# Hacking_the_city

Investigating the transposition of the term and
tactics of hacking into the realm of architecture
and urban design as a strategy of spatial
adaptability and as a method for addressing the lack
of public toilets in Leiden.

Tjitske_Hartstra

Tjitske Maaike Hartstra
Master of interior architecture | INSIDE
Royal Academy of Art, The Hague | KABK
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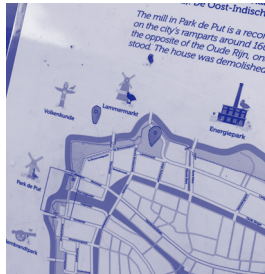
"The hack occurs as a reaction to an existing flaw, it identifies spaces of possibility, and foreshadows the possible city."

:// Inclusive city's start with good public toilets for everybody

INTRODUCTION

Public space, space for everyone. At first glance, it may seem that everyone is equally welcome in the city. However, upon further look, this equality is not always present in the city. Every feature of a city requires decisions, which ultimately affects everyone who moves through it. Where do we create the possibility to cross the street and do we also lower the pavement so that people with disabilities can cross more easily? Where do we place public restrooms and who can use them?

For me, the problem around the lack of sufficient and adequate public restrooms resurfaced during the Covid pandemic. Regarding public restrooms, I notice that I and many others around me have various similar experiences. With public buildings, restaurants and shops regularly closing or having modified opening- and access requirements due to corona, it is difficult to find a public toilet. When I decided to visit the light festival with friends

in Amsterdam, I was again reminded how inconvenient it can be when you cannot fulfil a basic need like using the toilet. My male friends quickly found a public urinal but to this day they still aren't available for women. Most shops were closed and the ones that were open refused to let us in to use the toilet or denied having a toilet. I couldn't enjoy our trip anymore because the only thing I could think about was "where do I find a toilet?!". Once we found a sign with a toilet next to the door of a parking garage I felt saved. But again, the anonymous voice echoing through the microphone informed us that they did not have a toilet at all. Luckily, after some nagging and insisting, we were let in and there was a clean toilet in the parking garage. In retrospect, this surprised me a lot since the municipality of Amsterdam designates this parking garage as a public toilet on their online maps.[1]

This problem of inequality between sexes

when it comes to the option of public restrooms is not new. A well-known story is that of a girl who was fined for urinating in public in the municipality of Amsterdam in 2015. She was fined for 140 euros, the same amount men are fined for urinating in public. She disagreed on this and took her case to court. According to her, there were not sufficient public restrooms for women in the centre of Amsterdam. There were 35 for men and only three for women and still they received the same fine. In 2017, her case went to court, which ruled against her as the male judge believed that she could have gone to the urinal as well.

I remember this case well and even after all these years it still angers me to think about it. The fact that urinating in public is illegal but there are not sufficient alternatives is a big problem.
But how is this situation in the city where I live? In 2020, my boyfriend and I decided to move in together in the city of

Leiden. The presence of the University of Leiden attracts many young women, so the city is known for having more female than male students. For a long time now, Leiden has been a city with a higher percentage of female inhabitants than male. But is this women's city also designed for women? And how is the city dealing with public restrooms?

The lack of sufficient and adequate public restrooms for everyone is not a new issue and it seems like the government is gradually involving themselves with the problem. Therefore, I feel there is potential for hacking.

The hack occurs as a reaction to an existing flaw. It identifies areas of opportunity, and foreshadows the potential city. Hackers do not wait for officials or city developers to shape our surroundings but they are critically involved by their own inititives. I see the potential of
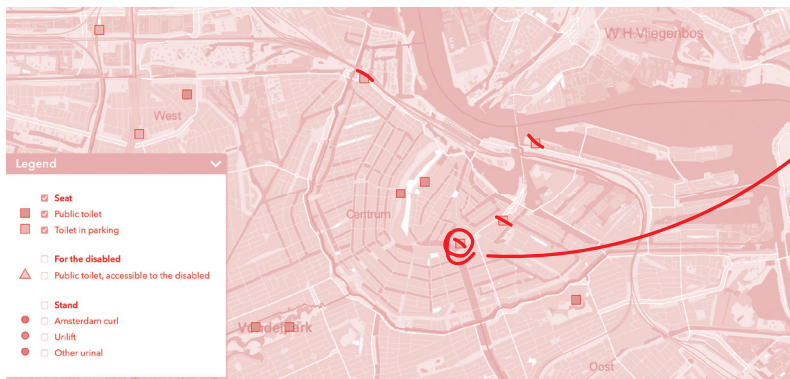
hacking in using the city as a testing field and not just accepting the existing systems and structures but rather questioning them. Hacking is a form of activism to question our environment and find alternatives. It is about cleverness, playfulness and exploration.

My thesis investigates the transposition of the term and tactics of hacking into the realm of architecture and urban design as a strategy of spatial adaptability and as a method for addressing the lack of public restrooms. The study will be guided by the question "How can I translate digital hacking tactics to urban tactics to react to the lack of public restrooms in Leiden."

This thesis consists of several parts, starting with a description and deepening of the subject of hacking, in which a link is made between the urban space and "code". Secondly, I will translate digital hacking tactics into tactics that can be used in

urban design. After this, I will address
the lack of public restrooms and the
inequality that is intertwined with this.
I closely study the city of Leiden and
take several walks in search of public
restrooms.
The last part of the thesis is where
hacking and the problem of public restrooms
comes together. Here I describe four
different hacks that address issues such as
visibility, gender inequality and presence
of public restrooms.

Legend

- ☑ **Seat**
- ☑ Public toilet
- ☑ Toilet in parking

- ☐ **For the disabled**
- △ ☐ Public toilet, accessible to the disabled

- ☐ **Stand**
- ● ☐ Amsterdam curl
- ● ☐ Urilift
- ● ☐ Other urinal

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12

This is the toilet that I approached
the evening in Amsterdam but who
initially refused me. It falls under
toilet in parking on the map that the
municipality has online. When I would
take away all the toilets in parking
garages, there would still be 4 toilets
left. Some toilets that can also be
used are under the heading disabled
toilets.

These are the toilets marked as
disabled toilets. Some of these are
indoors and have a closing time or were
closed by corona. The road striped
toilets were closed at the time I was
looking for a toilet that night.

14   Fig 1.Municipality of Amsterdam. (z.d.). Public toilets Amsterdam [Map]. Public toilets Amsterdam. https://maps.amsterdam.nl/openbare_toiletten/?LANG=en

The disabled and sit-down toilets that
were open then, together on the map.

These are all the urinals in the city.
A large majority opposite the toilets
where women can go.

**Royal
Academy of Art
The Hague**

Master
Interior Architecture
(INSIDE)

var acknowledgment =

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Endnotes

1   Gemeente Amsterdam Klaas-Bindert de Haan. (z.d.). Public toilets. Public toilets. Consulted on 2 February 2022, van https://maps.amsterdam.nl/openbare_toiletten/?LANG=en

:// Hacking

CHAPTER_ONE

In this chapter I will address the definition of hacking through the eyes of both computer hackers and various designers. Starting with the origin of the term and how it found its way in the urban realm. After this I will discuss the person behind the hacker and question what makes someone a hacker.

what_is_hacking;

In "The hack: What it is and why it matters to urban studies", Sophia Maalsen writes about the ambiguity and ambivalence that exists around the 'hack' and which, according to her, makes it a slippery object to define. This is also what I run into while writing about it. The boundaries around what can be considered a hack are contested and muddied by the motivations (common good, neoliberal entrepreneurialism, illegality), the approach and materials of hacking (originality, creativity, digital or material) and by who is doing the hack (individual, community, government, private corporation).[1] Maalsen emphasises the generative property of the hack, which allows it to materialise in different forms, to address different issues and to engage a range of actors leading to different consequences.

But first let us examine where the term hacking originates. Hacking started out as a technique to manipulate software recreationally and people regarded hackers as computer enthusiasts. A definition that was given to the word 'hacker' in 1975 by The Jargon File (a glossary for computer programmers) reads "A person who delights in having an intimate understanding of the internal workings of a system, computers and computer networks in particular".[2] I like this definition of an enthusiast and do not think this to be outdated. Hacking takes time and dedication to get to know an existing structure or code. To this day hacking still uses the amature and playful approach as in former times. Richard Stallman, a computer programmer and free software activist, writes that hacking means exploring the limits of what is possible in a spirit of playful cleverness.[3] For him cleverness, playfulness and exploration are the key elements of hacking and it does not always have to be technical. He describes various hacks that do not have to be digital but can also be a kind of prank or a music piece (4'33).[4] Wark, writer of "A hacker manifesto", similarly does not limit hacking to the digital world alone, but

fig. 2 Boogaard, S. (z.d.). A
skateboarder using the existing structure
of the city [Photo].

approaches it more broadly to, for example, language, mathematics, philosophy and music. "We are the hackers of abstraction. We produce new concepts, new perceptions, new sensations, hacked out of raw data. Whatever code we hack, be it programming language, poetic language, math or music, curves or colorings, we are the abstracters of new worlds."[5] Hacking, Wark says, begins with abstraction; seeing previously unmade interrelationships. For hackers, everything is a code to be cracked. What hackers make is not necessarily great, or good, but mainly new. So, she sees hackers primarily as people who bring new ideas into the world.

In the architectural field, the term hacking has also been around longer. Francisco.J, Architect of the Official Association of Architects of Madrid, writes that hacking is about investigating the unknown system and introducing conscious disorientation or new orientation into it.[6] Hacks create new structures through highlighting disruption, taking the way things are supposed to work out of context in order to create new possibilities. Skateboarders that skate within the structure of the city are an example of people who hack. They disrupt the urban space by using the urban structures in a completely different way than usual and how it was meant to be used. For example by using a bannister as a ramp; it suggests a new way for the citizen to navigate the city, to understand it, and to interact with it in new and meaningful ways.[7]

To briefly sum up; although the definition of hacking and hacks is debated, some constant features can be found. Characteristics are Cleverness, Playfulness, Exploration and Innovation. Hacking responds to a given structure: a code. Hacking is rewriting, reinventing and repurposing. It questions an established set of workings by taking elements and creating something new with these elements. It is a term that is not only used in the digital world, but it found its way into fields like urban design and architecture. Hacking urban space is about using the existing structure of the city and making unusual and/or new alterations to it.

hackers;

In fact: anyone can hack. However, there may be useful characteristics a hacker could have. As described above, the definition of hacking is a difficult subject to describe due to the ambiguity and ambivalence that exists around the 'hack'. This also applies to the description of who a hacker is.

Richard Stallman said we should not confuse the image of the hacker with a computer criminal. The stereotype of a guy in a black hoodie sitting at his computer does encompass all hackers. In the previous chapter, we have already seen that hacking is not only restricted to the technological world but has also found its way into everyday life as well as in the world of (urban) architecture.

Hackers are people who are able to crack a "code". This can be a technical, social or even psychological code. Dirk Baecker sees the hacker as a "player" and "warrior" who infiltrates existing (image- and) language games "like a parasite" and makes them "noisy" with his interventions, thereby possibly also bringing new codes into circulation.[8] We might say that a hacker is someone who does not take the given code for granted but tries to find new connections and points out flaws.

:// THE
SYSTEM/CODE

CHAPTER_TWO

In this chapter, I will discuss how our space is formed. In the digital world, hackers hack a digital infrastructure that is built using code. So, to hack urban space I must first understand how space is produced.

The_production_of_space

Hacking is about getting to know an existing "code" to make alterations. A code is explained as "a set of rules that are accepted as general principles, or a set of written rules that say how people in a particular organisation or country should behave". Another definition I read is the code as "a language used to program (= give instructions how a computer should behave) computers".[9] Both definitions include a set of instructions that let an organism or computer know how to behave. Because I would like to focus on hacking urban space, I first need to understand how this "code" is created. How do we know how to behave in the built environment?

The first thing we need to do is stop thinking of space as a preexisting and unchanging container. Image a market square in front of a town hall. The market square has a staircase, benches and a small music-dome. In the music-dome there is a small group of elderly singing together. People arrive and decide to sit down on the benches and listen to the music. On a different day, the music-dome is used by a group of kids, using the object as a playground. Each day the market is used for different activities and the square is produced repeatedly through the presence of new users and their activities. Following the idea of Henry Lefebre, space is socially produced.[10]

People daily subjectively link meaning to spaces and in this way construct spaces which is often an unconscious process. This can for example be that you do not associate the train station as a place to dance. However, the same place is conceived differently by different actors and therefore creates different actions. So someone else might like to dance in a train station. We weigh our permitted actions against what is officially allowed; what is laid down in laws and regulations but also according to what we think are norms and values. If someone puts a stone edging around a place that does not come higher than your ankle, this still stops people from stepping into it. Not because we cannot, but because we think we should not. When I walk around the city I am constantly

guided by the program of architecture and design. The presence or absence of street furniture and a large number of signs in order to interact with the urban environment in a certain way is an example of this. These elements are often used to standardise our behaviour in public space in order to improve public security. A well-known example of this is the design of public benches where different strategies, such as placing dividing armrests, are used so that people can not sleep on them.

So, a norm can be influenced by the sphere of a public space. Some activities or actions are completely normal at one place but can be perceived as inappropriate when carried out in another place. When we carefully examine the familiar, we can create a distance to what we perceive as normal. A way to do this is by using our daily mechanism in a different way. I tried to do this during a workshop I gave with the title 'reclaiming fun in the urban space', using the urban space as a playground to question our freedom in the urban realm. Together we played in the middle of the Binnenhof —the centre

of Dutch politics— using the existing structure to guide our imagination and appropriating the space. It is a controlled space that has guarded entrances and various cameras. During the daytime, the place is visited by tourists, passersby, politicians, photographers, and journalists. The workshop consisted of three different elements. One of these elements was dividing in groups of two and to play somewhere around the Binnenhof. When two group members started to draw with crayons on the walls, they were stopped by a guard who asked them what they were doing. They replied that they were playing, but he asked them to leave. He said that there are a lot of cameras and that they otherwise did not know what they were doing. I see the acts of the workshop as hacks; investigating an unknown system and doing conscious disorientations or new orientations on this system.

The physical public space can form the geographical context of the public sphere. The public space then serves a democratic function, but can also have a social or symbolic dimension. They are important to support

human interaction, political debate, share cultures and provide opportunities to interact with strangers and observe the other. Because of this, they have always been an important part of our urban life. To fulfil the goal of facilitating the exchange of cultural, political, and social experiences, it should be a space that is open for everyone. But can a space always be open for everyone at the same time? In the end of the twentieth century, a heavy debate started within the architectural and urban practice about the "end of the public space". Most times, the loss or end of public space revolves around the loss of quality or accessibility. This discussion of the decline of public space is mostly about the increasing presence of surveillance methods, privatisation of public areas, the ubiquity of advertising messages in urban space and the architecture of control.

Hacks_to_reclaim_the_city

Hacking the city is closely related to "the right to the city", mostly known from Lefebvre, his book Le Droit à la Ville published in 1968.[11] The idea that you do not only have the right to exist and participate in the city, but also have the right to remake the city to meet our needs. The individual and collective rights of the production of the urban context.
Tactile urbanism, DIY urbanism or as I call it in this thesis, hacking the city are forms of urban interventions. Whether they are small DIY adjustments in one's own neighbourhood or actions taken by the larger institutions.

For me, the workshop I mentioned above was also a form of reclaiming because we used a part of the city that has a specific purpose and therefore also matching behavioural norms. We used the part of the city for our own purposes and did this in a creative and playful way. In this example the hack is an (non digital) action and not a physical object.

In the last paragraph we saw that space is formed by both spatial and social components. If we hack the city, we can therefore hack existing public space but also try to hack a certain set of morals. A hack can be conceptual, digital or analog. "The hack's broad reach across different materialities and conceptualisations is therefore key to hacking's importance for urbanism."[12]

fig. 3 Hartstra, T. M. (z.d.). Workshop using the Binnenhof as a place to play. [Photo]

:// Hacking

as

a method

>   *How_to_translate_*
*digital_hacking_*
*tactics_to_urban_*
hacking_tactics {

In this chapter I will try to distil different
tactics for the digital method of hacking and
see if I am able to translate these tactics to
an urban hacking tactic.

> *How_to_translate_digital_ hacking_tactics_to_urban_ hacking_tactics {*

More and more, hacking is becoming a tactic used by many spatial practitioners who operate at the intersection of digital media and urban space. Hacking is a way of pointing out flaws in the urban fabric and providing a powerful tool for change through questioning, altering, or subverting an existing system. As a method, the hack revolves around practises of experimentation, creativity and iteration.[13] Hacking is about being involved with the flaws of the city and thinking about temporary solutions rather than perfect final solutions. The hack as a method is the 'doing' and 'inventing' of new ways of thinking about urban problems.
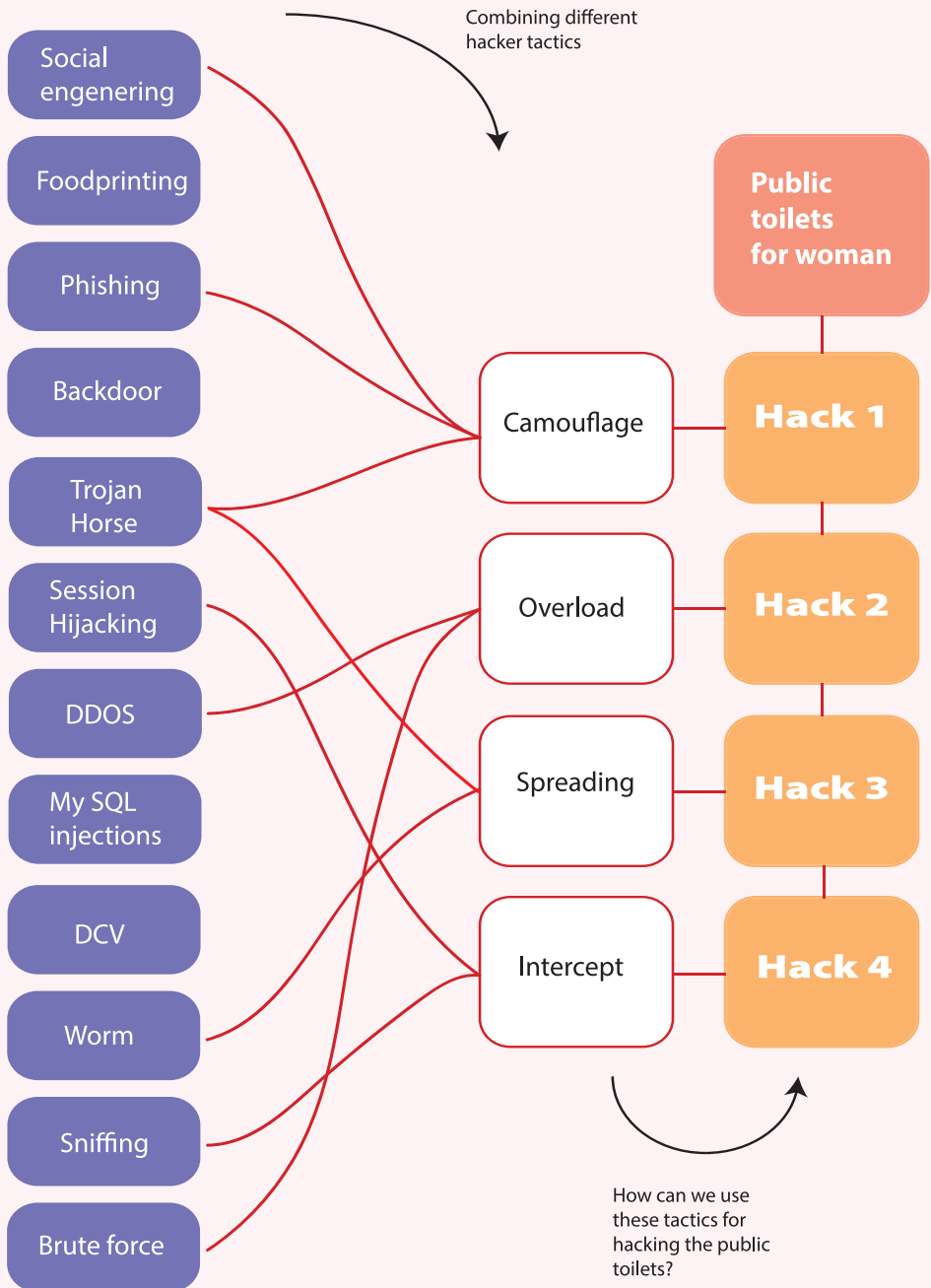
Since hacking originated in the digital world, I want to look at different tactics used by digital hackers. Therefore, in this chapter I examined 12 different tactics, such as Phishing and DDOS (more detailed descriptions can be found in the appendix).

Can I translate these into forms of urban hacking, and what can I learn from these tactics?

When I worked on understanding the different tactics of hacking I saw some similarities, as overloading, intercepting, spreading and camouflaging. On the page on the right you can see different digital hacking tactics. A more extensive explanation of the different hacking methods can be found in the appendix of this part. I abstracted the different tactics and searched for overlapping tactics that became overloading, intercepting, spreading and camouflaging. For each tactic, an example of a hack in the urban space is given.

With these different tactics I will investigate the public restrooms in Leiden and reveal possibilities.

From hacking to an urban practice

Social engenering

Foodprinting

Phishing

Backdoor

Trojan Horse

Session Hijacking

DDOS

My SQL injections

DCV

Worm

Sniffing

Brute force

Combining different hacker tactics

Camouflage

Overload

Spreading

Intercept

Public toilets for woman

Hack 1

Hack 2

Hack 3

Hack 4

How can we use these tactics for hacking the public toilets?

> *Camouflage {*

Camouflage is about hiding something by making something look like something else. In the digital world of hacking, this can for example take the shape of fake emails from your bank or a rebuild of a website to make it look like the original one and steal your login details. Someone who uses this technique in his hacks is French artist Etienne Boulanger. His project "Single room Hotel" is a continuation of his earlier work; Plug-in city. During this project, he domesticated various unused spaces in the city. For instance, he has lived behind billboards, between bridge foundations and in crawl spaces. These spaces often required only subtle changes to camouflage his presence.

Single room Hotel is a 32 square metres room designed according to the standards of a two-star hotel. It has electricity, heating and running (hot) water. The hotel's exterior is designed like a billboard so as not to attract attention. Inspired by the strategies of publicity ads, both on the World Wide Web and in our urban environment, the speculation process visible in this intervention are at the heart of the project.[14] The hotel is located in the centre of Berlin and within walking distance of many tourist attractions. He rented out the billboard and used the money he earned to furnish and finish the hotel.

The intervention brings out concerns linked to architecture and inconspicuousness in an urban environment and reveals the mechanisms of production and development of temporarily marginalised spaces.[15]

fig. 4,5,6
Single room hotel
`http://www.etiennebou-langer.com/singleroomho-tel/`
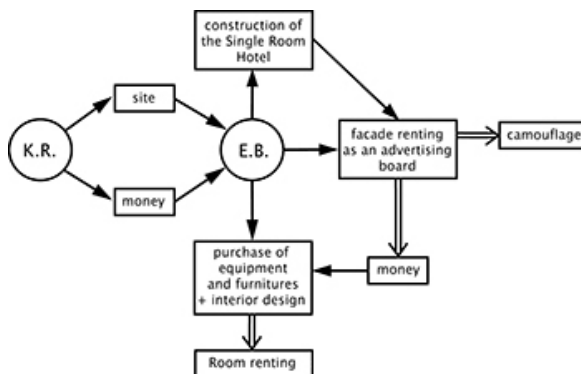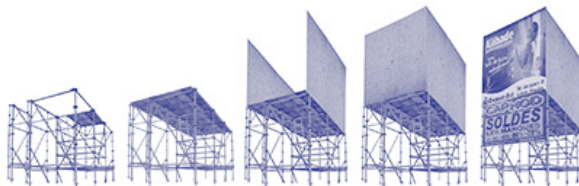
> *Overload {*

To overload is to load an excessive amount in or onto something. It can also be repeating something so it has an effect.[16]

An appropriate example of urban hacking that uses a hacker technique is Simon Weckert's project "Google maps hacks''. Using 99 second-hand phones, he created virtual traffic jams on google maps that are very reminiscent of a DDOs attack.
Google maps is a web mapping platform that I can't imagine being without in my daily life. The interactive maps show me exactly where I need to be, how to get there and how long it takes. If there is a traffic jam, it is indicated and I am offered an alternative route if this is faster. This functionality has consequences for the way we move through the urban environment. Normally quiet streets are sometimes confronted with large amounts of traffic for which they are not designed and therefore cannot manage. This is what happens during Simon Weckert's performance. He slowly walks down the street with a cart filled with 99 phones that have

the google maps app running. The streets were not busy but Google maps saw a crowded street because of the presence of all these phones and colored it red on the interactive map. Google maps redirects the traffic and it becomes quiet in the streets where he walks. The hack shows the difference between data and reality. We see google maps as something objective, but it is never the real world but rather a representation of it. Yet, Weckert says, maps have always been used as an instrument of power and control.[17]
In a DDOS attack, a server/ website/service is heavily overloaded by firing thousands of requests per second to the server. This can be conducted from a single computer, but in some cases it is produced by thousands of computers. Simon's Hack uses this technique of overloading a system by many devices. As a result, he does not take down a website or server, but instead a street. This forms an urban representation of a digital hack.
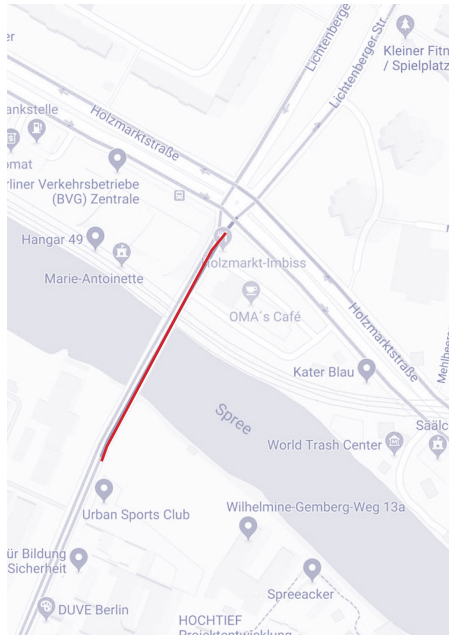
fig. 7,8
Weckert, S. (2020).
Hacking google maps
[Foto]. Simon Wechert.
http://www.simonweckert.
com/ooglemapshacks.html

> *Spreading {*

Spreading means to open or expand over a larger area.[18]

Collective disaster is a multidisciplinary group from different countries that have met in random places. They share ideas, visions, interests, experiences and ambitions. Their project which really speaks to me is "Bxl swing in the cracks".
The project consists of different interventions in cracks of our over-complex society. An example of these interventions is a ladder placed next to a closed fence that lets people look over it without making it easy to climb it. Another one is a rotating bench made around a lantern. The interventions are fun and have a playful form in them; a swing and a kaleidoscoop. Interventions are made with recycled materials and simple building techniques.
The interventions are a critical response to the strongly hierarchical macro-structures that rule our society and contemporary cities are founded on the desire of total control and organisation. In this way, they want to provoke a reaction both from the citizens and from the institutions while at the same time revitalising a corner of the city.
 "Dealing with the bureaucratic monster and the obsession for rules and control is often an obstacle that discourages local initiatives: "guerrilla" strategies becomes a more efficient answer for the free expression of the citizens Urban hacking, just like the street art, is the natural answer of the small individual, against the gigantic multiple-headed administrative structures."
I see this hack as a form of spreading the word by making the hacks easy and encouraging others to do the same. Not waiting for "the bureaucratic monster" to fulfil your need.
"On the other hand, the citizens become more and more often passive elements of the 'system', they don't feel any connection and relation with the urban spaces that they live in every day, they feel no commitment towards their cities and their streets, they assume that there is always someone else that will decide."
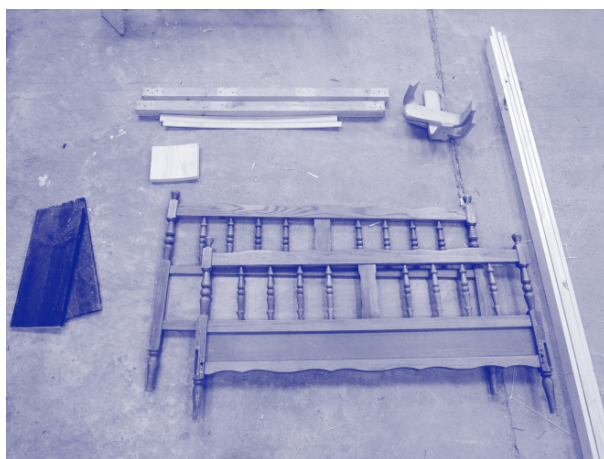
fig. 9,10
Seesaw made from
found waste
by collective disaster
https://www.
collectivedisaster.org/
projects/bxl-swings-
in-the-cracks/

> *Intercept {*

1a: to stop, seize, or interrupt in progress or course or before arrival. b : to receive (a communication or signal directed elsewhere) usually secretly. 2a: to gain possession of (an opponent's pass) b : to intercept a pass thrown by (an opponent)[19]

A project on the border of digital and urban hacking is "The 2.4Ghz project" by Benjamin Gaulon. Gailon is an artist, researcher, educator and cultural producer. Also currently director of a non profit organisation whose mission is to support and promote emerging art and design research and practises that address the social and environmental impacts of information and communication technologies.[20]

With the 2.4Ghz project, he shows how easy it is to hack wireless security cameras. These products are popular with people, such as a monitor for parents to keep an eye on their children. But there is a risk here. And that is that these signals are easy to intercept.

What I find interesting in his way of working is that he starts with an artistic form of research. Then he performs urban intervention based on the gained knowledge from his research to make his research visible to others. Afterwards, he gives workshops with the gathered knowledge.

His project started with walks through different cities in Europe to collect images through the hacked cameras. Gaulon created a film from this.
The next step, which is still in process, is to place receivers in the streets to make it clear that anyone can intercept these signals.
The last part of the project is to give a series of workshops in which he shares his knowledge about the easily hackable cameras and maps them out together with the participants.

His research focuses on the limits and failures of information and communication technologies; planned obsolescence, consumerism and disposable society; ownership and privacy; through the exploration of détournement, hacking and recycling.

fig. 11,12
placed receivers
by Benjamin
Gaulon
http://www.
recyclism.com/
twoppintfour2.
html

:// Appendix

>   Appendix {

      Exploring_
different_types_of_
digital_hacking;

Hacking tactics shortly described. Sometimes a possible urban translation is added to the description.

Footprinting {
Footprinting is a hacker's process of gathering as much information as possible about the target. This includes IP addresses, type of routers, type of camera's, operating systems, etc.

Possible: urban translation:
Analyzing a neighorhood to see what kind of hacks are possible.
}

> *Phishing {*
Rebuilding, for example, a website to make the user think they are on the real website (for example, a fake version of rabobank). The user logs in and has no idea that they are not using the real rabobank website, but while the user is logging in, the username and password will be sent to the hacker.

Possible urban translation:
Rebuilding a municipal object, the user but also the municipality does not see if the object is placed by the municipality and that it is actually "fake". An example is painting a

crosswalk, road users do not know that the crosswalk is not placed illigally.
}

> *Backdoor {*
A backdoor is an opportunity for the hacker to log in (from a distance) to a network and/or device without explicit permission. This could be a Raspberry Pi in a building that is connected to the network by cable, allowing the hacker to get into the network through the Pi without having to be physically present in the building.

Possible urban translation:
The raft on the naval property I made is a kind of backdoor because you are allowing someone to get in somewhere without explicit permission.
}

> *Trojan horse {*
With a Trojan horse a backdoor (see above) is created on a device by means of an unsuspicious file. For example, you download a movie, the movie works fine and the user can see the movie, but in the background a program/virus is installed that allows the hacker to log into your device (view/delete files, turn off computer, etc.).

> *Worm {*
A worm is a piece of
software that spreads
itself to other computers
(often over the network).
Once a worm has infected a
computer, it will scan for
and infect other devices
on the network. From those
devices, it will also scan
again and infect other
devices.

In many cases, the worm
also attempts to do damage
on the infected devices.
This is often called the
`payload`. This can be
installing a backdoor, but
also deleting/corrupting
files.
}

> *Sniffing {*
Sniffing involves installing
a piece of software or
hardware (raspberry pi
connected via cable) on the
network, which intercepts
all network traffic. From
this network traffic, in
some cases sensitive data
such as login details or
bank information can be
extracted.

Through secure connections
between users and
websites using HTTPS / SSL
certificates, the traffic
between the user and the
website is encrypted. Only
they can decipher the data,

for the hacker it is useless
data (the hacker does not
have the key to decipher the
data, the user and website
do).
}

> *Brute force {*
The act of guessing a
password by trying lots
of different passwords in
succession until it finally
succeeds. Often a dictionary
is used that contains
commonly used passwords,
so the chance of success
is faster. Sometimes every
letter, number and character
combination is also tried.
Logically, this takes a lot
more time.
}

> *Social engineering {*
Social engineering involves
attempting to perform a
hack through human contact
(physical, phone or chat
channel). This could be
the retrieval of sensitive
data by pretending to be an
employee (people pretending
to be Microsoft employees
in order to retrieve bank
passwords). An example
of this I recently heard
about is impersonating
"Sinterklaas" to get into a
highly secured building to
insert a USB stick into a
computer. The USB stick will
then perform another hack
(install backdoor or worm).

An example is painting a crosswalk dressed as a municipal employee; passers-by will not realise that the municipality does not install this itself.
}

> *Session hijacking{*
A session is a temporary code that a website and a user agree upon after logging in. The user will then send the code along during the entire time he/she is on the website so that the website knows who the user is. The session expires after a while and then the user will have to log in again and they will get a new session. In Session Hijacking, the hacker steals the agreed code so that the hacker can impersonate the user (temporarily until the session expires).
}

> *DDOS{*
In a DDOS attack, a server/website/service is heavily overloaded by firing thousands of requests per second to the server. This can be done from a single computer, but in some cases it is done from thousands of computers. Sometimes computer farms in China/Russia or a zombie network are used for this. A zombie network is a group of computers that have been infected (for example by a worm) and these are occasionally used for hacking purposes without the owner ever finding out.

Possible urban translation:
The artist's project to shut down traffic in Berlin by making Google Maps think there is a traffic jam in a street by walking around slowly with 99 android phones. Google maps actually thinks based on the 99 android phones that there are many people stuck. Another example is creating a queue in front of a shop/cash machine so that it can no longer be used by real users.
}

> *My SQL Injection{*
MySQL is a database language. To search a database, user input must be entered in the database language. A hacker can write MySQL itself as user input, so that the database sees this as a command from the software. For example, the hacker can use a first name search field and read all usernames and passwords from a table.

Input field: Tjitske

```
SELECT userID, username,
address, phoneNumber FROM
users WHERE firstname =
"Tjitske";

Input field: "; SELECT
username, password FROM
users;
SELECT userID, username,
address, phoneNumber FROM
users WHERE firstname = "";
SELECT username, password
FROM "users";
```

You use someone else's process (a) to achieve (b) your goal. For example you apply for a scaffolding permit but build extra living space or you apply for a container and make a swimming pool in it.
}

> *Default credential*

vulnerability{

When a new device is installed, the device almost always has a default password set. For example, this could be: secret, siemens, root, etc. If the owner of this device does not change the password, a hacker can easily log in. A camera often has a password too, so only the owner can view the images. There are websites where you can view very different cameras around the world where owners have not changed the default password. This shows how common this vulnerability is.

Trying out this vulnerability is often 1 of the first steps a hacker performs because it takes so little work. All a hacker has to do is look up the product's user manual and try out the default password.
}

> *Cryptojacking{*
There are hacks where a device gets infected and secretly runs processes in the background for the hacker. Often this is mining cryptocurrencies (checking crypto transactions where the checker/miner gets a reward in the form of that crypto currency) so that the hacker makes money from this. The hack uses a little bit of the computing power of the device for the process, this should not be too much, because then the owner of the device will find out about this and will clean up the computer or reinstall it completely. This means that the hack disappears and so the hacker has one less device working for him.

Possible urban translation:

An example of this is using the fence at a parking garage to place a table so that you can use this table.

Put a GPS tracker on a runner's pants or a kitten or give it to him so he can map out an environment for you.

Maybe parkour or skating, using the structure of the city to make it usable for your own "gain/ pleasure". Using the stairs as a ramp. But it shouldn't be too noticeable or disruptive to the process.

Using a structure (process?) or object of someone else with a different function, to eventually add a new or additional function yourself that benefits you. This is something you read all hacks.

All explenations where written using the website Grecampus[21] And with the help of Roberto Geuke, senior Backhand developer.

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:// Inclusive cities start with good public toilets

:// The problems of public toilets

CHAPTER_FOUR

In this chapter I will discuss miltiple problems surrounding the public toilet and gender.

"If you want to know the position of women in a particular society, look at the line formed in the toilets".
-Clara Greed (professor of inclusive urban planning)

"The more I learned, the more it struck me that the history of public restrooms in cities is the history of cities themselves."[1]
That men have dominated the world of architecture and design in recent centuries is no longer a surprise to those in the architectural field. And so, for a long time, the furnishing of the city has also been dominated by men. "The qualitative safeguarding of public space became a matter for the local authorities, by means of various committees for Spatial Planning, Public Works, etc. Such commissions usually consisted of architects, planners and administrators, and not surprisingly for the 19th century, they were almost all male."[2]
This, therefore, has consequences for the design of our cities, which have long been designed from the perspective of one particular group.

The demand for public restrooms for women is not an issue belonging solely to this century. As early as 1928, Amsterdam had a urinal committee that published a report in 1984 recommending a lockable self-cleaning toilet because the need for public restrooms for women had been existing for some time.

But this is not where the inequality stops. It is not only about the availability of public restrooms for men and women but also about how they are distributed in our present time. Is this division still necessary?
During this research I read the following quote from Clara Greed, an urbanist and feminist: "If you want to know the position of women in a particular society, look at the line formed in the toilets.''[3] When I go to a festival, I always have to make arrangements with my male friends where I can find them again at the stage. Because a visit to the women's restrooms take so much longer, it's a shame for them to have to wait for me because otherwise we would all miss too much of the performances. For this reason, I sometimes choose not to go, try to sit it out or not drink.
There are many jokes and stories about why the line for women's restrooms is so much longer than men's. "Because women bring someone with them to talk to when they have to wait in line for so long". But the line is not long because we have long conversations on the toilet. According to a study by the University of Ghent,[4] there are several reasons why women need an average of 30 seconds more to use the toilet than men (the average for women is 80 to

3

90 seconds; for men, 50 to 60 seconds).
The first reasons are biological; a
woman's reproductive system takes more
space in her body and her bladder is
smaller. This causes women to go to the
toilet more often. Also menstruation is
a reason that women are more often in
need of a toilet and changing menstrual
products takes more time. The last
biological reason is the fact that
women sit down while peeing.
The second reason is a social reason;
women are more often caretakers of
others. Taking care of one or more
children and helping them on the toilet
or changing them in the restroom takes
more time. Conversely, this highlights
a design flaw and with that a problem
for men for they often do not have a
changing station in the their restroom.
The last reason is the clothes women
wear. Most of the time, a man only has
to undo his zipper. For women this is
often more work and this therefore
takes more time on average.
Despite the significant difference
between the male and female queues in
front of the restrooms, the restrooms
often take the same space. What's more,
male restrooms often have urinoirs that
take less space and female restrooms
sometimes are reduced by changing
stations. This means that women have
fewer restrooms when they should have
more considering the time and the
quantity of their visits. This is one
of the aspects around the public toilet
that creates gender inequality.

fig.   15 Urinal, Herengracht Leiden.
[Photo]Tjitske Hartstra

what do the people around me think of the situation?

When I started talking about my experience with public toilets, I would frequently get many stories from people around me. The question was also being forwarded to their surroundings out of enthusiasm. I documented these stories to get an vieuw on the problem from different perspectives. I also placed a call on the Internet, after which I received stories from several people.

F=Female

M= Male

O=Non-binary

Today 10:45

Hey, do you have a story about (the lack of) public toilets?

F

Today 10:52

There are few public restrooms. For that, I personally choose to pee in public often. I find public restrooms (if they exist) often very unhygienic as well and there is always something with not flushing, toilet paper running out or skid marks. The problem is that there are often not enough ladies toilets for women to use. Public urination is quickly seen as normal for men, but for women, people often still look at it strangely... I think it would be a good idea if more public toilets were installed, but with regular checks to see if they are still clean and flushed. I have been to China a few years ago and in the big cities there are public toilets after every 2 streets. This would be very nice if they had this in the Netherlands as well. I never find urinating in public a problem, only when it's in the city and light, it's a bit too conspicuous. Especially after a night out I pee in public on the way home. Where boys then pee against a tree and this is seen as normal there is no solution for women. It is also a problem that there are often too few toilets for women and you always have to wait for a long time, which makes a quick stop outside easier.

Hey, do you have a story about (the lack of) public toilets?

M

I have experienced the following. A while ago, I was in town with a friend. There was a dixi in the street and it was open. I had to pee really badly and ran into the toilet. But I accidentally peed on the seat. I told this to my friend, who had been to the toilet before me. He told me that it was very stupid of me because because of me they close the toilets and it will not be a public toilet anymore. When we passed by again a little later, the toilet had been locked. My friend was right and because of me nobody could use it anymore. I was fed up with this, I just hadn't seen the urinal that was also present in the dixi.

F

I was in town with two small children and we asked in shops and restaurant but were not allowed to go anywhere to pee. The problem kids often have is that when they think they need to pee you have 2 minutes to find one. So in the end one of the kids just peed in the marketplace. Now with corona, it's even harder to find a restroom.

F

I recognize this. As a mom with kids, it's hard to go shopping or do anything else when they're no longer wearing diapers and so there has to be a toilet nearby. Otherwise you are constantly changing or just not getting anywhere. I tried several times to ask in a store if the children could go to the toilet there. But unfortunately that was not possible, not allowed etc. On the one hand it is understandable, not everyone leaves it clean and often there is only 1 toilet in small stores and there are belongings of the staff. I did not want to go as far as I once heard from another mother, who said to her child, well then you pee here (somewhere for the cash register) (I was not here myself) But going home was no longer possible. So I went to the back of the shopping street, lifted the child under the armpits (girl) and let her pee against a tree.

Hey, do you have a story about (the lack of) public toilets?

F

At the Salsa shop (a shop in the Mall in Utrecht) it was always drama with people asking if they could go to the toilet. Sometimes they didn't even ask and just went. I think because for the public toilet at the mall you need to pay, always long ques and closed at night. Very irritating

F

The mall Hoog Catharijne? Those queues are really not normal, especially for women.

F

Very often I have no change with me, that is now sometimes solved with the option to pin. Only I find that there is definitely a lack of public toilets.
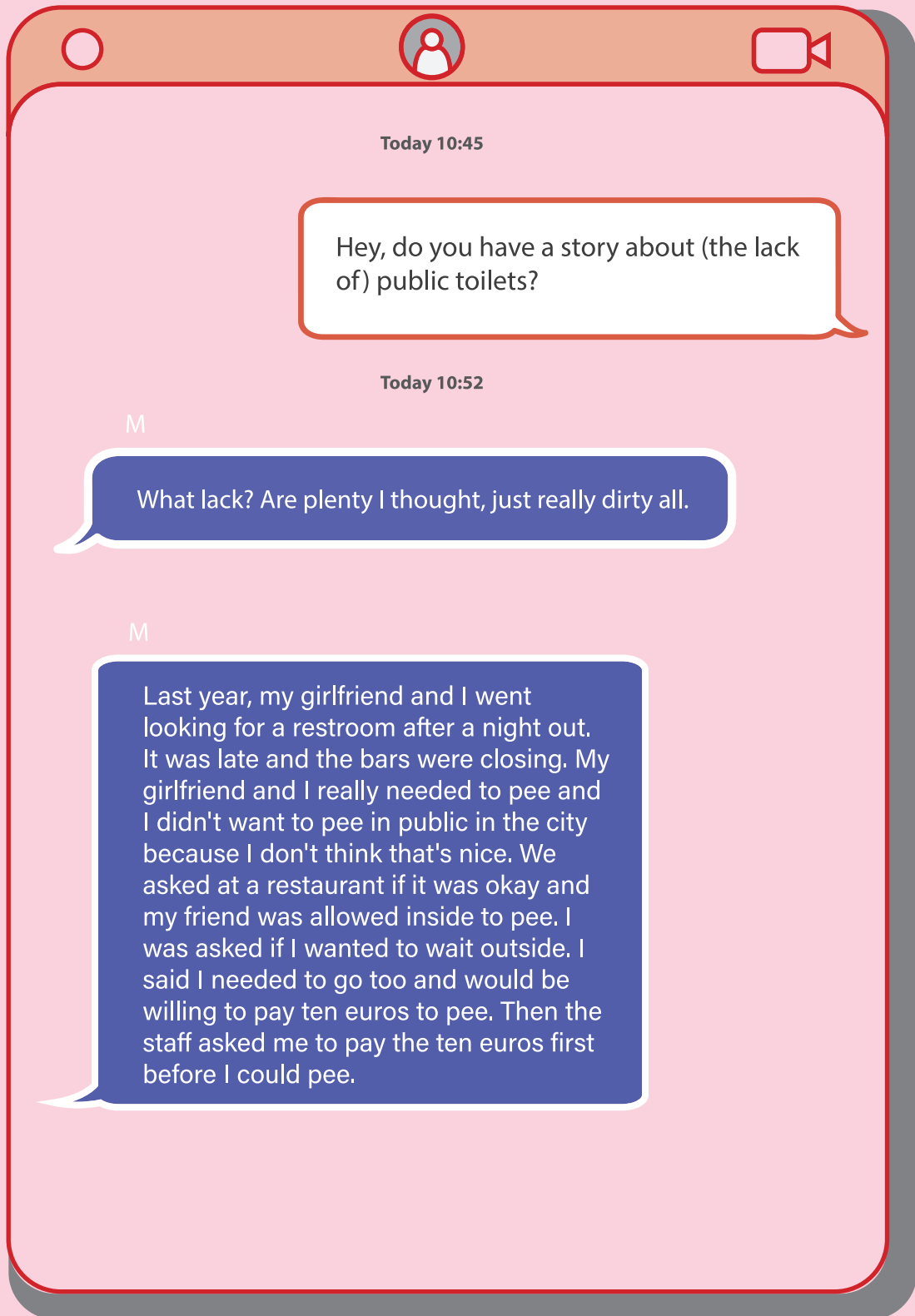
Today 10:45

Hey, do you have a story about (the lack of) public toilets?

Today 10:52

M

What lack? Are plenty I thought, just really dirty all.

M

Last year, my girlfriend and I went looking for a restroom after a night out. It was late and the bars were closing. My girlfriend and I really needed to pee and I didn't want to pee in public in the city because I don't think that's nice. We asked at a restaurant if it was okay and my friend was allowed inside to pee. I was asked if I wanted to wait outside. I said I needed to go too and would be willing to pay ten euros to pee. Then the staff asked me to pay the ten euros first before I could pee.

Today 10:45

Hey, do you have a story about (the lack of) public toilets?

F

Today 10:52

I have many stories related to toilets. I will tell one that is related to the Netherlands. One day I was at the beach and I had my period and had to poop very badly. And I didn't know what to do. It was around the end of february. I ended up pooping in the dunes. And I felt horrible about it, the nature is amazing there. I felt bad for doing this and covered it with grass and sand to make it less visible and have the smell go away. The smell was not the biggest issue.

Another story is about London. I was coming back home after two days of parties. And the train was very late. We were a bit drunk and needed to pee a lot. But the facilities of the train station were still closed. So I peed in front of the train station on a little street. There is also a picture of this, my ass in the middle of the street. These were the two moments where I felt a bit awkward. I am usually a person that doesn't care about peeing in the street if I really need to. So for example I peed between cars during a night out because the toilets in the bars were too dirty or too busy or a long que. But then I was a bit drunk.

Today 10:45

Hey, do you have a story about (the lack of) public toilets?

Today 10:52

F

During Corona, I went with two friends to the beach to sit in the sun and drink a beer. When I had to pee, we went together to find a toilet. The toilets in the car parks had been locked by corona and the restaurants and shops were all closed. My friends ended up peeing in the bushes on the beach. I hesitated for a long time to go into the sea and pee there. Only it was much too cold to swim and I had no towel or dry clothes with me. In the end, I peed behind a beach hut, but I didn't like it at all because it was so crowded.

F

I just find it very strange that they just close all the toilets when there were no other options at the time.

:// What are
the problems
mentioned?

Problems following the stories of people around me

For some people, there is a problem when the toilets cost money. They do not have much to spend or do not have the required money with them. (no coins)

Visibility is a problem. Many people do not know where to find a public toilet. And are too late when they find out they need to go.

Most public toilets aren't percieved as hygenic

Especially in the evenings and at night, it is difficult to find a restroom

It can be a problem that we rely on shops, restaurants and other buisnisses.

There is a lack of toilets percieved by mostly woman, Woman with childeren and people with bladerproblems or disabilities.

Closing locations due to a pandemic has consequences for the numer of public toilets. This may cuase problems, putting people in uncomfortable situations.

There are fewer toilets for women than men. There are also not enough options for people with disabilities and not enough changing tables for parents with children.

15

:// Testing Leiden

I will test Leiden. By taking different walks with different approaches I want to see how easy it is to find restrooms. In the following pages, you can find short summaries of these walks. In the appendix you can find the full descriptions.

Walk_1
Sneak_in

Tuesday_11 january
13:15-15:30

Many of the restrooms I visited during my first walk are located in buildings with a different purpose and therefore you are dependent on opening hours for example. For example, some are closed on holidays and in the evenings. restrooms like the ones at the station have several limits that make it impossible for some people to pee here. For example, you must have a minimum amount on your Ov card to enter the station. restrooms such as urinals are only common for men who are not or moderately physically challenged. Women and disabled people cannot use them. Also these are only suitable for urination and not for all needs.
So a toilet that can be used all times of the day, by everyone is not ready existing.
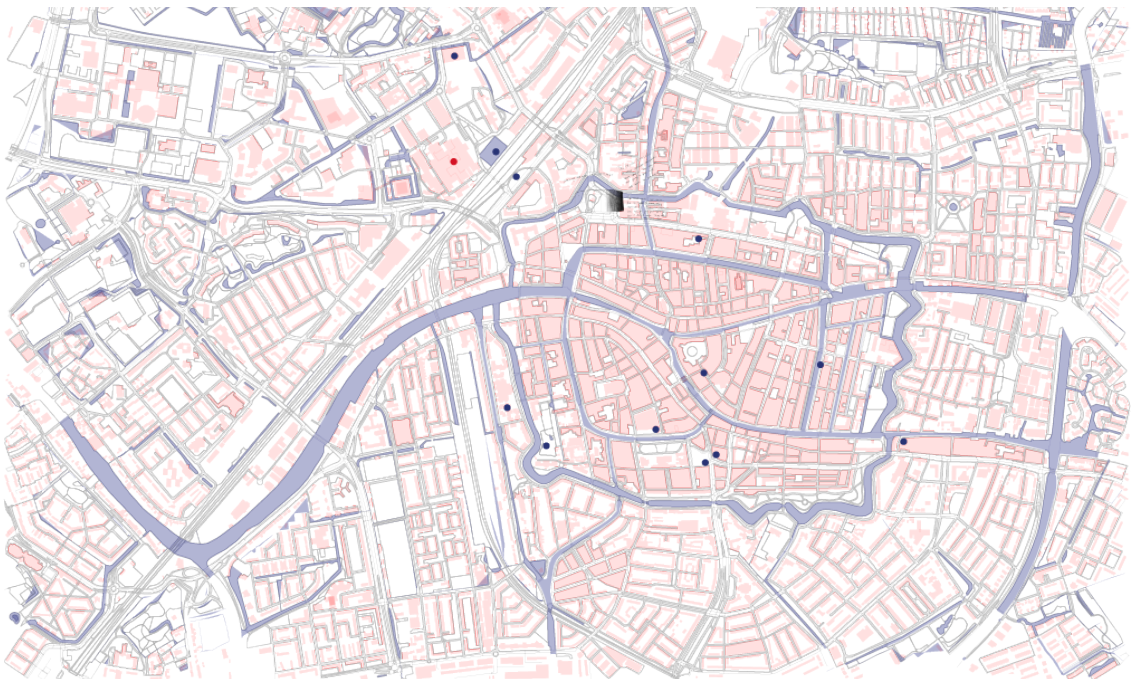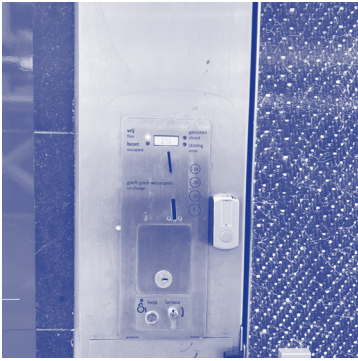
Walk_2
Evening_walk

Monday_17 january
20:30-21:40

During this walk I have seen that it was way harder
to find a good toilet in the evening. Also the "Hoge
nood" app that is supposed to tell me where I can go
is not accurate at all. I spend a lot of time going
to places that were not open and if I needed to pee
from the beginning this would have taken too long
to find a good toilet. Also the two public restrooms
the municipality mentions in the news have too many
barriers. First not showing that you can pee at that
spot clearly from the outside. Second is the fact
you need to ring a doorbell and ask. And third is
the fact that you need to have exactly 50 cents.
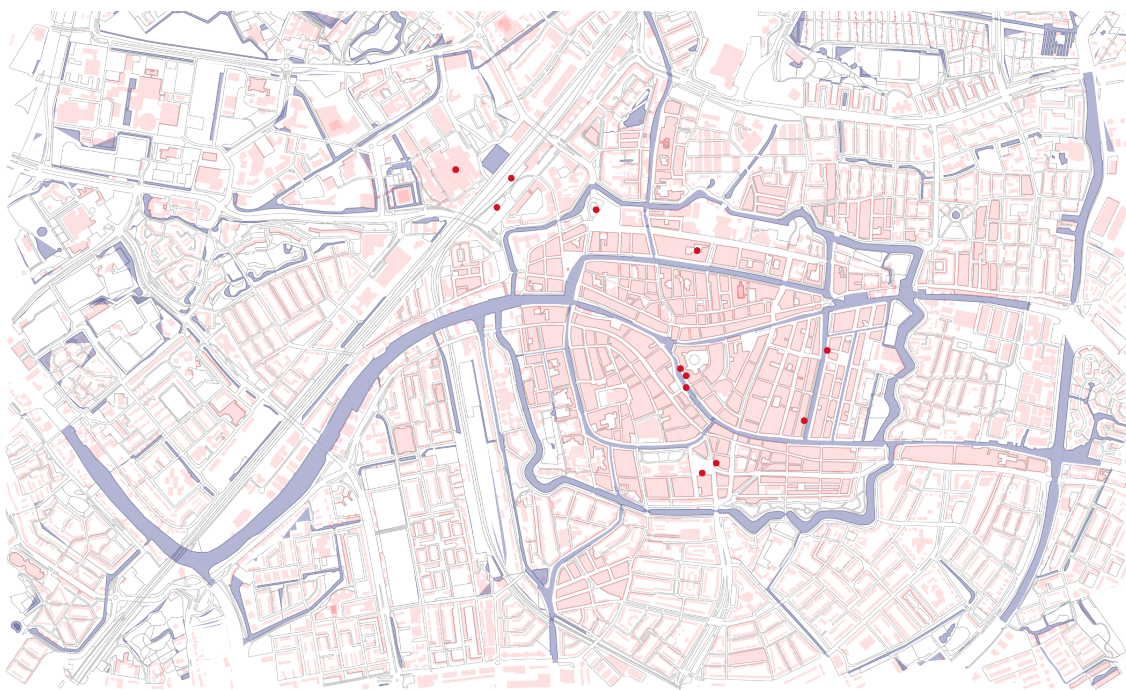
Walk_3

Kids_alarm

Tuesday_18 january
16:30-17:42

I know from stories that children know they have
to pee late and when they do, you have a few minu-
tes to find a toilet. Since I don't have any child-
ren around me, I had my boyfriend set random alarm
clocks on my phone. When the alarms go off during
my walk, I give myself 5 minutes to find a toilet.
I also pay attention to whether I can find a baby
changing table.
The walk I am taking is the Singelspark route. A
walk that many people take with lots of greenery and
playgrounds, but also criticised on the internet for
the lack of restrooms on the route.
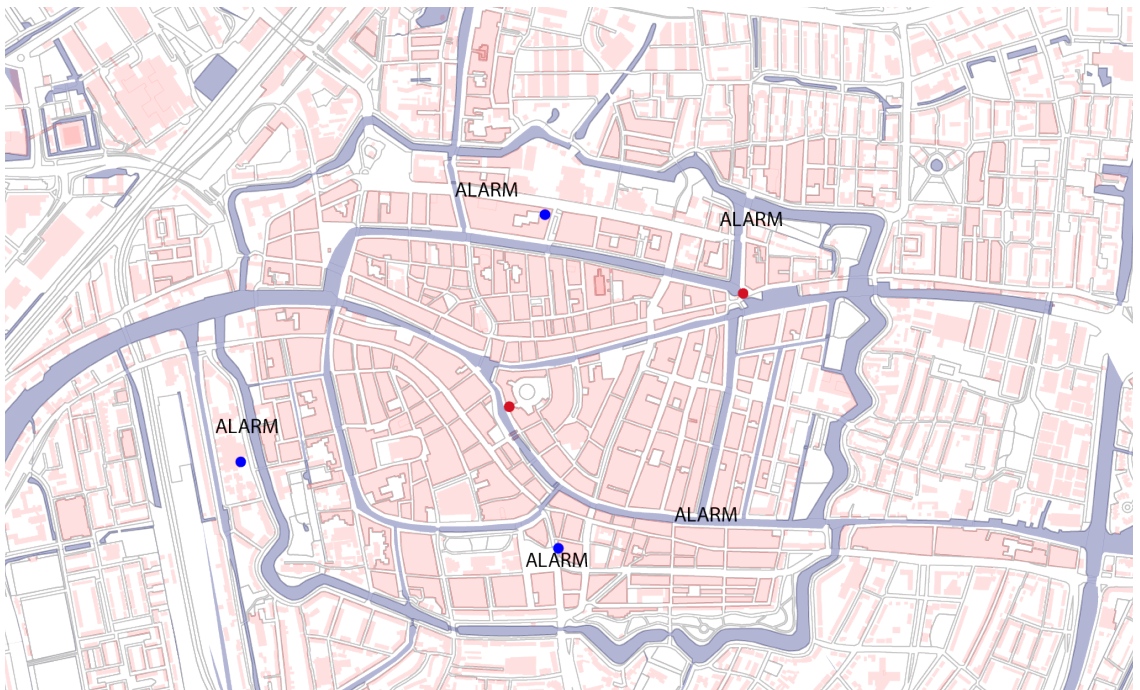
Cities like Leiden often come up with visions for inclusive cities. "Leiden wants to be an inclusive city, where there is room for all inhabitants and where everyone participates and is given opportunities."[5] Inclusiveness and accessibility go hand in hand. By making the built environment and spaces as the public toilet accessible for everybody, inclusivity will follow.

When I searched the internet I saw that the lack of public restrooms is a problem that has not gone unnoticed in Leiden and there are articles dating back to 2013. But Leiden, also known as a "women's city"[6], is still primarily designed for men, reads the article posted on January 11, 2022. In this article, they also address the lack of public restrooms for women and the disabled in the city. Covid's contribution in this flaw has not gone unnoticed either. There are multiple newspaper articles about the need for more public restrooms in the city during Covid times. In an article, the Leidsch dagblad writes: "Leiden has a chronic shortage of public restrooms, especially in the city centre. This has been the case for years, but the corona pandemic made this lack painfully clear once again. Especially when the restrooms in and next to the city hall could no longer be used due to a major renovation."[7]

But the article written on 14 January in the middle of my research is positive. Leiden is no longer at the bottom of the list of cities with the number of public toilet facilities. But this increase is mainly due to the shops, restaurants and institutions that open their restrooms to the public. It is a step in the right direction. And on 27 January, the municipality of Leiden published an article telling us that they are going to build a new public toilet in the city centre. [8]

1/3 of the Dutch people state that their quality of
life suffers because of the shortage of toilets.
1/5 stay at home on a regular basis for fear of not
finding a toilet while out and about.

A poll of the MAX Opinie Panel(This is mostly filled
in by older people) among 3000 participants shows
that:

2/5 have had wet trousers or worse because of a lack
of a decent toilet.
2/3 have urinated or defecated in the open due to the
lack of an accessible toilet.
48% feel restricted in their movements due to the lack
of accessible toilets.
83% believe there is a shortage of public toilets.
81% experience finding public toilets as very
difficult.

:// Appendix

```
>   Appendix {


        Toilet_walks;
            Walk_1_Sneak_in
            Walk_2_evening
            Walk_3_kids
```

During this walk I will visit different locations that say they are open for people to pee. I Will act like I am no stranger to the place and preferably not ask anyone.
City Office
The website says that you can't just walk in and need to make an appointment first and come alone. I choose to walk in anyway and see if I can maybe find the toilet. It is not immediately clear to me where the restroom is and ask a lady behind the counter where I can find the restrooms. She politely shows me the way. The city office is open Monday through Friday from 9:00 am to 5:00 pm. I walk to the designated restrooms and am pleasantly surprised at how clean and tidy they are. The toilets are cleaned three times a day and signatures are on the hanging checklist to read.

Toilet at the station
To get to the toilet at the station you have to show an ov card with a subscription or a minimum amount of 10 euros to enter the station. When I check in I walk to the clearly marked toilets. The toilets cost 0.70 cents per visit and there is a possibility to pay here with contactless payment. They are open every day from 8:0 to 18:00 and outside the opening hours you can use the disabled toilet. disabled people can ask Sanifair staff for free access to the toilet. The disabled toilet and night toilet only accepts coins, 10 20 50 cents or 1 euro coins and does not give change.

Parking garage Morsweg
I walk to the parking garage on Morsweg, a restroom I have more experience with. While I was in high need I walked to the door and went in after someone. At the door I found out there was a payment to be made and again quickly ran upstairs to ask for money from a friend who didn't have a proper 50 cents but did have a euro. Quickly ran back to the toilet and threw in the euro. The door would not open so I went looking for the security to ask. They gave me a coin and I could finally go to the toilet. The doors of the garage only open by means of a parking ticket or bank card and there is also a paper with unauthorised persons. Not a very inviting "public" toilet in my opinion. However, when I walk into a lady's office I follow the stairs down. Here are several toilets including a disabled toilet and there is a changing table for mothers. However, there must be an appropriate 50 cents in which I and I think many people no longer have with them now that everything is almost digital.

My next stop is the University of Leiden. on google maps the building is indicated as closed so I walk over to check it out and it appears to be open. I walk a little uncomfortable past the front desk because I feel like I'm not supposed to be here in the current lockdown. But I look like a student and the thought that it won't show on me causes me to do this anyway. Suppose I walk in here with three kids and a partner. I think this is different. The toilet is indicated with symbols and easy to find. On my way to the toilet I come across several prints that state that a LUK card can be asked for and that you have no access without it. The toilets are fine and free. opening hours Monday to Friday: 07:00 - 22:00. Saturday: 09:00 - 22:00. Sunday: 09:30 - 20:00 hrs.
The next location is also from the University of Leiden and it is the university's library. As I walk between the students and pass the automatic sliding doors I see gates that must be opened by a pass. I walk left around the corner so as not to let the counter notice that I am here for the first time. I stumble

upon toilets that fortunately are already present before the gates and can just go to the toilet here. They are free and clean. Open Monday through Friday from 08:00 to 00:00 and Saturday and Sunday from 10:00 to 23:00.

The next location I encounter is another department of Leiden University. Here too, I walk past a desk and security and the feeling creeps up on me that I am not officially allowed to be here. I see the symbols of the toilets on a sign and walk in the designated direction. Toilets fine and free. Opening hours Monday to Friday: 07:30 - 23:00. Saturday and Sunday: 8:30 - 18:00.
Parking garage Garenmarkt
Behind the glass of the parking garage is a piece of paper with the text The entrance door can only be operated with a parking ticket, bank card or subscription. I don't know how to open the door. However, this garage is indicated everywhere as a public toilet. Maybe next time I'll try again. But for now I will search further.
On the app "Hoge Nood" an app that tells you where the public toilets are in the neighbourhood. I see that the Hoogvliet must have a toilet. This I can not find after a few laps unfortunately and also in the parking garage I do not see it. I decide to continue my round without peeing.
The next toilet I visit is a curly urinal at the edge of the canal. The well-known toilets are intended for men and do not provide a facility for the disabled or women. However, they are free and open 24/7.
The library of Leiden, I didn't know if I was allowed to go in here normally but I saw no place for a pass or a counter. I could find the toilet quickly and they were clean.
The last toilet I visit today is one that no longer exists. On the internet I read about a public toilet in the centre of Leiden that was installed due to the lack of public toilets in the city. This

was demolished during the renovation of the city hall and currently there is no replacement. However, I walked past two dixies that were locked, do they need to replace the toilet? I read on the internet that during the previous lockdown after complaints a temporary public toilet was placed in the city but this was removed and was also only open during shopping hours.

I love being outside in the evening when the city is less busy. I drank some tea and went outside for a nice walk.

My first intuition was to try at the police station. When I got there I could see pretty quickly that it was closed. I don't know why but I thought this would be open. I open the "Hoge nood" app and search for a toilet.
During my walk I pass by multiple dixi's. But they are all locked. The first one is at the east side of the city of Leiden. Here I see on my app there are no toilets to be used.
I bike to the parking garage Garenmarkt on the other side of the city. I tried this toilet on my last walk but I could not get in. I walk to the door and it doesn't open automatically so I decide to ring the information bell at the door of the parking garage. A voice comes through the microphone and asks what my question is. I ask if I can go to the toilet and he asks if I have the right means of payment. I tell him I have in total more than 50 cents with me but divided in 10 and 20 cents. He says that unfortunately, this will not work because the system only works with exactly 50 cents. So my search continues.
On the map of the app I see that the Hoogvliet is still open but it looks closed. I googled to see if it was open. But on google I see that the hoogvliet indicates to have closed fifteen minutes ago.
When I walk on, I see two dixies that seem to be open from a distance, but I remember them from the last time when they were closed and there is a group of young men hanging around, so I continued without looking any further.
I walk on to the three restaurants that are also listed as open in the "Hoge nood" app, but all three are no longer open when I get there.
I walk on and see a dixi in an alley. I go and have a look and when I get closer I find myself in a pool of vomit that has been left behind. I drag my foot across the street to get them clean and walk on.
On the way home, I saw another dixi and tried it for the last time. This one is near the station and it was open. But when I look inside, there is a lot of rubbish and it certainly does not smell good.
The last stop is the hospital. This one is also open in the app. The previous times I did not try to pee here because I do not think it is a good place to ask during corona. But it's quiet and I try anyway. I walk through the door which opens after a man past presses the bell. I walk up to the security man to ask if I can pee there. He immediately says no and also says that I am not allowed to be there at all if I have no business being there. I quickly walk away and go home without having peed....

During this walk I have seen that it was way harder to find a good toilet in the evening. Also the "Hoge nood" app that is supposed to tell me where I can go is not accurate at all. I spend a lot of time going to places that were not open and if I needed to pee from the beginning this would have taken too long to find a good toilet. Also the two public toilets the municipality mentions in the news have too many barriers. First not showing that you can pee at that spot clearly from the outside. Second is the fact you need to ring a doorbell and ask. And third is the fact that you need to have exactly 50 cents.

> Walk_Thursday _18_january_ kidalarm_16:30_17:42 {

I know from stories that children know they have to pee late and when they do, you have a few minutes to find a toilet. Since I don't have any children around me, I had my boyfriend set random alarm clocks on my phone. When the alarms go off during my walk, I give myself 5 minutes to find a toilet. I also pay attention to whether I can find a baby changing table.
The walk I am taking is the Singelspark route. A walk that many people take with lots of greenery and playgrounds, but also criticised on the internet for the lack of toilets on the route.

ALARM.   The first alarm goes off and I try to find a toilet as quickly as possible. I walk near the police station and remember seeing it on the "Hoge nood" app. Last time, the Police station was closed and the road leading to it is currently under renovation. When I walk into the entrance, there is a woman behind the counter on the phone and two people standing and waiting. I look around me and don't see a toilet. However, there is a lift for people in wheelchairs, which can also take a buggy. I choose to wait and ask the woman behind the counter when she is finished with her call. This takes quite a while and I look around me again. I see toilet signs on two doors and walk inside. There is no table for changing children.

ALARM We go back to the route we were intended to take, the Singelsloop. The second alarm goes off when we are on the east side of the centre of Leiden. I know from the previous walk that this is a tricky place. And I don't manage to find a toilet within five minutes.
ALARM   I also didn't manage to find a

toilet for the third alarm.
ALARM The third alarm goes off when I am in the park next to the Hoogvliet. The store is open and I walk to the service point after the cash counters. Here I ask for the toilet and they give me a key. I walk between the people behind the cash desk to go to the toilet there. The light is broken so I turn on the flash of my phone and put it down so I have enough light. The toilet is also accessible for the disabled, it says on the door, but I don't read this on the app. But again no changing table for children.

ALARM The last alarm goes off near the library. From my previous walks, I know how to find it and also that it is open until late. There is no changing table for children here either, but it is a large toilet with many sinks.

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:// Time to Hack!

CHAPTER_FIVE

In this chapter I will describe four different hacks using the four tactics of camouflage, overload, spreading and intercept.
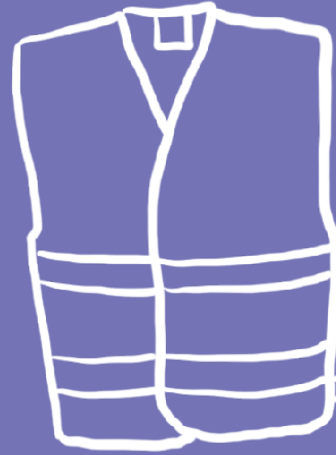
:// Hack 1
Camouflage

Camouflage is about hiding something by making something look like something else.

Camouflage is about hiding something by making something look like something else. In the digital world of hacking, this can take the shape of fake emails from your bank. Or rebuilding a website to make it look like the original one and steal your login details.

In an urban hack this can be dressing up as someone who is authorised to be in a certain place. During my evening walk I saw a lot of dixies in the city. In the daytime they are open but only for builders. They are not the cleanest places but sometimes you gotta go! I dressed up as a builder, faked some confidence and walked into different dixies. Sometimes it works, sometimes it doesn't. At one point they asked me what I was doing and after explaining they let me in either way. These hacks show the importance of the way we look to get to certain places. Dressing up as a construction worker gave the idea of being authorised to go to the toilet.
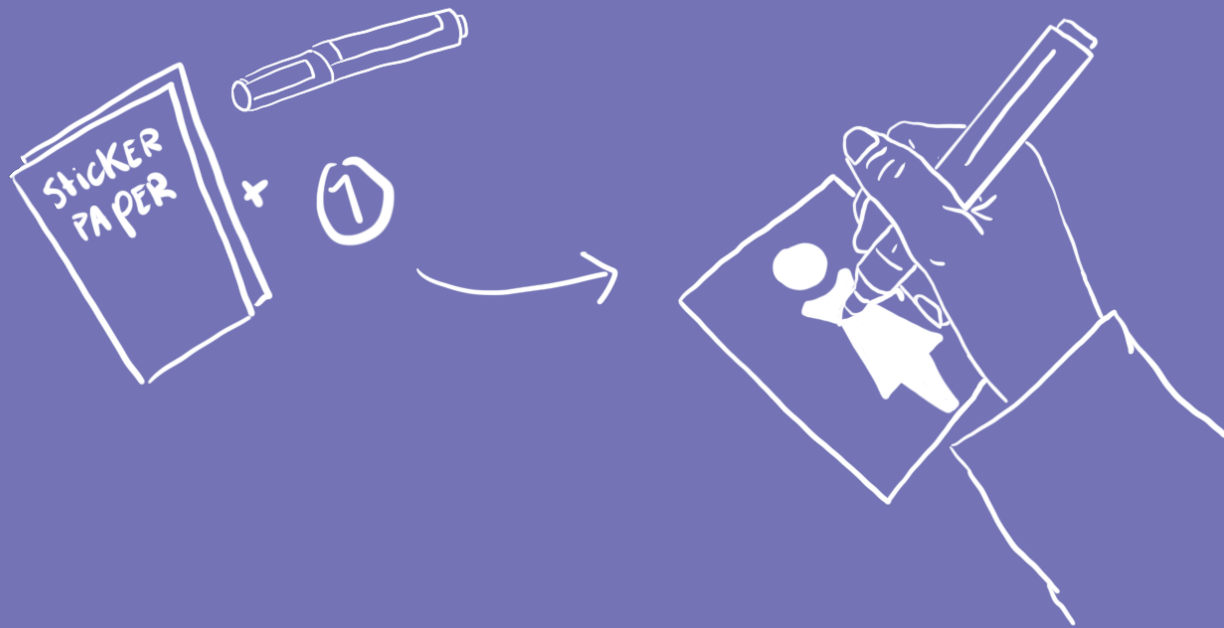
:// Hack 2
Overload

To overload is to load an excessive amount in or on something.

Overload To overload is to load an excessive amount in or on something. It can also be repeating something so it has an effect.

Clara Greed, A urbanist and feminist:" If you want to know the position of women in a particular society, look at the line formed in the toilets"

One of the problems mentioned was the long lines for women's toilets as opposed to the often short (or lack of) lines for men's. It takes women longer to go but there are often more men's toilets because urinals take up less space and nursing tables (often in men's) are more spacious. It takes women longer to get to the toilet but there are often more toilets for men because urinals take up less space and nursing tables (which are often in women's toilets) take up more space. I recognise this problem myself and it sometimes causes me to miss long parts of a concert or festival or to be late. With this hack, we make toilets gender neutral. Overload is to load an excessive amount in or on something. By doing this at many

toilets in the city, we divide the queues in front of the toilet and men can also reach the changing table. Overload is to load an excessive amount in or on something.
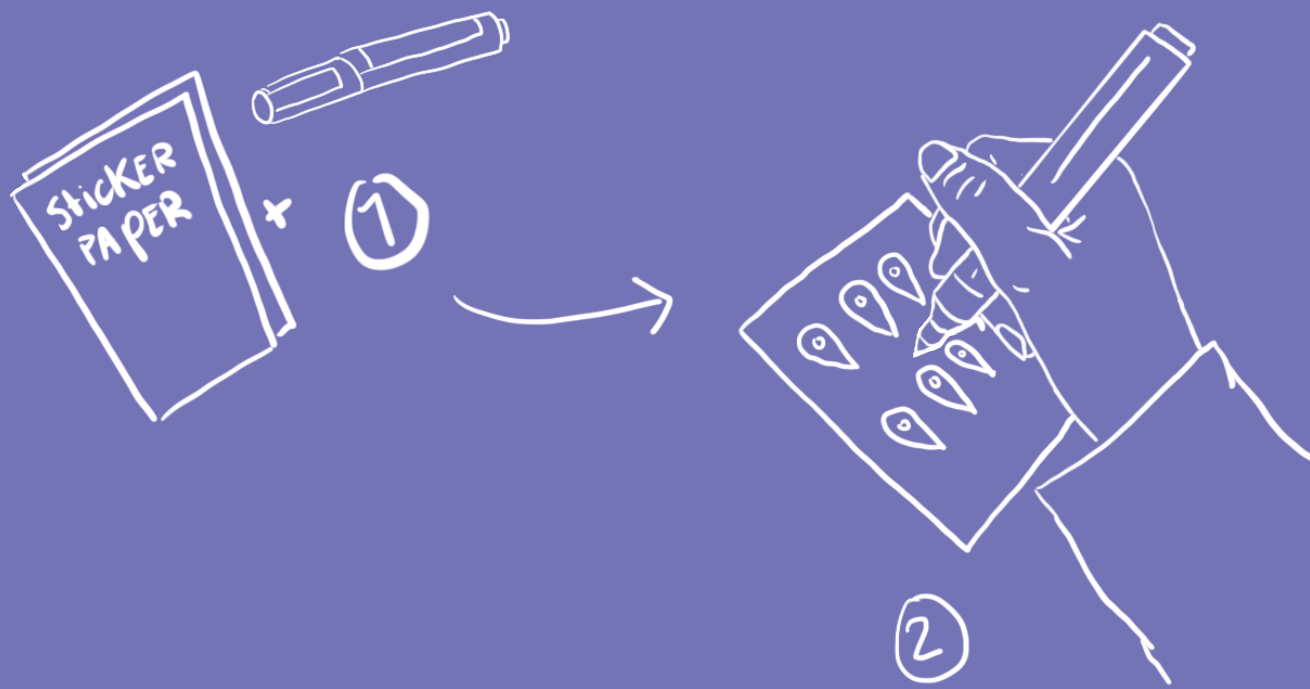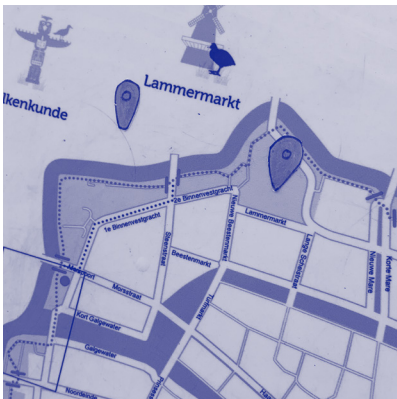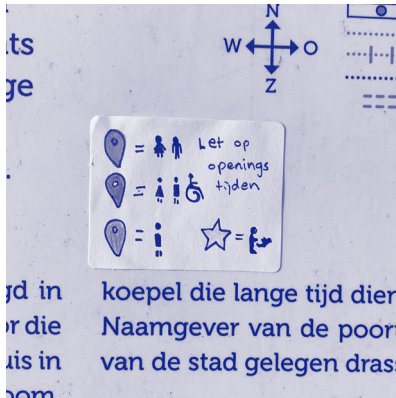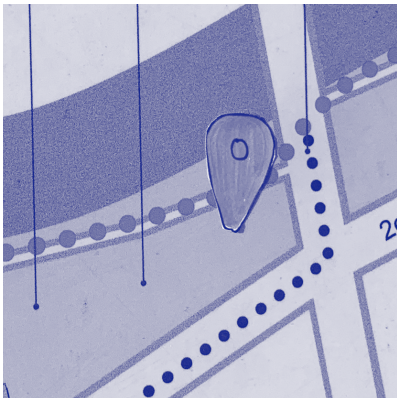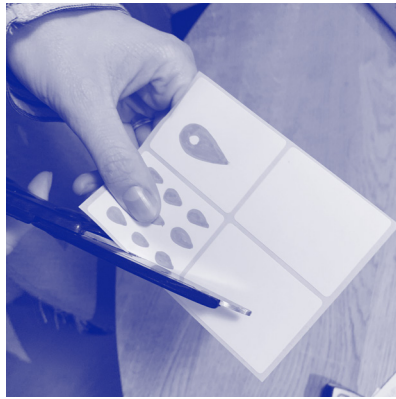
:// Hack 3
Spreading

To open or expand over a larger area spread out

③ Let people
know where public
toilets are
located on the existing
maps and signs
in the city
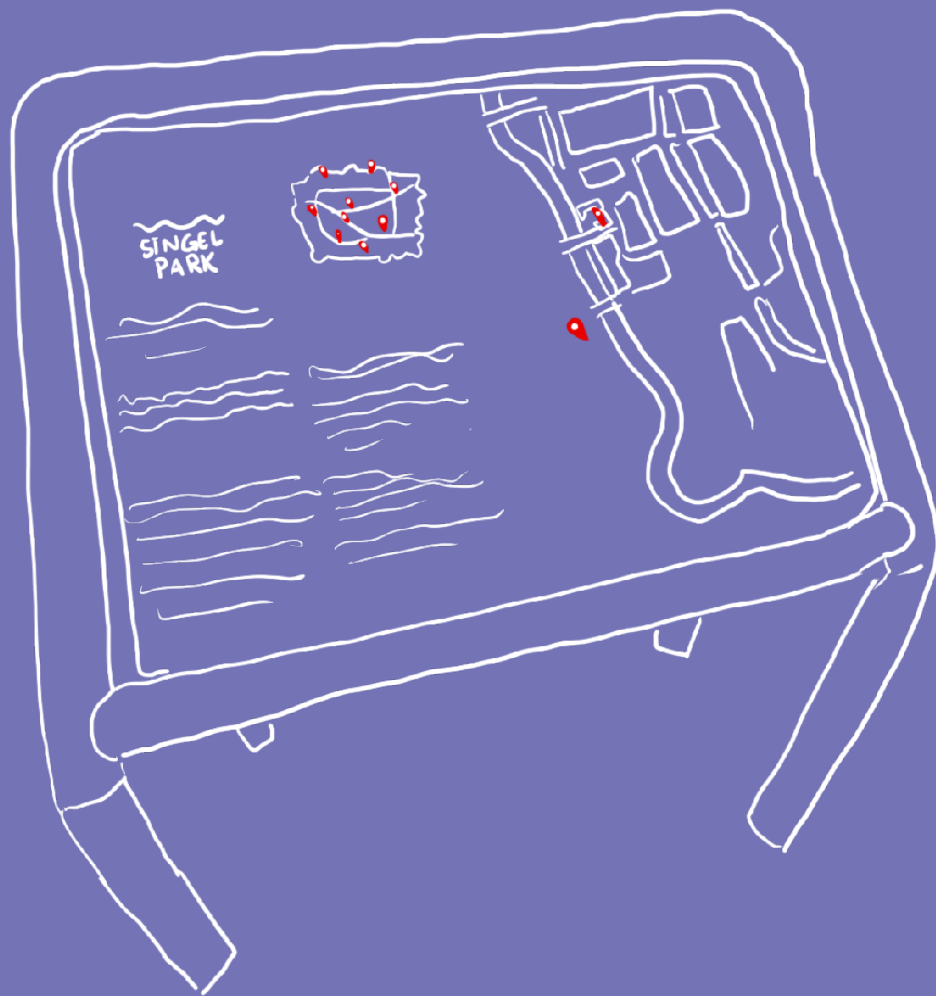
Spreading is to open or expand over a larger area.
One of the problems that recurred in the stories I read was the lack of information. We have information signs all over the city with walking routes, buildings to be found, car parks and squares. But it is hard to find toilets indicated anywhere. Pointing out the location of the public toilets on the maps and signs that are already in the city can help people that do not have the app on their phone. The app" Hoge nood" points out where public toilets can be found but not everybody knows about this or has a phone.
The hack uses the existing structure of the city, namely the signs of the Singelpark, to make it clear where to find toilets. It is an easy hack that can be reproduced by almost everybody.
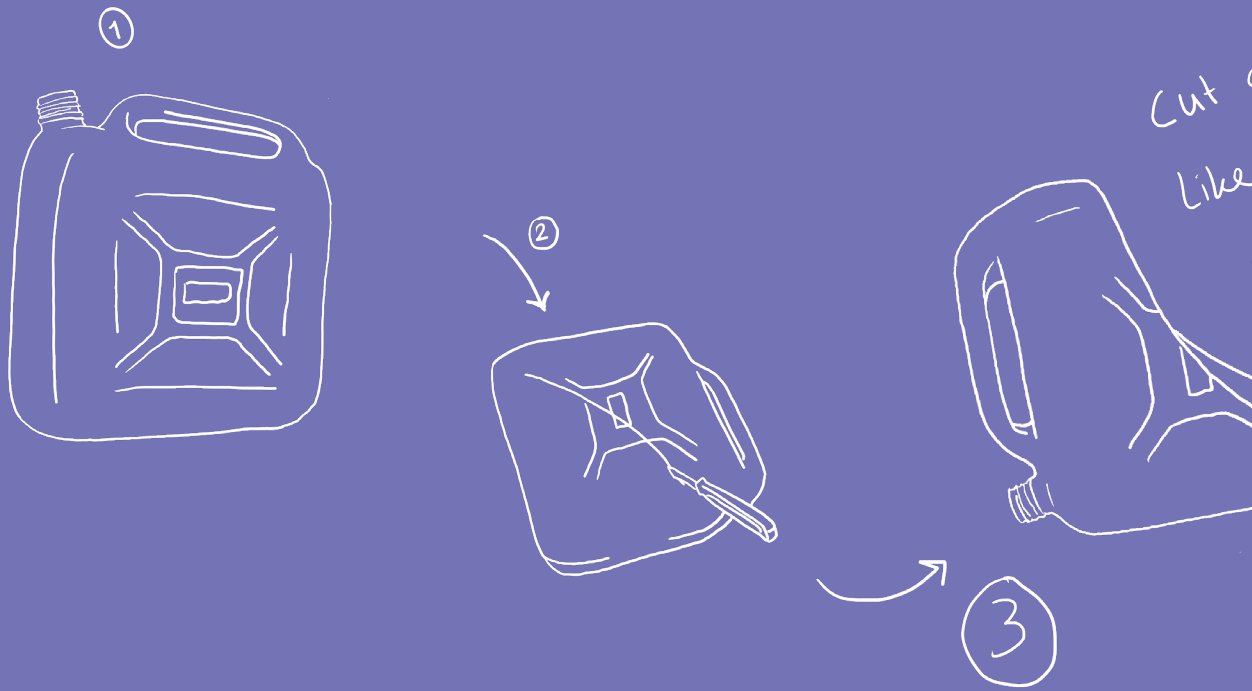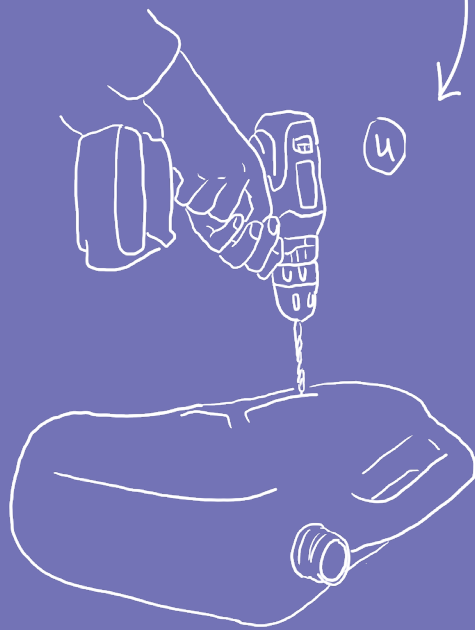
:// Hack 4
Intercept

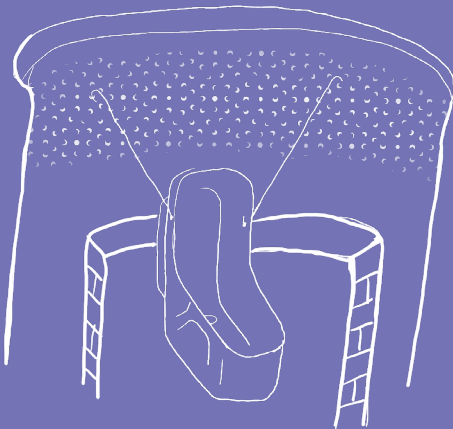Intercept, getting between an existing flow/system.

of
this

Drill holes
in the side

④

HACKING
THE
MALE URINOIR

hang it
using the
⑤ peepholes

get some
hooks
make from
metal wire
By Bending
the ends

I see intercepting as getting
in between a certain flow.
In this hack, this is expressed
as a woman "intercepting" a
piss-cross designed for men.
I have used a jerry can that
I found on the street to make
an extension to the urinal.
This hack allows a woman to
pee standing up in the existing
urinal. For me, squatting down
to pee in a male urinal is not
an option because you can't
see who is coming in and other
people on the street can see
you squatting because the walls
are not closed all the way
down.
When I try the urinal only in
the evening, I do not get a
comfortable and safe feeling.
I would be much more at ease
if someone were with me to
stand at the door. It is nice
that I don't have to undress
completely and that I am
visible.

:// Future feminist city

CHAPTER_FIVE

In this final chapter, I would like to discuss what writing this thesis has taught me, where there are opportunities for improvement and what I would like to continue with in the design stage.

Inclusive cities, cities for all...

What I have learned through writing my thesis is that cities are not as neutral as I always thought. Small decisions can have a big impact on large groups of people who don't fit the standard. And the toilet is just a small detail of a bigger picture.

My focus during this writing was on the city of Leiden, and as I wrote in the last chapter of part three, the city of Leiden is currently working on solutions for the lack of public toilets. These solutions still have a few problems, but the problem has not gone unnoticed. But I don't think my thesis needs to be seen as obsolete because of this. Firstly, I still read about the lack of good and accessible public toilets in other places in the Netherlands and secondly, there is still room for improvement in the Netherlands. But most importantly, my thesis is not only about the lack of public toilets in Leiden. It is about a bigger problem. Public space and the search for equality for everyone despite our gender.

During my thesis I also dived deeper into the subject of hacking. Hacking is a subject that is extremely interesting as a method and a concept. Starting from the definition of the hack by various persons. I see the opportunities of hacking as a way to think about urban issues in a creative, playful and innovative way. It questions an established set of workings by taking elements and creating something new with these elements. Hacking is a strategy to empower citizens to intervene in their own environment.

Translating Digital hacking methods to urban hacking tactics offers a new, playful way to approach issues in the urban realm and provides alternatives. I do not think that the four methods I have distilled from the hacking tactics studied are the only possible outcomes. Many hacks have overlapping strategies but I think there is a chance that other methods could be the outcome when looked at by someone else or when looking at other hacking tactics. But nevertheless it gave me tools and ideas to look at the problem of public toilets and to respond to it myself as an inhabitant of a city.

Looking at my public toilet hacks, I don't think of them as final solutions. We shouldn't have to wear a construction helmet and a fluorescent vest as standard to relieve ourselves. And I doubt hacking is a technique that offers a final solution to large-scale systemic failures like the lack of inclusive toilets. But the hacks show where problems can be found and all hacks highlight a different part of these problems.
Camouflage is about the access you get according to the way you dress. It shows that the way we look affects the accessibility we experience in public space. Overload is about gender inequality when it comes to the division that is made between the male and female toilets and questions if this division is still something we need in our contemporary cities. Spreading is about the lack of good communication in the city when it comes to public toilets. You can have enough public toilets but if no one knows where to find them this still causes problems. The last hack, intercept, was mainly about the availability of public toilets. There are many urinals in the Netherlands that are not made for male citizens and are not accessible for women. There is also no alternative next to them.
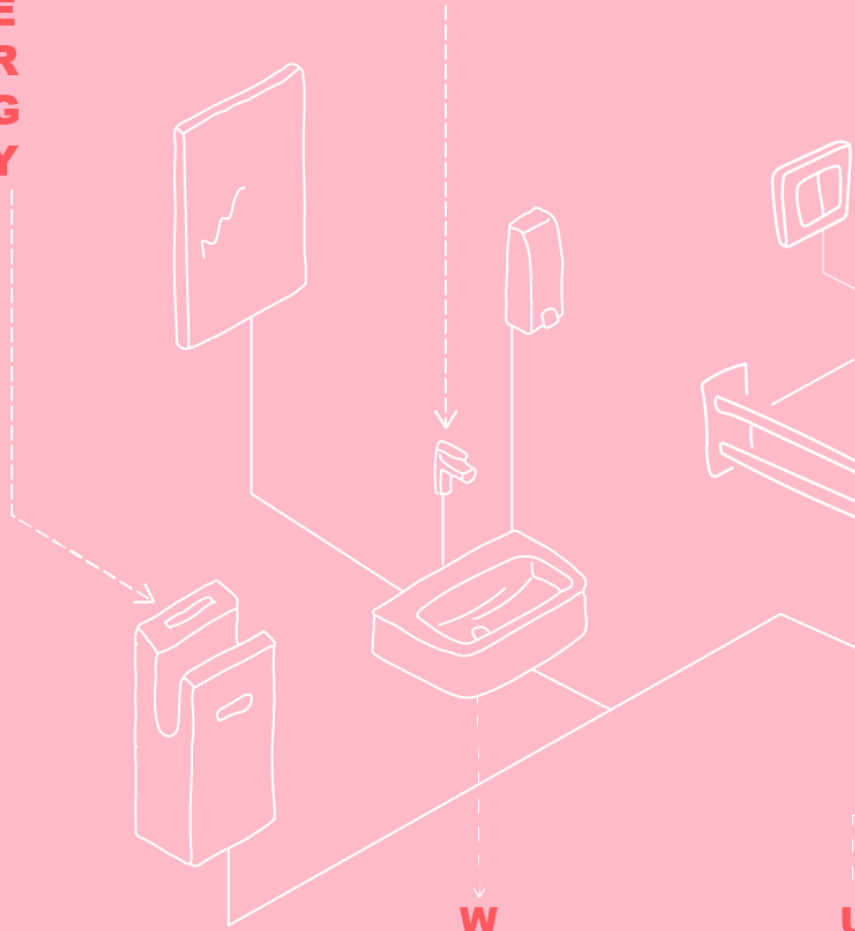
In the coming semester, I want to explore what a "feminine city" means to me and will incorporate the concept of hacking to make urban life more inclusive.
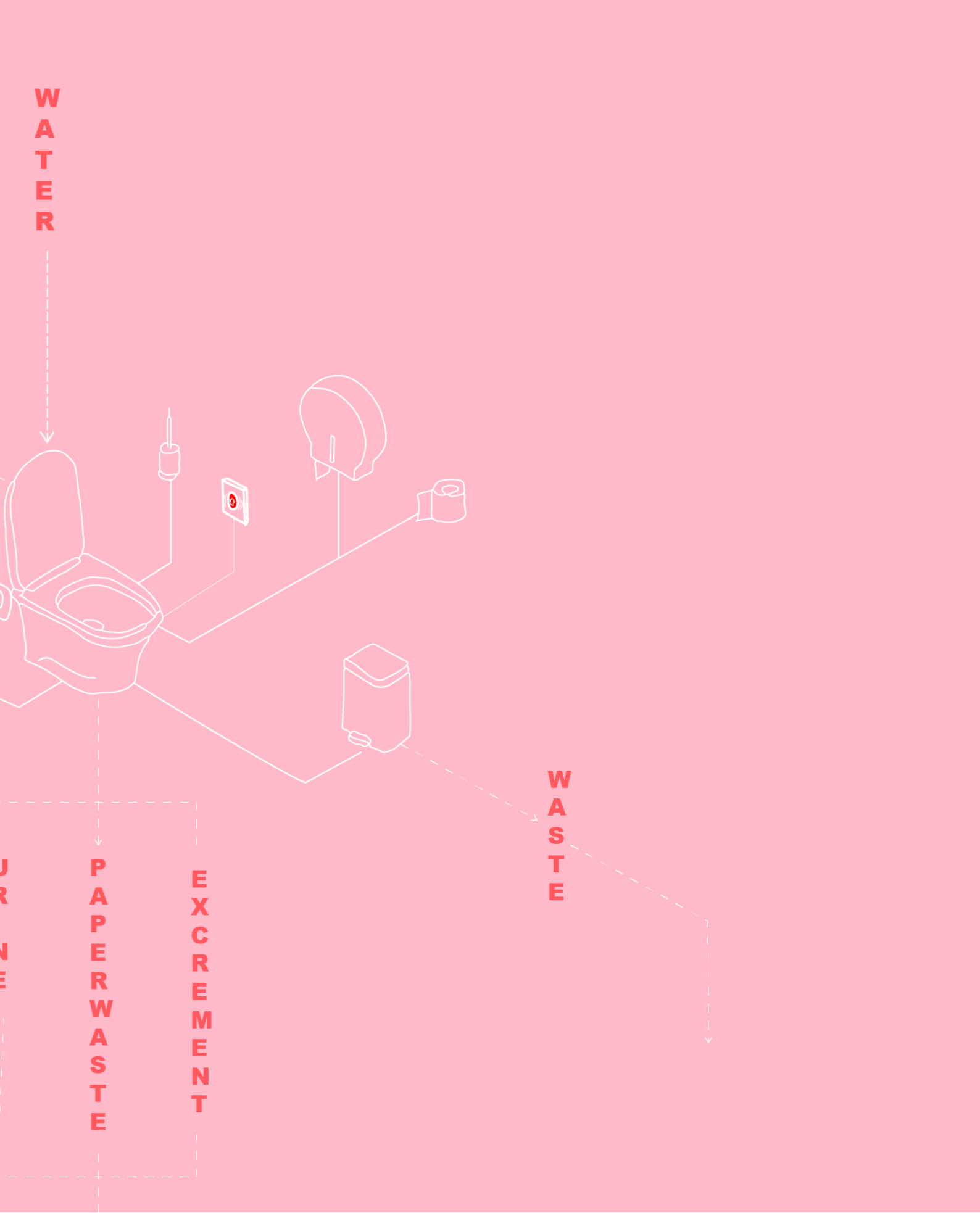
ENERGY

WATER

WASTEWATER

U
R
I
N
E

WATER

WASTE

PAPERWASTE

EXCREMENT

Endnotes

All images and illustrations used are my own
and no other sources have been used in this
part of my thesis.