



# URBAN FORAGING AND COMMONING

Together, we reclaim the edible city.

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# URBAN FORAGING AND COMMONING

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## SUMMARY

This design project investigates how commoning can support the practice of urban foraging, resulting in a framework that describes the social characteristics of commoning and the abilities and opportunities for urban foraging. The framework led to a design showcase, called Get To Gather, which is an interactive board in public space to let citizens experience the practice of urban foraging, as an entrance to the foraging community.

Commoning is a verb of “commons” that describes the social process to manage the commons. The goal of the commons movement is to reclaim commonwealth, and transform the focus on privatization into collective use of resources while preventing them from being commercialized (Bollier, 2016). Commoning is a social process that relies on active collaboration and cooperation.

The practice of urban foraging describes going from place to place searching for things to eat or use, in an urban context. Foraged food is also described as “zero-footprint food” since it is entirely outside the profit-making food production system we know today, which provides people to live self-sufficient and supports a resilient food production system in the city. Foraging goes beyond the consumption of wild edible plants because it is a social activity, in which people pass on knowledge, culture, and traditions from generation to generation. This project focuses on foraging as a leisure activity in the Netherlands.

Foraging is getting more popular, which resulted in the concern of external authorities about the safety of people and the environment. Also, beginner foragers experience fear of eating poisonous or dirty plants in the city. In combination with the social motivations of urban foraging, this resulted in an inspiring and robust network, a community that wants to make sure that everyone forages safely and with care for the environment. Therefore, the community expresses a need to involve beginner foragers into their network.

Urban foraging is an act that transforms unused urban nature into a place with social interactions. In the city, there are fragmented municipal plots that do not fulfill a specific function. In this report, these areas are man’s lands. The final design is an entrance to the foraging community at these locations, to create awareness about the community, and involve beginner foragers to teach them how to treat the environment correctly and perform the practice safely. The design is ‘do it yourself,’ so people can make the design by themselves without waiting for external authorities. Get To Gather transforms unused urban green spaces into places for social access.

Get To Gather shows how commoning can support the practice of urban foraging, by making the foraging community, and nature in the city equitable accessible for people outside the community. It frames urban foraging as a practice with social benefits, by showing the community, in which foragers have strong social ties with fellow foragers.



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# PREFACE

About a year ago, I came across the definition of commoning, a concept which is deeply rooted in our DNA with a lot of social potential for a sustainable society. I was wondering how designers could create impact with this concept and wanted to focus on commoning during my graduation thesis.

As a designer, I like to give people a new perspective on current issues. One of the topics that keep me busy is the unsustainable, modern food production system, which brought me to urban foraging, that is zero-footprint, and like commoning, in human nature. I see a growing trend of people getting more interested in organic and local food. People want to reconnect with the origin of their food, especially in the city where access to local, personal food production is limited. More people try to experiment with self-grown food. They share community gardens or build vertical gardens on their balconies, and I hope to inspire them with my project.

I want to bring you in my journey, in which I have met inspiring people in the foraging community, who helped me to develop a design that makes me happy.

Lotte de Wolde



# 1. INTRODUCTION

## 1.2 RELEVANCE

Today, more people are living in cities, and there is a growing trend of eating healthy, local food. There is an increasing need to reconnect with the origin of food and for more sustainable, ecologically cities (Colding, 2013). Community gardens are popping up, or citizens start their diet in their backyard, to minimize waste and dependency on the industrial food production system.

Last years, people were getting more interested in eating not only organic food but also local food, for free, by gathering wild growing plants around the city. Foraging diversities the food stock and contributes to nutrition, and people can find new species that are not available in the supermarket. Wild gathered ingredients contain more nutrition and often has strong tastes. Urban foraging is entirely outside the food production system, zero-footprint food, and it contributes to citizen's capacity to live self-sufficient. By foraging, citizens empower a resilient food system that creates local access and control over resources.

Foraging is not only about spending time in nature and consuming wild plants; it goes far beyond that. It is an ecosystem service in which people freely receive cultural benefits from their natural surroundings (Schulp, 2014). Gathering wild food is a social process that connects people by sharing knowledge, culture, and traditions. It can contribute to community engagement, called food sovereignty, and is in line with the social movement towards local food production. Food sovereignty focuses on the ethical and cultural aspects of providing nutrition. The positive effects of urban foraging on community building promote citizens to get engaged with local and personal food systems (Bunge, 2019).

Still, urban foraging is an uninvestigated alternative food movement, and there are little studies on forager's values and its potential for community building in cities. Understanding these values and the social interactions between foragers show new ways of how urban foraging contribute to a resilient food system, and it increases citizen's capability to have access and control over food resources, including the social benefits of urban foraging. Urban foraging is a social activity that people perform at locations owned by the municipality like abandoned lots and alongside streets, and thereby, it challenges its social function for citizens. This project shows how citizens reclaim these areas and transform them into places for social access.

## 1.3 THE PROJECT

### Research question

*How can commoning support the practice of urban foraging?*

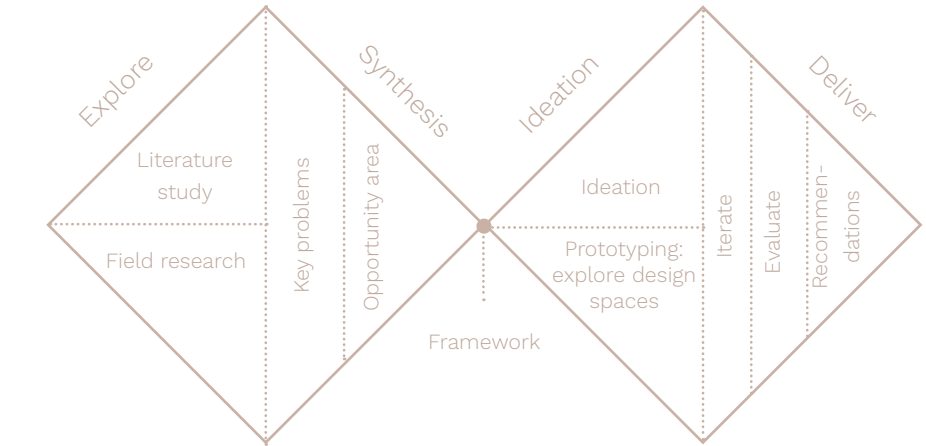
First, the exploration study investigates how commoning can support the practice of urban foraging, to come up with possible design spaces. The exploration study includes an extensive field study in the foraging community in the Netherlands. Parallel to this, a literature study is conducted to understand the social characteristics of commoning.

### Framework

The synthesis shows the barriers to foraging, the problem definition, and the opportunity area. The result of the synthesis is the framework with the opportunities and abilities to urban foraging, and the social characteristics of commoning. Together with the design vision, this forms a basis for the ideation.

### Showcase

The ideation phase consists of brainstorm sessions and explorative prototypes in the possible design spaces provided by the framework, resulted in three concepts. One of the concepts is chosen and further developed, based on the design vision. The design shows how the benefits of commoning support the practice of urban foraging. The last part of the project evaluates the concept based on the design goal and vision, and presents recommendations for the future.





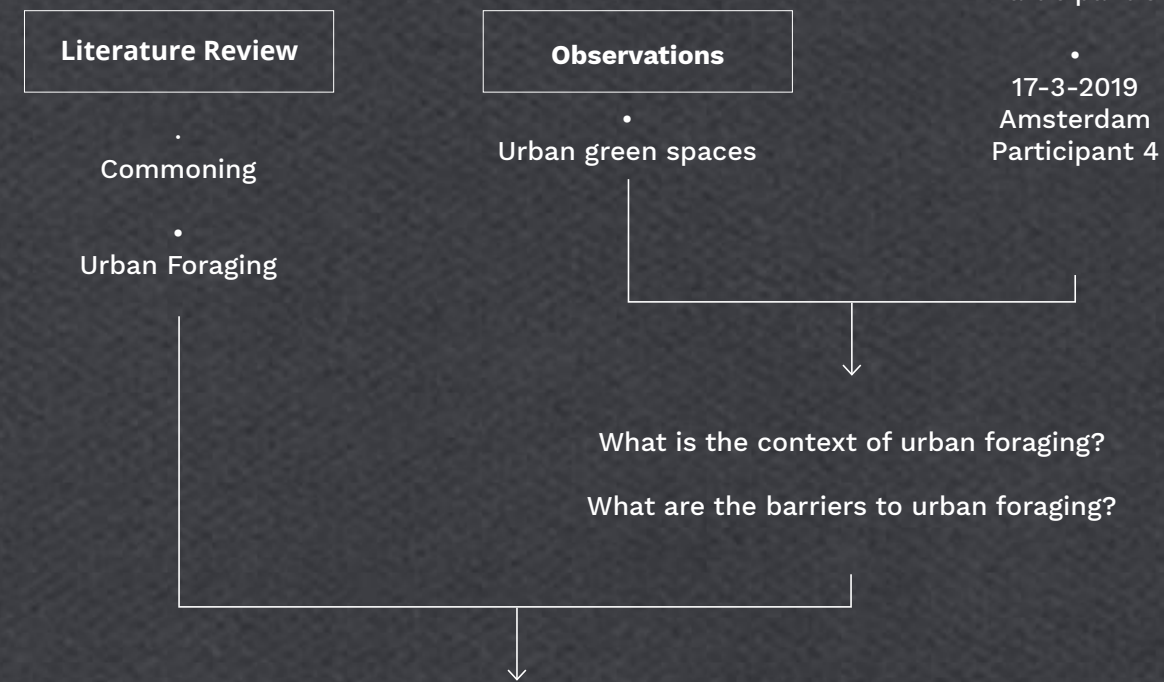


*“Foraging is anarchistic.  
Nature is taking its course”.*

*Professional Forager*

## 2. EXPLORE

In the first phase of the research, a literature review on commoning and urban foraging was conducted to answer the research question: “How can commoning support the practice of urban foraging?”. Parallel to this, forager experts, beginner and inexperienced foragers were interviewed, and participating in four foraging tours gave insights about the practice and its context. Urban green spaces were observed to understand the relationship between citizens and foraging locations.



*Research question*

*How can commoning support the practice of urban foraging?*



## 2.1 COMMONING

This chapter gives an introduction to commoning, explains the commoning versus the “system,” shows the types of commons and two examples. The chapter concludes with the social characteristics of commoning, which form the basis for the framework.

### Chapter overview

- An introduction to commoning
- Commoning and “The System”
- Types of commons
- Examples
- The social characteristics of commoning

### 2.1.1 AN INTRODUCTION TO COMMONING

#### The definition of commoning

There is no established definition or measurable indicators of commoning yet, apart from that commoning is a verb of “commons” that describes the social activities of the commons, which means the process needs to involve people. The actions occur when a community decides to manage a commons, that is shaped by rules, values, and traditions. So, the “commons” and “commoning” are interrelated, and without commoning, the commons would not exist (Bollier, 2016).

Commoners aim to reclaim commonwealth and shift from privatization to collective use of resources while preventing them from being commercialized. Commoning happens independently from market and state, based on self-governance systems, and initiates a transition from centralized to decentralized organizations. The higher purpose is to create a sustainable future for the next generations (Bollier, 2016).

Climate change and social injustice are few of the issues as we know today. We all know we need to change things drastically, but the superior focus on economic growth prevents us from taking steps in the right direction. Commoners take this step by initiating the transition, just by themselves. They believe the concept of commoning has potential to provide alternatives for the issues of modern society, and happens in many variations.

#### The use of commoning in this project

There is not a universal model to apply commoning in practice, because the needs, shared goals, and the given context of the shareholders differs in every other situation. Given the great diversity of how commons occur, it is essential to set a scope for this project.

Elinor Ostrom is a famous name within the commoning movement and developed a method for governing the commons, which is about the organizational aspects of commoning (Ostrom, 1990). In addition to this, commoning includes social practices, and it connects people, acting together to achieve a shared purpose, which is the focus of this project.

This project analyses the social characteristics of commoning and use it as an approach to support the practice of urban foraging. The social characteristics of commoning can be found back in all types of commoning, regardless whether it is a digital commons or a physical space where people come together. Paragraph 2.1.3 describes further the different types of commoning.

The result is a framework with the characteristics and the opportunities and abilities to urban foraging. This framework is fundamental to create a design intervention that supports the practice of urban foraging.



## 2.1.2 COMMONING AND “THE SYSTEM”

Commoning challenges “the system,” that refers to the market or state. This paragraph shows the benefits of commoning, compared to a society that is shaped by capitalism and hierarchal structures, which results in inequality between people and adverse environmental implications. Commoners strive for equality between people, in wealth, polity and the ecosystem.

### Wealth

The key of commoning is to provide enough goods and services to fulfill the needs of everyone. The neoliberal capitalism results in inequality in wealth since the fulfillment of people’s needs goes through a profit-making system. Commons function outside the market and decreases people’s dependence on their life quality on the market (Bollier, 2016).

### People

The market does not focus on people’s needs but on their demands for purchases, which means that someone with less money has fewer impact on what the market will deliver in the future and how it fulfills their needs. Commons focus on meeting people’s basic needs fairly and respectfully. Through collaborative relationships and intrinsic motivations, everyone can shape the commons and has equal access to them.

### Ecosystem

In commoning, people work together with nature, instead of against it. The exhaustion of the earth is a significant disadvantage of capitalism. The basic idea of commoning is that commoners do not treat natural resources as a commodity. They do not obtain more than needed and collectively maintain the natural resources with the community, so there will be enough for everyone and the next generations. Commoners experience pleasure in managing the commons that are essential for their and the community’s needs.

### Polity

The state is limited in meeting all the needs of people, which causes distrust in the system. Commoning goes beyond these shortcomings of this form of governance and provides a bottom-up approach that gives the power back to individuals.

A collaborative system, in which public institution encourages collaboration in the city, makes citizens more satisfied with the democracy, and it increases a sense of belonging to a community. People can participate in decision-making, can have a voice which makes them trust in an institution (Iaione, 2016). The neoliberal system has limited capabilities to meet the needs of shareholders, while bottom-up approaches allow people to create a new world to fulfill their needs.

### Key insight

Commoning creates equality between people, in wealth, polity, and the ecosystem. It increases trust and a sense of belonging to a community because it considers everyone’s needs.

## 2.1.3 TYPES OF COMMONS

Commoning is not new. This way of resource management has already been used for thousands of years, and around 2 billion people doing it today (Sharing Cities, 2018). These commons refer to classic forms of commoning practices, and focus on natural resources, like fisheries and forests. Today, commoning is also about finding new arrangements of law, and social practice to build diverse commons, at a larger scale and protect them from being commercialized (Bollier, 2016). Figure 1 shows the four types of commons, provided by the P2P Foundation, a non-profit organization that studies commons-oriented peer to peer dynamic solutions (Bauwens, 2017).

There are different waves of commoning. For example, the digital commons that provide free and open-source software, knowledge, collaborative art and culture, and other variations. Wikipedia is a famous example of a digital commons. Everyone can add and share the content, and the amount of available information is abundant. Open networks serve as an infrastructure to create commons on a larger scale (Bollier, 2017). There are also productive commons, like Fab Labs, that combine global design with local production, in which people can share their knowledge and use knowledge and designs that are globally available.

The urban commons movement is growing and refer to reclaiming the city and includes everything from natural resources, software, or urban space held in common by a community. The commons consist of public space, education, or even infrastructures that serve the society, like electricity and water delivery systems (Sharing Cities, 2018). The aim is that the resources are for the collective manner, with equitable access and use, intending to create resources that can be passed on to next generations, as an alternative to approaches given by the market or state (Bollier, 2017). Figure 2 gives a step by step overview of commoning.

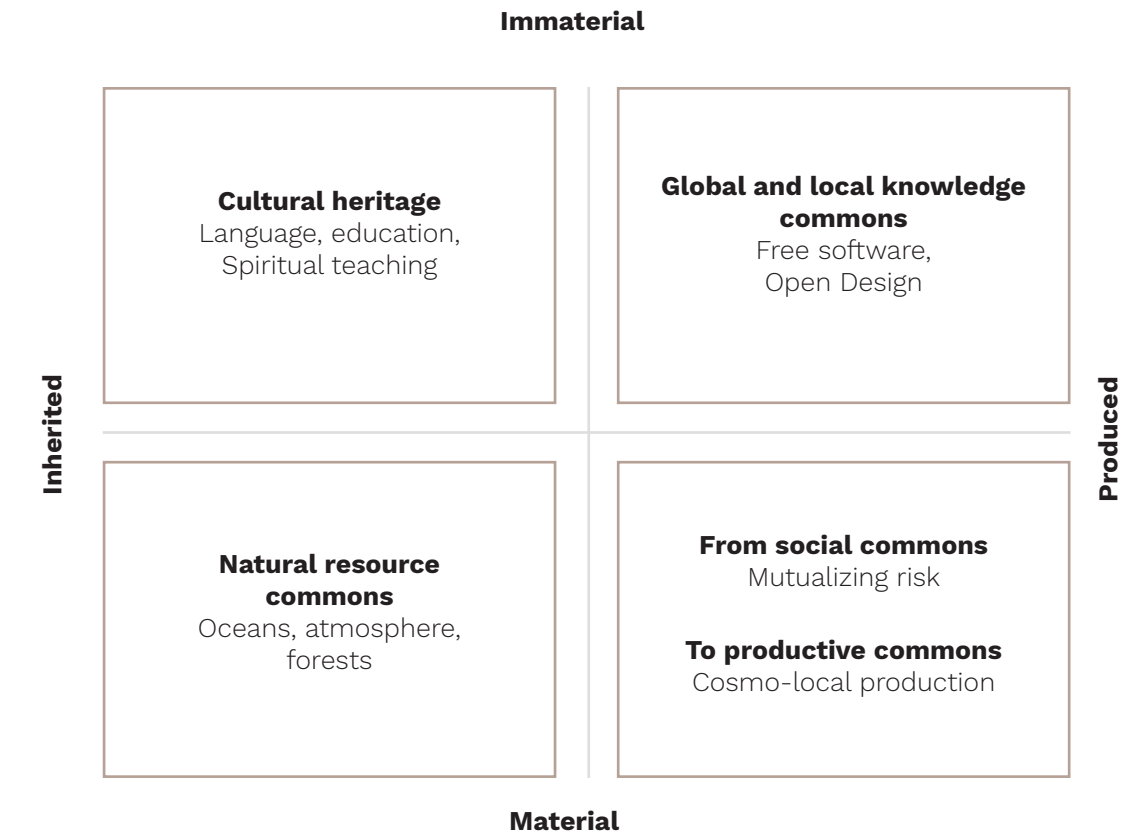


Figure 1: Four types of commons (Bauwens, 2017).



# Commoning Steps

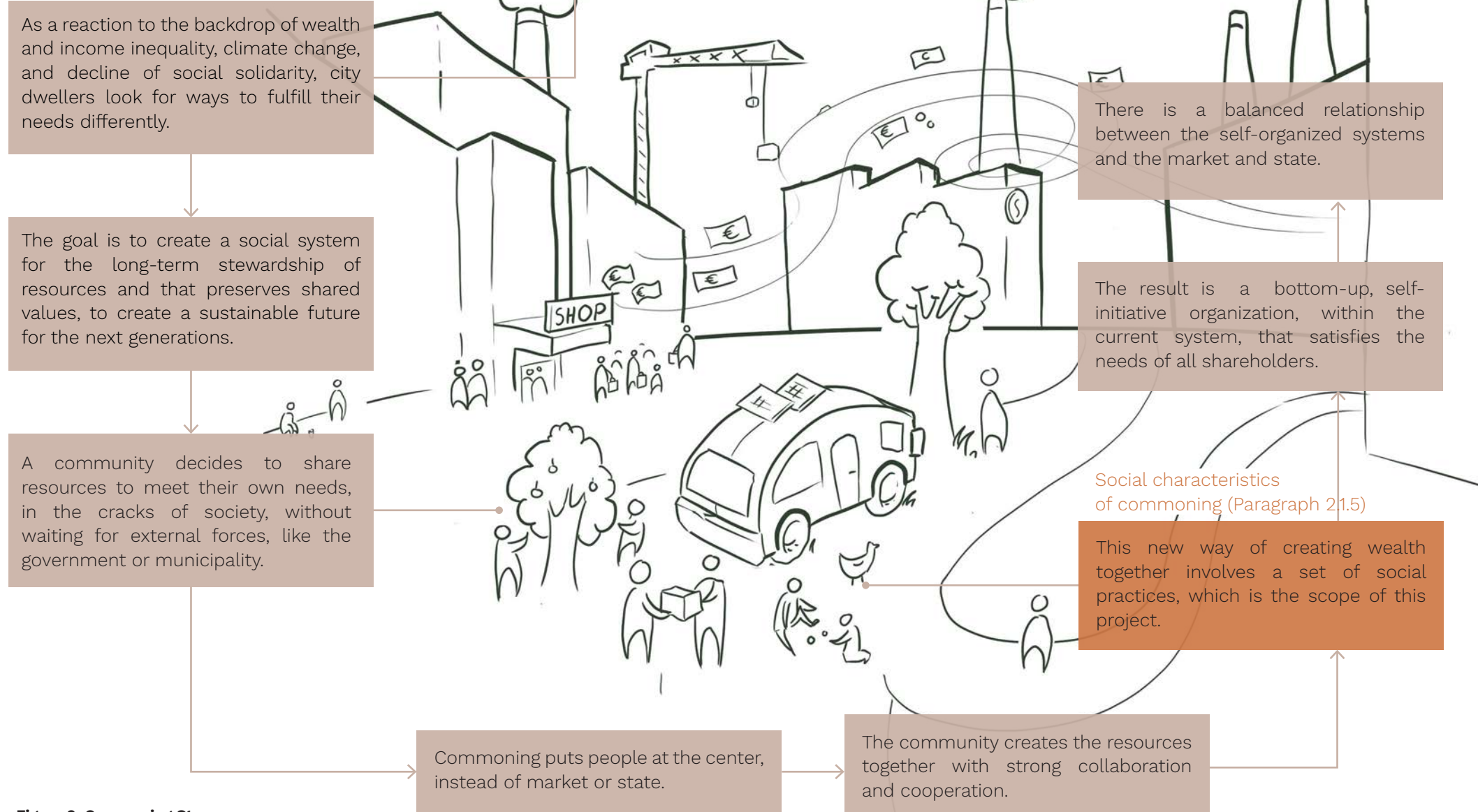


Figure 2: Commoning Steps

## 2.1.4 EXAMPLES

The **Walking School Bus** is an inspiring example that shows how simple social acts create a commoning practice. The example takes place in the city, the same context as the design, and can easily be initiated by the citizens themselves. The initiative started in Australia, back in 1992, and is a walking route to and from school with different stops, while the parents of the kids take care of everyone. The walking school bus started because parents had fears about their kid's safety when traveling to school. Today, the walking school bus is being used worldwide. The bus is completely free, everyone can join, and kids are not dependent of his or her parents whether or not they can drive them to school (Sharing Cities, 2018).

This example shows how a small and social act can create efficiency and benefits for multiple people, without being expensive and high-effort. It is time-saving: not every parent has to bring their kids to school anymore. It increases safety, and it is more fun to walk together. Local authorities can promote the act, but it can also be self-organized by parents and their kids.



Picture: spokesman.com



**Incredible Edible** is a community food growing movement to take food production back into human hands and create communities. It started in Todmorden, a small town in the UK, and spread to more cities around the world the past years. Beginning in 2008, the initiators planted edible plants in the city without asking permission from the municipality, and food became freely accessible for everyone at train stations, next to offices and many other locations in the town, and started to give workshops to teach people and help them to get involved in the food production system.

Incredible Edible is an example of food commons and shows how a bottom-up approach with local actions create a sustainable food system, and it connects neighbors, families, and friends. Incredible Edible is an initiative that requires a lot of time and organization, and it took two years to realize the idea (Paull, 2011). This example shows how simple, hand made signs and collaborative acts of people create long-term impact for an alternative food production system in the city.

### Key insight

Simple social acts can create a significant impact. People use intrinsic motivation to achieve a shared purpose.



## 2.1.5 THE SOCIAL CHARACTERISTICS OF COMMONING

As described before, commoning has organizational and social characteristics, and the project's focus is on its social aspects. The exploration research in the concept of commoning shows its diversity and complexity since there is no universal method to create commons. Literature about commoning show different principles and social characteristics are not explicitly defined. Therefore social characteristics are formulated for this design project. This paragraph shows the conclusion of the social characteristics of commoning that will be used in the framework.

### Social benefits of commoning

In short, commoning is a social process with many benefits. As the examples show, people act together towards a shared purpose and it relies on trust. Everyone has a same goal, and want to contribute to the whole. The equality between people and the mindset of producing mutual benefits cause an open and friendly atmosphere where people are taking care of each other. The social connections are beneficial for urban foraging, since community members needs to trust on each others information and the aim is to help each other, so people forage safely, which will be explained in the chapter of urban foraging.

Within a commoning practice, creating awareness of the commons among all commoners is essential, which makes knowledge, skills and information free to share. This collective exchange helps commoners to grow together to the shared purpose of the commons. Without widespread knowledge about the commons, it is impossible for the commons to exist (Nahrada, 2012). This aspect is beneficial for the practice of urban foraging, to make people aware of the environment and how to forage safely, by involving them in the social activities.



### Produce mutual benefits

The relationships between commoners are interrelational and cooperate (Helfrich, 2012). Commoning is about creating and maintaining something collectively, that requires active, ongoing participation of individual commoners towards a shared purpose. One of the keys of commoning is the relationships within the community is based on voluntary actions. Through small social acts, commoners contribute to the whole, without necessarily being direct forms of reciprocity. A commoner is satisfied with that the contributions, and the benefits he or she receives are equal (Bollier, 2012). In contrast to capitalism, that relies on the exchange of goods, commoning is about social practices, which means that someone's gain does not mean to be the loss of someone else or the environment. It is about contributing to the resources and the community, so people benefit from the commons together (Euler, 2016).





### Allow equitable access to everyone

In “the system”, as described in paragraph 2.1.2, there is inequality between people, because meeting the needs go through the exchange of money. Basically, people with more money has easier access to resources, while commoners strive for a commonwealth. A community takes resources apart from market and state, to make sure that everyone with the same purpose has access to them, so they become equitably accessible for every commoner, without discrimination. People with different backgrounds and experience levels have more or less the same opportunities to make use of the commons, and everyone deserves the same quality of a resource, without being based on someone’s income, gender or race. Concerning the access of the commons, commoners focus on long-term sustainability and fair use, which happens in infinite different forms, ranging from community spaces to open-source platforms (Bollier, 2016).



### Participate the decision making process

Commoning is about social inclusiveness, which means that everyone can participate in the decision-making process. Own ideas and needs are developed into a common strategy. In cities, there is a growing trend to create systems of collaboration, cooperation, and sharing. In “The City as a Commons,” Sheila Foster and Cristian Laione share a framework of urban commons. The idea behind this is to share authority, power, as a way to give people the right to participate in the decision making the process of wealth distribution (Sharing Cities, 2018). This characteristic is related to the non-hierarchal structure of commoning. It allows commoners a (physical) space where they can negotiate, share ideas and experiences, and their needs. This space is established, and self-initiated by the commoners.

### *Key insight*

Commoning is beneficial for urban foraging because it empowers social connections and increases trust when sharing knowledge and information. By connecting experienced and inexperienced foragers, it increases awareness about the community and how to forage safely and with care for the environment.

## 2.2 URBAN FORAGING

This chapter explores the practice of urban foraging and its community. The community is found through Facebook: Eetbare Wilde Planten, and Wildplukkersplatform Nederland. It explores the abilities and opportunities for urban foraging, and the relationship between citizens and urban green spaces, to find an answer to the research question: “how can commoning support the practice of urban foraging?”.

The chapter gives an introduction about urban foraging, and the scope of this project: wild edible herbs. The chapter gives an impression of a day of a forager, who forages and the motivations to do it. Personas will describe the target group. Then, it explains the social aspects of foraging and the need for a community.

The rest of the chapter investigates the abilities to urban foraging and the opportunities, by using the MOA-model. This part of the chapter concludes with the barriers to urban foraging.

The final part of the chapter describes the relationship between citizens and urban green spaces and how commoning can support the practice of urban foraging.

### Chapter overview

- An introduction to urban foraging
- Foraging regulations

- A day of a forager
- Who forages, and why?
- Target group
- Foraging community

- Analysis: The MOA-model
- Abilities to urban foraging
- Opportunities for urban foraging
- Barriers to urban foraging
- Reclaim urban green spaces

- Conclusion: how can commoning support the practice of urban foraging?





*Foraging is...*

*“Go from place to place searching  
for things you can eat or use.”*

## 2.2.1 AN INTRODUCTION TO URBAN FORAGING

### The definition of foraging

The Cambridge English Dictionary describes foraging as “go from place to place searching for things that you can eat or use.” People forage at locations that are not intended for food production. The food is free and available to everyone. In modern society, much knowledge about wild edible plants is subsided while it was a common practice for previous generations. Plants from nature have powerful medicinal effects and have a high content of minerals and vitamins. Nowadays, this valuable knowledge is faded away. Kids grow up with the supermarket, and people start to alienate from the origin of food. Eating from nature is labeled as ‘dirty’. Foragers gather resources for food, medicine or other purposes in public and private spaces, like parks, abandoned sites, and alongside streets. It is a surprisingly common practice overlooked by urban planners and researchers, regardless of its cultural, social, and ecological importance (Shackleton, 2017).

### The history of foraging

In prehistoric times, people foraged to meet their food needs. Foraging was a universal form of existence (Johnson, 2000). About 10 000 years ago, people started to domesticate animals and farm (Diamond, 2010). Agriculture arose, which is a more efficient way to get fruits and vegetables. The development of cultivation continued and became an economic activity that changed the role of ownership of food. Over time, the origin of food as distributed resources with shared ownership turned into a profit-making food system we know today. Placing a price tag on food supports the belief of people being outside of and above nature. The focus is on individualism and competitiveness rather than on building communities and collective management of natural resources. This phenomenon results in several attempts to solve problems caused by how the current market operates (Sekine, 2016). Parallel to the competitive character of today’s food production system, humanity started to perceive nature as not being part of it. In the current food production system, food occurs as products of culture instead of nature (Pollan, 2013).



### Types of harvest and scope of the project

The most common foraged ingredients are herbs (64,3%), fungi (5,6%), and parts from trees (15,8%), and shrubs (12,7%) (Landor-Yamagata, 2018). These data are provided from research about foraging in Berlin, which might be different from activities in The Netherlands. However, observations at the foraging tours during the exploration research show more or less similar results. The foraged ingredients were mostly herbs, like nettle and ground elder, shrubs and tree were less common, and finding a mushroom happened only one time.

Many people know foraging as finding mushrooms in the forest. Though, forager experts believe it is better to start with herbs, since gathering mushrooms are very challenging, and it could be dangerous when people do this with little experience. A universal conscience of foraging is that poisonous plants can resemble edible plants, and this is especially the case for mushrooms. Some mushrooms are dangerous to eat can even kill people, also in the Netherlands (IVN.nl). It is for the reason that outsiders often claim that foraging is dangerous, because of newspaper articles that say that someone has died from eating the wrong mushroom.

The target group of this project is inexperienced foragers, and the focus is on wild herbs in the city since this is the most appropriate to beginner foragers. Wild herbs are the most common, and easiest to find ingredient in the city. The findings of the exploration research does not only addresses to wild herbs, but it can also be applied to mushroom hunting. However, mushroom hunting possibly requires more extensive knowledge and rules.



### 2.2.2 FORAGING REGULATIONS

In the Netherlands, foraging is officially forbidden. However, fines are rarely used, and foraging is tolerated under the following conditions, described by Stichting Wild Kamperen (wild-kamperen.nl):

1. Pick only for own use
2. Pick with respect for nature
3. Leave something behind for others
4. Follow the rules of the area
5. Never disturb the environment
6. Transport picking goods in a good way, so nothing get spilled
7. Leave no trace

In addition to this, the municipality of Rotterdam has been called to ask whether foraging is allowed. They explained it is allowed, as long as citizens forage with care, do not pick if they are not sure what it is, do not take more than needed and not for commercial purposes.

People forage at a wide variety of green spaces which are private or public, like alongside streets, public parks, and set-asides. During the interviews, foragers mention they sometimes feel insecure whether it is allowed to forage at specific locations, for example, green areas next to someone's garden or fragmented plots next to a house. Therefore, a common rule in the foraging community is to always ask permission from the landowner before foraging.

### *Key insight*

Foraging is allowed under certain conditions. People need to forage safely and with care for the environment. Citizens are not allowed to take more than needed.



### 2.2.3 A DAY OF A FORAGER

This paragraph gives an impression of how a day of a forager looks like, and is based on one of the foraging tours during the exploration study. It was Sunday morning around 10 o'clock, the foraging tour started.

At the appointed time, people arrived with the car or bike. Some of the participants knew each other from the yearly course. Others found the tour through a foraging group on Facebook. The people who were earlier were chatting together about the laundry soap they have made of herbs collected from nature previous time. One of the women prefers to use the regular laundry soap because she does not trust it to put it in her washing machine. Another woman responds she can use it because it is 100% organic and not dangerous.

When everyone arrived, the walk started. The leader of the walk explained the different herbs and trees. There was an awl with low-hanging pollen. Three of the woman grabbed one of the branches and shook the pollen into a plastic bag. Some passing park visitors looked surprised.

The foragers shared their discoveries during the walk, which caused a dynamic, interactive setting.

After an hour, the women collected different types of herbs and arrived at the location where they had to meet up. They picked camping tables out of the cars, a juicer, and cups. On the spot, they produced green juice and shared it.

When saying goodbye, one of the women came to the leader and gave a small package, handmade soap, and was thanking her for the tour. Some other women shared contact information and drank a cup of coffee at the cafe nearby.

The quotes of the pictures are from the interviews and refer to:

- Beliefs of foragers
- Activities of the tour
- Social aspects



*The foragers meet at 10AM in a park closeby Amsterdam.*



*"If people experience how wonderful nature is, they will respect it."*



*"It is a lot more fun to forage together and share the knowledge I have."*



*The instructor handed out identification guides and explained what she expects to find that day.*



*"I only forage with others, that feels safer".*

*"Because we no longer eat what is present in nature, our body no longer functions properly."*



*"It is inspiring to go with others. They see and know things you did not".*

*The tour endend with consuming what was found. Everyone gathered the needed tools.*



## 2.2.4 WHO FORAGES, AND WHY?

The interviewed experts started foraging from an early age. They had learned from their parents what is edible when they were a kid. Their passion for nature motivated them to keep learning about what is edible in nature. Last years, foraging was getting more popular, and the people involved in the practice start to be more diverse like chefs, tourists, and beauty product developers, with different motivations. Paragraph 2.2.6 explains further the social aspects of urban foraging and the community.

This paragraph gives an overview of motivations why people forage, based on a literature study and the interviews during the foraging tours. A literature study is used in addition to seeking deeper meanings of people to forage from a more holistic view. In most cases, people's motivation to forage overlap. In most cases, it is about achieving an overall foraging experience, than people have a single reason.

This quote from the exploration research describes the overall foraging experience:

*“I like to spend time with fellow nature lovers. Foraging is a fun and adventurous activity to do together... It is inspiring. Every time you learn something new”. - Advanced forager*

### Connect with nature

The interviewed foragers explain they experience a connection with nature when they forage. When coming back to the same spot, they become connected with the weather and the seasons. They see how the plants grow and become different every time. Foragers mention they feel being part of nature, and they experience a sense of wonder and spirituality when discovering all the gifts of nature. A majority of the people started foraging, because they had a prior interest in nature or gardening, and they want to get more engaged with nature.

*“My biggest motivation to forage is that you start to see that everything in nature is connected”. - Professional forager*

### Contribute to health

Some of the interviewed foragers mention they forage for health reasons. They explain that nature offers a broad diversity of nutrition, compared to what the supermarket offers. Also, wild edible plants have higher levels of nutrition. They are aware of the many health benefits that native edible plants provide. For example, consuming nettle during spring is useful to detoxify the body. Many wild edible plants can also be used as medicine which refers to a different field, natural medicines.

*“I see foraging as a valuable, and healthy addition to my diet”.  
- Professional forager*







#### Connect with fellow nature fanatics

Foraging is not a productive activity to retrieve food; it goes far beyond that. The practice of foraging is going on a journey together to gather a meal. Foragers express it is much fun to get together with other nature fanatics because they share a strong passion for nature, and they inspire each other with their findings and knowledge. They like the unexpected and uncontrollability of nature, by not knowing what nature offers at that specific time, and what the dinner will be. Foraging days often end with consuming what is found, like juice, tea, or dinner.

*“During foraging you meet others. Food connects everyone”.*  
- Professional forager

#### Taste, novelty and quality

A majority of the foragers mention they are into the practice because they are fascinated by the tastes and quality that nature offers. They want to get inspired by the new ingredients they discover. Some of the interviewed foragers explained that their interest in foraging started with a passion for cooking. They see foraging as a valuable addition to their cooking experiences. Also, the facilitators of the tours show a difference in their focus point: some of them focus more on the health aspects of foraging, while others focus more on taste and culinary uses. One of the foragers described:

*“The tastiest mushrooms are in abundance in the Dutch forests, and very few people know that.”* - Professional forager

#### Sustainability and self-sufficiency

Some of the foragers mention they like to forage because it changes their perspective on the food production system. Foraging is in human DNA, and the purest way to get food. It reconnects people with the origin of their diet. There is a growing trend in cities to eat fresh and locally. Citizens start their diet in their backyard, to minimize waste and dependency on the industrial food production system. Foraged ingredients are “zero footprints,” entirely outside the food production system, and an alternative food movement to live self-sufficient. One of the foragers expressed concerns about the monoculture of the food production system and how it affects nature. Fields filled with crops take away the opportunities for bees and insects to establish. Also, the sprayed chemicals negatively impact the environment. Last years, there are new initiatives that promote alternatives to the food production system, like food forests, a food production system based on ecosystems of forests. It is low-maintenance since nature starts to take care of it.

*“You start to learn live together with nature, instead of standing above it”.* - Professional forager

#### Key insight

The motivations to forage are diverse. The most common motivations are: connect with nature, health, culinary, sustainability and connect with fellow nature fanatics.



## 2.2.5 TARGET GROUP

### Personas

Participating in the foraging walks, and interviewing foraging experts showed that the foraging community connects a diverse group of people, ranging from beginners to experts.

Personas have been used to describe their images, motivations, and barriers. Personas are fictional characters that help the designer to create a base for the research, to understand the different types of people that might use the product, their values, needs, and behaviors.

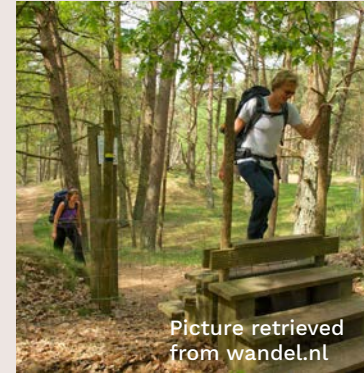
Information and insights about the intended users are collected. The interviewees are categorized into three groups: beginner foragers, advanced foragers, and professionals. On page 46, the barriers to foraging will be explained by using these personas.

### Target group

The design focuses on beginner foragers, to connect them with advanced or professional foragers. Beginner foragers are people with a passion for nature, and they love to spend time outdoors or work in the garden. Most of the times, these people have more time, for example, because of their kids who recently moved out. They have an open mindset and want to explore new hobby's, in which they meet new people.

A beginner forager heard about foraging and is enthusiastic. He or she may have followed one workshop, but experienced too many barriers to forage, mostly to due with lack of a network to forage together, as described on page 47.

## *Beginner forager*



**Annette de Groot**

"I feel a primal urge to connect with our environmental surroundings".

### DEMOGRAPHICS

**Age:** 56

**Location:** Lives in the center of Utrecht

**Job:** Academic Coach

**Family and housing:** Lives together with her husband in a single house with garden, she has a daughter who recently moved out

### NATURE HABITS

- Drives almost every weekend to a nature area with her husband or a friend to take a long walk
- Goes on holidays two times a year to hike
- Sometimes joins organized walks at the Utrechtse Heuvelrug or Veluwe.

### NATURE NETWORK

She has a group of friends who like hiking

### MOTIVATION TO FORAGE

During an organized walk in the spring of this year, she met someone who pointed out several wild edible plants in the forest. She became interested in foraging and wanted to learn more about it, and since her daughter just moved out, she has more time to discover new hobby's. She brought a book about common wild edible plants in the Netherlands.

## *Advanced forager*



**David Meijer**

"I like to spend time in nature with other nature lovers".

### DEMOGRAPHICS

**Age:** 41

**Location:** Lives in The Hague

**Job:** Ecologist

**Family and housing:** Live together with his girlfriend

### NATURE HABITS

- He organizes foraging walks with friends a couple of times a year
- He visits nature every weekend

### NATURE NETWORK

He is member of a nature association, and has friends who forages.

### MOTIVATION TO FORAGE

Rob is an ecologist with a strong passion for nature. He is a member of a nature association since he was 18. He has a friend group, and they get together to forage a couple of times a year. He likes to share his passion for nature, and experience foraging as a fun activity to do together.

## *Professional forager*



**Anna Mol**

"I like to share my foraging knowledge with others".

### DEMOGRAPHICS

**Age:** 58

**Location:** Lives in Rotterdam

**Job:** Chef, foraging teacher

**Family and housing:** Live together with husband who is also a natural chef

### NATURE HABITS

- She takes a walk in the park closeby, a couple of times a week
- She visits nature areas during the weekend

### NATURE NETWORK

She is a member of a nature association and a forager club. She knows most of her friends from studies. They are all specialized in the field of nature.

### MOTIVATION TO FORAGE

Anna works as a natural chef and gives foraging tours. She learned foraging from her mother. She loves reading, and she required much knowledge by self-study. As a forager, she likes to see how everything in nature is connected and to become a part of it.

**Figure 3: Personas**



## 2.2.6 FORAGING COMMUNITY



### Pass on knowledge to next generations

Foraging is a social process, linking people from different generations and backgrounds. All interviewed facilitators mentioned that they learned foraging from their mother. For example, one of the facilitators of the tours said:

*“When I was a kid, my mother always showed what you could eat and what not”.*

Another facilitator explained:

*“I was a kid from hippy parents. It was common to eat salad with daisies”.*

They feel the need to share the knowledge they gained during their youth with the upcoming generations like one forager explained:

*“My goal is to write a book and leave the knowledge I have behind in this world.”*

Workshops, tours, social media, and blogs show how the community spreads knowledge.

### Having fun together

People who forage every once in a while, consider it as a social activity. One of the interviewees explained:

*“I only gather wild plants and mushrooms together with others. It is a social activity. Over time I formed a group of people with a shared passion for nature, and you meet up now and then”.*

Regularly, these people get to know each other from an institution focusing on nature activities. Less advanced foragers prefer to go with a group because they consider foraging alone as too risky. With a group, they can confirm which plants are edible, and they can extend their knowledge in a safe environment.

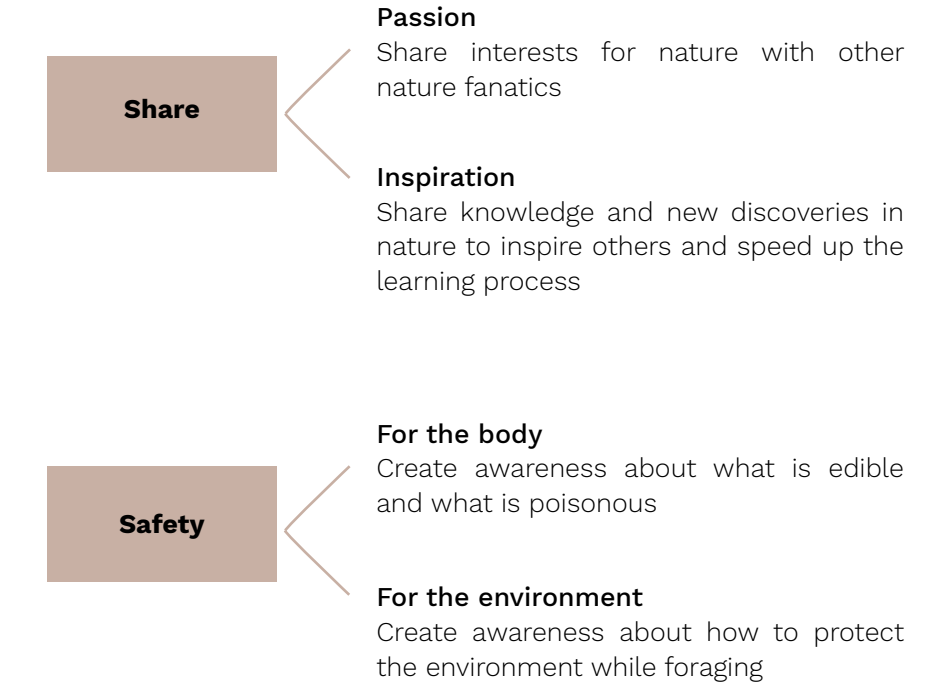
### Need for a community

The practice requires specific knowledge, like finding the right plants, knowing how to prepare it, but more importantly, knowing what is poisonous. Knowledge sharing is an essential aspect of the foraging community (Landor-Yamagata, 2018). Foraging requires ethical behavior to maintain the ecosystem. For example, people are only allowed to pick a small amount and when there is enough. The overall rule is: leave the environment behind as no one has been there. The importance of sharing knowledge about plants and the ecosystem results in the creation of communities to perform the activity safely and correctly.

While people outside the community may think foraging can damage the environment and bring people in danger, the community believes foragers contribute to nature, as long as everyone is aware of the rules and possible consequences.

In short, during the exploration study, foragers mentioned that being involved in a community is essential to do the practice. They described foraging together with others speeds up the learning process, and it is more fun than going on your own. This project defines two main community characteristics. The characters are based on interviews with experienced foragers and observations during the tours, and are “share” and “safety.” The visual on this page gives an overview of the community characteristics.

### Community characteristics



### Key insight

Foraging is a social process to pass on knowledge from generation to generation. Having fun together is another aspect that connects people.

### Key insight

The critical aspects of the community are share and safety. The community likes to share the passion for nature, and inspire others. Also, it is crucial to forming a community to make sure everyone forage with care.



### The community entrance and preservation

Foraging communities exist online, through blogs or social media, or physically and organize workshops, lectures, and tours. Everyone can participate with often a small contribution in return. The tours are excellent ways for people to get involved in the foraging community because participants often exchange contact information at the end of the tour.

Some of the foraging experts organize courses for people to participate for a year or longer. In this way, facilitators keep strong ties with their participants. They describe these courses as the most fun part of their work, because of the mutual knowledge sharing. They also mentioned that they sometimes stay in contact with participants from the tours through Whatsapp. The participants ask for advice and sharing pictures of plants they have found.

As described on page 26, the network of foragers consists of people from different backgrounds. The interviewed foragers mentioned they often work together with people from other disciplines, like chefs, psychologists, or specialists in natural medicines. People often discover foraging through a friend or one of these specialists. Most of the times, when someone has a particular interest in line with foraging, like gardening, walking, or cooking and discover it through a magazine or blog.



### 2.2.7 ANALYSIS: THE MOA-MODEL

The practice of urban foraging is analyzed by using the MOA-model, presented in figure 3, to understand the abilities and opportunities of urban foraging, which forms the basis for the framework. The model was created to understand consumer behavior as a prerequisite for environmental protection (Ölander and Thøgersen, 1995). The MOA-model can be seen as a framework to understand how environmental factors and someone's skills impacts the possibility that people start foraging. The model consists of motivation, ability, opportunity, and behavior.

Motivation refers to attitude: personal values and motivations, the social norm, and the intention, which means the number of effort people wants to put into the behavior. Ability points out the habit, task, and knowledge that is needed to perform the task. For example, someone with background experience in wild edible plants and is more likely to forage, as a biologist. Opportunities stand for the environmental factors that influence the possibility that people start doing urban foraging.

This project designs for people who are motivated to forage so that the design intervention will focus on the abilities and opportunities of urban foraging. Page 26 explains the motivations and page 30 shows the target group.

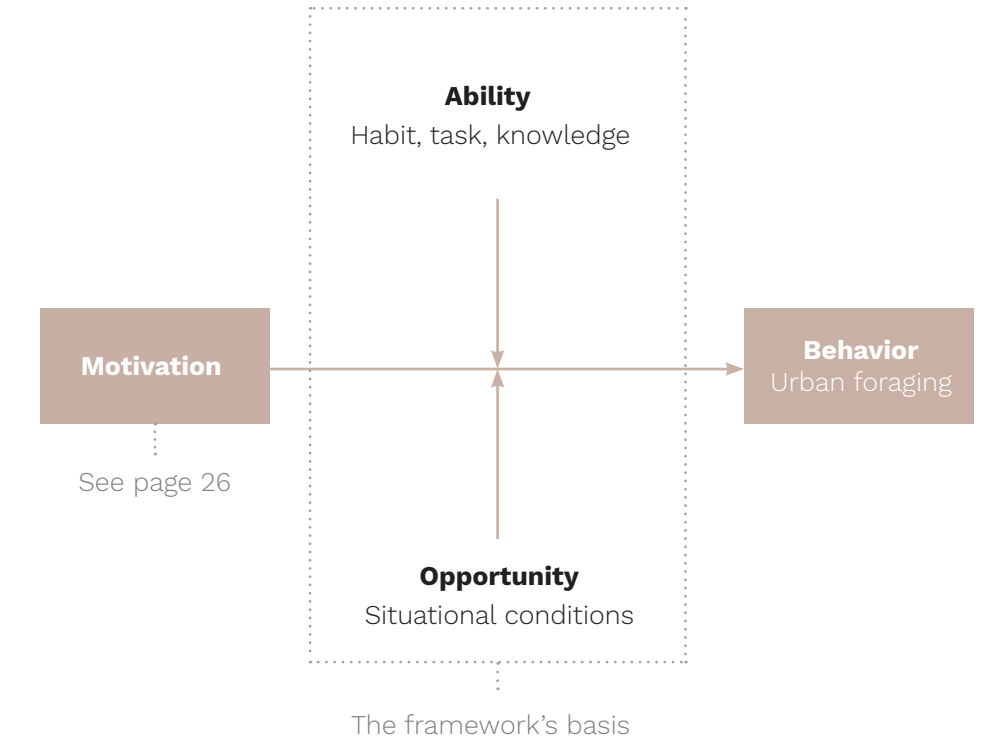


Figure 4:  
The MOA-model  
(Ölander and Thøgersen, 1995)



## 2.2.8 ABILITIES TO URBAN FORAGING

This chapter describes the abilities to foraging, and is based on the observations and interviews during the exploration study and literature study. The abilities form the basis for the 'urban foraging axis' of the framework.



### 1. Sensitivity towards nature

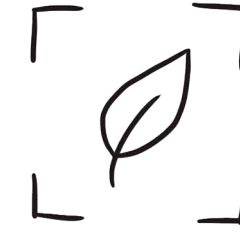
Sensitivity towards nature is one of the first steps of urban foraging because the practice requires close observation of nature. As described before, extended interviews were held with five people who have experience with activities in nature and have different foraging experience levels. Before the interview, they were asked to take pictures of 'nature in the city,' to explore how people perceive nature. The people who were experienced with foraging or did a profession with nature made pictures from closeby, while the inexperienced foragers made pictures mainly from a distance, for example, they made a picture of a lawn. Some of the inexperienced foragers decided to take pictures of plants from closeby, and they mentioned they would never have paid attention to it before the photo assignment.

Making pictures is one of the multiple ways to let people sensitize with nature. Another example is creating a sit spot in nature, where someone comes back now and then (Strich, 2012). The idea behind the sit spot fully engage with nature by using all the senses, to relax and reconnect with nature, and see how nature changes. Nature journaling is one of the possible activities at a sit spot and helps people to observe nature closely. When increasing sensitivity towards nature, people are more likely to recognize wild edible plants in the city. At the same time, foraging increases sensitivity towards nature. Therefore, foraging and sensitivity towards nature empower each other.



*"Suddenly I started to notice the small plants that I have never seen before." - interviewee*

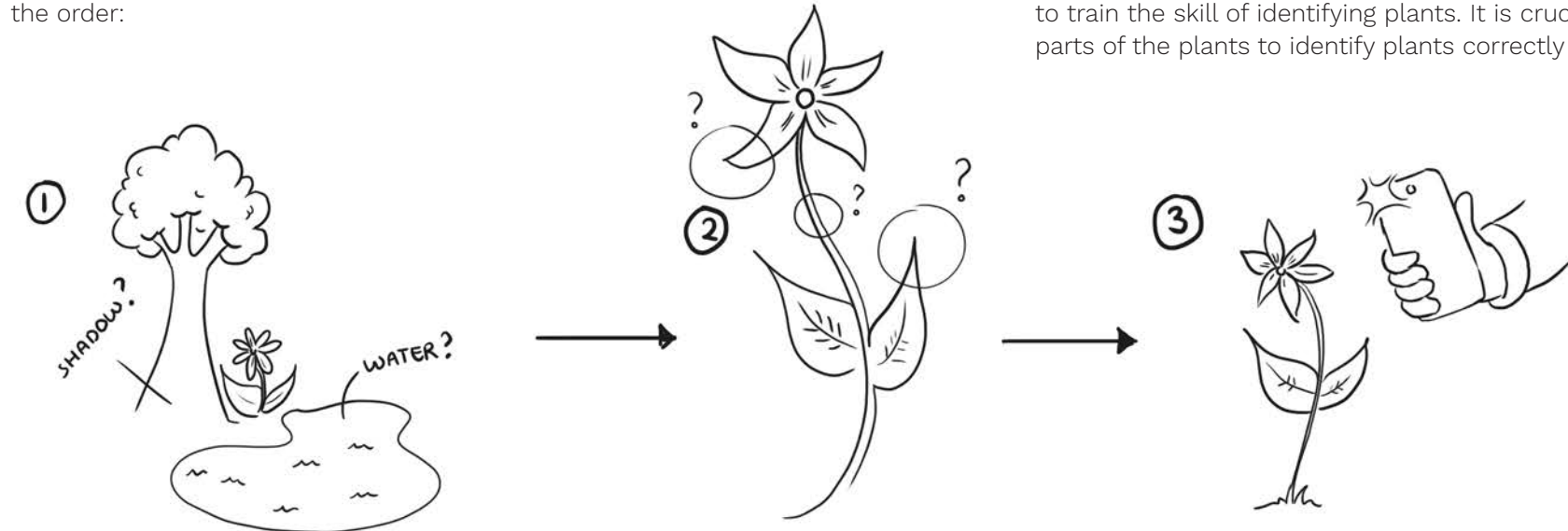
Picture is made by interviewee



### 2. Identify plants

Urban foraging requires much knowledge to identify the right plants. The identification of plants must carefully happen because there are poisonous plants that are very similar to edible plants. The next page shows an example that a foraging professional presented during a tour. A barrier to foraging is the fear to eat poisonous plants, which will be explained in the paragraph "Barriers to foraging", p46. Sometimes, edible plants are easier to recognize when they have flowers, so during summer, but they are hard to identify during spring. Sometimes a plant is recognizable through smell and can be distinguished from poisonous plants. Another plant is identifiable by the soft structure on the leaves. Foraging requires the use of all senses.

Because there are poisonous plants that are hard to distinguish, the standard rule within the foraging community is: "if you are not sure, do not pick it." In short, the identification of wild edible plants is about being very carefully and using all the senses. The identification of plants often happens in order. The observations during the foraging tours determined the order:



#### 1. Where is the plant located?

A specific location tells a lot about which plants could occur. Some plants appear on shaded areas are more likely to grow next to the water.

#### 2. What are the plant's features?

The plant's stem and branching patterns are essential indicators for plants. The leaves of different species could look like the same, but the stem and branching patterns often distinguish one from the other. After indicating this, the forager pays attention to the leaves and flowers. Some plants are only distinguishable by their flowers and fruits. Therefore, the forager should take every part of the plant into consideration during identification.

#### 3. Record

Once a forager has recognized a plant, it is useful to record it by making a sketch or a picture and write down the key features. It helps the forager to train the skill of identifying plants. It is crucial to capture the different parts of the plants to identify plants correctly in the future.





**Poisonous**  
Dolle Kervel (Dutch name)  
*Chaerophyllum temulum*



**Edible**  
Fluitenkruid (Dutch name)  
*Anthriscus sylvestris*

*Key insight*

Beginner foragers have fear to eat poisonous plants since there are many similar plants. They prefer to forage together with others, to feel safer.

**Current solutions to identify plants**

There are many tools available that help foragers to identify plants, like guides, and apps. Foragers use various identification resources to get as many details as possible to identify plants.

**Identification guides and videos**

There are plenty of identification guides available in second-hand stores, the outdoor activity section of the library, or online. During the foraging tours, foragers explain they like to use old books, because of their detailed illustrations, and the information is never outdated. Colorful, high-quality pictures are essential to identify plants. Also, there is a various amount of video's available online provided by nature experts that explain how to identify specific plants. For example, the organization "Flora van Nederland, wilde planten en hun omgeving online", provides videos about native wild plants in The Netherlands, where and how to find them.

**Screenshot of the website Wildplukwijzer.nl**



*Key insight*

There is a numerous amount of solutions available to identify plants; still, foragers think that going together with others is the best way to identify plants.

**Applications: PlantSnap, Wildplukwijzer**

Some foragers use applications to identify plants. Two popular applications are PlantSnap and Wildplukwijzer. Beginner foragers of the practice of foraging often use PlantSnap. PlantSnap relies on an extensive database of plants. When the user makes a picture, it starts to look in the database for potential matches. However, foragers explain the application is not fully trustable, because it gives multiple possible options, of which only one is correct, and its focus on every plant and not only edibles. Therefore, an extra assistant from other identification resources is required.

Wildplukwijzer is an interactive map that shows locations of wild edible plants, and everyone has access to edit the content. So, when someone finds a walnut tree, he can take a picture and add this to the location. Someone else can delete it when it is not correct or outdated. However, foragers say the information is often incorrect and not up to date, which makes the app less trustable. The same applies to the Wildplukwijzer, use extra expertise to identify plants before consuming it. It is essential to keep the eyes open: an application or book never covers every wild edible plant in the area.





### 3. Prepare for consumption

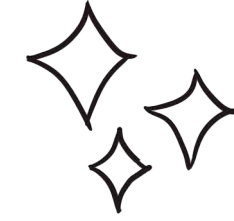
After recognizing a plant, the next challenge is to know what to do with it. There are many applications of wild edible plants. They can be used to make a cup of tea, or in a salad, but there are also more sophisticated ways to process native edible plants, like making a syrup or an alcoholic drink. Some plants are edible in early spring but lose their taste as they grow. Every part of the plant has different instructions. For example, the uses of dandelion are soap, tea, salad, coffee (made with the roots), wine (made with the flowers), detox juice (made with the leaves). Every single plant has other instructions for consumption. People who just started foraging, often begin with the accessible plants, like nettle, wild garlic, and sticky herb. Again, these insights show that the practice of urban foraging requires careful behavior with explicit knowledge and experience.

### *Key insight*

The practice of urban foraging requires careful behavior with explicit knowledge and experience.



Dandelion Syrup  
Pictures retrieved from  
oogstzonderzaaien.nl



### 4. Identify clean areas

Foraging in the cities requires an extra ability to identify clean areas. Compared to rural areas, in the city, there is a higher risk of picking sprayed plants with herbicides or pesticides, and people should be careful with foraging at locations close to dog areas. Foragers should stay away from plants growing near gas stations, busy roads, train tracks, industrial plants, and factories. However, opinions about foraging in the city differ. Also, it is recommended to forage above height, which is hardly reachable by dogs and cats. Some foragers claim that foraged vegetables are not dirtier than supermarket goods, while other foragers say they prefer to forage at rural locations. Hedgerows, woodlands, canal sideways provide excellent opportunities to forage. In every occasion, it is crucial to wash the harvest thoroughly before consumption.

Privatized could also be excellent locations to forage, like churchyards or grasslands next to a farm, because these lands are less accessible for the public and therefore less polluted. However, foragers should always ask permission from the landowner before making use of the land.

### *Key insight*

In urban areas, foragers should learn which locations are clean to forage. The fear of eating dirty plants is a barrier to urban foraging.

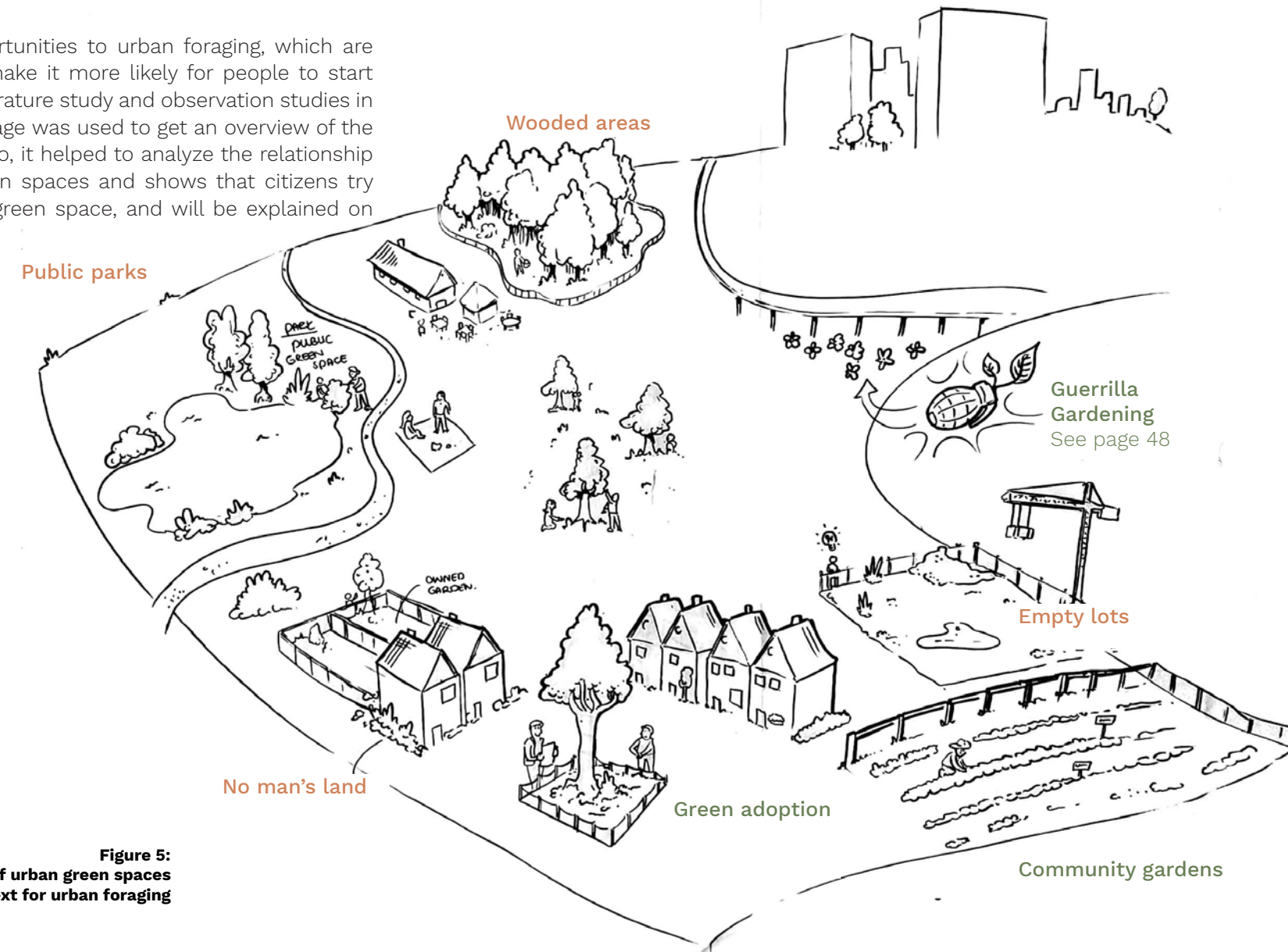
**This picture is taken in Rotterdam**  
This location is not appropriate for urban foraging, because of dogs that might have polluted the area.





## 2.2.9 OPPORTUNITIES FOR URBAN FORAGING

This chapter describes the opportunities to urban foraging, which are the environmental factors that make it more likely for people to start foraging in the city, based on a literature study and observation studies in public space. The visual on this page was used to get an overview of the accessible nature for foraging. Also, it helped to analyze the relationship between citizens and urban green spaces and shows that citizens try different ways to reclaim urban green space, and will be explained on page 48.



**Figure 5:**  
An overview of urban green spaces  
as the context for urban foraging



### 1. Accessible nature for foraging

Since there are many crowded and polluted green areas in the city, it is attractive to forage at farmland or in someone's garden. Foragers should always ask permission before they forage at a particular location. Other appropriate places to forage are empty lots and wooded areas, and this project defines a new category: no man's lands.

#### Empty lots and wooded areas

Abandoned areas or land that does temporarily have no purpose are excellent locations to forage. At these locations, wild edible plants are often in abundance, so people can forage without being afraid to overharvest. Wooded areas, for example next to public parks, are also appropriate locations to forage.

#### No man's lands

Around the city, there are fragmented green plots that are owned by the municipality but do not fulfill a social function for citizens, as a public park does for recreation. For example, these areas are often located between roads, next to houses, and along sports fields. Some municipalities provide citizens the opportunity to adopt these areas. After a group of neighbors decided to adopt a green area, the municipality agrees, and together they determine what the possibilities are, and which plants are appropriate for this setting. Municipalities support this to involve citizens in the living environment. Mutually, it is expected those city dwellers maintain the area (source: Groenadoptie Zaanstad).

These areas are a promising opportunity as a context for the design because it is low-effort to transform these areas into a social space, without waiting for external forces. The municipality promotes that citizens take them over, so there is room to create a balanced relationship between the needs of citizens and external authorities. Citizens have different initiatives to reclaim these spaces, explained on page 48.

### Stock of wild edible plants in the city

Common foraged plants in the urban context are wild garlic, dandelions, and blackberries. When it comes to the stock of wild edible plants in the city, the practice of foraging faces some challenges, because the urban context is a crowded setting. Foragers are in the minority, so the less known plants will not get easily overharvested. Also, many wild edible plants are in abundance, like nettle. However, many people recognize blackberries in the park; the risk that all berries will take away is high. A solution could be to add to the stock by planting more wild edible plants.

The foraging community strives for stewardship of wild edible plants in the city. For example, about half of foragers in Berlin say they actively take care of native edible plants (Landor-Yamagata, 2018). The exploration study shows that foragers help nature by bringing seeds on a tour.

### Key insight

Accessible nature for foraging are areas where there is an abundance of wild edible plants. Foragers contribute to the stock of wild edible plants. No man's lands create exciting opportunities to transform them into places for social access.





Example of no man's land  
Pictures is made by an  
interviewee during the photo  
assignment (Chapter X)



### Framing of foraging

The images about foraging differ among people who are not experienced with foraging. For example, some people think that foraging damages the environment, while other people believe that foraging contributes to a greater awareness of nature, and people will better take care of it. How foraging is framed can create opportunities to support the practice of urban foraging, by showing its benefits to external authorities. Foraging could be reframed as:

#### 1. Biodiversity

Foragers involve with the biodiversity in the city and share knowledge about species, which contributes to the stewardship of urban nature. Urban foragers increase awareness of biodiversity because they are directly making use of it (Landor-Yamagata, 2018). Foragers promote biodiversity in the city and are aware of the potential negative impacts of harvesting wild edible plants. The practice supports the stewardship of urban nature and increases awareness about biodiversity, which impacts citizen's image on nature positively. Urban planners could involve foragers to make biodiversity-friendly cities (Landor-Yamagata, 2018).

#### 2. Resilience

The community creates awareness about the wild edible nature in the city, by spreading knowledge, and skills. Foragers strive for respectful behavior towards animals and plants, increases involvement with nature, and support nature conservation. Foraging is self-sufficient and local, in which people have strong social ties with fellow foragers. Foragers create their right to food, that empowers resilient food systems in cities. Centralize citizens, rather than market or technology, contribute to the development of resilient cities (Scharf, 2019).

### 3. Social benefits

Urban foraging has the potential to increase the social benefits of urban green spaces. Urban green spaces can be transformed into spaces for social access, to link different cultures and generations, and carry on knowledge about nature. The foraging community exists in an inspiring network. Urban foraging could contribute to citizens well-being since it connects a diverse group of people and increases community building in the city. The positive effects of urban foraging on community building promote citizens to get engaged with local and personal food systems (Bunge, 2019).



### People outside the community

The city context is crowded in which foragers are more likely to come across people outside the community than in rural areas. Prototyping in public space has showed that a diverse group of people felt attracted to foraging. Especially in the city, there are many people with different backgrounds, who could contribute to the community by sharing their experience and knowledge. For example, biologist, natural medicine specialists, and chefs would be an exciting addition to the community. The chapter "who forages, and why?" shows the diversity of people.

In addition to this, it is beneficial for the foraging community to involve people in the community who are interested in urban foraging, so they can create awareness about how to forage safely, as explained on page 33.



## 2.2.10 BARRIERS TO URBAN FORAGING

### Fear of eating poisonous plants

The main barriers to foraging are people's fear to pick a poisonous plant. Some poisonous plants look like edible plants, or there are specific parts that are poisonous, like the example on page 38. Almost all the interviewees expressed this fear as the main reasons why they do not forage as often as they want. People need to have a high level of confidence to be able to forage, and this confidence level is dependent on the amount of knowledge and experience someone has. They do not trust whether they pick an edible plant. Even when they are almost sure they have picked the right plant, they are not eating it. In the beginning, foragers often go together with other people. Over time, when they gain more experience, they sometimes pick a plant by themselves.

### Fear of eating dirty plants

Foraging in an urban area involves an extra barrier to the risk of eating polluted plants. Especially for advanced foragers, gathering wild food in the city, between busy roads, and in a public park, are not the usual places to do this. They prefer to forage in rural areas. However, for beginner foragers, the city provides excellent low-effort opportunities to experience foraging. There is no need to travel to a nature area because there are enough abandoned areas in the city that are appropriate to forage. However, it is still a concern for many beginner foragers to eat plants that are polluted by animals, people, or factories. Therefore, education about which areas are suitable for foraging is needed and cleaning the harvest before consumption is required.

### Emotional barrier

Some of the interviewees expressed emotional barriers to foraging. Many plants are gifts for foragers but are weeds for others. Weed means: "Any undesirable or troublesome plant, especially one that grows profusely where it is not wanted" (Dictionary.com), which shows that definition of weed is an interpretation of people who have a negative attitude towards wild-growing plants. Some beginner foragers prefer to not eat specific species, because of a negative image about it. For example, during the foraging tours, some participants were reluctant to eat nettle because of its pain. For some people, it takes time to get used to the idea of consuming weeds. One of the foraging professionals explained she always eats first, so her students will follow. Seeing others foraging overcomes this barrier.

### The community as a solution

Figure 6 shows that advanced and professional foragers are part of a community because it is more fun to forage together to share the passion for nature and inspire others with new knowledge. Beginner foragers experience barriers to foraging, like fear, and an emotional barrier, because they are not yet used to eating from nature. Regularly, beginner foragers become advanced foragers when they have a friend group with the same interests. If they become part of the community, they overcome these barriers and create social connections with people with the same interests.

### Key insight

Connecting foragers with different experience levels can create new social connections. The foraging community offers solutions to beginner foragers to overcome their barriers.

### Beginner forager



Fear for eating poisonous and dirty plants

Emotional barrier

Need to forage with others in a safe environment

See other people foraging

Community

### Professional forager



### Advanced forager



**Figure 6:**  
The community as a solution.  
See the personas on page 30



## 2.2.11 RECLAIM URBAN GREEN SPACES

This chapter investigates the relationship between citizens and urban green spaces, and forms as a basis for the design vision. Literature study and observation studies in public space showed that citizens feel the need to create more access to urban nature. This paragraph shows guerrilla gardening, an act to reclaim urban green space, as an inspiration for this design project. Also, it presents an observation study in Rotterdam that shows a gap between citizens and urban green spaces.

### Challenging the ownership model of urban green spaces

Urban green spaces are locked in a dominant ownership model that perceives citizens as externally related. The land is becoming privatized, resulting in that citizens have less access to the urban nature. However, urban green spaces in the city are essential for citizens. It contributes to people's health because spending time in nature reduces stress and improves the mental state (Martin, 2018). Also, urban green spaces contribute to citizen's social life. The accessibility of urban green areas realizes face-to-face relationships in a place where people can interact. For example, community gardens encourage cultural diversity, regardless of gender, age or race and help people to get involved in local ecosystems, that creates a powerful connection between people and nature (Colding, 2013). Instead of having fragmented responsibility of ownership of urban green spaces among different authorities, the sense of ownership should be given back to the citizens, that results in caring, involvement, and new ways to innovate (Vargas-Hernández, 2018). Solutions to this are artistic events, food growing projects, environmental activities like cleaning together.

The citizens pay for urban green space, but the activities are limited and determined by other authorities. There are rules, and thereby limitations of how citizens can make use of these places. However, these areas could be used to transform into places for existential exchange and have the potential to create urban commons (Iaione, 2016). As a reaction to this, different movements arose that tries to reclaim urban green space.

### Guerrilla gardening

Guerrilla gardening is a movement from the seventies where people do gardening at abandoned sites in the city without asking for permission that. The goal is to make the city more lively and reclaim common space between the public and private boundaries (Thompson, 2015).

Guerrilla gardeners perform the practice at locations that have no legal rights to do gardening, like abandoned slots that have no function, and owned by the municipality.

Small actions such as throwing seed bombs or planting a flower somewhere, become forms of protest, to express views on living in the city and its inequalities (Baudry, 2012). The undertaken actions are often confronted with criticism from the government because the public and private authorities decide what is relevant in urban spaces, which challenges the question of how public 'public' actually is. Guerrilla gardening is a strong act to reclaim urban green space, and hard to dispute since it is an innocent act that does not harm others. Also, it can occur in different forms, like doing it individually and collectively, as a protest or more unnoticed (Baudry, 2012).

### Urban foraging and reclaiming urban green spaces

Urban foraging is a social activity that takes place in fragmented green areas around the city. Areas that are usually unnoticed changes into dynamic, inspirational spaces without making any changes to the environment. The nature that grows in these areas provides everything that foragers need to share their knowledge with others. The practice of urban foraging opens up the opportunity to transform urban green spaces that are owned by the municipality but do not fulfill a social function, into space where people gather and share experiences about urban foraging.

### Observations: urban green spaces in Rotterdam

Triggered by the insight that urban green spaces belong to the municipality and the need of citizens to transform abandoned areas into a lively environment, the exploration study was conducted in Katendrecht, a neighborhood in Rotterdam, to see how this need unfolds in practice and understand the relationship between citizens and urban green spaces. It was a sunny day, so people were sitting in front of their house or the garden and were accessible to do a short interview.

Citizens react differently to green space areas when it comes to responsibility. They sometimes claim urban green spaces that are officially owned by the municipality, for example, by placing a bench or planting a plant, like in the photograph of this page. One of the interviewed citizens explained that the municipality does not remove it when they think that someone uses the space.

Another situation was a small green space between an u-shaped apartment block. Interviews were held with three neighbors who were sitting in their garden. They expressed dissatisfaction about the abandoned state of the area. People leave trash, the plants are dead, and the maintenance by the municipality is poor. Reclaiming this area could be an opportunity to take away the expectations that the municipality should maintain it so that people can transform it into a lively space, together with their neighbors. A similar solution exists, which is called green adoption. Different municipalities in the Netherlands provide this option. Citizens can adopt green if they form a group of neighbors and show a plan to the municipality.

### *Key insight*

Citizens feel the need to reclaim their access to urban green spaces. The act of urban foraging adds social functions to them.





## 2.3 CONCLUSION: HOW CAN COMMONING SUPPORT THE PRACTICE OF URBAN FORAGING?

Commoning relies on active collaboration and cooperations to create awareness about the commons. Commoning is beneficial for the practice of urban foraging because it empowers the social connections of the community, and it helps to create awareness among a broader audience, and it increases trust.

Urban foraging is getting more popular, and some external authorities have fear about this. They think foragers damage the environment, and that inexperienced people get poisoned by misinterpreting plants. Therefore, urban foraging is sometimes banned, but municipalities allow it when people forage with care: not over-harvesting and safely.

However, foraging is a social process with an active community, that shares knowledge and experience to make people more aware of how to forage under safe conditions. In addition to this, the community exists to share a passion for nature and create secure social connections with fellow foragers. Foragers believe that when people start to see how wonderful nature is, they will respect it. They want beginner foragers to join the community, to teach them how to forage safely and with care for the environment.

Beginner foragers should be aware of the community behind. It helps beginner foragers to overcome the barriers to foraging: fear for eating dirty or poisonous plants, and the emotional barrier of being not used to eat from nature.

Urban foraging transforms unused urban green spaces into dynamic, social spaces. Inspired by the examples of commoning on page 15, and guerrilla gardening on page 48, foragers also, sort of, reclaim their access to urban nature. Urban foraging empowers self-governing of how people feed themselves that gives authority of where and how people can eat, and keep the culture of food, that will led to the design vision on page 58. Since some jurisdictions may not support urban foraging, the design vision is that people can make a design by themselves.

In short, commoning supports the practice of urban foraging, because it contributes to:

### **Resilience building**

Commoning contributes to a stronger community and empowers social relationships, which will lead to taking better care of the environment, which is essential to urban foraging, because this project shows the need of foragers is to introduce beginners to the community, to forage safely, while protecting the environment. It creates awareness about the commons: the stock of wild edible plants and the natural environment. Therefore, commoning contributes to resilience and prevent people from over-harvest. Also, it gives people the right to their food and engages with the local environment and food sources that contribute to a resilient food production system.

### **Community building**

Commoning connects people from different backgrounds because it relies on active collaboration and cooperation with others. Social relationships provide the basis towards a shared purpose, which is beneficial for the practice of urban foraging because it takes away the barrier of fear, described on page 47. Foragers with different experience levels will help each other. Commoning also increases trust:

### **Trust**

In a commoning practice, all the acts rely on trust. People act out of passion and have intrinsic motivation to contribute to the whole. Their contribution is in benefits of all because an unreliable attitude will negatively impact the shared purpose, which is beneficial to the practice of urban foraging because the knowledge that is shared should be trustworthy.

## 3. SYNTHESIS

This chapter combines all the insights from the exploration research into a design goal, design vision, and the framework. The design goal is “use the benefits of commoning to support the practice of urban foraging”.

The first part of the chapter shows the framework. The design vision gives a general idea of the kind of solution to be expected and affords insights about the intended interactions. It inspires the designer and provides direction to the design process. The design vision includes six pillars to evaluate ideas, the concepts, and the final design.

### Chapter overview

- Design goal
- The urban foraging and commoning framework
- Design Vision
- Six evaluation pillars

### *Design Goal*

USE THE BENEFITS OF COMMONING  
TO SUPPORT THE PRACTICE OF  
URBAN FORAGING



## 3.2 URBAN FORAGING AND COMMONING FRAMEWORK

### 3.2.1 INTRODUCTION TO THE FRAMEWORK

Urban foraging and commoning are both broad topics. Therefore, a framework is developed to come up with concrete design spaces and create a design intervention that uses the benefits of commoning to support the practice of urban foraging.

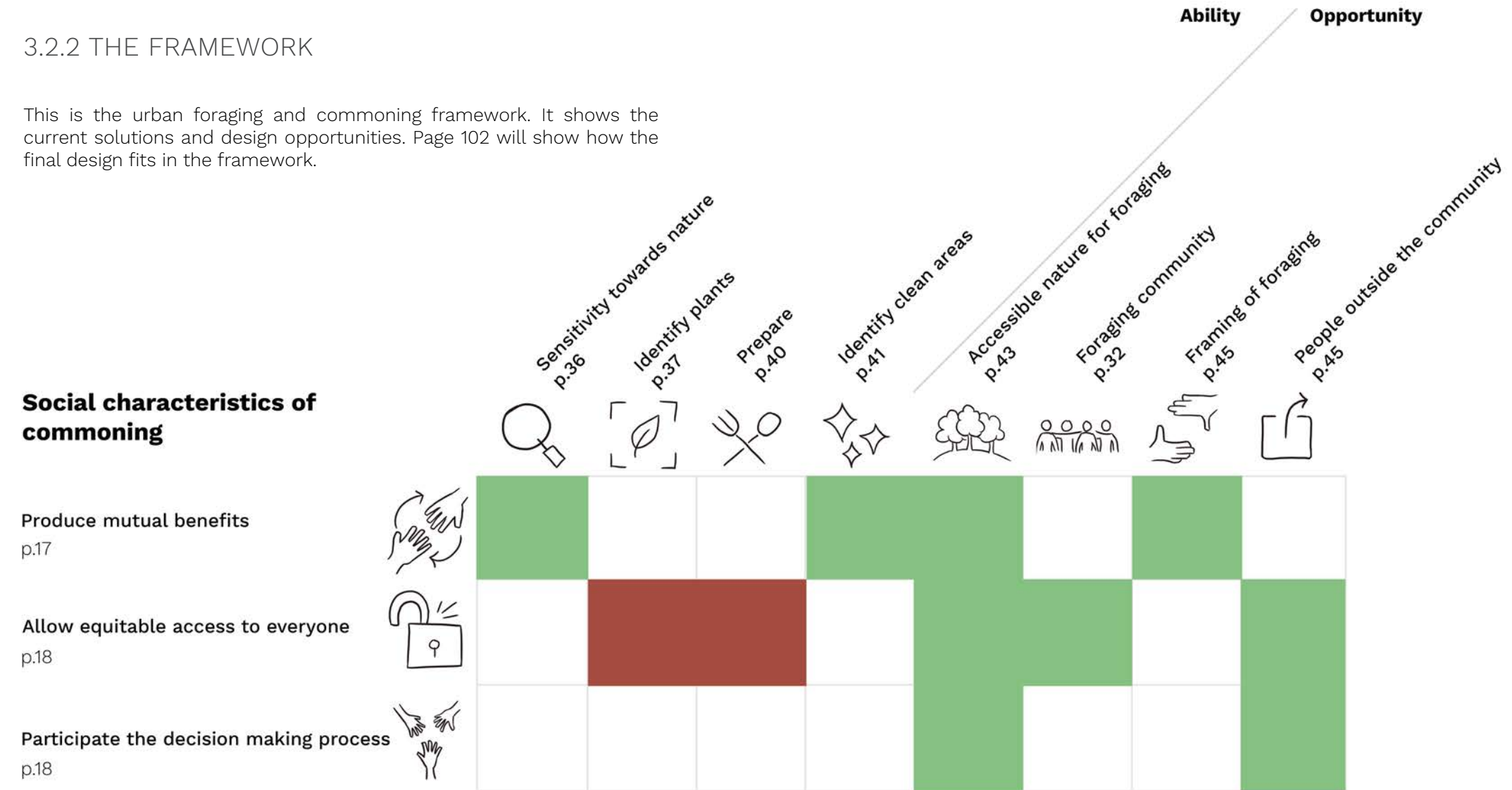
The vertical axis in the framework presents the social characteristics of commoning, based on the exploration research. The practice of urban foraging is analyzed with the MOA-model, as described on page 35, and divided into the abilities and opportunities for urban foraging, presented on the horizontal axis. The design project uses the framework as follows: first, the framework helps to understand where existing solutions are locations to identify design opportunities.

Second, the design opportunities serve as a starting point to ideate on the design interventions. Every box in the table creates a how-to question that serves as a starting point for the idea generation of how commoning can support urban foraging. The aim is to create a design intervention that uses the social characteristics of commoning to support the practice of urban foraging. This intervention is a showcase of how this framework works in practice, that resulted in three concepts. Third, one of the concepts is selected and developed further. The final design is a showcase of how the framework works.

### 3.2.2 THE FRAMEWORK

This is the urban foraging and commoning framework. It shows the current solutions and design opportunities. Page 102 will show how the final design fits in the framework.

#### Social characteristics of commoning



**Figure 7:**  
The commoning and urban foraging framework



### 3.2.3 CURRENT SOLUTIONS

Page 39 shows there are plenty of identification guides and foraging recipes are available on the internet, and applications are free to download. For example, Wildplukwijzer is an application that is equitably accessible to everyone, to add foraging locations and make changes on the map. Foragers share knowledge on social media pages and blogs. Therefore, making foraging knowledge equitable accessible to everyone is not innovative, and will not be the focus of the design.

### 3.2.4 DESIGN OPPORTUNITIES

This chapter shows the design opportunities in the framework, which forms the basis for the ideation process. These areas have the potential for innovative solutions to support the practice of urban foraging.

“How to increase sensitivity towards nature, by producing mutual benefits for the community or environment?”

The foraging community could be supported by gaining information about wild edible plants in the city, like locations and pictures, or involving new members with a specific set of skills that could be beneficial for the community, like chefs or ecologists. This design opportunity triggers creative solutions to connect people from the different background while increasing sensitivity towards nature.

“How to help citizens to identify clean areas in the city by producing mutual benefits for the community and the environment?”

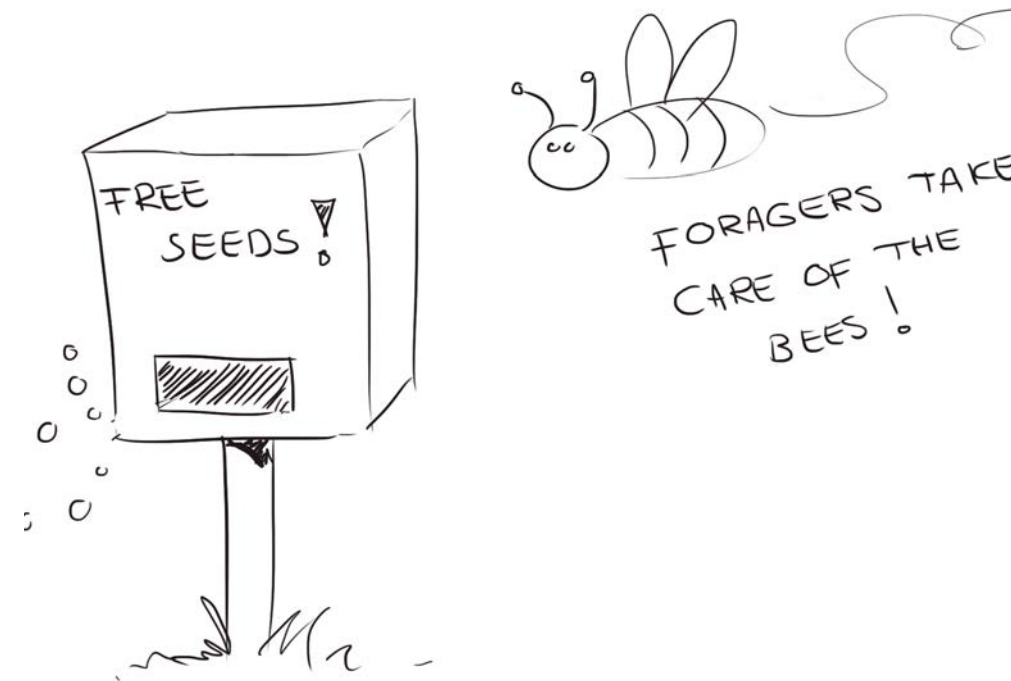
In commoning practices, people believe in a shared purpose and want to contribute to it. In this case, foragers wish to protect the environment and help others to identify appropriate locations to forage. There are different ways to take care of the environment, like adding plants, cleaning it, protect it from over-harvest. As described on page 41, it is essential that people can identify clean areas in the city, and one of the barriers to foraging is that people are afraid to eat dirty plants. The community benefits from information about where to find clean areas in the city. This design opportunity unfolds ideas about how citizens can make a contribution to the environment or community, for example by sharing locations of clean areas or spread around seeds, while they become aware that there are clean locations in the city where people can consume from nature.



Doodling based on the framework

“How to make more nature accessible for foraging by producing mutual benefits to the community and the environment?”

Foragers are dependent of the accessible nature to forage in the city. It should be allowed to forage, and there should be enough stock of wild edible plants. This design opportunity brings up ideas about creating new lands to forage, by doing something back for nature in the city. For example, people can add to the stock of wild edible plants. Land to forage can be made more accessible, while contributing to the community, for example, by making others aware of what are appropriate locations to forage.



“How to make more nature accessible for foraging by allowing equitable access to everyone?”

This design opportunity makes it possible to make appropriate land for foraging accessible to more people, for example, by making these areas more inviting and visible for beginner foragers. These areas can be promoted as locations where foragers get together, to create awareness about its social potential for citizens to share experiences of foraging.

“How to make more nature accessible for foraging by including everyone in the decision making processes of urban foraging?”

Commoning is about social inclusiveness and allows everyone who strives for the same goal to participate in the decision making processes of urban foraging. This design space provides opportunities to involve landowners in the practice of urban foraging and to create a balanced relationship with external authorities, like the municipality.





“How to make the foraging community equitable accessible to everyone?”

This design opportunity creates ideas about how to make the foraging community more available to beginner foragers. For example, by making visible who forages in the city, citizens can meet other people who are interested in urban foraging to help each other with troubles and successes.

“How to frame urban foraging as producing mutual benefits to the community and the environment?”

The images about foraging differ among people. While some people think foraging damages the environment, others believe it contributes to the environment. By showing the benefits of urban foraging to the environment and social relationships in the city, it can change people image of the practice, and it creates awareness.



“How to make the practice of urban foraging equitable accessible to people outside the community?”

This design opportunity makes people outside the community aware about the practice of urban foraging, and overlaps with the opportunity of how to make the foraging community equitable accessible to everyone.

“How to involve people outside the community in the decision making processes of urban foraging?”

By involving people outside the community in the decision making processes of urban foraging, the needs of others can be considered, which creates a balanced relationship. Examples of people outside the community are the municipality and nature experts, like biologists. For example, they could be involved in the community to decide about new regulations, what to forage, and what not.



Photo by Jo Szczepanska on Unsplash



## 3.3 DESIGN VISION

*“Create a design in public space, in which users experience urban foraging, as an entrance to the foraging community”*

Because of the benefits of the foraging community, the design should create awareness about it among a broader audience, to involve beginner foragers, to teach them how to forage for own safety and with care for the environment, and to contribute to resilience building of the natural environment.

The design should attract people to the community, without popularizing it radically. In five years, the design should stand at different locations in the city, that makes the community visible to beginner foragers. In the long term, it brings together people from different experience levels. The design is a trigger to forage together in the future. To achieve this, the design vision is divided in the following attributes:

### Do it yourself

The community should be able to make the design by themselves, without being dependent on external authorities, like the municipality. DIY stands for “do it yourself.” A DIY-design is easy to replicate, which creates more awareness, and so it has a more significant potential to support the urban foraging community. Also, the initiators can use their creativity in the design. There should be a right balance between giving guidance on how to make the design, and give the community freedom to bring in new ideas. The final design of this project is purely a design to show its potential, and the community can take it over and adapt it to their own needs and wishes. The community can come up with new ideas. The design should be low-effort and low-costs in production and use.

### Connect a diverse group of people

Commoning empowers social connections, community-building, and social inclusiveness. The foraging community represents a diverse group of people with the same interests for nature. The exploration study shows that foragers could be grandmothers, chefs, doctors, but also just curious tourists. Connecting a diverse group of people contribute to urban foraging because it takes away the barriers of beginner foragers by people sharing their knowledge and skills. The design should be appropriate to use by a diverse group of people, regardless of someone’s age, cultural background, or foraging skills, and its vision is to connect people these people.

### Act out of passion

Commoning practices are based on voluntary actions, and they are motivated to contribute to the shared purpose because they share the same values and interests. Commoners have a passion for a particular topic, they trust each other, and act together towards a shared goal in the benefits of all, which creates reliable and close ties. The interviewed people during the exploration study all had an interest and passion for nature, cooking, or gardening. They participate in the community and share their knowledge and findings in nature, to create a stronger connection with fellow nature fanatics. Sharing experiences provide opportunities for others to participate and enjoy each other’s benefits, and forms an inspiration to the design, for example, to share beliefs of foraging.

## 3.3.1 SIX EVALUATION PILLARS

This chapter describes six pillars that guide the ideation process, evaluate the concepts, and detailing the final design. The six pillars include the intended interaction, experience, materials, aesthetic expression, appearance, and technology.

### 1. Interaction vision

An analogy of the intended interaction, and helps the designer to achieve the design vision. The intended interaction should be low-effort to experience the practice of urban foraging, to invite people to the community.

*“The design should feel like looking at the stars with a friend”*

Once the clouds disappear and a star becomes visible, suddenly more stars become visible. It is an intuitive to observe the sky. This first star refers to the introduction to the practice of urban foraging. A world new world opens up. The user becomes curious to learn more. The universe refers to the infinite number of options to combine, prepare, and consume the edible plants that nature offers. Learning urban foraging does not happen in one day; it is a long-term process that requires years of experience. Gradually, people explore new aspects of foraging practice. It is impossible to see the whole universe in a glance, but a friend can point out new stars, which refers to the relationship with fellow foragers. The interaction qualities are:

**Low-effort:** Looking at the stars is low-effort.

**Connecting:** The design let feel the user connected

with others and the natural environment

**Exploring:** A new world opens up that the user can explore



*Interaction vision*

*“Looking at the stars  
with a friend”*

Photo by Edward Paterson on Unsplash

## 2. Experience

The design should trigger a foraging experience, in which people feel welcomed by the community. So the design needs to create a friendly and welcoming experience. Also, the design should reflect the social connections of the community and increases a feeling of trust, which is essential to overcome the barriers to urban foraging of beginner foragers. The intended experience should fit the target group. The target group includes people who have a particular passion for nature and likes to share their experiences with fellow nature lovers, as described in the personas on page 30. Therefore, the design should provide an authentic urban foraging experience in the real context.

So the design should create a trustworthy, welcoming experience, in which users have an authentic urban foraging experience.

*Trustworthy  
Welcoming  
Authentic*





### 3. Materials

The materials should be easily accessible, low-costs, and fit into the natural surroundings. Examples of appropriate materials are wood, wire, reed, and paper. It could be even foraged materials, like moss and branches. The design vision is that users can make it by themselves. Everyone who is interested in the topic and wants to contribute to the foraging community should be able to make it. Users can walk down the street, looking for some rest materials, like old bedframes or pallets next to the trash bins. They should be weather resistant. When it is easy to make, people can repetitively spread it around the city, so it potentially becomes a recognition point over time. If people see it, they know it is an area that foragers regularly visit.



Rest materials  
Picture retrieved from  
[economiesofcommoning.net](http://economiesofcommoning.net)

### 4. Aesthetic expression

The design must look intriguing and raise curiosity, and integrate with the natural environment and accessible to new users. If the design looks sleek and fascinating, the user will be less likely to interact with it, because he might think it belongs to someone. However, when it looks messy, the user will not trust it. The design should have the right balance between this. The target group like to spend time in nature, and therefore, the design should give an **earthy, organic** expression to fit the environmental context. To make the design looking trustworthy, it must have a **friendly** expression, for example, by adding some colors.

### 5. Appearance

The ergonomics of the design should fit into the environment. Therefore, it should be flexible to adapt it to the context easily. Also, the design should be usable by a diverse group of people, so its size should be reachable by kids and adults. The aim of the design was for adults, but during the prototyping tests it turned out that adults like to forage together with their kids. The design should be visible and easily noticeable by passers-by, but it should also integrate in the natural environment.

### 6. Technology

The focus of the design is on physical interactions with an object in public space. A small part of the design could be digital, for example, a reference to a website of the community, but is not the primary interaction. The design should work without any support from digital means, integrated into the environment and connected with nature, so it is easy to maintain.

*Organic*

*Earthy*

*Friendly*

Moodboard of the aesthetic expression



## 4. IDEATION

The ideas arose from individual brainstorm sessions and a brainstorm session with fellow industrial design students. This session aimed to produce many ideas in a short amount of time.

Parallel to this, small experimental prototypes were made in public space, to see how potential users interact with physical objects that are related to urban foraging. Interactive prototyping helps to simulate future interactions with the design and facilitates quick iteration cycles. These experiments give insights to implement in the final design.

This chapter shows brief information about the ideation based on the framework and the used methods: brainstorming, interactive prototyping, sketching.





# 4.1 IDEATION

The following pages show the ideation process briefly, based on the framework. It shows the prototypes and some of the generated ideas.

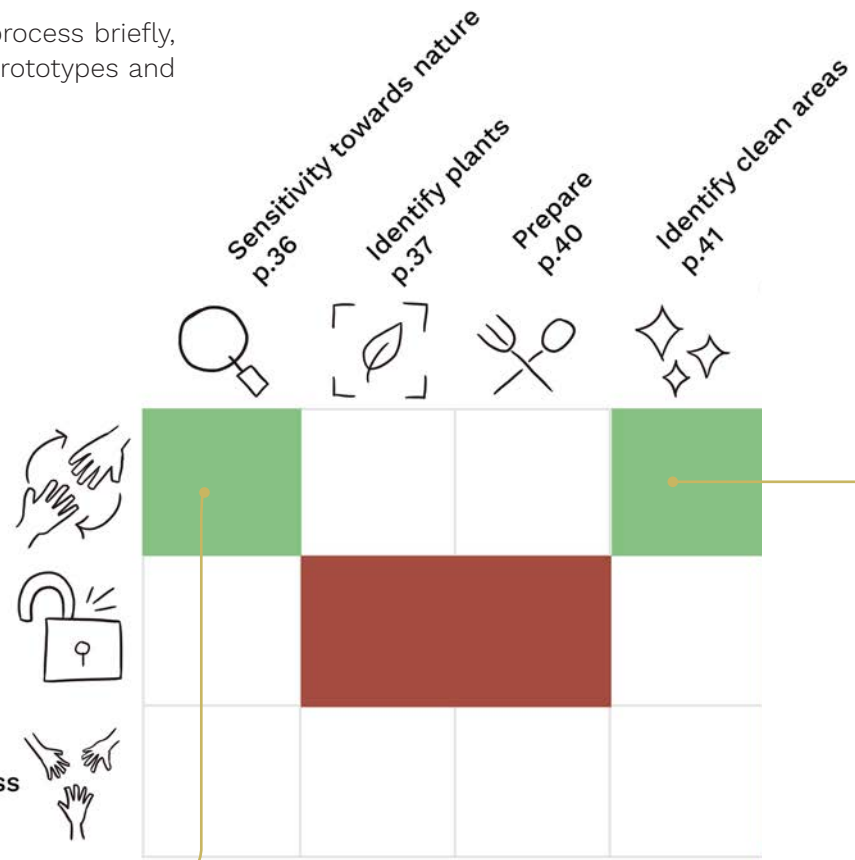
**Figure 8:**  
Part of the framework and the ideation

## Social characteristics of commoning

Produce mutual benefits  
p.17

Allow equitable access to everyone  
p.18

Participate the decision making process  
p.18



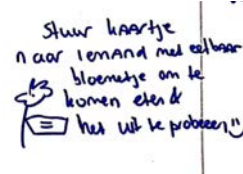
### Ideation through sketching

“How to increase sensitivity towards nature, by producing mutual benefits for the community or environment?”



### Plant labels

People can buy or make labels to make other people aware of edible plants in the city.



### Invite cards

People can send cards to friends with a dried edible plant, to forage together and organize a dinner.



### Signs of clean areas

When a forager found an area that is appropriate to forage, he leaves a sign to other foragers and so they contribute to the foraging community, by helping others to identify them.

### Cleanup foraging tour

This idea is inspired by “Cleanups,” where people come together to clean a particular area, for example, removing the plastic in the beach. Foragers can organize foraging tours in combination with cleanups, to create awareness about the environment and treat it with care. Everyone can participate in the tours, and no foraging experience is required.

### Prototyping

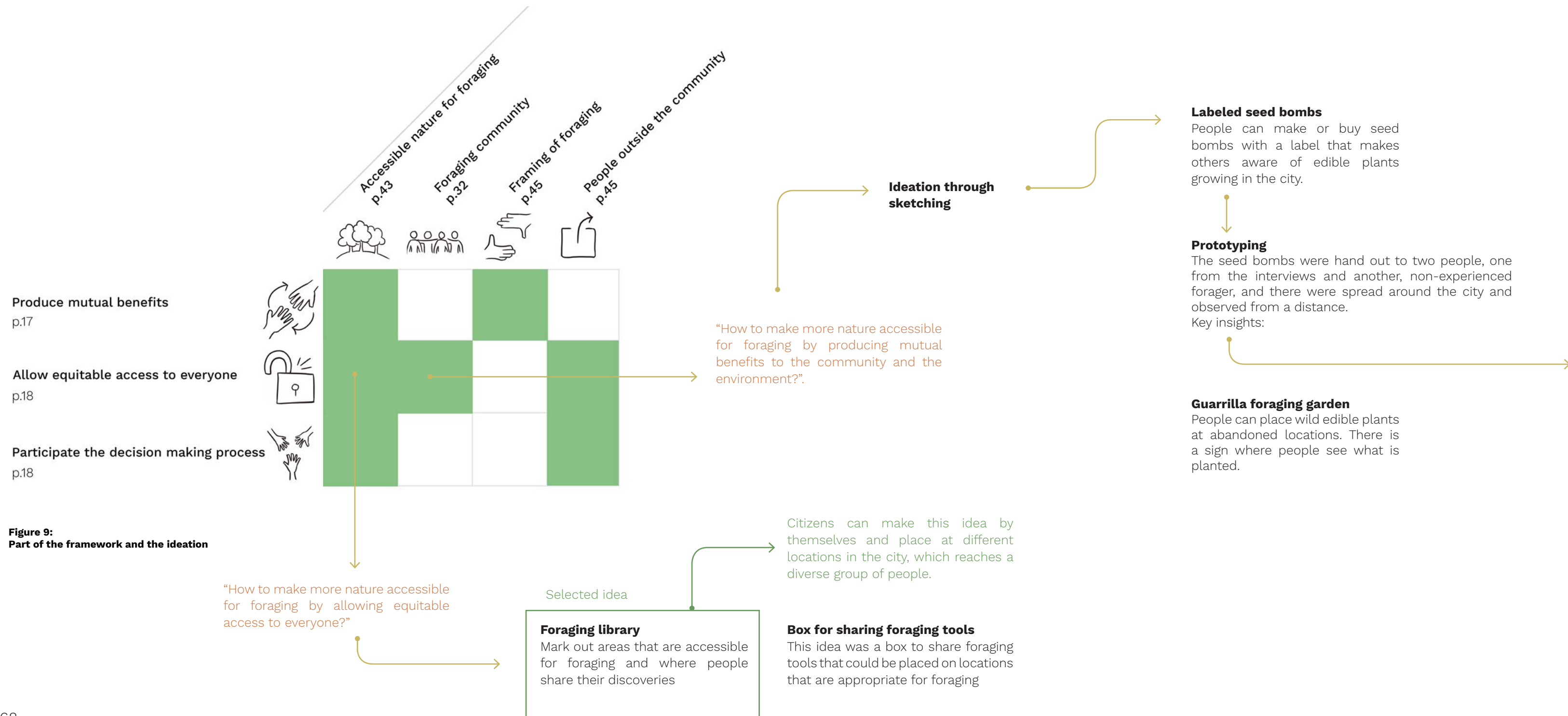
The idea of the invite cards has been developed into packaging for a present, to give to a friend. An instruction sign was made to put in public space that shows a picture of a daisy and describes: “You can eat me, take a present bag and surprise someone with a picked daisy.”



Information about the uses of daisy's positively surprises people.

Users did not trust the area to pick daisy's, since there were dogs.



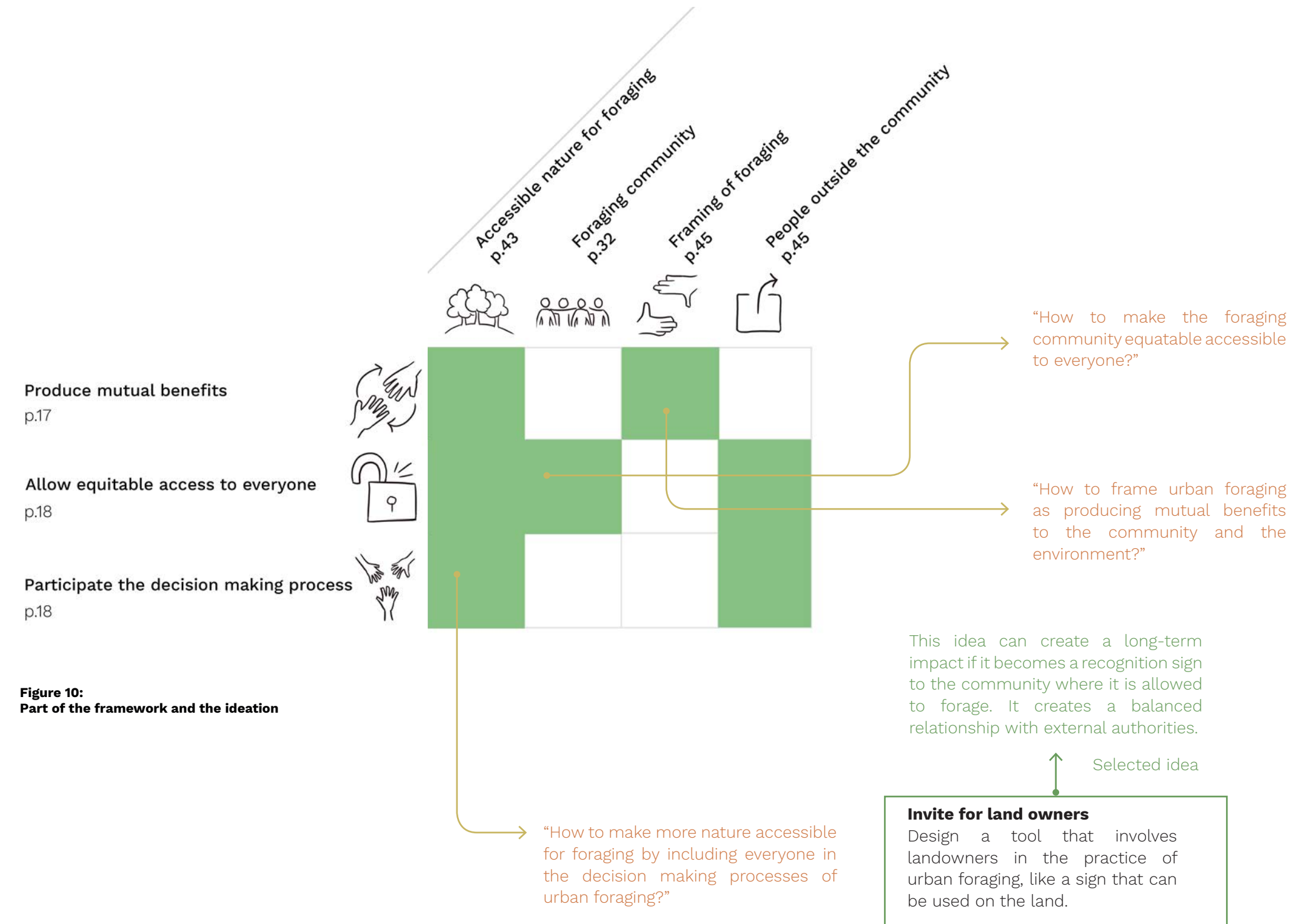


- The nametag is interesting: it points out the edible plants that people would not see, so it creates awareness
- It is a low-effort interaction to get into the foraging community
- It is a low-cost and low-effort intervention to make



- People took it home. There is a risk that it gets too close to gardening.
- The act of throwing takes away the authentic interactions of urban foraging. It is too far away from foraging





**Contact point**  
Foragers leave a mark in the city with contact information so that people can plan a foraging tour in the future.



**Community stickers**  
People who forage use stickers to make the community more visible. For example, on a window of the car, front door, or bike.

**Forester outfit for foragers**  
Design an outfit and accessories that show to others that foragers are nature experts and contribute to the environment and biodiversity.

**Promote wild edible plants**  
Use guerrilla marketing to position plants that are considered as a weed by others as healthy and sustainable.

**Interactive map**  
Design an interactive city map where everyone can point out foraging and abandon areas and bring in ideas what to do with it.

- Users find it inspiring to read the health facts  
- it directly compares the supermarket and current food production system to the benefits of urban foraging: free and local.

- It is a completely different context than the intended design. People are in a hurry and in a different mindset than the public park.  
- It is knowledge focused and not interactive, and far from a foraging experience





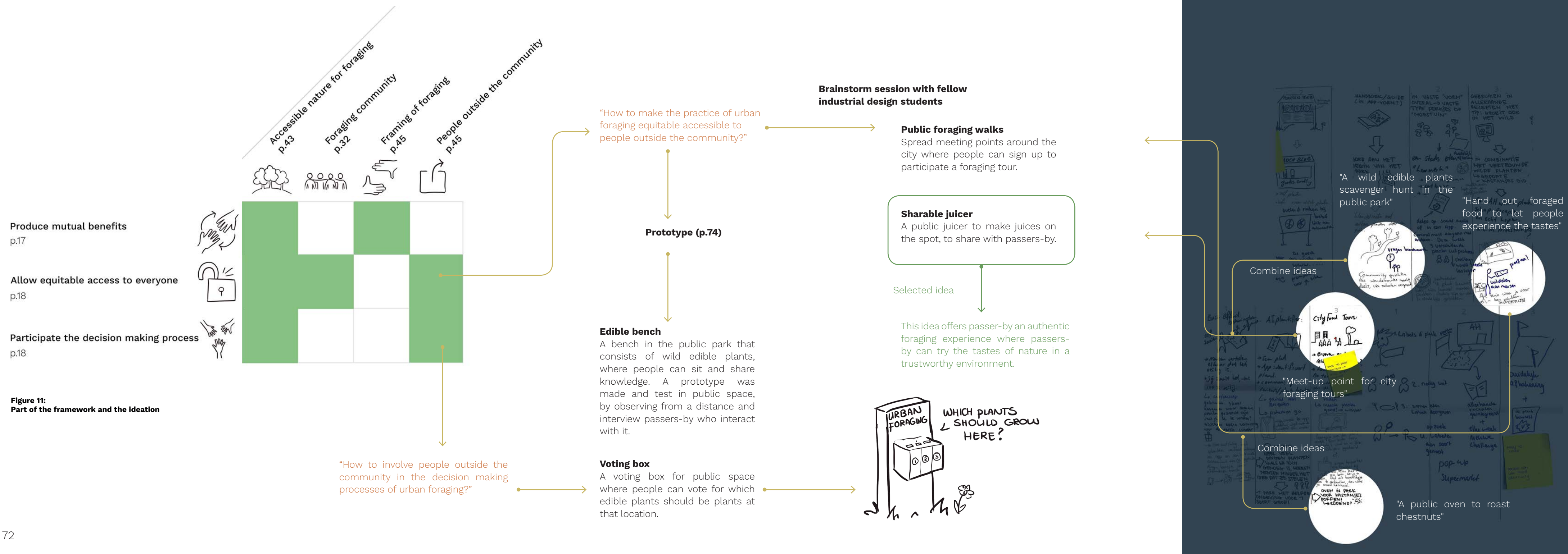


Figure 11: Part of the framework and the ideation

- Produce mutual benefits p.17
- Allow equitable access to everyone p.18
- Participate the decision making process p.18

Accessible nature for foraging P.43  
 Foraging community P.32  
 Framing of foraging P.45  
 People outside the community P.45

“How to make the practice of urban foraging equitable accessible to people outside the community?”

Prototype (p.74)

**Edible bench**  
 A bench in the public park that consists of wild edible plants, where people can sit and share knowledge. A prototype was made and test in public space, by observing from a distance and interview passers-by who interact with it.

“How to involve people outside the community in the decision making processes of urban foraging?”

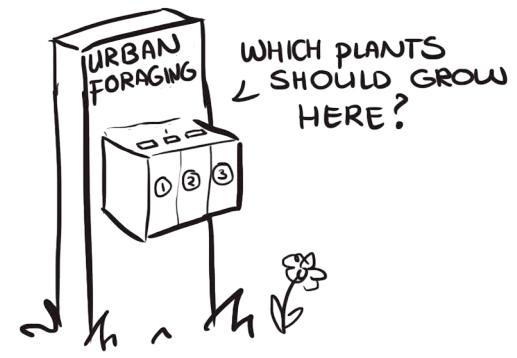
**Voting box**  
 A voting box for public space where people can vote for which edible plants should be plants at that location.

**Brainstorm session with fellow industrial design students**

**Public foraging walks**  
 Spread meeting points around the city where people can sign up to participate a foraging tour.

**Sharable juicer**  
 A public juicer to make juices on the spot, to share with passers-by.

Selected idea  
 This idea offers passer-by an authentic foraging experience where passers-by can try the tastes of nature in a trustworthy environment.



“A wild edible plants scavenger hunt in the public park”

“Hand out foraged food to let people experience the tastes”

“Meet-up point for city foraging tours”

“A public oven to roast chestnuts”

Combine ideas

Combine ideas





- The TU logo and the controlled set-up made the design reliable. People trusted to pick and taste a plant. It is clear which plants grow there.
- Picking a plant is a low-effort interaction that provides a strong foraging experience, because people taste it.
- It encouraged social interactions. Users were challenging each other: "Do you dare to eat this?" and started to share knowledge.



- The idea requires maintenance in the future since real plants have been used and people need to take care of this
- It attracts people that are not necessarily interested in foraging and can be easily over-harvested

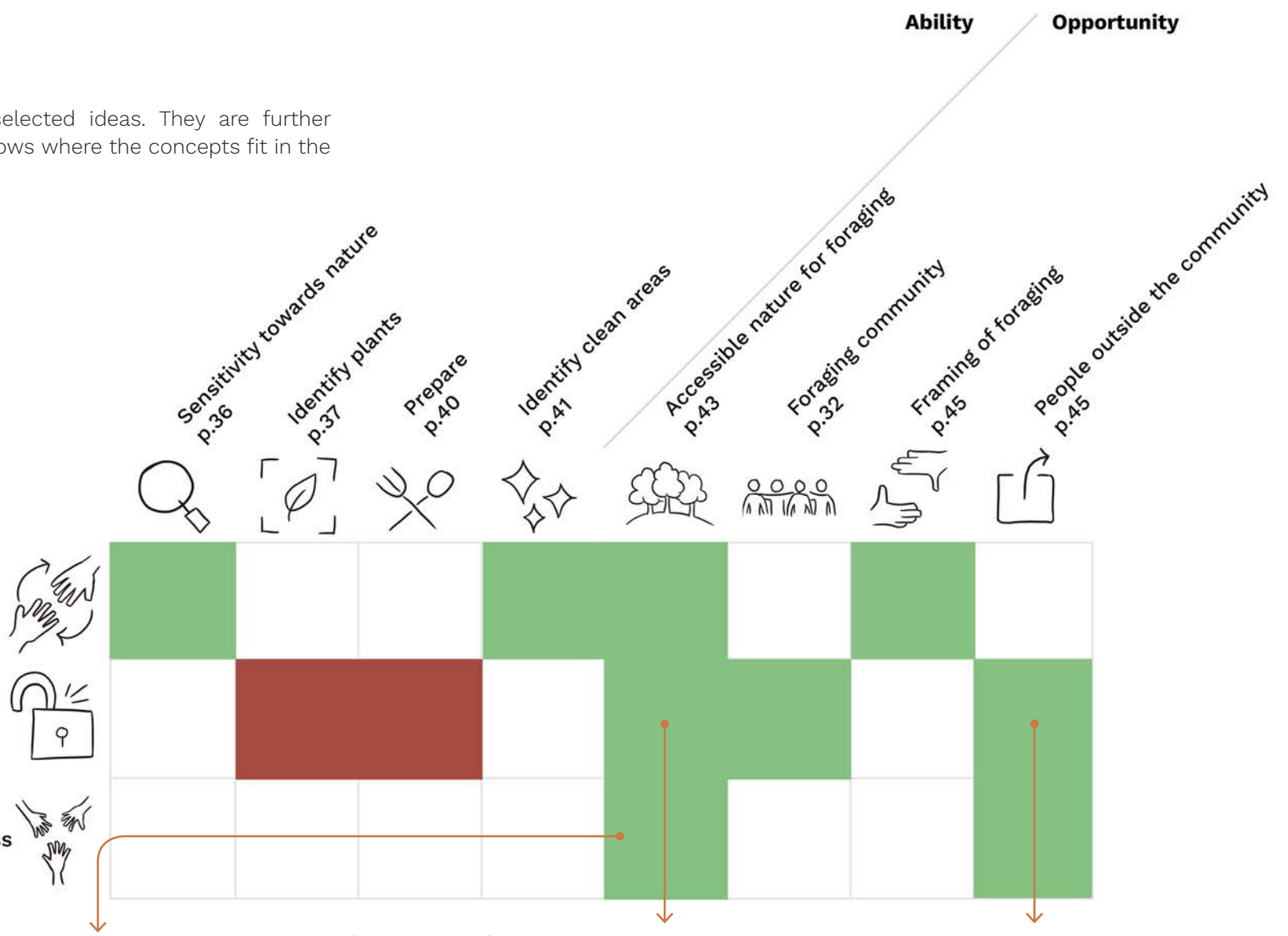
## 4.2 CONCEPTS

The previous chapter shows three selected ideas. They are further developed into concepts. This page shows where the concepts fit in the framework.

Figure 12: The framework and the concepts

### Social characteristics of commoning

- Produce mutual benefits p.17
- Allow equitable access to everyone p.18
- Participate the decision making process p.18



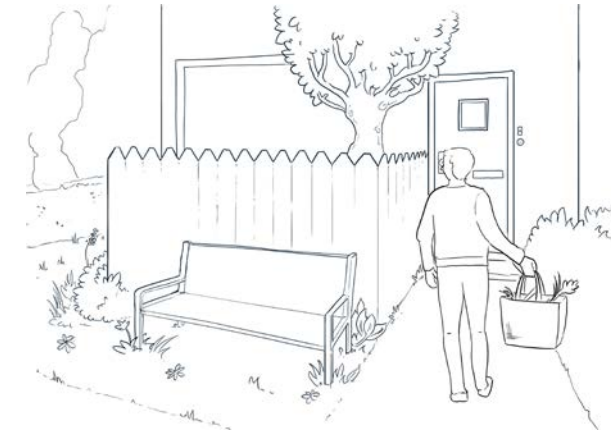
**Concept 1: The Merci Seeds**  
The Merci Seeds provide an opportunity for foragers to connect with landowners, by giving or spreading around seeds of wild edible plants as a present and placing a sign for the foraging community where it is allowed to forage and under which rules.

**Concept 2: The Get To Gather**  
Get To Gather is an interactive board and an entrance to the foraging community for beginner foragers, placed at no man's lands in the city. The goal is to make the foraging community visible for beginner foragers and to provide a low-effort urban foraging experience.

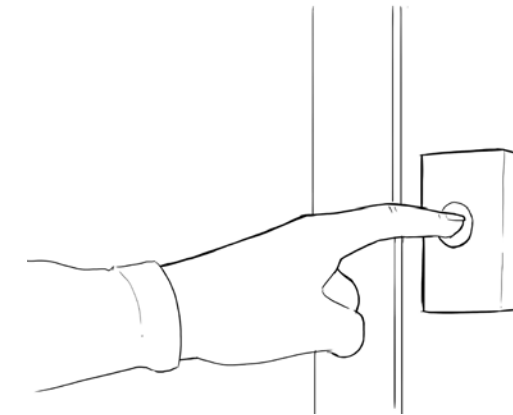
**Concept 3: Drink On The Spot**  
Drink On The Spot is a sharable juicer in public space where foragers can come together and invite passers-by to join a drink and let them try the fruits of urban foraging.



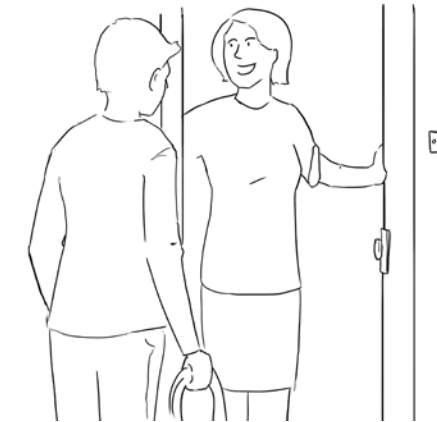
4.2.1 CONCEPT 1: MERCI SEEDS



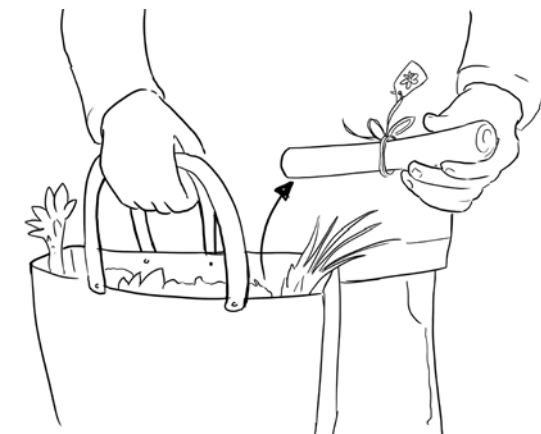
1. The forager discovers a land where there are many wild edible plants, but he is not sure if it is allowed to forage.



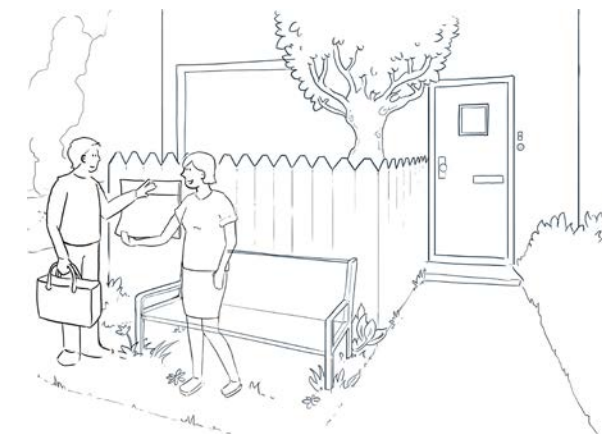
2. He contacts the land owner.



3. He explains that he is a forager and asks permission if it is allowed to forage at the concerned location.



4. He brings a rolled-up sheet, with the Merci Seeds attached. The sheet can be placed outside, as a sign to the community.



5. Together, they find a location to place the sheet. They talk about the rules, for example, at what time people are allowed to forage, and he shares the stories about foraging, which increases empathy of the landowner.



6. The forager spreads seeds of wild edible flowers to thank the landowner. Fellow foragers who visit the area could do the same.

Figure 13:  
Concept drawing and user journey



### Description

The third concept provides an opportunity for foragers to connect with landowners, and it is a recognition sign for the foraging community where it is allowed to forage and under which rules. As a forager, it is often unclear where it is allowed to forage that led to an essential rule of the foraging community: always ask permission from the landowner first. This design provides a sign for the community at which areas the land owner permitted to forage.

Possible locations where the design can be used are fragmented green spaces around the city, reclaimed by citizens. Often, this happens next to houses, extensions of gardens, or a shared green space in the street, as described on page 43. People place a bench or plant some bushes. The Merci Seeds could be a solution to foragers to ask permission from the citizens if it is allowed to forage at these reclaimed areas. Also, it provides a conversation that lowers the social barrier between foragers and people outside the community, so it creates a balanced relationship between the community and external authorities.

The design has the potential to add interactive elements. For example, stores or nature organizations could provide bags of seeds, specially made for the foraging community. The bags include stickers with descriptions about the plant. If a forager makes use of someone's land and spread around the seeds, he can add the sticker to the sign, which shows the activity of the foraging community and what will possibly grow there.

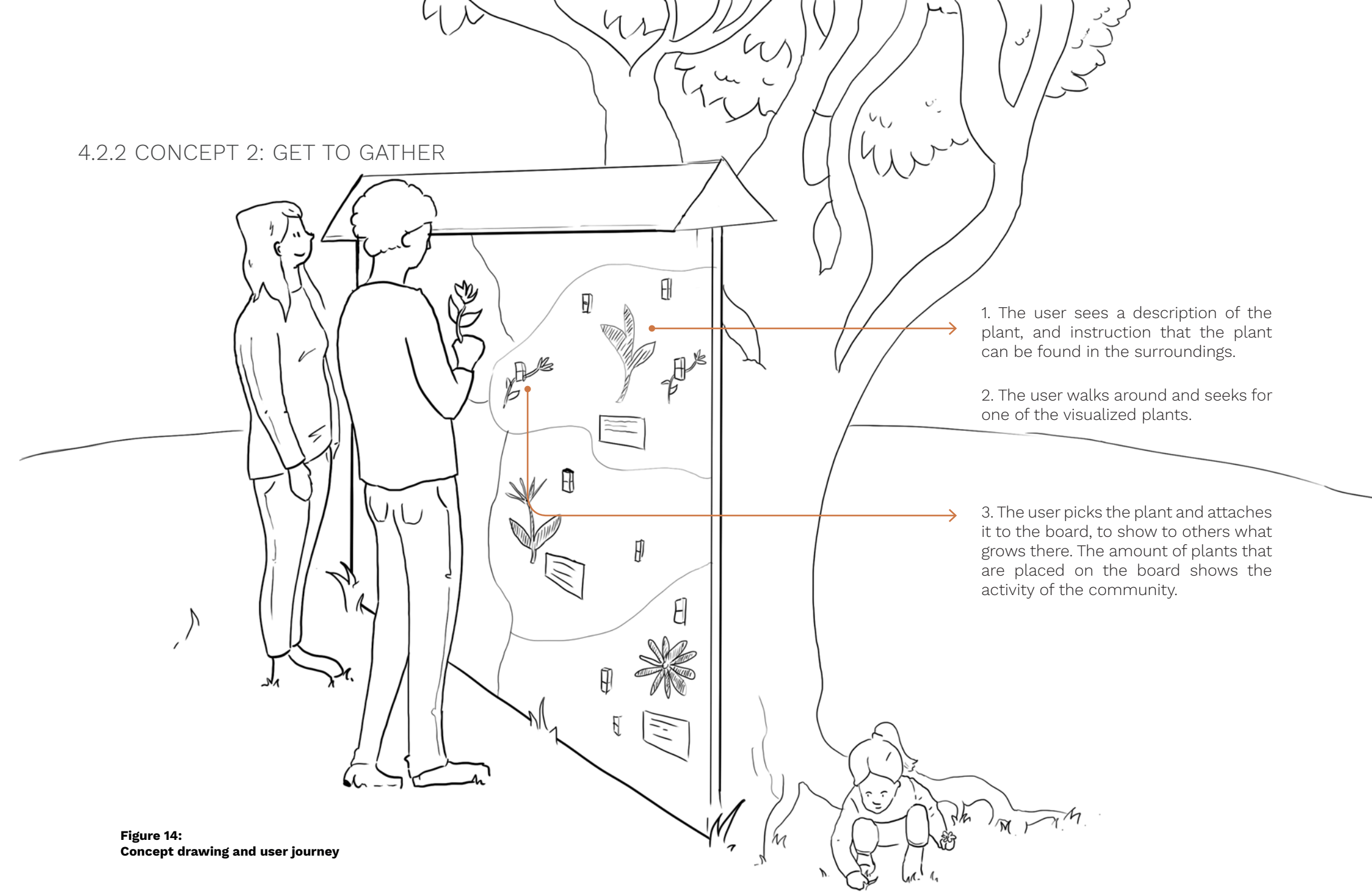
### Evaluation

The concept can create long-term impact for the foraging community because it creates a relationship between the community and external authorities, and over time it could become a recognition point for foragers when they see it repetitively at different locations.

The concept connects a diverse group of people because it introduces new people, the landowners, to the practice of urban foraging.

The design vision is to make people aware of the community behind the practice. The design does this because the sign is easy to make, and it makes the community visible at different locations in the city. However, the possible locations are limited. There are few locations where the forager knows whom to approach to ask permission. Also, it is high-effort for both parties to connect with other people: the forager needs to find the landowner and always bring the seeds, and the landowner needs to agree with placing the sign and invite people to the land. Therefore, the design faces some limitations and is less likely to replicate and create awareness.

### 4.2.2 CONCEPT 2: GET TO GATHER



**Figure 14:**  
Concept drawing and user journey



### Description

Get To Gather is an interactive board and an entrance to the foraging community for beginner foragers, placed at no man's lands in the city. The goal is to make the foraging community visible for beginner foragers and to provide a low-effort urban foraging experience. The concept is inspired by the little free library (source: [minibieb.nl](http://minibieb.nl)), which encourages community building among citizens by book sharing. Citizens can choose a location in the neighborhood to build a mini free library. Building the library can be a fun activity to do together. The interactions are leaving a book, take a book, and share, in which the community creates trust. The little free library requires no staff, member cards, or other administration.

This concept contains a 'do-it-yourself' design that citizens can use to transform urban green areas without a specific functionality, in this report called as no man's lands, into community spaces to get engaged with the local nature and meet fellow foragers. The municipality often neglects the maintenance of no man's lands, and nature has taken over entirely, which creates the opportunity to discover native edible plants.

If a citizen wants to place a library, they can download a template to build it. The library provides guidelines to find specific plants by showing the silhouette of the plant, the name, and a short description.

### Evaluation

The concept can be easily spread and placed around different locations in the city, and therefore create awareness among a broader audience. People can use the design together but are also indirectly connected, because they see the marks of other people and can leave their own mark. There is room for people to use their own creativity and adapt the design to what they want. Over time, when more plants are added, it shows the foraging activity and how the community is growing. The interaction to experience urban foraging is low-effort. The concept could be developed further into a design that is low-effort and low-cost to make, which fits the design vision that people can make it by themselves.

Since there are no direct social interactions, the design should be trustworthy, by making it clear who has placed it there and the information on the board is correct. Overall, this concept fits well the design vision, because it creates awareness among a broader audience, people can easily make it by themselves, and it connects people with the same interests for urban foraging.



Little free library at TU Delft Campus  
Picture retrieved from [facebook.com/readme.tudelft](https://www.facebook.com/readme.tudelft)



### 4.2.3 CONCEPT 3: DRINK ON THE SPOT

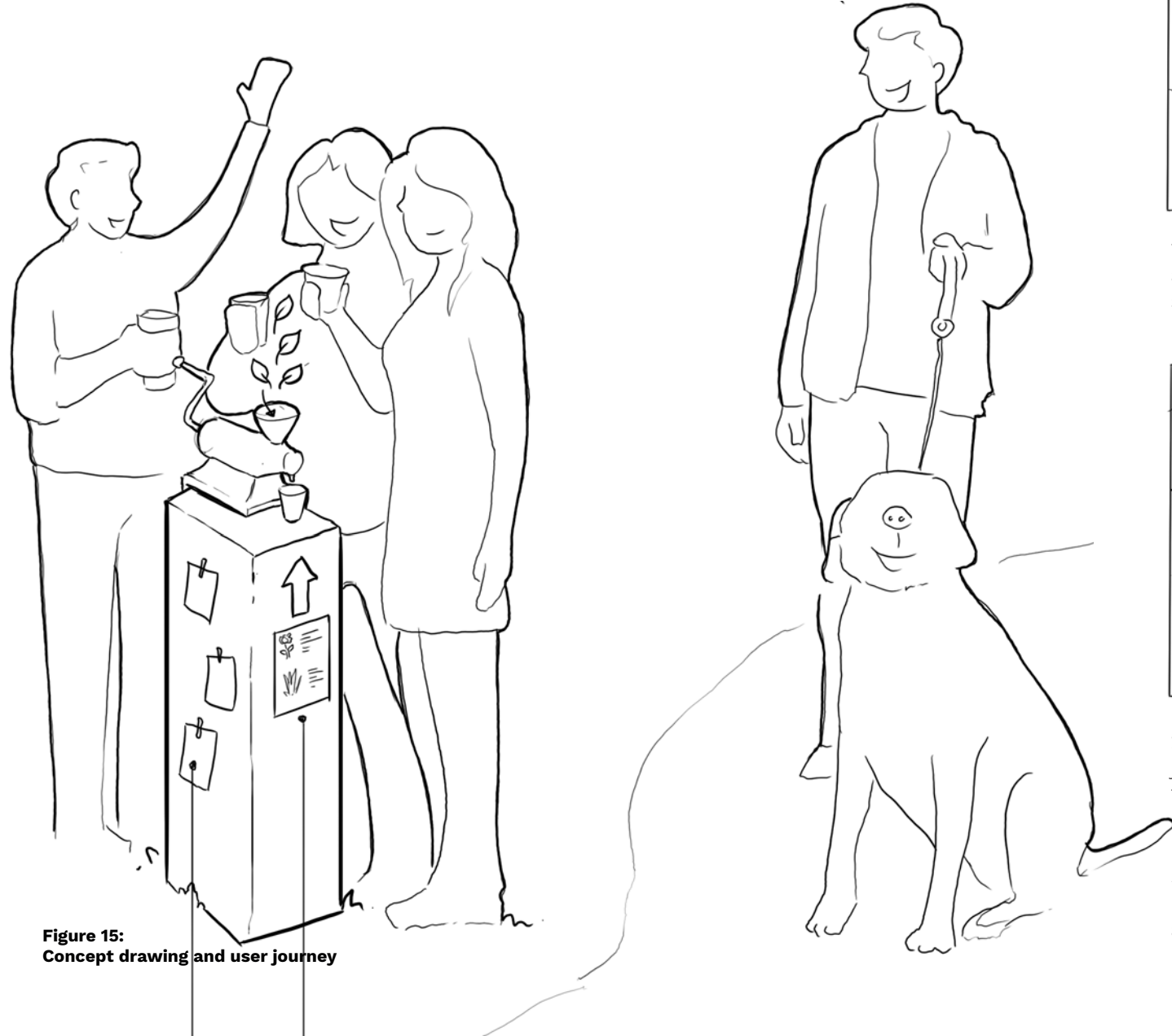
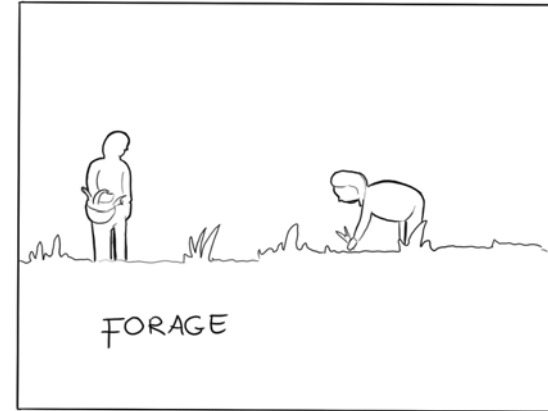


Figure 15:  
Concept drawing and user journey



1. Foragers gather the ingredients to make a juice around the area where the design stands.



2. Together, they prepare a drink with the juicer that stands in public space, closeby to the area where they have foraged.

3. They create an inviting setup for passers-by. Passers-by see foragers making a drink and can join, to start a conversation.

#### Description

The first idea direction is to involve passers-by in the practice of urban foraging in public space, to invite potential foragers, and let them experience the ingredients of foraging. It creates an authentic urban foraging experience in a safe environment; together with experienced foragers.

The idea direction shows a manual juicer on a standing table to make drinks of freshly picked herbs, inspired by the community's tradition to drink on the spot. During the exploration research, one of the interviewed foragers had a similar juicer to bring to workshops. The aim is that making fresh juices causes curiosity of passers-by, so the product serves as a conversation starter.

The juicer stands at a fixed location, and foragers can come back to the same spot. Foragers like to go back to the same place to see how nature has changed. The concept should stand at a location where there is an abundance of wild edible herbs, to prevent over-harvest. The concept can be developed further by adding recipes. When it is not in use, passers-by can still touch it, read the information, or take a look at the shared recipes, so it raises awareness about the possibilities of foraging.

#### Evaluation

The concept creates a social interaction in which the foragers let other people experience the fruits of foraging, which is a powerful and low-effort way to experience the practice of urban foraging. The concept is as a conversation starter, foragers can personally introduce others to the practice. It is a promising introduction in a way that when other people see others drinking from the juice, they will follow. The presence of experienced foragers increases trust.

However, the introduction depends on the presence of foragers, and therefore, it is quite a high-threshold social interaction. The effect only occurs when the right people are present at the right time. Also, it is only usable by experienced foragers, while the design should be appropriate to a diverse group of people. Also, the juicer is hard to find in a store, and it requires maintenance when it stands in public space. The materials should be water-resistant.

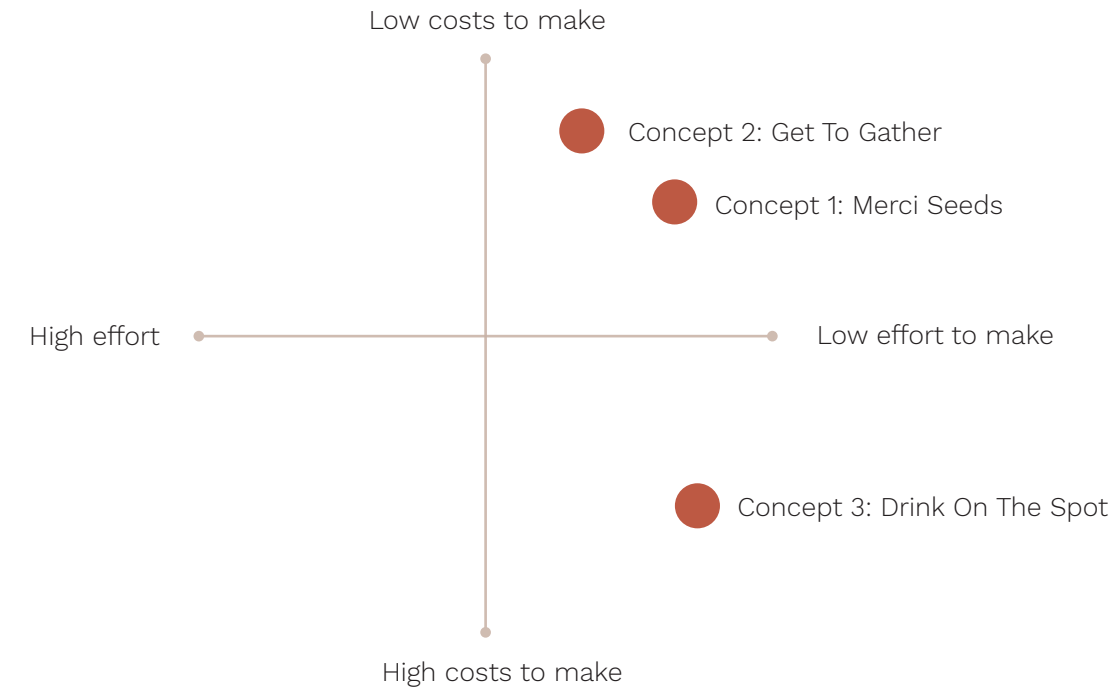


#### 4.2.4 DECIDING ON FINAL CONCEPT

The design vision is to create a design in public space, in which users experience urban foraging, as an entrance to the foraging community. The longterm vision is to create awareness about the community, by making a design that can be easily spread around different locations in the city by citizens themselves. The design should connect a diverse group of people, and bring together foragers from different experience levels.

The design should be low-effort in production and use. This page shows a matrix that has been used to evaluate the concepts, based on the design vision to make it yourself. The matrix shows the production, whether it is low-effort and low-costs. It shows that concept 1 and 2 are both low costs, and low-effort to make. However, concept 2 has more potential that the community can adapt it to their needs, and use their creativity by trying out different shapes and forms.

Concept 2 has the most potential to create and replicate around the city, and it connects a diverse group of people indirectly, which makes it a low-effort interaction to the foraging community. Therefore, concept 2 is selected and developed further.



**Figure 16:**  
Matrix to evaluate concepts on low-effort and low-cost production

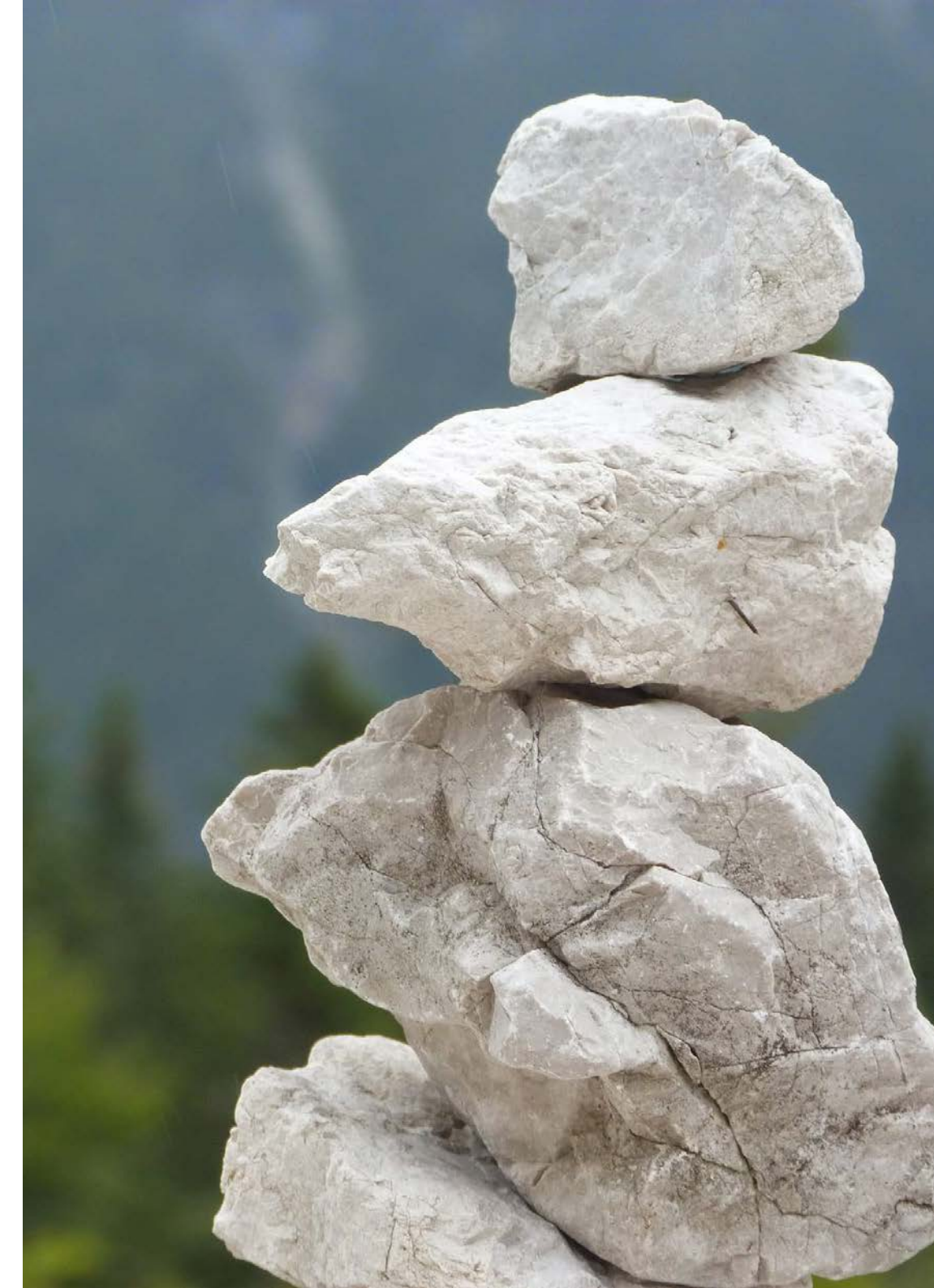
#### Inspiration

The aim of the design is to make a design for public space, in which users experience urban foraging, as an entrance to the foraging community. The goal is to create awareness about the community behind the practice. Get To Gather creates opportunities to make this community more visible. The leaves on the board shows the activity of the community at a particular location. The more leaves are added to the board shows the community is growing.

During a road trip in Croatia with friends, we stopped the car to enjoy a beautiful view over a valley. We got out of the car, and suddenly we were surrounded by little towers of rocks. Apparently, we were not the first visitors at this beautiful location. People stack rocks on top of each other, to leave a mark and help others by indicating places where the path is hard to follow. They are marks not to get lost in nature. In other cultures, it means that you can make a wish or it is a form of meditation. As described on the website Bearfoot Theory (bearfoottheory.com), nowadays, it is a modern hobby or art called “rock balancing.” Every stone represents a person behind, which is inspirational for this project. When someone has been in a fascinating place, he leaves a mark. Other people see this, and follow by contributing to the artwork too.

*“Een steentje bijdragen”.*

*Dutch proverb for “contributing to something”*





#### 4.2.5 ITERATE ON CHOSEN CONCEPT

The chosen concept has been further developed and tested with small prototypes to explore the possible interactions and responses of users, regardless of the materials and aesthetic expression. The purpose of the design is to create low-effort interaction to let people experience urban foraging, as an entrance to the foraging community.

##### Prototype with plastic caps

One of the prototypes was an interactive board where people can place leaves in plastic caps of bottles and put in the category: edible or non-edible, and later the uses: soup, tea, salad. When the board is used by multiple people, it will get filled. At the bottom, users can remove caps and refill it with other leaves.

During the interactive prototyping, the user expressed feeling afraid to do something wrong, if they would place a plant in the 'edible' category, and it turned out to be a poisonous plant. Also, the user became more aware of what grows in the environment and starts to observe the plants between the grass and sidewalks tales: "I suddenly see plants where I normally do not pay attention to." In addition to this, the anonymity of the product creates distance. It is unclear to who it belongs. If there were a logo and a clear invite, the user would feel more likely to interact with it. The user liked that the leaves are temporary because it dries out after a while. It shows how long time ago it was that someone placed a leaf.



Picture of the prototype

##### Co-creation session with the community

Co-creation is a form of collaboration, in which all participants have an impact on the process to develop something together.

Another prototype has been made to co-create with the foraging community. The group existed of a foraging professional and four beginners. The board is introduced as an object that will stand in public space to make people aware of the foraging community, and experience urban foraging with a low-effort interaction. They were asked to observe the board and explain their thoughts about what works to introduce beginner foragers to the community.

The board was designed in a way that the layout can easily be changed, based on the needs and thoughts of the community. The board divided into two parts: wild edible plants found by advanced foragers and a challenge for beginner foragers if they can find the same plants. In this concept, leaves behind glass have been used, as an experiment how leaves can be presented. The co-creation provided with categories, like "medicine," "soup," "salad," that the foragers could place on the board and trigger the conversation what is interesting to show.

The beginner foragers expressed they like the idea of seeing a plant and going on a 'hunt' to seek for this plant. But they also explained they would not trust the left part, because it can easily be changed by anyone who passes by. Therefore, this should be fixed, or a professional forager should have a key. However, this requires responsibility from a specific person, which makes the design high-effort in maintenance, and a hierarchical structure is needed, which is in contrast to the social equality within commoning practices.

They liked the appearance of the leaves between plastic sheets, but they expressed that the color would change, which makes it harder to identify the plant. Also, they would not know for how long the plant is placed on the board, and whether it is still findable in the surroundings.



Picture of the co-creation session



## 5. DELIVER: GET TO GATHER

The final design is the Get To Gather, an interactive board to invite newcomers to the foraging community, to let passers-by experience urban foraging with a low-effort interaction. At the same time, the board is a sign for the community and every harvest represents a person behind it, by sharing the uses of wild edible plants and the motivations of the foragers, so the foragers become indirectly connected with each other. When the board gets more and more covered by plants, it shows the activity of the community in that region and that the community is growing.

The board creates awareness about the community behind the practice of urban foraging. Involving beginner foragers in the community increases awareness about the correct and safe use of the environment because the community is characterized by its cross-cultural and generational memory carrier of knowledge about wild edible plants that connect foragers with each other.

The design is also an expression of reclaiming urban green space. The board is designed that citizens can easily make it by themselves, with readily available and low-cost materials. Placing the board in public space results in a transformation of forgotten, unused land into a place of social interactions that makes unseen wild edible plants visible.





## 5.1 DESIGN VISION

The design vision is to create a design in public space, to let users experience urban foraging, as an entrance to the foraging community. The longterm vision is that the design creates awareness about the community, and connects people of different experience levels, to teach beginner foragers how to forage safely. Get To Gather is a low-effort introduction to this community.

In the future, the design will stand at different locations in the city that shows there is a foraging community closeby, and people can arrange foraging meetups. The board becomes a recognition point for the community and an invitation for newcomers. People feel connected with the board and others when they see that there are more people interested in the practice. People interact with the board out of passion, and they want to contribute to the shared purpose: forming an inspiring network to teach others and have fun together. The board connects a diverse group of people, to overcome the barriers to foraging, by bringing beginner foragers into a trustworthy and friendly environment.

The six pillars on page 91 explain the design further.

**Over time, the canvas get filled with plants, that shows the local community is growing.**



### *Interaction*

The design requires a low-effort interaction as an entrance to the foraging community. The interaction vision is: “Like looking at the stars with a friend”, in which the interaction qualities are connecting, low-effort, and exploring. The stars are an analogy for the plants that people place on the board. It triggers users to explore the environment and the community behind the practice. The board let the user feel connected with others by seeing plants that other people have been placed. This refers to the analogy of a friend that points out a star in the sky. Also, the user feels connected with the environment by becoming aware of the plants that grow around that location.

### *Experience*

The board provides a welcoming, trustworthy, and authentic experience, by its colors and instructions that invite the user to interact with the board. The printed elements make the design trustworthy since this information is fixed to the board. The board provides an authentic urban foraging experience because the user looks for plants in the real context and the natural aesthetic expression of the board.

### *Materials*

The materials are readily available in general stores or through online ordering. They are low-cost and can withstand various weather conditions. They are also selected to fit the intended aesthetic expression to let the design integrate with the natural environment. For example, jute is an organic material and its colors fits the colors of the environment. The materials are easy to edit, so the community can use its own creativity and make the design in different forms and shapes.

### *Aesthetic expression*

The aesthetic expression integrates with the natural environment. The colors of the design appear in nature too. Jute is a loose material, which makes the board slightly translucent. The sun goes through it, and the nature behind the board is partly visible. Foragers often use organic paper bags and rush baskets to collect their harvest, and the appearance of jute fits well too this. The colors make the design look friendly.

### *Appearance*

The target group are beginner foragers, who are adults, most of the times between 30 and 60 years, see the chapter “Target group” on page 30. But the prototype tests during the ideation phase shows that kids also like to interact with it. Therefore, the size of the board and its positioning is determined to make it usable by a diverse group of people: kids and adults. The color codes make the board easy to understand. It is lightweight to make it easy to transport and place or hang up in different environments.

### *Technology*

Users can make use of the board without the digital elements. The digital component is a website that refers to the foraging community, and templates to build the design. There is no complicated technology involved in the production process, since most people have the needed tools available at home, like a saw and glue.



## 5.2 FEATURES

### 1. Community entrance and website

The design has a website that provides templates to build the design. Also, it has an entrance to the foraging community. The site refers to social media and foraging community webpages. There are many websites available, for example, websites that show overviews of professional foragers per region, which plays an essential role in the foraging community. Through these websites, people find foraging tours and can ask questions to people with more experience. The logo increases the trust of the user because they interpret it as it belongs to an organization.

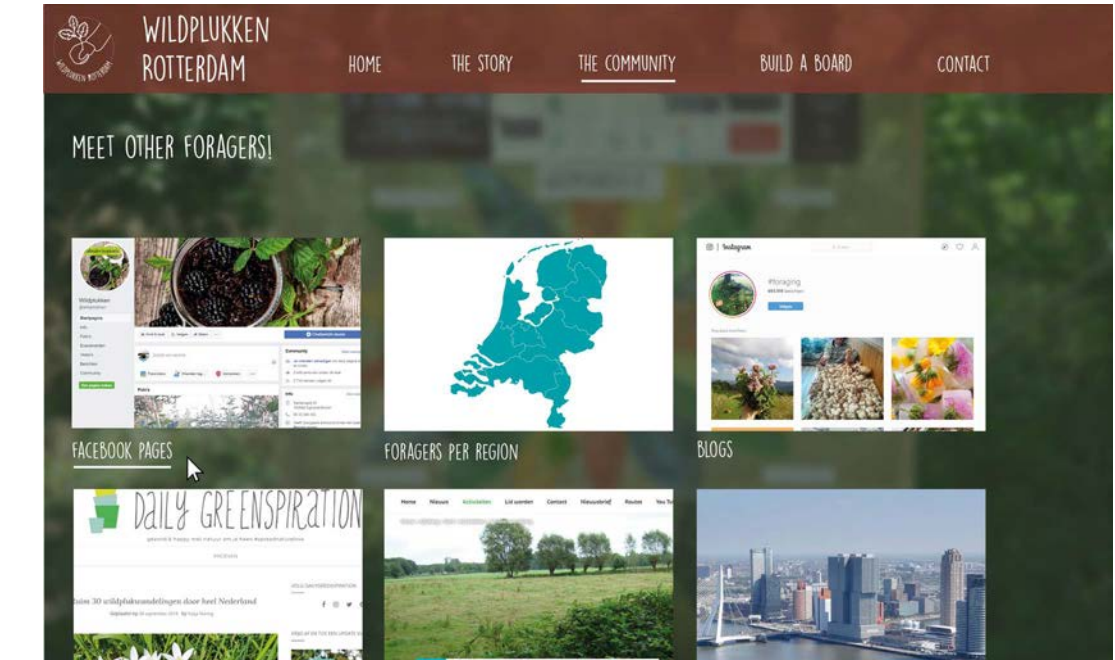


Figure 17: Mockup of the website: community entrance

### 2. Title

The title is designed to make it understandable for passers-by the board is about edible nature. Not everyone knows the dutch term “Wildplukken (Foraging)” because it is quite a new term. “Edible Nature” is more universal. The subtitle inspires people to interact with the board.

“Edible Nature - The city is full of free and healthy food. Together, we make this visible. Pick your favorite plant and share this on the board”.

“Do you want to know more about wild edible plants? Meet the foragers!”

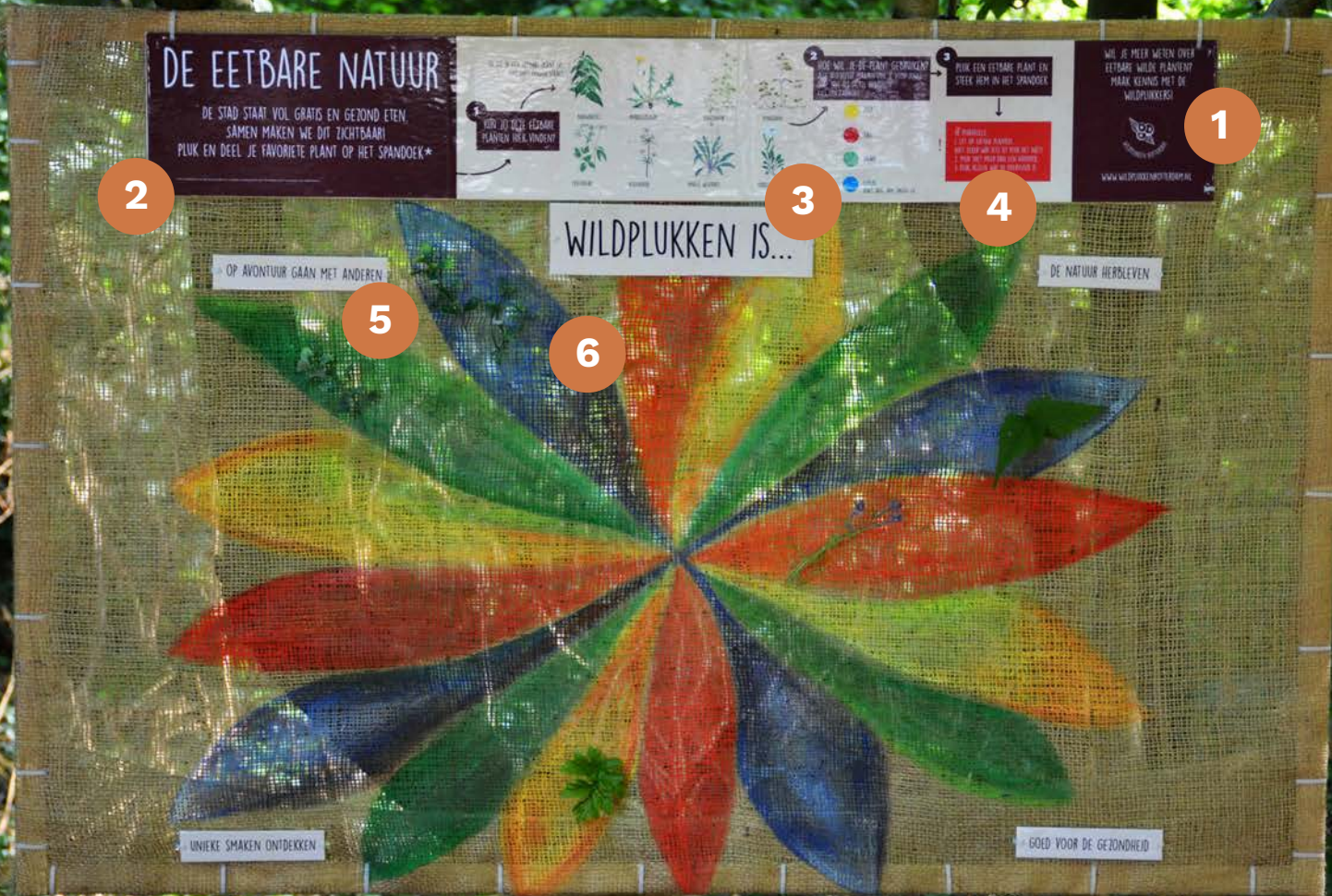
Figure 18: Instruction sign



Introduction

Instructions and overview of the wild edible plants in the area

Foraging rules





### 3. Instruction sign

The instructions bring the user in an urban foraging journey, step-by-step. The design asks the user questions in a particular order. Plants are selected per region, which will be explained on the next page. The instructions give the freedom for more experience foragers to find a new plant that is not visualized on the board.

The categories are selected based on the most popular and accessible categories for beginner foragers. During the iteration of the concepts, different categories have been evaluated, like “medicine,” “juice,” and “poisonous.” However, this cause complexity. For example, a medicinal plant is often a poisonous plant too and caused confuse reactions during the prototype tests. The categories of soup, tea, and salad simplify the interaction because the many popular wild edible plants can be used for all of them, and they are most recognizable. The user can choose a category that he prefers, and place the plant in the right color.

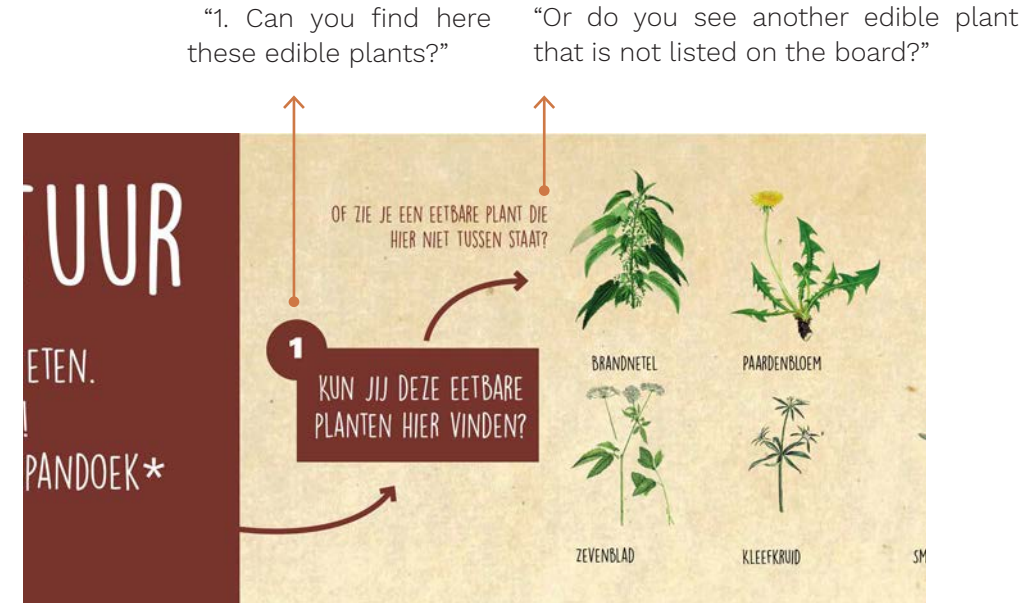


Figure 19: Instruction sign

“How would you like to use the plant?” with an extra description “All the shown plants are usable for soup, tea and salad. Select a category that you like”.

“Pick an edible plant and place it on the board”.



“How would you like to use the plant?” with an extra description “All the shown plants are usable for soup, tea and salad. Select a category that you like”.

“Pick an edible plant and place it on the board”.

### Overview of the plants

The plant information sign should be fixed in the design to increase trustworthy. The website gives instructions about how to make the information sign. The initial idea was to make information signs per region, to give people the freedom to select and share plants they have found in the area, but it is high-effort to analyze the plants, and make the sign and requires specific skills, namely the knowledge about the plants and choosing the right images. In addition to this, every month, plants disappear and will be replaced by others. The images are purely for beginner foragers to give an impression of what is edible and what can be possibly found in the area. The interactive element of the board offers users the freedom to share new discoveries and make it dynamic for repetitive users to see what has been changed. Because of these reasons, the website provides templates per ‘type’ of the region, for example, shadow, half-shadow, next to water or a sandy ground of a set-aside. These types form groups of plants that are often found together. For example, ground ivy occurs in environments with half shadow and slightly moist soil, and often nettle and plantain can be found closeby (oogstenzonderzaaien.nl). When someone found Every template contains eight plants, of which at least four grow the entire year, to increase the change that the visualized plant can be found in the area. Because of the limited amount of time, the knowledge about which plants grow where is incomplete. In the future, this part of the design could be improved

### Remark

This prototype decision is made after making the final prototype. The presented plants on the prototype fit in different categories. For example, dandelion often grows together with daisies at grasslands. This had no impact on the user test, since most of the plants grow in half shadow, slightly moist places, which characterizes the area where the prototype was placed.

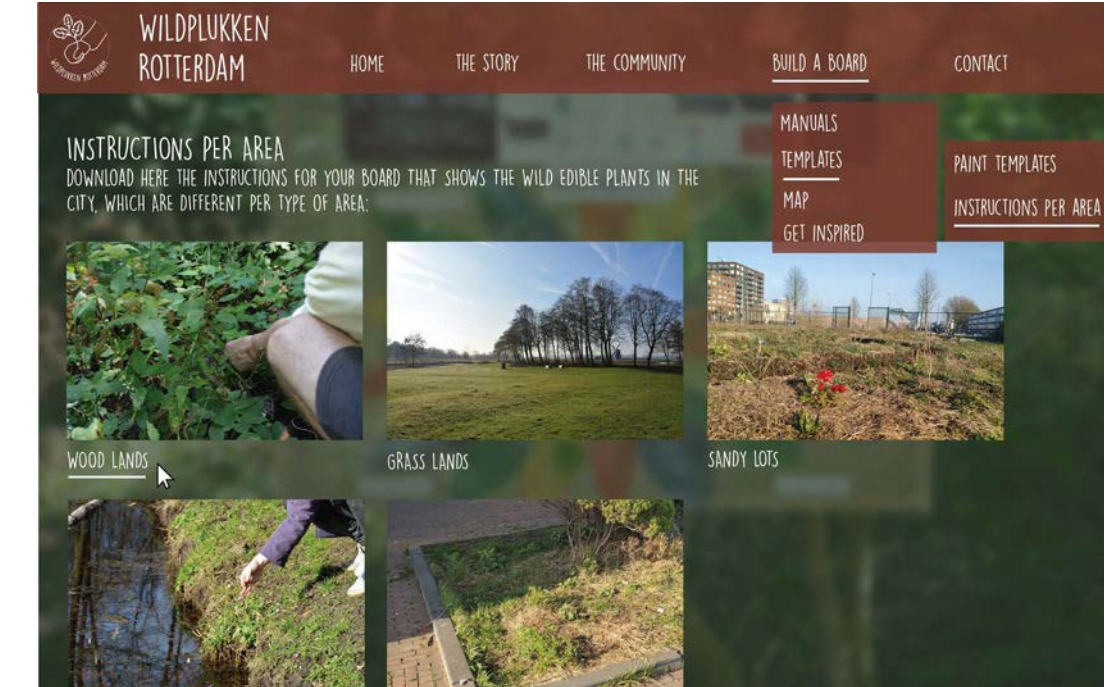


Figure 21: Mockup of the website: templates

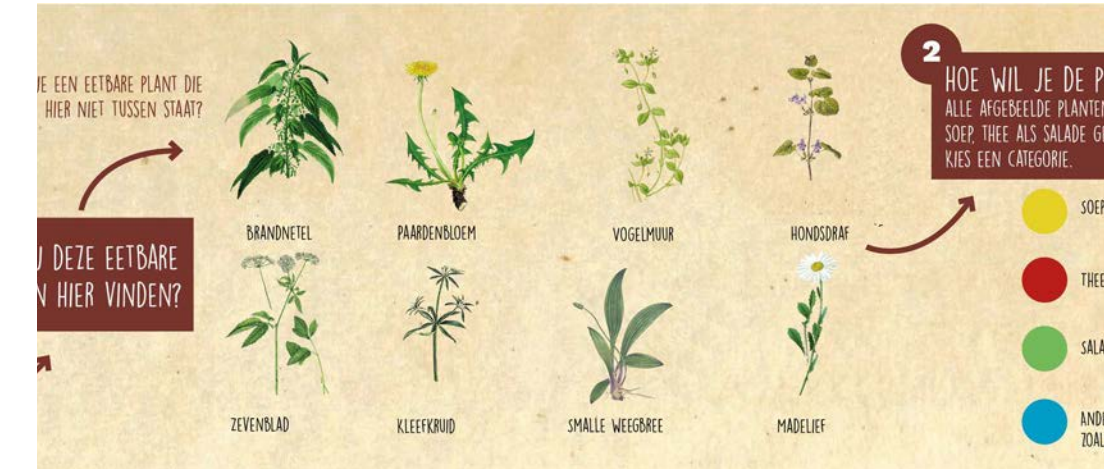


Figure 22: Overview of the plants



#### 4. Foraging rules

The foraging rules are essential to make sure that users treat the environment carefully and do not consume plants if they are not sure if it is edible. They make people aware that foraging is not without dangers, and can have serious consequences when people do not do it correctly.

“The Foraging Rules

1. Be aware of poisonous plants. Do not pick if you are not sure!
2. Do not harvest more than needed
3. Only pick what is in abundance”.

#### 5. Motivations

The motivations are inspired by the most frequent motivations of foragers, described in the chapter “Who forages, and why?”, on page 26. In the design, they serve as an inspiration where to place the plant. It makes people aware of the beliefs of the community behind the practice. Every plant on the board represents a person, and the motivations can make this more personal.

#### 6. Plastic plants

Plastic plants are an example and make the board more intuitive for the user. It also serves as decoration and makes let the design integrate with nature.

Figure 22:  
Foraging rules



Figure 23:  
Plastic plants

## 5.3 USER JOURNEY



#### Taking a walk during leisure time

The design interferes with the user during leisure time and stands at locations where many citizens come for recreation. In this scenario, the design stands alongside a side path of a public park. The path leads into a wooded area. This path attracts people who look for a quiet nature area.

The user lives closeby and takes a walk for a couple of times a week. During his walk, he explores the environment and enjoys its nature. He likes to take the side path because it has a lot of wild nature.

#### First impression

The user sees a colorful object, which he has not seen before in the park. He recognized there is information on the board and comes closer.

#### Reading the title

He reads “The Edible Nature” and understands it is about the edible wild plants in. He reads the subtitle: “The city is full of free and healthy food. Together, we make this visible. Pick your favorite plant and share this on the board”.

He sees three plastic plants on the board. He understands he can add an edible plant to the board. He feels connected to the board because he respects nature and likes initiatives that support people to interact with nature. The user sees the arrows leading to the description after reading the title and subtitle.

Figure 24:  
User journey of the final design

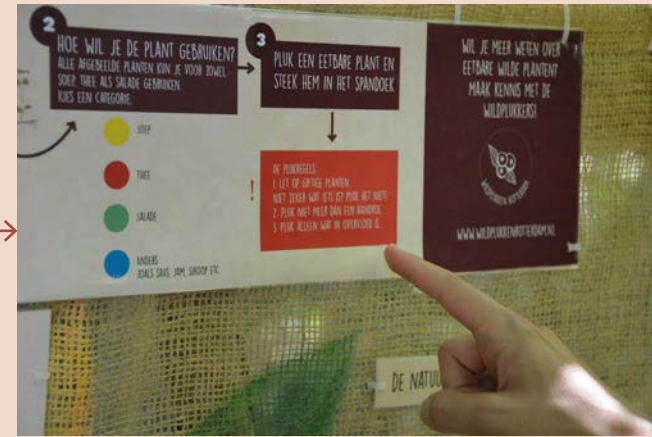
#### Invite

The design looks intriguing and invites the user to interact. The colors give a friendly, welcoming expression.

#### Social recognition

The design creates social recognition. The user feels connected to see there are other people with the same interests.





Observing the visualized plants

The user goes to step 1 and reads: “Can you find here these edible plants?”. He sees the overview of eight wild edible plants that potentially grow in the surroundings. He sees an illustration and the name of the plant written below. He recognizes four plants, of which he did not know they were edible: nettle, dandelion, ground elder, and daisy. The plants have been selected because they are easy to recognize, or most people already know them. The second arrow leads to the question: “Or do you see another edible plant that is not listed on the board?”, inviting users with more experience to add a new edible plant to the board, and may not be relevant for this user. He finds seeking for nettle fun enough.

Selecting a category

The user moves on to step 2 that describes: “How would you like to use the plant?” with an extra description “All the shown plants are usable for soup, tea and salad. Select a category that you like”. The user learns how the plants could be used, and he selects a category based on personal preferences. The user likes to drink tea and selects this category.

He sees the categories have colors and understands the relationship between the colors on the board and the plants.

Being aware of poisonous plants

The user reads category 3: “Pick an edible plant and place it on the board.” He sees the arrow points to a red box with an exclamation mark and interprets this as essential to read. These are the foraging rules to warn users not to pick plants when it unclear what it is due to lack of knowledge, pick no more than needed, and only pick what is in abundance. The user becomes aware there are also poisonous plants and will forage with care.

Selecting a plant

The user selects ground elder to look for in the environment. He knows the plant that grows as a weed in his garden, and is curious if it would grow here too and how it would taste.

Seeking

He walks around in the surroundings and observes different plants closely, to see if it is the right plant.

Seeking

He finds an area, about twenty meters away from the board, with an abundance of ground elder. He seeks for a plant that is recognizable and intact. He is surprised by the finding and that so many plants in nature are edible. It changes his perspective on the environment where he usually takes a walk, and feels connected to this nature area.

Low-effort foraging experience

**Personal expression**

The user can express his preference, which makes the interaction personal and challenging.

**Awareness about foraging**

This sign creates awareness about the possible consequences of urban foraging, if not performed correctly.

**Inform**

The illustrations give guidance to beginner foragers because they have no experience yet of what they could gather.

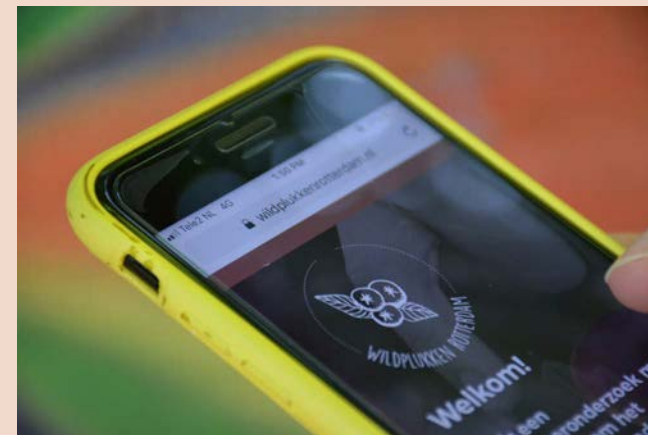
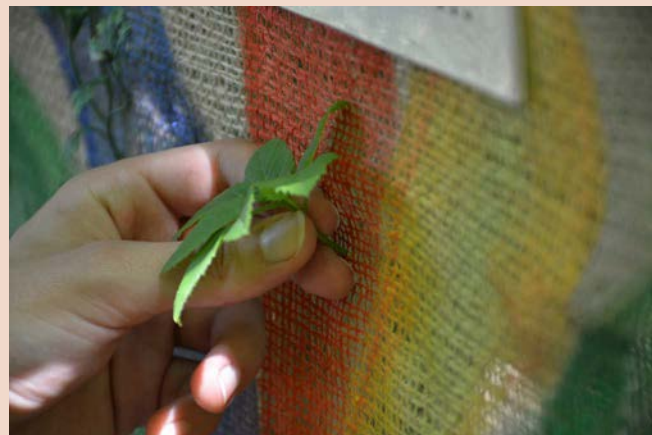
**Explore**

The user experiences urban foraging by exploring the environment and finding the plants.

**Connect with the environment**

The design triggers the user to feel connected with the environment and increases sensitivity towards nature.





### Picking

He picks the plant. He observes it from different angles, smells, and touches it. He walks back to the board and checks one more time if it is the right plant by comparing it with the illustration.

### Seeking for a place on the board

He wants to place the plant in a red area that refers to the category of tea. He sees the title "Foraging is..." and this refers to the four primary motivations of foragers:

1. Going on an adventure with others
2. Experience nature
3. Discover unique tastes
4. Good for health

### Placing the plant

He likes to make day trips with friends and visit nature, so he decides to place the plant in the upper red area, between "going on an adventure with others" and "experience nature." The red area refers to the category of tea.

### Looking at the result

He observes the result from a distance and discovers some other plants placed by other people. He sees someone placed a nettle leaf in the "other" category, close to "experience nature." And he sees a daisy flower in the "salad" category, next to the motivation "good for health." He is curious who is behind these harvests. He makes a picture of the board, and shares it with his friends.

### Entering the community

At the right side of the board, he reads "Do you want to know more about wild edible plants? Meet the foragers!". Below he sees a logo and a website, called "www.wildplukkenrotterdam.nl". He becomes aware there is a foraging community and wants to learn more about it.

### Meeting other people

The user goes to the website on his smartphone and reads a welcome message. He scrolls through the website and sees other people posting pictures, messages. He finds some links to Facebook pages of the foraging community and becomes a member of one of these pages.

He finds a Facebook event for a foraging walk closeby Rotterdam for next week and signs up for this.

#### Personal expression

Again, the user can express himself by showing the motivation of why he would like to forage. It creates the opportunity to share a passion for foraging.

#### Low-effort

The interaction of placing the plant is a low-effort act to contribute to the community by showing the interest of the user.

#### Awareness about the community

The sign creates awareness about the community and provides passersby the opportunity to connect with fellow foragers.



## 5.4 GET TO GATHER AND THE FRAMEWORK

This chapter explains where the final design fits in the framework. It shows how the design fulfills the design goal: use the benefits of commoning to support the practice of urban foraging. The blue dots are the design opportunities that fit the final design.

### Social characteristics of commoning

Produce mutual benefits  
p.17

Allow equitable access to everyone  
p.18

Participate the decision making process  
p.18

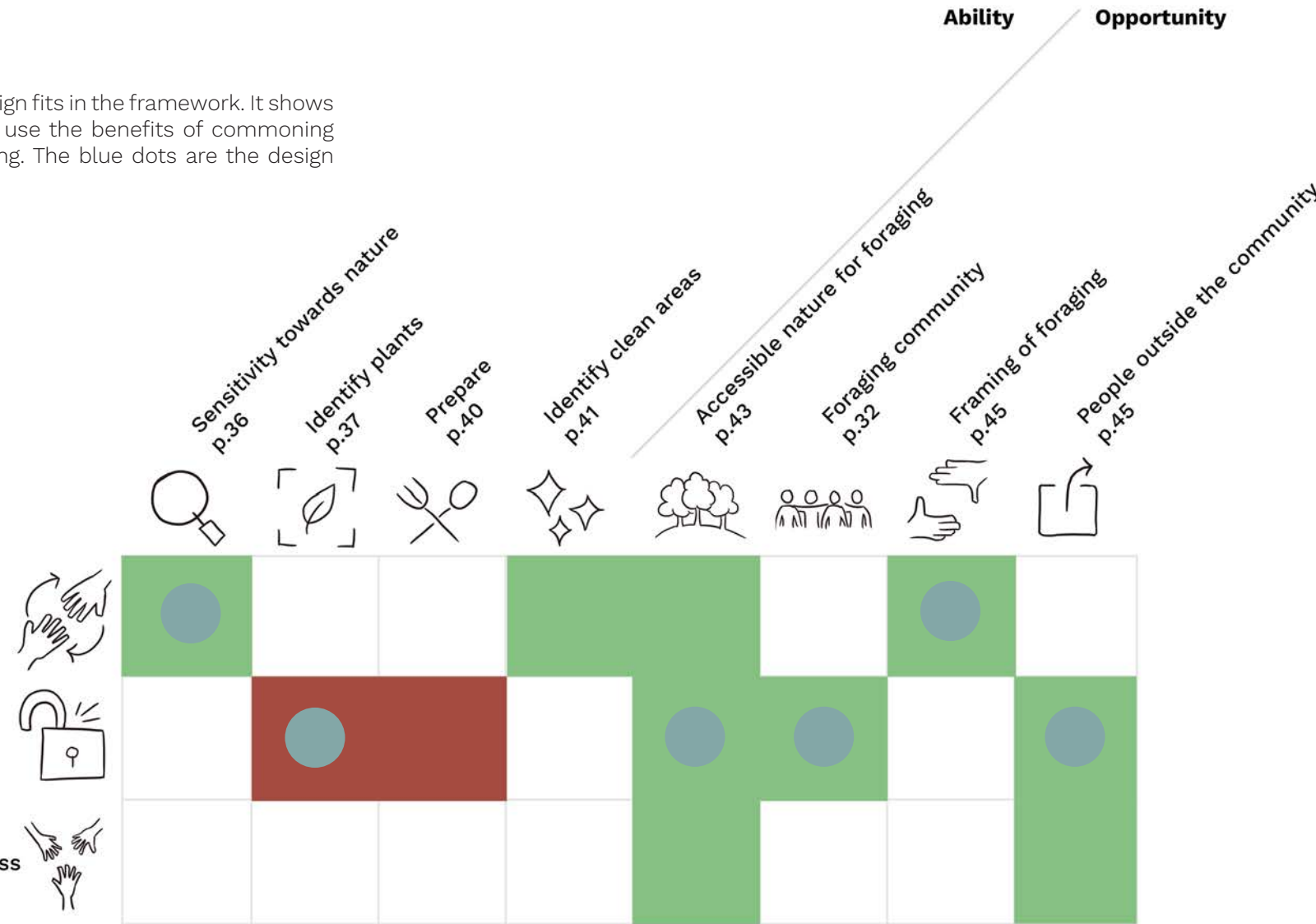


Figure 25:  
The framework and the final design

The board attracts people with a shared interest in urban foraging. They feel connected with the board if they recognize that other citizens like foraging too. They place a plant on the board to show others their presence, and to support the practice of urban foraging. After a while, the canvas covers with plants. It represents the people who are motivated to forage and that the community is growing. The design works more or less like a chain reaction: when people see other people add plants to the board, they are more likely to contribute too.

### Increase sensitivity towards nature by producing mutual benefits for the community

During the tests described in the chapter “Testing” on page 113, people see the illustration of nettle and start actively looking for it in the environment. Therefore, Get To Gather increases sensitivity towards nature, while contributing to the foraging community. The act of placing plants on the board makes people more aware of the plants that grow in a particular area. It triggers users to look from closely.

### Help citizens to identify plants by allowing its access equitable to everyone

Everyone can make use of the illustrations on the board for free and helps people to identify plants. Therefore, the board fits in the design space of providing tools to identify plants with equitable access to everyone. However, this is not an innovative solution, since there are already a numerous amount of plant identification guides. But since it helps new people to introduce to the practice of urban foraging and make the design understandable, it is a crucial element of the board.

### Increase accessible nature for foraging in the city by allow equitable access to everyone

Get To Gather makes urban nature equitable accessible to citizens. The placement of the board helps people to recognize accessible nature for foraging and invites them to interact with the environment. The board transforms unused urban green spaces into places with universal access.

### Make the foraging community equitable accessible to everyone

The board makes people aware of the foraging community and introduces newcomers, which creates equitable access to everyone. It creates an opportunity to every passer-by to experience urban foraging, but it distinguishes people who are motivated to forage from the general audience, as will be described in chapter “Testing”, which is a favorable outcome to prevent over-harvest. It overlaps with the design opportunity on the right: making the practice of urban foraging equitable accessible to people outside the community.

### Frame foraging as mutual beneficial for the environment and community

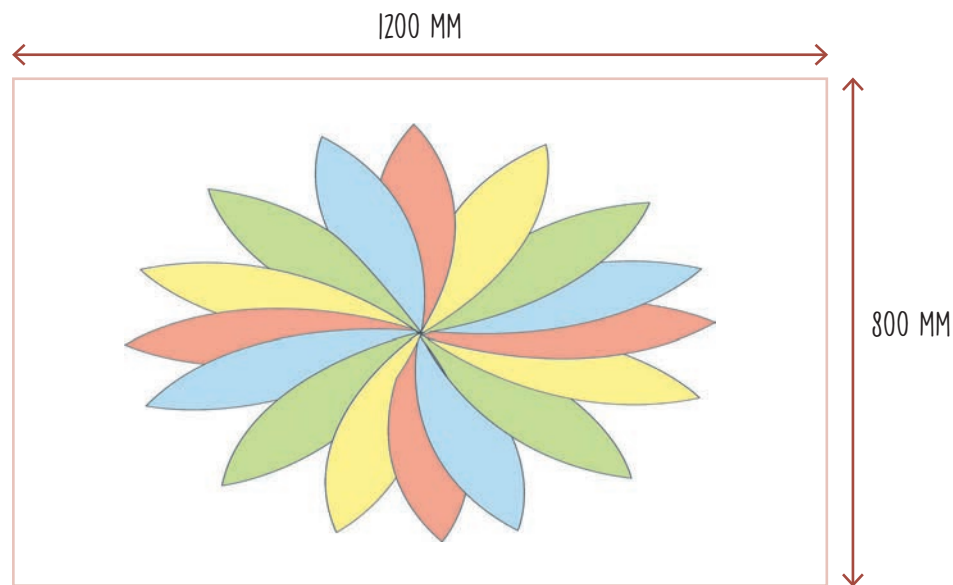
Get To Gather shows the social benefits of urban foraging by presenting its community. The user interacts sticks a plant in the canvas, in which he contributes to the community. The user can go to the website to meet other foragers and discovers the inspiring network. As described on page 45, external authorities sometimes worry about the popularizing of urban foraging and are afraid it will damage the environment. However, foragers have strong ties with others, and the community creates awareness about how to forage safely and with care for the environment. This design shows an active and secure community.



## 5.5 DO IT YOURSELF

The design vision is that citizens can make the Get To Gather by themselves, without the need to wait for external authorities, like the municipality. During the design process, different materials and production techniques have been investigated to make the design low-effort and low-cost to make. The result is the prototype that forms a basis for the manual, see page 106.

This chapter shows the manual that people can download on the website. This page shows the material list. Most materials are from hardware stores, like Gamma ([www.gamma.nl](http://www.gamma.nl)), or Action, a low-cost store with household, hobby and decoration items ([www.action.nl](http://www.action.nl)). The jute was ordered online, and the other tools were available at home. The total costs were € 29,84. The dimensions of the prototype are 1200 x 800 mm.



**Figure 26:**  
Design dimensions

### MATERIAL LIST

JUTE	1,5 X 1 METER	7,43	
WOODEN FRAME	4 METERS	5,98	
PAINT	FOUR COLORS	2,99	
BRUSHES		0,99	→ ACTION
TIE WRAPS	1 PACK	0,99	→ HARDWARE STORE
FIBREBOARD	120X60X8,5 MM	2,99	
GLUE SPRAY		1,99	
SPRAY LACQUER		3,00	
WOOD GLUE		1,99	
PLASTIC PLANTS		1,49	
SCISSORS			
STANLEY KNIFE			
MEASURING TAPE			
PRINTER, A4 PAPER			
PENCIL			
HANDSAW			
<b>TOTAL COSTS:</b>		<b>€ 29,84</b>	

**Figure 27:**  
Material list

### Jute

Jute is the primary material of the board and should be selected carefully to make the board work properly. Jute is a low-cost material and available in different shapes and sizes. Some types of jute are compact, and there must be enough space in which plants can be placed, but the plants do not stick in the material which is too loose. Therefore, there should be a right balance between whether the fabric is dense or loose. The material is available in fabric stores or can be ordered online. The material for the prototype has been ordered online through Stoffen & Zo. The store is located in The Hague.

### Foamboard/ fibreboard

Foamboard and lightweight wood are appropriate materials to make the instructions signs on the board. For this prototype, foamboard was used, since this is lightweight and there was rest material available at the workshop. However, foamboard is an expensive material. Instead, the user can buy fibreboard.





# GET TO GATHER

## DO IT YOURSELF MANUAL (ONLINE DOWNLOAD)

### INTRODUCTION

Get to Gather is an interactive board for public space that provides passers-by an introduction to the urban foraging and the community behind the practice. The board create awareness about urban foraging among a broader audience and attracts people who want to join the community, to forage together for fun and safety. People contribute to the community by presenting their harvest to others. Over time, the board will turn green, which shows the growth of the community in that region. Together, we make unseen wild edible plants visible again.

The board can be placed at abandoned urban green spaces, like no man's lands, that does not fulfill a specific function. Let's transform them into lively places!

This manual is for all Get To Gather builders. You can build the board together with your neighbors, kids, or friends. Have a lot of fun, and be careful with the tools!

Choose an urban green space

Get together to build

Place your creation in public space



Always ask permission from the landowner, be aware of over-harvest and the possible dangers of foraging! Only pick what is in abundance.



### 1 URBAN GREEN SPACE HUNT

The first step is to seek for a place to place the board. The location should contain wild nature that people can explore, and is clean. These places are not crowded, without dogs, and far away from factories and gas stations.

Some examples of appropriate places:  
A. Wooden areas next to public parks  
B. No man's lands next to your house or in the neighborhood  
C. Empty lot's

### ASK PERMISSION

In case the land does not belong to your house, ask permission from the landowner.

### OBSERVE

Observe the environment. What is an appealing location to place the board? Maybe you hang it in the tree? Do you recognize some edible plants? Is the area close to water, does it contain shadows, or is it a grassland? All these factors influence which plants can be found in that region.



### 1 BUILD THE WOODEN FRAME

Build a frame of 1200 x 800 mm. Use rest materials to reduce production costs. Choose a lightweight structure, so it is easy to transport and place at different locations in public space. If you are not able to find rest material, hardware stores offer a diverse range of planks. Choose a color you like!

### TIP

Use a transparent lacquer spray to make the frame resistant to bad weather conditions. Spray outside and cover the surroundings.



### 2 JUTE

Take a piece of jute fabric of 1 x 1.5 meters. The jute fabric should be 5-10 centimeters bigger than the frame, on all sides. Cut the Jute and apply wood glue to all edges of the fabric to keep the material together.



### 3 PAINT

Download the template of the flower or another one from the website and print it on eight A4 sheets. Glue together the pages and use it as an underlayer and start painting. Make sure that the holes will not be filled with paint.

### BE CREATIVE!

You do not need to use the templates. If you want, use your creativity and come up with a new design.





## 4 INFORMATION SIGN

The information sign tells people which plants can be found in the environment. It gives instructions on how to use the board, and it has a link to the website.

Observe the area where you want to place the board. Is the location shadowed, or is it next to water? Is it a grassland?

Go to the website and choose a template that is appropriate for the location and print it out on A4 sheets.

Cut out and place it on the board. Use glue spray to fix the paper to the board. Use adhesive foil to cover the board and make it resistant to weather conditions.

Repeat the same for the quotes: going on an adventure with others, experience nature, discover unique tastes, good for health, and can also be downloaded on the website.

### BE CREATIVE!

You can use self-made quotes for the board.

## 5 PUT EVERYTHING TOGETHER!

Fold the jute material around the wooden frame. Tie wraps are an easy way to fix the material to the frame. Start at the top and work downwards, keeping the fabric taut. To attach the quotes and the information sign to the board: make small holes and use tie wraps to fix it to the jute material. Use plastic plants to fill up the board.

## 4 PLACE IT IN PUBLIC SPACE

Place the board at the intended locations. You can use wires or tie wraps to hang up the board to a tree or a fence. Come back every now and then to see enjoy the result of the canvas getting covered with plants.



## 5.6 IMPLEMENTATION

### Who implements the design

The vision is that five years there will be about ten Get To Gathers around the city. There are some forager 'heads' in the Netherlands, spread around different regions. For example, the region of South-Holland has three well-known foraging guides, established in Rotterdam, Delft, and The Hague, as described on the website of the Wildplukkersgilde in the Netherlands ([www.wildplukkersgildenederland.nl](http://www.wildplukkersgildenederland.nl)). They could be initiators to create awareness about the foraging community and invite people to their tours.

The target group, as described on page 30, can also build the design. For example, someone recently started foraging and wants to support the practice, can place it in the neighborhood to create awareness about the foraging community. The design does not require foraging skills to build it because the website provides templates.

However, based on the exploration research and the designer's intuition, it is not expected that people will implement the design solely by themselves. Therefore, this chapter describes some ways how the design can get attention and how people can implement it together.

### Schoolyards

The user tests, described in the chapter "Testing", show that kids are more likely to interact with the design than adults. During the exploration research, foraging professionals explain that kids are an easy target group to teach about foraging. They are curious, like to play outside and they see more details in nature, while adults may be more reluctant.

Some foraging experts explain they go to schools to teach children about wild edible plants in the schoolyards. Making the board and painting the jute can be a fun activity that young kids do together at school. It can be a daily event organized by a forager or another nature specialist, after which the school places the board on the schoolyard. Kids can interact with the board during the breaks and see how it turns green over time. It invites kids to interact with nature, and become aware of nature that is edible.

### Foraging tours

During the co-creation with foragers, a professional forager explained she would like to have a similar board at the beginning of her tours. She used to have a standard meeting point for her tours. She wants to use the board as a fun introduction game for her participants.

The board can serve as a recognition board for foraging meeting points, for example, by adding an agenda with upcoming foraging tours. It creates awareness about local professional foragers and it connects people directly.



### Green initiatives

The municipality in Rotterdam supports initiatives that reconnect citizens with nature. There is a walking tour that connects all initiatives, called “De Groene Connectie (The Green Connection).” The website [degroeneconnectie.nl](http://degroeneconnectie.nl) shows the map and activities. It connects meeting places in public parks, community gardens, and other initiatives.

The municipality may be reluctant towards foraging, but by showing the benefits of urban foraging, Gat To Gather could be placed alongside such tours. Green initiatives as The Green Connection provides opportunities to create a balanced relationship with the municipality and is a gateway to make Get To Gather accessible to citizens.

### Foraging tours

During the co-creation with foragers, a professional forager explained she would like to have a similar board at the beginning of her tours. She used to have a standard meeting point for her tours. She wants to use the board as a fun introduction game for her participants.

The board can serve as a recognition board for foraging meeting points, for example, by adding an agenda with upcoming foraging tours. It creates awareness about local professional foragers and it connects people directly.



Example of how the design stands at a schoolyard



Example of how the community can give the design different forms and shapes. The picture is made with Photoshop.

The community can adapt the design to their own needs and bring in new ideas. The DIY-manual gives guideline about how to make the design, and the builder can use creativity to experiment with different forms and shapes, so the design grows together with the community.



## 6. EVALUATE

### Production

A part of the test is measuring the needed time and costs to produce Get To Gather. This test investigates whether the design is low-effort and low-cost to make.

### Observations and interviews

The prototype was standing in a public space for a week and observed during two afternoons. During the observations, interviews took place with five adults. Two kids interacted with the design. The observations and interviews gave insights about the user's experience: whether it is trustworthy and welcoming. In addition to this, the tests investigated the intended interactions: low-effort, connecting, and exploring.

### Testing with the website

The prototype refers to a website, which is the entrance to the foraging community. The website explains the board stands there for research purposes and ask if the visitor wants to leave a message. Google Analytics tracked how many people visited the website during the week. Google Analytics is a service from Google that collects data and statistics about a website, like the amount of users. The goal was to measure whether it attracts attention, to measure whether it creates awareness, and to get in touch with users.

## 6.1 TESTING

### 6.1.1 PRODUCTION

The production should be low-cost and low-effort. Figure 27 shows the time measurement when building the board. It shows the production only, excluding the needed time to gather the materials, the waiting time for the delivery, the used time for experimenting with different materials, and finding a location to place the board. Altogether, it took about three days to build the prototype.

The initiator will have a manual with concrete steps where to find the materials, and how to build the board that speeds up the process. Assuming the initiator is not a designer and a less experienced builder, the producing time will take longer. Therefore, it will probably take a day to make the board, including gathering the materials.

The most complicated part of the production was assembling everything. The jute must be tightened, and the instruction signs must be placed on the right height, and help from another person was needed. It is recommended to build the board together.

One day is an appropriate amount of time to build the board. It fits in a day event, and if everything gets prepared before, it could even take half a day. There were no problems with finding the materials.

An improvement of the design can simplify some production steps. For example, glue the instruction signs to the board, instead of using tie wraps. Instead of using a frame, wrap the jute around a tree. In general, the prototype was easy to make.

The design is quite low-cost and low-effort to make, and herefore it successfully achieves the “do it yourself” vision, and there is room for improvement. However, the design requires several elements and materials: the frame, instruction signs, jute. The community can adapt the design and transform it into more straightforward solutions.

Part	Time (minutes)
Wooden frame	20
Jute canvas and painting	150
Instruction signs	60
Assembling	50
Total amount of minutes	280 4h 40m

**Figure 27:**  
**Time measurement**



## 6.1.2 USER TRACTION

### Testing with the website

The results of Google Analytics show that two people visited the website. The other two were test visits from the designer. One of the visitors left a message. During the observation studies, most people did not see the board, or it was just a glance. Also, the board was in a remote area of the park, and therefore, the traction was low, and the name of the website was not the most prominent aspect of it. Therefore, two visitors in a week is a promising result.

https://www.wildplukkenrotterdam.nl

WILDPLUKKEN ROTTERDAM

### Welkom!

Dit bord staat hier vanwege onderzoeksdoeleinden en wordt binnen een paar dagen weer weggehaald.

Het doel is om het bewustzijn rondom de eetbare natuur in de stad te vergroten door beginnende wildplukkers met experts te verbinden, voor natuurbescherming, voedselveiligheid en de gezelligheid.

Zou je ons willen laten weten waarom je de website bezoekt? Of heb je vragen, opmerkingen of tips? Wij waarderen alle input. Alvast bedankt!

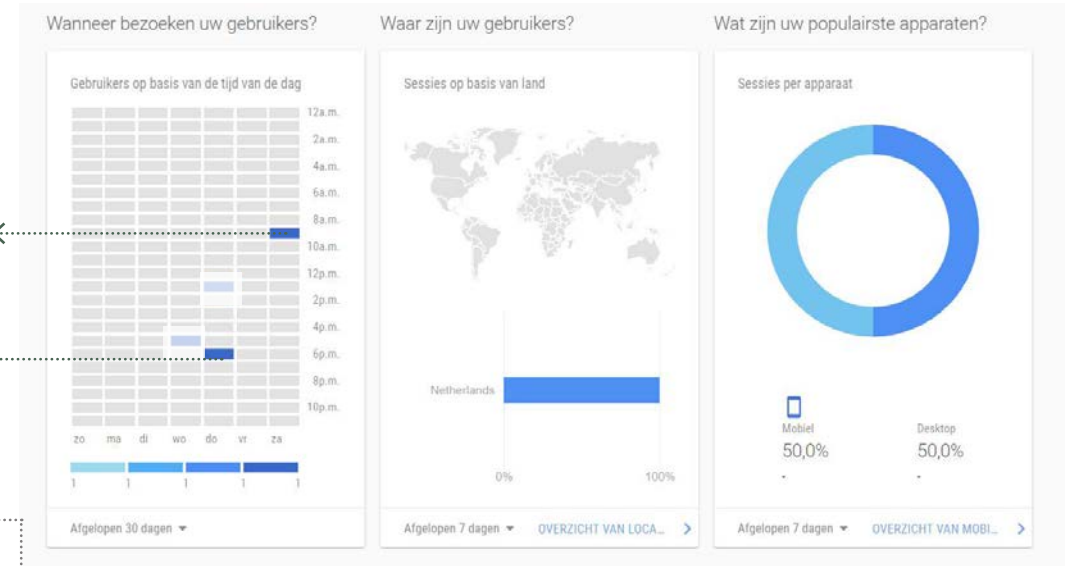
Naam

Email

Type hier je bericht

Submit

Figure 28: Screenshot of test website



New users

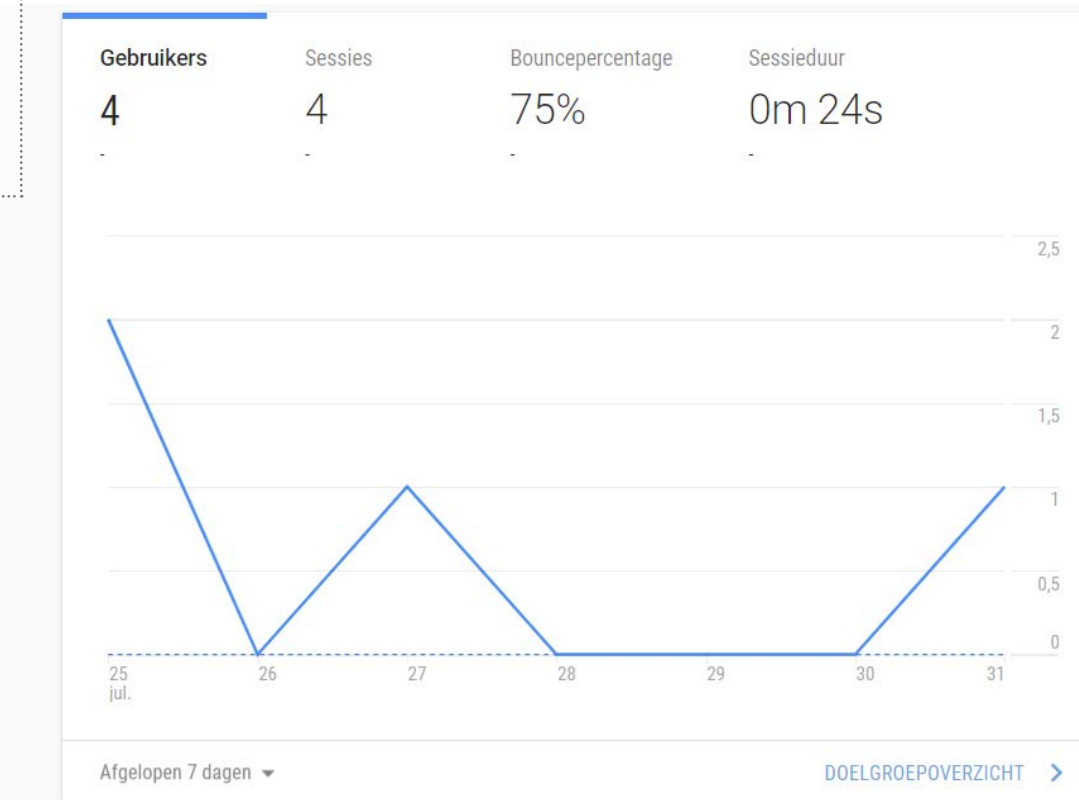


Figure 29ab: Screenshot of Google Analytics

### Messages

The website has been visited by four different people, of which one left a message. She wrote:

*"Yesterday I walked in the park and I saw your beautiful pinboard. I made pictures of it, because I like the initiative."*

The following question was whether she has experience with foraging and what attracts her in the initiative. She answered:

*"Well, experience... I have some experience with foraged nettle soup and tea. And blackberries and other "wild" growing fruit. But otherwise, nothing much. I just like the park and I liked the initiative. I hope your banner will turn green. Yesterday, there was a small start, see the picture. Will there be a more developed website?"*

In one of the following messages, she explained that she gathered nettle and placed one leaf in the area for soup and one for the tea. She said she visited the park regularly and she has been to the food forest in Rotterdam.

Jul 27, 9:24 AM

Contact

FIRST NAME

EMAIL

MESSAGE

Ik liep gisteren in Het Park en zag jullie mooie plukbord. Heb er foto's van gemaakt omdat ik het zo'n leuk initiatief vind

Jul 27, 4:38 PM

Nou ervaring, ervaring..... Met zelf geplukte brandnetelsoep en – thee misschien. En bramen en andere "in het wild" groeiend fruit. Verder niet echt veel. Maar ik ben erg gesteld op Het Park en ik vond dit gewoon een leuk initiatief. Ik hoop dat jullie spandoek mooi groen wordt! Gisteren was er nog maar een klein beginnetje gemaakt, zie foto. Komt er een uitgebreide website misschien? Hartelijke groet, Sasha



Figure 30: Screenshot of the message



### 6.1.3 USER TESTS IN PUBLIC SPACE

The prototype has been tested in public space with passersby and is evaluated based on the six pillars, described on page 59.

#### Interaction

The design should represent how the community is growing by placing leaves on the canvas. Every day, a picture captures the activity of the board. The first day shows new plants on the board. A family places them during the user test. The next day, the plants were dried and still hanging. Nettle was added, possibly by the woman from the text message. During the rest of the week, the plants stayed in their place, and there were no new plants.

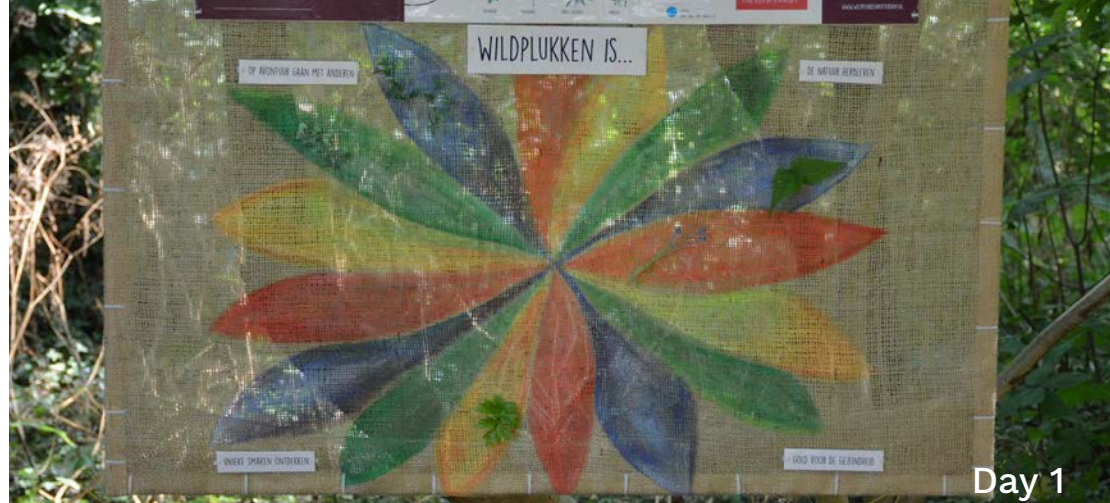
Users expressed they were not bothered by the changing appearance of the plants when they dry and consider it as a logical consequence of picking plants; one user explained: “That just happens when you pick a leaf.”

Nettle was the most common plant to pick because it was in abundance in this area, and probably it is a plant that people easily recognize, so it is comfortable to pick. One of the users responded to the plants presented on the board as not knowing they were also edible.

Few users may have contributed to the board, but user tests show the interaction is intuitive and low-effort. People quickly understood the intention is to stick a plant in the canvas.

#### Categories

The categories aim to add a game element for the users when interacting with the board. Almost all the users understood the categories immediately. They see the plants can be used for all categories, and they place it at locations how they would like to consume it. The design became a measurement tool of how people use their foraged ingredients, and a conversation starter at the same time. Users start to discuss where they would place the plant. For example, one user explained she is interested in healthy organic tea, and she likes to place the nettle in the tea category.



Day 1



Day 2



Day 6

Pictures of the prototype during different days

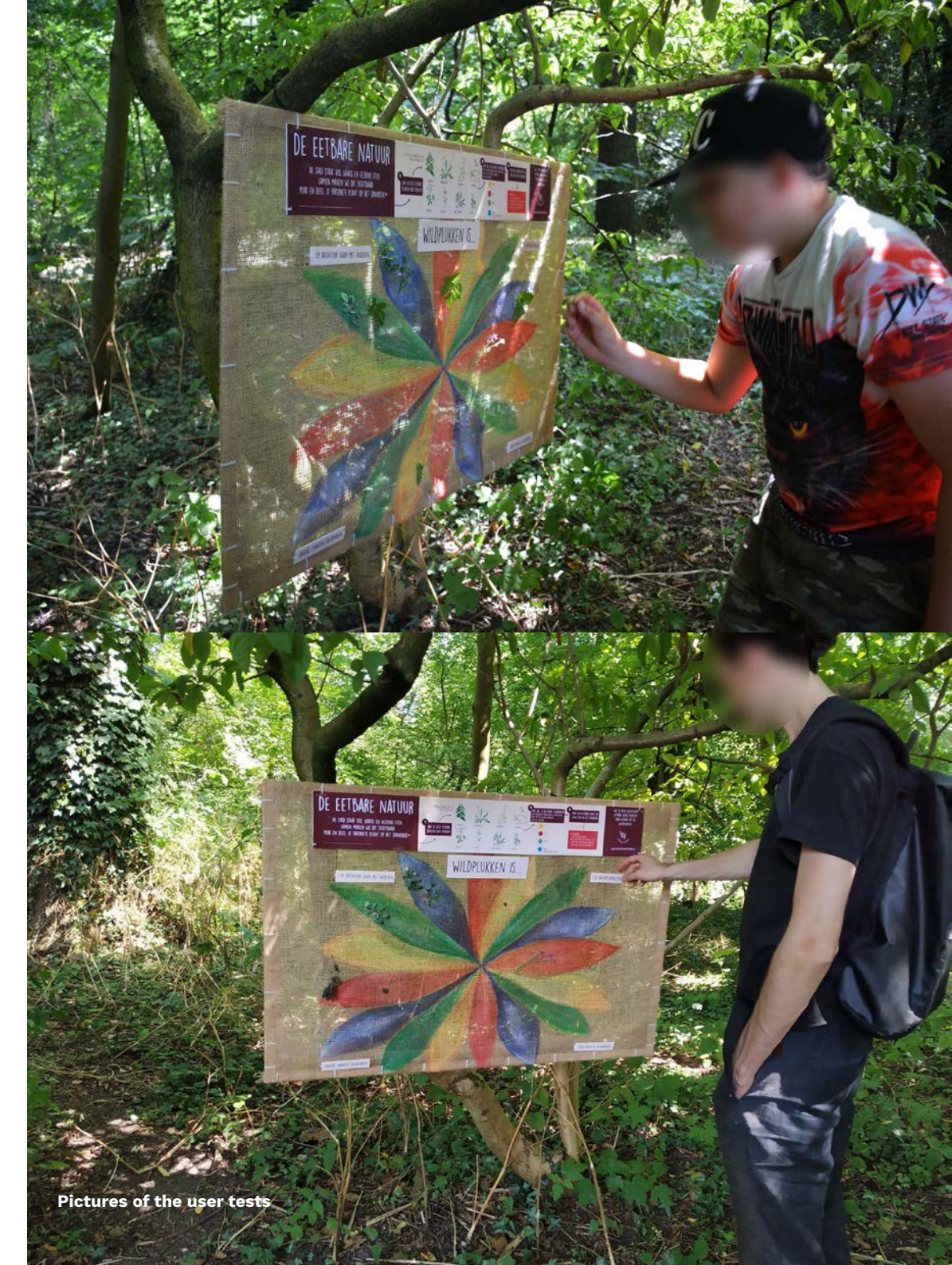
One user considered the colors as decoration, and people can place plants anywhere they want. This person did not read the instructions yet. After reading the instructions, the purpose of the colors became clear. Most people likely think the flower is a decoration when they see the board for the first time. Reading the instructions is a required interaction to be able to use the board properly. However, for ‘quick’ passersby, it is acceptable when they think the flower is a decoration that people can fill in with picked plants because it is a sign that people foraged here.

The motivations were less intuitive, and no one made use of it. They were reading the expressions but did not understand that they would place a plant close to the motivation category where they feel most attracted too. When they picked a plant, they were focusing on placing it in the right color — the design intended to use the motivations at an inspiration, rather than a key interaction. Still, people were inspired by the motivations and let them think. One user was pointing out the motivation “good for health,” and said, “Foraging is indeed healthy; that is why I would forage.” Therefore, the motivations are certainly a valuable addition to the design.

#### Experience

An essential requirement of the design is that users trust the design because one of the main barriers of foraging is that people are afraid to eat poisonous plants. During the tests, users express they trust the board. One user said: “it looks like it could be placed by the municipality, which makes it trustworthy.” There is a right balance between an open, accessible, and messy design while having a trustworthy appearance. They understand they should not get the information from the dry plants, but from the printed information.

The users expressed that they like to see pictures of the plants and challenge themselves to look for them in their surroundings. The users walk a couple of meters around to find the plants. The board is hanging hidden between the trees, and this is in line with how foragers like to behave. They are people who want to enjoy nature silently; they like to come together in a sheltered area, surrounded by nature, to share their passion for nature.



Pictures of the user tests



### Materials, aesthetic expression and appearance

Most users expressed they liked the appearance of the board in different ways. One user said: "It integrates so nicely with the environment, how it moves with the wind and how the sun goes through the fabric." He found it pleasantly integrated into the environment. Other users expressed that it looks exciting and it invites them to observe it from closeby. The ergonomics were suitable for different targets groups. Kids could also interact with the board. The board was flexible to move, which created a convenient interaction when sticking the leaves in the canvas.



Mother: "I would not pick a nettle..."  
Boy: "Why not?! I am going to do it!"



Mother: "Where do you want to place it? For soup or tea?"  
Boy: "I want to make nettle soup!"

Pictures of the user tests

## 6.2 CONCLUSION OF THE TESTS

### Creating awareness about the community

The success of the board, concerning to what extent it get filled with plants, relies on altruistic behavior. They feel a connection with the board because they recognize themselves and feel connected with other people who have been using the board before. Users put their effort into the board in the benefit of the community behind it.

During the tests, kids were more likely to interact with the board than adults. They like to hunt for plants and to challenge each other. The parents helped the kids with pointing out plants and cleaning them before placing on the board. However, the target group is adults who want to start foraging or want to learn more about it. The user from the text message is the only adult that placed a plant on the board during the test phase. She was enthusiastic about the idea, wants to support such initiatives, and by adding a plant she can contribute.

### Connect a diverse group of people

Since foraging is still a unique practice to do, users become enthusiastic when they recognize the board in public space and see that more people are doing it, like the woman from the text message. The interactions are indirect, and there is room to encourage direct social contact by providing the board, for example, it can be used as a meeting point to come together every month to forage in the surroundings and exchange knowledge by providing a schedule on the board or a link to a website that organizes this.

One of the users said he missed the direct connections with fellow foragers. He would prefer to see, for example, an agenda with foraging tours in the region.

A valuable addition to the design is to add an agenda of foraging tours that will happen in the near future. For example: "we meet here every first sunday of the month at 11 AM". Both non-experienced foragers and professional foragers expressed this need. The design becomes a meeting point.

### Do it yourself

A point of attention is that the initiator should be aware of potential over-harvest because the design invites people to forage. However, the user tests show that only the people who are motivated will interact with the board and not the general public. The solution is to simplify the design by using a canvas only and a sign with the website. The website explains how the user should interact with the board, and it is an entrance to the community at the same time. When there are plastic or dry plants added to the board, the interactions remain intuitive. The initiator should always ask permission from the land owner to place the board.

### Act out of passion

The general public is not likely to interact with the board. The board will mainly be used by a particular target group, namely people who feel a secure connection with the board. Therefore, the board is only used by people who act out of passion. It is a positive result because the foraging community needs to grow gradually, so there is more control over who is involved. It should not popularize rapidly since there will be a higher risk on people treating the environment incorrectly, over-harvesting, or doing the practice unsafely. Since not every passerby interacts with the board, the change the board will be damaged because of vandalism is small.



## 7. DISCUSSION

This report is a showcase of how commoning can be used as an approach to support the practice of urban foraging. This report shows one possible outcome of the design process, and there are likely other outcomes that would suit equally or better. This chapter describes the results, limitations, and recommendations for the future.

### 7.1 RESULTS

External authorities may think that foragers damage the environment, especially when it becomes popularized. The community is aware of their possible negative impact of the environment and the dangers of poisonous plants. This aspect makes it a secure community to increase awareness. In addition to this, foraging is a social process, in which foragers like to inspire each other and share their passion for nature, that creates strong social ties between foragers. Therefore, when people start foraging, foragers want to involve them in the community, which led to the design vision: creating an entrance to the urban foraging community in public space.

Commoning supports the practice of urban foraging because it empowers social connections, which contributes to community building. It connects a diverse group of people, which takes away the barriers to urban foraging of beginner foragers. Commoning also contributes to resilience building, because it creates awareness about urban nature, how to forage safely, and prevent people from over-harvest.

The ownership model of urban green spaces, the context of urban foraging, results that land is often privatized, and becomes less accessible to citizens. Get To Gather shows a way to reclaim these areas, by making them equitable accessible for foragers. The design creates awareness about the foraging community, which was invisible to the outside world before, by showing it to the broader audience. In the long-term, it contributes to resilience building of urban nature, because more people become aware of how to treat nature correctly, and the design increases community building, by empowering social connections between inexperienced and experienced foragers in the future.

### 7.2 RELEVANCE

The project gives an impression of how the social characteristics of commoning could support the practice of urban foraging. It let people rethink citizens impact on resilient food production systems, their relationship with urban green spaces, and the social benefits of urban foraging.

The project shows the social characteristics of commoning, which are valuable insights for designers to implement them in different fields. The framework shows how commoning can be used as an approach to support a social practice and inspires designers to come up with unique ideas to create new relationships between people within and outside a community.

The project investigated the social aspects of urban foraging, which is an under-explored field. It shows how people create an inspiring, trustworthy network to preserve the culture of a practice that is as old as we can remember, of which knowledge originated from our ancestors, and therefore an inspiration for future work in social design.



## 7.3 LIMITATIONS

### The scope of foraging

The exploration research focused on one foraging category, namely wild edible herbs, and the results may be less relevant for other categories, like mushroom or goose eggs hunting. This was mostly due that the project started in spring, the season of wild edible plants, and so the community organized many tours to seek for herbs, and this category became accessible.

### Measure long-term impact

Due to the limited amount of time of the project, it was not possible to measure long-term impact on the community. The results are now predictions, based on the intuition of the designer and experience with the foraging community. The prototype test took a week, which was too little time to measure whether it shows how the community is growing.

### Changing environmental factors

The environmental factors during the tests were changing a lot that might have influenced the test results. For example, the test week was during a heatwave, and it was holidays, and many people avoided to go outside or were out of town.

### Access to shareholders

This project shortly investigated the image on urban foraging of shareholders and their potential positive impact on the community, because of the limited amount of time. The insights came from literature study and interviews with professional foragers, but not on talking with shareholders themselves, for example, the landowners. Also, it was challenging to get access to them because it was not always clear who the landowner was. Therefore, the project could not investigate deeper values and needs of them, which might impact particular design decisions.

## 7.4 RECCOMENDATIONS

### Involve external authorities

The design shows how beginner foragers got introduced to the community. As described before, there was no extensive research in the shareholders or external authorities. Further research could investigate this more, which creates exciting opportunities for designers to create a balanced relationship between urban foragers and external authorities, that has a significant positive impact on the community, by designing a connection between the shareholders.

### Investigate the foraging regulations

During the co-creation, foragers expressed concerns about whether the design should be accepted by external authorities, because it potentially promotes over-harvest, that the municipality wants to prevent. However, as described before, the results from the user tests show that over-harvest will most likely not happen because the general audience does not interact with the design, only people who want to get involved in the practice and the community. Shareholders have different images about foraging, and there are doubts about the clarity of the foraging regulations in particular areas. Designers could investigate further the regulations, and find ways to let foragers feel less 'insecure' about their acts, whether it is illegal or not. For example, make it clear where it is allowed to forage and where it is forbidden. Also, designers could find ways to show to people outside the community what the benefits are of foraging.

### Let the community design

In this project, the designer made the prototype. Interesting future research would be to let make the design by the community, and see how they adapt it to their needs and wishes over time. They may add an agenda for foraging tours, or use different locations to place the board, which are all exciting insights about the community. The website with the templates could be launched, for example, through social media, and promote the design by putting it in public space at different locations.

### Implement the design with care



If this project inspires organizations to implement Get To Gather or a similar design, the local regulations must be checked before and ask permission from the landowner. This practice is associated with dangers, namely the possibility of consuming poisonous plants, especially this is the case for inexperienced foragers. Initiators should always be aware of the possible negative consequences. The chance is small, but if the risk on over-harvest becomes high, the design needs to be removed. The priority is nature, and the design should encourage people to pick what is in abundance only. Therefore, the design should make users aware of the possible consequences. In addition to this, the design should not harm the environment. For example, do not use pushpins in trees.

### Apply social characteristics of commoning

The urban foraging and commoning framework show exciting design spaces of combining two practices that are deeply rooted in human nature: commoning and foraging. Future design and research directions could be to apply the social characteristics of commoning to other practices, like community gardening, and food forests, or entirely different fields, like in education. Maybe the social characteristics of commoning could be applied to the community of street musicians? The possibilities are endless and worth to investigate, seeing the social benefits and significant potential for society. It is a beautiful way to create new social relationships and keep culture and traditions in the hands of people.

## Contributions

**1**

The project shows the social aspects of the foraging community in the Netherlands, which is an under-explored field.

**2**

The project shows the social characteristics of commoning and how to apply this in design.

**3**

The project shows how commoning can support the practice of urban foraging and opens up exciting design directions for the



## 8. AFTERWORD

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Thank you very much,

Lotte de Wolde





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