# Dirt Stories: A Sensory Dimension To Ethnography At Food-Growing Communities

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**ABSTRACT**
Our global food system needs to become more sustainable, requiring changes in our everyday food practices. Local food-growing communities are a source of change and set an example. In this study, one such community was the site of sensory ethnography to explore what could be learned to inspire a transition toward sustainable food practices. Qualitative data in the form of ethnographic stories and annotated dirt-covered cloths (probes) emerged. This sensory-rich data enhances storytelling, allowing for raising awareness and emerging people in the context of its collection.

**Authors Keywords**
sensory ethnography; ethnographic probes; local food-growing community; resilient communities; storytelling; food appreciation

**INTRODUCTION**
The global food system is unsustainable. Practices like monoculture, heavy machinery and the use of pesticides negatively affect the climate. Agriculture plays a significant role in the contribution to anthropogenic global warming. However, a change in the current practices could significantly reduce the effect [14]. Not only the agricultural industry contributes to unsustainable food practices. The way food is wasted after it already has contributed to global warming makes the call for change even more pressing. According to the United Nations Environment Program, 17 per cent of global food production was wasted in 2019 [19 [27]. The current global food system needs to change on a systemic level [25].

In The Netherlands, farmers have been protesting government measures to transition the sector, which slows down the measures and makes them more compromised [5, 18]. The sector needs to become more resilient. Resilience used to be defined as the ability to withstand difficult circumstances, but through its use in social contexts, it has become the ability to transform and adapt to these circumstances, which is often referred to as social-ecological resilience [7, 21, 16]. Resilient communities can play a significant role in addressing global challenges in their local context [7]. Instead of regarding a national perspective, local food-growing communities give an example of how agriculture can be a sustainable practice.

This study locates itself in such a local food-growing community: Stadsakkers [26]. The purpose of this study is to use sensory ethnography and probes to discover what can be learned from this community to inspire a transition toward sustainable food practices. This entails gathering deeply qualitative data that also reflects sensory elements and experiences that are part of the place. The study contributes to the research-through-design community by experimenting with a novel way to collect sensory-rich data that can enhance ethnographic storytelling. This type of data is unpredictable and partially temporary. It could be used to raise awareness and (re-)emerge people or researchers in the context of the collection.

**RELATED WORK**
Food-related practices are a subject that already many academics investigated for addressing sustainability. This is approached from the start and end of the chain: Food production and food waste. In this study, the site is a place of food production, namely an ecologically food-growing community called Stadsakkers, but the outcome relates to food appreciation and therefore also to food waste.

Some people say that food is wasted because there is such an abundance of it in the global north that it just becomes another throwaway product like its packaging [13]. People's morals play a role in their sustainable consumption, but also in their arguments for (not) wasting food [3, 8]. The problem is challenged by government campaigns with behaviour change methods and tips for the consumer [8], but also by apps and communities that support sharing of leftover food [12, 15], and design researchers that e.g., allow for monitoring your fridge remotely [11]. The latter recommends making food pathways more visible and letting people engage in growing food practices together [11]. Therefore, I think that the solution to the problem of food waste can be connected to how food is grown and how people are involved in that practice.

This study started with the desire to make the choice for sustainable options inclusive,

regarding affordability. The more sustainable, locally grown food from for example farmer's markets is often not affordable for everyone, making the consumption of sustainable food a luxury [25]. This fact makes it more difficult to transition towards supermarkets with only organic and local products, as some people need to continue buying the cheaper unsustainable alternative. Therefore, the start of a change toward sustainable food production should be found elsewhere.

There has been an increase in local initiatives to grow food [23]. Examples of these initiatives are community-supported agriculture, food forests, urban gardens, and more. Local food-growing communities often function as sites in studies concerning sustainable food production practices, since these are seen as a powerful source for a change in the global food system [22]. The food-growing communities enable learning by doing and making the process of food production transparent [22, 20, 11]. Individuals are not up to the task of transitioning to sustainable food systems, but through collectives, it is more achievable. The local food practices are a form of prefigurative politics, which is a form of practising a preferred future in the present by going against the mainstream practice [22].

The studies taking place in food-growing communities often involve observing the practices in combination with some interviews and surveys to come to design implications. A study that takes it beyond humans is the work Noticing Nature by Rosén [22]. He used ethnography to explore design for more than human noticing technologies. His approach and findings resonate with mine. Besides ethnography, he created designs, of which one was a workshop on soil ethnography to make people aware of its nutrients through noticing. The aesthetics of these chromatographic sheets resemble the wet cloth probes used in this study. Where my work focuses on the senses, his focuses on extending them, taking my work a step into a future where people are more-than-human centred His idea that sensory-rich experiences support understanding aesthetic interactions and experiences, which helps in creating a relationship with the more-than-human world, relates to my idea that they can establish a sense of connection between a person and the process of growing food.

**Related Methods**

To gain insights into another level in the practices of the community, I included the senses. The work Doing Sensory Ethnography by Pink formed the core for that approach [24]. It is "a reflexive and experiential process through which academic and applied understanding, knowing, and knowledge are produced." It enables the researcher to capture what is experienced, but invisible through observations and interviews. This approach was very suitable as it opened the field of resilient food-growing communities to an experiential perspective. Pink promotes the researcher to be embodied in the context of ethnography by e.g., taking the role of apprentice or seeing interviewing as a place-event [24]. This highly supports the understanding of the participant's world as both researcher and participant are enabled to refer to (sensory) elements in the surrounding space. These elements could also be consulted in observations. For more specific considerations in perspectives and focuses for observation the work Behind the Lens was valuable, as it proposes novel observer positions [4].

The goal of this study to explore through ethnography fits with the notion of drift. Krogh and Koshinen describe drifting by intention as an essential component of design and constructive design research processes, as it shows the design researcher's ability to learn from findings and "drift" to an appropriate next step [19]. In this study, the expansive method of drifting that is related to field research is most applicable (Figure 1). The notion of drift is also mentioned in the work of Goveia da Rocha and Andersen about material drift [6]. Here the samples represent a journey full of opportunities, of which you choose to follow only a few in a particular process. The idea of travelling they describe is very similar to how the context of Stadsakkers presents a sea of knowledge of which only certain aspects are included in the ethnographic work, which contains many lessons to be learned only a few being relevant for this study. Both works require the design researcher to use intuition and embrace uncertainty in the process.

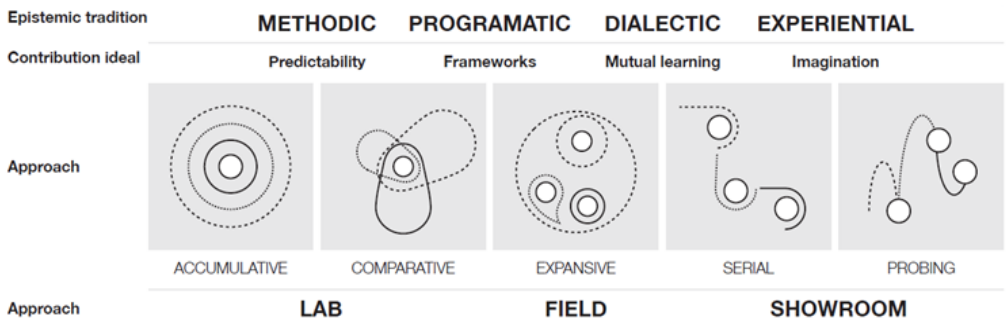



Figure 1: Ways of drifting according to Krogh and Koshinen [19].

## METHOD

The purpose of this study was to explore what we could learn from a resilient food-growing community to inspire a transition toward more sustainable food practices. Therefore, I conducted this study in an exploratory manner, inspired by the intuition and uncertainty in the process of (material) drift [19, 6]. Instead of experimenting with materials and finding interest in what is made, I used ethnography and participated in a specific context (still using my hands) combined with my vision of sustainability to create focus. The work on sensory ethnography by Pink supported this approach [24], resulting in deep qualitative insights.

The site was Stadsakkers [26]: A community of volunteers that grow food ecologically for the Foodbank and sometimes Salvation Army and Ervaring Die Staat in Eindhoven [1, 17, 10]. I worked on only one of their locations: Stadsakker Eikenburg. The participants in this study were therefore all volunteers at Stadsakkers. Some were regular and some were there through working at ASML being less experienced. The fifteen adults participating were of varying ages. The study took place on four Wednesdays and one Friday between the end of March and the end of April, resulting in many activities relating to planting and preparing fields.

### Procedure

The first moment of data collection was a week after my first visit to Stadsakker Eikenburg. During that visit, I made the present volunteers aware of my intentions, learned about some general and practical information and afterwards helped with placing compostable mulch foil on the field. This inspired me to start with autoethnography.

The goal of autoethnography was to increase my understanding of the place and its practices to find focus and inspiration for designing ethnographic probes. I brought a notebook, pencil, and my phone to take pictures and made sure to not wear my best clothes. With this preparation, I participated in activities and asked questions to better understand the work and to get instructions. Working together with the other participants was useful as it allowed us to talk and create trust, which is essential in working in a social context [2]. Taking notes was not doable with dirt on my hands, resulting in fully writing down my experience the same day at home from memory having the pictures as support (e.g., Figure 2) [Appendix A].

Figure 2: Transplanting parsley during autoethnography.

The second data collection consisted of ethnography through observation and occasional unstructured interviews combined with the first ethnographic probe. The goal was to learn more about the volunteers' practices through ethnography and to gain insight into how dirt played a role in them through the probes. The probes were cloths (40 cm x 25 cm from an old bedsheet) that were folded and had an assignment written on them (Figure 3). It asks people to carry the cloth with them and wipe their hands whenever needed. When doing so, they are asked to write down what they were doing, what they are wiping, and why they are wiping. They are required to return the cloth and to write down a start and end time to give an indication of the period the cloth was used in. The probe is designed so that it does not look very valuable (unfinished edges) to lower the threshold of making it dirty. The colour white was chosen as it easily shows dirt. The woven cotton fabric easily shows crinkles and to catch those, I made sure to iron the cloths and fold them thrice to make them pocket size. I chose this size for the cloth to enable people to wipe in different places and annotate per place. To make sure that this worked, I made a small sample to try.

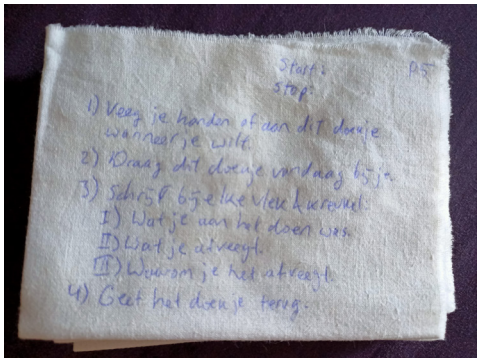



Figure 3: Cloth probe with written assignment.

To start collecting data, I made sure to explain the probe and my intentions to observe and make notes. Four volunteers participated. Two participants took a pen that I had brought with them to use for annotating their stains. The cloths were used for approximately three hours. For the ethnography, I followed the participants and described in jottings what they were doing occasionally supported with a rough sketch and a picture (Figures 4 and 5). In these descriptions, I focussed on the hands and what they touched. To support the descriptions with motivations for actions, I occasionally asked questions. I translated the jottings with the pictures into a story at home in the following two weeks [Appendix B]. The jottings and pictures supported my memory over a longer time span to remember the details. To ensure proper preservation of the data that the cloth probes captured, I took pictures of their front and back, followed by storing them in separate small plastic bags (Figure 6).

The third data collection was similar to the second but more extensive and it included slightly different participants. On this day fifteen people that worked for ASML would join the regular volunteers in the work as an activity of the ASML green team. This resulted in my participants consisting of two regular volunteers (that did not participate in the previous study) and five volunteers from ASML. This time I brought five cloth probes but with English instructions instead of Dutch, as ASML employs many ex-pats. In addition, there were two other probes: A representation of a human body with the question of where people got dirty and asking them to mark those places on A5 paper (Figure 7). The goal of this probe was to understand where people consider themselves dirty. This is very superficial, but therefore it could also lower the threshold to participate.

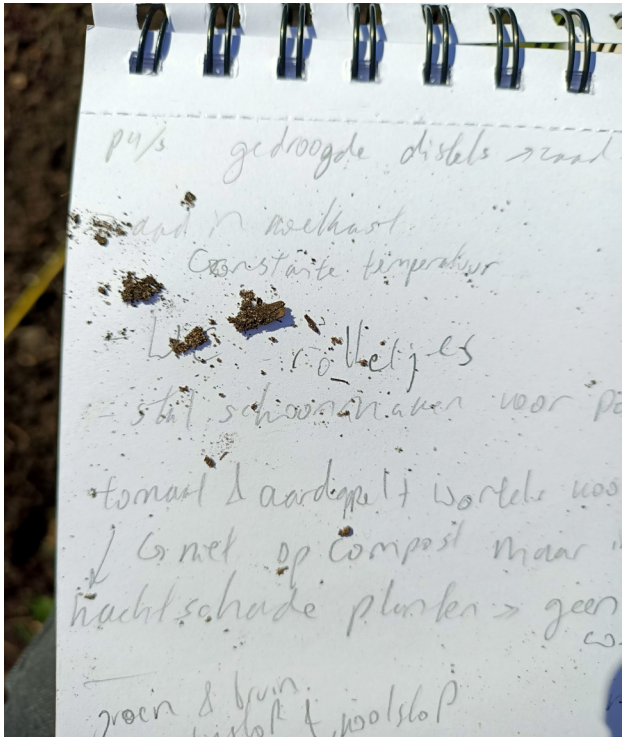



Figure 4: Jottings in my notebook.

Figure 5: Picture of participant using the cloth probe.

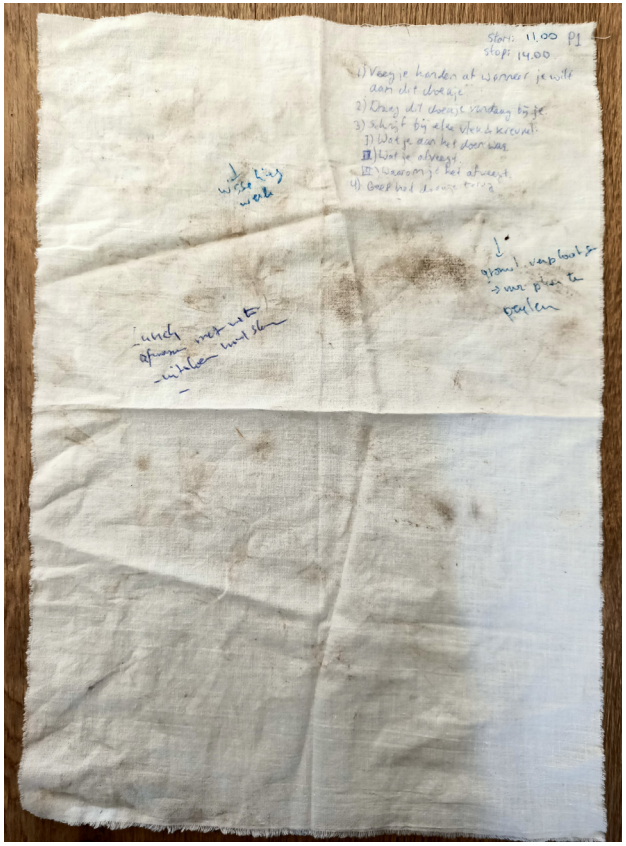


Figure 6: Picture of the first used cloth probe.

The second probe consisted of sets of two small plastic bags asking people to collect something they liked to touch and something they did not and to write down why (Figure 8). If enough people would do this, it could be used to understand how touch preferences are related to dirt and function as a material library of that.

By introducing myself with my purpose and probes at the start of the day, people that were interested came to me to participate. Two regular volunteers participated in the cloth probe and

the dirt body map probe. Five people from ASML participated in the dirt body map probe, of which three also did the cloth probe and one the bag probe. The probes were used for approximately 2,5 hours. For a full understanding of the context and to see how people new to Stadsakkers engaged in the practices, I did ethnography through observation and occasional questions. The decision on where to observe was partially led by the weather, as taking notes in the rain was impractical. I took fewer pictures and made more rough sketches to be less intrusive, as these people did not know me like the previous participants (Figure 9). In my jottings, I focussed mostly on the hands. When the cloth probes returned, I immediately took pictures to ensure that I could read the annotations that were bleeding due to moisture. I stored them again in separate plastic bags. In the following two weeks, I turned the jottings into a story [Appendix C]. This time I also used the cloth probes to revive my memories when writing, as their smell was useful to trigger memories.

To get a deeper understanding of the regular volunteers' values and motivations, I returned once more to conduct semi-structured interviews while the people were working. Their answers were captured through note-taking. The questions concerned what they thought of getting dirty, how it affected their appreciation for food, and how their work at Stadsakkers affected it. As well as how they would try to increase someone else's appreciation for food [Appendix D]. Six regular volunteers participated of which two had already participated in earlier studies.

**Analysis**

The three stories were analysed by reading them and marking sentences as part of categories that emerged from the stories. All the probes were analysed by annotating images and experiencing and discussing them with a colleague. In this discussion, I kept my own findings in the background to ensure that I did not bias the judgement. The interviews were thematically analysed. Combining the individual insights of the data and connecting it to the literature allowed for deeper insights. Through presenting and discussing these insights, more followed. This method was inspired by Pink [24]:

> *"...analysis entailed moving between different sets of research materials and memories to piece together abstractions of events and processes in such a way that they related the phenomenology of the research process to written academic debates."*

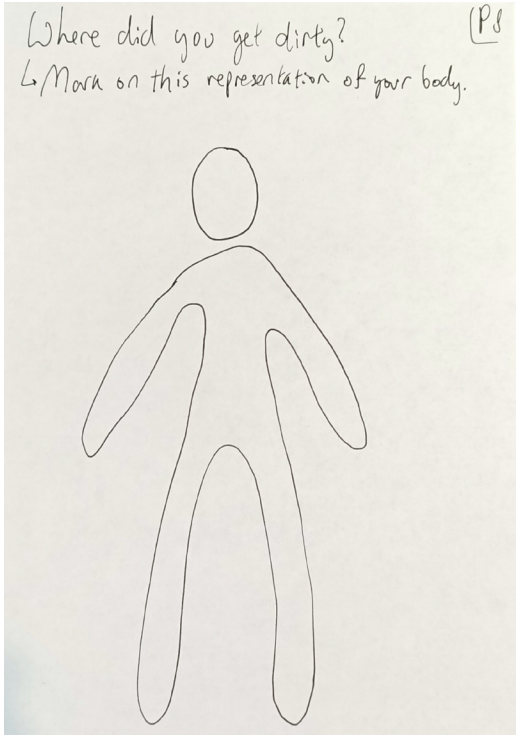



Figure 7: Body map probe on A5 paper.

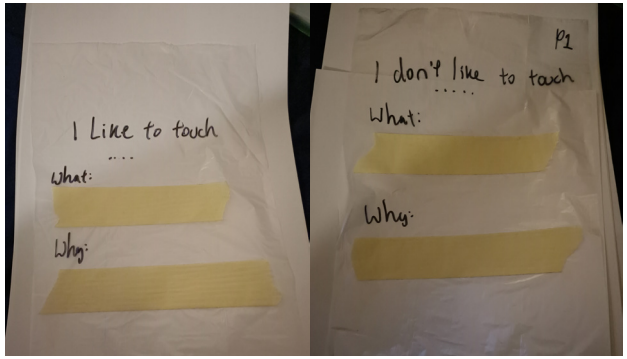



Figure 8: Bags for the bag probe with questions.

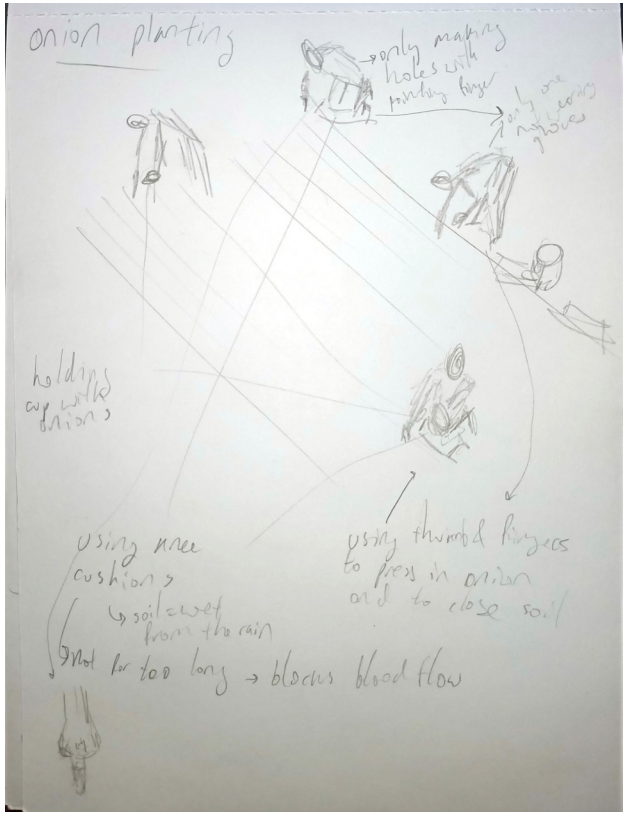



Figure 9: Rough ethnographic sketch of onion planting.

## DISCUSSION

### Findings

The autoethnography (Dirt Story 1) allowed me to get to know the community and its practices and to find focus for the rest of the study. It revealed how someone is included as a volunteer and how you easily learn the work by doing and mimicking others. Besides, it emphasized the sensory elements of the place and the work allowing for a focus on how dirt plays a role:

> *"When the water that drips from the roof is too little, I put my hands in the water in the barrel. This is much colder than the water from the roof, but it does the job well. Washing my hands like this and getting them dirty makes me feel a bit more like a hardcore gardener. It is some sort of evidence that I am working."* ~ Wash hands in Dirt Story 1. (Figure 10)

Figure 10: Washing my hands in rainwater after working.

The ethnography (Dirt Story 2 & 3) created a context for the probe cloths that makes them more understandable. In these stories, practices are described in extensive detail. The volunteers explain the motivations for their methods which contain very specific gardening knowledge. The stories reveal that there are different methods for the same practice and different volunteers, therefore, learn from one another how things can be done, and together they find the best method per situation. The stories zoom in on the hands, revealing the carefulness that is used by both regular and new volunteers in e.g., transplanting young plants. The volunteers all have different ways of dealing with the dirt, but no one is bothered by it.

> *"He separates the plants, makes a hole in the soil in the tray with his pointing finger, and puts in the plant. Then he closes the hole by pressing with his thumbs and pointing fingers of both hands. The table is getting dirty from spilled soil and P1 leans with his hands on it. The outside of his hand is covered in dirt, but the middle is still clean."* ~ Transplanting in Dirt Story 3 (Figure 11)


Figure 11: Places where P1's hand is covered with dirt.

The analyzed stories and their categories with descriptions can be found in Appendix E.

The cloth probes captured not only the annotations, crinkles, and stains but also moisture that made the ink of the felt tip pen bleed into stains like chromatography and the smell of rain and dirt that was present during the work. There is a clear contrast between the cloths used on a sunny and a rainy day (Figure 12). The wet soil made darker stains and the smell of the rainy-day cloth is much stronger. The cloths also slowly changed over time (Figure 13). This is especially the case for the wet cloths, as the ink and tiny soil particles spread with the moisture due to chromatography principles. They also lose their moisture and smell over time. This depends on whether they are stored in a closed or open environment. In the separate bags, the cloths kept their smell and moisture for at least six weeks. When after that stored in an open environment, these features were lost in a few hours. Furthermore, the bigger soil particles that stuck to the cloths got lost in an open environment. The wet cloths also stored the crinkles differently, as the moisture flattened them. They were sometimes visible through the patterns in the dirt stains (Figure 14).

The volunteers did not always perfectly follow the cloth probe instructions, resulting in them often annotating their stains when handing them in and not specifying which stain is what. The cloths have been used to wipe hands, dry hands, and wipe noses and one was lost and not used at all. There are few cloths explicitly explaining why something was wiped. There are cloths that are completely covered and used and there are cloths that have not been completely unfolded and they are therefore still having "clean" spaces. To illustrate the diversity

Figure 12: The left cloth is from a dry day and the right form a rainy day. The right cloth captured more soil and the ink bled due to moisture. The cloth also has a stronger smell.

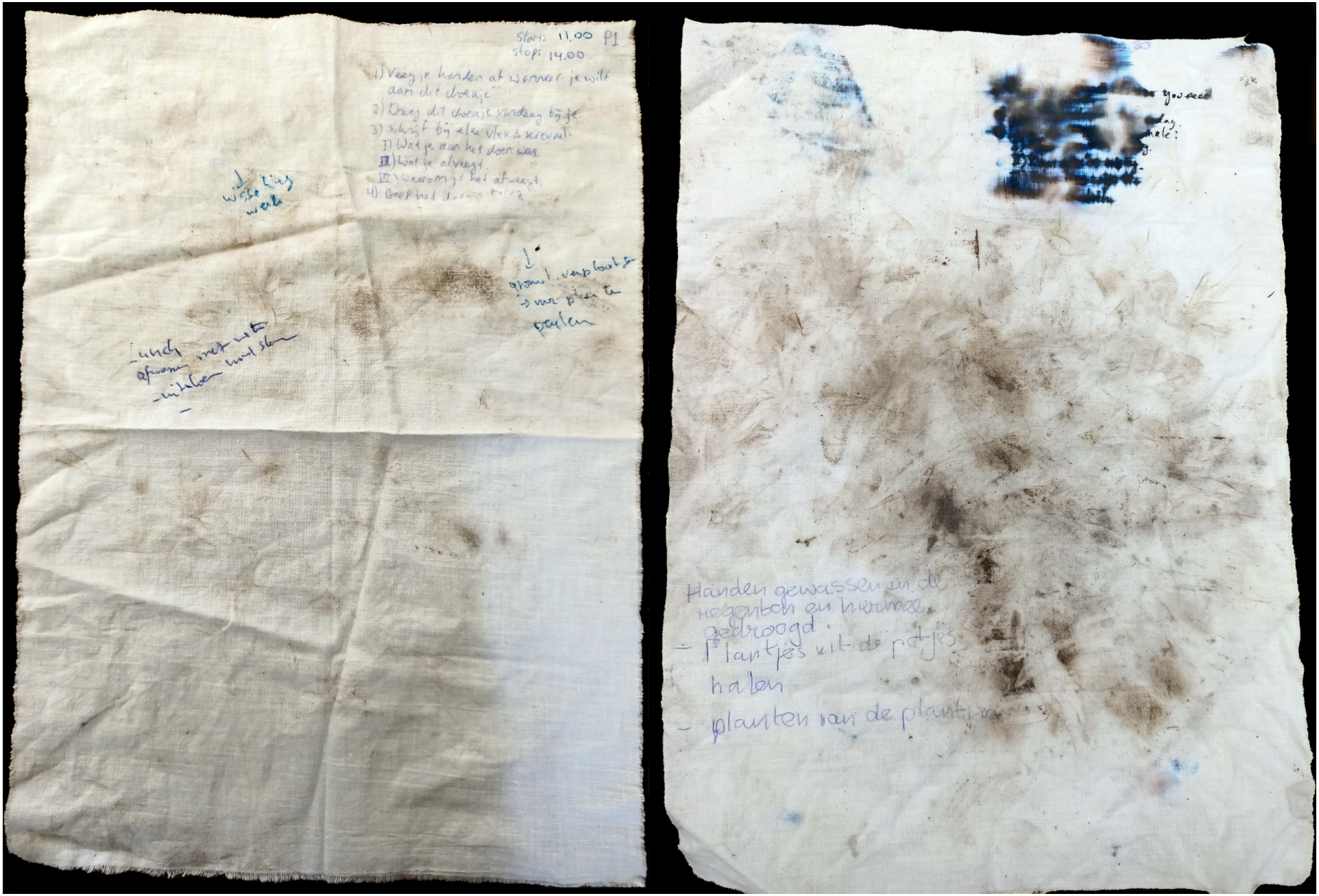
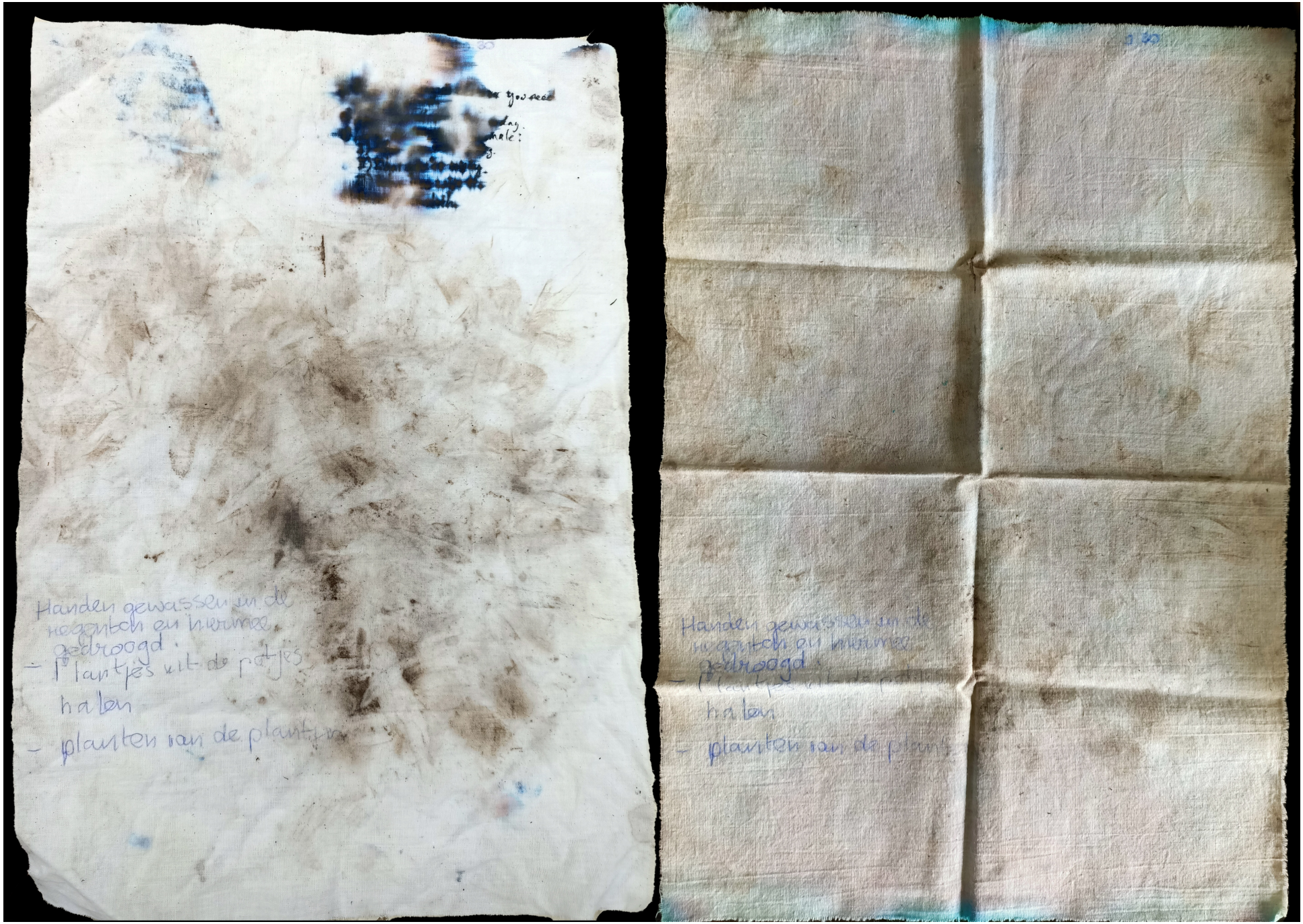


Figure 13: How the cloth of a rainy day has changed after six weeks. The ink and soil have spread out more and the cloth dried and lost a part of its smell.



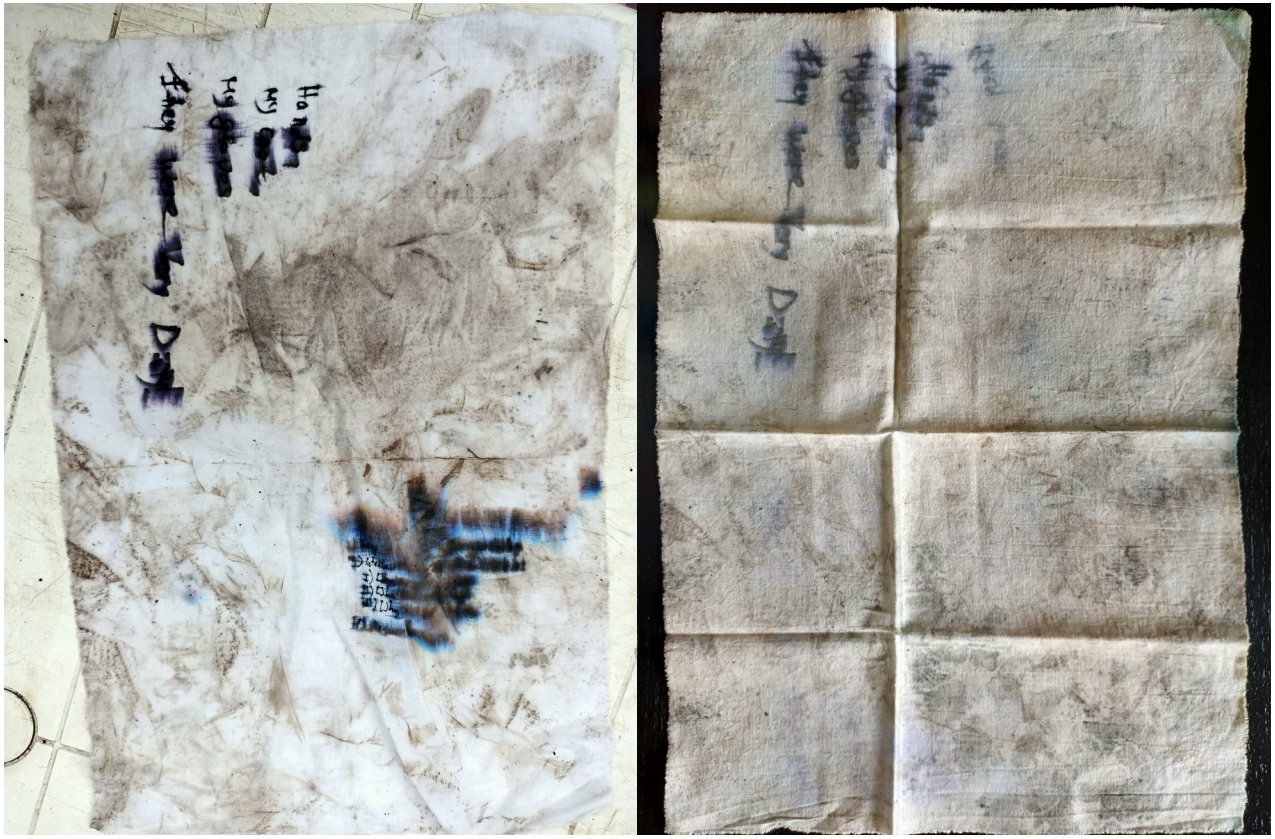


Figure 14: The crinkles are not very visible in the wet cloth, but the patterns in the stains show the crinkles. The left cloth is fresh, and the right is the same cloth six weeks later.

an overview of the cloths with comparing annotations is on the following two pages. The complete analysis of the cloths can be found in Appendix F.

The other probes were not as insightful. The bag probe had only one participant and it did not contain any materials, which would be unethical regarding the worms (Figure 15). It is interesting that the participant enjoys the soil, but not the worms, since worms are considered an essential part of the soil. The dirt body maps were insightful for getting a more general understanding of where people consider themselves dirty after a day of work (see in three pages). This was also obvious, as everyone is of course dirty around their hands and feet. Nevertheless, it could help people in visualizing what participants in the ethnographic stories looked like.

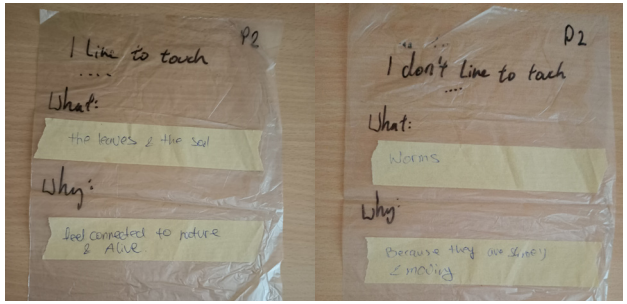
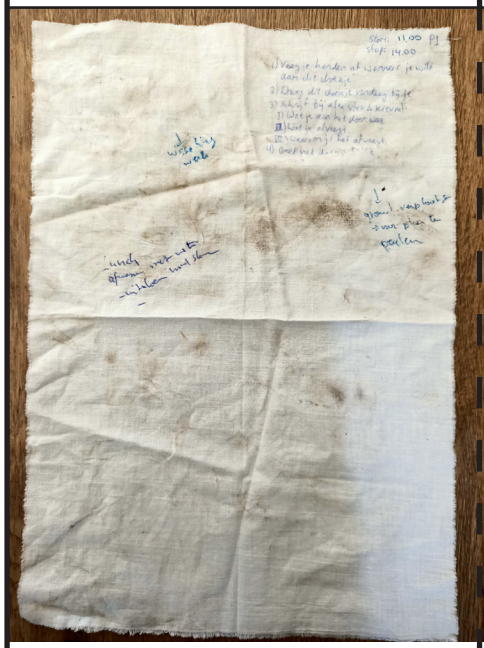
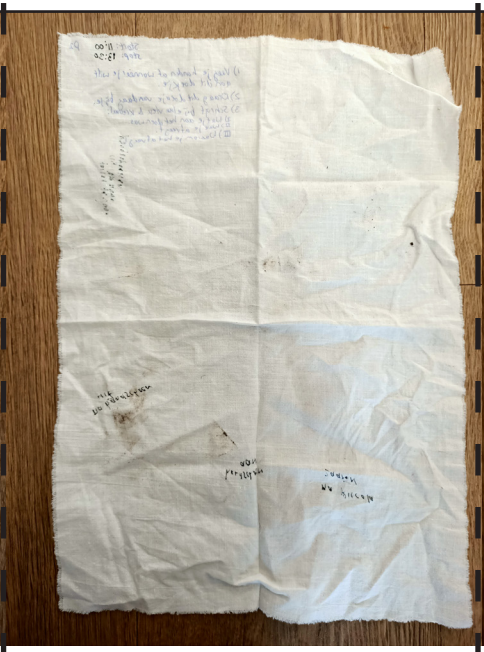
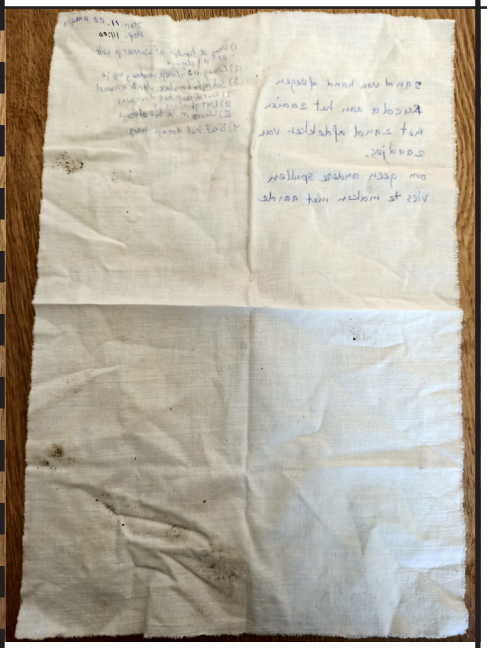


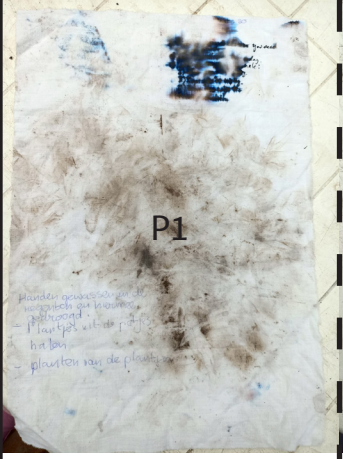

Figure 15: The used bag probe did not contain any materials.

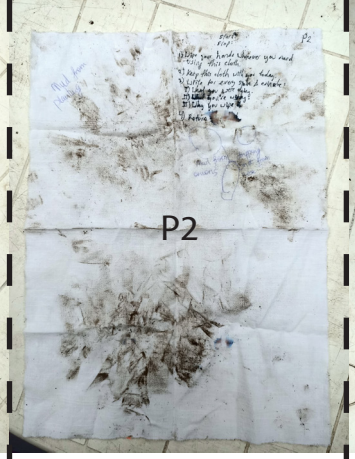
The interviews helped to gain a deeper understanding of the relationship between appreciating food, working at Stadsakkers, and dirt, according to the volunteers. They confirmed the conclusion from the ethnography that they did not mind the dirt and some even saw it as evidence of their work, which resonates with results from the (auto)ethnography. Therefore, they considered the negative connotations of the word “dirt” unfit. The volunteers explained that their appreciation for food had increased by working at Stadsakkers. It made them more aware of its lifecycle and the environment. They experience appreciation also through taste and they limit throwing food. Their appreciation together with the good purpose and the contact with others is part of the motivation for working at Stadsakkers. They also consider bringing other people in contact with the beauty of growing food by letting people grow it themselves, seeing the work, or tasting it as an effective way to increase appreciation. A study from WUR (agrifood monitor 2020) confirms that decreasing people’s distance to the sector helps [9]. They also believe that the presentation of food and packaging can play a role. The full thematic analysis and the theme descriptions can be found in Appendix G.

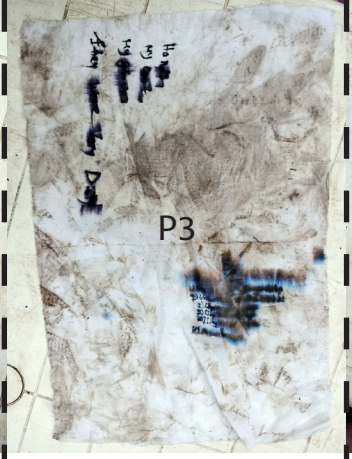
| P1 | P2 | P4 | In common |
| --- | --- | --- | --- |
|  |  |  | • All participants did not use the probes exactly as I had intended them to be used.<br>• The timeframe is the same for all participants.<br>• All participants that returned the cloth did use it. |
| • Covered the whole front of the cloth in brown dirt.<br>• Used two pens.<br>• Wrote on the spot. | • Used all sides of the cloth.<br>• Wrote in different directions.<br>• Went inside to write down the notes. | • Wrote down the notes at the end<br>• Used the cloth as handkerchief.<br>• Answered all questions. | |

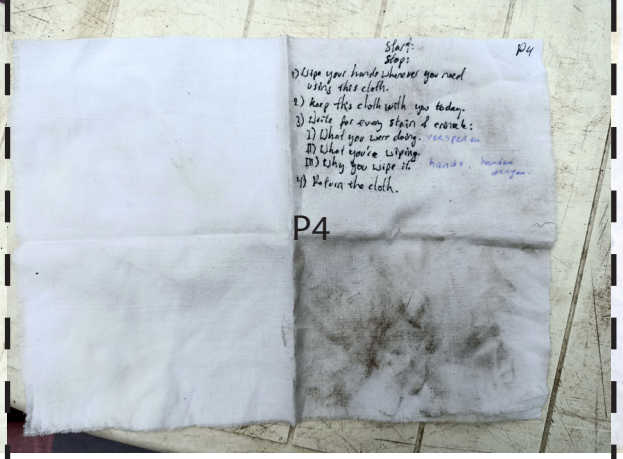
Carried pen.

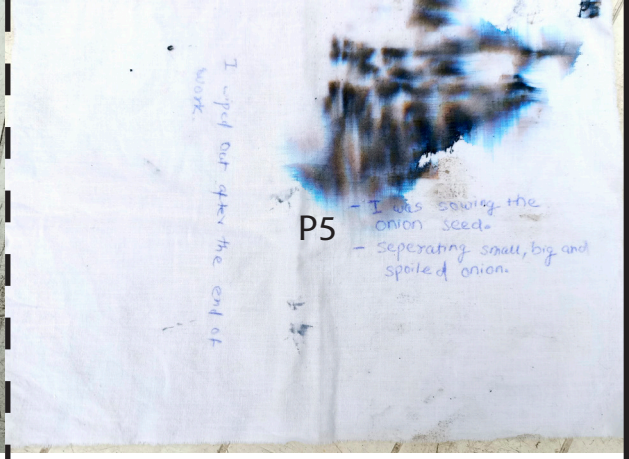
Kept the cloth folded once.




Only Dutch annotations.

Drew circles to indicate stains.

Used cloth for nose.

The dirtiest cloth.

Answered questions in instructions.

Kept cloth fully folded.

The least dirt on the cloth.

Used the cloth at the end.

Used cloth to dry (as towel).

Wrote the reason for wiping.

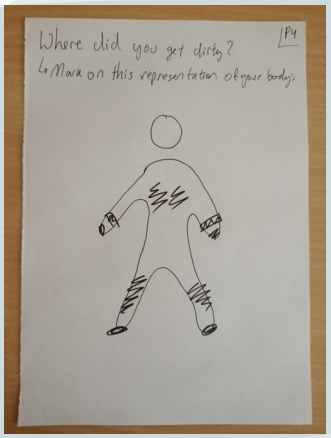
Used only a part of the cloth.

Annotated afterwards.

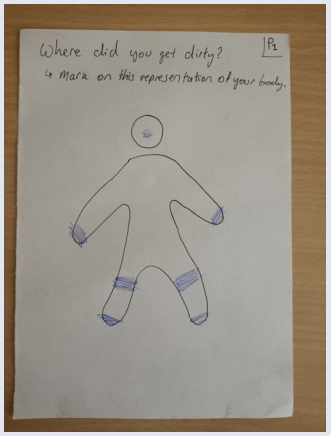
All participants worked from 9:30-12:00

Dirt on this place is probably due to wiping hands on clothes.

Dirt on chest



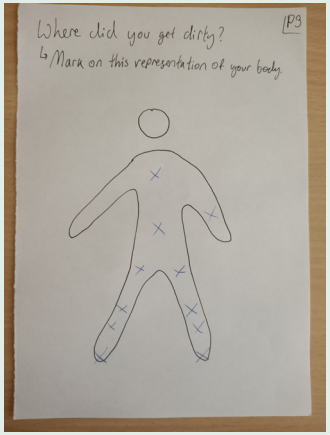

2 hands, 2 feet & 2 knees




Dirt on nose

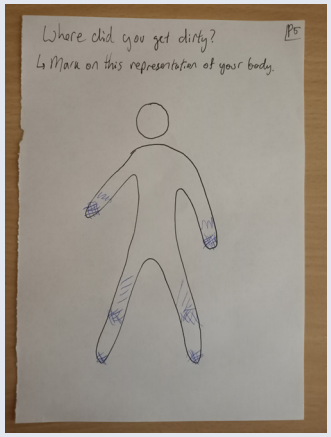
This person touched their nose while working with soil.

Dirt on multiple places on legs and torso

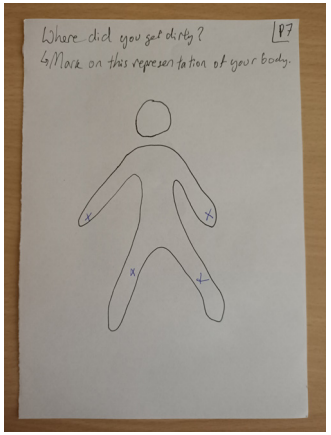



Dirt on only one hand

Dirt on only one hand indicates that this hand was mostly used for touching soil.



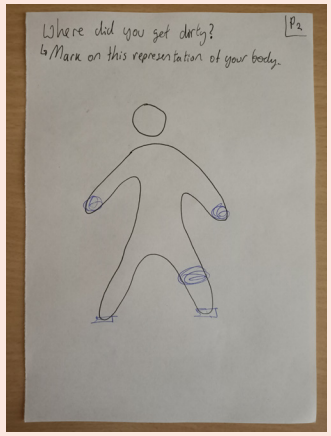

Using stripe density to indicate severeness of dirt.

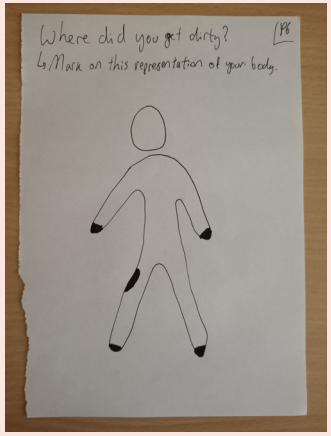



No dirt on feet

This person did not walk on the field or did not look at their shoes.

2 hands, 2 feet & 1 knee




"I'm becoming a cow."

Only one knee being dirty indicates that these people knelt on only one knee while working on the field.

**Interpretation**

Stadsakkers' volunteers' appreciation for food is very much related to the love they experience when growing it. The detailed descriptions of the hands show how people take great care in working with the plants. This is a form of caretaking that could be seen as love. Love is also seen in how people ground themselves by working with bare hands in the soil and when they express their admiration for the place and its nature, as well as their wonder about how everything grows and looks. They talk about beauty. People at Stadsakkers work completely voluntarily and even give the food they grow away to people who need it. I see this as another sign of the love that is expressed. Also working together with others is a motivation for people and in a way, this is a form of love too. This love reinforces an intrinsic motivation to value food and therefore, I believe, not waste it easily. People not wasting food, had often an intrinsic motivation, as it is a moral choice [3].

I think that growing food together with someone that experiences this love in the process might also result in you yourself starting to appreciate and experience that. It is very valuable that Stadsakkers offers everyone the opportunity to experience what it is like to grow food in a sustainable manner because it allows more people to connect to their food's origin. This confirms the findings in other studies about how growing food increases sustainable practices [2, 11]. Due to the low threshold participation level, the work is not always executed to perfection, but it is forgiving.

There is an increase in local agriculture practices such as Community Supported Agriculture since covid-19, due to people wanting to be less dependent on one food source [28]. I believe that this increase in ecologically resilient food systems is an opportunity for people to partake in these activities and increase their appreciation for food, possibly resulting in less waste and more care.

However, not everyone needs to grow food, but by sharing the love that is experienced in growing it, people can also gain this higher appreciation as was suggested in interviews and by the Agrifoodmonitor [9]. I think that this love is very much an experience that is also sensory. It is related to touch (hands in the soil & being careful with roots of young plants), smell (rainy weather, soil, compost), sound (birds, wind through the trees, spade entering soil & touching rock, conversations with others), taste (drinking some coffee/tea together or eating cake together) and vision (watching things grow, sun through trees, harvested crops aesthetics). Therefore, the ethnographic cloth probes that captured some of these elements could be used as inspiration in developing ways of presenting food in a manner that emerges people in the story of the food's origin through sensory stimuli.

**Limitations**

The study's strength of deeply qualitative research is also its weakness, as it decreases its reliability. Reproducing the study's results is difficult due to the use of a very specific location. My personal perspective added to the limited reliability, as it determined what I observed, took notes of and, how I analyzed the data. What I considered relevant and how I connected different results might be just one way to do it, there being the possibility that there are also different conclusions possible. Furthermore, the fact that I and the people from Stadsakkers can have influenced each other's perspective should be taken into account. The probes provided a more direct form of data that was only affected by my perspective in the analysis. They managed to capture something that was not filtered by the limited attention one person can give while taking ethnographic notes. The use of the cloth probes was not exactly according to instructions, which illustrates that if probes were to be used to answer a specifically defined research question, the design of their use should be clear to the participants to create valid results. However, in this case, their use was a little more open-ended. The participants had all used the cloths slightly differently, which makes them not useful for comparing when and where people get dirty and what it is that they wipe or why they wipe it. Especially the fact that some did not annotate the specific stains during use but answered the questions on a random place after use, limits the study. The researcher now needed to guess which features of the cloth related to what event, limiting the validity.

**Future work**

To continue the work of this study, I would recommend further exploring how sensory experiences can be captured in probes. Besides, I would experiment with including the sensory data in storytelling and investigate the effect of this sensory dimension is for people. This interests me especially in the context of food waste, since these sensory-enhanced stories can possibly increase food appreciation and therefore limit its waste.

**CONCLUSION**

This study explored what could be learned from a local food-growing community to inspire a transition toward sustainable food practices. Using sensory ethnography and drifting in combination with ethnographic probes, it became apparent that people learn the work from one another easily, and everyone does things slightly differently. The work increases

people's appreciation for food by raising awareness and making them experience and express love in the practice of gardening. This love is related to the senses, which makes the probes that capture sensory data of the environment a tool for sharing this love with others to raise awareness and spread appreciation for food by bringing people socially and physically closer to its origin. This promotes sustainable local food-growing practices and creates an intrinsic motivation to decrease food waste. The sensory dimension of the probe can enhance stories and emerge people in the context.

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# Appendix A: Dirt Story 1

This is an ethnographic documentation of how I experienced 29/3/2023 at Stadsakker De Eikenburg. It describes my actions, my thoughts and some feelings that I had throughout the time that I spent there. I arrived at this Stadsakker around 9:30 and I left around 14:30.

With this extensive description I try to gain insight in the practices of helping there. I hope that my insights will help me to find a focus within the practices and to tailor my probe to the practices of the community.

Stadsakkers Eindhoven is an initiative that grows food for the foodbank in an ecological manner. (They don't use pesticides.)

# A Day At The ...

Stads akkers Eind hoven

# Today's Activities

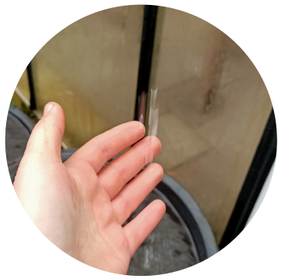
1· Watch how nitrogen is added to the garlic

2·See how the plants are doing

3·See how compost is made

4·Apply compostable mulch film on fields

5·Wash hands



6·Have a break together

7·Apply compost on field

8·Transplant parsley

# 1) Watch How Nitrogen Is Added To Garlic

We walk towards a field where green stringy plants come out of the soil. I walk behind the other participant who is holding a bucket from which the other participant grabs a hand of greyish looking little balls and he spreads them over the field by tossing them into the air. It is thinly spread. He explains that biological doesn't mean that you are not allowed to add anything. They analyse what the soil needs and try to regulate its fertility with the plants they use, as well as by occasionally adding nitrogen. The other participant walks around the field to also add the granules on the other side. I follow around and listen. On our way to the greenhouse I find a piece of thick green plastic that was lying in the soil. I ask where I should put it, and the other participant says that the trashbag has just been emptied. It appears to me that he doesn't know that well what to do with it at the moment. It also occurs to me that it seems like they do not separate plastic (and maybe also not paper?).

# 2) See How The Plants Are Doing

I follow the other participant around the place towards the greenhouse where he points to the young turnip tops that have now been outside to adjust to the weather temperature before they go into the soil. The other participant calls them "keeltjes" and I recognise how my mom calls this vegetable. I tell the participant that my mom is also from Eindhoven and that I understand what he means but that I am more used to the term "raapstelen". We laugh about it and the other participant then tells about how he always calls a certain type of beans a certain way, but that they are normally called something else. I wonder how many places have local names for certain types of food in the Netherlands.
When we enter the greenhouse I'm shown the growth of the cabbages and I notice that they have indeed become bigger in comparison to last week. I'm also shown the radishes and told how fast they grow. Apparently they even sometimes plant them above carrots which I'm told grow very slow. When shown the lettuce, I'm explained that they are planted far apart as they will become very big and this is easier to clean the field. At that point I notice that one leaf is half eaten off and I notify the other participant that there might be a snail around. He finds the snail and crushes it with his foot. I find this a little shocking and I think that he could also have thrown it into the foresty area. However, I also understand that they rather not take the chance of having more. The other participant sees my shock and explains to me that snails lay many eggs. I understand the importance of growing this food, however, I wonder to what extent it is okay to eliminate or harm non-human factors. I ask what they do when about other animals such as rabbits, but those are not really a problem there.

The red cabbages are in plastic trays, but the cauliflowers are in compressed soil. This is an experiment to use less plastic, but the other participant worries that the soil dries out to quickly. I notice that they use small sticks from e.g. Popsicles to mark what is planted where. Maybe it is nice to do something with this material in my probe to annotate something.

## 3)See How Compost Is Made

I ask the other participant if they can show me how the compost is made. We walk towards the place and I see a wooden structure that makes six different boxes that are each about one cubical meter. They are all filled with horse feces and some other brown things that looks like gardening waste and more. The boxes are covered with a thick black woven plastic sheet. I don't really smell anything, which I would have expected, but that might also be due to my slightly blocked nose. The other participant tells about how also other local places add to the pile of such as from the school's cooking activities. I find it inspiring to hear that there is some interaction and social benefit in this neighbourhood. When the other participant lifts the sheet and grabs some of the compost to show how it holds moist and that there are a lot of worms in there, I hear something running away and the other participant says that it was a mouse.. I think by myself that it is a good thing he is wearing gloves. I would not have liked to touch the old horse feces in the compost and all the other things with my bare hands. However, it is funny how I do touch the soil with my bare hands, which is containing slightly older compost. Where do you draw the line of what is dirty and what is not? To what extent do you want to touch something?

## 4) Apply Compostable Mulch Film To The Field

My first real actions this morning are similar to what I helped with last week. First we need to put a yellow rope attached to two sticks over the length of the field and 10 cm from the side. The width of the mulch foil is 120 cm, which is exactly the same as the field itself. However, to make sure the foil stays in its place, you need to make a trench and put the ends in there. So after putting the rope, we take some spades and make this trench. I first watch how another participant does this in order to learn how to do it myself. To make the trench you need to put the tip of the spade close to the yellow rope and push it into the soil by putting your foot on one side. I notice that I always do this with my right foot. When the spade is in the soil, you move it a bit back and forth to create an opening. I later learn that in order to make the line straighter, you can also move it a bit from left to right. After making the opening, you pull out the spade and repeat the same steps right next to it. This needs to be done around all sides of the field. At some point, my right arm starts aching a bit in my muscles, so I try to do the work more with both hands. It was sometimes a bit more difficult to get it straight due to the soil sticking to the spade. I think this is due to the soil being rather wet. However, there are also instances where the trench slightly collapsed due to the soil being less firm. I think it is a bit more dry in these instances. While making the trenches I talk a little with another participant about his experience with working at the Stadsakkers.

We work together, both starting at another end and working towards one another. We are not talking all the time, and I also start enjoying all the sounds of the place. I hear the whistling of birds (I think I recognize the sound of a great tit), the swooshing sound of the cars on the highway, the wind through the trees, the light ticking sound of the slight rain on the mulch foil and the rhythmic and sliding sound of the spades entering and exiting the soil. Based on how it sounds, you can tell whether it touches stones or not. I notice this after doing it for a while. The whole soundscape makes me understand better why people enjoy working here and also regarding connecting to nature. I myself feel more relaxed and really in the moment. The slight rain doesn't bother me, but rather makes me feel more part of nature. Also getting my hands dirty is a part of this.

After making the trenches I get two chairs to put the ends of the stick that holds the mulch foil on. Together with another participant we keep the chairs in place while two others pull out the foil like toilet paper from a roll. (This is something they say in order to describe what way is best to let the roll of mulch foil unroll smoothly). When the foil is spread, I am asked to create a tension by putting a spade on the ground where the field starts on top of the foil. I do this, but it creates too much tension, so then I unroll the foil a little more.

I walk towards the other end of the field and start helping there. The foil needs to be pulled evenly over the field and the ends need to be tucked in the trenches. Then these trenches need to be closed by pushing the soil towards the foil. It is important to work with two people each on one side, so that the foil is spread evenly. When there is too little soil to enclose the foil, you need to add some sand with a tiny spade and push this to tighten it. When I do this work I am sitting low to the ground, but only with my feet touching the soil. I think I want to keep my pants a bit clean although I especially wear older ones that day. To move I just remain low, stretch out one leg and shift my weight towards that leg and pull in the other one. However, after a while my legs are slightly aching because my position closes the blood flow. Therefore I change my movements so that I get up every now and then. This helps a little. I notice that while doing the work, I get more and more skilled and I move faster than before. Also my hands get really dirty from touching the moist soil. It gets under my nails, makes thick layers in the palm of my hand and on my finger tips and it doesn't easily fall off when I try to wipe it. At first this is not a problem, as we cover another field with mulch foil, following the same steps.

In the left picture you see how to place the spade into the soil in order to ensure that the trench is right under the line. In the middle picture you see the trench and how the shape of the spade (the slight curve) is sometimes visible and how it crumbles at other parts, showing the different textures and levels of moist of the soil. I suspect that the crumbling part is a bit more sandy, which means that the grains in the soil are rougher. The picture on the right shows the field when the trenches are made and the fields that we covered last time with the mulch foil. The rain water stays on top of the foil, which explains why it makes a sound when a raindrop collides with the foil. I was told that the use of the foil is still an experiment here and that they hope it will compost in time.

## 5) Wash Hands

Before having a break together I want to clean my hands a bit. They are currently covered in dirt. Last time I was here, I was told that I could wash my hands in the rainwater barrels. These are filled up with the rainwater that comes from the roof of the greenhouse. I walk towards them, and as it is still slightly raining, a thin stream of water comes from the roof, which simulates a tap that is running. I hold my hands under the stream of water and I try to rub them together to loosen the dirt and let it flow away with the water that drips from the roof into my hands into the barrels. It takes a bit more time than with a normal tap as I don't have soap and the water runs a little slower. However it still works and I do not waste any water here. I like that. When the water that drips from the roof is too little, I put my hands in the water in the barrel. This is much colder than the water from the roof, but it does the job well. Washing my hands like this and getting them dirty makes me feel a bit more hardcore gardener. It is some sort of evidence that I am working. I am the only one that is washing hands as many of the other participants that were helping with the mulch foil were wearing gloves.

## 6) Have A Break Together

After some hard work someone calls to have a break together. They make coffee and tea, but I don't really drink coffee and I only drink tea with milk and sugar, which is a bit complicated. Therefore I ask if I can have some water. Someone gives me a glass of water and we sit together around a table in the greenhouse and talk about all kinds of things related to the place and the people that are there. We also eat some cookies and for the lunch break everyone eats what they brought from home. I brought two tangerines, so I eat those. However, my nails are still having some dirt under it, so I try to avoid touching the flesh with them. When peeling touching it with your nails in unavoidable. In the end I decide not to really care. If you can grow food in that soil, I will not die if it touches the food that I eat.

At some point I am staring at the tree outside the greenhouse and I see something red climbing it. I recognize it as a squirrel and this initiates a conversation about animals and things they steal. It becomes very funny and we laugh a lot together. It is a good atmosphere and I feel comfortable with these people.

## 7) Apply Compost On The Field

After the break we get back to work. We walk to the storage and we get a pitchfork and walk towards a small hill that is covered with a woven plastic sheet. There is compost underneath that is ready to be put on the land and we fill up a two wheelbarrows. We do this by sticking in the pitchfork, moving the handle a bit down to scoop it up and then you need to shake it as little as possible to put it in the wheelbarrow. This is quite hard as it is a bit heavy and the compost is a bit loose. You can see the shape of the horse feces still in there. The action reminds me of how it was to clean out the stable of my goats. When looking at the soil that we stand on, I see blue plastic strands and smaller red strands. It is everywhere and it makes me a bit sad to see it. When the wheelbarrows are full, we move them towards a field in the back and spread the compost using the pitchforks and a special rake that I recognize as something that is used in France for the hay. I take the rake I recognize to finely spread the compost and make it flat. I ask a more experienced participant to show me how to do it well, because I feel a little insecure about how to do it. The participant shows me and I try to follow the example, but I still feel a bit clumsy.

## 8) Transplant Parsley

There is not much work for me to do outside anymore, so I go into the greenhouse to help out there. Two participants are already busy with transplanting parsley into plastic trays filled with a loose soil. They explain to me that this is worm feces that comes from a place where they grow worms for e.g. fishing. This type of soil is very clean and has little nutritions because it went through the worm. However the little nutritional value is a good thing because if young plants get too rich soil they will burn. I first help filling up a tray together with another participant to understand how to do it. You need to place a plastic tray in the big bag with the worm feces and cover it with this dirt. Then you need to push every box with two fingers to tighten the soil. After that you cover it again with the dirt and wipe it off. I do this and I bring it to the table where the very young parsley plants are all together in a small container with soil. I learn that I need to put two plants per box. The first step is to take the plants from the box by very carefully loosen up the soil and grab the plants. It is important to do this carefully as you don't want to break the roots. I notice that some plants have longer roots than others. Then I need to make a hole in the soil in the box for the plant and put it in there. After a while I notice that I always did this with my right pink. I think because it is the smallest. It is more difficult to put in plants with a very big root, as the root needs to fold more in this small hole. When the plant is in there, you push it down with a finger on each side of the stem to close the soil and to tighten it a little. Then the process repeats for the other plants. As there need to be two plants in one box, I need to put the holes a bit further apart. I always make them in the right upper corner first and then in the left lower corner. I figure that if I do it the same everywhere, the distance between all the plants in the tray is maximized. I notice that from this soil I get less dirty fingers as it is dryer. Everyone doing this job is doing it with their bare hands but using different things to make the hole in the soil or to loosen up the soil of the plants. It is light and precise work. I talk to the other participants while doing this work and we have some nice conversations. This work reminds me of making jewelry with tiny beads or doing origami. It is something I enjoy. After having filled 1,5 trays we take the lunch break. Before that I wash my hands and afterwards I go home.

# Appendix B: Dirt Story 2

# Another Day At The ...

This is an ethnographic documentation of the work at Stadsakker De Eikenburg at 5/4/2023. It describes how I perceive the work that is done and the interactions that I have with volunteers. This includes actions, thoughts and some feelings that I had throughout the time that I spent there. I arrived at this Stadsakker around 10:30 and I left around 14:00.

With this extensive description I try to gain insight in the practices. I am interested in the meaning of dirt and the sustainability of the practices.

Stadsakkers Eindhoven is an initiative that grows food for the foodbank in an ecological manner. (They don't use pesticides.)

# Today's Activities

1· Arrival

2·Planting snow peas

3·Talking with P3 about his activities

4·Sowing arugula

5·Lunch & finishing

# 1) Arrival

It is a sunny day, so I arrive dry at the Stadsakker. Everyone is having a coffee break together in the greenhouse when I arrive. I greet everyone and take a seat. I wait until the conversation that I have interrupted with my arrival has finished before I explain my plan for the day: I want to do ethnography through observation and occasional questioning and I brought probes: Woven white ironed cotton cloths (from an old bedsheet) that are folded and have an assignment written on them (figure 1). The aim of the probe is to gain insight on a more specific level into what people consider "dirty", in which moments something is "dirty" and is that connected to the wiping of your hands. The probe is designed so that it does not look very valuable (unfinished edges) to lower the threshold of making it dirty. The colour white was chosen as it easily shows dirt. The woven cotton fabric easily shows crinkles and in order to catch those, I made sure to iron the cloths and fold them thrice to make them pocket size. I chose this size for the cloth to enable people to wipe in different places and annotate per place. To make sure that this worked, I made a small sample to try (figure 2).

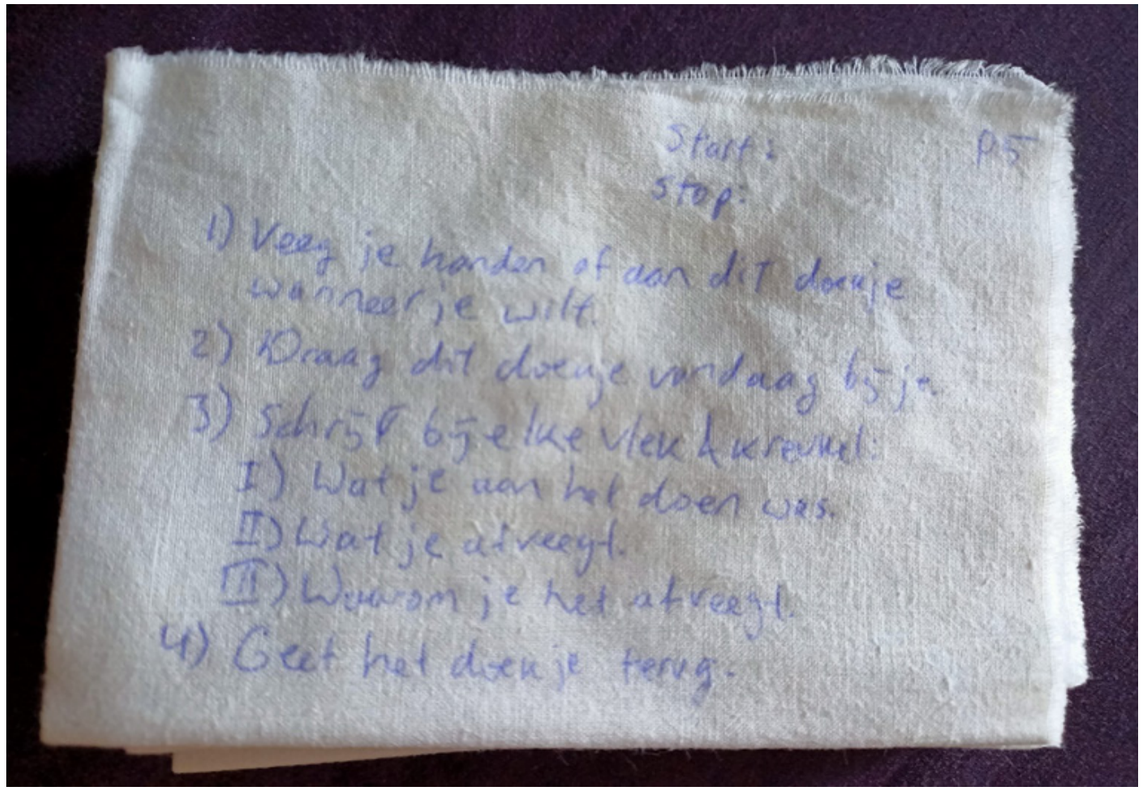



Figure 1: Probe wiping cloth with the assignment.

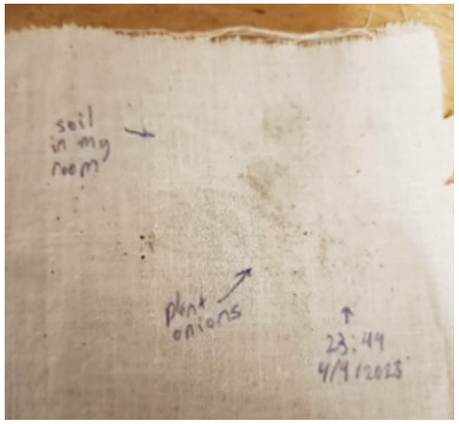



Figure 2: Sample to try the assignment myself.

I ask people if they want to participate in my research and I explain to them the probe assignment: The task is to wipe their hands on the cloth whenever they feel the need and to carry the cloth with them today with a pen that I provide them with. With every stain and crinkle they create, they need to write down three things: 1) what they are doing at that moment. 2) What they are wiping. 3) Why they wipe it. They also need to write down the time they start and stop using the probe and return it to me after use. Furthermore, I explain the consent forms. Four people that were also at the community in my previous visits, decide to participate. Participant 1 says that he usually wears gloves and that he wipes his hands on his pants. He asks if he now needs to use the cloth instead of his pants and if wiping his hands with gloves is also okay. I answer that that is both fine. I ask everyone to write down the starting time (11:00) on the probe and after that some people take a pen and the cloth and pen disappear into their pockets (pants, jacket, shirt). Participants are laughing a bit about the activity and I think they feel a bit uneasy about it. People start to get to work and I decide to observe.

## 2) Planting Snow Peas

Participants 1, 2 and 4 are working on putting the snow peas in the soil. I walk outside and follow them. There is some sort of big table with upward edges across the entrance of the greenhouse. It is filled with black plastic trays with plants. The plants are about 7 cm high. P1 explains that they have hardened for a while outside the greenhouse and that they are now ready to be put in the soil. They need some support, so they let them grow against a fence.

I observe how P2 takes out the plants and puts them on a wooden tray. She is wearing gardening gloves that have the tips of the fingers and the inside of the hand coated in rubber and the rest is a stretchy synthetic fabric. P2 holds a fork in her right hand and the stem of the plant in her left. With the fork, she loosens the soil and with her left hand, she carefully tries to pull out the plant from the plastic tray. The plant is then placed on the wooden tray so that it can be transported. I notice that all plants are put in the same direction. The top of the rough sketch in Figure 3 shows the posture of P2 and the bottom shows how the plants are put on the wooden tray, like Figure 4.

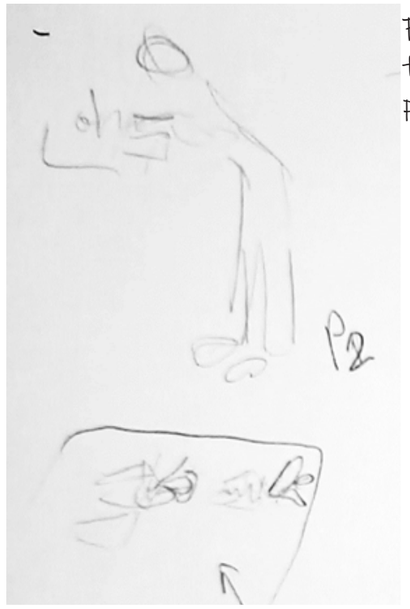



Figure 3: P2 taking out snow peas.

Figure 4: How the plants are put on a tray.

P1 also starts helping to take out the plants. P2 has a full tray and walks towards the field to plant the snow peas. I decide to observe how P1 takes out the snow peas. He does not use a fork but starts looking under the trees for a stick. When he has found one (figure 7), he bends and tries if the stick fits through the hole that is at the bottom of each box in the plastic tray. It fits quite precisely. He explains to me that it is better to not use a fork, but instead, push from the bottom hole with a stick (or a finger) (figure 5). This allows the soil to stick together when being removed, decreasing the chances of damaging the roots (figure 6). I ask P1 if he has ever tried squeezing the plastic cube before removing the plant, as I had seen people do that. He answers no, but tries it out. It is not entirely clear if that helps. I also ask P1 if he saves the sticks that fit nicely. He answers that he indeed sometimes does this. He also complains that the work is such a “gepiel” (work that is more fragile and that requires some patience and precision). He says that he prefers to let others do this task.

Figure 5: Using a stick to take out the plant.

Figure 6: Soil sticking together.

Figure 7: Good stick..

Nevertheless, he manages to take out a few plants with almost all the soil sticking to the roots (e.g. figure 6). When P1 has filled his tray, I follow him towards the field where the snow peas need to be planted. He explains that snow peas themselves leave nitrogen behind and that they therefore can grow in relatively poor soil. I observe how the plants are put in the soil (figure 8): He uses his right hand's three middle fingers to dig a small hole. Then he takes a plant with his left hand, puts it in the hole and presses it closed with the index and middle fingers of both hands.


Figure 8: How P1 plants the snow peas in the soil:
Setting and posture on the left, close up of the hand making a hole on the right.

I decide to walk back to the station where the plants are taken out of the plastic trays and put onto the wooden ones. There I see P2 and P4 taking out the plants from the trays. I notice that everyone is wearing gloves today. I see that P4 takes out one glove and keeps wearing the other. I ask her why she does that. She answers that she has less feeling with the gloves on. Like that, you damage the roots more easily. She also calls it a job that requires patience. With this, she affirms what P1 said earlier about this work. I watch how she works: With her left hand she lifts the tray and then she decides to also take off the glove on her other hand (figure 9). With her pinky finger, she pushes up the plant through the hole in the bottom of the tray. Then she tries to pull out the plant with that same hand, no longer pushing at the bottom. The stem snaps.

Figure 9: The gloves of P4 left behind.

"Sorry," she says half laughing and maybe feeling a bit guilty and clumsy. "That's something they need to find an alternative for. Moving plants." I think that she just needs to push the plant up with one hand and pull it out with the other. However, this is difficult, as she also needed to hold up the tray. I agree with her that there are probably ways to make this process easier.

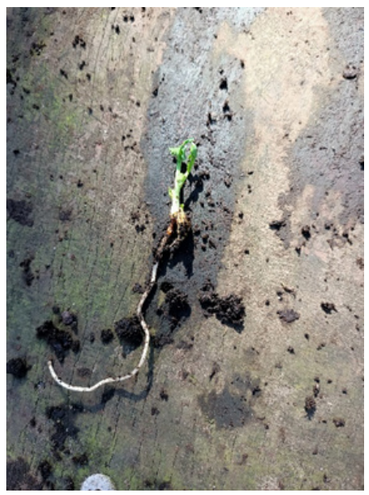


Figure 10: Baby snow pea that is too small.

I also observe P2 again. I see that she pulls apart the soil of the plants she got out of the plastic trays. For me, this is in contrast with what P1 did and said and therefore interesting. I ask why she does that and she explains that there are two plants per box of soil and that she splits them to plant them apart. She says that some did not grow or that some did not grow fast, such as the small one in figure 10. The snow peas were sewn directly into these plastic trays and not transplanted like some other plants. I realize that this results at this moment being the first "elimination round" where plants that are weaker are separated. I ask P2 what happens to these weaker/ smaller plants. She answers that they are often thrown, taken home or sometimes placed in a separate tray to grow. However they often still don't make it then when they get this second chance as they are often weaker.

When the wooden trays are full again, I walk with P2 and P4 back to the field. P2 and P4 plant the plants with a distance of approximately 5 cm between them. However, P2 notices that P1 has planted them with 10 cm in between and she says she wonders why he did that. I noticed that P1 is in a more leading role. When P1 comes back to also plant more plants, P2 asks about the distance between the plants. She also notices that his plants have not been split in the soil cubes. P1 explains that he did not take the plants apart to have less damaged roots and that the two plants will grow away from one another and that that is the reason for planting them with 10 cm in between. The participants decide to plant the single plants 5 cm apart and the doubles at 10 cm (figure 11).

Figure 11: 10 & 5 cm between the plants.

Figure 12: Mole tunnel in the place of a plant.

I ask P2 what she pays attention to when planting the snow peas. She says half laughing that she pays attention to the distance between the plants. I understand that she laughs, as we had just found out about this inconsistency regarding the distance between the plants between her and P1. She also says that she makes sure to press the soil tightly when planting the snow peas. She shows me that there is sometimes a tunnel in the soil from moles and that these first need to be closed. As P1, P2 and P4 are working they come across quite some tunnels. P1 jokes that they are the Russian spy network and that they are coming. P4 says that the world is just hollow, to which P1 responds that he thought it was flat and P2 says that it glitters. They laugh and joke a bit while planting all the snow pea plants. I see that P4 is still working without gloves. She uses a fork to make a hole for the plants. P2 scoops some soil away with her hand and makes a hole with four fingers. I see that everyone here has their own way of working.

P1 explains that in the early days, they had plants delivered instead of sewing them and growing them in the greenhouse. I ask if they save the seeds from the plants they grow to use those to grow more plants. P1 answers that they don't as they need to deliver quality and having your own seeds is a risk. I wonder what the risk is in this. I had sewn the seeds from a pointy pepper that I ate in a bucket with soil in my room, and that works perfectly. Maybe it is not that easy for all sorts of vegetables. I ask P1 if there is a specific reason for the snowpeas to be planted in this specific field. He points to the sun that shines through the trees as they do not have many leaves yet and explains that this side of the field is more shadowy when the trees get leaves (figure 13). Therefore, they plant early plants in these fields, so that they can grow while there is still a bit more sun. Snow peas are such early plants. He also mentions that they are therefore planted on this side of the fence so that they catch more sunlight.

Figure 13: The south side of the fields has tall trees through which the sun shines when they don't have leaves yet.

While observing the actions regarding planting the snow peas, I noticed that people mostly wipe their hands on their pants even when wearing gloves. I ask P1 if he always wears the same gloves, to which he answers that he has two pairs of the same gloves. They are relatively thin he says. He explains that it is cold in the winter, which makes it nicer to wear gloves. He used to work without gloves, but he says that he had such black and dirty hands and nails, that he now always uses gloves. I get the feeling that I have gained a good image of the work of P1, P2 and P4 regarding the planting of the snow peas, and I start looking for P3.

# 3) Talking with P3 about his activities

I find P3 near the storage container that is being cleaned with a pressure washer. He says that he has just been moving compost and he is holding a dirty pitchfork and rake. He asks the person washing the container to also direct the water to the pitchfork that he is holding. The pitchfork is sprayed while P3 holds it with his bare hands. Then he takes a bottom of a broom and brushes off the last pieces of dirt before storing the pitchfork in the container. When I ask him if he always does the work with bare hands he says that he indeed mostly does. "I don't get dirty when working like this." I think that he means that he works with tools that touch the dirt and that he just touches the tools. I ask why it is important to clean the tools. He answers that the faeces stick to them when it dries out and that the tools work better when they are clean. He says that the rake he uses is actually one that he got at a second-hand store and that it has probably been used for construction. He says that it is also nice to work with for composting as it is good for loosening up the more solid mass. He explains that the length of the tools allows him to pull what is in the back towards him without having to stand inside the compost. I think that this also helps him in keeping a bit clean. He says that he also sometimes wears gloves for safety when doing this sort of rougher work.

Figure 14: Using turf and toilet paper cartons to grow baby plants.

P3 is growing herbs and flowers and collecting his own seeds and I follow him to the greenhouse where he shows me his plants and seeds. He carries a few dried thistle flowers from which he is going to take out the seeds. He shows me several plants that he is growing and tells me about the plan of sewing flowers at the end of some beds to help the biodiversity. I notice that he uses turf cups to start growing the seeds, but also half cartons of toilet paper rolls (figure 14). I think it's a nice idea to reuse them like that, but I understand that it is not feasible on a larger scale such as with the vegetables that are grown for the food bank. I ask him about it and he also tells me that certain seeds need bigger starting pots than others, which the toilet roll cartons also do not provide in. Nevertheless, thinking back on what P4 said about needing a different way of moving the plants, this could be inspiring for an alternative. I like the idea as it could even become a system where the people from the food bank collect the cartons of their toilet paper to supply Stadsakkers with them. Furthermore, P3 shows me his seeds and says that the seeds that are used for growing the vegetables are all stored in a fridge in order to keep them as good as possible.

Figure 15: The pile of shredded wood is only dry on the outside.

P3 works a lot on the composting and we walk towards the new composting place that he is making. The old one will have to move, as the location will be used to build houses. We walk past a pile of shredded wood and P3 explains that some trees were cut and that this was left behind on request so that it can be used for the compost. It looks very dry on the outside, but when P3 moves the content a little, it becomes apparent that only the outer layer is dry (figure 15). I ask if there are times that it is necessary to water the compost, and he says that he only does that sometimes on very hot summer days, but usually not. There is also a pile of horse faeces which he explains comes from the ponies that are nearby. They went there a few days ago to empty the stable and bring it here for the compost. I like that they use these local resources and strengthen the sense of community. I talk with P3 about how the temperatures rise in the composting process and he tells me that it can even become grey from the heat. I ask if all organic waste from the fields can be composted, to which he answers that they don't use tomatoes, potatoes, carrots and cabbages as these are e.g. sensitive to nightshade. They don't want any illnesses in their compost and therefore these plant rests are not composted but thrown into the forest. P3 explains that this is what they did with everything before they started composting. I ask about the number of boxes for the compost that he is making and if he uses that to turn the compost over. He says that he indeed turns it over and that he layers it with green and brown compost. Green contains nitrogen such as from plants, and brown contains carbon such as from horse faeces. I ask if it is possible to include seeds in the compost. P3 says that compost with seeds is not clean compost and that that is avoided or made in a separate pile. He also tells about a new experiment where he lets such plants rot in water. He says that it will function as liquid fertilizer and that it needs to be diluted before being applied, as it is very strong. I find it interesting that he tries multiple ways and that he is looking for ways to optimally reuse local resources. I ask him where he learns all this and he explains that he watches youtube videos and that he also works in his community garden and at Wasven. I feel like our conversation is reaching its end and I walk away to find out how it is going with the other participants.

# 4) Sowing Arugula

I find P2 and P4 on a field a bit more towards the back. They are sitting on their knees in the grass that is in between the fields. There are three lines of yellow rope stretched over the length of the field in parallel. With bare hands P2 and P4 place little white balls along the line at a ~3 cm distance from one another (figure 16). It is precise work and I think that is the reason why they do not wear gloves. I see that their knees have brown stains from the soil that it has been touching. This makes me wonder how consciously they choose their clothes for coming here and for getting "dirty". I ask what their criteria are for the clothes they wear to the Stadsakker. P2 says that she has a so-called set of gardening clothes. This means it is okay if they get dirty. She wears the same on Monday and Wednesday and washes them at the end of the week. P4 has a focus on clothes that protect against water. I don't want to get wet. P2 answers to that that she does not take that into account in her clothing and that she just handles rain by going inside. I realize that I myself am wearing a combination of the two whenever I visit the Stadsakker. I also realize that trousers that protect against rain are easily cleaned and that P4's choice is therefore not that different from P2's. I find it interesting that P2 and P4 both show that they don't like to get wet from the rain, but that they deal with it very differently. Can the same be said about how people deal with getting dirty?

Figure 16: Sowing the arugula.

When all seeds are placed, the ends of the rows of seeds are marked with small sticks. The ropes are removed and rolled up. P2 covers the arugula seeds with a thin layer of the surrounding soil with her hands. P4 uses the stick that marks the spinach to cover the seeds with an equal layer. I realize that P4 uses tools like forks or sticks more often than P2. While P2 and P4 are busy covering the seeds they also chat about the day. When the topic of how P1 does things differently comes up, I ask how they feel about that. Is it annoying for them that things need to be done differently? They explain that P1 has more of a leading role and that he does things a bit differently than his predecessor. P2 says that this brings new insights and both P2 and P4 agree that this is nice. While making notes I at some point accidentally drop my notebook and it is then filled with dirt from the soil that I try to wipe off (figure 17).

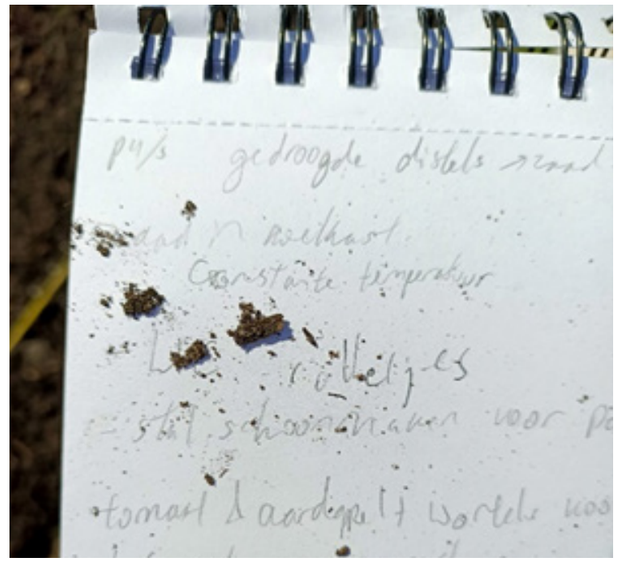


Figure 16: Dirt on my notebook after dropping it.

# 5) Lunch & Finishing

Figure 18: P2 annotating in-between the work in the greenhouse.

After the arugula seeds have been covered we all head towards the greenhouse to have lunch. P2 goes to the kitchen part to wash her hands. P4 just eats her fruit, bread and cookies with the dirt on her fingertips. P1 takes off his gloves when eating. After lunch people plan on leaving, so I start asking people to sign consent forms and return the clothes. This is around 13:30. P3 checks all his pockets and says that he actually hasn't used the cloth, as he hasn't felt the need to wipe his hands. He cannot find the cloth in any of his pockets and starts to look around the place in the greenhouse. Also there he cannot find it. I tell him that it is okay and that if he ever comes across it, he can always return it then. P1 also returns the cloth. He has been writing while working and had a pen with him. P2 has also been writing while working, but she often went inside to make use of the table (figure 18). She thought that she had lost a pen, but eventually, it appeared to be in the bottom of the pocket of her pullover. P4 has also been using the cloth, but she had not annotated anything. I ask her if she can still write something on the cloth to give me some insight. After having collected all clothes I help P4 with doing the dishes. I tell everyone goodbye and cycle home.

# Appendix C: Dirt Story 3

This is an ethnographic documentation of the work at Stadsakker De Eikenburg at 12/04/2023. It describes how I perceive the work that is done and the interactions that I have with volunteers. This includes actions, thoughts and some feelings that I had throughout the time that I spent there. I arrived at this Stadsakker around 9:00 and I left around 12:30.

With this extensive description I try to gain insight in the practices and how people less familiar with these practices take the work. I am interested in the meaning of dirt and how people get dirty during the work, as well as the sustainability of the practices.

Stadsakkers Eindhoven is an initiative that grows food for the foodbank in an ecological manner. (They don't use pesticides.)

# A Busy Day At The ...

Stads akkers Eind hoven

# Today's Activities

1. Arrival & introduction

2. Transplanting

3. Sorting onions

4. Transplanting

5. Planting pointed cabbage

6. Transplanting tomatoes

7. Coffee break

8. Sorting onions

9. Planting onions

10. Planting pointed cabbage

11. Finishing

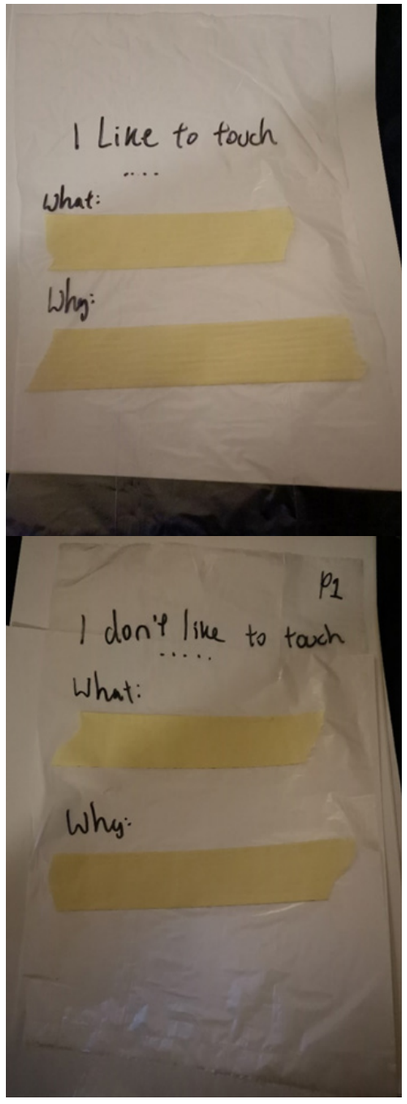
# 1) Arrival & Introduction

I arrive at 8:57 on my bike and I am partially wet from the rain. I am wearing a big raincoat, which helped to keep me dry. I am carrying a backpack with probes for today and a large pile of consent forms, pens, and my notebook. I hope nothing got damaged because of the water.

I walk into the greenhouse. On my way, I hear a lot of people talking. Today ASML has sent about 15 people to help. When I enter the greenhouse I see many new faces and people mostly talk in English. I understand that ASML has a rather international mix of employees. I greet some people and introduce myself as a student doing research. I meet the woman that organizes the volunteering from ASML. She tells me this activity is organized every month and that she works for the green team. She explains that they work on sustainability in the company. I explain my intentions for the day to her and she asks some questions. People are drinking coffee and tea and finding seats around the extended table. The other tables that are normally at different places in the greenhouse now form one large table with chairs around to create enough places for all those people. I find a seat at the end of the table because I feel like I am not really part of this as a researcher. The woman from the green team sits next to me. Maybe because she feels the same as someone who organizes, but does not do the work on the field.

When everyone has arrived and found a seat, the person that usually leads the work on Wednesdays takes the word to welcome everyone and give an introduction. He is responsible for overseeing the day's activities, assisted by a few other usual volunteers at Stadsakkers. He talks about the purpose of Stadsakkers, the history of the place and the history of Stadsakkers. He tells this all in English, which is not perfect, but he definitely gets the message across as people laugh at his jokes. Then comes the practical part where he explains the work for today, which consists of transplanting and sorting onions in the greenhouse, but also planting pointed cabbage in the fields and planting onions. This means that the people doing that will get wet in the rain. When he is finished, the woman from the green team informs people that she'll leave to get the cake and that she will be back in the break with the cake. Then I also take the word to explain what I am doing there today, introduce my probes, and ask people if they want to participate.

My first probes are the cloths that I also used on my previous visit. Only now, they have English instructions. I have five cloths that people can use.




Figures 1 & 2: The bag probe to learn about touch preferences.

*Woven white ironed cotton cloths (from an old bedsheet) that are folded and have an assignment written on them. The aim of the probe is to gain insight on a more specific level into what people consider "dirty", in which moments something is "dirty" and is that connected to the wiping of your hands. The probe is designed so that it does not look very valuable (unfinished edges) to lower the threshold of making it dirty. The colour white was chosen as it easily shows dirt. The woven cotton fabric easily shows crinkles and in order to catch those, I made sure to iron the cloths and fold them thrice to make them pocket size. I chose this size for the cloth to enable people to wipe in different places and annotate per place.*

My second probe consists of a set of small plastic bags with questions and paper tape on them as a space to write an answer (figures 1 & 2). The question on one bag is about what people like to touch and why. The question on the other bag is about what people don't like to touch and why. The idea is that people collect a sample of the material in the bags.

The third probe is a piece of paper with a human figure and the question "Where did you get dirty? Mark on this representation of your body." (figure 3).

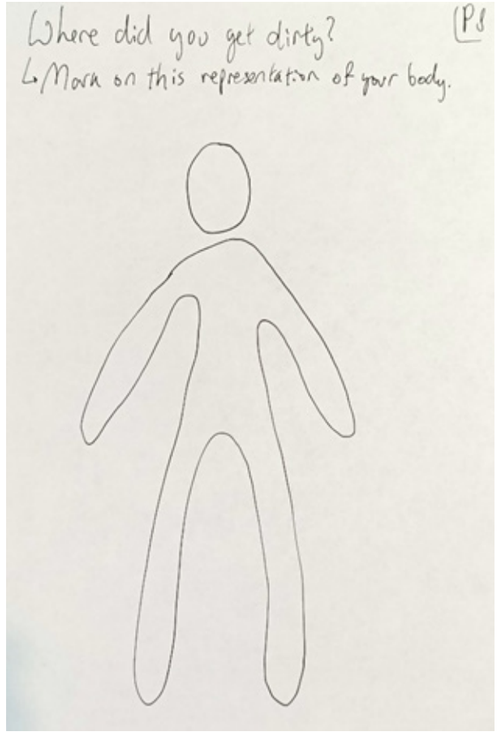



Figure 3: The dirt body map probe.

When I explained my probes, people are getting up and got to work. Some people that are curious or happy to participate walk towards me and my probes and ask if they can take a cloth or take part in the body mapping later. People ask if they can do only one of the probes. Eventually, all clothes are being used (5) by two regular participants and three participants from ASML. Furthermore, one person takes a set of bags with her. With everyone getting to work, I grab my notebook and see what I can observe.

## 2) Transplanting

The first place I observe is inside the greenhouse at the table I was already sitting at. There, some people start transplanting very small plants into trays. I ask the working people if they are okay with me observing them before collecting data. There are three Dutch-speaking men and one English-speaking man working together. One of the Dutch-speaking men is a regular volunteer with a gardening and agriculture background (P4). The men have filled up a tray with what I now know as the worm faeces soil. There is also a smaller box with the plants that are to be transplanted (figure 4). The English-speaking participant (P2) asks the others if he can wear his gardening gloves while doing this job. The others respond by saying that that is not possible and say "You just need to get dirty". I ask what the men think of getting dirty and P3 says that dirt is okay as long as you can wipe it off. He doesn't like excessive amounts of dirt on himself.

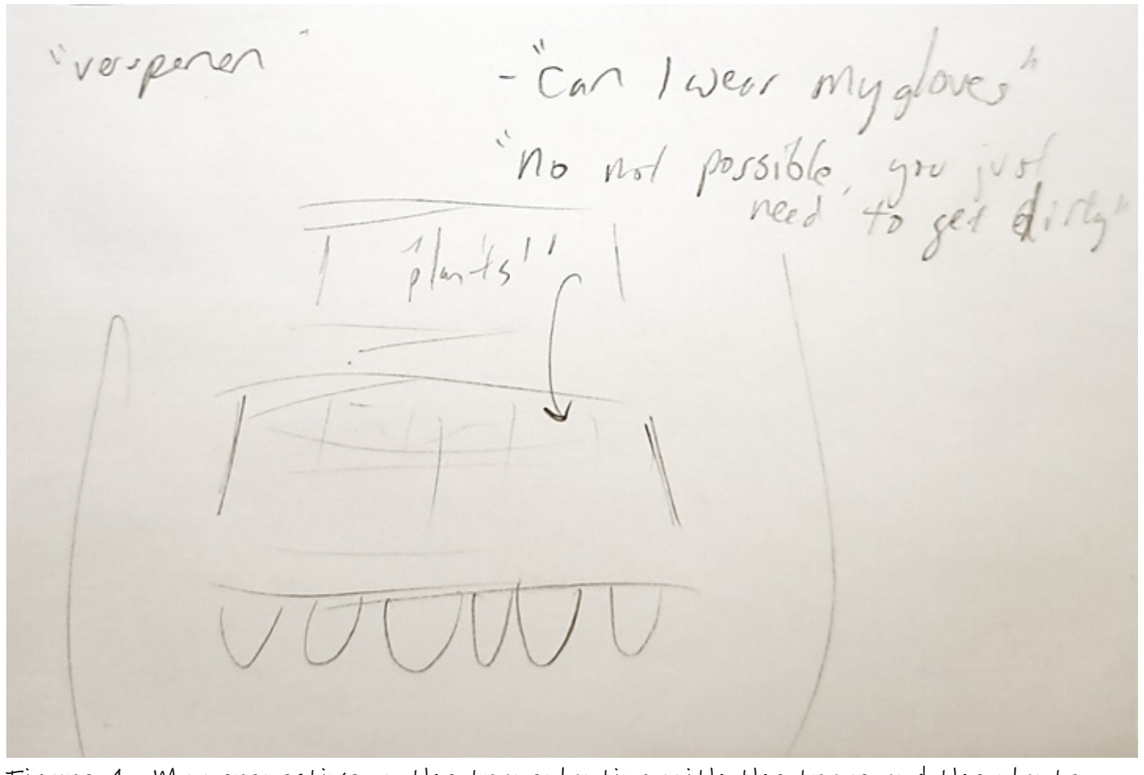



Figure 4: My perspective on the transplanting with the trays and the plants.

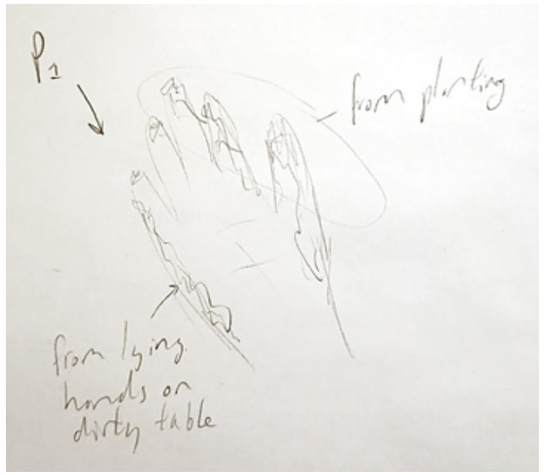



Figure 5: How the dirt is spread on the hand of P1.

I watch how P1 (one of the Dutch ASML male participants) transplants. He carefully takes out plants using his thumbs and pointing fingers of both hands. He sometimes also includes his middle fingers for extra support. He separates the plants, makes a hole in the soil in the tray with his pointing finger, and puts in the plant. Then he closes the hole by pressing with his thumbs and pointing fingers of both hands. The table is getting dirty from spilled soil and P1 leans with his hands on it. The outside of his hand is covered in dirt, but the middle is still clean (figure 5).
I then observe how P2, who initially wanted to keep wearing his gloves, transplants. He takes out the tiny plants by scooping with his pointing and sometimes the middle finger of his right hand. This way he loosens up the roots. He takes the plant out of the soil with his thumb and pointing finger. He sometimes needs to separate the plants. He makes holes in the soil in the tray with his right pointing finger and carefully moves it in and out a few times. Super carefully, he puts the plant in the hole and presses with his thumbs and pointing fingers of both hands to close the hole. He shakes his hand a few times to remove some of the excess soil from his thumb and pointing finger. He especially does this for his right hand. I think this makes sense as he mostly uses these hands. Over time the frequency of this shaking behaviour decreases. I think P2 tried to limit the dirt on his hands by using only a few fingers and shaking the dirt off. I think he eventually realised that his hands would get dirty anyway and gave up on keeping his hands clean.

P1 is done with filling his tray and checks on the tray of P2. He says “Too little sand.” I think he means soil. He starts pressing the soil tighter into the boxes in the tray and puts more soil and starts puncturing holes into the boxes. It feels a bit abrupt and I think he is being a little unkind in how he takes over the work from P2. Nevertheless, he is right that it is important that the plants have enough soil because it will otherwise be very difficult to take out the plants from the tray without damaging the roots.

I think that P2 might be less experienced than P1 and to check my hypothesis I ask P2 about his experience at Stadsakkers. He tells me he has little experience and that he hasn’t been here before. He says that he watches a lot of videos about gardening and that he enjoys nature. I talk a bit more with P2 because P1,3 and 4 are mostly talking in Dutch. I think P2 might feel a little bit excluded. I don’t think it is purposeful based on how they do interact very friendly.

## 3) Sorting Onions

I get up to find something else to observe. Since it is still heavily raining, I don’t want to go outside, because it will be difficult to write in my paper notebook in the rain. I see that people are busy in a corner of the greenhouse. When I approach I see that they are separating small onions. They sort them per size and take out the bad ones. There are two male participants from ASML working together with the man that usually leads. They explain that they sort the onions according to size, as that determines how far apart they will be planted. The men work without gloves and I can see that their hands get slightly dirty from the work. I can also smell the onions while standing there, so I imagine that after this work, their hands will strongly smell of onions too. I ask how they felt about this. They explain that the smell is not a problem for them as they are used to it, since they eat a lot of raw onions in Indian cuisine (the two men are of Indian origin). We talk a little more about Indian food and then I continue observing elsewhere.

## 4) Transplanting

I walk back to the table of the transplanting and I see that people are working differently now. P3 is making a lot of holes in the soil in the trays using the pointing finger of his right hand. He collaborates with P2, who gives the plants. Then he takes the plant with his left hand and puts it in the hole, using the pointing finger of his right hand to close the hole. They work very efficiently like a machine together. It is fun to watch.

While working the participants discuss plants growing on glass wool vs. plants growing in soil. They wonder if you can taste it. They think the vegetables from plants grown in the soil will taste much better. They are having this conversation in the context of biological farming and vertical farming and the food industry. I find this an interesting conversation as it reveals a bit of how people value the work they are currently doing. Maybe the smelling and touching of the soil makes them believe more strongly that this will impact the taste of the vegetables grown in it.

P3 wants to take a seat and moves the plastic chair by only using his pinky fingers. I see that these are the cleanest and I think that he does not want to make the chair dirty. That would also be very visible as the chair is white.

## 5) Planting Pointed Cabbage

I have seen enough inside for now, so I decide to go outside despite the rain. I walk to the fields where people are planting pointed cabbage in the holes in the mulch foil. Someone takes a plant from the tray with the hand that is closest to the tray. Then they make a hole in the soil through the hole in the mulch foil by using two or three gloved fingers. They put in a plant and press with the fingers from both hands to close the hole. This repeats itself. One tray is empty and needs to be filled with new plants. I follow the person that takes up that task to the table where the trays with plants are standing and I observe how people take the plants out of the boxes in the tray. There are three people working on this task and two of them are using a fork to take out the pointed cabbage plants. One person is using the method of putting a stick through the hole in the bottom. I observed the same work one week ago and there people were also doing it in different ways, later learning that the stick method is best for the preservation of the roots of the plants. I notice that the ASML volunteers are all working with gloves, but that the regular volunteer is working with bare hands. When trying to write down my observations, I sometimes need to make an extra effort in writing, as the rain makes the pencil have less contrast with the paper and the paper also becomes uneven due to the raindrops (figure 6).

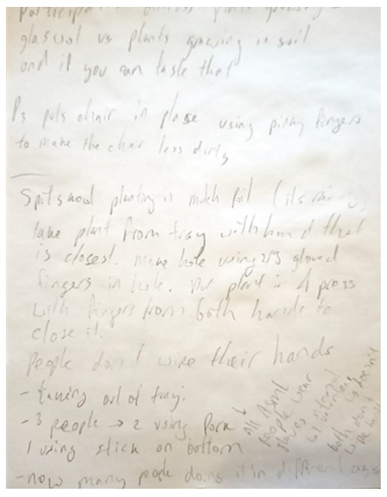



Figure 6: A page with observations in my notebook that also captures the rainy weather in the texture of the paper and the varying contrast of the pencil on the paper.

## 6) Transplanting Tomatoes

As the rain makes my work more difficult and I stop seeing new things, I decide to go back into the greenhouse. There I see a regular volunteer taking very small plants out of a box with soil by loosening the soil with a fork in his right hand and holding the stem near the leaves with his left. He tells me that he is transplanting tomatoes and that these are very fragile. That's why he is super careful and holds the plant near the leaves as it is stronger there. To plant the tomatoes in the tray with the boxes, he makes a hole with the back of the fork. He puts the plant in using the back of the fork to ensure it is in nicely with all its roots. He sometimes removes also a bit of soil from the roots of the plant with the fork to get it deeper or he shakes the plant a little. The participant tells me that the plant needs to be a little deeper than it was before. He uses two pointing fingers to carefully press the soil around the stem and in this process, he also sometimes includes his middle fingers.

## 7) Coffee Break

When the coffee break is announced some people wash their hands in the rainwater that falls from the roof of the greenhouse into the barrel. Not everyone does this. I think that that is also due to the fact that many people were wearing gloves and that the wet soil outside sticks more to the hands than the much dryer soil inside used in the transplanting process. The woman from the ASML green team is back with a big box of cake and everyone takes a plate and a piece of cake. People are also drinking tea or coffee. I notice that almost all people from ASML are wearing rain suits, while the regular volunteers just wear their usual outfits which are usually old clothes that can get dirty. I find it interesting that they did not adapt their clothing to the rainy weather that obviously. I also get a set of bags back from the one participant that took that probe. Unfortunately, she did not collect any materials in it, but I also understand that that is sometimes difficult or in this case unethical as it was about worms.

## 8) Sorting Onions

After the coffee break, I stay in the greenhouse and I see that P1 and P3 are sorting onions together with the regular volunteer that is a gardener (P4). I am interested in their opinion of how smelly the onions are and whether they mind it, as they are not Indian like the last volunteers doing this job. They say that the smell is not bad and also not that strong. "Ruikt best lekker" (smells actually quite nice). I also ask if they mind that their hands get dirty. They say that that is no problem and they see it as a sign that you have done some work. When I ask whether they find that important, they say that it is not really important. I think it is interesting how the work leaves a trace on people. These people don't seem to mind it. Continuing this conversation I understand that they do mind their hands getting dirty when it results in getting deep lines with dirt in their hands that makes them rough. They say that that will never get clean again. This is something they see happening to people around them that work a lot outside. They do not want such hands themselves.

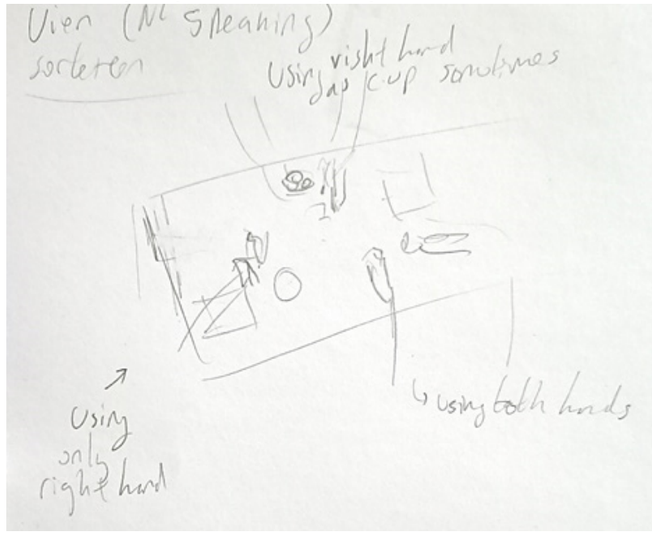



Figure 7: How all volunteers have different methods of picking onions.

Besides talking, I am also observing the work. I notice that the three men all have slightly different tactics. One person is using both hands to pick up onions. I think this person tries to be very quick. Another person is only using only one hand to pick up the onions and the last person has made a cup with one hand and picks up the onions with the other (figure 7).

## 9) Planting Onions

Figure 8: Lines for planting the onions at the right distance.

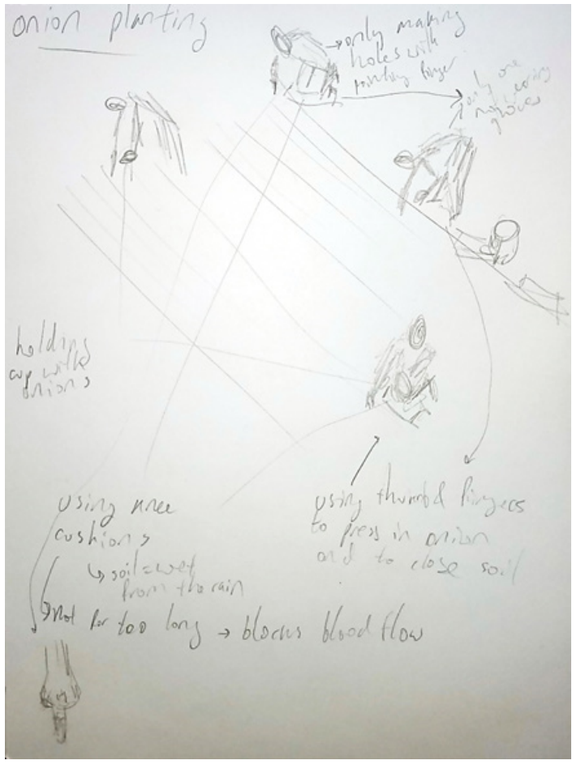



Figure 9: Four volunteers planting onions in different positions.

When the onions are sorted the participants walk towards the field where the onions are being planted. There are yellow lines set out on the field that indicates where the onions need to be planted (figure 8). I see that some people are standing and working bent over, while others are sitting on one or two knees on a gardening mat that is designed for that. I had not seen those mats here before and I think they use them because the soil is wet and that does not feel nice on your pants next to it making stains. In figure 9 you can see an overview of the setup that I have drawn in my notebook to annotate the situation. Two participants are holding a cup with onions while they are working. One participant is only piercing holes in the soil (P3) (figure 10). I find this interesting, as he was also doing this earlier in the greenhouse when transplanting. His hand is only dirty at the top of his pointing finger (figure 11). I find it interesting that it is so specific. P3 and P4 are not wearing gloves. Where P3 makes a hole, P4 puts in an onion. It has occurred to me that P3 is looking for ways to be more efficient in doing the work. He is almost acting like a machine. It is funny that also the topic of how tools could be made to make the holes in the soil occurs between P1 a volunteer from ASML and P4, a regular volunteer.

Figures 10 & 11: P3 is making holes and has only one finger dirty.

I see that P2 is using his thumb and fingers to press the onion into the hole and close the soil. He is sitting on his knees. After a while, the people standing work on their knees and vice versa. P2 explains that they do this to either rest their back (people that were standing) or to let the blood flow through their legs (people sitting on their knees).

## 10 Planting Pointed Cabbage

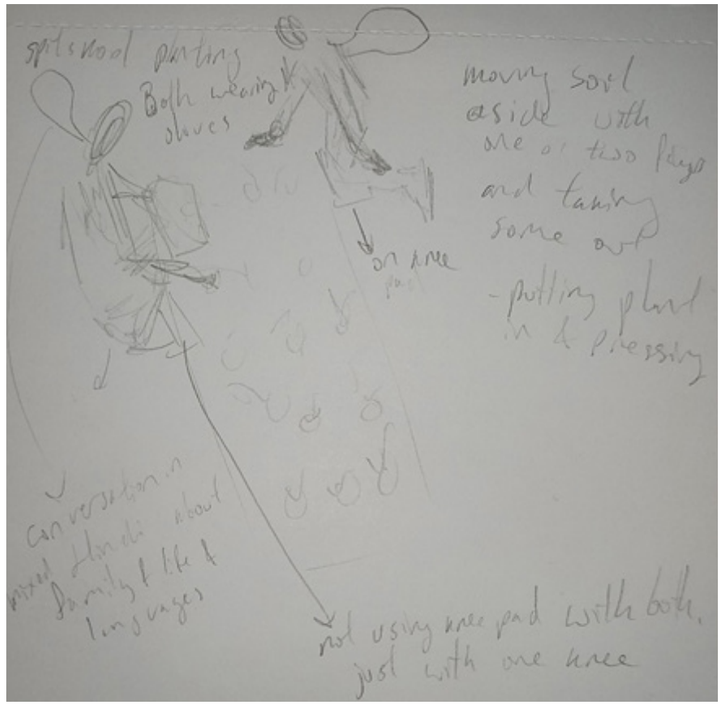



Figure 12: Two volunteers planting pointed cabbage and talking.

As I am curious about how people deal with sitting on their knees while planting pointed cabbage, I also take a look at that field. I observe the two participants that I observed earlier sorting onions. They are both sitting on one side of the field and wearing gloves. They both have a knee mat (figure 12). One participant is only using it to rest on one knee, while the other is using it for both knees. They move out some soil through a hole in the mulch foil with two fingers and then they put in the pointed cabbage plant. They are talking while working. I notice that it is a mix of English and Hindi. I realise that the regular participants that I have met at Stadsakkers are almost all Dutch and they are all white. Today was not just very different because of the bigger amount of people or that they were not regular volunteers, but also because the work was done by a much more culturally diverse group of people.

# 11) Finishing

When all cabbages are planted it becomes apparent that it is almost 12:00 and that is the time that the people from ASML will go home. People wash their hands and gloves in the rain barrels, as well as the trays used to transport the pointed cabbage plants from the trays to the field. I see that some people use the cloth probe to dry their hands. People are coming to me to hand in their probes and to mark the places where they got dirty on the body map probe. I need to ask a few participants to annotate the stains on their cloths. I see that the water from either the rain or drying hands had made many of the felt-tip writings bleed, so I quickly take pictures of all the probes to ensure that I capture what is written. I also put every cloth in a separate bag to preserve their stains and smell. I also make sure that everyone that participated reads and signs the informed consent form. I get some questions from curious people about my research and my study and I answer them as well as I can. People wish me good luck and say that they liked to participate. Eventually, I gather my probes, say goodbye to the regular participants and cycle back home without any rain.

# Appendix D: Interview Questions

Interview questions:

- Where did you get dirty today?
- What does it mean for you to get dirty?
- How does the work here at Stadsakkers influence how you value food? Why?
- How does getting dirty influence how you value food? Why?
- How would you motivate others to value food more?

# Appendix E: Analysed Dirt Stories

Categories in the autoethnographic and ethnographic stories.

| Categories of Dirt Story 1 (autoethnography) | Description | Example |
|---|---|---|
| Material environment | Materials used that were either clearly good or bad for the environment. | Compostable mulch foil. |
| Animal environment | Animals I noticed at Stadsakkers. | The snail was found on the lettuce and crushed by a volunteer. |
| Sensory experience | Descriptions including sensory perceptions. | The sliding sound of the spades entering and exiting the soil and how you can tell whether it touches stones based on the sound |
| Touching dirty things and clean | Descriptions related to the distinction between dirty and clean. | Dirt under nails. |
| Habits | Repetitive actions become a way of doing things. | I used my right pink to make holes. |
| Learning | Moments in which I learned something and how I learned it. | A volunteer shows how to transplant. |
| Local socio-cultural aspects | Descriptions related to the social practices of Stadsakker and Eindhoven. | The use of the word “keeltjes” to describe turnip tops instead of “raapstelen”. |
| Material inspiration for probes | Descriptions of materials that I could possibly use in the design of my probe. | Popsicle sticks marking what plant is where. |
| Categories of Dirt Stories 2 & 3 (ethnography + probes) | Description | Example |
| Dirty/wet/clean | Descriptions related to getting dirty/wet/clean or being that. | His hand is only dirty at the top of his pointing finger. |
| Sustainable environment | Descriptions of things that are done or discussed at Stadsakkers that relate to increasing sustainability. | Sowing flowers at the end of beds to increase biodiversity. |

| | | |
|---|---|---|
| Gloves | All descriptions concerning gloves | She says that she has less precise feeling with gloves. |
| Gardening knowledge | Descriptions about specific knowledge used for gardening that sometimes explains motivations for actions. | Snow peas leave nitrogen behind and can therefore grow in relatively poor soil. |
| Weather | Weather conditions. | The rain makes the pencil have less contrast with the paper. |
| Materials/tools | All materials and tools. | Stick that marks the spinach. |
| Ideas | My ideas (often design related) based on my observations. | System of collecting toilet paper cartons from the food bank's clients to supply Stadsakkers with them to grow plants and being able to transport them easily in a plastic free manner. |
| Probes description | Everything related to probes in the stories. | I gather my probes. |
| Hands in detail | Detailed descriptions of specific movements and use of the hands. | He takes out the tiny plants by scooping them with his pointing finger and sometimes the middle finger of his right hand. |
| Interactions | How people interact with one another. | They are talking while working. |
| Locations | Places that the story refers to. | Across the entrance of the greenhouse. |
| Contrasts | Events, actions and motivations that are contradictory | the three men all have slightly different tactics. |

This is an ethnographic documentation of how I experienced 29/3/2023 at Stadsakker De Eikenburg. It describes my actions, my thoughts and some feelings that I had throughout the time that I spent there. I arrived at this Stadsakker around 9:30 and I left around 14:30.

With this extensive description I try to gain insight in the practices of helping there. I hope that my insights will help me to find a focus within the practices and to tailor my probe to the practices of the community.

Stadsakkers Eindhoven is an initiative that grows food for the foodbank in an ecological manner. (They don't use pesticides.)

Legend:

- Material environment
- Sensory experience
- Animal environment
- touching dirt(y) things & clean?
- habits
- learning
- (material) inspiration for probes
- local socio-cultural aspects

# A Day At The ...

Stads akkers Eind hoven

# Today's Activities

1· Watch how nitrogen is added to the garlic

2·See how the plants are doing

3·See how compost is made

4·Apply compostable mulch film on fields

5·Wash hands

6·Have a break together

7·Apply compost on field

8·Transplant parsley

# 1) Watch How Nitrogen Is Added To Garlic

We walk towards a field where green stringy plants come out of the soil. I walk behind the other participant who is holding a bucket from which the other participant grabs a hand of greyish looking little balls and he spreads them over the field by tossing them into the air. It is thinly spread. He explains that biological doesn't mean that you are not allowed to add anything. They analyse what the soil needs and try to regulate its fertility with the plants they use, as well as by occasionally adding nitrogen. The other participant walks around the field to also add the granules on the other side. I follow around and listen. On our way to the greenhouse I find a piece of thick green plastic that was lying in the soil. I ask where I should put it, and the other participant says that the trashbag has just been emptied. It appears to me that he doesn't know that well what to do with it at the moment. It also occurs to me that it seems like they do not separate plastic (and maybe also not paper?).

# 2) See How The Plants Are Doing

I follow the other participant around the place towards the greenhouse where he points to the young turnip tops that have now been outside to adjust to the weather temperature before they go into the soil. The other participant calls them "keeltjes" and I recognise how my mom calls this vegetable. I tell the participant that my mom is also from Eindhoven and that I understand what he means but that I am more used to the term "raapstelen". We laugh about it and the other participant then tells about how he always calls a certain type of beans a certain way, but that they are normally called something else. I wonder how many places have local names for certain types of food in the Netherlands.

When we enter the greenhouse I'm shown the growth of the cabbages and I notice that they have indeed become bigger in comparison to last week. I'm also shown the radishes and told how fast they grow. Apparently they even sometimes plant them above carrots which I'm told grow very slow. When shown the lettuce, I'm explained that they are planted far apart as they will become very big and this is easier to clean the field. At that point I notice that one leaf is half eaten off and I notify the other participant that there might be a snail around. He finds the snail and crushes it with his foot. I find this a little shocking and I think that he could also have thrown it into the foresty area. However, I also understand that they rather not take the chance of having more. The other participant sees my shock and explains to me that snails lay many eggs. I understand the importance of growing this food, however, I wonder to what extent it is okay to eliminate or harm non-human factors. I ask what they do when about other animals such as rabbits, but those are not really a problem there.

The red cabbages are in plastic trays, but the cauliflowers are in compressed soil. This is an experiment to use less plastic, but the other participant worries that the soil dries out to quickly. I notice that they use small sticks from e.g. Popsicles to mark what is planted where. Maybe it is nice to do something with this material in my probe to annotate something.

## 3)See How Compost Is Made

I ask the other participant if they can show me how the compost is made. We walk towards the place and I see a wooden structure that makes six different boxes that are each about one cubical meter. They are all filled with horse feces and some other brown things that looks like gardening waste and more. The boxes are covered with a thick black woven plastic sheet. I don't really smell anything, which I would have expected, but that might also be due to my slightly blocked nose. The other participant tells about how also other local places add to the pile of such as from the school's cooking activities. I find it inspiring to hear that there is some interaction and social benefit in this neighbourhood. When the other participant lifts the sheet and grabs some of the compost to show how it holds moist and that there are a lot of worms in there, I hear something running away and the other participant says that it was a mouse.. I think by myself that it is a good thing he is wearing gloves. I would not have liked to touch the old horse feces in the compost and all the other things with my bare hands. However, it is funny how I do touch the soil with my bare hands, which is containing slightly older compost. Where do you draw the line of what is dirty and what is not? To what extent do you want to touch something?

## 4) Apply Compostable Mulch Film To The Field

My first real actions this morning are similar to what I helped with last week. First we need to put a yellow rope attached to two sticks over the length of the field and 10 cm from the side. The width of the mulch foil is 120 cm, which is exactly the same as the field itself. However, to make sure the foil stays in its place, you need to make a trench and put the ends in there. So after putting the rope, we take some spades and make this trench. I first watch how another participant does this in order to learn how to do it myself. To make the trench you need to put the tip of the spade close to the yellow rope and push it into the soil by putting your foot on one side. I notice that I always do this with my right foot. When the spade is in the soil, you move it a bit back and forth to create an opening. I later learn that in order to make the line straighter, you can also move it a bit from left to right. After making the opening, you pull out the spade and repeat the same steps right next to it. This needs to be done around all sides of the field. At some point, my right arm starts aching a bit in my muscles, so I try to do the work more with both hands. It was sometimes a bit more difficult to get it straight due to the soil sticking to the spade. I think this is due to the soil being rather wet. However, there are also instances where the trench slightly collapsed due to the soil being less firm. I think it is a bit more dry in these instances. While making the trenches I talk a little with another participant about his experience with working at the Stadsakkers.

We work together, both starting at another end and working towards one another. We are not talking all the time, and I also start enjoying all the sounds of the place. I hear the whistling of birds (I think I recognize the sound of a great tit), the swooshing sound of the cars on the highway, the wind through the trees, the light ticking sound of the slight rain on the mulch foil and the rhythmic and sliding sound of the spades entering and exiting the soil. Based on how it sounds, you can tell whether it touches stones or not. I notice this after doing it for a while. The whole soundscape makes me understand better why people enjoy working here and also regarding connecting to nature. I myself feel more relaxed and really in the moment. The slight rain doesn't bother me, but rather makes me feel more part of nature. Also getting my hands dirty is a part of this.

After making the trenches I get two chairs to put the ends of the stick that holds the mulch foil on. Together with another participant we keep the chairs in place while two others pull out the foil like toilet paper from a roll. (This is something they say in order to describe what way is best to let the roll of mulch foil unroll smoothly). When the foil is spread, I am asked to create a tension by putting a spade on the ground where the field starts on top of the foil. I do this, but it creates too much tension, so then I unroll the foil a little more.

I walk towards the other end of the field and start helping there. The foil needs to be pulled evenly over the field and the ends need to be tucked in the trenches. Then these trenches need to be closed by pushing the soil towards the foil. It is important to work with two people each on one side, so that the foil is spread evenly. When there is too little soil to enclose the foil, you need to add some sand with a tiny spade and push this to tighten it. When I do this work I am sitting low to the ground, but only with my feet touching the soil. I think I want to keep my pants a bit clean although I especially wear older ones that day. To move I just remain low, stretch out one leg and shift my weight towards that leg and pull in the other one. However, after a while my legs are slightly aching because my position closes the blood flow. Therefore I change my movements so that I get up every now and then. This helps a little. I notice that while doing the work, I get more and more skilled and I move faster than before. Also my hands get really dirty from touching the moist soil. It gets under my nails, makes thick layers in the palm of my hand and on my finger tips and it doesn't easily fall off when I try to wipe it. At first this is not a problem, as we cover another field with mulch foil, following the same steps.

In the left picture you see how to place the spade into the soil in order to ensure that the trench is right under the line. In the middle picture you see the trench and how the shape of the spade (the slight curve) is sometimes visible and how it crumbles at other parts, showing the different textures and levels of moist of the soil. I suspect that the crumbling part is a bit more sandy, which means that the grains in the soil are rougher. The picture on the right shows the field when the trenches are made and the fields that we covered last time with the mulch foil. The rain water stays on top of the foil, which explains why it makes a sound when a raindrop collides with the foil. I was told that the use of the foil is still an experiment here and that they hope it will compost in time.

## 5) Wash Hands

Before having a break together I want to clean my hands a bit. They are currently covered in dirt. Last time I was here, I was told that I could wash my hands in the rainwater barrels. These are filled up with the rainwater that comes from the roof of the greenhouse. I walk towards them, and as it is still slightly raining, a thin stream of water comes from the roof, which simulates a tap that is running. I hold my hands under the stream of water and I try to rub them together to loosen the dirt and let it flow away with the water that drips from the roof into my hands into the barrels. It takes a bit more time than with a normal tap as I don't have soap and the water runs a little slower. However it still works and I do not waste any water here. I like that. When the water that drips from the roof is too little, I put my hands in the water in the barrel. This is much colder than the water from the roof, but it does the job well. Washing my hands like this and getting them dirty makes me feel a bit more hardcore gardener. It is some sort of evidence that I am working. I am the only one that is washing hands as many of the other participants that were helping with the mulch foil were wearing gloves.

## 6) Have A Break Together

After some hard work someone calls to have a break together. They make coffee and tea, but I don't really drink coffee and I only drink tea with milk and sugar, which is a bit complicated. Therefore I ask if I can have some water. Someone gives me a glass of water and we sit together around a table in the greenhouse and talk about all kinds of things related to the place and the people that are there. We also eat some cookies and for the lunch break everyone eats what they brought from home. I brought two tangerines, so I eat those. However, my nails are still having some dirt under it, so I try to avoid touching the flesh with them. When peeling touching it with your nails in unavoidable. In the end I decide not to really care. If you can grow food in that soil, I will not die if it touches the food that I eat.

At some point I am staring at the tree outside the greenhouse and I see something red climbing it. I recognize it as a squirrel and this initiates a conversation about animals and things they steal. It becomes very funny and we laugh a lot together. It is a good atmosphere and I feel comfortable with these people.

## 7) Apply Compost On The Field

After the break we get back to work. We walk to the storage and we get a pitchfork and walk towards a small hill that is covered with a woven plastic sheet. There is compost underneath that is ready to be put on the land and we fill up a two wheelbarrows. We do this by sticking in the pitchfork, moving the handle a bit down to scoop it up and then you need to shake it as little as possible to put it in the wheelbarrow. This is quite hard as it is a bit heavy and the compost is a bit loose. You can see the shape of the horse feces still in there. The action reminds me of how it was to clean out the stable of my goats. When looking at the soil that we stand on, I see blue plastic strands and smaller red strands. It is everywhere and it makes me a bit sad to see it. When the wheelbarrows are full, we move them towards a field in the back and spread the compost using the pitchforks and a special rake that I recognize as something that is used in France for the hay. I take the rake I recognize to finely spread the compost and make it flat. I ask a more experienced participant to show me how to do it well, because I feel a little insecure about how to do it. The participant shows me and I try to follow the example, but I still feel a bit clumsy.

## 8) Transplant Parsley

There is not much work for me to do outside anymore, so I go into the greenhouse to help out there. Two participants are already busy with transplanting parsley into plastic trays filled with a loose soil. They explain to me that this is worm feces that comes from a place where they grow worms for e.g. fishing. This type of soil is very clean and has little nutritions because it went through the worm. However the little nutritional value is a good thing because if young plants get too rich soil they will burn. I first help filling up a tray together with another participant to understand how to do it. You need to place a plastic tray in the big bag with the worm feces and cover it with this dirt. Then you need to push every box with two fingers to tighten the soil. After that you cover it again with the dirt and wipe it off. I do this and I bring it to the table where the very young parsley plants are all together in a small container with soil. I learn that I need to put two plants per box. The first step is to take the plants from the box by very carefully loosen up the soil and grab the plants. It is important to do this carefully as you don't want to break the roots. I notice that some plants have longer roots than others. Then I need to make a hole in the soil in the box for the plant and put it in there. After a while I notice that I always did this with my right pink. I think because it is the smallest. It is more difficult to put in plants with a very big root, as the root needs to fold more in this small hole. When the plant is in there, you push it down with a finger on each side of the stem to close the soil and to tighten it a little. Then the process repeats for the other plants. As there need to be two plants in one box, I need to put the holes a bit further apart. I always make them in the right upper corner first and then in the left lower corner. I figure that if I do it the same everywhere, the distance between all the plants in the tray is maximized. I notice that from this soil I get less dirty fingers as it is dryer. Everyone doing this job is doing it with their bare hands but using different things to make the hole in the soil or to loosen up the soil of the plants. It is light and precise work. I talk to the other participants while doing this work and we have some nice conversations. This work reminds me of making jewelry with tiny beads or doing origami. It is something I enjoy. After having filled 1,5 trays we take the lunch break. Before that I wash my hands and afterwards I go home.

This is an ethnographic documentation of the work at Stadsakker De Eikenburg at 5/4/2023. It describes how I perceive the work that is done and the interactions that I have with volunteers. This includes actions, thoughts and some feelings that I had throughout the time that I spent there. I arrived at this Stadsakker around 10:30 and I left around 14:00.

With this extensive description I try to gain insight in the practices. I am interested in the meaning of dirt and the sustainability of the practices.

Stadsakkers Eindhoven is an initiative that grows food for the foodbank in an ecological manner. (They don't use pesticides.)

Legend:
- dirty/wet/clean
- sustainable environment
- gloves
- gardening knowledge
- weather
- materials/tools
- ideas
- probes description
- hands in detail
- interactions
- locations
- contrasts

# Another Day At The ...

Stads akkers Eind hoven

# Today's Activities

1· Arrival

2·Planting snow peas

3·Talking with P3 about his activities

4·Sowing arugula

5·Lunch & finishing

# 1) Arrival

It is a sunny day, so I arrive dry at the Stadsakker. Everyone is having a coffee break together in the greenhouse when I arrive. I greet everyone and take a seat. I wait until the conversation that I have interrupted with my arrival has finished before I explain my plan for the day: I want to do ethnography through observation and occasional questioning and I brought probes: Woven white ironed cotton cloths (from an old bedsheet) that are folded and have an assignment written on them (figure 1). The aim of the probe is to gain insight on a more specific level into what people consider "dirty", in which moments something is "dirty" and is that connected to the wiping of your hands. The probe is designed so that it does not look very valuable (unfinished edges) to lower the threshold of making it dirty. The colour white was chosen as it easily shows dirt. The woven cotton fabric easily shows crinkles and in order to catch those, I made sure to iron the cloths and fold them thrice to make them pocket size. I chose this size for the cloth to enable people to wipe in different places and annotate per place. To make sure that this worked, I made a small sample to try (figure 2).

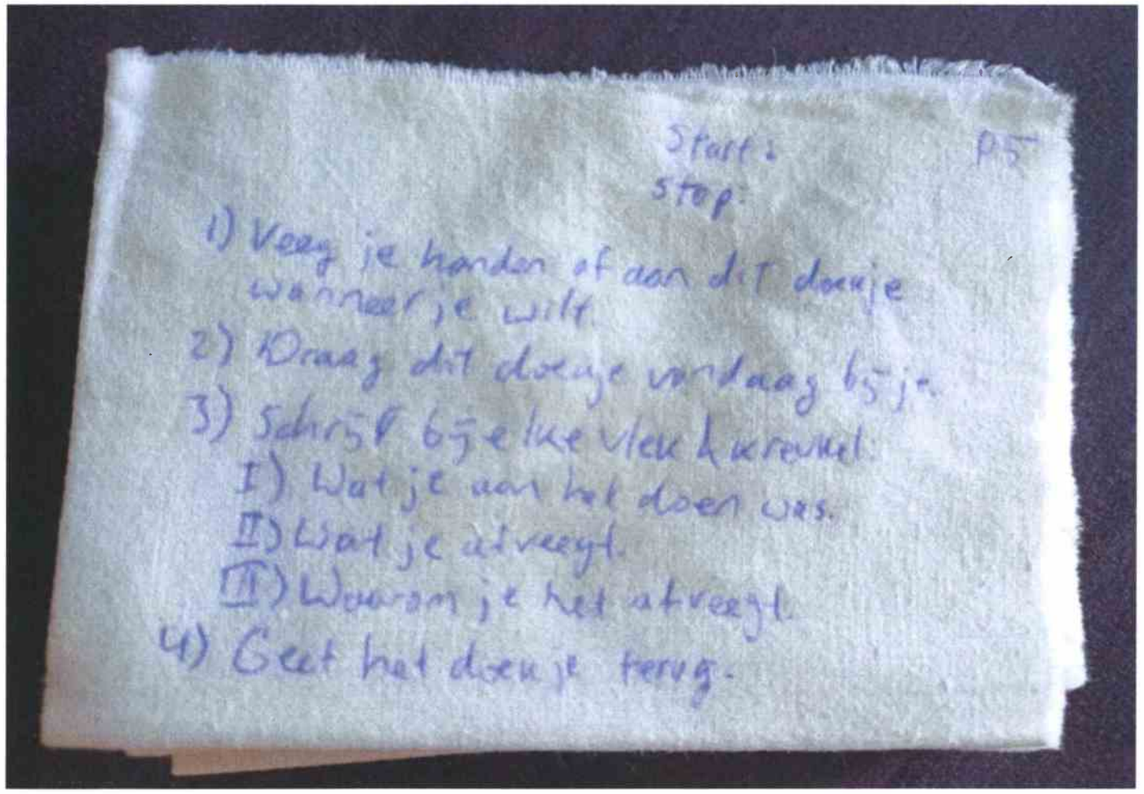



Figure 1: Probe wiping cloth with the assignment.

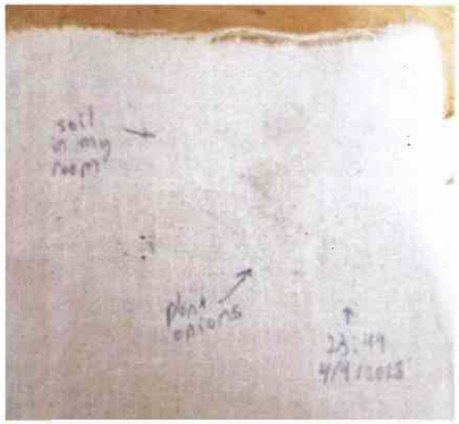



Figure 2: Sample to try the assignment myself.

I ask people if they want to participate in my research and I explain to them the probe assignment: The task is to wipe their hands on the cloth whenever they feel the need and to carry the cloth with them today with a pen that I provide them with. With every stain and crinkle they create, they need to write down three things: 1) What they are doing at that moment. 2) What they are wiping. 3) Why they wipe it. They also need to write down the time they start and stop using the probe and return it to me after use. Furthermore, I explain the consent forms. Four people that were also at the community in my previous visits, decide to participate. Participant 1 says that he usually wears gloves and that he wipes his hands on his pants. He asks if he now needs to use the cloth instead of his pants and if wiping his hands with gloves is also okay. I answer that that is both fine. I ask everyone to write down the starting time (11:00) on the probe and after that some people take a pen and the cloth and pen disappear into their pockets (pants, jacket, shirt). Participants are laughing a bit about the activity and I think they feel a bit uneasy about it. People start to get to work and I decide to observe.

## 2) Planting Snow Peas

Participants 1, 2 and 4 are working on putting the snow peas in the soil. I walk outside and follow them. There is some sort of big table with upward edges across the entrance of the greenhouse. It is filled with black plastic trays with plants. The plants are about 7 cm high. P1 explains that they have hardened for a while outside the greenhouse and that they are now ready to be put in the soil. They need some support, so they let them grow against a fence.

I observe how P2 takes out the plants and puts them on a wooden tray. She is wearing gardening gloves that have the tips of the fingers and the inside of the hand coated in rubber and the rest is a stretchy synthetic fabric. P2 holds a fork in her right hand and the stem of the plant in her left. With the fork, she loosens the soil and with her left hand, she carefully tries to pull out the plant from the plastic tray. The plant is then placed on the wooden tray so that it can be transported. I notice that all plants are put in the same direction. The top of the rough sketch in Figure 3 shows the posture of P2 and the bottom shows how the plants are put on the wooden tray, like Figure 4.

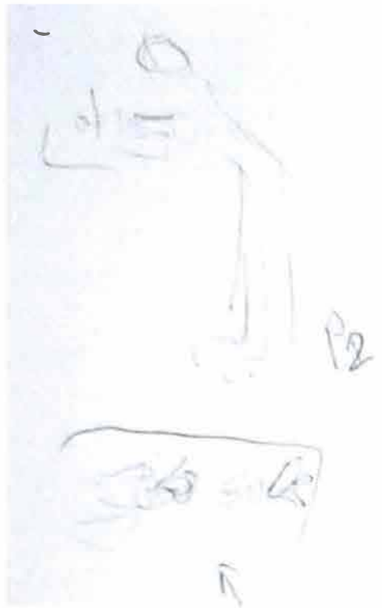



Figure 3: P2 taking out snow peas.

Figure 4: How the plants are put on a tray.

P1 also starts helping to take out the plants. P2 has a full tray and walks towards the field to plant the snow peas. I decide to observe how P1 takes out the snow peas. He does not use a fork but starts looking under the trees for a stick. When he has found one (figure 7), he bends and tries if the stick fits through the hole that is at the bottom of each box in the plastic tray. It fits quite precisely. He explains to me that it is better to not use a fork, but instead, push from the bottom hole with a stick (or a finger) (figure 5). This allows the soil to stick together when being removed, decreasing the chances of damaging the roots (figure 6). I ask P1 if he has ever tried squeezing the plastic cube before removing the plant, as I had seen people do that. He answers no, but tries it out. It is not entirely clear if that helps. I also ask P1 if he saves the sticks that fit nicely. He answers that he indeed sometimes does this. He also complains that the work is such a "gepiel" (work that is more fragile and that requires some patience and precision). He says that he prefers to let others do this task.

Figure 5: Using a stick to take out the plant.

Figure 6: Soil sticking together.

Figure 7: Good stick..

Nevertheless, he manages to take out a few plants with almost all the soil sticking to the roots (e.g. figure 6). When P1 has filled his tray, I follow him towards the field where the snow peas need to be planted. He explains that snow peas themselves leave nitrogen behind and that they therefore can grow in relatively poor soil. I observe how the plants are put in the soil (figure 8): He uses his right hand's three middle fingers to dig a small hole. Then he takes a plant with his left hand, puts it in the hole and presses it closed with the index and middle fingers of both hands.

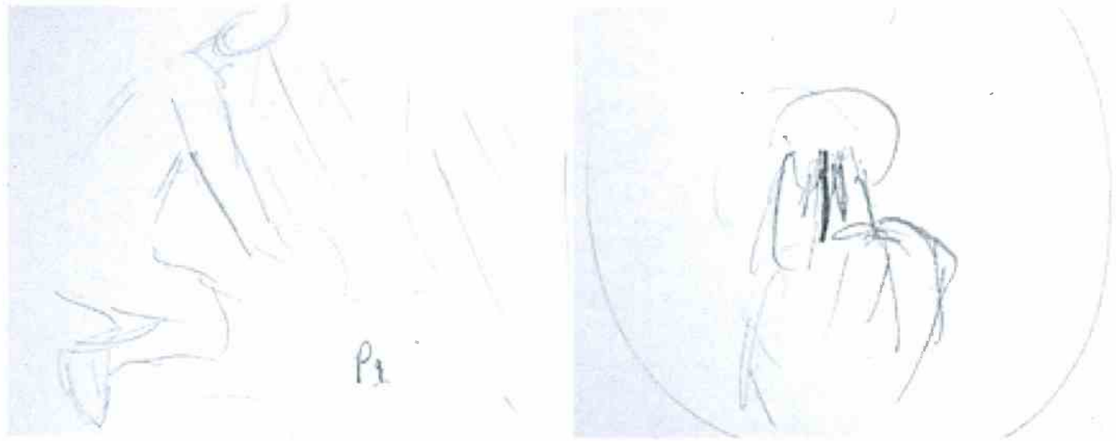



Figure 8: How P1 plants the snow peas in the soil:
Setting and posture on the left, close up of the hand making a hole on the right.

I decide to walk back to the station where the plants are taken out of the plastic trays and put onto the wooden ones. There I see P2 and P4 taking out the plants from the trays. I notice that everyone is wearing gloves today. I see that P4 takes out one glove and keeps wearing the other. I ask her why she does that. She answers that she has less feeling with the gloves on. Like that, you damage the roots more easily. She also calls it a job that requires patience. With this, she affirms what P1 said earlier about this work. I watch how she works: With her left hand she lifts the tray and then she decides to also take off the glove on her other hand (figure 9). With her pinky finger, she pushes up the plant through the hole in the bottom of the tray. Then she tries to pull out the plant with that same hand, no longer pushing at the bottom. The stem snaps.

Figure 9: The gloves of P4 left behind.

"Sorry," she says half laughing and maybe feeling a bit guilty and clumsy. "That's something they need to find an alternative for. Moving plants." I think that she just needs to push the plant up with one hand and pull it out with the other. However, this is difficult, as she also needed to hold up the tray. I agree with her that there are probably ways to make this process easier.

Figure 10: Baby snow pea that is too small.

I also observe P2 again. I see that she pulls apart the soil of the plants she got out of the plastic trays. For me, this is in contrast with what P1 did and said and therefore interesting. I ask why she does that and she explains that there are two plants per box of soil and that she splits them to plant them apart. She says that some did not grow or that some did not grow fast, such as the small one in figure 10. The snow peas were sown directly into these plastic trays and not transplanted like some other plants. I realize that this results at this moment being the first "elimination round" where plants that are weaker are separated. I ask P2 what happens to these weaker/smaller plants. She answers that they are often thrown, taken home or sometimes placed in a separate tray to grow. However they often still don't make it then when they get this second chance as they are often weaker.

When the wooden trays are full again, I walk with P2 and P4 back to the field. P2 and P4 plant the plants with a distance of approximately 5 cm between them. However, P2 notices that P1 has planted them with 10 cm in between and she says she wonders why he did that. I noticed that P1 is in a more leading role. When P1 comes back to also plant more plants, P2 asks about the distance between the plants. She also notices that his plants have not been split in the soil cubes. P1 explains that he did not take the plants apart to have less damaged roots and that the two plants will grow away from one another and that that is the reason for planting them with 10 cm in between. The participants decide to plant the single plants 5 cm apart and the doubles at 10 cm (figure 11).

Figure 11: 10 & 5 cm between the plants.



Figure 12: Mole tunnel in the place of a plant.

I ask P2 what she pays attention to when planting the snow peas. She says half laughing that she pays attention to the distance between the plants. I understand that she laughs, as we had just found out about this inconsistency regarding the distance between the plants between her and P1. She also says that she makes sure to press the soil tightly when planting the snow peas. She shows me that there is sometimes a tunnel in the soil from moles and that these first need to be closed. As P1, P2 and P4 are working they come across quite some tunnels. P1 jokes that they are the Russian spy network and that they are coming. P4 says that the world is just hollow, to which P1 responds that he thought it was flat and P2 says that it glitters. They laugh and joke a bit while planting all the snow pea plants. I see that P4 is still working without gloves. She uses a fork to make a hole for the plants. P2 scoops some soil away with her hand and makes a hole with four fingers. I see that everyone here has their own way of working.

P1 explains that in the early days, they had plants delivered instead of sowing them and growing them in the greenhouse. I ask if they save the seeds from the plants they grow to use those to grow more plants. P1 answers that they don't as they need to deliver quality and having your own seeds is a risk. I wonder what the risk is in this. I had sown the seeds from a pointy pepper that I ate in a bucket with soil in my room, and that works perfectly. Maybe it is not that easy for all sorts of vegetables. I ask P1 if there is a specific reason for the snowpeas to be planted in this specific field. He points to the sun that shines through the trees as they do not have many leaves yet and explains that this side of the field is more shadowy when the trees get leaves (figure 13). Therefore, they plant early plants in these fields, so that they can grow while there is still a bit more sun. Snow peas are such early plants. He also mentions that they are therefore planted on this side of the fence so that they catch more sunlight.

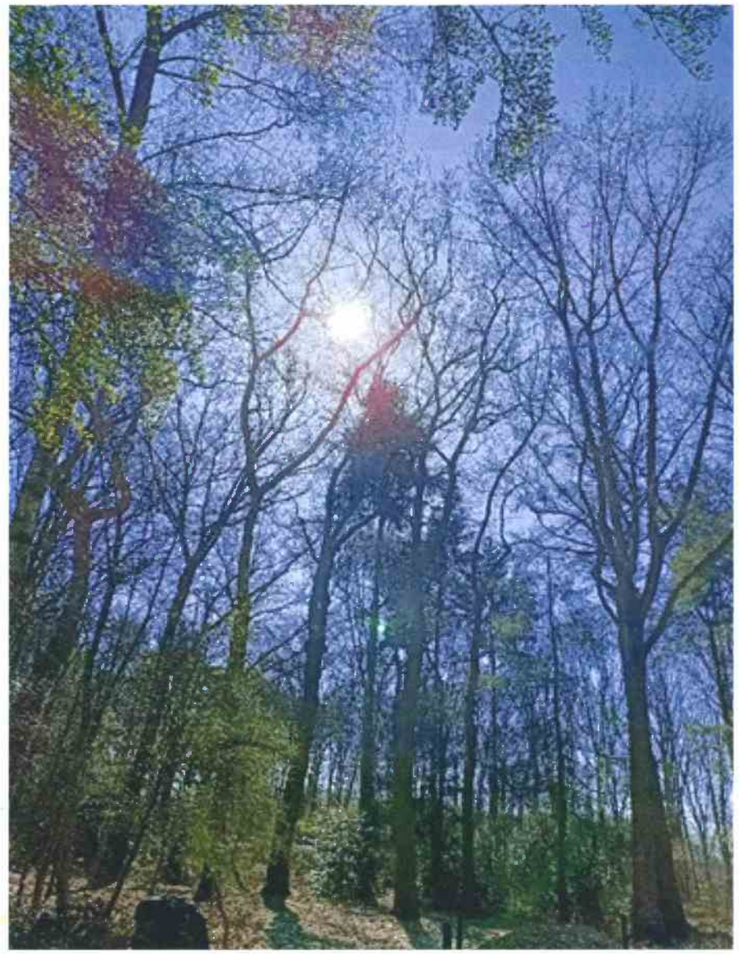


Figure 13: The south side of the fields has tall trees through which the sun shines when they don't have leaves yet.

While observing the actions regarding planting the snow peas, I noticed that people mostly wipe their hands on their pants even when wearing gloves. I ask P1 if he always wears the same gloves, to which he answers that he has two pairs of the same gloves. They are relatively thin he says. He explains that it is cold in the winter, which makes it nicer to wear gloves. He used to work without gloves, but he says that he had such black and dirty hands and nails, that he now always uses gloves. I get the feeling that I have gained a good image of the work of P1, P2 and P4 regarding the planting of the snow peas, and I start looking for P3.

# 3) Talking with P3 about his activities

I find P3 near the storage container that is being cleaned with a pressure washer. He says that he has just been moving compost and he is holding a dirty pitchfork and rake. He asks the person washing the container to also direct the water to the pitchfork that he is holding. The pitchfork is sprayed while P3 holds it with his bare hands. Then he takes a bottom of a broom and brushes off the last pieces of dirt before storing the pitchfork in the container. When I ask him if he always does the work with bare hands he says that he indeed mostly does. "I don't get dirty when working like this." I think that he means that he works with tools that touch the dirt and that he just touches the tools. I ask why it is important to clean the tools. He answers that the faeces stick to them when it dries out and that the tools work better when they are clean. He says that the rake he uses is actually one that he got at a second-hand store and that it has probably been used for construction. He says that it is also nice to work with for composting as it is good for loosening up the more solid mass. He explains that the length of the tools allows him to pull what is in the back towards him without having to stand inside the compost. I think that this also helps him in keeping a bit clean. He says that he also sometimes wears gloves for safety when doing this sort of rougher work.

Figure 14: Using turf and toilet paper cartons to grow baby plants.

P3 is growing herbs and flowers and collecting his own seeds and I follow him to the greenhouse where he shows me his plants and seeds. He carries a few dried thistle flowers from which he is going to take out the seeds. He shows me several plants that he is growing and tells me about the plan of sowing flowers at the end of some beds to help the biodiversity. I notice that he uses turf cups to start growing the seeds, but also half cartons of toilet paper rolls (figure 14). I think it's a nice idea to reuse them like that, but I understand that it is not feasible on a larger scale such as with the vegetables that are grown for the food bank. I ask him about it and he also tells me that certain seeds need bigger starting pots than others, which the toilet roll cartons also do not provide in. Nevertheless, thinking back on what P4 said about needing a different way of moving the plants, this could be inspiring for an alternative. I like the idea as it could even become a system where the people from the food bank collect the cartons of their toilet paper to supply Stadsakkers with them. Furthermore, P3 shows me his seeds and says that the seeds that are used for growing the vegetables are all stored in a fridge in order to keep them as good as possible.

Figure 15: The pile of shredded wood is only dry on the outside.

P3 works a lot on the composting and we walk towards the new composting place that he is making. The old one will have to move, as the location will be used to build houses. We walk past a pile of shredded wood and P3 explains that some trees were cut and that this was left behind on request so that it can be used for the compost. It looks very dry on the outside, but when P3 moves the content a little, it becomes apparent that only the outer layer is dry (figure 15). I ask if there are times that it is necessary to water the compost, and he says that he only does that sometimes on very hot summer days, but usually not. There is also a pile of horse faeces which he explains comes from the ponies that are nearby. They went there a few days ago to empty the stable and bring it here for the compost. I like that they use these local resources and strengthen the sense of community. I talk with P3 about how the temperatures rise in the composting process and he tells me that it can even become grey from the heat. I ask if all organic waste from the fields can be composted, to which he answers that they don't use tomatoes, potatoes, carrots and cabbages as these are e.g. sensitive to nightshade. They don't want any illnesses in their compost and therefore these plant rests are not composted but thrown into the forest. P3 explains that this is what they did with everything before they started composting. I ask about the number of boxes for the compost that he is making and if he uses that to turn the compost over. He says that he indeed turns it over and that he layers it with green and brown compost. Green contains nitrogen such as from plants, and brown contains carbon such as from horse faeces. I ask if it is possible to include seeds in the compost. P3 says that compost with seeds is not clean compost and that that is avoided or made in a separate pile. He also tells about a new experiment where he lets such plants rot in water. He says that it will function as liquid fertilizer and that it needs to be diluted before being applied, as it is very strong. I find it interesting that he tries multiple ways and that he is looking for ways to optimally reuse local resources. I ask him where he learns all this and he explains that he watches youtube videos and that he also works in his community garden and at Wasven. I feel like our conversation is reaching its end and I walk away to find out how it is going with the other participants.

# 4) Sowing Arugula

I find P2 and P4 on a field a bit more towards the back. They are sitting on their knees in the grass that is in between the fields. There are three lines of yellow rope stretched over the length of the field in parallel. With bare hands P2 and P4 place little white balls along the line at a ~3 cm distance from one another (figure 16). It is precise work and I think that is the reason why they do not wear gloves. I see that their knees have brown stains from the soil that it has been touching. This makes me wonder how consciously they choose their clothes for coming here and for getting "dirty". I ask what their criteria are for the clothes they wear to the Stadsakker. P2 says that she has a so-called set of gardening clothes. This means it is okay if they get dirty. She wears the same on Monday and Wednesday and washes them at the end of the week. P4 has a focus on clothes that protect against water. "I don't want to get wet." P2 answers to that that she does not take that into account in her clothing and that she just handles rain by going inside. I realize that I myself am wearing a combination of the two whenever I visit the Stadsakker. I also realize that trousers that protect against rain are easily cleaned and that P4's choice is therefore not that different from P2's. I find it interesting that P2 and P4 both show that they don't like to get wet from the rain, but that they deal with it very differently. Can the same be said about how people deal with getting dirty?

Figure 16: Sowing the arugula.

When all seeds are placed, the ends of the rows of seeds are marked with small sticks. The ropes are removed and rolled up. P2 covers the arugula seeds with a thin layer of the surrounding soil with her hands. P4 uses the stick that marks the spinach to cover the seeds with an equal layer. I realize that P4 uses tools like forks or sticks more often than P2. While P2 and P4 are busy covering the seeds they also chat about the day. When the topic of how P1 does things differently comes up, I ask how they feel about that. Is it annoying for them that things need to be done differently? They explain that P1 has more of a leading role and that he does things a bit differently than his predecessor. P2 says that this brings new insights and both P2 and P4 agree that this is nice. While making notes I at some point accidentally drop my notebook and it is then filled with dirt from the soil that I try to wipe off (figure 17).

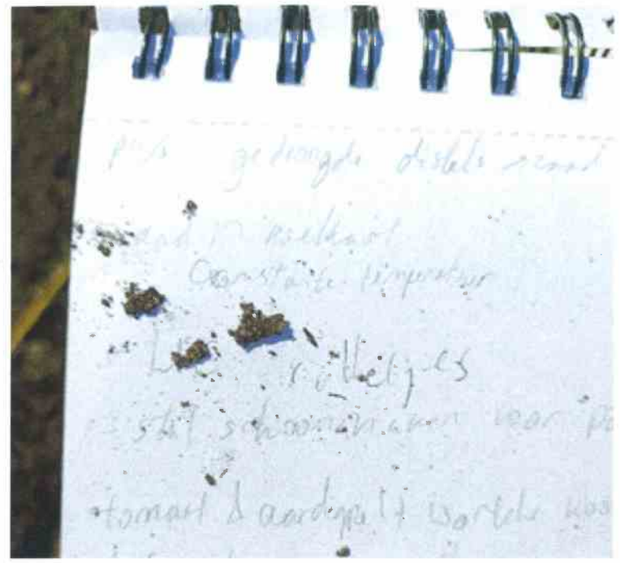


Figure 16: Dirt on my notebook after dropping it.

# 5) Lunch & Finishing

Figure 18: P2 annotating in-between the work in the greenhouse.

After the arugula seeds have been covered we all head towards the greenhouse to have lunch. P2 goes to the kitchen part to wash her hands. P4 just eats her fruit, bread and cookies with the dirt on her fingertips. P1 takes off his gloves when eating. After lunch people plan on leaving, so I start asking people to sign consent forms and return the clothes. This is around 13:30. P3 checks all his pockets and says that he actually hasn't used the cloth, as he hasn't felt the need to wipe his hands. He cannot find the cloth in any of his pockets and starts to look around the place in the greenhouse. Also there he cannot find it. I tell him that it is okay and that if he ever comes across it, he can always return it then. P1 also returns the cloth. He has been writing while working and had a pen with him. P2 has also been writing while working, but she often went inside to make use of the table (figure 18). She thought that she had lost a pen, but eventually, it appeared to be in the bottom of the pocket of her pullover. P4 has also been using the cloth, but she had not annotated anything. I ask her if she can still write something on the cloth to give me some insight. After having collected all clothes I help P4 with doing the dishes. I tell everyone goodbye and cycle home.

This is an ethnographic documentation of the work at Stadsakker De Eikenburg at 12/04/2023. It describes how I perceive the work that is done and the interactions that I have with volunteers. This includes actions, thoughts and some feelings that I had throughout the time that I spent there. I arrived at this Stadsakker around 9:00 and I left around 12:30.

With this extensive description I try to gain insight in the practices and how people less familiar with these practices take the work. I am interested in the meaning of dirt and how people get dirty during the work, as well as the sustainability of the practices.

Stadsakkers Eindhoven is an initiative that grows food for the foodbank in an ecological manner. (They don't use pesticides.)

Legend:
- dirty/wet/clean
- sustainable environment
- gloves
- gardening knowledge
- weather
- materials/tools
- ideas
- probes description
- hands in detail
- interactions
- locations
- contrasts

# A Busy Day At The ...

Stads akkers Eind hoven

# Today's Activities

1. Arrival & introduction
2. Transplanting
3. Sorting onions
4. Transplanting
5. Planting pointed cabbage
6. Transplanting tomatoes
7. Coffee break
8. Sorting onions
9. Planting onions
10. Planting pointed cabbage
11. Finishing

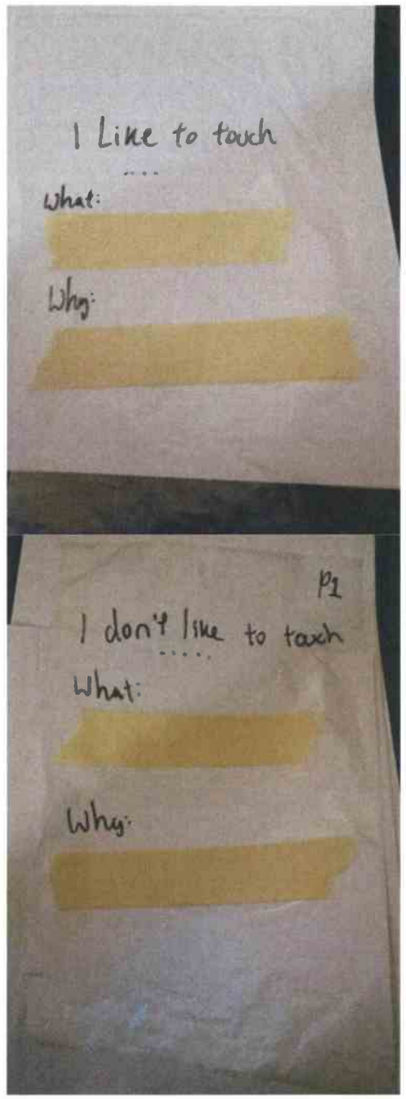
# 1) Arrival & Introduction

I arrive at 8:57 on my bike and I am partially wet from the rain. I am wearing a big raincoat, which helped to keep me dry. I am carrying a backpack with probes for today and a large pile of consent forms, pens, and my notebook. I hope nothing got damaged because of the water.

I walk into the greenhouse. On my way, I hear a lot of people talking. Today ASML has sent about 15 people to help. When I enter the greenhouse I see many new faces and people mostly talk in English. I understand that ASML has a rather international mix of employees. I greet some people and introduce myself as a student doing research. I meet the woman that organizes the volunteering from ASML. She tells me this activity is organized every month and that she works for the green team. She explains that they work on sustainability in the company. I explain my intentions for the day to her and she asks some questions. People are drinking coffee and tea and finding seats around the extended table. The other tables that are normally at different places in the greenhouse now form one large table with chairs around to create enough places for all those people. I find a seat at the end of the table because I feel like I am not really part of this as a researcher. The woman from the green team sits next to me. Maybe because she feels the same as someone who organizes, but does not do the work on the field.

When everyone has arrived and found a seat, the person that usually leads the work on Wednesdays takes the word to welcome everyone and give an introduction. He is responsible for overseeing the day's activities, assisted by a few other usual volunteers at Stadsakkers. He talks about the purpose of Stadsakkers, the history of the place and the history of Stadsakkers. He tells this all in English, which is not perfect, but he definitely gets the message across as people laugh at his jokes. Then comes the practical part where he explains the work for today, which consists of transplanting and sorting onions in the greenhouse, but also planting pointed cabbage in the fields and planting onions. This means that the people doing that will get wet in the rain. When he is finished, the woman from the green team informs people that she'll leave to get the cake and that she will be back in the break with the cake. Then I also take the word to explain what I am doing there today, introduce my probes, and ask people if they want to participate.

My first probes are the cloths that I also used on my previous visit. Only now, they have English instructions. I have five cloths that people can use.




*Woven white ironed cotton cloths (from an old bedsheet) that are folded and have an assignment written on them. The aim of the probe is to gain insight on a more specific level into what people consider "dirty", in which moments something is "dirty" and is that connected to the wiping of your hands. The probe is designed so that it does not look very valuable (unfinished edges) to lower the threshold of making it dirty. The colour white was chosen as it easily shows dirt. The woven cotton fabric easily shows crinkles and in order to catch those, I made sure to iron the cloths and fold them thrice to make them pocket size. I chose this size for the cloth to enable people to wipe in different places and annotate per place.*

My second probe consists of a set of small plastic bags with questions and paper tape on them as a space to write an answer (figures 1 & 2). The question on one bag is about what people like to touch and why. The question on the other bag is about what people don't like to touch and why. The idea is that people collect a sample of the material in the bags.

Figures 1 & 2: The bag probe to learn about touch preferences.

The third probe is a piece of paper with a human figure and the question "Where did you get dirty? Mark on this representation of your body." (figure 3).

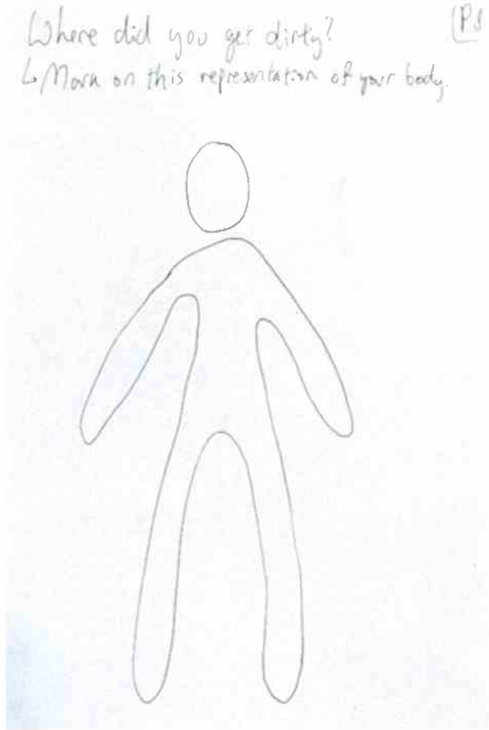



Figure 3: The dirt body map probe.

When I explained my probes, people are getting up and got to work. Some people that are curious or happy to participate walk towards me and my probes and ask if they can take a cloth or take part in the body mapping later. People ask if they can do only one of the probes. Eventually, all clothes are being used (5) by two regular participants and three participants from ASML. Furthermore, one person takes a set of bags with her. With everyone getting to work, I grab my notebook and see what I can observe.

## 2) Transplanting

The first place I observe is inside the greenhouse at the table I was already sitting at. There, some people start transplanting very small plants into trays. I ask the working people if they are okay with me observing them before collecting data. There are three Dutch-speaking men and one English-speaking man working together. One of the Dutch-speaking men is a regular volunteer with a gardening and agriculture background (P4). The men have filled up a tray with what I now know as the worm faeces soil. There is also a smaller box with the plants that are to be transplanted (figure 4). The English-speaking participant (P2) asks the others if he can wear his gardening gloves while doing this job. The others respond by saying that that is not possible and say "You just need to get dirty". I ask what the men think of getting dirty and P3 says that dirt is okay as long as you can wipe it off. He doesn't like excessive amounts of dirt on himself.

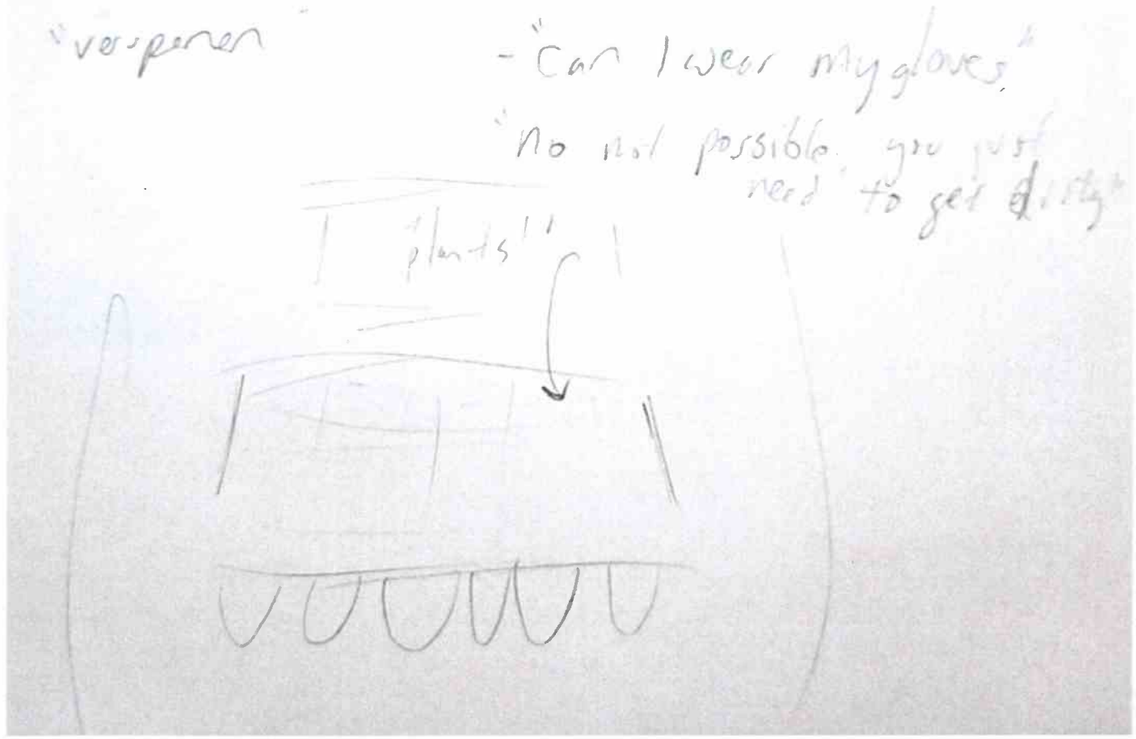



Figure 4: My perspective on the transplanting with the trays and the plants.

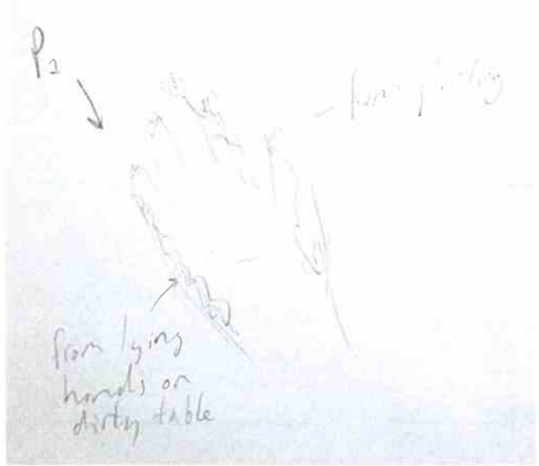



Figure 5: How the dirt is spread on the hand of P1.

I watch how P1 (one of the Dutch ASML male participants) transplants. He carefully takes out plants using his thumbs and pointing fingers of both hands. He sometimes also includes his middle fingers for extra support. He separates the plants, makes a hole in the soil in the tray with his pointing finger, and puts in the plant. Then he closes the hole by pressing with his thumbs and pointing fingers of both hands. The table is getting dirty from spilled soil and P1 leans with his hands on it. The outside of his hand is covered in dirt, but the middle is still clean (figure 5).

I then observe how P2, who initially wanted to keep wearing his gloves, transplants. He takes out the tiny plants by scooping with his pointing and sometimes the middle finger of his right hand. This way he loosens up the roots. He takes the plant out of the soil with his thumb and pointing finger. He sometimes needs to separate the plants. He makes holes in the soil in the tray with his right pointing finger and carefully moves it in and out a few times. Super carefully, he puts the plant in the hole and presses with his thumbs and pointing fingers of both hands to close the hole. He shakes his hand a few times to remove some of the excess soil from his thumb and pointing finger. He especially does this for his right hand. I think this makes sense as he mostly uses these hands. Over time the frequency of this shaking behaviour decreases. I think P2 tried to limit the dirt on his hands by using only a few fingers and shaking the dirt off. I think he eventually realised that his hands would get dirty anyway and gave up on keeping his hands clean.

P1 is done with filling his tray and checks on the tray of P2. He says "Too little sand." I think he means soil. He starts pressing the soil tighter into the boxes in the tray and puts more soil and starts puncturing holes into the boxes. It feels a bit abrupt and I think he is being a little unkind in how he takes over the work from P2. Nevertheless, he is right that it is important that the plants have enough soil because it will otherwise be very difficult to take out the plants from the tray without damaging the roots.

I think that P2 might be less experienced than P1 and to check my hypothesis I ask P2 about his experience at Stadsakkers. He tells me he has little experience and that he hasn't been here before. He says that he watches a lot of videos about gardening and that he enjoys nature. I talk a bit more with P2 because P1,3 and 4 are mostly talking in Dutch. I think P2 might feel a little bit excluded. I don't think it is purposeful based on how they do interact very friendly.

## 3) Sorting Onions

I get up to find something else to observe. Since it is still heavily raining, I don't want to go outside, because it will be difficult to write in my paper notebook in the rain. I see that people are busy in a corner of the greenhouse. When I approach I see that they are separating small onions. They sort them per size and take out the bad ones. There are two male participants from ASML working together with the man that usually leads. They explain that they sort the onions according to size, as that determines how far apart they will be planted. The men work without gloves and I can see that their hands get slightly dirty from the work. I can also smell the onions while standing there, so I imagine that after this work, their hands will strongly smell of onions too. I ask how they feel about this. They explain that the smell is not a problem for them as they are used to it, since they eat a lot of raw onions in Indian cuisine (the two men are of Indian origin). We talk a little more about Indian food and then I continue observing elsewhere.

## 4) Transplanting

I walk back to the table of the transplanting and I see that people are working differently now. P3 is making a lot of holes in the soil in the trays using the pointing finger of his right hand. He collaborates with P2, who gives the plants. Then he takes the plant with his left hand and puts it in the hole, using the pointing finger of his right hand to close the hole. They work very efficiently like a machine together. It is fun to watch.

While working the participants discuss plants growing on glass wool vs. plants growing in soil. They wonder if you can taste it. They think the vegetables from plants grown in the soil will taste much better. They are having this conversation in the context of biological farming and vertical farming and the food industry. I find this an interesting conversation as it reveals a bit of how people value the work they are currently doing. Maybe the smelling and touching of the soil makes them believe more strongly that this will impact the taste of the vegetables grown in it.

P3 wants to take a seat and moves the plastic chair by only using his pinky fingers. I see that these are the cleanest and I think that he does not want to make the chair dirty. That would also be very visible as the chair is white.

## 5) Planting Pointed Cabbage

I have seen enough inside for now, so I decide to go outside despite the rain. I walk to the fields where people are planting pointed cabbage in the holes in the mulch foil. Someone takes a plant from the tray with the hand that is closest to the tray. Then they make a hole in the soil through the hole in the mulch foil by using two or three gloved fingers. They put in a plant and press with the fingers from both hands to close the hole. This repeats itself. One tray is empty and needs to be filled with new plants. I follow the person that takes up that task to the table where the trays with plants are standing and I observe how people take the plants out of the boxes in the tray. There are three people working on this task and two of them are using a fork to take out the pointed cabbage plants. One person is using the method of putting a stick through the hole in the bottom. I observed the same work one week ago and there people were also doing it in different ways, later learning that the stick method is best for the preservation of the roots of the plants. I notice that the ASML volunteers are all working with gloves, but that the regular volunteer is working with bare hands. When trying to write down my observations, I sometimes need to make an extra effort in writing, as the rain makes the pencil have less contrast with the paper and the paper also becomes uneven due to the raindrops (figure 6).

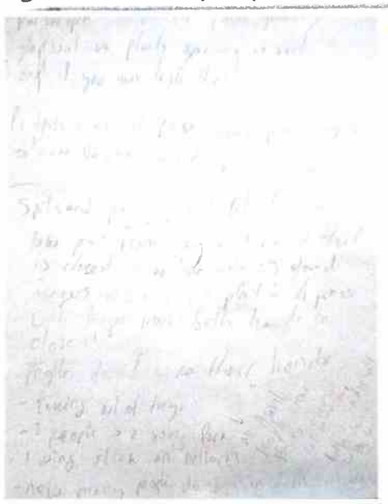


Figure 6: A page with observations in my notebook that also captures the rainy weather in the texture of the paper and the varying contrast of the pencil on the paper.

## 6) Transplanting Tomatoes

As the rain makes my work more difficult and I stop seeing new things, I decide to go back into the greenhouse. There I see a regular volunteer taking very small plants out of a box with soil by loosening the soil with a fork in his right hand and holding the stem near the leaves with his left. He tells me that he is transplanting tomatoes and that these are very fragile. That's why he is super careful and holds the plant near the leaves as it is stronger there. To plant the tomatoes in the tray with the boxes, he makes a hole with the back of the fork. He puts the plant in using the back of the fork to ensure it is in nicely with all its roots. He sometimes removes also a bit of soil from the roots of the plant with the fork to get it deeper or he shakes the plant a little. The participant tells me that the plant needs to be a little deeper than it was before. He uses two pointing fingers to carefully press the soil around the stem and in this process, he also sometimes includes his middle fingers.

## 7) Coffee Break

When the coffee break is announced some people wash their hands in the rainwater that falls from the roof of the greenhouse into the barrel. Not everyone does this. I think that that is also due to the fact that many people were wearing gloves and that the wet soil outside sticks more to the hands than the much dryer soil inside used in the transplanting process. The woman from the ASML green team is back with a big box of cake and everyone takes a plate and a piece of cake. People are also drinking tea or coffee. I notice that almost all people from ASML are wearing rain suits, while the regular volunteers just wear their usual outfits which are usually old clothes that can get dirty. I find it interesting that they did not adapt their clothing to the rainy weather that obviously. I also get a set of bags back from the one participant that took that probe. Unfortunately, she did not collect any materials in it, but I also understand that that is sometimes difficult or in this case unethical as it was about worms.

## 8) Sorting Onions

After the coffee break, I stay in the greenhouse and I see that P1 and P3 are sorting onions together with the regular volunteer that is a gardener (P4). I am interested in their opinion of how smelly the onions are and whether they mind it, as they are not Indian like the last volunteers doing this job. They say that the smell is not bad and also not that strong. "Ruikt best lekker" (smells actually quite nice). I also ask if they mind that their hands get dirty. They say that that is no problem and they see it as a sign that you have done some work. When I ask whether they find that important, they say that it is not really important. I think it is interesting how the work leaves a trace on people. These people don't seem to mind it. Continuing this conversation I understand that they do mind their hands getting dirty when it results in getting deep lines with dirt in their hands that makes them rough. They say that that will never get clean again. This is something they see happening to people around them that work a lot outside. They do not want such hands themselves.

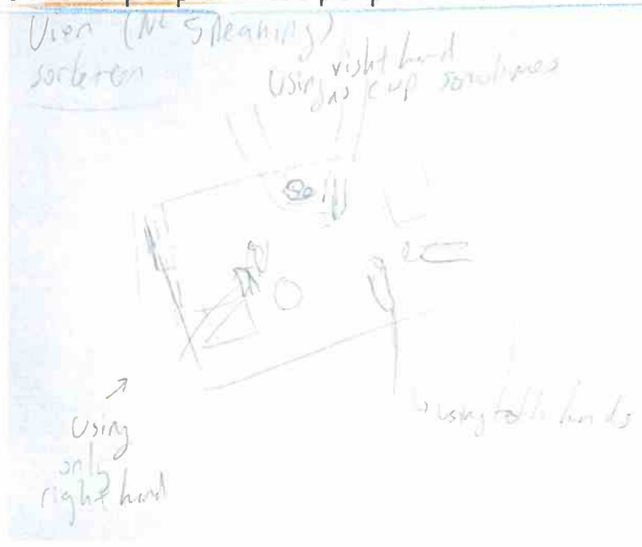



Figure 7: How all volunteers have different methods of picking onions.

Besides talking, I am also observing the work. I notice that the three men all have slightly different tactics. One person is using both hands to pick up onions. I think this person tries to be very quick. Another person is only using only one hand to pick up the onions and the last person has made a cup with one hand and picks up the onions with the other (figure 7).

## 9) Planting Onions

Figure 8: Lines for planting the onions at the right distance.

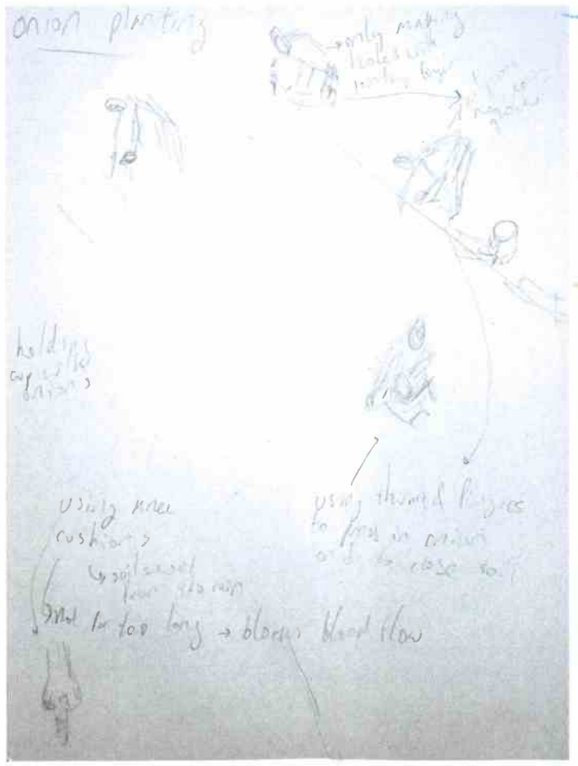



Figure 9: Four volunteers planting onions in different positions.

When the onions are sorted the participants walk towards the field where the onions are being planted. There are yellow lines set out on the field that indicates where the onions need to be planted (figure 8). I see that some people are standing and working bent over, while others are sitting on one or two knees on a gardening mat that is designed for that. I had not seen those mats here before and I think they use them because the soil is wet and that does not feel nice on your pants next to it making stains. In figure 9 you can see an overview of the setup that I have drawn in my notebook to annotate the situation. Two participants are holding a cup with onions while they are working. One participant is only piercing holes in the soil (P3) (figure 10). I find this interesting, as he was also doing this earlier in the greenhouse when transplanting. His hand is only dirty at the top of his pointing finger (figure 11). I find it interesting that it is so specific. P3 and P4 are not wearing gloves. Where P3 makes a hole, P4 puts in an onion. It has occurred to me that P3 is looking for ways to be more efficient in doing the work. He is almost acting like a machine. It is funny that also the topic of how tools could be made to make the holes in the soil occurs between P1 a volunteer from ASML and P4, a regular volunteer.

Figures 10 & 11: P3 is making holes and has only one finger dirty.

I see that P2 is using his thumb and fingers to press the onion into the hole and close the soil. He is sitting on his knees. After a while, the people standing work on their knees and vice versa. P2 explains that they do this to either rest their back (people that were standing) or to let the blood flow through their legs (people sitting on their knees).

## 10 Planting Pointed Cabbage

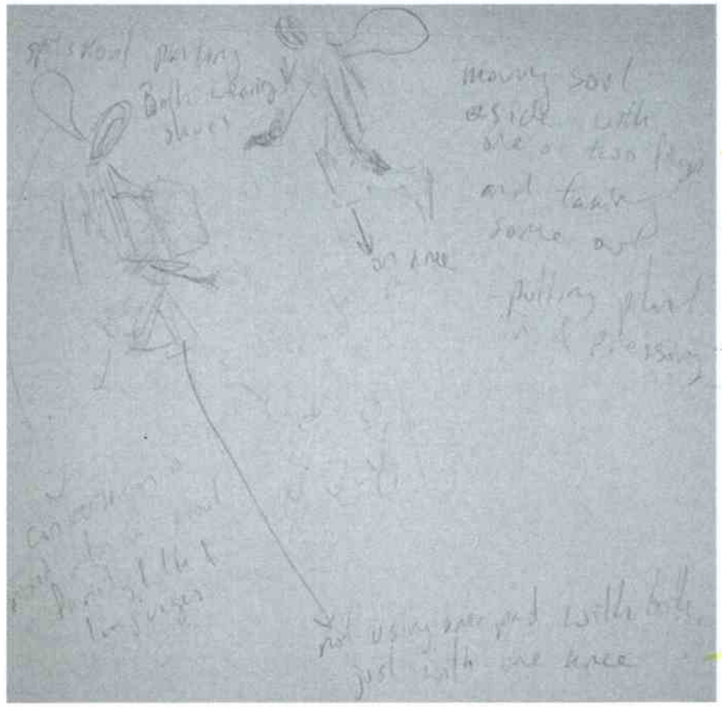


Figure 12: Two volunteers planting pointed cabbage and talking.

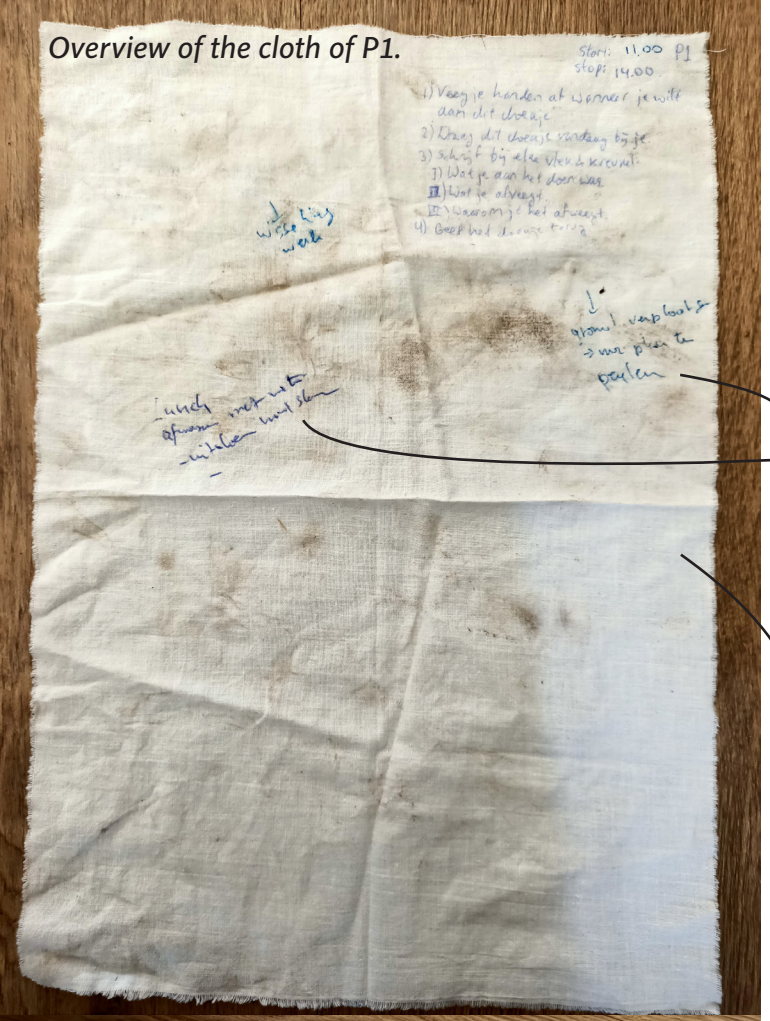
As I am curious about how people deal with sitting on their knees while planting pointed cabbage, I also take a look at that field. I observe the two participants that I observed earlier sorting onions. They are both sitting on one side of the field and wearing gloves. They both have a knee mat (figure 12). One participant is only using it to rest on one knee, while the other is using it for both knees. They move out some soil through a hole in the mulch foil with two fingers and then they put in the pointed cabbage plant. They are talking while working. I notice that it is a mix of English and Hindi. I realise that the regular participants that I have met at Stadsakkers are almost all Dutch and they are all white. Today was not just very different because of the bigger amount of people or that they were not regular volunteers, but also because the work was done by a much more culturally diverse group of people.

# 11) Finishing

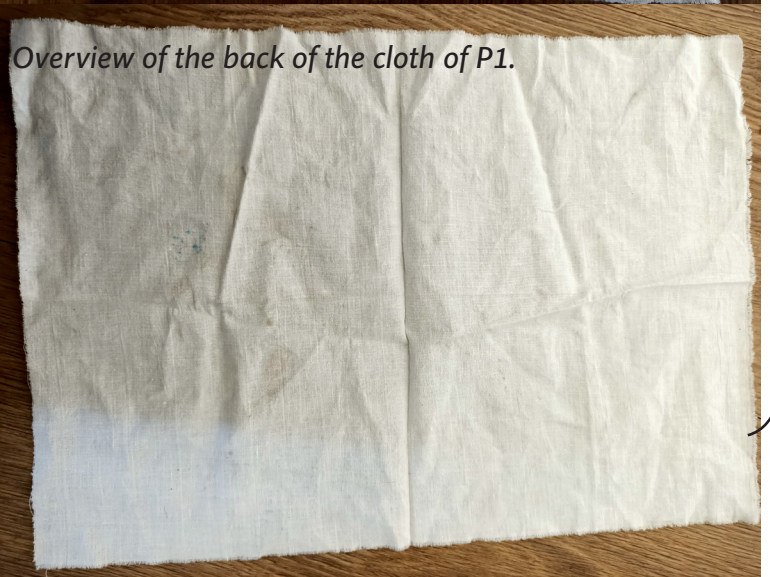
When all cabbages are planted it becomes apparent that it is almost 12:00 and that is the time that the people from ASML will go home. People wash their hands and gloves in the rain barrels, as well as the trays used to transport the pointed cabbage plants from the trays to the field. I see that some people use the cloth probe to dry their hands. People are coming to me to hand in their probes and to mark the places where they got dirty on the body map probe. I need to ask a few participants to annotate the stains on their cloths. I see that the water from either the rain or drying hands had made many of the felt-tip writings bleed, so I quickly take pictures of all the probes to ensure that I capture what is written. I also put every cloth in a separate bag to preserve their stains and smell. I also make sure that everyone that participated reads and signs the informed consent form. I get some questions from curious people about my research and my study and I answer them as well as I can. People wish me good luck and say that they liked to participate. Eventually, I gather my probes, say goodbye to the regular participants and cycle back home without any rain.

# Appendix F: Analysed Cloth Probes

*Overview of the cloth of P1.*



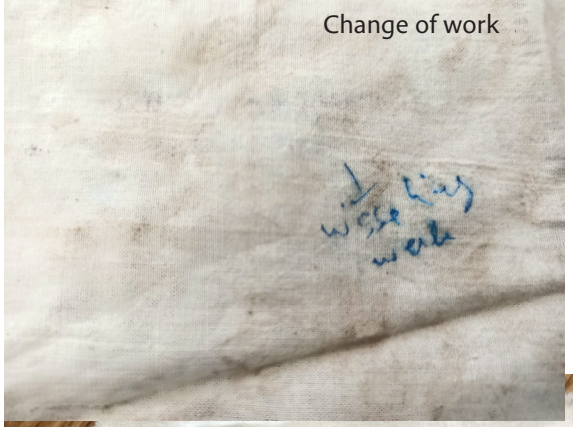
*Overview of the back of the cloth of P1.*



P1 used two different pens to write on the cloth. The note for lunch is with a different pen, which could be due to the fact that there were multiple pens on the lunchtable.

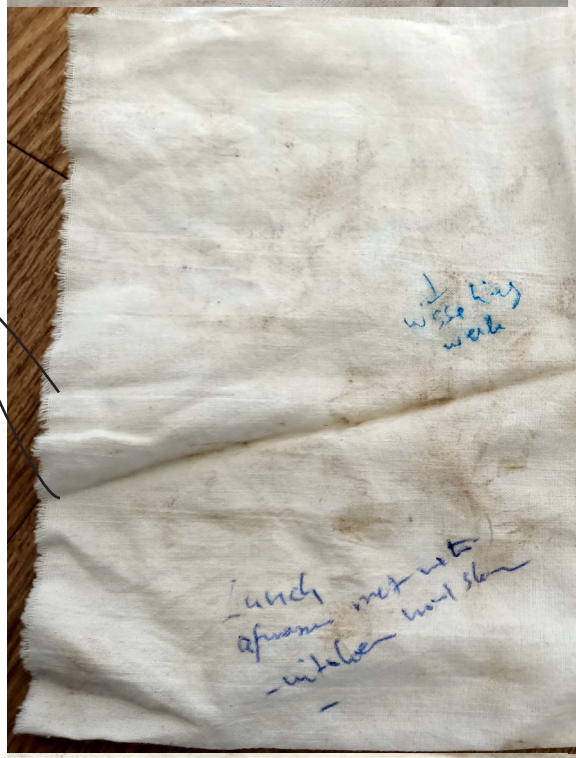
P1 has folded the cloth slightly differently than it was originally

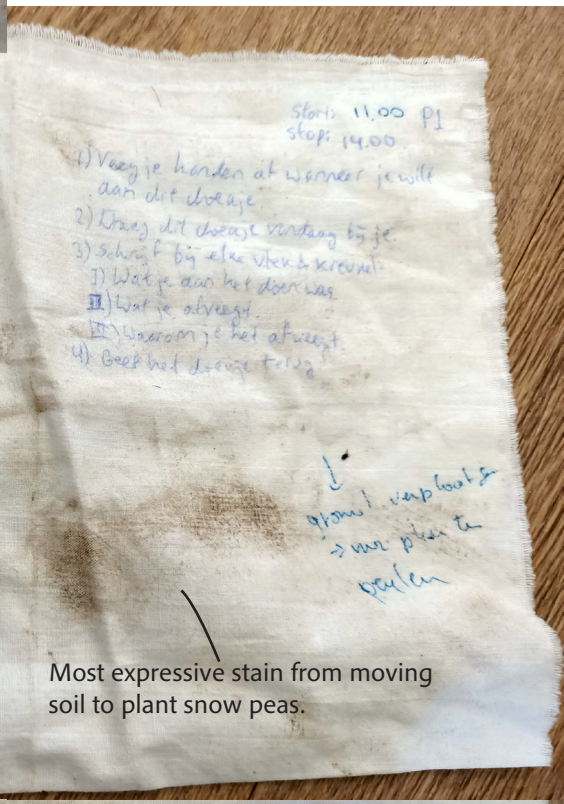
Text is only written on the top half, and the stains are only on the front of the cloth, which means that P1 kept his cloth folded in half throughout the study.



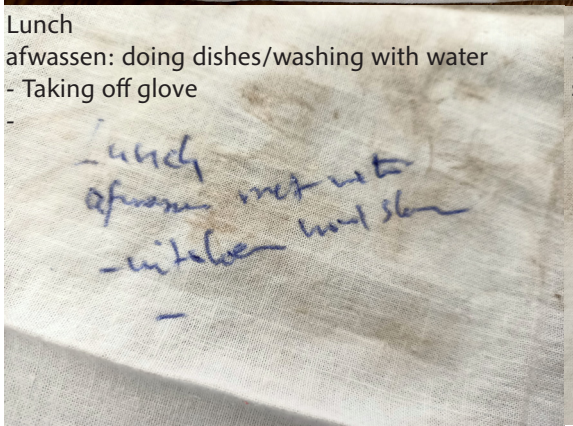
Change of work

P1 has mostly written down what he was doing. Based on the stains and observations, most of what he has wiped is soil. It is unclear why he wiped, although it could be understandable that clear hands are needed for lunch. P1 was wearing gloves for most of the work, so it can be assumed that what he has wiped is from his gloves. There are only three annotated stains, which indicates that either P1 wiped his hands only 3 times, or he has not annotated all his wipings.

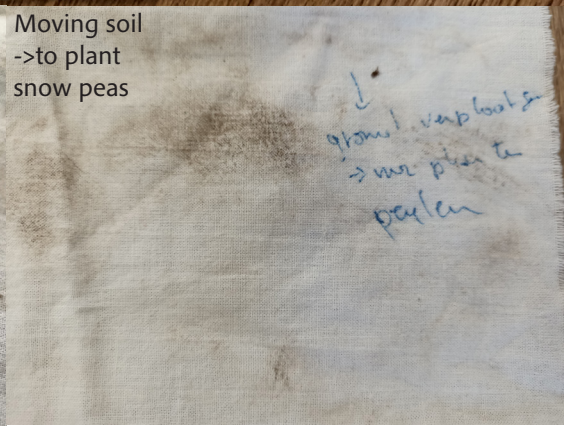




Most expressive stain from moving soil to plant snow peas.



Lunch
afwassen: doing dishes/washing with water
- Taking off glove
-



Moving soil
->to plant
snow peas

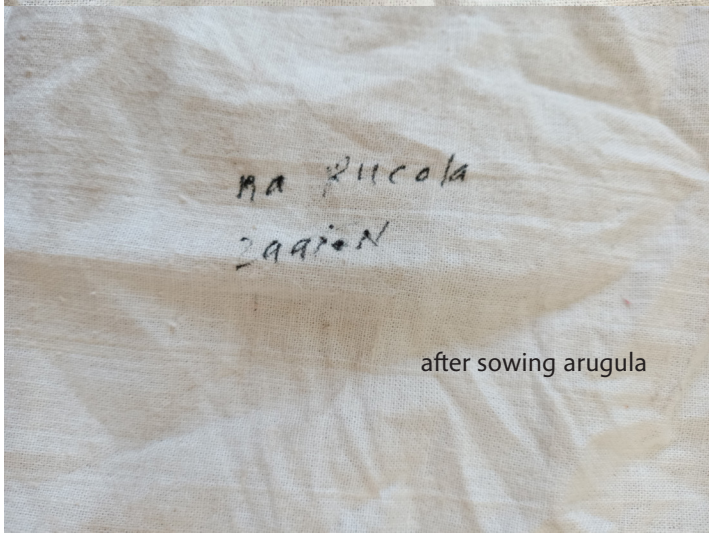
*Overview of the cloth of P2.*

P2 used the hole cloth and both sides of it.

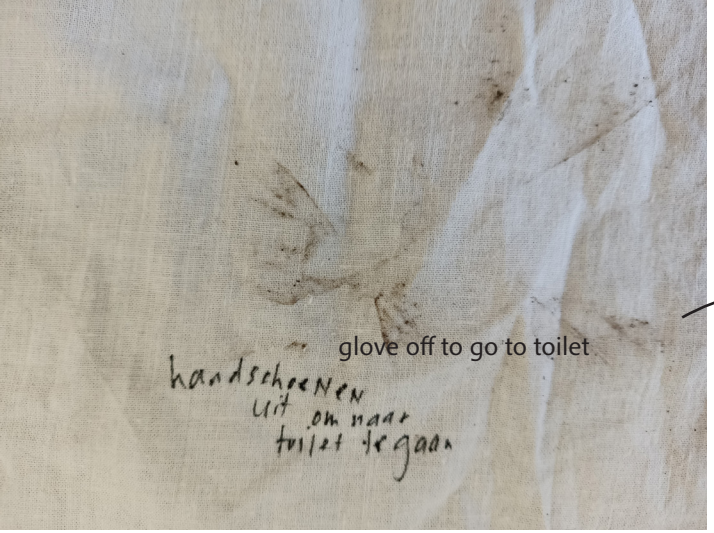
P2 has very little stains and they are not very visible. Nevertheless, she did wipe her hands four times. This was mostly for putting her gloves on and off.

after glove off

glove on



after sowing arugula




glove off to go to toilet

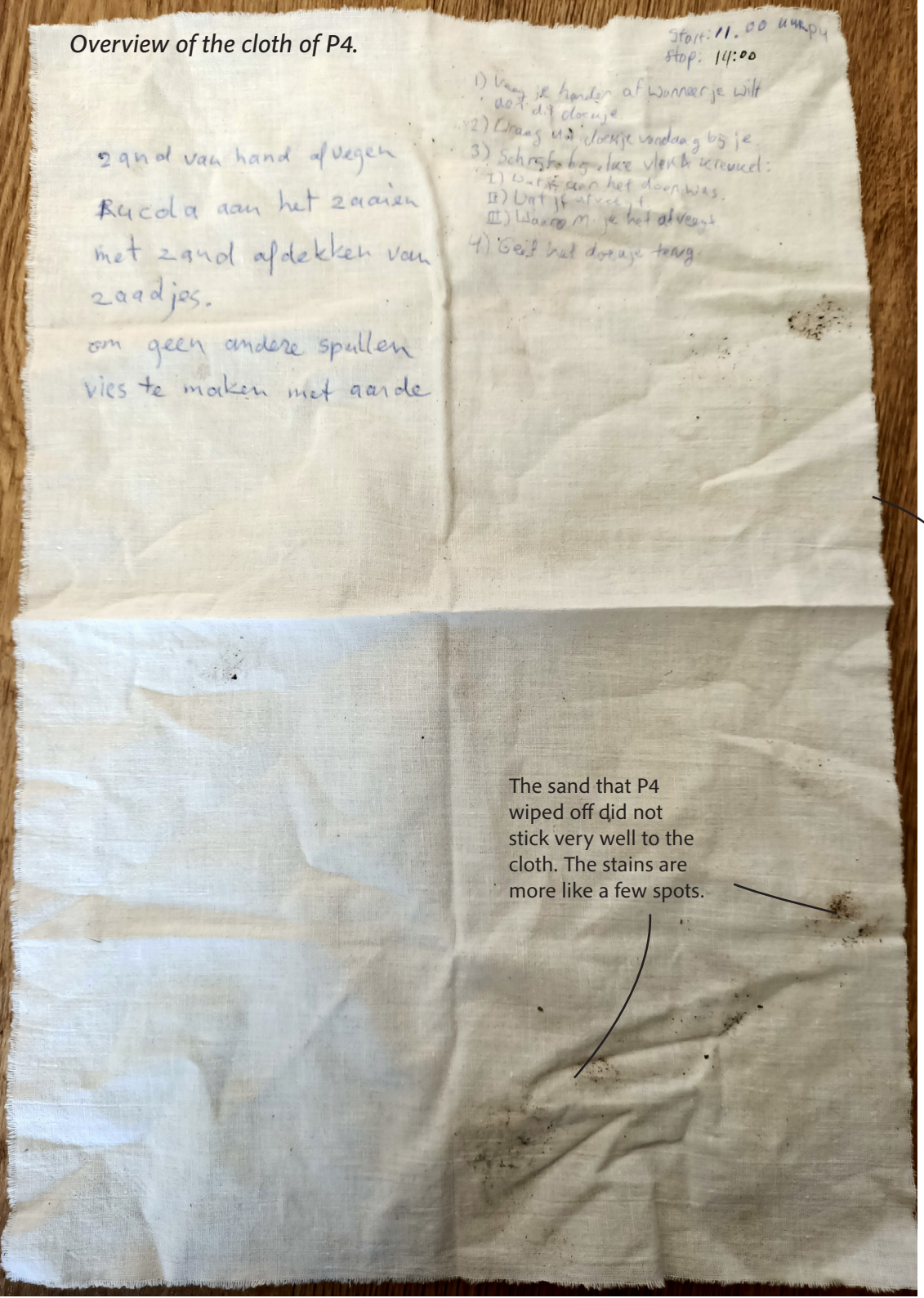
This could mean that P2 considers the glove to be impractical and/or unhygienic for on the toilet.

P2 wrote when she wiped her hands, but did hardly specify her activities. She also did not explain why she wiped or what she wiped. It is seems like she used the cloth to keep her fingers clean when taking on and off the gloves. The dirt on the cloth is probably soil, but it is unclear what kind of soil.

The cloth shows a lot of crinkles, which indicates that it has not been needly folded every time it was being used.

*Overview of the back of the cloth of P2.*

*Overview of the cloth of P4.*

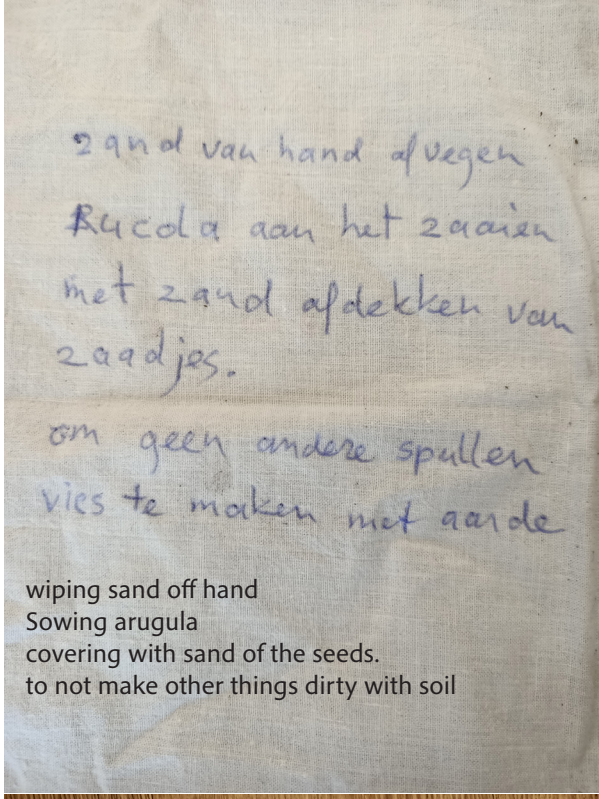



The sand that P4 wiped off did not stick very well to the cloth. The stains are more like a few spots.

P4 did not specify which stains relate to which activity. The writing was done at the end of the study upon request of the researcher. This is probably the reason why all three questions about the wiping are answered.

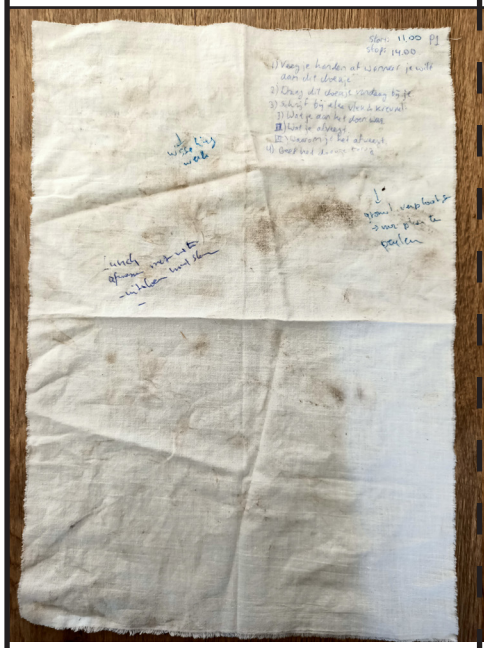
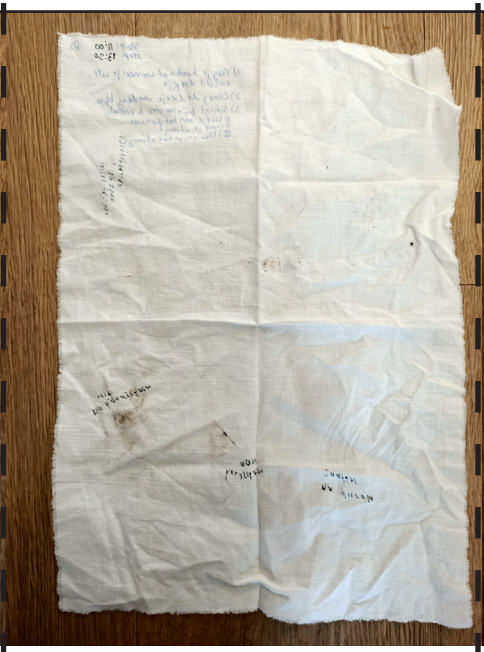
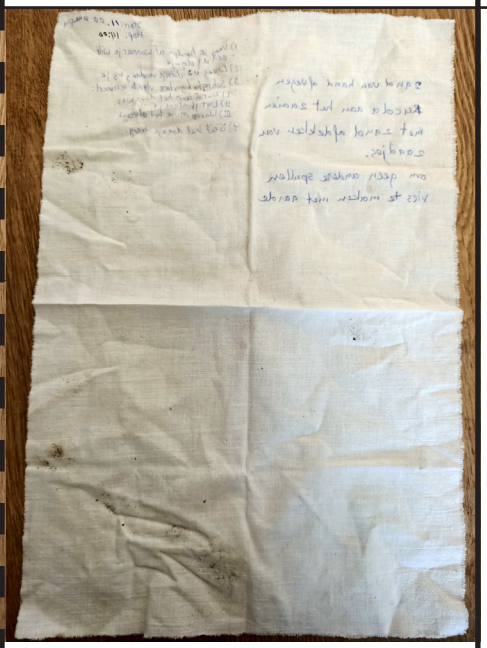
Text is only written on the top half, and the stains are only on the front of the cloth, which means that P4 kept his cloth folded in half throughout the study.

P4 said when handing in the cloth that she also once use it to wipe a drop from her nose. Here the cloth has probably reminded the participant of a handkerchief.




wiping sand off hand
Sowing arugula
covering with sand of the seeds.
to not make other things dirty with soil

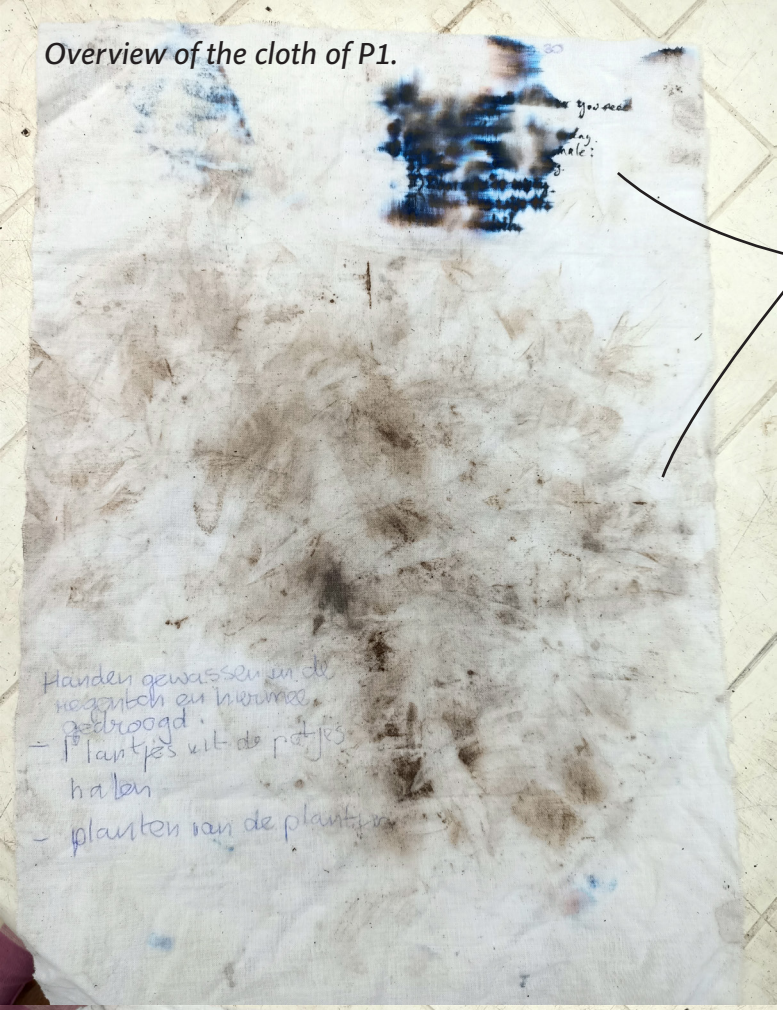
*Overview of the back of the cloth of P4.*

| P1 | P2 | P4 | In common |
| --- | --- | --- | --- |
|  |  |  | • All participants did not use the probes exactly as I had intended them to be used.<br>• The timeframe is the same for all participants.<br>• All participants that returned the cloth did use it. |
| • Covered the whole front of the cloth in brown dirt.<br>• Used two pens.<br>• Wrote on the spot. | • Used all sides of the cloth.<br>• Wrote in different directions.<br>• Went inside to write down the notes. | • Wrote down the notes at the end<br>• Used the cloth as handkerchief.<br>• Answered all questions. | |

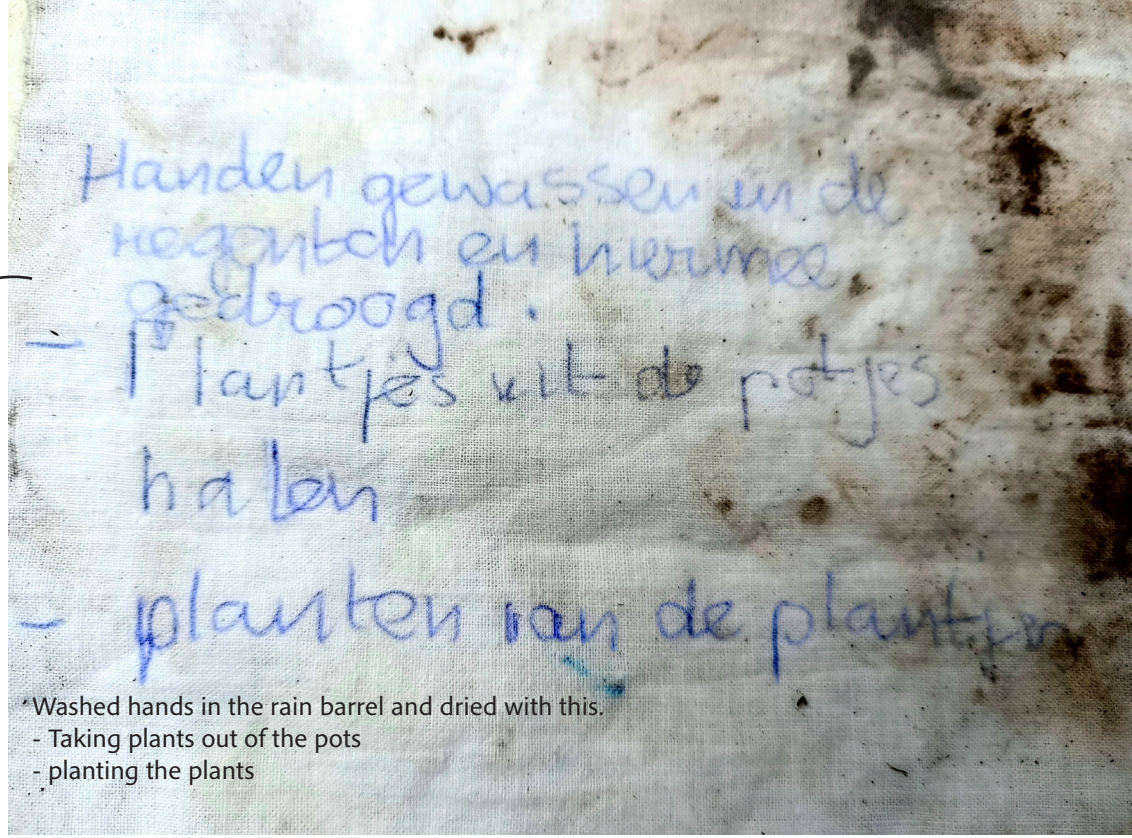
Carried pen.

Kept the cloth folded once.

*Overview of the cloth of P1.*

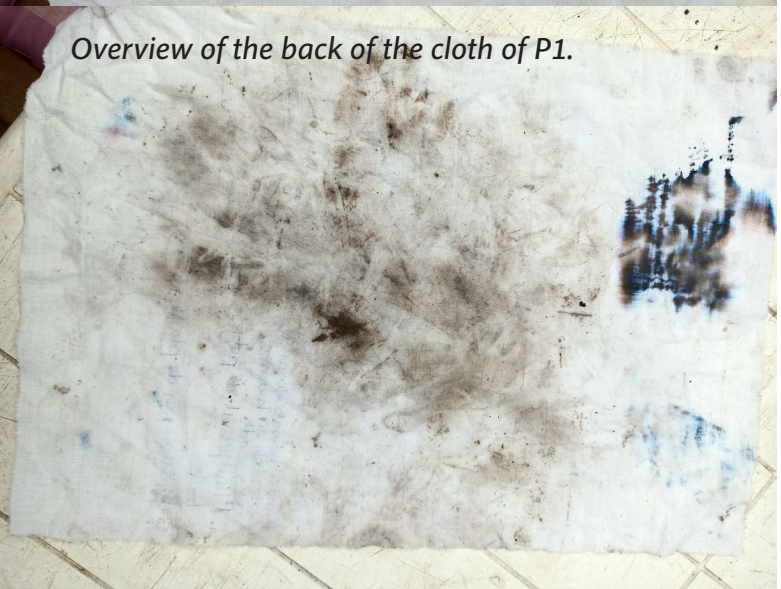



There is a lot of dirt on the cloth. This probably stuck extra well due to it being wet from rain and wiping wet hands.




Washed hands in the rain barrel and dried with this.
- Taking plants out of the pots
- planting the plants

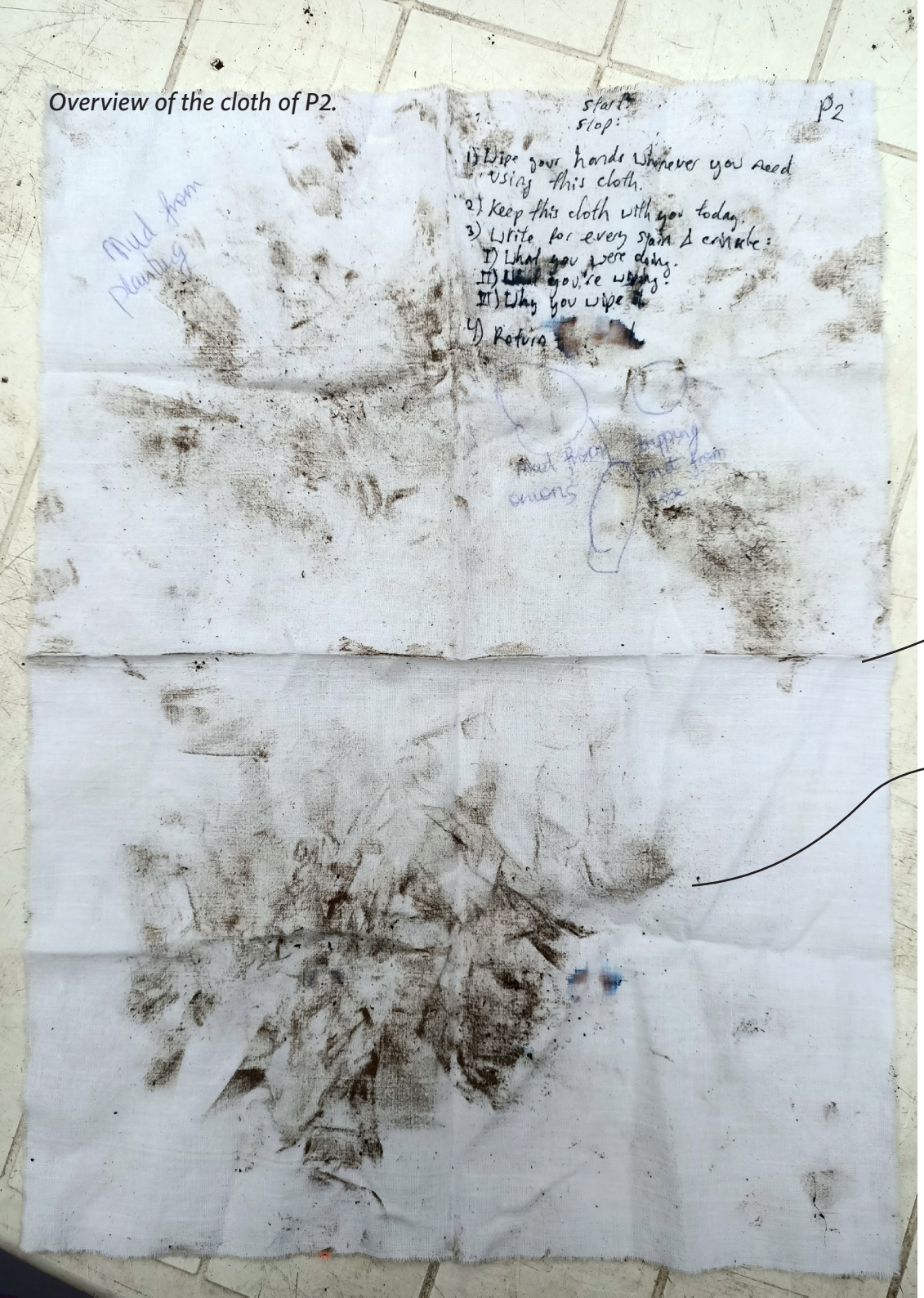
*Overview of the back of the cloth of P1.*



P1 wiped her hands on all sides of the cloth, but she only wrote down in one place what she did.

P1 was asked when handing in the cloth to also write down what she used it for. It is unclear when she wiped her hands and what stain is due to what action. There is a lot of dirt from probably the soil of the plants. P1 worked with mostly bare hands, which might indicate why she used the cloth. P1 did not specify why she wiped her hands. The fact that the instructions became unreadable due to moist did not help the situation.

*Overview of the cloth of P2.*



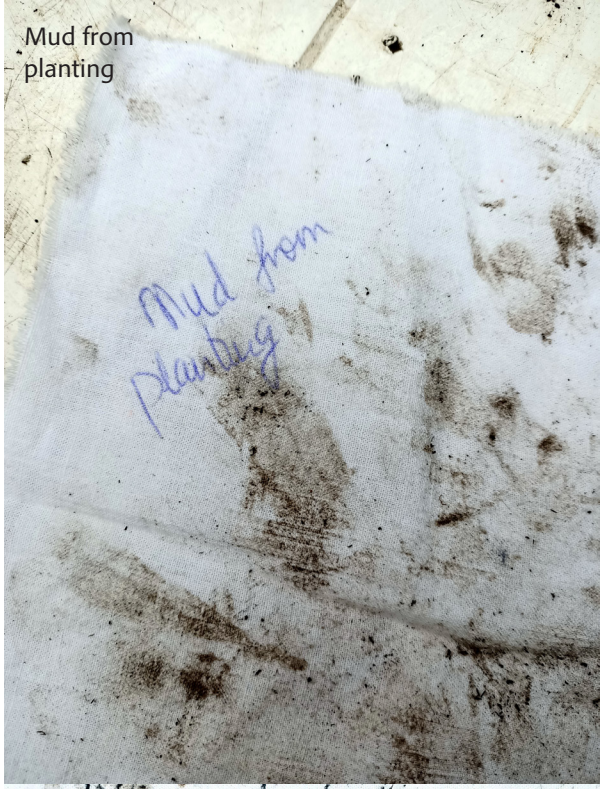

P2 has described wiping twice mud and once drops of snot on the cloth. Together with done observations, this indicates where the mud of the onions came from. The actions and the wiped materials are therefore known. However, it remains unclear why P2 wiped his hands.

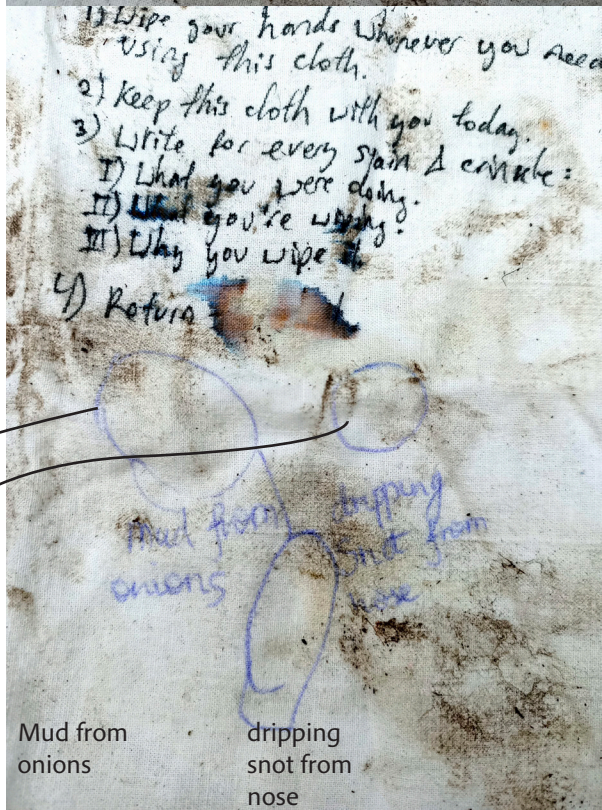
P2 kept the cloth folded in half, only using the front side to wipe and write.

The folds and the way the mud is spread indicates that the participant did crinkled the cloth.

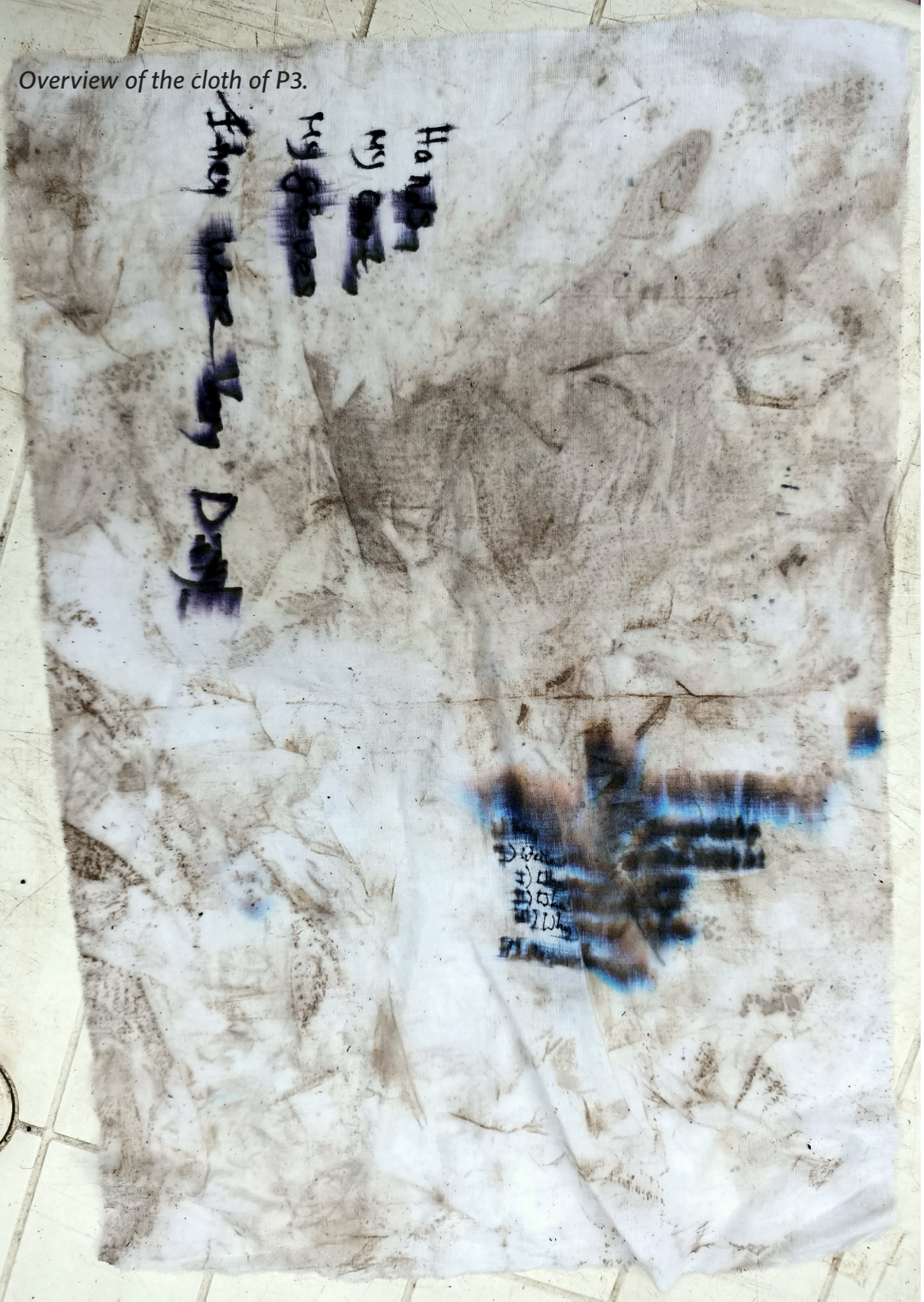
P2 has drawn circles to indicate stains.

P2 used the cloth as handkercief.



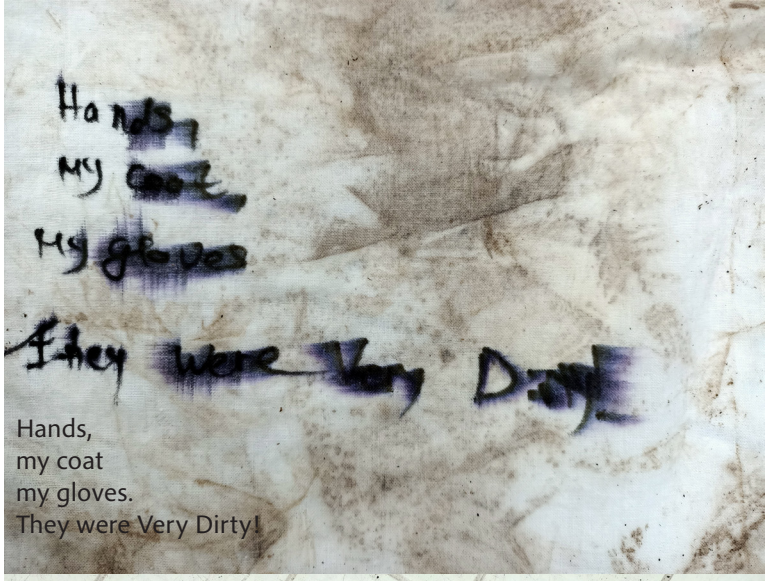



*Overview of the cloth of P3.*



P3 used the full cloth to wipe her hands, but had not annotated anything. She was asked to write something when handing in. This was a hasty and chaotic moment. She wrote down where she got dirty, and I think she used the cloth to wipe those places. She also stated the reason for wiping them being very dirty. However, it is unclear which stains are from wiping what. All wiped material appears to be soil. and moist, as the writings have bled.

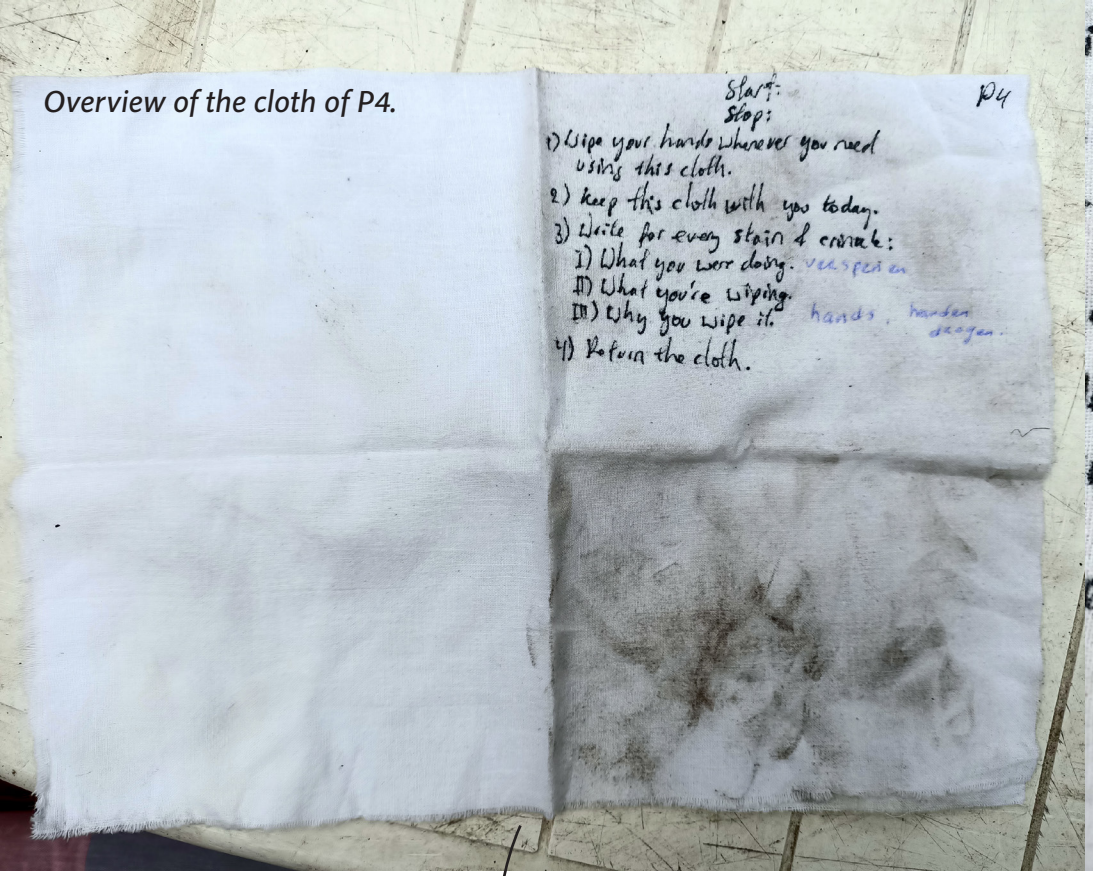
Based on the way the mud is darker and lighter in certain places, the cloth has been carried crinkled up.

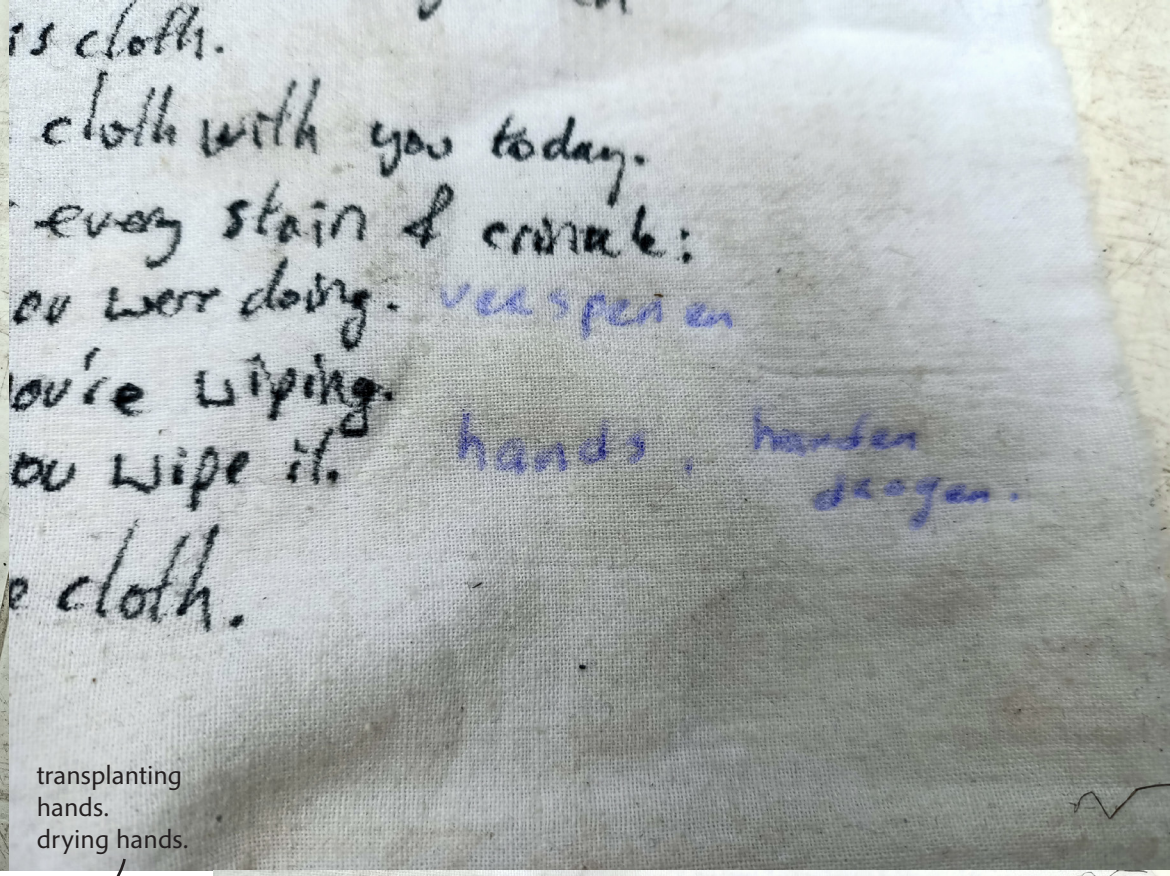


Hands,
my coat
my gloves.
They were Very Dirty!

*Overview of the back of the cloth of P3.*

*Overview of the cloth of P4.*



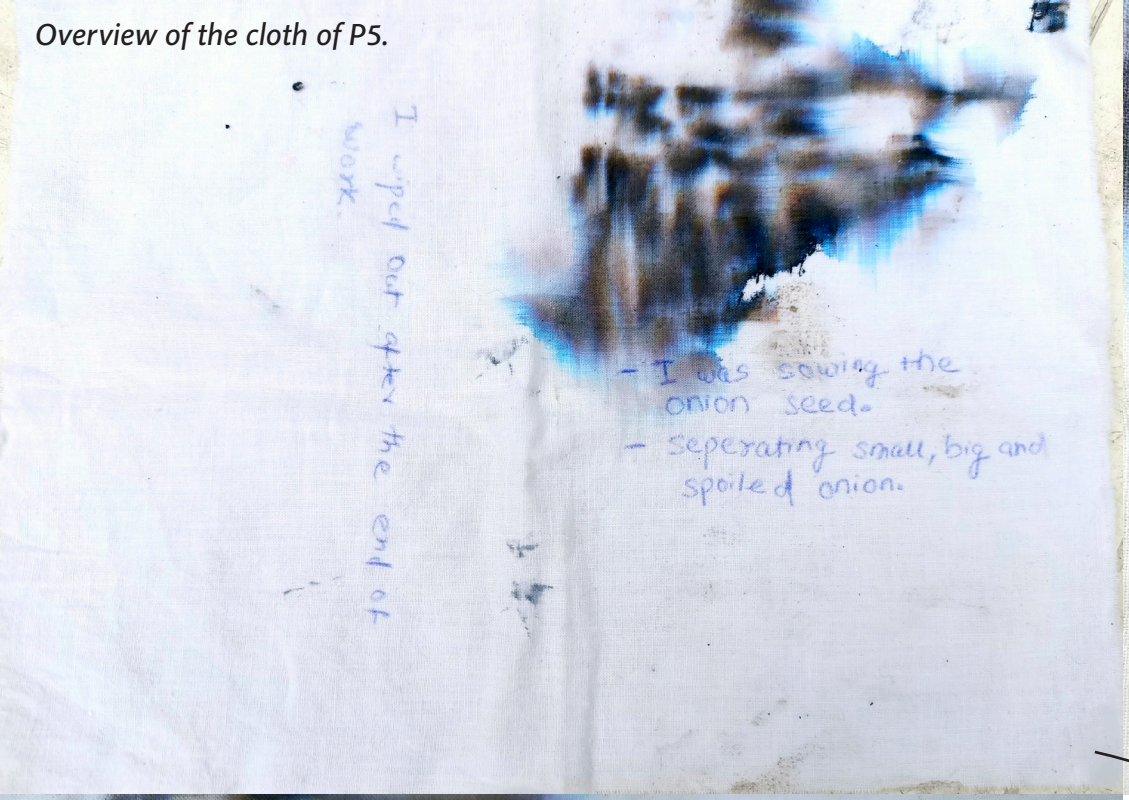

transplanting
hands.
drying hands.

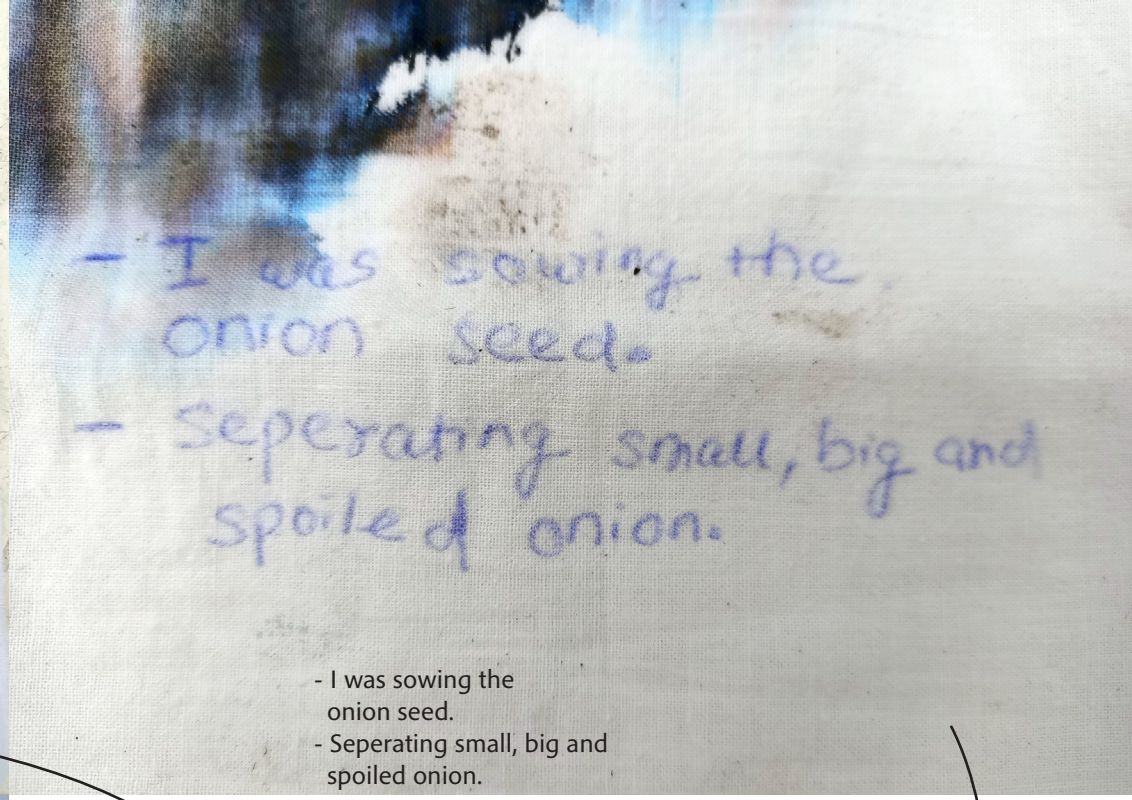
Based on where the stains are, P4 has kept the cloth completely folded when using it for wiping

P4 answered all questions where the instructions were written. This keeps it unclear what stain is what.

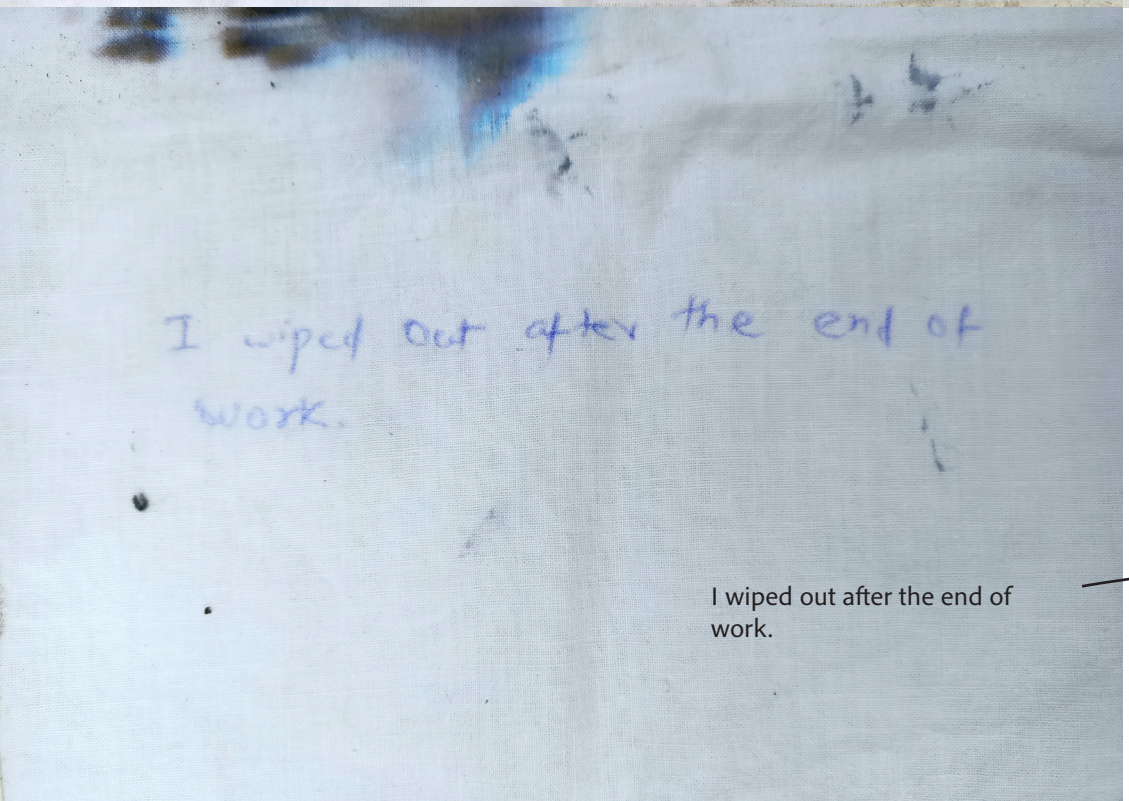
P4 describes that the cloth was used for drying hands, but in contrast to many other cloths, the instructions of this one have not bled due to water. This indicates that P4 was working inside when it rained today. This is supported by the fact that P4 describes being involved in transplanting, which happens inside the greenhouse.

*Overview of the cloth of P5.*




- I was sowing the onion seed.
- Seperating small, big and spoiled onion.



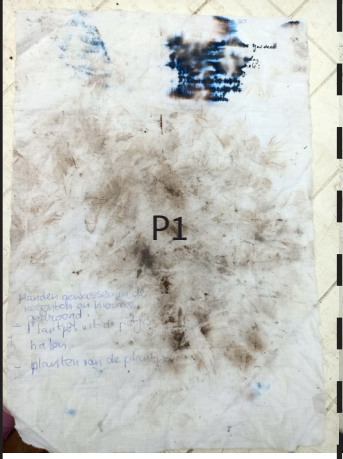

I wiped out after the end of work.

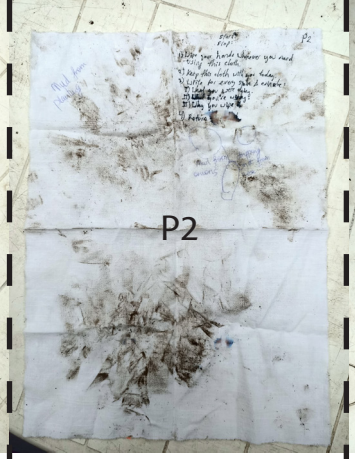
P5 only used half of the front of the cloth. This together with little crinkles indicates that it has hardly been unfolded.

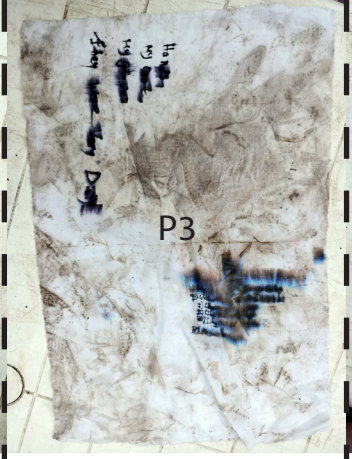
The cloth's biggest stain is due to water making the written instructions bleed. In that area there is also a little bit of dirt from the soil, which is logical when reading that this person was involved in sowing onion seed. I think what is meant here is planting onions, which requires touching the soil.

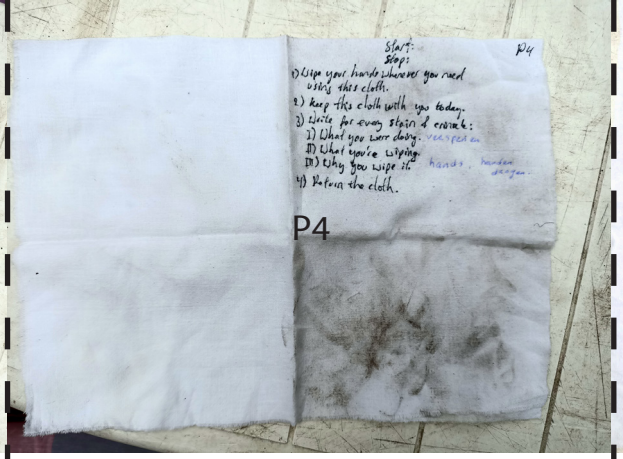
I think that P5 annotated the cloth mostly in the end. I think P5 did not wipe his hands on the cloth while working, but rather wiped it in the end to dry them after washing hem in water, which could explain the bled instructions and the little dirt on the cloth.

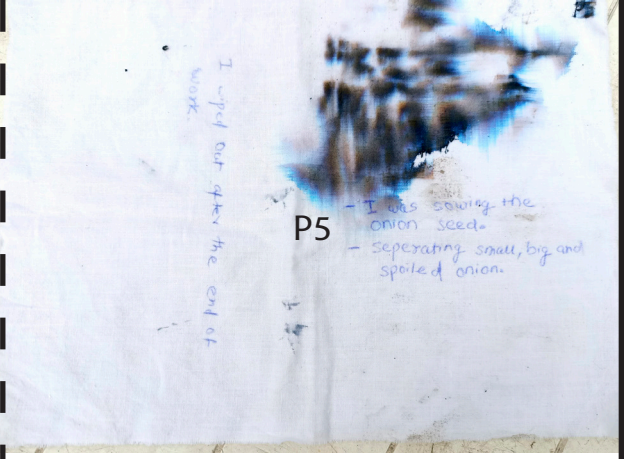
P5 describes some actions, but not what was wiped on the cloth or why he wiped it. I think this might be due to possibly writing everything in the end and no longer being able to read the instructions.




Only Dutch annotations.

Drew circles to indicate stains.

Used cloth for nose.

The dirtiest cloth.

Answered questions in instructions.

Kept cloth fully folded.

The least dirt on the cloth.

Used the cloth at the end.

Used cloth to dry (as towel).

Wrote the reason for wiping.

Used only a part of the cloth.

Annotated afterwards.

All participants worked from 9:30-12:00

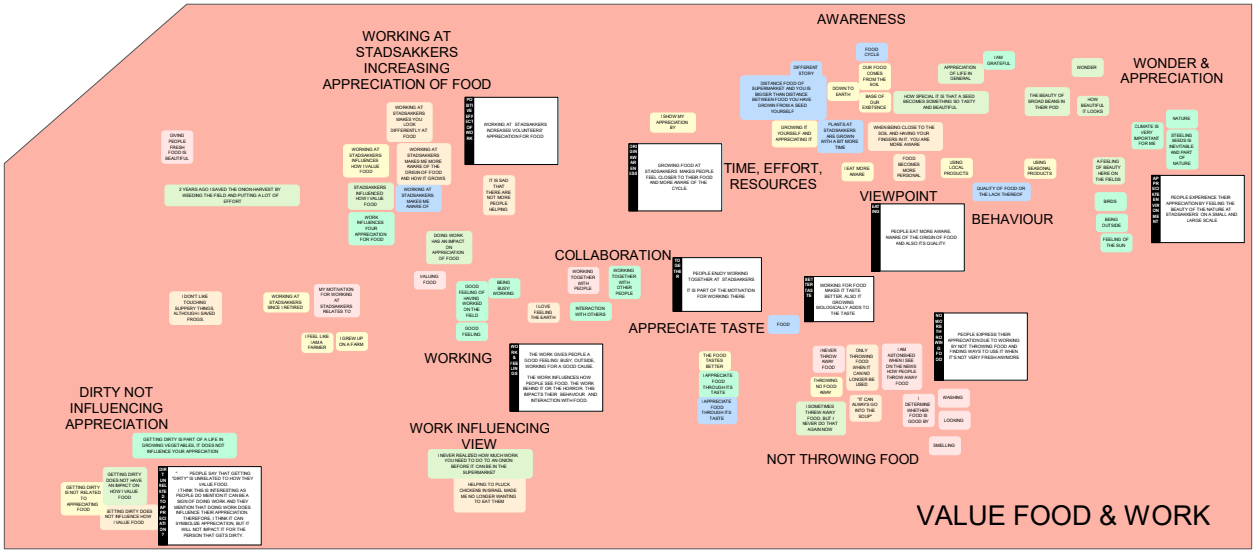
# Appendix G: Thematic Analysis Of Interviews

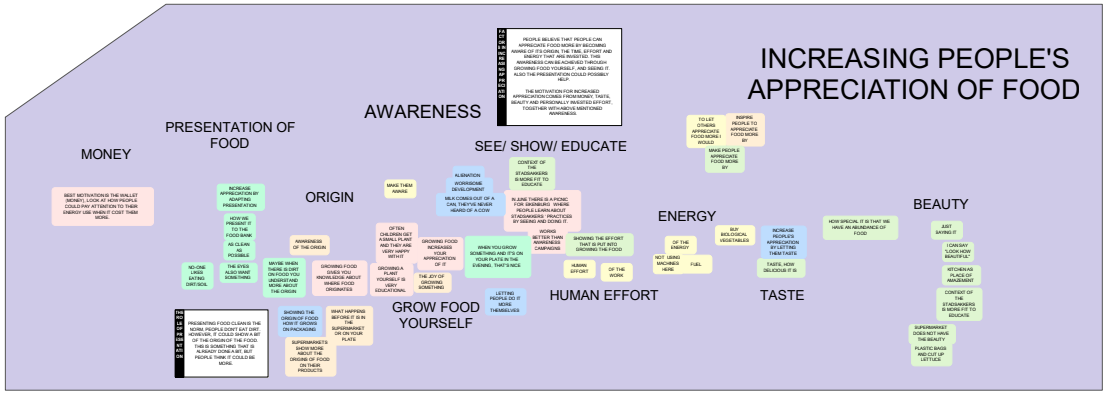
Themes from thematic analysis from interviews 28/4/2023

| Themes related to dirt: | Description | Example |
|---|---|---|
| "Dirty" | Dirty is having negative connotations. We need to find a better word. Soil is very powerful and gives life. | *"the soil is not dirty, but actually really clean"* |
| Being dirty is not negative | Being dirty can be resolved by washing and wearing old clothes. It is inevitable and a sign that you have worked, which can give a positive feeling. | *"Getting dirty is inevitable"* |
| Dirty body parts | Hands through working with them, knees/legs from wiping hands and resting knees on the ground while working, nose from pushing glasses back, boots/shoes because of walking on the soil. | *"my nose, because I need to push my glasses back"* |
| Hands | Hands getting dirty is directly related to the work they do. Some protect their hands from cold, looking unhygienic and pain by wearing gloves. | *"I wear gloves to prevent black nails"* |
| Themes related to valuing food and work: | Description | Example |
| Positive effect of work | Working at Stadsakkers increases volunteers' appreciation for food. | *"Working at Stadsakkers makes me more aware of the origin of food and how it grows"* |
| Appreciation shown through origin awareness | Growing food at Stadsakkers makes people feel closer to their food and more aware of the cycle. | *"When being close to the soil and having your fingers in it, you are more aware"* |
| Appreciation shown through eating | People eat more aware. Aware of the origin of food and its quality. | *"Using local products"* |
| Appreciation experienced through better taste | Working for food makes it taste better. Also, growing biologically adds to the taste. | *"I appreciate food through its taste"* |
| Appreciation shown through no more throwing food | People express their appreciation due to working by not throwing food and finding ways to use it when it's not very fresh anymore. | *"it can always go into the soup"* |

| | | |
|---|---|---|
| Appreciation experienced through work & feelings | The work gives people a good feeling: busy, outside, working for a good cause. The work influences how people see food. The work behind it or the horror. This impacts their behaviour and interaction with food. | *"I never realized how much work you need to do to an onion before it can be in the supermarket"* |
| Appreciation environment | People experience their appreciation by feeling the beauty of nature at Stadsakkers on a small and large scale. | *"A feeling of beauty here on the fields"* |
| Together | People enjoy working together at Stadsakkers. It is part of the motivation for working there. | *"Interaction with others"* |
| Dirt unrelated to appreciation? | People say that getting "dirty" is unrelated to how they value food. I think this is interesting as people do mention it can be a sign of doing work and they mention that doing work does influence their appreciation. Therefore, I think it can symbolize appreciation, but it will not impact the person that gets dirty. | *"Getting dirty is part of a life in growing vegetables, it does not influence your appreciation"* |
| Themes related to increasing people's appreciation for food. | Description | Example |
| Role of presentation | Presenting food clean is the norm, people don't eat dirt. However, it could show a bit of the origin of the food. This is something that is already done a bit, but people think it could be more. | *"The eyes also want something"* |
| Factors in increasing appreciation | People believe that people can appreciate food more by becoming aware of its origin, and the time, effort and energy that are invested. This awareness can be achieved through growing food yourself and seeing it. Also, the presentation could possibly help. The motivation for increased appreciation comes from money, taste, beauty and personally invested effort, together with the above-mentioned awareness. | *"Growing food gives you knowledge about where food originates"* |


GETTING DIRTY
NOT DIRTY
DIRTY
I AM NOT DIRTY
I AM NOT DIRTY BECAUSE I JUST WASHED
I GOT DIRTY BY SOWING AND TAKING PLANTS OUT AND PUTTING THEM IN THE SOIL
I GOT DIRT AT MY
MY HANDS GOT DIRTY FROM PLANTING
WHERE DIRTY
HANDS
BROWN WORKHANDS BECAUSE I DO MANY THINGS WITH THEM DAILY
GLOVES GOT DIRTY
MY HANDS ARE DIRTY
MY HANDS GOT DIRTY FROM PLANTING
HANDS
KNEES
MY KNEES GOT DIRTY FROM PLANTING
PANTS
PANTS KNEES
I WEAR OLD PANTS
GLASSES
GLASSES
GLASSES
BOOTS
HANDS THROUGH WORKING WITH THEM, KNEES,LEGS FROM WIPING SWEAT WITH MY PANTS, BOOTS FROM THE GROUND WHILE WORKING, NOSE FROM PUSHING GLASSES BACK, BOOTS/SHOES BECAUSE OF WALKING ON THE SOIL.
WEARING GLOVES
HANDS GETTING DIRTY IS DIRECTLY RELATED TO IT WORKING THEY DO SOME PROTECT THEIR HANDS FROM COLD, LOOKING UNHYGIENIC AND PAINSHY WEARING GLOVES.
USUALLY I WEAR GLOVES
I FORGOT MY GLOVES
NOW WORK MOSTLY WITH GLOVES.
I PREFER TO WORK WITHOUT GLOVES
PREFER TO WORK WITHOUT GLOVES
REASONS FOR GLOVES
I WEAR GLOVES TO PREVENT BLACK NAILS
BLACK NAILS ARE NOT NICE
BLACK NAILS LOOK UNSIGHTLY AND UNHYGIENIC
WEAR THEM FOR PRICKLY PLANTS
WEAR THEM TO PROTECT AGAINST COLD
WEAR THEM FOR DIGGING UP POTATOES AS IT GETS SOMETIMES STUCK UNDER MY NAILS AND THAT DOSS NOT FEEL NICE
GETTING INFECTIONS
I CAN DO LAUNDRY AND SHOWER
FEELINGS ABOUT GETTING DIRTY
GETTING DIRTY IS NOT A BAD THING
I AM USED TO GETTING DIRTY AS AN ELEMENTARY SCHOOL TEACHER TOUCHING CLAY, DOUGH AND PAINT
GETTING DIRTY DOES NOT HAVE A MEANING FOR ME
DR ACTUALLY IT IS SOMETHING POSITIVE
GETTING DIRTY IS NOT A PROBLEM
A FEELING THAT I HAVE DONE SOMETHING
I DON'T SHOW EMOTIONS THAT I DOT DIRTY
GETTING DIRTY IS A SIGN THAT YOU HAVE WORKED
GETTING DIRTY IS INEVITABLE
BEING DIRTY CAN BE RESOLVED BY WASHING AND WEARING OLD CLOTHES
IT IS INEVITABLE AND A SIGN THAT YOU HAVE WORKED, WHICH CAN GIVE A POSITIVE FEELING.
P1
P2
P3
P4
P5
P6


VALUE FOOD & WORK
WORKING AT STADSAKKERS INCREASING APPRECIATION OF FOOD
WORKING AT STADSAKKERS INCREASED VOLUNTEERS' APPRECIATION FOR FOOD
WORKING AT STADSAKKERS MAKES PEOPLE FEEL CLOSER TO THEIR FOOD AND MORE AWARE OF THE CYCLE
WORKING AT STADSAKKERS MAKES ME MORE AWARE OF THE ORIGIN OF FOOD AND HOW IT GROWS
WORKING AT STADSAKKERS MAKES ME MORE AWARE OF
WORKING AT STADSAKKERS INFLUENCES HOW I VALUE FOOD
STADSAKKERS INFLUENCED HOW I VALUE FOOD
WORKING AT STADSAKKERS INFLUENCES YOUR APPRECIATION FOR FOOD
IT IS SAD THAT THERE ARE NOT MORE PEOPLE HELPING
GIVING PEOPLE MORE FOOD IS BEAUTIFUL
2 YEARS AGO I GAVED THE ONION HARVEST BY WEEDING THE FIELD AND PUTTING A LOT OF EFFORT
DOING WORK HAS AN IMPACT ON APPRECIATION OF FOOD
I KILLING FOOD
I DON'T LIKE TOUCHING SUPERMARKETS ALTHOUGH MAKES FROGS.
WORKING AT STADSAKKERS MAKES I RETIRED
MY MOTIVATION FOR WORKING AT STADSAKKERS RELATES TO
I FEEL LIKE I WAS A FARMER
I GREW UP ON A FARM
GOOD FEELING OF HAVING WORKED ON THE FIELD
BEING BUSY WORKING
GOOD FEELING
I LOVE FEELING THE EARTH
WORKING TOGETHER WITH PEOPLE
WORKING TOGETHER WITH OTHER PEOPLE
INTERACTION WITH OTHERS
COLLABORATION
PEOPLE ENJOY WORKING TOGETHER AT STADSAKKERS
IT IS PART OF THE MOTIVATION FOR WORKING THERE
APPRECIATE TASTE
FOOD
WORKING
THE WORK GIVES PEOPLE A GOOD FEELING BUSY, OUTSIDE, WORKING FOR A GOOD CAUSE.
THE WORK INFLUENCES HOW PEOPLE SEE FOOD. THE WORK BEHIND IT OR THE HORROR. THIS IMPACTS THEIR BEHAVIOUR AND INTERACTION WITH FOOD.
DIRTY NOT INFLUENCING APPRECIATION
GETTING DIRTY IS PART OF A LIFE IN GROWING VEGETABLES, IT DOSS NOT INFLUENCE YOUR APPRECIATION
GETTING DIRTY DOES NOT HAVE AN IMPACT ON HOW I VALUE FOOD
GETTING DIRTY IS NOT RELATED TO APPRECIATING FOOD
GETTING DIRTY DOES NOT INFLUENCES HOW I VALUE FOOD
" " PEOPLE SAY THAT GETTING DIRTY" IS UNRELATED TO HOW THEY VALUE FOOD.
I THINK THAT GETTING AS PEOPLE DO MENTION IT CAN BE A SIGN OF DOING WORK AND THEY MENTION THAT DOING WORK DOES INFLUENCE THEIR APPRECIATION.
I THINK THAT GETTING IS A SYMBOLIC APPRECIATION, BUT IT WILL NOT IMPACT IT FOR THE PERSON THAT GETS DIRTY.
WORK INFLUENCING VIEW
I NEVER REALIZED HOW MUCH WORK YOU NEED TO DO TO AN ONION BEFORE IT CAN BE IN THE SUPERMARKET
HELPING TO PLUCK CHICKENS MADE ME NO LONGER WANTING TO EAT THEM
AWARENESS
FOOD CYCLE
OUR FOOD COMES FROM THE SOIL
I AM GRATEFUL
APPRECIATION OF LIFE IN GENERAL
WONDER
WONDER & APPRECIATION
DIFFERENT STORY
DISTANCE FOOD OF SUPERMARKET AND YOU IS BIGGER THAN DISTANCE BETWEEN FOOD YOU HAVE GROWN FROM A SEED YOURSELF
DOWN TO EARTH
IMAGE OF OUR EXISTENCE
HOW SPECIAL IT IS THAT A SEED BECOMES SOMETHING SO TASTY AND BEAUTIFUL
THE BEAUTY OF GROWING BEANS IN THEIR POD
HOW BEAUTIFUL IT LOOKS
I SHOW MY APPRECIATION BY
GROWING IT YOURSELF AND APPRECIATING IT
PLANTS AT STADSAKKERS ARE GROWN WITH A BIT MORE TIME
WHEN BEING CLOSE TO THE SOIL AND HAVING YOUR FINGERS IN IT YOU ARE MORE AWARE
CLIMATE IS VERY IMPORTANT FOR ME
NATURE
STEELING NATURE INSTEAD AND PART OF NATURE
TIME, EFFORT, RESOURCES
I EAT MORE AWARE
FOOD BECOMES MORE PERSONAL
USING PACKING PRODUCTS
USING PACKING PRODUCTS
QUALITY OF FOOD OR THE LACK THEREOF
VIEWPOINT
BEHAVIOUR
PEOPLE EAT MORE AWARE AWARE OF THE ORIGIN OF FOOD AND ALSO IT'S QUALITY
A FEELING OF BEAUTY HERE ON THE FIELDS
BIRDS
BEING OUTSIDE
FEELING OF THE SUN
PEOPLE EXPERIENCE THEIR APPRECIATION BY FEELING THE BEAUTY OF THE NATURE STADSAKKERS ON A SMALL AND LARGE SCALE
THE FOOD TASTES BETTER
I APPRECIATE FOOD THROUGH ITS TASTE
I APPRECIATE FOOD THROUGH ITS TASTE
NEVER THROW AWAY FOOD
ONLY THROWING FOOD AWAY IF CAKNO LONGER BE USED
I AM ASTONISHED WHEN I SEE ON THE NEWS HOW PEOPLE THROW AWAY FOOD
THROWING NO FOOD AWAY
IT CAN ALWAYS GO INTO THE SOUP
I SOMETIMES THROW AWAY FOOD, BUT I NEVER DO THAT AGAIN NOW
I DETERMINE WHETHER FOOD IS GOOD BY
WASHING
LOOKING
SMELLING
NOT THROWING FOOD
PEOPLE EXPRESS THEIR APPRECIATION/LIK TO WORKING BY NOT THROWING FOOD AND FINDING WAYS TO USE IT WHEN IT'S NOT VERY FRESH ANYMORE.


INCREASING PEOPLE'S APPRECIATION OF FOOD
AWARENESS
PEOPLE BELIEVE THAT PEOPLE CAN APPRECIATE FOOD MORE BY BECOMING AWARE OF ITS ORIGIN, THE TIME, EFFORT AND ENERGY THAT ARE INVESTED. THIS AWARENESS CAN BE ACHIEVED THROUGH GROWING FOOD YOURSELF, AND SEEING IT ALSO THE PRESENTATION COULD POSSIBLY HELP.
THE MOTIVATION FOR INCREASED APPRECIATION COMES FROM NATION, TASTE, BEAUTY AND PERSONALLY INVESTED EFFORT, TOGETHER WITH A WELL MENTIONED AWARENESS.
PRESENTATION OF FOOD
MONEY
SEE/ SHOW/ EDUCATE
TO LET OTHERS APPRECIATE FOOD MORE / INCLUDE
INSPIRE PEOPLE TO APPRECIATE FOOD MORE BY
MAKE PEOPLE APPRECIATE FOOD MORE BY
BEST MOTIVATION IS THE WALLET (MONEY), LOOK AT HOW PEOPLE COULD PAY ATTENTION TO THEIR ENERGY USE WHEN IT COST THEM MORE
INCREASE APPRECIATION BY ADAPTING PRESENTATION
HOW WE PRESENT IT TO THE FOOD BANK
AS CLEAN AS POSSIBLE
NO-ONE LIKES EATING DIRT/SOIL
THE EYES ALSO WANT SOMETHING
ORIGIN
AWARENESS OF THE ORIGIN
MAYBE WHEN THERE IS DIRT ON THE FOOD YOU UNDERSTAND MORE ABOUT THE ORIGIN
GROWING FOOD GIVES YOU KNOWLEDGE ABOUT WHERE FOOD ORIGINATES
MAKE THEM AWARE
ALIENATION WORKSHOME DEVELOPMENT
MILK COMES OUT OF A CAN, THEY'VE NEVER HEARD OF A COW
CONTEXT OF THE STADSAKKERS IS MORE FIT TO EDUCATE
IN LINE THERE IS A POND FOR SKOMBURG WHERE PEOPLE LEARN ABOUT STADSAKKERS PRACTICES BY SEEING AND DOING IT
WORKS BETTER THAN AWARENESS CAMPAIGNS
GETTEN CHILDREN GET A SMALL PLANT AND THEY ARE VERY HAPPY WITH IT
GROWING FOOD INCREASES YOUR APPRECIATION OF IT
WHEN YOU GROW SOMETHING AND IT'S ON YOUR PLATE IN THE EVENING, THAT'S NICE
SHOWING THE EFFORT THAT IS PUT INTO GROWING THE FOOD
GROWING A PLANT YOURSELF IS VERY EDUCATIONAL
THE JOY OF GROWING SOMETHING
LETTING PEOPLE DO IT MORE THEMSELVES
GROW FOOD YOURSELF
HUMAN EFFORT
OF THE ENERGY
NOT USING MACHINES HERE
FUEL
OF THE WORK
ENERGY
SUN BOUTICAL VEGETABLES
INCREASE PEOPLE'S APPRECIATION BY MAKE THEM TASTE
TASTE, HOW DELICIOUS IT IS
TASTE
BEAUTY
HOW SPECIAL IT IS THAT WE HAVE AN ABUNDANCE OF FOOD
JUST SAYING IT
I CAN SAY "LOOK HOW BEAUTIFUL"
KITCHENS AS PIECE OF MANAGEMENT
CONTEXT OF THE STADSAKKERS IS MORE FIT TO EDUCATE
SUPERMARKET DOSS NOT HAVE THE BEAUTY
PLASTIC BAGS AND CUT UP LETTUCE
PRESENTING FOOD CLEAN IS THE NORM, PEOPLE DON'T EAT DIRT, HOWEVER, IT COULD SHOW A BIT OF THE ORIGIN OF THE FOOD. THIS IS SOMETHING THAT IS ALREADY DONE A BIT, BUT PEOPLE THINK IT COULD BE MORE.
SHOWING THE ORIGIN OF FOOD, HOW IT GROWS ON PACKAGING
SUPERMARKETS SHOW MORE IMAGES OF FOOD ON THEIR PRODUCTS
WHAT HAPPENS BEFORE IT IS IN THE SUPERMARKET OR ON YOUR PLATE