not, whether it makes sense to plant it or whether someone will appreciate it. Despite this uncertainty, it is truly rewarding to see the plants blossom after many years of waiting or being praised after doing a decent job with the plants. The physical work that my participants are doing is efficient and you immediately see the results. After weeding, there is an immediate difference in the appearance of the area. Even though working in the garden is never finished process and there is always space for improvement, change and the activities such as trimming, weeding must be done regularly, this work is motivating and pushes you forward.

“Even though the plants are growing faster in Tromsø because of the midnight sun, there is a certain sense of peace that comes with the gardening.” Martin Hajman

Planting a flower is also an act of looking forward with the expectations and enthusiasm to see the plant grow and blossom. Some plants take longer time to grow and blossom, some of them might never do but more you plant, the more will eventually come out. Provides a sense of time perspective and calmness for my participants. There is no need to rush, be anxious or push because the plants are growing at their own pace. Plants are teaching us how to be more patient. This feeling of looking forward and having hope can be a driving force for my participants.

Observing the growing process of a plant and how they are emerging from soil to gradually become a mature plant is enjoyable for my participants. The act of interacting with plants offers means of engaging with “the sensory and cyclical rhythms of the natural world.” (Delsesto 2020: 207) My participants plant the seeds; they nurture the seedlings. After the plants are bigger, my participants replant them to bigger pots or more suitable places.

Then they are providing the care for the plants, harvest some of them, eat some of them. All this experiences with plants have a potential to evoke “new ways of thinking about diverse personal, ecological, and social conditions.” (Delsesto 2020: 207)

It is a dialogue with the plants that require my participants to think about the plants’ needs and how my participants can improve their growth or make the plants thrive better when they are struggling in their environment. When the plants are in full bloom, the gardeners know what comes next. As the summer progresses, some plants are starting to wither, die and the darkness and cold are gradually approaching Tromsø. This is a cycle that happens every year which marks reflection and consolidation for the next gardening season.

While humans may form an emotional attachment to plants, their survival often depends on factors that are beyond the control of even the most skilled gardener. This realization suggests that gardening can expose individuals to novel “durations of time” or an environment that encourages “a dynamic relationship between the mind and body” (Delsesto 2020: 207). As plants constantly manifest their ecological nature by responding to their surroundings, including water, soil, insects, and sunlight, they have the capacity to inspire new ways of thinking about how we coexist with each other. (Delsesto 2020)

7. Knowledge and enthusiasm

To create a suitable environment for plants where they could thrive in, it is necessary to gain certain knowledge about their specific needs and the conditions required for their cultivation. Consequently, those who engage in gardening must possess extensive knowledge about various factors, including water, weather conditions, the geographical location that play a role in the growth of plants. Additionally, gardeners are responsible for taking care of a wide variety of plant species and they also have a special bond between themselves and the gardens. (Bolton & Mitchell 2021)

Sié and Yakhlef emphasize on “the importance of the curiosity and passion for exploration” to gain more knowledge. (Sié & Yakhlef 2013: 16) To become knowledgeable experts in the field, gardeners need to invest many years into learning, they need to be curious and passionate about it. Being an expert is related to the emotional commitment. The passion is a bond that holds together the community and those with many years of experience are therefore very motivated to share this knowledge among others. (Sié & Yakhlef 2013)

“The connection among work, the workplace and the object of work is a subjective relation made up of love and hate, obsession and pleasure, exploration, and passionate knowledge.” (Gherardi 2007: 315) There is “a bond of passion” that makes gardeners ‘present’ when they cultivate plants in the garden. (Gherardi 2007: 316) “The aesthetic knowledge” that originates from the sensory experiences and from “the corporeality” in different kinds of situations is a “way of being in-relation with themselves and with the world”. (Gherardi 2007: 316) Simultaneously, the gardeners connect and communicate with other people “who share the same enthusiasm, knowledge, stories, memories and state of mind.” (Gherardi 2007: 316) “The passion for knowledge” they have is rooted in the “corporeality and physicality of the work” environment. A “sense of place” represents the symbiotic link between gardener’s aesthetic knowledge and the multisensorial experiences” gardeners have at work. (Gherardi 2007: 316) A garden as a workplace is not “an abstract container for equally abstract activities”. (Gherardi 2007: 316) It involves the bodies and sensory faculties, the working community and the practices that help with the development and the stabilization of the knowledge. (Gherardi 2007)

8. Closer look to Tromsø gardens

8.1. Interactions with the garden

People can have different linkages between them and wildlife. They can live within the wildlife, close to seashore, mountains and share the same habitats with wild plants and animals. People can also have a lot of knowledge, remember the experiences from wildlife, think about wildlife. They are also able to hear, smell, touch and physically interact with wildlife.

My subjects interacted with plants every time they were in the garden physically. They were mostly experiencing sensory interactions with wildlife. The first thing that they did when they came to garden was to visually process the information. They looked at plants, walked around and tried to compare what they saw that day with other days, how the plants were growing, if they changed the color, structure. They could easily see if something was wrong with the plant or if the plants were thriving well. Also, my subjects experienced various stages of plant growing and that was fascinating for them. The other fascinating thing about the visual aspect of the wildlife in the garden was to look at the structures of flowers, their differences and color. Humans like different things and this also applied to their preferences and the choice of the favorite plants. They also watched and followed insect that had mutual interactions with the flowering plants in the gardens.

The other stage was to touch the wildlife, feel it in the hands, smell it. Different plants had different smells and evoked emotions, memories or resembled other smells for my subjects. The plants had different bodies, some were tiny and fragile, so my subjects had to learn how to manage them, how to take them from the soil without harming them, clean them and then replant them. This experience enriched the knowledge of my subjects and broaden their gardening skills.

Vicky from the botanical garden said that it was interesting how the permanent employees in the botanical garden thought about the placement of plants as well as the stones. The gardeners in Norway think about the landscape while shaping the garden. (Jørgensen 1997) The botanical garden in Tromsø is not an exception. The stones that are forming

the areal of the garden are carefully placed to make it look natural, effective, accessible but also safe for visitors.

Botanical garden

In fact, everything starts with the people and the stones in the botanical garden. Without the people working there, there would be no rocks. Man's action is simply needed. All the employees and interns go together to the natural side and bring back stones to the garden from the wilderness. This activity usually requires a lot of strength and motivation. Bringing heavy stones from the area where my subjects could easily break their legs or seriously injure themselves is not an activity that you would do without the common goal – the goal to change the botanical garden for the better.

They must also decide which stone is the best to be used and they choose stones according to their experience from gardening. The expertise is needed in the botanical garden, but interns could learn many things by observing and sharing the experiences with others. The interns knew which stones to take from the wilderness and where to place them after working in the garden for a while. They only needed a guidance as to how to do it by the permanent employees.

After the stones were put to place in the botanical garden, it was important to replant new plants there. Arve was teaching students how they should replant it correctly. It was especially important to start with the soil. First, they had to dig up soil to prepare the correct place for new plants. "Digging up soil to prepare a garden bed means digging into unknown histories, or that a plant may bloom in entirely unexpected ways." (DelSesto 2020: 206) Touching the soil and the plants represented "the act of "reaching out" into "a sometimes-unknown world". (DelSesto 2020: 206) As Arve said: "*I always think that it is so much fun to be with the plants myself. To touch them with my hands, to divide them, clean them. This is one of the charms of gardening. You are on hand with it.*"

After digging up the suitable space for a new plant, the person responsible for replating carefully cleaned the plant. There were various replanting situations with Vicky, Michel and others. The gardeners or the interns were handling the plant with care to avoid damaging it, then they were identifying the specific type of plant before replanting it among the others in the garden or in the small pot. It was important to know the type and name of the plant they were going to plant so that they were not mixing it with weeds they did not want to have

in the garden. After selecting the correct individual plant to be replanted, they were carefully placing the plant in the prepared soil mixture and nurturing it in the hopes of its continued thriving over the years.

Holt

In Holt, everything started with land. More land meant more place for plots but also for the shared areas. Those who rented parcels had freedom to choose what they want to plant and how they want to organize their parcel. Parcels were all unique and represented a personality of its owner. Some of them were messy, some of them organized, other were focused just on the plants and some of the owners brought small insect houses or decorated their parcel in a very personal way. The shared area was more organized but did not have to follow any rules or geographical sense as it was in the botanical garden.

The processes in Holt also involved preparing the seeds and planting them in small pots inside a barn, where they stayed until they were ready to be transplanted outside. They had to stay first in a barn because it was too cold for vegetables and fruits in the beginning of May. After this initial phase in the barn, the plants were moved to a shared area where they were replanted.

When the plants were planted or replanted in both gardens, there were various activities and processes that had to be done to maintain healthy garden. Watering was providing the crucial survival and growth of the plants. Weeding was a very common morning activity and usually one of the most important ones to remove unwanted plants from the garden to make the desired plants grow and thrive. Then it was also trimming to cut or clean overgrown branches or dead leaves, fertilizing to provide nutrients to the plants or composting. In Holt and sometimes in the botanical garden it was also harvesting to collect vegetables, herbs for various purposes. Collecting of the seeds was also very crucial to ensure having enough for the next season.

The difference between the permanent employers in the botanical garden or Rune from Holt and the other group that included interns or volunteers was deeper knowledge. Deeper knowledge did not come only from the experience but also from educating themselves. “Dirty fingernails are not the only requirement for growing plants. One must be as willing to study as to dig, for a knowledge of plants is acquired as much from books as from experience.” As Lacy quotes famous gardener Elisabeth Lawrence. (Lacy 1987: 15)

8.2. Passion for learning

“Enthusiastic admiration is the first principle of knowledge and the last.”

William Blake (1757–1827)

Gardening is a constant act of discovery. People learn everyday about new gardening techniques, they improve their old techniques, they discover new plants, and explore how to make them thrive in different kinds of conditions. Gardening can be a hobby or an employment but the decisions to study plants, collect them, care deeply about them and share this experience with an intense enjoyment move our knowledge to the next level and give us also the space to educate others with the same interest.

Enthusiasm in the gardens matters because it has the capacity to motivate gardeners and to result in change or achieving the goal. All my subjects have a certain goal. In Holt, there is a strong motivation to expand communal garden and build more facilities to nurturing the plans and the facilities to breed domestic animals. All the individuals in Holt have a goal to grow something themselves. In the botanical garden, my subjects try together to form the botanical garden to its best version, but they also have small side goals and personal goals. The appearance of the garden reflects the people who tend it. Gardens are unique and original creations that are constantly evolving and never finished. Gardeners in the botanical garden have a shared vision about how the botanical garden should look like and what to do to achieve the best version of the garden. They have faith in this shared vision and work together to make it real which also creates their personal attachment to the garden.

Sirkka from the botanical garden speaks about her colleagues and calls them *“geeks in this field”*. She means that in a positive way as it has influence on whole garden and people visiting or working in the botanical garden. She has never met such enthusiastic people that work together so closely, and they are inspiring, like to inspire and to spread the happiness and love for plants. Kristian, Martin, and Arve are the ones who read a lot, write articles, and explore new plants and possibilities. Sirkka is responsible only for a part of the garden, focusing on traditional plants and does only outdoor work so she looks at the botanical garden differently but still think before bed about gardening and what will happen next day in the garden. When she comes to the garden she wants to be with the plants and tries to avoid emails that would keep her away from the plants. All the gardeners prefer working outside

and experiencing the sensorial part of it or to learn about plants instead of the bureaucracy connected to this job.

We could sense enthusiasm also from their conversations between themselves especially when gardeners from different botanical garden joined for some weeks. They enjoyed a company of other professionals from their field and to discuss and exchange the knowledge they had. There were gardeners coming from the United Kingdom, The Netherlands, Czech Republic and when they spoke about their gardens, they were indeed located in places where the conditions for some of the desired plants by my subjects were better. You could sense a hint of jealousy but at the same time, fascination to learn new things and a feeling that someone finally understands you and speak the same language.

To see the passion and enthusiasm in the botanical garden among workers was also a common sight in their free time. Kristian admitted he reads mostly books about plants and horticulture at home. To be so involved in gardening and spending your time learning more about that requires some motivation and passion for it.

Martin, the gardener from the botanical garden, does not consider gardening only as his job. He tried to separate this activity from his free time but nowadays he still gardens after the working hours. He started to cultivate several types of potatoes and plant different types of roses in his free time:

Sometimes I feel like a maniac. When I started here, I told myself I am not going to have garden at home to be able to do this job whole life. I need breaks. It is dangerous to do the same thing at home and in work. It is not good to cultivate alpine plants at home too, but I started with simple flowers. Later I wanted to have a complete break from it, but I got interested in potatoes. I started to cultivate potatoes, but I am a collector, so I started to collect types of potatoes and I have around thirty now. It is amazing, they have different color, structure, taste.

Martin claims that he likes to try new things and learn which conditions are the best for cultivating potatoes and roses in the Northern Norway:

Three years ago, I had an accident. I fell in love with roses and now I'm collecting them. Last night I was planting the Canadian rose. I'm so looking forward to that. I fell for it so much. We don't have so many roses in the garden luckily but at home, I have around thirty types of

roses that are waiting to be planted. I'm trying some frost resistant roses because I really like to push the limits and not all the roses can be planted here in the North.

When he speaks about this experience, we can clearly see how exciting it is for him. After watching the audiovisual material from my film where he speaks about his gardening activities, the audience might want to have a glimpse of his potato garden or to share this common happiness.

8.3. Passion for sharing

Martin's passion for learning implies a passion for sharing the knowledge he gains. His passion for gardening in a free time is in such extend that he has a need to learn more, explore more and then to pass the knowledge to others: *"I have already fallen for it so much that I need to spread information and educate others."*

The interns were influenced by the permanent employees and vice versa. As all the interns said, there was a lot to learn from the permanent employers. Simultaneously the permanent staff saw the interns as an inspiration and admitted they also had learned about their perspective of the garden. Permanent employees and the interns did not share the same levels of enthusiasm. The permanent workers more likely influenced the interns, and the interns accepted the environment that permanent workers created. The French interns were claiming that you do not need such high levels of passion to do this job, but they recognized that they are influenced by the others and becoming more interested about gardening especially because of the environment created by permanent employees. This emerged thanks to the playful explanations outside and during coffee breaks when the daily leader explained processes and gave small lecture.

The enthusiasm in the botanical garden was also a strong factor when it comes to getting along. The permanent employees showed that their job matters and that they are willing to learn new things and spread knowledge to others easily. They influenced interns, created a positive atmosphere, and shared this good attitude with them. The volunteer Michel pointed to the atmosphere in the garden:

"I think it is quite different to other gardens and I really like the people that are working here. Sometimes you do not have a feeling like you are at work making money. It is just

a feeling that you spend free time with your friends and family and having good time. This is something rare, I think. “

The other interns had also mentioned that it is special and hard to find such a group of people that inspired them, spreading the knowledge. The interns became obsessed with some of the procedures and activities in the botanical garden also outside of the arena. They realized they were thinking about weeding and explored various kinds of plants also in the wild nature. While they went for a walk or hiked, they were taking out *Equisetum*, one of the most “hated” weeds in the garden.

I met with newcomers not only in the botanical garden but also in the community garden. The newcomers in Holt had less knowledge than the interns in the botanical garden and sometimes they came with zero experience in gardening. There was always space to learn new things. Learning how to garden was practical and very informal as both communities tried to create a safe place to newcomers. Cognitive anthropologists Jean Lave, and Etienne Wenger coined the term “*community of practice.*” (Wenger 2015: 1) which represent a group of people with same passion or interest, and they work together and learn to improve their skills as they do the activities regularly. The similar approach was observed in Holt and the botanical garden, and it also helped to strengthen the relationships in the communities.

Going through different situations every day in the botanical garden was full of happy moments. Martin said that they all share happiness together when something extraordinary happens such as blossoming of the new plant or when the botanical garden is doing well. These moments connected all my participants on an emotional level. “Anthropologists have recognized that people are generally happiest in those moments when they feel most connected to others.” (Walker 2015: 2) These special moments created a sense of community. This approach was significantly beneficial not only for the microcosm of the botanical garden, but their work also influenced others outside of the arena. Seeing the employees doing their work well and enjoying the activities was creating a good environment and atmosphere which spread around the whole garden.

The breaks from the actual work were nearly as important as the work itself. My participants sat down together and learned from each other. Their discussions were, from my point of view, an interesting way to build a better working environment and healthy connections among the workers. The breaks worked so to speak as a social glue among coworkers.

The conversations of my participants were playful and most of the time there was a good atmosphere which contributed to the actual work; however, they still respected each other and their personal space. Furthermore, the breaks worked well as a teaching tool for the daily leader and the interns, and I also had the chance to participate and to learn something new about the climate and different kind of plants. The lunch break had a similar function as the coffee break. It did not involve any lecture, though it was important for workers to share their feelings, opinions or thoughts and talk about things from distinct cultural perspectives.

I would also like to mention the term of employee participation. We could speak of employee participation which “refers to activities and measures taken to get employees to participate together in an initiative to achieve a common goal.” (Strauss 1998: 15) The botanical garden has a daily leader who has the main say in various decisions, however, employees are actively involved in the decision-making process. Usually, the decision-making is based on the discussions between Arve, daily leader and the gardeners Kristian and Martin. The three subjects had sometimes different opinions but always managed to discuss things with respect towards each other. The employee participation also points towards the “process which allows employees to exert some influence over their work. (Strauss 1998:15)

The permanent workers in the botanical garden created a place where everyone could feel welcomed and included which contributed to the working ethic of the interns. Having such a strong feeling of being part of the community helped them to feel more relaxed at work and work as a team. Workplaces are in general collaborative environments, and it applies also to the botanical garden. My subjects would not be able to achieve any of their goals without every member's cooperation, as each of them has significantly contributed or had a special role to play. If they would not feel comfortable working with their coworkers, their goals in the botanical garden would never been achieved.

The communal garden worked on slightly different principles than the botanical garden. It was not a workspace and therefore people needed some membership rules. The membership rule was that everyone did something for the community and they got some benefits back for it. They could, for example, also obtain cheaper plants for their private parcels when they did some voluntary work in the area. They could also use common equipment for free, but they had to take care of it. Everyone in the communal garden had their own task and as in the botanical garden, they had special roles in the society of the community garden. Some of them were taking care of the seeding, cultivating in the shared area, some of them later took

care of a Sami tent called lavvu, in the area or cleaned the toilet or the barn. In the communal garden, sharing was very important. Not only the tools were shared between the members, the expertise of more experience gardeners was also very important. That is how people got together and shared advice even when Rune was not there. They also shared responsibilities and had to rely on each other, especially in the shared part of the communal garden.

Both the botanical garden and the community garden Holt are accessible arenas for everyone. The botanical garden is open 24 hours daily without entrance fee and organizes different kind of events which helps with spreading information, knowledge, and passion for planting to citizens of Tromsø. Holt is also an accessible place for everyone, parcels are usually owned privately, however, everyone can apply for a plot, and anyone can also join workshops that were done every week or join working in the common part of the garden. The activities organized by both institutions are connected to gardening as well as they play a crucial role in strengthening the community and bringing people together.

According to my experiences, working in these communities was beneficial for all my subjects. It taught them how to respect all people regardless of their differences or culture and value their ideas. It showed them how to collaborate with people who are different than they are. My subjects came from different countries, had different ages, different kinds of struggles, some were new to Tromsø, but they managed to embrace that and show each other not only the respect but support and empathy. Especially in the botanical garden, the environment was one of the most welcoming ones I have ever experienced. Moreover, it also has an incredibly positive effect on newcoming interns.

Both groups of my subjects had common but simultaneously also different goals in terms of gardening. Both groups tried to grow plants in northern Norway where the weather conditions might be difficult. The group in the botanical garden was more focused on the research and preserving of the plants together with focusing on the aesthetic side of it. The group in the community garden planted with the aim of harvesting. I must admit that some of the parcels put effort into the aesthetic side of gardening too and it showed us different kind of expressions of people and their styles. Those were significantly different from the style of the botanical garden as there were no rules in the community garden in the private parcels. Everyone could get creative and make their own small garden according to their wishes. The parcels in the community gardens really reflected the styles of their owners, some were very practical, others highly creative or even had a fairytale look with small sculptures or

houses for insects. It was the space where people could express themselves and show their style of the planting, the colors and materials used. Small parcels could potentially reflect the owners and their level of passion for gardening. The botanical garden had to look more organized meanwhile in the communal garden people could organize their plants however they wanted and could decide if they wanted the area structured or messy.

8.4. Passion to preserve

Many green places have to deal with negotiations and conflicts over the land. Gardens could be said to frequently involve the political negotiation and management to allow specific plots of land to be used. The continual growth of the city of Tromsø might lead to smaller numbers of urban green spaces on Tromsø island or an unequal access to it for the locals. The urban green spaces can be defined as those which provide valuable ecosystems and are beneficial for social and mental health. According to my observations, some of the green areas have higher value for people than the others do simply because of the access availability or infrastructure next to it. The increase of the urban space in Tromsø comes in hand with privatization of public spaces especially the ones that are not seen so valuable for the society living there. Therefore, it is always challenging to point to the benefit of the green spaces such as the botanical garden or community garden and to protect those areas.

The community garden of Holt in Tromsø belongs to one of the last, large green areas on the island. It provides green space and therefore promotes the biodiversity in the city and a space for the wildlife to thrive. Holt offers the opportunities for people to learn more about gardening, food, environmental sustainability and brings people together. The area is multifunctional, develops more each year and helps to deal with pollution from roads nearby and the local airport. There is, however, always the threat of potential new projects and new developers involved. So far, the communal garden and its members are successfully managing to show to the municipality how important is the area for the community using it but the dwelling sites in the city are spreading fast.

The botanical garden of Tromsø deals with the same problem, though there might be a chance to seek protection by the university, as it belongs to it. The area must cope with the potential threats of new road projects and deals with everyday pollution due to being located next to the most occupied road on the whole island. There is also a new project planned that would minimize the distance between the botanical garden and the road.

The botanical garden is significantly limiting the pollution in the area; however, the pollution is a threat for whole garden and its appearance. We could demonstrate that on the rocks in the botanical garden that we were mentioning before. Choosing well-fitting stones to the botanical garden is a challenging procedure which involves going to the natural sides and seek for suitable stones which are often too heavy, and my subjects are risking their health by doing that. This activity is not only done to renovate the botanical garden or make new areas but also some of the rocks must constantly be changed as they are losing their original appearance due to the pollution in the area.

According to Stigsdotter and Grahn, a garden should be as a “room.” (Stigsdotter & Grahn 2002: 61) It should be possible to experience everything in the garden, divided from its surroundings. Everything in the garden should be separated from what is happening outside of the garden. This should give the visitors a feeling of being in the bubble, hidden from the public and safe. (Stigsdotter & Grahn 2002) Vicky points to the situation in the garden: “*You have this noise every time...*” and looks towards the noisy area in the city next to which the botanical garden is located. She thinks it would be better if the botanical garden was not so close to the road.

Both areas have significantly important ecosystems for the area. The botanical garden is occupied by a lot of species of bumblebees. The bumblebees are using the garden the entire season and, they are very dependent on it from late August till the end of the season because during that time there are only foreign species of plants in the botanical garden blossoming in Tromsø. The garden is also the home of wild bees and that was moreover the reason the employees disagreed on having domesticated bees in the area in order to protect the wild ones. Unlike the botanical garden, you could find in Holt not only bumblebees but also domestic bees. The relationship of domestic bees and humans were in a great symbiose in Holt as bees were being tended by a group of volunteers and, they had a lot of plants to pollinate during the summer. In return, the plants were growing bigger and there was a remarkable difference of some fruits, for example, strawberries which made the community of Holt pleased.

My participants try to make changes with the hope that the presence of something beautiful and aesthetic in our surroundings can have an impact on our moral and ethical perspective. When there is something beautiful around us, we are less inclined to destroy it and more motivated to preserve it.

9. Conclusion

Tromsø's long winters and low temperatures leave only a brief period for the outside gardening activity in the city. Many people on Tromsø island live in apartments, own only a part of a house, have only a small terrace and they do not have such options as others with big gardens in suburbs or rural areas. Areas such as the botanical garden in Tromsø and the community garden Holt are places where people without garden can try gardening and those who already have a garden can take an inspiration from these two mentioned gardens. Gardens have many benefits and people who are working or visiting these gardens have relevant reasons to do so. Both gardens have a serious impact on the well-being of the society, knowledge about the environment around us and these gardens also give us opportunities to connect deeply with nature and others who garden or visit those gardens despite our differences. Gardening is an activity which can teach us about the plants and of ourselves. It shows us how being enthusiastic about some activity can change our perspective about it and push us to explore more. The enthusiasm and passion of gardening in these arenas go hand in hand with the sense of purpose and fulfillment. Despite all these benefits you can find in this thesis about gardening and everything remarkable about these gardens, there are still threats that could make gardening activities in Holt and the botanical garden more difficult or even destroy it in the future. However, the botanical garden's staff and Rune with his group of volunteers are not discouraged by challenges that the future might bring but there is still space for motivation, fascination, and the attempt to do something impossible in the place where gardening seasons lasts only a short time. Despite the challenges both places are facing, they continue to grow and hope that creating something beautiful and spreading the enthusiasm about it could potentially save these places. The subjects in both arenas were able to create an environment full of good relationships and respect and the environment that is rewarding and recognizing meaningful work, they were able to create a welcoming culture for those willing to experience these gardens. The research was limited to the participants that were fully engaged with the botanical garden or Holt. Given the limitation of this research and focus on those who garden, it could be beneficial to do research about the detailed benefits of Holt and the botanical garden for those who benefit from these gardens but do not necessarily participate in gardening activities, such as visitors.

10. References

- Armstrong, Donna. "A Survey of Community Gardens in Upstate New York: Implications for Health Promotion and Community Development." *Health & Place* 6, no. 4 (2000): 319–27.
- Archambault, Julie Soleil. "Taking Love Seriously in Human-Plant Relations in Mozambique: Toward an Anthropology of Affective Encounters." *Cultural Anthropology* 31, no. 2 (2016): 244–71.
- Balick, Michael J., and Paul Alan Cox. Essay. In *Plants, People, and Culture: The Science of Ethnobotany*. New York: Garland Science, 2020.
- Bhatti, Mark, and Andrew Church. "Cultivating Natures: Homes and Gardens in Late Modernity." In *Sociology* 35, no. 2 (2001): 365–83.
- Bolton, Lissant, and Jean Mitchell. "The Art of Gardens: An Introduction." In *Anthropological Forum* 31, no. 4 (2021): 339–51.
- Carrus, Giuseppe, Massimiliano Scopelliti, Angelo Panno, Raffaele Laforteza, Giuseppe Colangelo, Sabine Pirchio, Francesco Ferrini, et al. "A Different Way to Stay in Touch with 'Urban Nature': The Perceived Restorative Qualities of Botanical Gardens." *Frontiers in Psychology* 8 (2017).
- Chalmin-Pui, Lauriane Suyin, Alistair Griffiths, Jenny Roe, Timothy Heaton, and Ross Cameron. "Why Garden? – Attitudes and the Perceived Health Benefits of Home Gardening." *Cities* 112 (2021): 103118.
- Chao, Sophie. "Children of the Palms: Growing Plants and Growing People in a Papuan Plantationocene." In *Journal of the Royal Anthropological Institute* 27, no. 2 (2021): 245–64.
- Cunningham, Andrew "The Culture of Gardens," *Cultures of Natural History*, ed. Jardine, Nicholas, Secord, James A., and Spary, Emma C. (Cambridge: Cambridge University Press, 1996).
- Freeman, Claire, Katharine J.M. Dickinson, Stefan Porter, and Yolanda van Heezik. "My Garden Is an Expression of Me': Exploring Household's Relationships with Their Gardens." In *Journal of Environmental Psychology* 32, no. 2 (2012): 135–43.

- Gherardi, Silvia, Davide Nicolini, and Antonio Strati. "The Passion for Knowing." In *Organization* 14, no. 3 (2007): 315–29.
- Hunt, John Dixon. Essay. In *Greater Perfections: The Practice of Garden Theory*. London: Thames & Hudson, 2000.
- Ingold, Tim. "The Perception of the Environment Essays on Livelihood, Dwelling and Skill." London: Routledge, 2002.
- Jørgensen, Karsten. "Nature and Garden Art in Norway." In *The Journal of Garden History* 17, no. 4 (1997): 245–66.
- Lawrence, Elizabeth, and Allen Lacy. Introduction. In *Gardening for Love: The Market Bulletins*. Durham: Duke University Press, 1987.
- Lawson, Laura J. *City bountiful: A century of community gardening in America*. University of California Press, 2005.
- Logan, Alan C., and Christopher A. Lowry. "Spotlight: An Interview with Dr. Christopher A. Lowry, on the Convergence of Microbes, Nature, and Mental Health." In *Challenges* 13, no. 2 (2022): 51. <https://doi.org/10.3390/challe13020051>.
- Neves, Katja. "Urban Botanical Gardens and the Aesthetics of Ecological Learning: A Theoretical Discussion and Preliminary Insights from Montreal's Botanical Garden." In *Anthropologica* 51, no. 1 (2009): 145–57.
- Poulsen, Melissa N., Kristyna R. Hulland, Carolyn A. Gulas, Hieu Pham, Sarah L. Dalglish, Rebecca K. Wilkinson, and Peter J. Winch. "Growing an Urban Oasis: A Qualitative Study of the Perceived Benefits of Community Gardening in Baltimore, Maryland." In *Culture, Agriculture, Food and Environment* 36, no. 2 (2014): 69–82.
- Ruggeri, Giordano, Chiara Mazzocchi, and Stefano Corsi. "Urban Gardeners' Motivations in a Metropolitan City: The Case of Milan." In *Sustainability* 8, no. 11 (2016): 1099.
- Sié, Laurent, and Ali Yakhlef. "The Passion for Knowledge: Implications for Its Transfer." *Knowledge and Process Management* 20, no. 1 (2013): 12–20. <https://doi.org/10.1002/kpm.1402>.
- Stigsdotter, Ulrika, and Patrick Grahn. "What makes a garden a healing garden?" In *Journal of Therapeutic Horticulture* 61 2002, 13, 60–69.

Strauss George. "An Overview." In *Organizational Participation: Myth and Reality*. Oxford: Oxford University Press, 1998.

Walker, Harry, and Iza Kavedžija. "Values of Happiness." In *HAU: Journal of Ethnographic Theory* 5, no. 3 (2015): 1–23. <https://doi.org/10.14318/hau5.3.002>.

Wandersee, James H., and Elisabeth E. Schussler. "Preventing Plant Blindness." In *The American Biology Teacher* 61, no. 2 (1999): 82–86. <https://doi.org/10.2307/4450624>.

Wenger, Etienne. "Communities of Practice: Learning as a Social System." Accessed December 2022
https://participativelearning.org/pluginfile.php/636/mod_resource/content/3/Learningasasocialsystem.pdf.

11. List of figures

Figure 1: Tromsø.....	7
Figure 2: satellite view of the botanical garden and areas around it	8
Figure 3: satellite view of Holt.....	11

Figure 1

Google maps. “Tromsø” Accessed November 2022. <https://tinyurl.com/46ut7k7h>

Figure 2

Google maps. “Tromsø arktisk-alpine botanisk hage” Accessed November 2022.
<https://tinyurl.com/nhcmvam4>

Figure 3

Google maps. “Holt, Tromsø” Accessed November 2022. <https://tinyurl.com/e899syms>

