XS

A low pace pavilion in high paced Nordstan

A master thesis in Healthcare Architecture
by Therese Svensson

Chalmers School of Architecture
Supervisor: Lin Tan
Examiner: Peter Fröst

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A master thesis project sponsored by Chalmers MasterCard and Nordstan
Master's programme in Architecture and Urban Design

Chalmers School of Architecture
Department of Building Design, Healthcare
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Supervisor: Lin Tan
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An illustration of the thesis intent.
The interaction between the city (in this thesis Nordstan), people and the environment (nature).

ABSTRACT

Today, more and more people are experiencing stress and it is becoming a public health issue. As many of us are living in cities, the urban context is the type of built environment that many of our bodies react and respond to. It should communicate the importance of lower the pace and center around human well-being. Our previous habitat; nature, has the ability to lower our bodies stress levels after only a few minutes. Using the natural environment as inspiration, we can find similarities and public spaces where our bodies has a chance to restore from the fast pace.

Nordstan in Gothenburg is the biggest shopping mall in Sweden, measured in revenue and visitors. By it's users it's often perceived as fast-paced and has a lack of free public seating. How can adding a pavilion to the public space of Nordstan be designed to lower the fast pace of public life?

As an investigation of such a public space a temporary pavilion is built in Nordstan, using the inspiration of sensory experiences found in nature. The pavilion also aims to not inflict on nature, by using waste material found at the site, Nordstan.

Pavilion design, experience and function is explored through an iterative model making process of studying the site and its users and exploring the calming atmosphere to find a design that focuses on human well-being and a building material that is a sustainable material together with a pavilion that is buildable.

The result is a pavilion that is built and hangs as an installation in Nordstan during one week, during which week is observed and evaluated. From the ideas generated from observing the usage, a second iteration of the pavilion designed, and discussed as design ideas to be used in public space. And of course, encourages to use the ability of the built as communication, inspiration and exploration.

TABLE OF CONTENT

Photograph of me at the pavilion when in Nordstan.

1. INTRODUCTION

This is a master thesis project in Architecture. It was written during the spring of 2019 in the Healthcare Architecture Studio.

The thesis investigates the pace of public life, and how to lower that pace in order for human beings to restore from all the impressions of a hectic city center. To do so, a pavilion is built using the inspiration of the sensory experience of nature, in a high paced public space of a shopping mall.

This first chapter is an introduction of me, the writer, and of the thesis with its purpose, aim and thesis question.

1.1. STUDENT INTRODUCTION

2013 - 2016 Bachelor in Architecture, Chalmers

2017 - 2019 Master's Program in Architecture and Urban Planning, Chalmers

Studios:
2017 - Residential Healthcare
2018 - Matter, Space, Structure 2
2018 - Sustainable Building Competition

As a becoming architect I've so far gotten the pleasure of compiling 13 school projects. So far it has been difficult to argue that one experience of the built environment would be healthier for more than an other. It often comes across as "soft values", or taste even.

But I still believe that architecture and the built environment has the ability to impact human life and give us valuable experiences in our everyday life. That our built environment isn't just a reflection of the society today, but a vision of what it could be tomorrow.

So, given the chance to the largest project I will do during my education to become an architect, I want to, once again, investigate human experience of architecture and the actual emotional response of it's users.

Hopefully inspiring to design with lots of heart and imagination, with the wishful thinking of what the world gives us, we give back.

1.2. THESIS INTRODUCTION

In urban planning towards a sustainable future, society will meet new obstructions as the cities becomes more dense, such as the need to intensify greenery in smaller areas in more places in the city. It will also become vital that society moves to an all together circular thinking where nothing is waste, but all things can be used again.

In this thesis, this is not treated as contradictions, but as an opportunity to investigate whether it's possible to find building materials in our existing map of waste materials. Materials that can also be a positive experience and add to our built environment, without taking from it.

Temporary architecture has been reckoned as an architectural tool to house public events and try new ideas, when we are facing a challenge of rethinking our cities it could provide a good test-base of what could be used in our urban environment regarding our public spaces.

In this thesis, a full scale temporary pavilion is built, with the goal of temporarily providing a small public space that has an impact on peoples well-being and that offers another activity, which is calmer and with a lower pace than shopping.

1.2.1. AIM

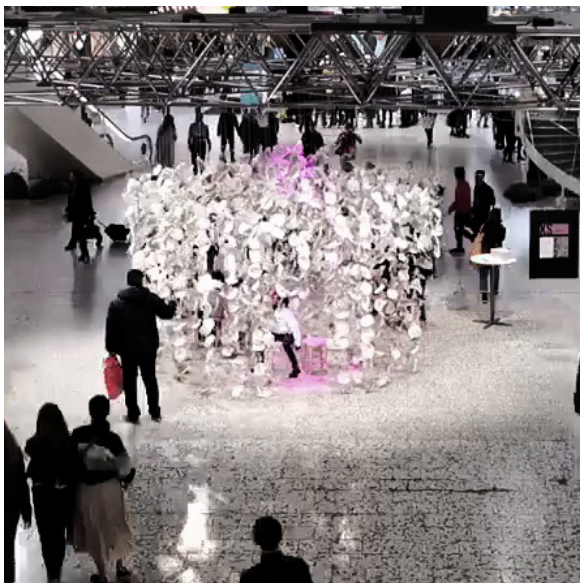
The aim of this thesis is to explore ideas of how the built environment can impact human well-being, and be tested in a public space, inspiring to a more general sustainable lifestyle.

1.2.2. PURPOSE

The purpose of this thesis is to explore possibilities of how to generate design ideas promoting human well-being through a built pavilion evaluating the pace of public life.

1.2.3. RESEARCH QUESTION

How can adding a pavilion to the public space of Nordstan be designed to lower the fast pace of public life?



Photographs from Nordstan, during the week when the pavilion was hanging there as installation, here from the balcony.

And from the opposite direction.

1.3. 1:1 PROJECT

The main part of this thesis project is the built of a 1:1 pavilion. The pavilion was displayed at the site Nordstan in central Gothenburg for one week as both the test of the structures impact on human well-being and an opportunity to inspire the users at site.

Building 1:1 has been a journey towards me becoming an architect that aspires to impact emotionally and my personal wish to directly correspond with the users of my design.

The pavilion is therefor to be seen as the thesis method as well as part of the result. The power of the small scale artistic project is the investigations of architectural qualities as well as discovering what opportunities there are in creating a temporary structure as a thesis project for building knowledge and architectural inspiration.

The concept of the pavilion is derived from the sensory experience of nature for a future continuant development of the human centered public spaces, with an emphasis on lowering the fast pace of the city center and focusing on a space for restoring.

"81 years old.
I love the forest and
to be by the ocean.
Lived 25 years in the
archipelago.

Pavilion made me...
Calm, happy,
enthusiastic.
Our surrounding
environment means
a lot to us human
beings!"

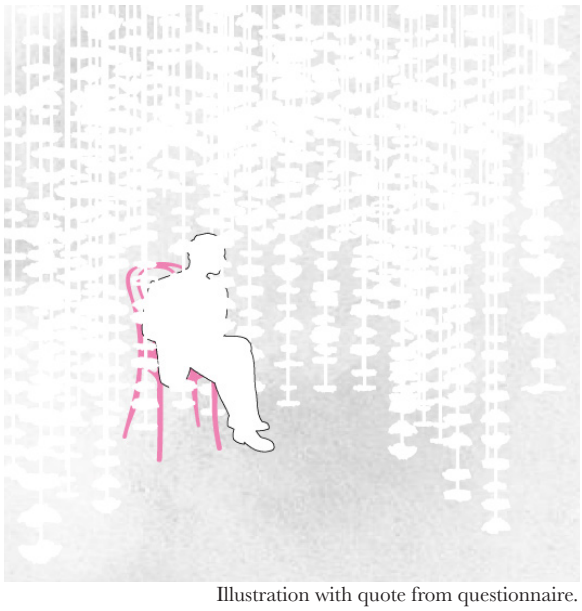


Illustration with quote from questionnaire.

Photograph of a man talking to another at the pavilion when in Nordstan.

2. RESEARCH DESIGN

This chapter explains why, what and how this thesis is conducted to answer the thesis question of *how can adding a pavilion to the public space of Nordstan be designed to lower the fast pace of public life?*

The leading direction has been to build knowledge through the design of a 1:1 pavilion at a public space that is experienced as fast paced. And then through observing the pavilion, find results in human behavior and experience of the pavilion.

XS

S

M

L

XL

2.1. WHY A PAVILION?

A “pavilion” can be the typology used to describe a smaller spatial structure in the larger. Such as gazebo in a garden or a temporary tent to house a party. But in Architecture it has also been the typology used to describe structures that tests innovations and experiences wished for the future, with an aim of inspiring to whats to come.

2.1.1. XS ARCHITECTURE - TEMPORARY ACTIONS LEADING TO CHANGE

In static architecture, architect Rem Koolhas defined the sizes of projects from S to XL. He said architecture in modern history generally had moved towards larger projects. To his order, an architectural office from Miami, USA added the smallest size; XS. They also call it “Tactical Urbanism” and use it to describe temporary actions done in the city, with the goal of building grounds of discussion (Lydon, 2012).

As an example they cut of traffic in a city-central street in their home town Miami, converting it to public space for one day. Doing so, temporarily offering a suggestion of what the space could be to the people of the city. And when people respond positively, the government has shown greater interest, than when presented verbally. Their trials has resulted in static architectural ideas that becomes reality, if not in the space first tested - somewhere else (Lydon, 2012).

2.1.2. THE TEMPORARY PAVILION OF THIS THESIS

The temporary pavilion in this thesis is referring to a temporary installation in a shopping mall in Gothenburg, Sweden. The pavilion has the objective of being a space of human well-being and aims to inspire people to take actions regarding their own living environment, including the city-central.

In conclusion: The XS Architecture.

(The name is of course also relating to shopping, which is the main activity of the chosen site).

HUMAN WELL-BEING

The sense of calm.
The slow pace and restorative space.

SUSTAINABLE MATERIAL

Waste material.

BUILDABILITY

The ability to build the structure
within the time frame.

2.2. WHAT A PAVILION?

The design of the pavilion in this thesis I will focus on three things. Everyone equally as important but with more investigative effort and research put into the focus of human well-being.

These focus areas where derived from the thesis purpose and aim, but also from the tree pillars of sustainability; Social, Ecological and Economical.

2.2.1. HUMAN WELL-BEING

In the central parts of the city there are so many impressions to handle as a human being. We need public spaces with restoration as their main purpose.

As this is a large question, delimitations has been through focus on pace of movement. Stating that the fast pace is stressful where as the pause is positive and restorative.

This thesis suggests how such a public space or addition to public space could be designed to lower a fast pace. Meaning how it attracts from the fast movement and how it distracts from it, and allowing mental space for restoration.

2.2.2. SUSTAINABLE MATERIAL

When working with a temporary, built structure, it becomes even more vital that the pavilion does not inflict on nature, since it has a temporary purpose.

The sustainable material of this thesis is waste material that can be gathered at site.

2.2.3. BUILDABILITY

Designing a pavilion that is going to be built within the time frame, and that can be produced in steps and easily shipped to the site for assembly.

DESIGN PHASE

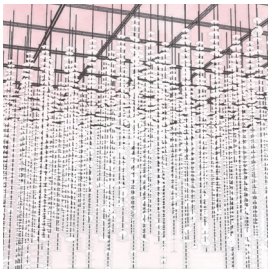
1. Understanding site and users.

2. Calming atmosphere.

3. Building material.

DESIGN IDEA

Investigations and theory combined into a design idea, with expected results of usage and effect on movement.



BUILDING

Iterated further to fit time frame and then built.

PAVILION AT NORDSTAN

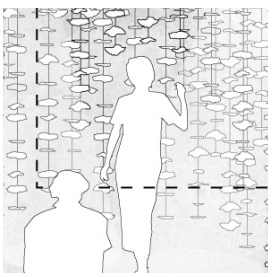
During one week the pavilion was hanging at Nordstan.

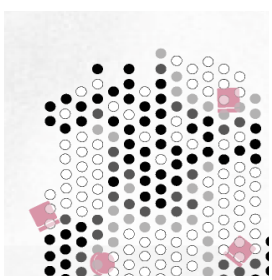
STUDIES

During that week, studies of movement and usage was conducted through observations and a questionnaire.

DESIGN IDEAS DERIVED

Results from studies are evaluated and discussed through the iteration of the design ideas and full pavilion.





2.3. HOW A PAVILION?

This thesis project have had a very strict and continuant relationship to time, to be able to produce a built pavilion. Here follows a simplification of the time line, with each time frame also presented in weeks.

2.3.1. DESIGN PHASE, 10 WEEKS

The pavilion design was developed through an iterative process of experimenting in physical models around the focus areas of Human well-being, Sustainable material and Buildability.

The design phase included time spent in Nordstan to understand the site and it's users. The theory and background began in Healthcare Architecture on human physical well-being and the response the built environment. As well as an intuitive model making on the calming atmosphere to build knowledge. To find the building material, waste material was tested together with the visual reference of nature and it's patterns.

2.3.2. BUILDING, 4 WEEKS

The design found was further developed to be built through calculations of time and the number of people expected to participate in building. Also adapting structure to hold the requirements of a public space regarding safety and fire.

The pavilion was transported to Nordstan and assembled there.

2.3.3. STUDYING THE PAVILION AT NORDSTAN, 1 WEEK

The pavilion was hanging as an installation at Nordstan April 29th to May 5th 2019. During this time studies of movement in public life was conducted from a vary of viewing points.

In proximity to the pavilion there was a questionnaire and pens available, for the visitors to leave in a shoe box. A total of 108 responses was collected.

2.3.4. DESIGN IDEAS DERIVED, 2 WEEKS

From the observations and results of the questionnaires, patterns of human behavior and the users emotional response is discussed through the development of four main design ideas, that has shown a positive response on a lowered pace. As well as in the site context with spatial relationships to general movement through an iterated version of the pavilion.

Photograph from time lapse of walking through Nordstan. Here close to Brunnsparken.

3. SITE - NORDSTAN

Nordstan is a shopping mall in central Gothenburg. Meassured in revenue and visitors it is the largest shopping mall in Sweden with almost 100 000 visistors passing every day (nordstan.se, 2019). It is located in the middle of the city central and close to all large traffic nodes in Gothenburg..

Due to its large size and central location, this is a site that most people living in Gothenburg is familiar with.

The thesis aim is to explore what atmospheres and qualities can lower a fast pace, and therefore Nordstan is chosen as site, being experienced as the opposite. Hoping to evoke as much response and attraction as possible to benefit testing the human experience of well-being.

This chapter evaluates the site, Nordstan and the specific site in Nordstan, the expo area. Site studies where focused on evaluations of the public space, and general movement.

Map of Gothenburg.

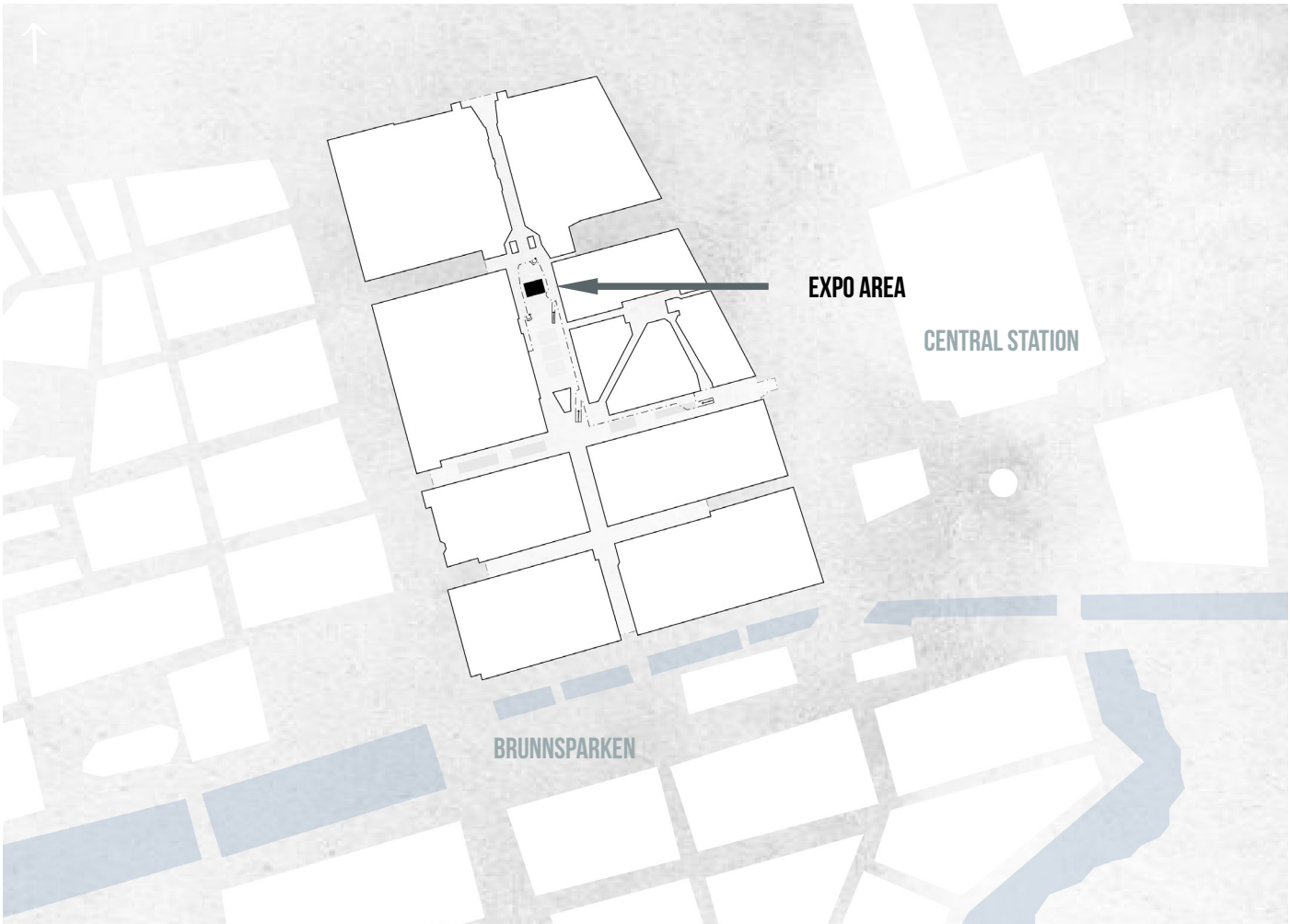


Figure ground of Nordstan, showing the exact site (No scale).

3.1. SITE IN CONTEXT

Nordstan is eight city blocks with a linear street pattern. During the 60's it was reinvented and rebuilt, where the blocks were linked with a roof (nordstan.se, 2019). As such it borders between a shopping mall and a public space, where a large part of the mall has a lot more open hours than the stores do. Which means a lot of people also use it as a passage or place to socialize which unfortunately had lead to issues with criminal activities (Göteborgs stad 2018).

3.1.1. MY EMOTIONS IN NORDSTAN

Nordstan is a part of the city that all inhabitants of Gothenburg pass, use and where many work. In spite of that Nordstan is generally not appreciated as the central meeting spot and public space it has the prerequisites to be.

I feel rushed and stressed when visiting, instead of appreciating the public life and very diverse clientele. The pace is fast and there are signs on the floor showing which direction to walk to avoid collision with the stream of people coming from the opposite direction.

From conversations at Nordstans Marknadsavdelning I've sensed that they feel stuck between the public perception of being a shopping mall, and a public street. Which seems to be the obstruction in discussing public seating, which there today is a general lack of in Nordstan.

3.1.2. NORDSTANS FUTURE DEVELOPMENT

Nordstan will be a part of "Västlänken", which is a continuance of the train tracks, where a station will be built in the northern part of the shopping mall. In this near development they are currently in discussions of what type of ambiance and feeling they wish to pursue in the shopping mall as a whole.

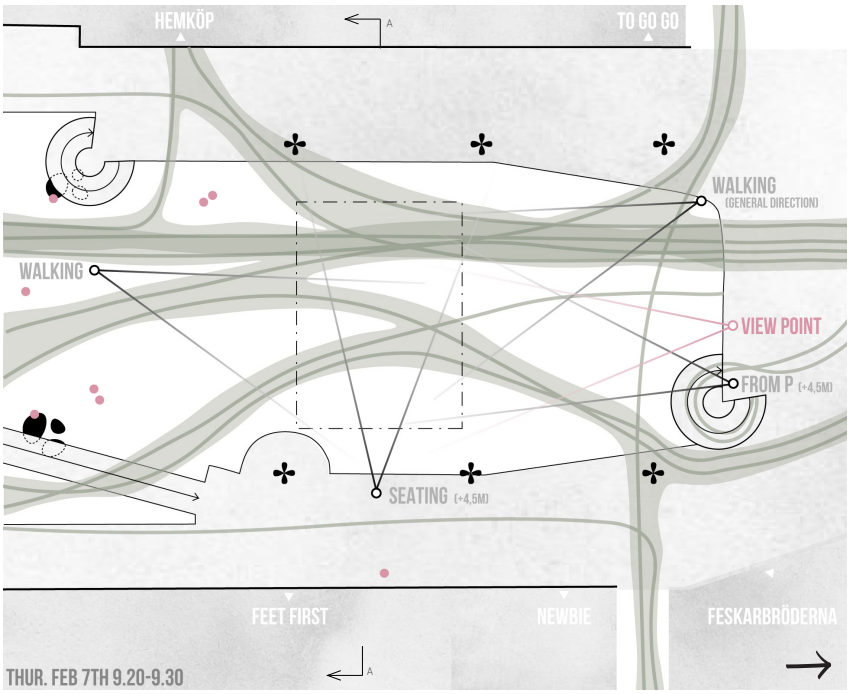
Even though it is very central in it's location, the shopping mall is mainly used for shopping. As our society together aims towards a sustainable future, Nordstan with it's central location and large number of visitors has the opportunity to introduce and communicate more than shopping. It could be treated as a public space also for recreation, and a promotion of human and environmental well-being.

(This thesis does however not treat these questions of what specifically Nordstan could be).

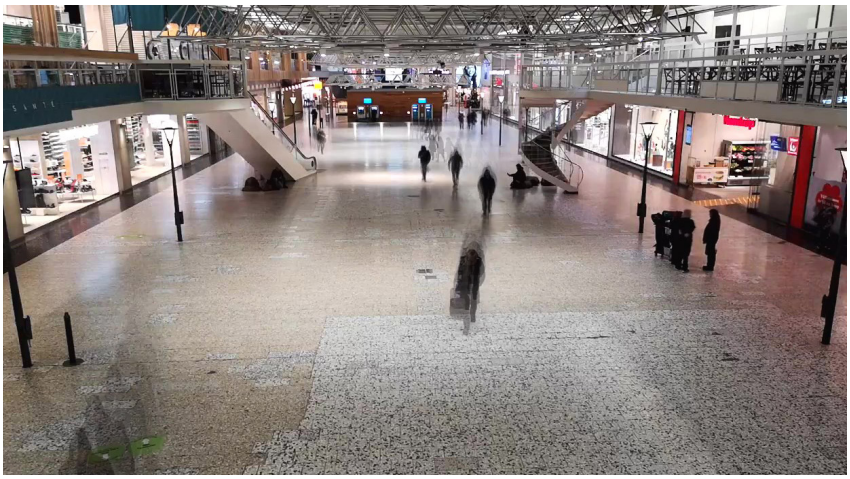
3.1.3. THE EXPOAREA

In Nordstan there is a larger area that they use for pop-up activities called "Nordstadstorget". Here the sentiment is that you, as a visitor, isn't necessarily supposed to know what event is currently taking place. The exact expo area/site was chosen together with Lena at Nordstans Marknadsavdelning, due to it's smaller spatial quality when compared to the larger areas, south of this site.

Important to Nordstan when designing a temporary pavilion, was that there would be no hidden or completely secluded spaces, as they feared it would be used inappropriately.



An illustration in plan of the site in Nordstan, showing the public life in movement.



A photograph from a time lapse from the balcony (view point).

When the studies of movement at site was conducted, the number of people alone, and the number of people accompanied was counted, around the same time of day (before lunch, a working day).

3.2. SITE STUDIES

In analyzing this site, the focus was to evaluate the user of Nordstan and peoples movement and pace. These studies of public life was conducted in the beginning of the project.

Time studies of people moving in order to find patterns in the common and typical movement and counting the number of users there alone to maybe see who are simply passing the space rather than shopping or recreating (Gehl, 2013).

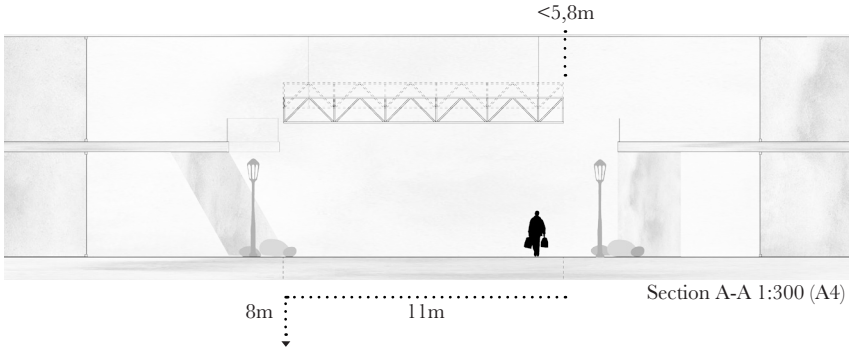
Through asking a couple of visitors at Nordstan about what they felt is lacking, or what would have been appreciated in an addition, they all answered more seating.

3.2.1. STUDIES OF PUBLIC LIFE

This study was conducted when all the expo areas where free from temporary activities. Evident when observing from the balcony with view point marked in the illustration, is that the movement has a clear north-south/south-north direction. What wasn't as evident from studying the plan was that many crossed in the middle of this expo area, changing side before entering the larger open area.

When lingering, most people tent to stop near a spatial border. Ex. near the walls, away from entry points or the light posts. The stones, there to protect people from walking into the stairway and escalator are used as seating as there is no other place to sit near the site.

3.2.2. SITE PREREQUISITES



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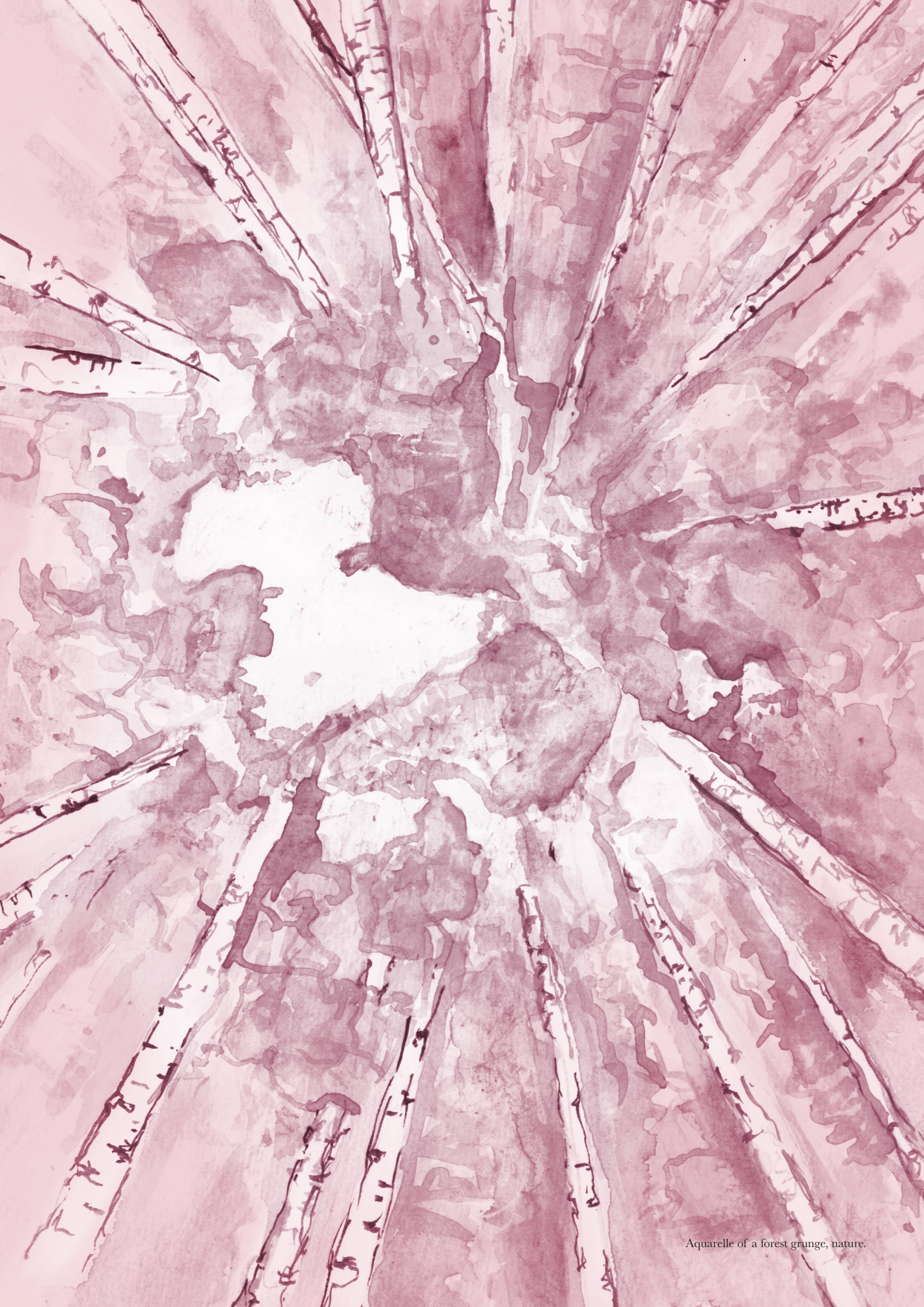
The site used in this thesis is an "expo area", meaning an area that is meant for "exposure" of different things. It is 11 meters wide and 8 meters deep. The installation roof can be set to any height up to the maximum of 5,8 meters.

The roof has spotlight rails offset about one meter from the roof border and can handle a weight of 8kg/sqm as it is only attached in the actual roof at 4 points.

The light posts, escalator and stairway together with the balcony creates a smaller spatial feeling than would be without, but the space still feels very large (see the photograph to the left).



Aquarelle of a forest grunge, nature.

4. HUMAN WELL-BEING

Our city centers are often represented as moving fast and forward, a sign of success and a vibrant city life that doesn't sleep. But more and more people are experiencing issues due to stress and it is becoming a problem and source of unhappiness.

Our human bodies, with its senses and physical responses, is the communication between the environment around us and our minds. As many of us are living in cities, the urban context is the type of built environment that many of our bodies react and respond to. Instead of telling us to move fast it should communicate the importance of things that actually have the means to make us happy and raise general human well-being.

This chapter gives the research background to the thesis project, intuitive model making on the calming atmosphere, with the conclusion of referencing nature.

“Healthcare Architecture
is the first field of Architecture
that uses the knowledge of
good and healthy reactions
towards
the built environment.”

- Sarah Williams Goldhagen
(Williams Goldhagen, 2017)

4.1. HUMAN PERCEPTION

About 90% of what we as human perceive is non-conscious. Our silent interpretation of our world is dependent on our human embodiment and how our bodies physiologically respond to what is around us. Not as much from our heritage or personal memories as that is part of only 10% of our conscious response (Williams Goldhagen, 2017). This means that human response to the environment around us very alike amongst all of us, and not as dependent on who we are. Which also makes it possible to focus a design towards specific wished emotional outcome such as a sense of calm.

As we are very physically effected by our environment it is important to recognize that we our surroundings also have to be healthy, much like the food we put into our bodies for a long and prosperous life.

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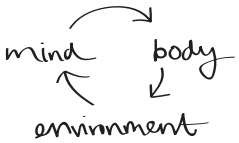
To: 

Thus moving towards a reality where the environment is as much encounted as our bodies is important in building our environment. (Illustration based on Sarah Williams Goldhagen, 2017).

4.1.1. POSITIVE DISTRACTION

Distraction theory, used in medicine, is the idea of that all things surrounding us can distract from a pain, both physically and psychologically. When our cognitive presence moves from our body to the environment around it, we are distracted from what is aching (Ulrich, 2012). An example of where this could be seen is at the dentists office where they often put an intricate and detailed drawing in the ceiling, for you to focus on when being examined.

Nature has proven to be a well-working distraction from pain. Roger Ulrich, a professor in Healthcare Architecture, did a study on people recovering from surgery. They got to either stay in a room with a window looking out on a brick wall, or in one looking out on nature, finding that those who stayed in the room with a view of nature recovered much faster (Ulrich, 2012).

The way the environment looks to our eyes is a very small part of how we perceive it. We perceive our environment with all senses, and the tactile sense is a large part of our experience of a space. To perceive the tactility we don't have to touch the surface, the surface looking tactile will also stimulate the tactile sensory experience (Williams Goldhagen, 2017).

If viewing nature through a window can relieve from pain (Ulrich, 2002), it might be through our bodies imagining how nature feels. A quick sudden feel of being reminded of the outside, much like the tactile sense being stimulated just by knowing a surface is tactile, and imagining how that feels (Williams Goldhagen, 2017).

As an architect, this is inspiring. If the non-conscious parts of our brains, can be calmed by the distraction of our imagination, design of healing environments might be to design with space for imagination. Designing space and qualities speaking to the unconscious. Catching attention from the fast pace, and distracting from stress through its design.

Photograph of a tree.

Closer photograph of the same tree.

4.2. REFERENCING NATURE

Since the human being has lived in nature, and evolved there, our human bodies have a biological connection to nature. This also includes spatial experiences resembling those found in nature, such as feeling safe in a cave, or having a good overview (Browning, 2014).

Today around 70% of the world population lives in an urban environment. Cities are only about 250 years old (Browning, 2014) and the urban context is not yet part of our physical evolution, so of course the non-conscious part of our minds might still feel confused and not yet adapted to this new setting (Williams Goldhagen, 2017).

An important aspect in human well-being is to not only keep nature in our cities, but to also explore in what else ways we can use nature as inspiration in building design. Such as referencing nature visually, in spatial qualities similar to those found in nature or through mimicking movements found in nature (Browning, 2014).

4.2.1. "UNITY IN VARIETY"

Human brains are developed to handle a lot of information quickly at all times. To not be overwhelmed we seek patterns and file the impressions by filing them together. Which also means that those things breaking the pattern attracts our attention (Williams Goldhagen, 2017).When too many things are breaking the pattern it catches our attention. The pattern breaking is known to marketers and in a shopping center the stores are fighting for our attention. The human body will need to restore from the large intake of information.

"Unity in Variety" is a principle used to describe beauty in art, of a variety in objects that produces a unity in the perception of it. A way of gathering impressions yet offering variation in manner that doesn't bore our impressionable minds (Baharudin et al, 2017). A valid design tool when designing for human well-being. A guidance of our minds to be able to handle the impressions. Too little impressions wouldn't distract our developed senses and leave to much space for what is aching (Williams Goldhagen, 2017).

Much like done by nature. Such as the bark of the tree, the foliage, one single leaf they all offer more information as you come closer.

This thesis, will use the inspiration of nature. Focusing on the qualities of the sensory experience of nature, hopefully the users unconsciously being reminded of nature, with the result of a calm sensory experience.

Photograph of the building material of the pavilion, waste tissue paper from the shoe store Feet First at Nordstan.

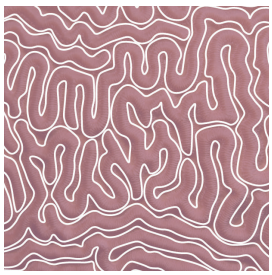
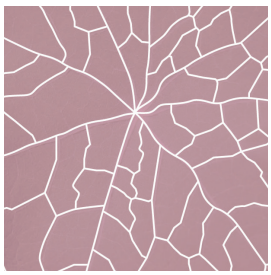
5. BUILDING MATERIAL

This chapter explains the design process. From the search of a building material that is a reminder of nature reinvented from a waste material.

The building material used is waste tissue paper from a shoe store at Nordstan, that forms the building material together with wall paper adhesive.

It also discusses atmospheric qualities of a calming pavilion, with knowledge build by explorations in physical model, together with the modeling and testing of waste materials.

And finally the ability to remind of nature through programming space as the nature experience.

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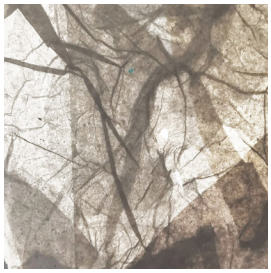
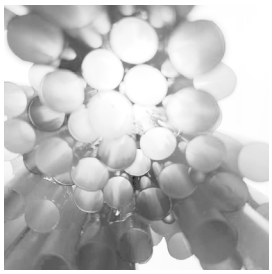
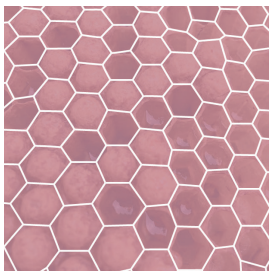




STRUCTURED

Waste material:

1. Soft plastic from clothing stores.
2. Tissue paper fro shoe stores.
3. Paper tubes from textile store

5.1. EXPLORING WASTE MATERIAL

To find a waste material both appropriate for building with, but that also with the qualities of being perceived as *natural*, reminding of nature, a series of studies where conducted. Here presented as a compilation of the most important findings.

5.1.1. WHAT BUILDING PATTERNS ARE REMINDING OF NATURE?

First the visual reminder of nature was studied by exploring the human association to patterns. A varying display of 20 pictures from nature was selected and traced, picked purely on intuition of what nature. By using the picture in the background with a pink overlay the color analogue of nature is reduced and the pattern isolated.

A vary of students were asked to arrange the pictures from natural to not-natural and when doing so, we had an open discussion around the patterns selected.

Findings from these studies was that the visual analogue of nature was described as a **structured** pattern that could continue, and has the ability to continue indefinitely, such as the bee hive pattern. Natural was also described as having **irregularities** rather than the exact replicas of pattern, such as the leaf.

These findings seems similar to the principle of "Unity in Variaty" (see p.33), and therefor selected as an important design tool for human well-being and a restorative space.

5.1.2. FINDING WASTE MATERIAL TO BUILD WITH

To find building materials that could be used and form a buildable pavilion, I searched by asking in stores what their waste was, and if they recycled it. To the left displaying soft plastic(1) that is a waste product from clothing stores, tissue paper (2) from shoe stores and paper tubes (3) from a textile store. The plastic being the only material properly recycled.

To test both the buildability but also how the material can be a sensory experience referencing nature, this was also tested in model. The paper has the clear advantage of being a natural material derived from wood, whereas plastic has the disadvantage of a very unnatural surface.

5.1.3. MATERIAL TESTS REMINDING OF NATURE

To explore new ideas and search within the imagination of what resembles nature and what would be possible to build with, the primary tool was to build models and 1:1 tests of the actual material. Doing so, finding strategies of how to repurpose the waste material.

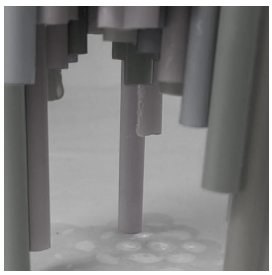
The building material chosen is the tissue paper from the shoe stores, having a natural irregularity when assembled through papier maché (p.41), and a structure reminding of a leaf.

CALMING ATMOSPHERE

1. Adapting body to space.

2. Seclusion.

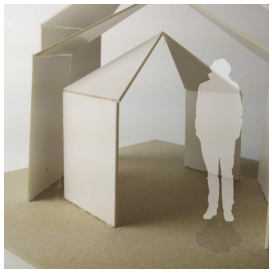
3. Moving lights & roof focus.

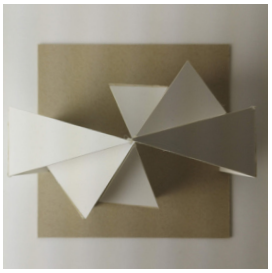


+ A BUILDABLE PAVILION

4a. Adapting body to space.

4b. Crumbling moving path.





+ WASTE MATERIAL

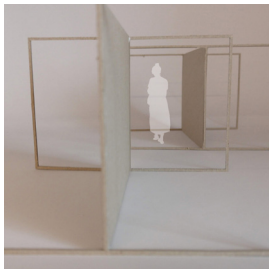
5a. Irregularities in pattern and shape, but still structured.

5b. “What is it?”.

+ CLAIMING MOST SPACE

6. Separating roof and floor, still spatial.

7. Sensing depth.



= PAPER GARLANDS

8. Walking through, structure adapting to body.

5.2. RESTORATIVE ATMOSPHERES

Imagery of early process, intuitive model making with the first thoughts of a calming atmosphere. Step wise adding obstructions of more realistic model making regarding the three focus areas: Human Well-Being, Sustainable Material and Buildability.

5.2.1. EARLY PROCESS FINDINGS OF A CALM ATMOSPHERE

The first intuitive ideas of a calming atmosphere that would lower the pace of public life was the general idea of a space that positively distracted (p.29) from thoughts, and thereby stress. The first model shows a pavilion that would be a secluded space where the visitor would have to bend to get inside, then arise like in a bubble.

In model 2, designing a smaller space inside the larger space of Nordstan. Secluding visually from the fast pace of the people walking by and creating a visual distance would be calming.

Model 3 is larger paper tubes with strong lights hitting from above. As you walk beneath them the long tubes gives the perception of the lights moving with you. And your focus would be above instead of your stress.

5.2.2. DESIGNING A BUILDABLE PAVILION

Being able to build the pavilion and later assemble at site, was important in investigating what design would work. In model 4, separate "screens" that would be able to "pack flat" and then be assembled at site.

Atmosphere finding of having to duck to get under, and not being able to walk straight thorough, and adapting your body to the pavilion.

5.2.3. CALMING ATMOSPHERE IN WASTE MATERIAL

A first test of the material "papier maché" (p.41), being somewhat translucent in itself. A framework that is irregular yet structured.

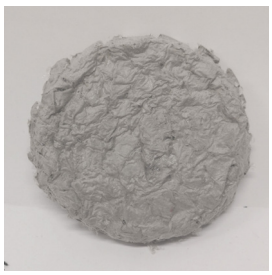
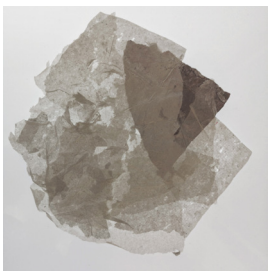
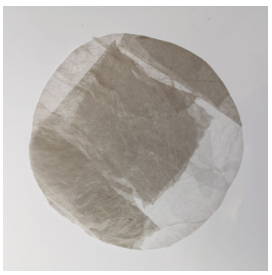
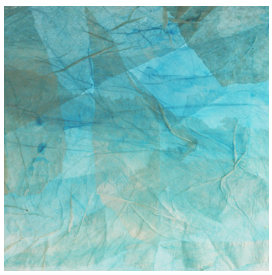
5.2.4. CLAIMING MOST SPACE THROUGH USING THE ROOF

In model 6 using the adjustable installation roof (p.27) to create the seclusion, and a "spatial bubble". Being able to make a larger effect than designing a structure that would be able to stand on its own. And thus attract more to the pavilion.

5.2.5. PAPER GARLANDS

Model 8 is the final sketch model. It is paper garlands, that was developed together with the material investigations of waste materials. Hanging from the roof, being secluding yet transparent, move with your body, though your body adapting when moving them to fit.

An atmosphere envisioned was the sense of walking through a forest, making the garlands the spatial division from the larger space of the site Nordstan.


Papier maché opportunities tested.


Papiér maché process.






5.3. PAPIER MACHÉ

Through iterating and experimenting together with restorative atmospheres, the final design idea is to make paper garlands out of the tissue paper from the shoe store.

The strategy of papier maché is using old paper and use wallpaper adhesive to attach it to itself or other objects.

5.3.1. MAKING CLAY

A very solid and almost "ceramic-like" material can be made of paper by making a clay. To do so, the tissue paper is first ripped in smaller pieces and than soaked in water until it tears very easily. Then the paper mass is drained from as much water as possible and mixed with wall-paper adhesive. To speed the process of drying, which is otherwise quite long, the piece can be put into the oven at a low temperature. (This material was not selected due to the short amount of time it could dry out properly).

5.3.2. MAKING PAPER

The tissue paper can also be stroked with wall paper adhesive using a soft, wet sponge. After a few layers using different styles of paper, i becomes a vary of irregular patterns, extra visible together with back light.

As the tissue paper in it self often is relatively transparent, it is possible to add to the wall paper adhesive. Tests conducted such as scented with aromatic oils, vanilla extract and carnations; coloring and adding other types of paper, here printed with a text message, further adding to the pattern complexity.

The circles could also be shaped or cut into circles.

To the wallpaper adhesive, a flame protector is also added in order to fulfill the requirements of a public space. Of the final mixture, 20% was a flame protector called "Vattenglas" which is sodium silicate. Decided by testing different fractions and trying to light it fire.

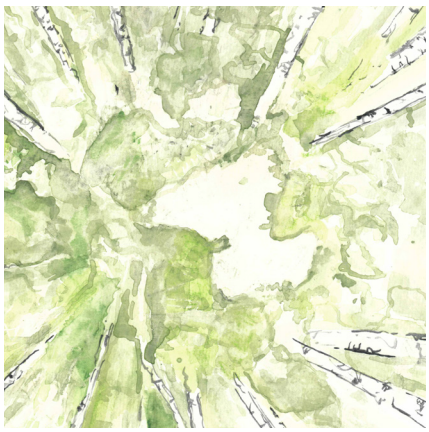
5.3.3. GARLANDS

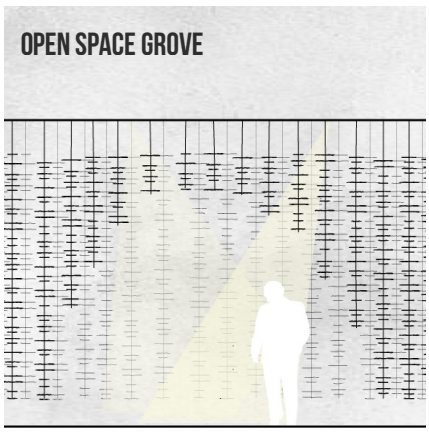
The garlands are made from papier maché circles and a plastic string, which has a lot of body and makes the knots large enough to easily hold the paper (to see instructions of production, see p.48). Qualities in relation to the focuses of the pavilion:

Human well-being
Paper garlands from papier maché can lower the pace of movement in Nordstan through being a reminder of nature. Every paper has different transparencies. It can be irregular yet structured, and a natural slow movement.

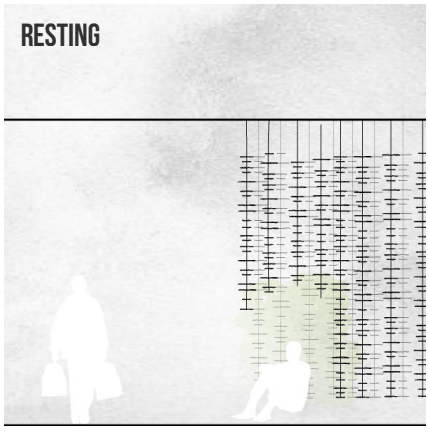
Sustainable material
It is made from a waste product from selling shoes that is currently not recycled.

Buildability
Very easy to make.




OPEN SPACE GROVE


MYSTERY PATH


RESTING

5.4. PROGRAM FROM NATURE

The found building material, papier mache garlands, has a profound positive quality in the spatial freedom. It is very flexible, and offers a design that is not fully controllable, much like nature. Here with length of the garland as the main control of programming space.

As given by theory; nature is the focus of reminder, and as such the pavilion program is derived from nature.

5.4.1. OPEN SPACE GROVE

The more open space in the forest reached by the denser paths. The forest opens up and focus moves to the sky.

Created by shorter garlands hanging above, and a source of light in the center of the open space, with walls covering all around with the exception of entries.

5.4.2. MYSTERY PATH

The stomped up roads where people have walked before you, chosen where the trees are less dense.

Created by an entry, a path of open space, maybe having to move some garlands to fully fit the body. A path in relation to the main paths at site, crumbling that path yet attracting from it.

5.4.3. RESTING

Seating in the forest, along side the path with the back covered by denser forest.

Created by embossed caves along side the main paths of Nordstan, with the back towards the pavilion, viewing the main path.

5.4.4. THE IMAGINED SPATIAL EXPERIENCE AND NATURAL QUALITIES

The general spatial experience of paper garlands forming the pavilion. In relation to design ideas found in theory and the intuitive model making of a restorative atmosphere.

Adding to the papier maché being a reminder of nature, the spatial qualities possible with the pavilion also has the potential of being a positive distraction (p.31). Depth perception from multiplying the garlands, never fully non-transparent thus calming through creating a seclusion from Nordstan.

Adapting the body by deviating from the path, and the path of the pavilion being crumbled. But also a positive distraction through being an activity one would not regularly meet in a shopping mall.

Photograph from the workshop party.

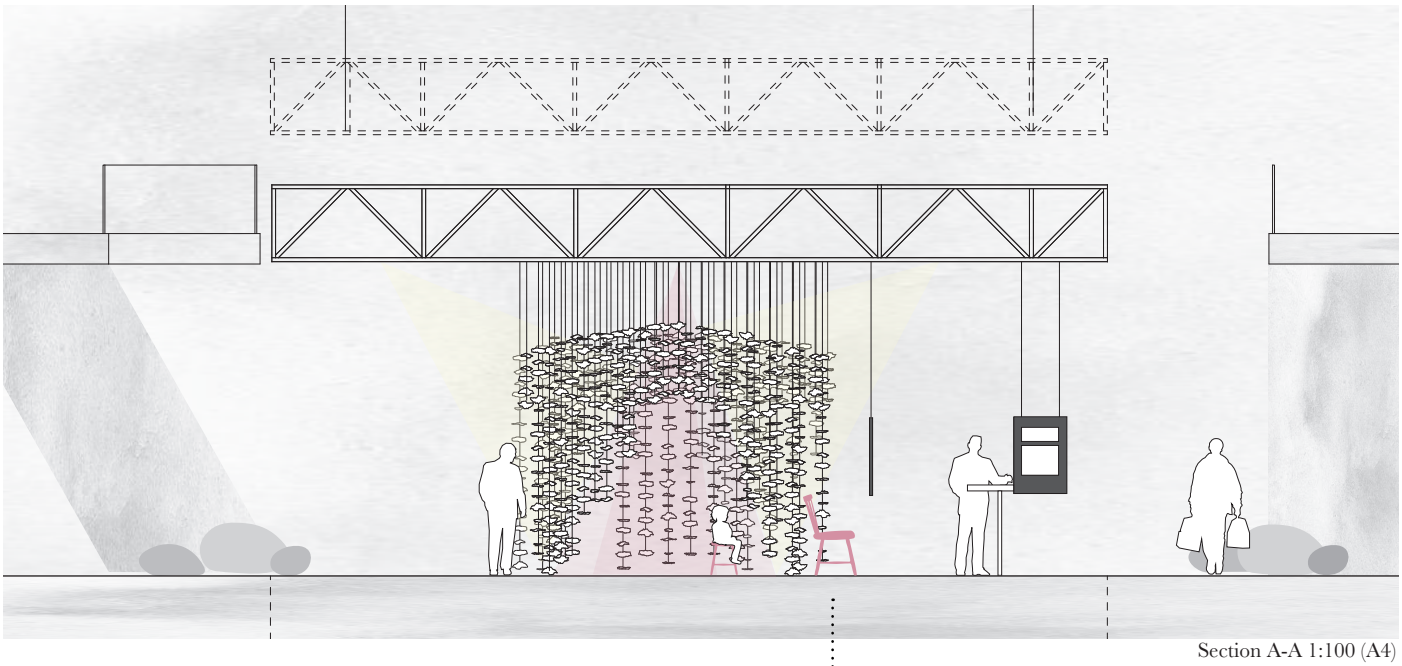
6. BUILDING A FULL-SCALE PAVILION

This chapter focuses on the built of the pavilion displayed at Nordstan.

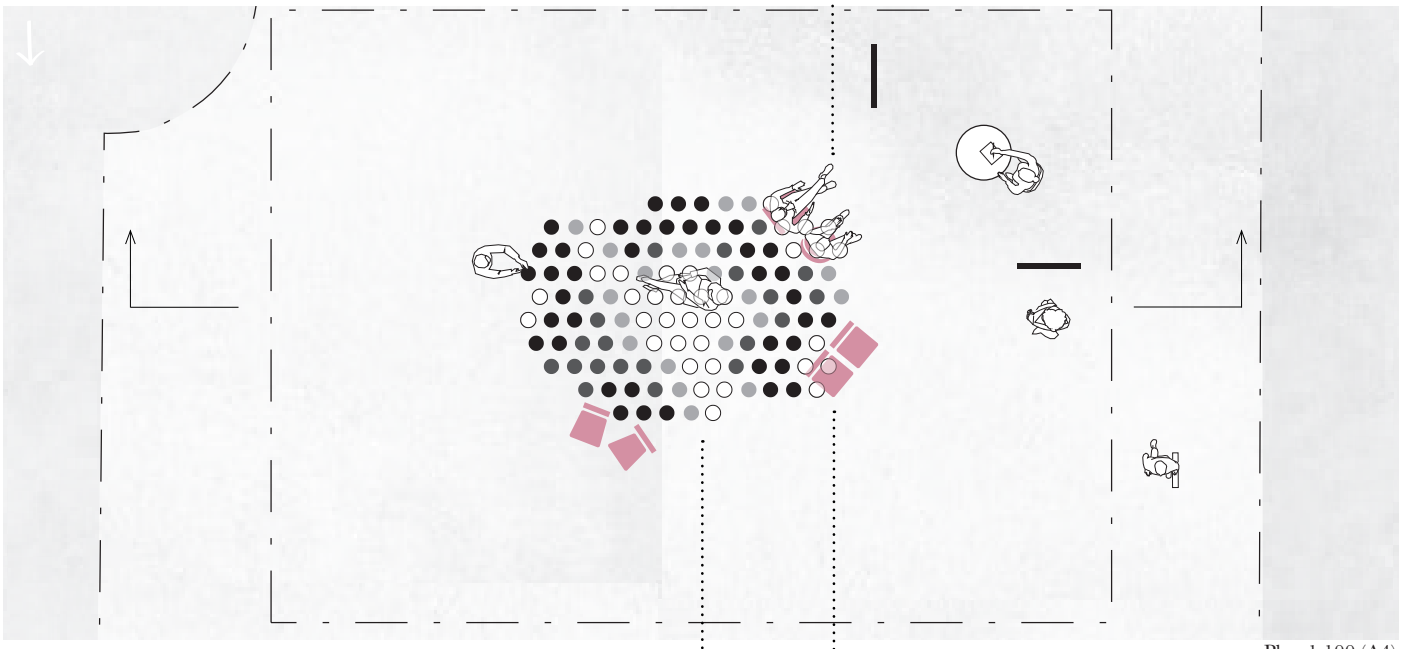
First the design chosen is presented, where calculations of time and amounts of paper garlands has been merged with the aim of producing as much as possible and also give as much of the desired experience as possible.

The pavilion is also displayed in relation to the main paths and movement of Nordstan, with the desired outcomes in usage of the pavilion and effected movement around it.

An explanation of production, with the help of others, pavilion components and a selection of images from the pavilion at site.



Section A-A 1:100 (A4)



Plan 1:100 (A4)

Short garlands

Full length garlands

MYSTERY PATH
OPEN SPACE GROVE

Main entry. Walking through, looking up.

RESTING

Sitting arrangements in clusters, mainly in the embossed sit niches.

6.1. SECTION AND PLAN

From combining the desired program of the sensory experience of nature, with the obstruction of producing with time limitations, the pavilion was iterated in section and plan.

6.1.1. DESIRED USAGE AT SITE

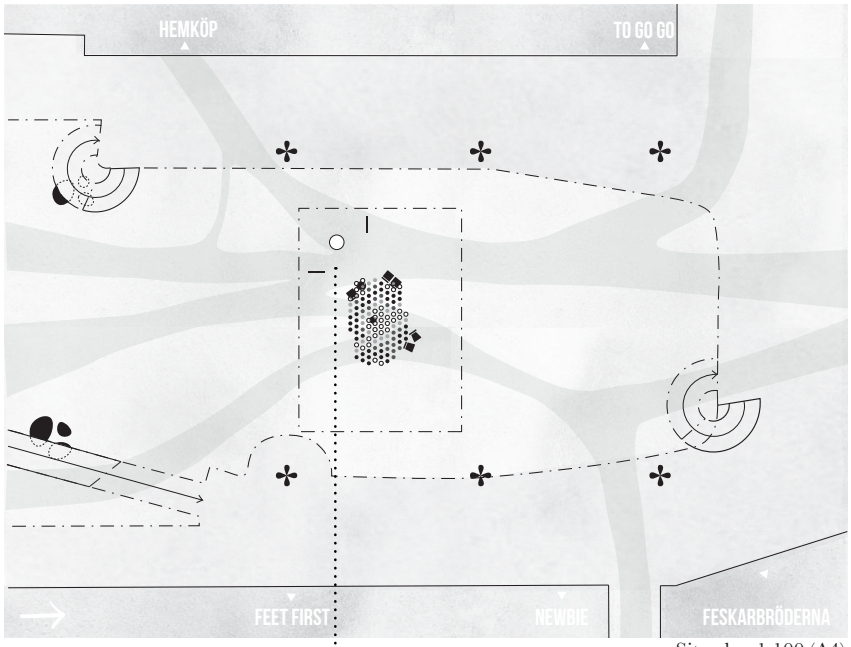
The pavilion will be experienced also from the outside. Attract from paths.

The main movement of public life is north to south (right to left in the illustration below) at the west side of the pavilion (at the top in the illustration). To capture most attention, the explanatory parts of the pavilion where placed here; the screens and table. To slow down the pace of people visiting Nordstan, the paths of entry is curled, also to not see through when walking from far.

The sitting spots, being embossed, but open towards the paths, to have prospect and an overview.

6.1.2. IN RELATION TO MOVEMENT

Movement from previous study (p.26), and placement of program in relation to it.

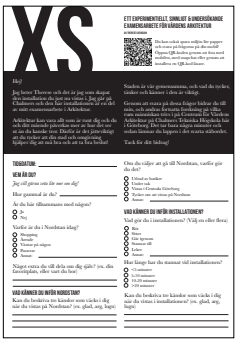


Site plan 1:100 (A4)

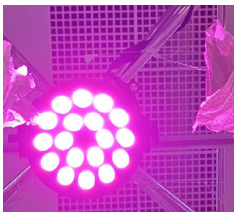
General movement

Information placed to attract near the main path.

The first garland made.



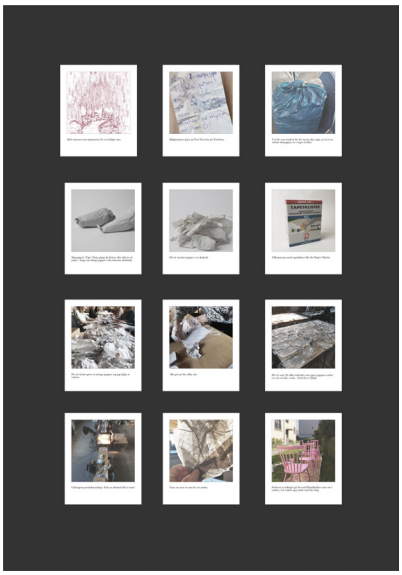
The questionnaire.



Light at site.

Freshly painted second hand chairs (two of them my kitchen chairs).

Info screen 1 presenting the project.



Info screen 2 presenting the process.

6.2. INSTALLATION COMPONENTS

As I would not be present at Nordstan at all times, the pavilion was presented as an installation. Also introducing the project of a master thesis in architecture.

6.2.1. PAPIER MACHÉ GARLANDS HANGING FROM THE ROOF

10 rows of garlands, each row packaged carefully in one moving box.

6.2.2. QUESTIONNAIRE

The questionnaires was an opportunity to partly investigate the emotional response to both Nordstan and the pavilion, but also to build a connection and for me to get to know the users.

As such the questionnaire had a personal approach with a presentation of me and the project as well as questions of who the person is answering. The most important answers, that couldn't be seen by observing, where given to the questions of what the person like in general and the emotional response towards Nordstan and the pavilion.

6.2.3. LIGHT

The light, other than the permanent spotlights in the expo roof, was rented by Eltec Produktion AB. Deciding which light was done in discussions over drawings with them, ensuring that the light would be bright and strong enough, to give a lot of spatial quality through the sharper light beam.

6.2.4. MOVABLE CHAIRS

Six chairs and one stool. They where painted bright pink to catch attention at Nordstan, and go together although not being the same style. The purpose of the chairs was to provide public seating but also to be able to use the chairs to study the spatial performance of the pavilion, as well as test peoples feeling of empowerment. Do they dare and understand that it is okay to move them?

6.2.5. INFORMATION

The screens (black foam boards) where double sided to present the same information in both directions. Screen 1 had a personal text emphasizing on mediating that architecture and our cities should value our human well-being and that it is everyones right to act on their opinion of city planning. Ending with the message: "Take care of yourself, each other and our environment".

Next to the text, a mirror to emphasize my projects intention of being about the user - the person reading the text.

On screen 2 - pictures from the process. What type of material it is (three days worth of waste paper) and how it was made.

(1) RIP PAPER

UNSORTED BAG OF PAPER

1. Flatten.
2. Rip into 5*5 pieces

(2) PAPIER MACHÉ

RIPPED PAPER, SIZE CIRCLE AND SOFT PLASTIC, GLUE & A SOFT SPONGE

1. Place a reused plastic sheet on the size circle.
2. Add one paper at the time and stroke w glue between each paper.
3. Form around 3 layers as a circle.

Let dry, around 30-60 minutes.

(3) GARLANDS

DRY PAPIER MACHÉ, STRING, SCISSORS

1. Cut your string to the selected length. Tie a knot in one end.
2. Make a hole in the center of the papier maché.
3. Thread the papier maché, and tie the next knot around 20cm up.

Package in boxes.

Photograph from the workshop party.

6.3. PRODUCTION

To be able to produce as much papier maché garlands as possible, a "Workshop party" was hosted as part of the thesis.

6.3.1. THE WORKSHOP PARTY

Preparations for the workshop was calculating the amount of paper garlands that was desired in relation to what was possible. The important variables being time and number of people.

The experience of the pavilion was iterated in plan and section several times trying to reduce the number of papers without reducing the experience of an imaginary forest.

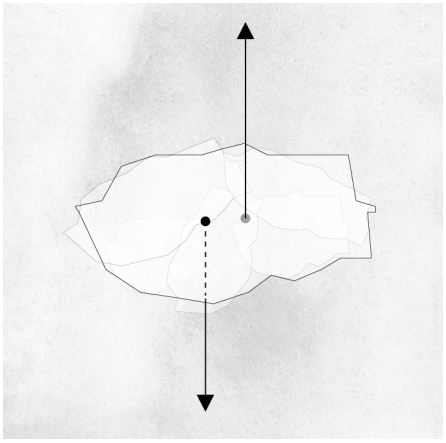
The waste paper was collected a week prior to the workshop, at a shoe store at Nordstan, Feet First, near the site. As it is very difficult to calculate the amount of papers necessary, all emballage where so different in paper style and amount, they gathered more than enough over one week (3 days used).

The workshop lasted 4 hours with a total of 14 participants. Illustrated instructions had been prepared and communicated prior to the event and only a short instructions was given to the first arriving who then helped the others. A selection of the instructions is displayed to the left.

To keep "Unity in Variety", and also a pavilion sensitive to its creators, there where only approximate size and length instructions.

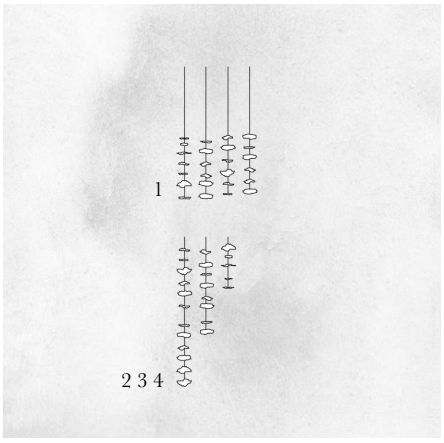
As the amounts of paper garlands produced after the workshop was far from enough, and around a week was spent in the atelier producing to the last papier maché. Friends and family was there to help out, and as this was a simple but time consuming task the hours working could be spent deep in conversation.

In the end of production around 1000 pieces of papier maché had been produced and split into 4 different styles of garlands was packaged into 10 moving boxes.



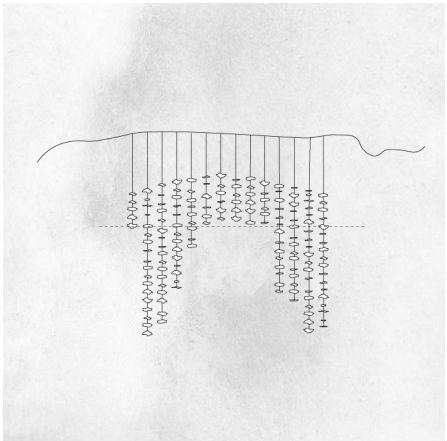
SAFETY BREAK POINT

No unbroken string from roof to floor.



LENGTH OF GARLANDS

4 lengths of garlands.



TIED INTO ROWS

Pavilion divided into 10 sections, rows, to easily assemble at site.

6.4. ASSEMBLY

The assembly of the garlands was a process managed in steps, for as much efficiency as possible handling different lengths and managing to assemble according to the drawings.

6.4.1. SAFETY BREAK POINT

As the expo roof at Nordstan could take the weight of 8kg/sqm, a "saftey break point" was constructed so that the installation roof wouldn't move around if someone where to pull in a garland. So, there was no unbroken strings from the roof to the floor, and if one where to break there would still be a garland at that spot. The two strings where attached separately to the same papier maché, creating one garland. See the first illustration to the left.

6.4.2. LENGTHS OF GARLANDS

Four lengths where produced during production:

1. 37 + 80 garlands (cut to 2m)
2. 39 garlands (2,5m)
3. 21 garlands (1,3m)
4. 20 garlands (0,7m)

And where later tied together via the last papier maché on the first garlands being the paper in illustration 1.

6.4.3. TIED INTO ROWS SETTING DISTANCE

To decide what distance the garlands would be put to, the garlands where test hung in the atelier at different distances from each other, halfway through production to be able to adjust the drawings and total number of garlands.

The decision was to put them 30cm apart in each direction but with a shifting every other row to break more sight lines.

A total of 10 rows was tied together on the ground making sure each section had the same soft edges, and ensure the distance between being equal with the drawing center point marked on the string.

The rows where then packaged back into the 10 moving boxes, one row in each box. And then driven to Nordstan where the pavilion was hanged through lowering the installation roof to a reachable height. Tying each row to the roof, starting from the center point.

Hanging the pavilion.

Looking up into the pavilion.

View from the south side, coming from the larger square.

Two men resting on the chairs placed in the southeast embossed corner.

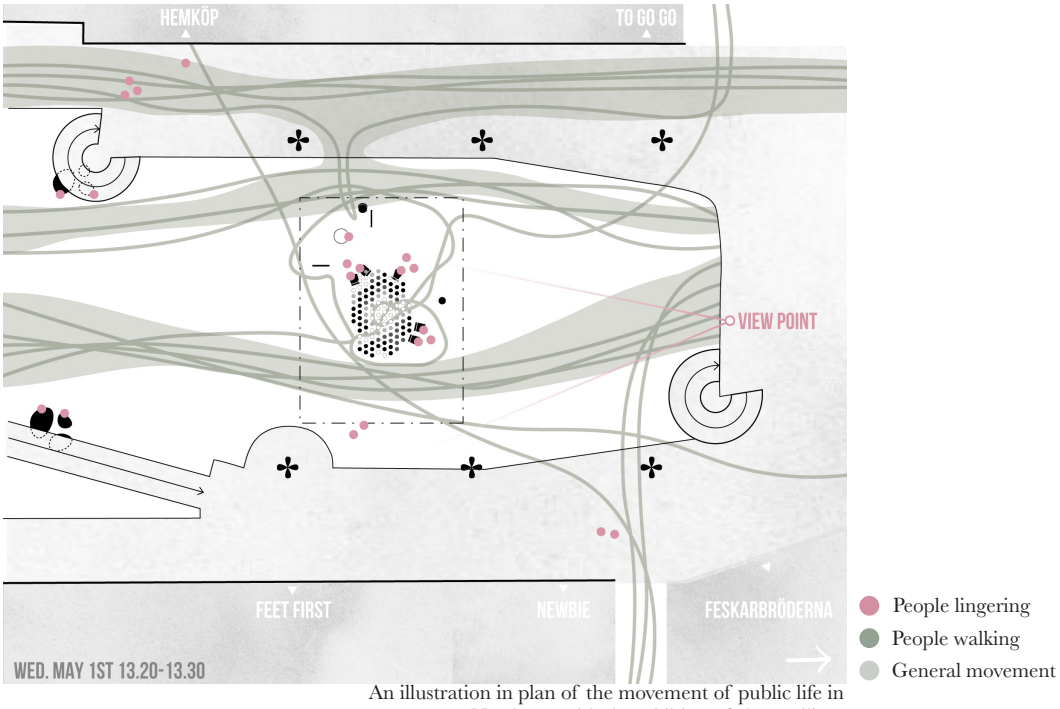
Photograph from time lapse, from the balcony.

7. STUDIES OF THE PAVILION

This chapter focuses on the actual usage of the pavilion, presented as a result from studies conducted at Nordstan during the first week of may, with open hours from 8AM to 8PM every day.

I was never attending the pavilion as the architect, but rather lurking in the surroundings, studying the behavior of people using the pavilion, but also of those walking by.

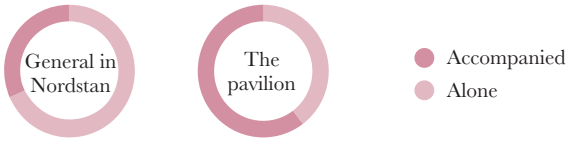
An introduction and information of the intent, but also of the process was hanging next to the pavilion, acting as part of the installation. The users had the option of filling a questionnaire of their emotional response towards Nordstan and the pavilion.



An illustration in plan of the movement of public life in Nordstan, with the addition of the pavilion.

A photograph from a time lapse from the balcony.

The general user of the pavilion was accompanied by friends or family, and the general user of the site (the alone person passing) didn't pause by the pavilion as much.



7.1. STUDY OF MOVEMENT

To understand the usage of the pavilion, studies of peoples movement and behavior where conducted through the same observations as done when to understand the site in the beginning of the project (p.26).

7.1.1. TRACING MOVEMENT AND LINGERING

The line of movement changed from the previous studies with nothing at the site, evident since something was blocking with the pavilion. However the main path that was originally to the east of the site, split to both sides of the pavilion and surprisingly close on the east side where people often quickly paused (bottom side in the illustration to the left).

The northern side had what became the main entry, the southern side the smaller entry. The west side had the information boards and the table, creating an extended space by blocking the passage, moving the path further away from the pavilion.

Anticipated was that more people would deviate from their path to walk through the pavilion, but as it was often crowded by people, also often sitting inside it, this rather happened on the east side.

The pace of movement seemed lower near the pavilion where many looked closely and therefore walked slower, as their eyes where directed to the side. Showing an interest but not necessarily pausing.

Those walking into the area of the installation most often came from the west side (top side in the illustration to the left), generally heading for the information screens. Most people attracted to the actual pavilion where attracted from the northern side, where the most apparent entry was located.

More people lingered than in the previous study, often in relation to the pavilion, if not in it or very close to it. As apparent from the earlier studies of the empty site, people tend to linger close to a spatial border, as the pavilion now also provided.

In general, through observations, the interest for the pavilion was high and there was someone paused in proximity to or inside the pavilion at almost all times.

“A little girl looks up into the light
and then down at her shadow,
from experiencing it, I know it's green.
The compliment to
the pink light.”

Children being photographed inside the pavilion.

7.2. 10 MIN DIARY

Tuesday morning the barrier that had been protecting when hanging the pavilion was removed, people started to walk close to the pavilion. In the mean time I was sitting at the balcony viewing from above.

As it was emotional and distracting to observe in the beginning, I wrote several diaries as method to study public life (Gehl, 2013), an additional study conducted to note the activity around the pavilion as well as my own interpretation of what they where doing.

Here is an excerpt with 10 minutes of unbroken writing.

"Tuesday 10:51

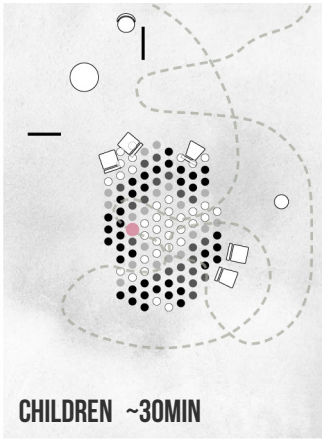
2 children approaches, touches the garlands, dances in the light. More people approach the pavilion when some are already there - like small fishes to a colorful coral. It's exciting that they can't see me.

A little girl in the middle looks up into the light, and then down at her shadow, from experiencing it myself I know her shadow is green, the compliment to the pink light. Her parents are reading the info screen, I can see the face in the mirror, a slight smile. Yes. The girl moves the chair in the middle to be able to see out.

Some young women photograph each other with the pavilion as a background then moves inside as the little girl leaves. They touch the garlands, maybe wondering what it is. An older man observes from a distance.

A young boy moves close to the garlands, backs away slowly, pauses, and then runs as fast as he can through the garlands with his arms out. Phew, the safety paper worked, they didn't break. His mom forces him to stay still inside for a photograph.

Two couples who don't seem to know each other quickly speak, my guess is one asked "Do you know what this is?" The girl asked points to the information screen. He walks there to read. A woman inside the pavilion sits down. Leans back and looks up. For what feels like a long time."


CHILDREN ~30MIN

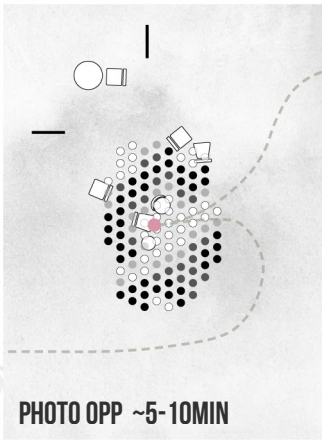
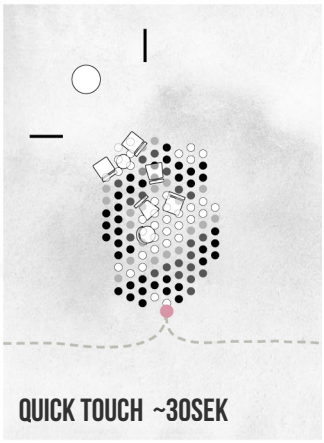
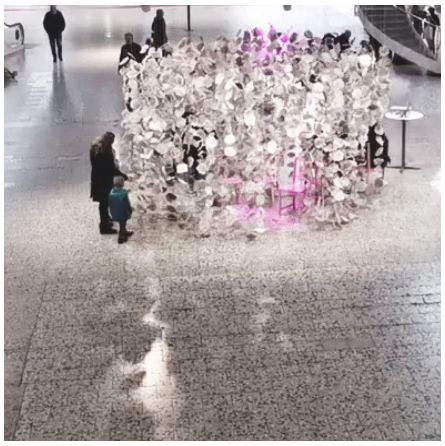


PHOTO OPP ~5-10MIN


QUICK TOUCH ~30SEK



7.3. THE TYPICAL USERS

As people acted suprisingly similar around the pavilion, the typical users of the pavilion presented as "personas", with an exception of those sitting down mainly for resting. This was studied by observations during the one week of the pavilion at site.

7.3.1. CHILDREN

Children was maybe the largest group of users. They typically dragged their parents into the pink light in the center of the pavilion, and then preceded to run around in the garlands with a moderate respect to the "designed" entries. Their parents often photographed their child in the pink light and then sat down to rest as the play continued. Some larger families parked their children in the pavilion, maybe in the company of one adult and went shopping.

Result: A playground or structure that allows play would be suitable at Nordstan or in relation to public space.

7.3.2. PHOTOGRAPHING

The most evident activity in the pavilion, that wasn't anticipated, was the amount of people that photographed each other in the pavilion. Both parents photographing their children, friends photographing each other, people photographing the paper up close. One mother with a young child in a carrier even placed her phone on the carrier and photographed herself with her child in the pavilion.

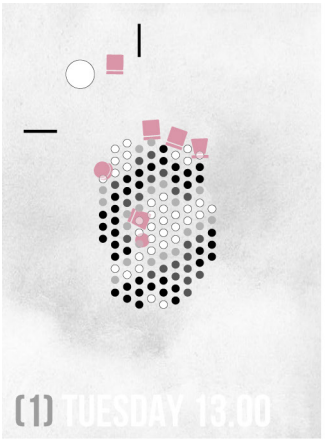
In the beginning of the design process, the photo opportunity was extracted as an interactive space. In this pavilion design it was not anticipated but even more popular than sitting down. As a result the movable chairs was often in the middle (more about the chairs follows in the next chapter).

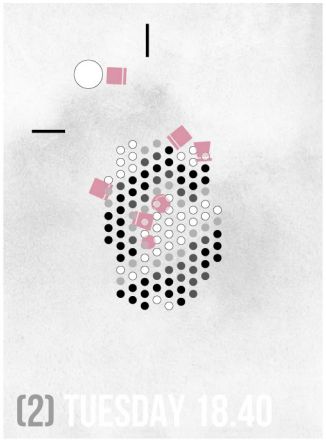
Result: The camera phone and our urge to commemorate our experiences is an opportunity to design simple interactive structures, such as displays to act with alongside a wall.

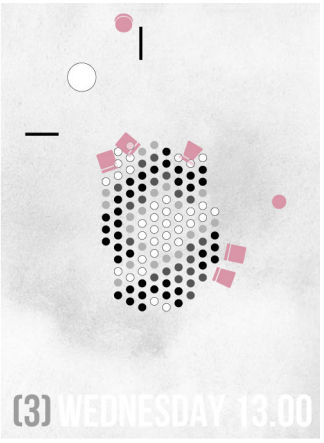
7.3.3. QUICK TOUCH

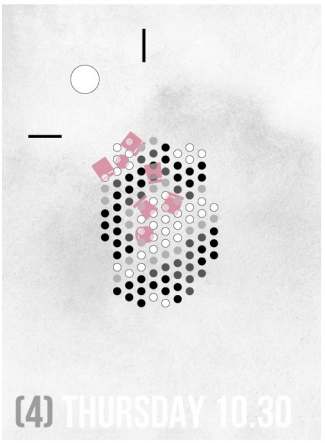
As many walked by, some looking and some not, a lot of people seemed to take notice far from the structure and planning their route close to the pavilion, always on the side displayed to the left, as it was "open" and not close to the information, they quickly touched the garlands, looked closely and then continued walking. This action was probably evoked by a question of what it was, but maybe also the pattern complexity of a paper, inviting you to take a closer look.

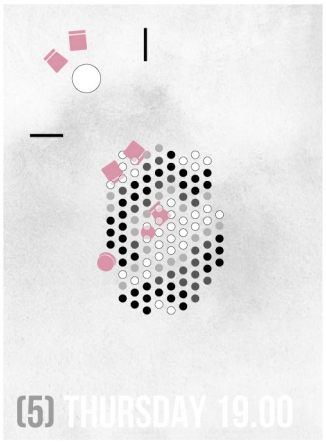
Result: Since this was probably a result due to this being a temporary structure, and therefor attracting attention from people passing, a result could still be the attraction of attention, but also the pattern complexity. Using a material with intricate form that still unifies as a whole.

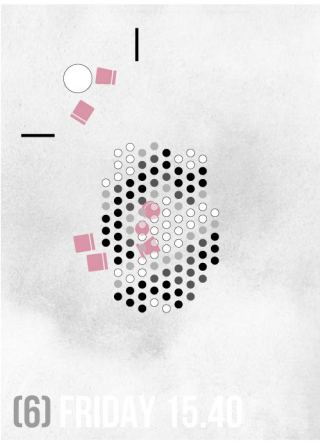

(1) TUESDAY 13.00

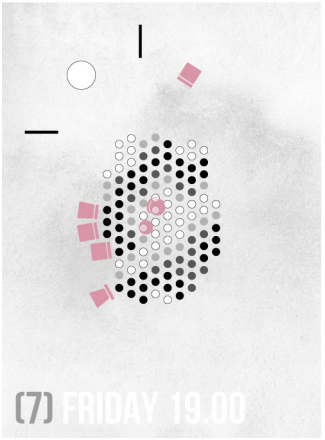

(2) TUESDAY 18.40

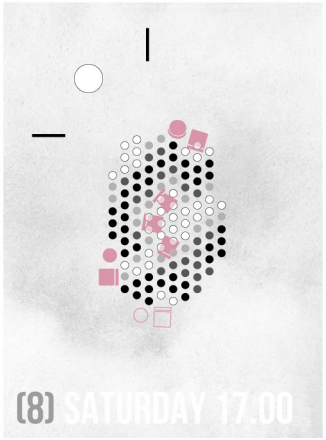

(3) WEDNESDAY 13.00

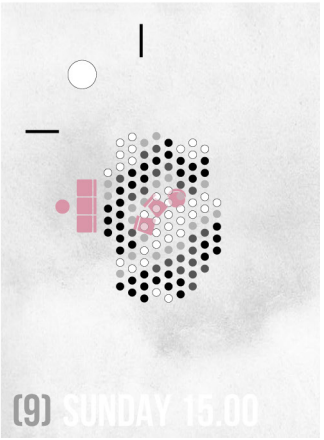

(4) THURSDAY 10.30


(5) THURSDAY 19.00


(6) FRIDAY 15.40


(7) FRIDAY 19.00


(8) SATURDAY 17.00


(9) SUNDAY 15.00

7.4. CHAIR MOVEMENT

More than being seating and a tool of interaction by the users, the movable chairs are used to evaluate the spatial qualities of the pavilion.

The outcome at site was positive. People understood that they were allowed to move the chairs, and no chair ever left the expo area. Most of the time they stayed very close to, or inside the pavilion.

7.4.1. SITTING OUTSIDE THE PAVILION

When designing the pavilion I anticipated clusters of chairs would move somewhat together, which to most parts where true since the main users where accompanied, the chairs was mostly placed in clusters of 2-3 chairs.

As expected the chairs outside of the pavilion were facing the paths, and especially the main path to the west, where the user would be seated along the path - which is also how you would sit on a park bench, viewing people passing.

They also often moved as designed to the little spaces where some garlands continued above, which was anticipated to be more of an embossed feeling.

One unexpected and undesigned outcome was that the chairs quickly moved from the east side. Saturday evening (ill. 8) I even moved to chairs to the east side, but they did not stay there long. The most probable cause is that the path of movement was too close on that side, and uncomfortable for seating.

7.4.2. SITTING INSIDE THE PAVILION

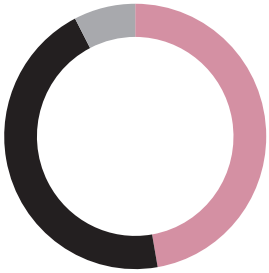
Seating placed inside the pavilion, in the pink light, was not designed for intentionally but evidently very desired. The center space was originally designed for walking through, and I even anticipated it being a bit uncomfortable to sit inside the space, as the walls would be so transparent and movable.

The pink light together with the garlands was able to create somewhat of a bubble and although that space was mainly used for photographs, a lot of especially younger women stayed together in the center. The anticipated feeling of being ambushed wasn't evident.

The chairs however often ended up with their backs towards each other, which really closed that possible pathway and removed the sense of ambush. Allowing a mental bubble of a comfortable resting space.

THE EMOTIONAL DESCRIPTION OF NORDSTAN

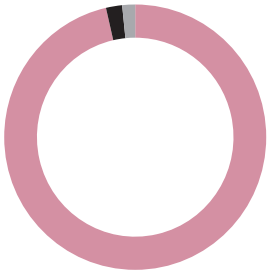
Four or more occurrences of words: (Total described emotions: 239)



- Positive
  - Happy (13%)
  - Calm (6%)
  - Fun
  - Excited
- Neutral
  - Lots of people (2%)
  - Feel like shopping
  - Mixed emotions
- Negative
  - Stressed (15%)
  - Tired (3%)
  - Angry
  - Frustrated
  - Annoyed
  - Hungry

THE EMOTIONAL DESCRIPTION OF THE PAVILION

Four or more occurrences of words: (Total described emotions: 251)



- Positive
  - Happy (20%)
  - Calm (20%)
  - Curious (6%)
  - Beautiful
  - Cozy
  - Pink
  - Inspiring
  - Contemplative
  - Joyful
  - Peaceful
  - Delightful
- Neutral — Less than four
- Negative — Less than four

7.5. THE QUESTIONNAIRE

To understand the user and let people communicate their emotions and intentions, there was a table with questionnaires for those who desired, as well as a shoe box to collect the responses in. After the one week of collecting answers they where compiled in an excel document for an evaluation of the answers.

A total of 108 responses where collected of which 5 was answered on a phone survey and the rest on paper.

Noticeable from observations was that the people answering the questionnaires was generally not the people sitting down, photographing or the people who stopped quickly, but a separate user group that watched it from outside, and or maybe walked inside quickly. The people answering generally seemed to read the information, and stop at the table to answer the questions standing while looking at the pavilion and the poeople using it.

There was a low average age of 31 years old (when calculating by median 23 years old). When reflecting upon the user groups of Nordstan at large, where a lot of young people visit, there for shopping or meeting friends, which was also reflected in the answers. But still a positive outcome to have a lot of positive responses from such young people in a questionnaire.

People stated that they stayed in the pavilion an average of 10 minutes, and that they "paused" (36%), "walked through" (19%), "touched" (17%), over playing and sitting down. The latter was more visible in observations than the other, but as stated - a different user group.

Regarding their visit at Nordstan most stated they where there "shopping" (30%) or "passing through" (26%), and that they generally chose to visit Nordstan due to the range of stores (41%), or that being in Nordstan is being in the central of Gothenburg (19%).

7.5.1. EMOTIONAL RESPONSE

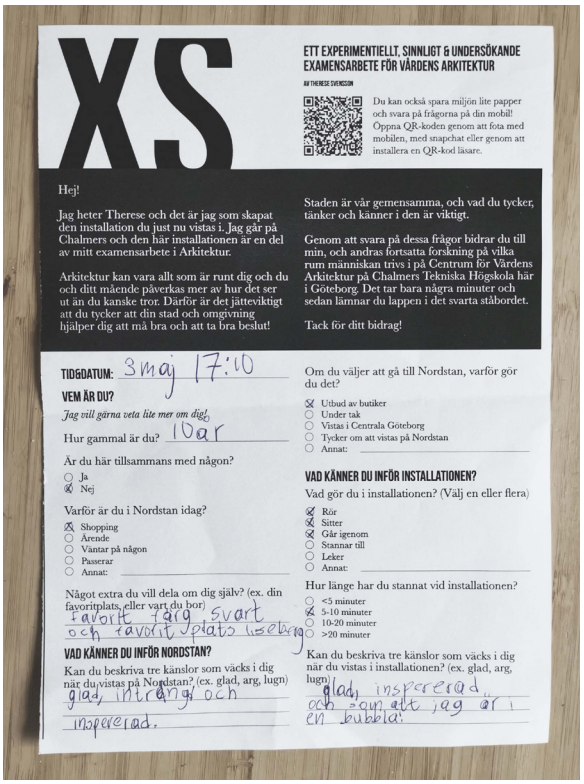
As most of the questions where more visible through observations, this thesis will put a focus on the emotional responses gathered.

People where asked to describe three emotions they felt while visiting Nordstan, and then three words describing the installation. The answers are presented to the left, the charts representing the collection of all words, with a personal classification of positive, negative and neutral. Also the words with four or more occurrences.

The words "angry", "happy" and "calm" was given as examples of emotions, and also had a general high occurring percentage.

A lot of words where different but describing almost the same thing, such as the installation being described as "being a bubble", being "secluded", and "feeling safe and invisible", which doesn't show in the words to the left where the same words where used.

On the next spread a selection of my favorite questionnaires filled (in Swedish).



XS

ETT EXPERIMENTIELLT, SINNLIGT & UNDERSÖKANDE EXAMENSARBETE FÖR VÅRDENS ARKITEKTUR

AV THERESE SVENSSON

Du kan också spara miljön lite papper och svara på frågorna på din mobil! Öppna QR-koden genom att fota med mobilen, med snapchat eller genom att installera en QR-kod läsare.

Hej!

Jag heter Therese och det är jag som skapat den installation du just nu vistas i. Jag går på Chalmers och den här installationen är en del av mitt examensarbete i Arkitektur.

Arkitektur kan vara allt som är runt dig och du och ditt mående påverkas mer av hur det ser ut än du kanske tror. Därför är det jätteviktigt att du tycker att din stad och omgivning hjälper dig att må bra och att ta bra beslut!

Staden är vår gemensamma, och vad du tycker, tänker och känner i den är viktigt.

Genom att svara på dessa frågor bidrar du till min, och andras fortsatta forskning på vilka rum människan trivs i på Centrum för Vårdens Arkitektur på Chalmers Tekniska Högskola här i Göteborg. Det tar bara några minuter och sedan lämnar du lappen i det svarta ståbordet.

Tack för ditt bidrag!

TIDSDATUM: 3 maj 17:10

VEM ÄR DU?

Jag vill gärna veta lite mer om dig!

Hur gammal är du? 10 år

Är du här tillsammans med någon?
- ○ Ja
- ◉ Nej

Varför är du i Nordstan idag?
- ☒ Shopping
- ○ Ärende
- ○ Väntar på någon
- ○ Passerar
- ○ Annat:

Något extra du vill dela om dig själv? (ex. din favoritplats, eller vart du bor)
favorit färg svart och favorit plats liseberg

VAD KÄNNER DU INFÖR NORDSTAN?

Kan du beskriva tre känslor som väcks i dig när du vistas på Nordstan? (ex. glad, arg, lugn)
glad, intrångi och inspererad.

Om du väljer att gå till Nordstan, varför gör du det?
- ☒ Utbud av butiker
- ○ Under tak
- ○ Vistas i Centrala Göteborg
- ○ Tycker om att vistas på Nordstan
- ○ Annat:

VAD KÄNNER DU INFÖR INSTALLATIONEN?

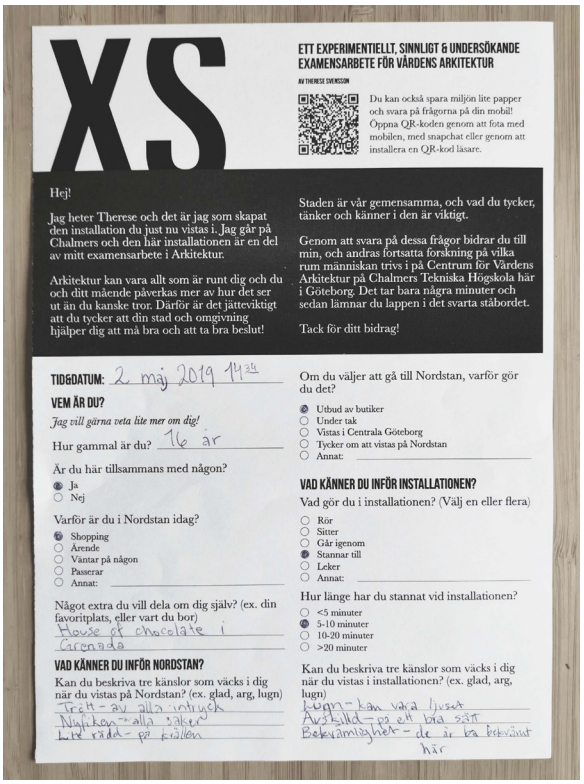
Vad gör du i installationen? (Välj en eller flera)
- ☒ Rör
- ☒ Sitter
- ☒ Går igenom
- ○ Stannar till
- ○ Leker
- ○ Annat:

Hur länge har du stannat vid installationen?
- ○ <5 minuter
- ☒ 5-10 minuter
- ○ 10-20 minuter
- ○ >20 minuter

Kan du beskriva tre känslor som väcks i dig när du vistas i installationen? (ex. glad, arg, lugn)
glad, inspererad och = som att jag är i en bubbla!

"10 years old. Favorite color black, and favorite place Liseberg.

Pavilion made me...
Happy, inspired and like in I'm in a bubble."



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Staden är vår gemensamma, och vad du tycker, tänker och känner i den är viktigt.

Genom att svara på dessa frågor bidrar du till min, och andras fortsatta forskning på vilka rum människan trivs i på Centrum för Vårdens Arkitektur på Chalmers Tekniska Högskola här i Göteborg. Det tar bara några minuter och sedan lämnar du lappen i det svarta ståbordet.

Tack för ditt bidrag!

TIDSDATUM: 2 maj 2019 14:34

VEM ÄR DU?

Jag vill gärna veta lite mer om dig!

Hur gammal är du? 16 år

Är du här tillsammans med någon?
- ◉ Ja
- ○ Nej

Varför är du i Nordstan idag?
- ◉ Shopping
- ○ Ärende
- ○ Väntar på någon
- ○ Passerar
- ○ Annat:

Något extra du vill dela om dig själv? (ex. din favoritplats, eller vart du bor)
House of chocolate i Grenada

VAD KÄNNER DU INFÖR NORDSTAN?

Kan du beskriva tre känslor som väcks i dig när du vistas på Nordstan? (ex. glad, arg, lugn)
Trött - av alla intryck
Nyfiken - alla sidor
Lite rädd - på kvällen

Om du väljer att gå till Nordstan, varför gör du det?
- ◉ Utbud av butiker
- ○ Under tak
- ○ Vistas i Centrala Göteborg
- ○ Tycker om att vistas på Nordstan
- ○ Annat:

VAD KÄNNER DU INFÖR INSTALLATIONEN?

Vad gör du i installationen? (Välj en eller flera)
- ○ Rör
- ○ Sitter
- ○ Går igenom
- ◉ Stannar till
- ○ Leker
- ○ Annat:

Hur länge har du stannat vid installationen?
- ○ <5 minuter
- ◉ 5-10 minuter
- ○ 10-20 minuter
- ○ >20 minuter

Kan du beskriva tre känslor som väcks i dig när du vistas i installationen? (ex. glad, arg, lugn)
Lugn - kan vara ljuset
Avskild - på ett bra sätt
Bekvämlighet - de är bra bekvämt här

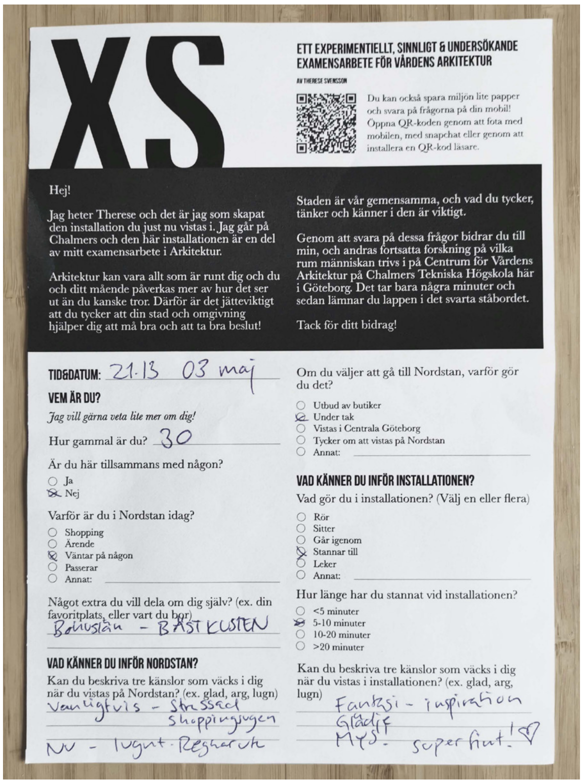
"16 years old. Favorite place is "House of Chocolate" in Grenada.

Pavilion made me...
Calm - might be the light.
Secluded - in a good way.
Comfortable - it's just comfortable here."

Photographs of four questionnaires.

“30 years old.
Favorite place is
Bohuslän.

Pavilion made me...
Imagination
- inspiration.
Happiness
Cosy! Beautiful!”



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Tack för ditt bidrag!

TID&DATUM: 21.13 03 maj

VEM ÄR DU?

Jag vill gärna veta lite mer om dig!

Hur gammal är du? 30

Är du här tillsammans med någon?
( ) Ja
(x) Nej

Varför är du i Nordstan idag?
( ) Shopping
( ) Ärende
(x) Väntar på någon
( ) Passerar
( ) Annat:

Något extra du vill dela om dig själv? (ex. din favoritplats, eller vart du bor)
Bohuslän - BÄST KUSTEN

VAD KÄNNER DU INFÖR NORDSTAN?

Kan du beskriva tre känslor som väcks i dig när du vistas på Nordstan? (ex. glad, arg, lugn)
Vanligtvis - Stressad
Shoppingsugen
Nu - lugnt. Regnar ute

Om du väljer att gå till Nordstan, varför gör du det?
( ) Utbud av butiker
(x) Under tak
( ) Vistas i Centrala Göteborg
( ) Tycker om att vistas på Nordstan
( ) Annat:

VAD KÄNNER DU INFÖR INSTALLATIONEN?

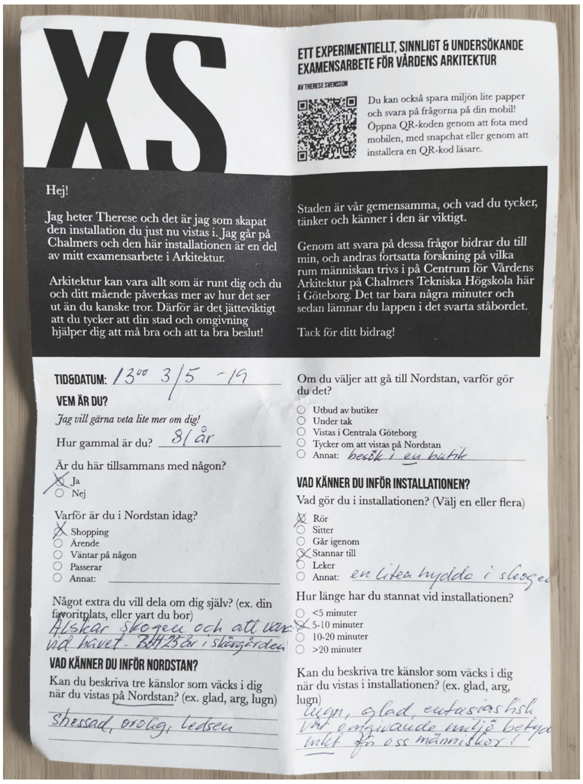
Vad gör du i installationen? (Välj en eller flera)
( ) Rör
( ) Sitter
( ) Går igenom
(x) Stannar till
( ) Leker
( ) Annat:

Hur länge har du stannat vid installationen?
( ) <5 minuter
(x) 5-10 minuter
( ) 10-20 minuter
( ) >20 minuter

Kan du beskriva tre känslor som väcks i dig när du vistas i installationen? (ex. glad, arg, lugn)
Fantasi - inspiration
Glädje
Mys! superfint! ♡

“81 years old.
I love the forest and
to be by the ocean.
Lived 25 years in the
archipelago.

Pavilion made me...
Calm, happy,
enthusiastic.
Our surrounding
environment means
a lot to us human
beings!”



XS

ETT EXPERIMENTIELLT, SINNLIGT & UNDERSÖKANDE EXAMENSARBETE FÖR VÅRDENS ARKITEKTUR

AV THERESE SVENSSON

Du kan också spara miljön lite papper och svara på frågorna på din mobil! Öppna QR-koden genom att fota med mobilen, med snapchat eller genom att installera en QR-kod läsare.

Hej!

Jag heter Therese och det är jag som skapat den installation du just nu vistas i. Jag går på Chalmers och den här installationen är en del av mitt examensarbete i Arkitektur.

Arkitektur kan vara allt som är runt dig och du och ditt mående påverkas mer av hur det ser ut än du kanske tror. Därför är det jätteviktigt att du tycker att din stad och omgivning hjälper dig att må bra och att ta bra beslut!

Staden är vår gemensamma, och vad du tycker, tänker och känner i den är viktigt.

Genom att svara på dessa frågor bidrar du till min, och andras fortsatta forskning på vilka rum människan trivs i på Centrum för Vårdens Arkitektur på Chalmers Tekniska Högskola här i Göteborg. Det tar bara några minuter och sedan lämnar du lappen i det svarta ståbordet.

Tack för ditt bidrag!

TID&DATUM: 13⁰⁰ 3/5 -19

VEM ÄR DU?

Jag vill gärna veta lite mer om dig!

Hur gammal är du? 81 år

Är du här tillsammans med någon?
(x) Ja
( ) Nej

Varför är du i Nordstan idag?
(x) Shopping
( ) Ärende
( ) Väntar på någon
( ) Passerar
( ) Annat:

Något extra du vill dela om dig själv? (ex. din favoritplats, eller vart du bor)
Älskar skogen och att vara vid havet. Bott 25 år i skärgården

VAD KÄNNER DU INFÖR NORDSTAN?

Kan du beskriva tre känslor som väcks i dig när du vistas på Nordstan? (ex. glad, arg, lugn)
Stressad, orolig, ledsen

Om du väljer att gå till Nordstan, varför gör du det?
( ) Utbud av butiker
( ) Under tak
( ) Vistas i Centrala Göteborg
( ) Tycker om att vistas på Nordstan
( ) Annat: besök i en butik

VAD KÄNNER DU INFÖR INSTALLATIONEN?

Vad gör du i installationen? (Välj en eller flera)
(x) Rör
( ) Sitter
( ) Går igenom
(x) Stannar till
( ) Leker
( ) Annat: en liten hydda i skoge

Hur länge har du stannat vid installationen?
( ) <5 minuter
(x) 5-10 minuter
( ) 10-20 minuter
( ) >20 minuter

Kan du beskriva tre känslor som väcks i dig när du vistas i installationen? (ex. glad, arg, lugn)
lugn, glad, entusiastisk
Vår omgivande miljö betyd
mkt för oss människor!

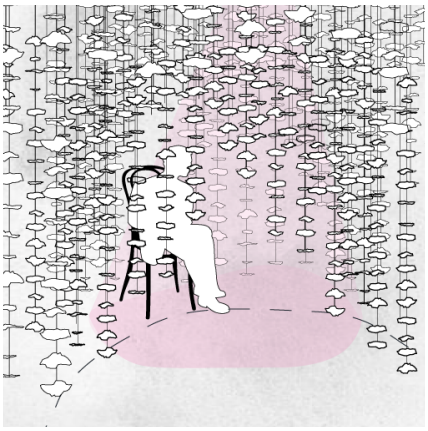
8. FINDINGS OF A DESIGN TO LOWER PACE

This chapter is presented as conclusions and starting discussions of the thesis and the findings of the pavilion.

Discussing what atmospheric qualities can be a restorative and calm space to lower a fast pace. The structure in this chapter remains the paper garlands, and prerequisites of a temporary pavilion in Nordstan, and is presented as a reiteration of the pavilion presented at Nordstan.

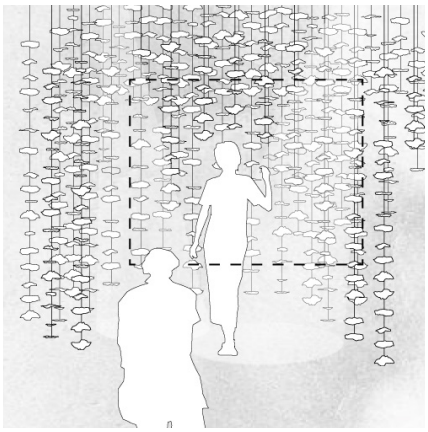
First selected positive outcomes, of what I think has been the four most appreciated and strong design decisions of the pavilion with additions made according to what was observed at Nordstan. These are to be viewed as design ideas that could inspire to other forms of design of a human centered public space.

These are also taken into the full context, again, relating to each other in program and spatial experience as well as Nordstan.



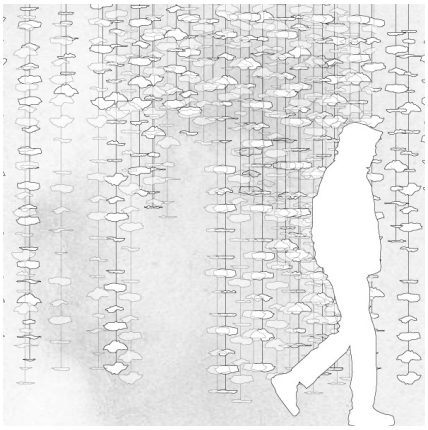
SITTING INSIDE A BUBBLE

Sitting inside what feels like a bubble, viewing those passing from a distance through claiming space in front of seating area.



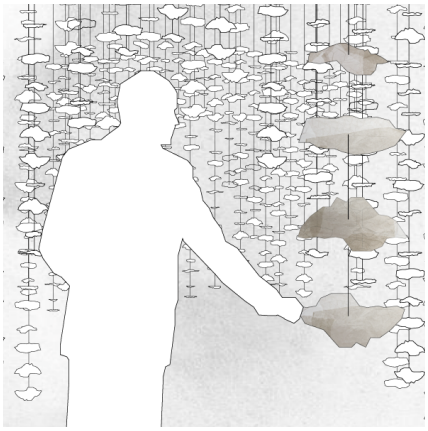
PHOTOGRAPHING

Interacting with the space.



MOVEMENT OF STRUCTURE

As you walked by, the structure moved. The garlands also slowly moved with the inside flows of air. Like a mobile, light hitting different spots creating a slow glittering.



UNITY IN VARIETY

From further away a “solid”, but when coming close more patterns appear. Irregular yet structured.

8.1. DESIGN IDEAS

My experience is that the pavilion was a reminder of nature. Both from the questionnaires or when people approached me. Often lead by "To me it looks like..." and then suggesting natural references such as an arbor, sea shells, jelly fish, leaves.

8.1.1. SITTING INSIDE A BUBBLE

The pavilion wasn't really intentionally designed for the seating arrangement to have so many "walls", the expectation was that the little embossed caves on the sides would be more pleasant for sitting down to rest than the center space.

Seeing people walk by is maybe more relaxing when there is a little distance to movement. The sense of "not sitting in the way". A conclusion drawn from people choosing to sit on the side with more claimed space in front of the chairs.

Having the sense of sitting inside a bubble, might also be the feeling like a mental bubble, with a distance from those around. Ensuring the distance through a bubble of claimed space in front.

8.1.2. PHOTOGRAPHING

The main attraction of the pavilion became people posing for a photograph both inside and outside. Creating a space with photographing as purpose could separate the more active of photographing with the calmer action of sitting down, instead of having these activities in the same space.

So, is photographing a calming activity? Maybe it isn't if you view the action in itself, which is to be transferred from your body, into how it looks in the camera, and the opposite of the pavilion intent. But viewed as an interactive action with the pavilion, where you also get something with you as you leave, the photograph, does pause your pace.

8.1.3. MOVEMENT OF THE STRUCTURE IS A STRONG REMINDER OF NATURE

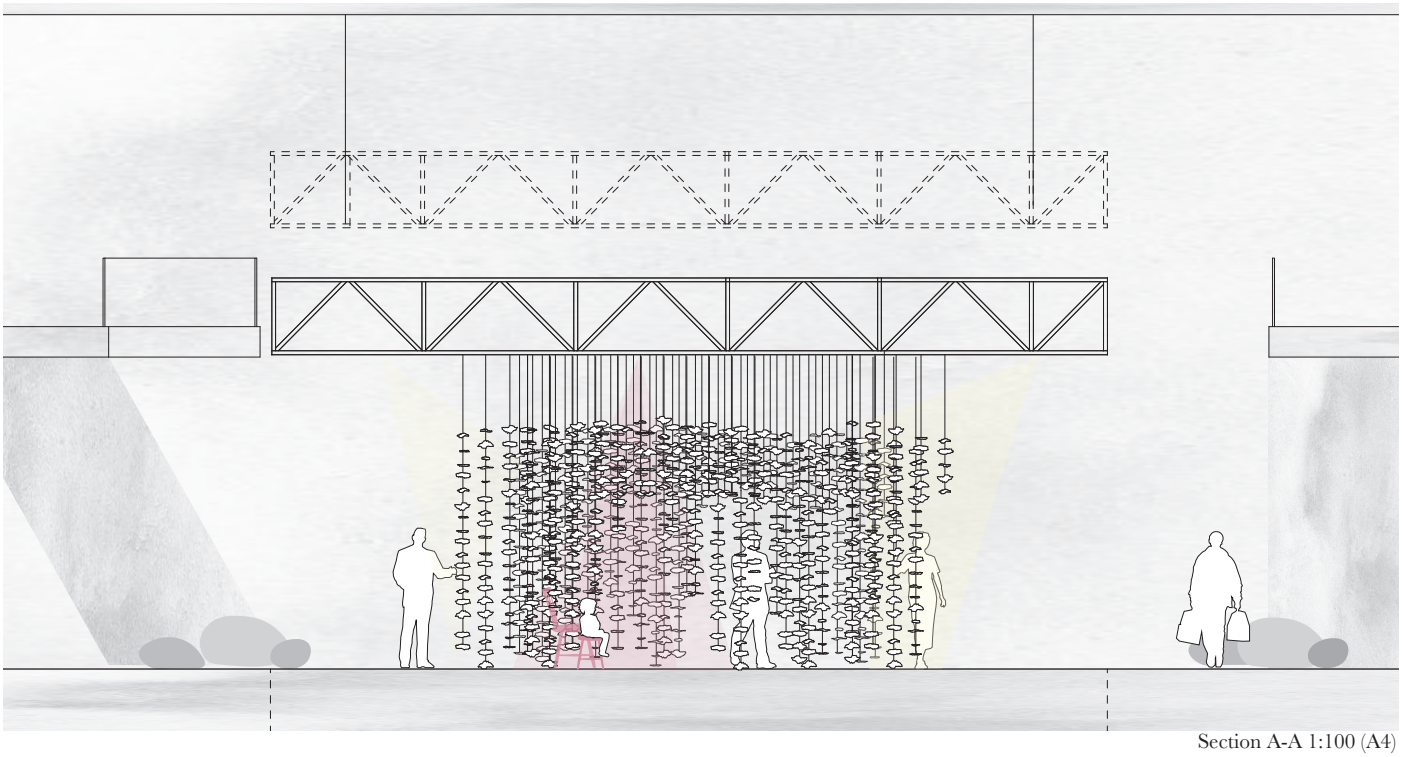
As the structure of garlands was so light it only took small winds inside of air flowing to make it move. A slow and calming pace. When it moved, the light also kept hitting from different angels creating shadows and flickering.

The garlands also moved more as someone walked by, they where dragged along the air movements of that person. This was probably the strongest relation to nature experienced with the pavilion.

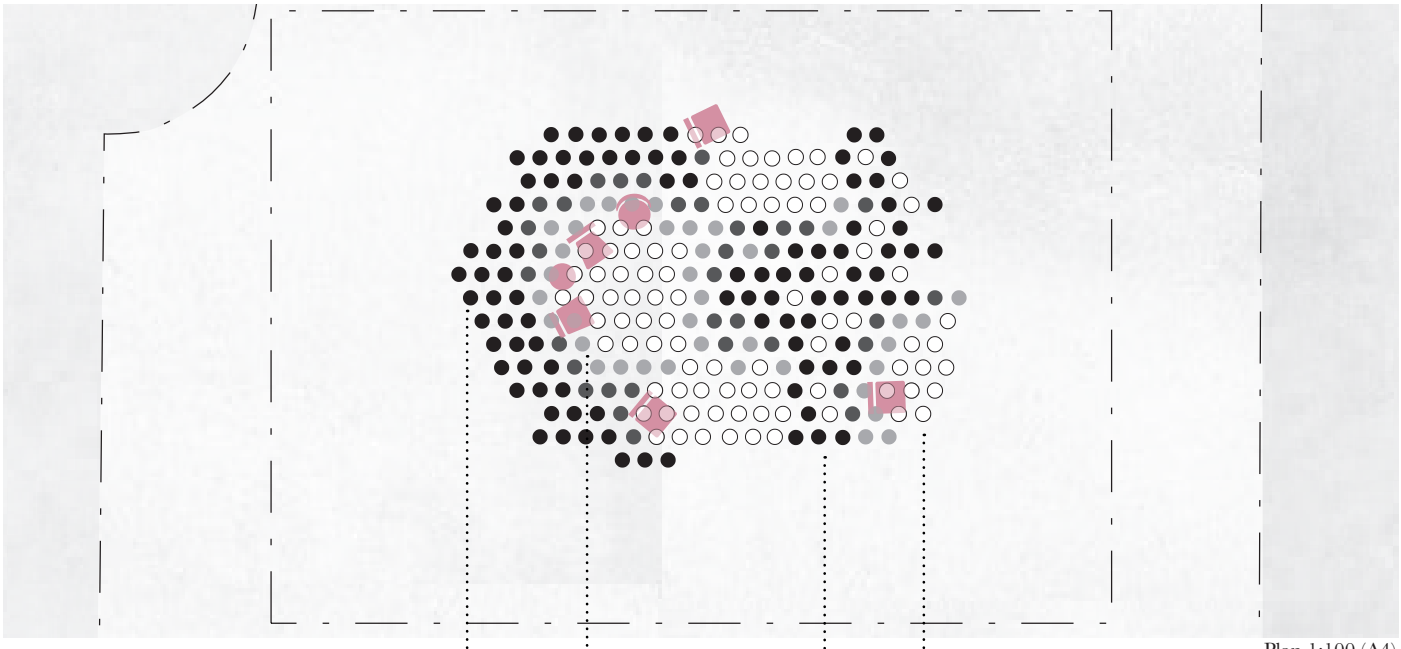
8.1.4. UNITY IN VARIETY

When from far away the pavilion was mostly the room and pink light gave a sense of depth even from far. But when moving in closer the structure became more transparent and visible experienced more as the single papier maché papers.

Together with wondering what the material was, a lot of people touched it or took it in their hand for a closer look. This was generating a lot of quick pauses.



Section A-A 1:100 (A4)



Plan 1:100 (A4)

○ Short garlands

● Full length garlands

QUICK TOUCH

Keeping the wall to this direction, but thicker.

RESTING IN OPEN SPACE GROVE

Sitting in a bubble with claimed space in front to create views of the path at Nordstan as well as the "forest walk".

PHOTOGRAPHING

Photographing niche.

FOREST WALK

Less dense! Meant for walking through. Easier to know to do, if a little bit less dense.

8.2. AN ITERATED PAVILION

The final part of the conclusion and starting discussion of the thesis, is an iterated version of the pavilion used at Nordstan.

In discussing the results of the pavilion usage at site, as well as the theory behind the pavilion, this presents a clearer illustration of what might be possible when designing a calm and restorative space with the motive of lowering pace of public life.

In this iteration the two main activities that occurred in the pavilion and where taking place in the center space, the open grove, are separated. Creating one more active space and "playarea" with photographing and playing with the garlands, and one calmer focused on seating.

Photographing is more accessible from the main path at Nordstan, and the sitting experience is made more like the feeling of being inside a bubble. Space is claimed in front of the seating through the pavilion, instead of the information, directed towards the main path of Nordstan.

As the pavilion at Nordstan wasn't thick enough to create so much of a "walk through experience", the garlands are place less dense in front of people sitting.

8.2.1. AS PUBLIC SPACE?

As this thesis has investigated a temporary pavilion, and what the temporary structure does to the movement of the public space of a shopping mall, it is inevitable to also reflect upon what these ideas could be if transferred into a static addition to public space.

Attracting from the main path or fast pace by raising curiosity, visually interesting appearance.

The imaginary reference or resemblance of objects of nature, could be less strict or nonorthogonal shapes. The **still movement of objects** that is affected by the environment, could also be objects that casts moving shadows by the sun or fixtures in structures that are not fixed but has an ability to be effected by wind or a **quick touch**.

Tactile choices of material that offers a certain "lack of design control" in visual experience, the more obvious choice might be wood with its veins or as in this case, layers of paper. But also the tactile surface that resemblance walking by a hedge, touching or taking a leaf. **Unity in variety**, smaller objects creating a whole. Keeping the design **irregular yet structured**.

Sitting in a bubble with a distance to a crowded and fast movement path. Being embossed yet with a view of the movement, somewhat from afar. An allowed space for a mental bubble, that evidently can be quite transparent which is important for safety in a public space.

9. REFLECTION

In doing such a hands-on project as thesis has been challenging yet rewarding on a very personal level. It has been the development of three focus areas; Human well-being, sustainable material and buildabilty. Three focuses I will personally pursue in future designs as it also an interpretation of the three pillars of sustainable design (social sustainability, ecological sustainability and economical sustainability).

It has been the test of building an installation and letting people react towards it, also in writing, and the realization of letting the design go, to be interpreted and used by others and no longer owning the though of its appearance. Just observing how it was used and how people seemed to respond, without judging my own intentions but reflect upon them.

The entirety of this thesis has also had a project time line much like in a larger scale of an architectural project. New decisions and ideas had to be processed quickly to not fall behind, and obstacles presented themselves frequently, such as fireproofing paper or being able to produce the final amount. Many where also involved to make this project possible.

The last chapter of this thesis is an overall reflection, with an evaluation of my thesis question, how it has guided the thesis, the purpose and the aim.

9.1. "HOW CAN ADDING A PAVILION TO THE PUBLIC SPACE OF NORDSTAN BE DESIGNED TO LOWER THE FAST PACE OF PUBLIC LIFE?"

Starting the thoughts of a thesis project in Architecture, for me began in the end of the need for a change towards sustainable lifestyles. The main idea was that caring for ones own and each others well-being, would raise the urge for experiences rather than the need for artifacts. And that a down-sizing of consumption isn't the sacrifice but a winning. The built environment being the architects tool, also being the chance of communicating the desired emotions amongst the users of the design.

This was developed in to the project aim *to explore ideas of how the built environment can impact human well-being, and be tested in a public space, inspiring to a more general sustainable lifestyle.*

The purpose *to explore possibilities of how to generate design ideas, promoting human well-being through the built pavilion evaluating the pace of public life*, in relation to the aim with the key being the built pavilion as installation at Nordstan. And using the pavilion both as inspiring directly at site but also to anthropologically investigating and exploring the relationship between my intentions and the actual response.

To me, a successful test and intention. Just being at the site, experiencing people using the space, and whether in line with the intent or not, simply enjoying it and reading about it being an architectural project. Communicating that architecture is all of the built environment, not just some of it, and that it belongs to everyone.

Evaluating the focus area human well-being through pace, where calm is a low pace and stress is a fast pace, is moderately true. The reason a person paused or didn't in the pavilion, is not an obvious evaluation of that persons level of stress. But when observed over time, the very obvious similarities of how people acted with the pavilion, and described their emotions, most certainly proves that built environment does impact us very directly.

Regarding the idea of creating an imaginary forest as a space for restoring in Nordstan seemed to come across somewhat. It's intent of resembling nature was communicated in the installation, but the fact that many also felt the desire to communicate to me what it resembles also indicates that the structure did enlighten the imagination. Searching through their own material bank of information to find the resemblance. Probably also due to the structure being very uncommon and unlike something you would typically meet in a city center.

So, do I think the pavilion did lower the pace of public life at Nordstan? I thing it definitely did, however the *how,* is probably (beside the design ideas presented), a lot due to the introduction of a space that people know not ordinarily is there. Therefor a structure that will be removed. But it was also very visible from far away due to the sharp lighting.

9.1.2. THE CONCEPT OF XS

Finally I wish to leave you with a reflection of the strategy that also got to name this thesis.

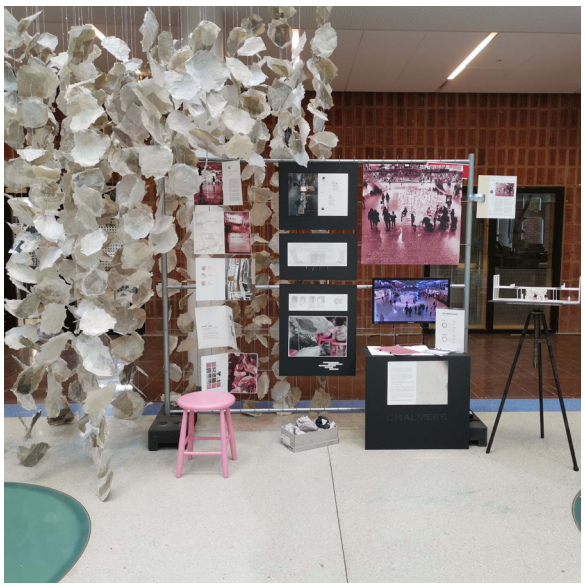
XS or Tactile Urbanism. Creating something temporary to evoke reaction and action, that is in itself an answer to the thesis question of how to lower the pace of fast public life.

Creating temporary pop-up spaces is very attracting in it self, being a one-time opportunity, and they do evoke a sense of wanting to catch the moment in people. The photographing I would say is proof of that, people want to commemorate something that will not last. Such as buying food in a food truck that normally isn't there just to not miss the opportunity.

With viewing architecture as a field of framing life rather than only building static, we also invite to a lot more creativity and imagination within other people. Maybe my thesis result would rather be to design as Nordstan and their expo area and the ability to create temporary experiences simply inspiring to seize the moment.

10. REFERENCES

The main references of this thesis has been Jan Gehl, a Danish architect on how to study public life. Sarah Williams Goldhagen on human perception and positive design in How the built environment shapes our lives. And Roger Ulrich on natures healing abilities on the human body.



The exhibition at the Open Seminar.

My father by the exhibition at the Open Seminar.

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XS
A low pace pavilion in high paced Nordstan

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