

Origin of things,  
maker of place



An investigation of birch bark as  
matter in transformation

by  
Sofia Fredriksson

## Thank you

Kengo  
Jonas  
Naima  
Evelina  
friends and family

Till Hanna,  
där tanken får vandra och vila

## Origin of things, maker of place

*A spatial investigation of birch bark as matter in  
transformation*

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Material Turn

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## Abstract

Each material comes with an embedded set of historical, cultural and physical attributes. Furthermore, each material has a sourcing place as well as production processes during which it becomes something else. When finally material has become thing, it has often travelled far and with many stops along the way. In the master's thesis *Origin of things, maker of place*, a deep dive is made into birch bark in order to explore the attributes and connotations of this material.

With the use of an intuitive and iterative method, themes have emerged and formed through collecting and producing information, and the produced information have then generated new impulses. Evoking associations such as nature and culture, forest and city, resource and consumer, affected and affecting, usefulness and uselessness, tradition and creativity, birch bark is both the starting point for exploration and the thematic glue that binds the disparate subjects together.

Since birch is a tree native to Sweden and its bark a product of its forests, this thesis can also be read as a comment on the Swedish forest industry. Because of the industry's vast impact on the landscape it is interesting from a spatial point of view, but furthermore it taps into broader questions concerning what, how and why we produce as a society.

The investigations have been reworked into spatial visualisations within a fictional narrative. Through working with the method, the fictional narrative have become centred around the forest and our relationship to it. The narratives were then organised into chapters, where the themes have been brought together and restructured as speculative scenarios with their own designs and architectural structures.

Keywords: birch bark, forestry, craft, fictional narrative

## Glossary

birch bark	-	näver
forestry	-	skogsbruk
final felling	-	slutavverkning
deciduous trees	-	lövträd
conifer trees	-	barrträd
feast/festival	-	högtid

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## The origin

Early in the thesis research process, I came across an article where the designer Emma Dahlqvist, who has dedicated her design practice to the exploration of birch bark, reflected upon the possibilities to revive the material for contemporary use. In conversation with the journalist she expressed her coexisting feelings of fascination for the material qualities, as well as hesitation towards the idea of once again exploiting a material which has long been considered irrelevant, to further increase production. Her straight forward exclamation “maybe we should just leave it” expresses a mixture of feelings concerning what is needed, what is wanted, and what should be considered as unnecessary excess. Questions such as these surface during discussions on how to handle the issues following the challenges of climate change.

On the opposite page, the quote from Juhani Pallasmaa's phenomenological classic *The eyes of the skin* speaks about a relationship between the human and the city – the urban space. In my reading, I envision this relationship to instead be that between urban space and nature. In the intangible moment when the lack of trees and the multitude of buildings transform a forest into urban space, the boundary between the two environments is blurred, making it unclear when one becomes the other. As the city embodies the memory of the forest that once was replaced, they define each other, by their presence or non-presence.

To create urban space, materials have to be transformed, replaced and redistributed. In doing so, there is a constant process of sacrificing one environment to shape the other. In the light of climate change and the environmental damage such transformations have caused, the balance between interference and preservation can be hard to envision. What does it mean to live with enough? The tolerance towards our own needs sometimes seem to widely exceed all reason, to then be exchanged for a demand for passiveness and restriction following feelings of guilt and fear of wrongdoing. Navigating these consequences of agency, this project is purposely human centred, bringing light to the dual position as someone *affecting*, and someone *affected by*. The someone *affected by* is the human who lives in the world, experiencing it with and through the body. These experiences are personal and internal, but can be communicated. The ambition for this thesis is to find ways in which the private experience transcend to the general and external.

Using birch bark as the lens through which I address the topics mentioned, I strive to unravel some of these layers, in order to translate my findings into designed space.



*”I experience myself in the city, and the city exists through my embodied experience. The city and my body supplement and define each other. I dwell in the city and the city dwells in me.”*

- Juhani Pallasmaa, *The Eyes of the Skin: Architecture and the Senses*

## PROJECT INTENTION

This thesis explores a design process which addresses different layers of history and culture concerning the material birch bark. The aim has been to reinterpret and visualise these layers through speculative scenarios, supported by designed objects and architectural structures.

## RESEARCH QUESTIONS

How can the cultural importance of a material be explored and manifested through architectural interpretation?

How can architectural design be used as an actor in a speculative scenario?



Fig 1 Final felling area (naturesidan.se)



Fig 2 Field of crops (stromsbergforeningen.se)

## Mastering nature

Today, only a small percentage of forest areas can be considered untouched by human activity. As argued by geographer Neil Smith in his publication *Uneven Development: Nature, Capital and the Production of Space* (1984), the line between nature and culture is irrevocably blurred. What we refer to as nature could in one sense be viewed as an extension of the urban landscape.

Looking at a vast final felling area from above, it bears a resemblance to a harvested field of crops. Disengaged from scale, the production forest becomes just another farmed landscape as the methods used are similar; planting, weeding, harvesting, preparing the soil. However, their scale differs widely when placed in relation to the human body, but the body is also what unites them. The body as a worker of the landscape, as well as a consumer of its goods.

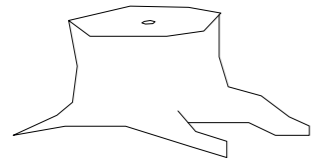
The final felling areas provide a feeling of unintentional space, since the reason for their existence takes place elsewhere where the removed trees are transformed into paper, building units or packaging material. As a result of this removal, these patches of open space appear in the landscape.

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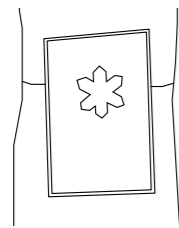
This background chapter will give an introduction to different components making up the extraction of birch bark, a more than 4000 year old production chain rooted in the forest landscape. The Swedish forest being our largest provider of natural resources, its grand scale reflected in land area as well as in economic value.



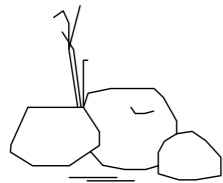
## Swedish forestry



Production



Protection



Impediment



Recreation

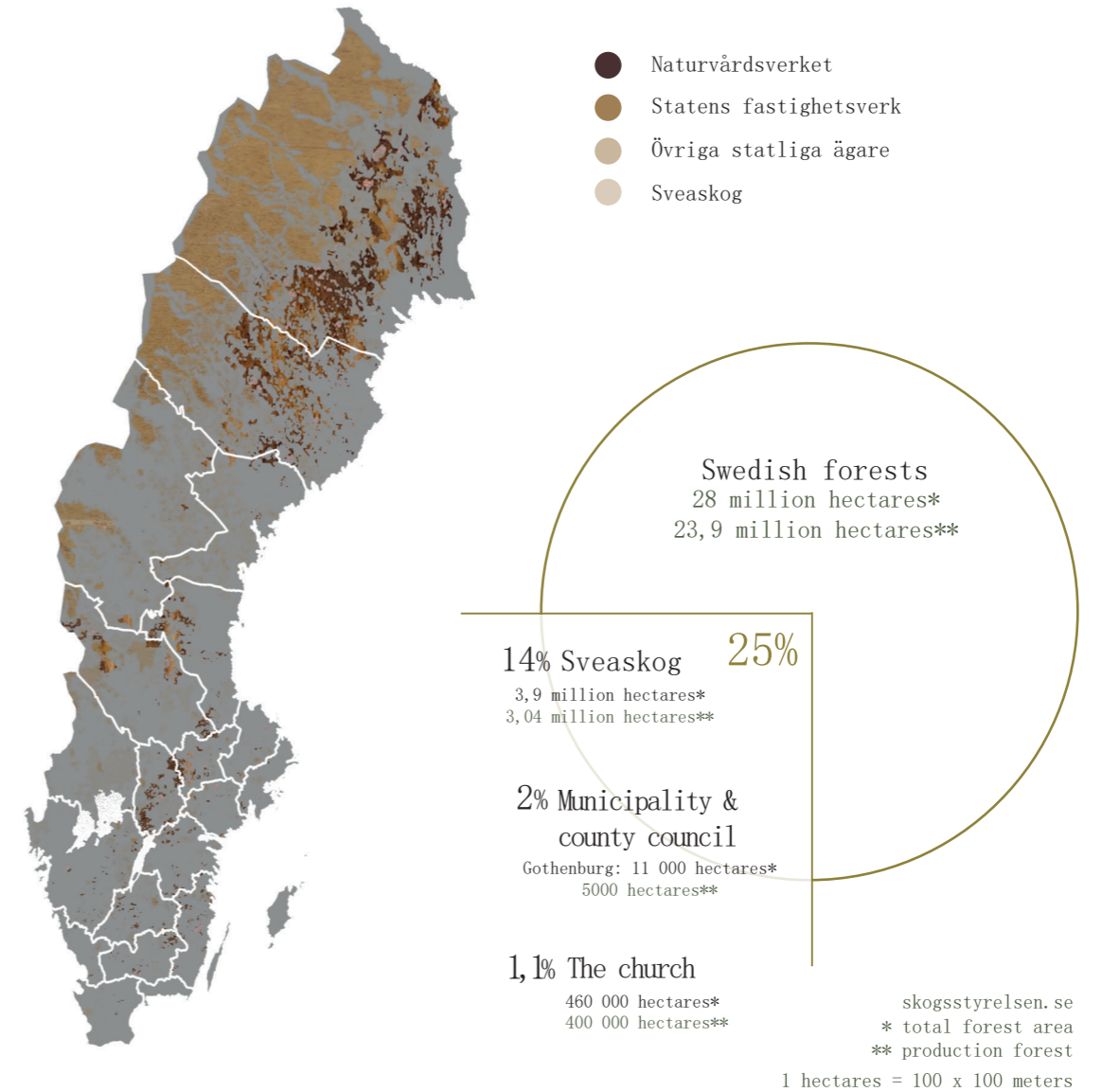
The efficiency with which the timber industry has rationalized modern forestry in order to increase production has resulted in a notable differentiation of the forest landscape. Potentially also spurred by the ambition to further expand the protection of forest environments to include larger parts of the forests, the contrast between what is considered as production forest and protected forest increases.

The production forest consists largely of one or few species of trees planted at the same time, mainly spruce or pine due to current market demand. The forest is used to extract timber, most commonly by using *trakthyggesbruk*, a method where the majority of the trees in an area are cut in one occasion.

Different levels of protection are applied to forest areas considered valuable due to a large variation of species, high density of aged trees, or endangered ecosystems sensitive to disruptive environmental changes. In the protected forest, little or no material extraction can be conducted to avoid such changes.

Areas of a forest producing less than 1 m<sup>3</sup> timber/hectare and year are defined as impediment and not suitable for timber extraction. These are mainly areas such as mountains and wet lands, with harsh conditions or difficult terrain.

Those who express concern for the way in which the difference between the cultivated and the protected forest becomes more strictly defined, argues that while focus is mainly placed on preserving forests with high aesthetic value, it leaves little care for the way in which the remaining production forests are conducted, viewing these forest areas mainly as a timber source.



## Ownership

The ownership of the Swedish forests is distributed between different operators. Around 50% is owned by private individuals (skogssverige.se, 2022), mainly managing forest properties smaller than 100 hectare. The largest properties are owned by private timber companies as well as by the Swedish government. As shown in the diagram, 25% of the forests are owned by instances which can be considered as

somewhat related to the state and the public. Sveaskog is the largest of these, a state-owned enterprise owning 14% of the total forest areal, of which 3.04 million hectares are used for active timber production. The possessions of each municipality as well as forests own by the Swedish church make up a total of 2,1%,



Final felling area



Gothenburg city center (Google Earth)

### Final felling areas

A Swedish final felling area of 50 hectares is not uncommon. Continuous areas as large as 100 hectares are permitted with certain preconditions (skogssverige.se). A clear-cut area of such size is roughly equivalent to the area inside the moat of Gothenburg city centre. The image of this specific felling area, located in the north of Sweden, show how these areas are clearly visible as patches of brown in the otherwise green forest landscape.

In the contemporary Swedish forestry, the growth cycle ends when the trees in an area have reached a certain trunk dimension. Depending on the species, such cycles last between 60–80 years. Due to a long-standing demand for well grown timber, 8,5% of the forests are currently older than 120 years (sverigesmiljomal.se ) with only 85 000 hectares of old-growth forest remaining, defined as untouched by human activity for more than 150 years. (skogssverige.se, 2022)

When these areas are replanted, spruce is the most commonly used tree. Together with pine, they make up around 83% of the entire tree population in the country. In an effort to increase biological diversity, there is an intention to try to further implement the use of deciduous trees. As the third most common tree by 12%, the use of birch could be extended to create a different forest landscape.



Following in the footsteps of Swedish forestry, three felling areas at various stages of regrowth were visited. The final felling is the last stage of the forest growth cycle, before a new one begins. In the production forest, these different stages exist side by side, often separated by clear cut edges.

## Downy birch

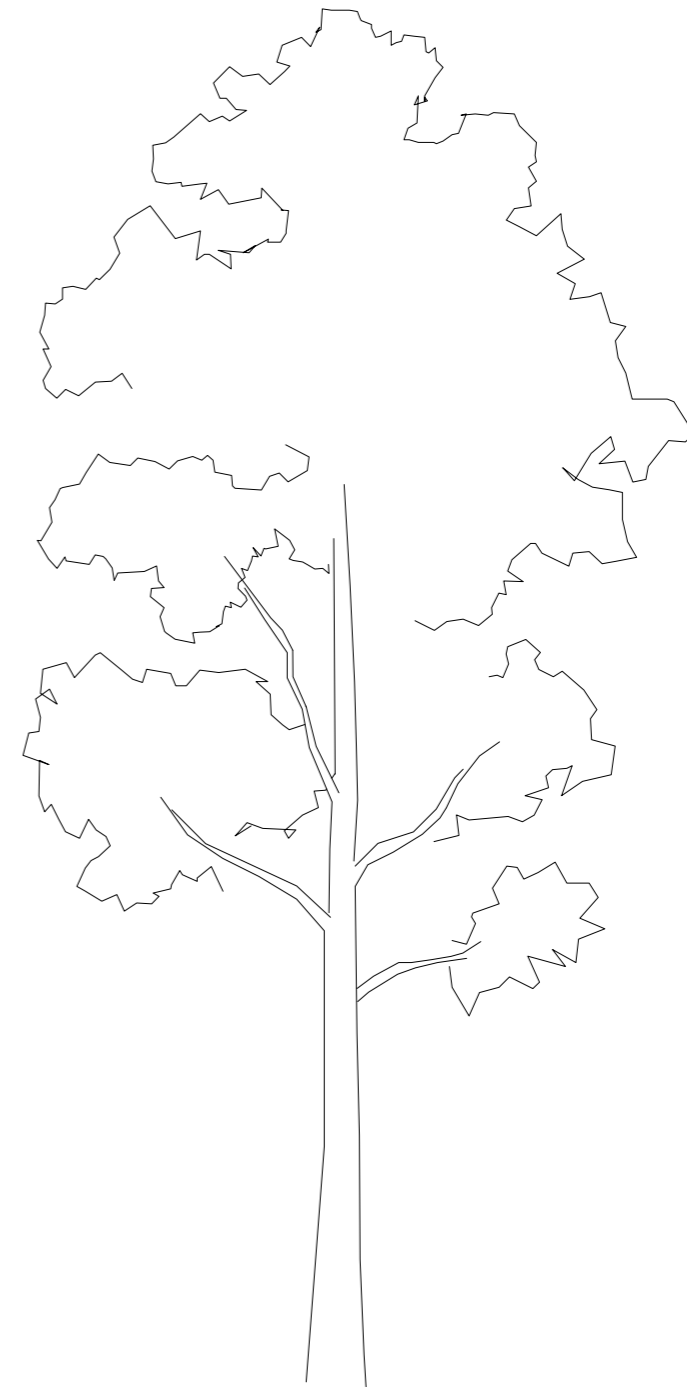
There are three main types of birch in Sweden; Dwarf birch (*Betula nana*), Warty birch (*Betula pendula*) and Downy birch (*Betula pubescens*). The birch bark used for sloyd crafts is extracted from the Downy birch, which is the one addressed in this thesis, hereafter simply referred to as birch. The Warty birch and Downy birch can be difficult to separate from each other and both variations can be found throughout the country, Downy birch being slightly more common in the northern parts. It thrives in a more moist environment, while the Warty birch prefers a dryer soil. (Dahlquist, 2018)

The birch is a pioneer tree and grows fast in open spaces as it requires a lot of light. As a consequence, the planted birch forest needs clearing to optimize growth, making the birch forest lighter, and allowing different ground vegetation than the conifer forest. It reaches a height of 20-25 meters before it is felled after a growth period of 60-80 years.

There is a current intention set out by the Swedish state to promote biological diversity in national forests. (slu, 2022) In recent decades, many production forests have become increasingly monocultural as more diverse forests have been predominantly replanted with spruce. An increased use of newly planted birch is seen as one of the steps towards a more diverse forest landscape, as stated below.

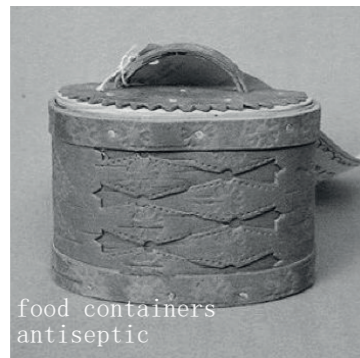
“During 2021, large quantities of birch are planted in Götaland and this increase will continue in the following years. Until 2026 the plan is to increase the amount of birch plants each year, the newly planted birch areas becoming 6-7 times larger than they are today.”

Sveaskog, 2022

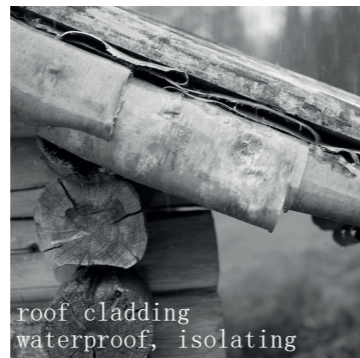
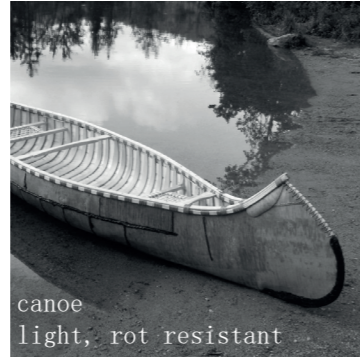


traditional

Indoor



Outdoor



contemporary

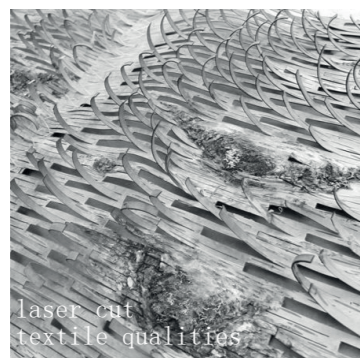


Fig 3-8

## Birch bark and sloyd

Birch bark serves as the core throughout this thesis, a material which at times has been of great economical and cultural importance, to then almost fall into oblivion. The function of the material have been replaced by others along the journey of industrialisation.

During the 17th century, birch bark and birch tar were two of the main Swedish exports. (Björk, 2013) Shipping to large parts of Europe made it a material of substantial importance to the country. Although reaching its peak in financial value at this time, traces of use can be found throughout a time span of 4 000 years.

Keeping its relevance throughout the centuries due to its important function as water resistant layer in timber roof constructions, the use gradually declined in the 19th century after the introduction of new building techniques. (Björk, 2013)

Still, an area in which the birch bark has managed to survive is within the field of craft. What has lived on until today is the interaction between hand and material that crafting embodies.

Although craft offers an often time consuming procedure, as well as little financial gain, its value seems to lie elsewhere. Whether it dwells in a moment of focused leisure, in the thrill of mastering a new material, or in the experience of connection with previous generations, this interaction seems to touch a nerve which resonates within many of us. That act of making can provide a sense of meaning that further extends that of the material itself or the final result.

## Harvest

Today, there is no extraction of birch bark on a larger scale in Sweden. Apart from personally contacting a forest owner to ask permission to receive a few sheets, the main alternative is to buy the bark online, sourced from Russian or Finnish forests.

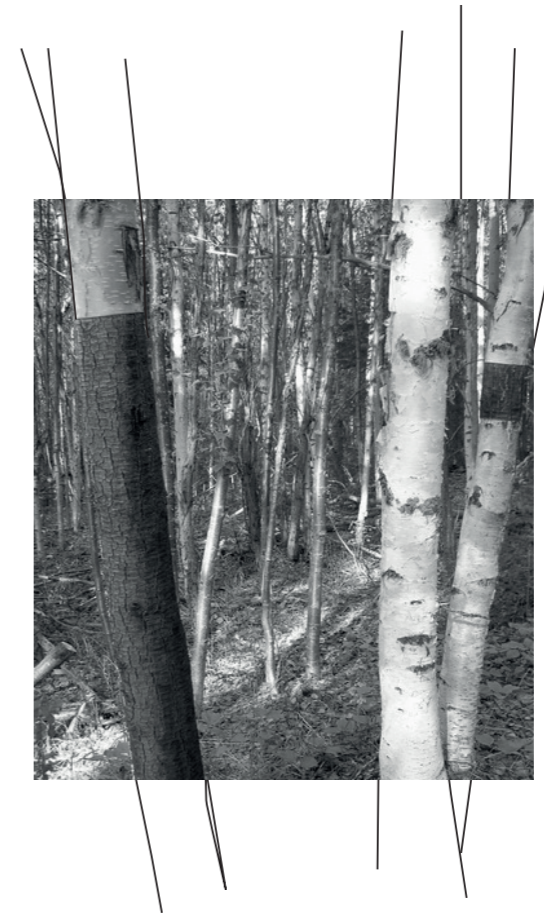
In this context, the common procedure is to remove bark from trees which will soon be cut down, thus harnessing a by-product from a resource already earmarked for timber production. At the sawmill, bark is generally considered as a residue, and as much as 255 000 ton bark is believed to be burnt in Swedish and Finnish mills each year. (Dahlquist, 2018)

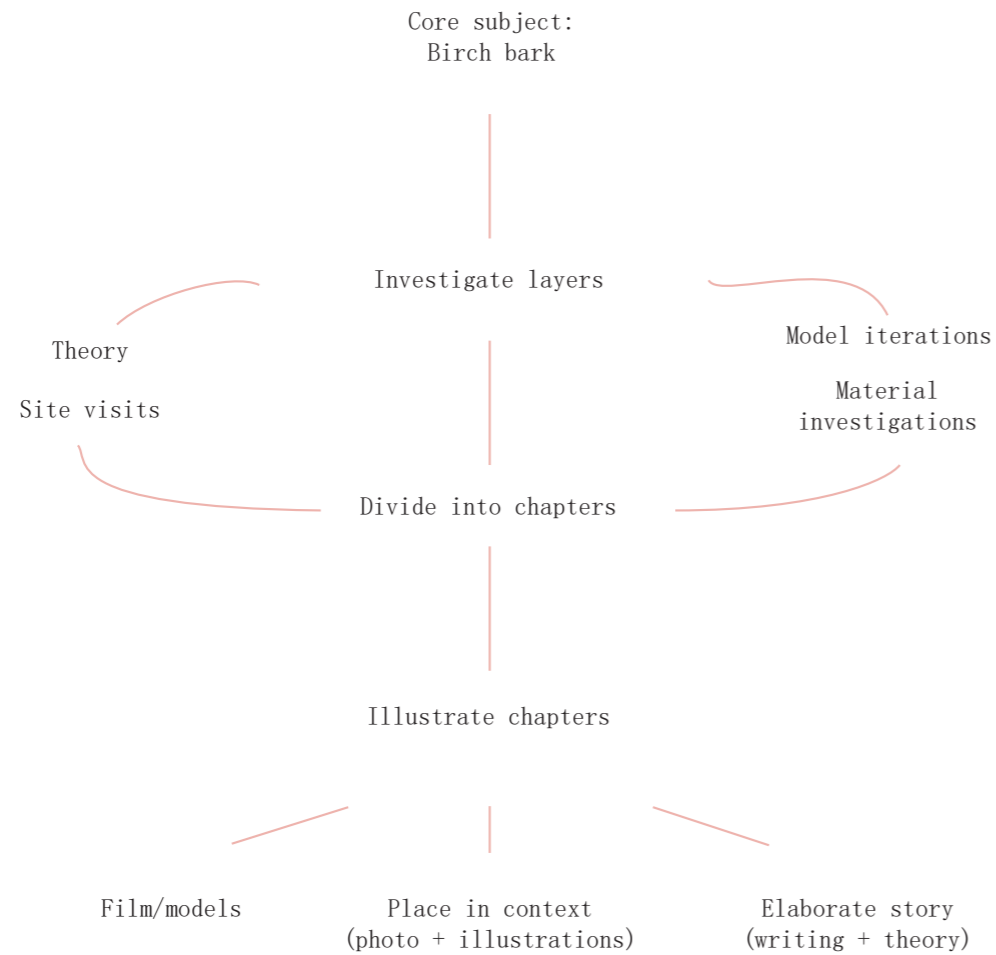
This material extraction can however be preformed without having to cut down the tree afterwards. The traditional harvest of birch bark is a non-lethal act if performed correctly. By removing the outermost layer of the bark during the few weeks around Midsummer when the sap is rising, the material can be collected without vital damage being done to the tree.

## The sourced bark

In order for the tree to survive this procedure, the removed area cannot be too large. Similar to a skin wound the trunk heals itself by producing an eschar like layer, covering the exposed area. In 8-10 years, the bark is fully replaced with a new outer layer which differ in colour and texture. It is then possible to harvest the same birch over again.

After the birch bark is removed from the trunk, it is placed to dry. During the drying process the bark should be pressed flat in a ventilated and slightly humid environment, to avoid the material from cracking or deforming.





## METHOD

The thesis uses birch bark as the chosen lens through which different adjacent topics are being addressed. With the birch bark as the core subject, a project method was developed where the topics have been processed through an intuitive iteration process. Through this process, inputs of theory and site visits have been incorporated into models and spatial investigations. These have been continuously reworked and separated into gradually enriched chapters.

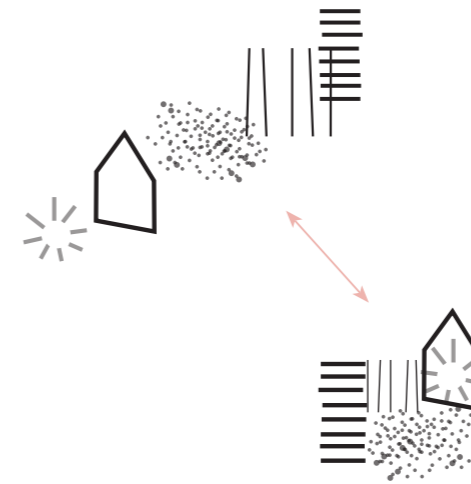
The explorations have included a range of different expressions and techniques, such as film, poetry, physical and digital models and photo montages. The division into chapters has enabled different stories and visualisations to crystallise, highlighting the themes of the thesis in their own ways, as well as underlining the shared core of the birch bark.

## Photographs/film

The camera was used in the documentation process of the different models and material experiments. It was also used as a tool when staging some of the scenarios and spatial investigations, as well as a way to illustrate a short film for the chapter *The act of making*.

## Fictional narrative

The work is placed in a semi-fictional reality. Using this narrative the aim was to explore a speculatively designed reality guided by ideas of resonance, slowness and attentiveness. The fictional narrative is not to be viewed as utopian, nor dystopian, but rather as a question of “what if?”.



## Separating and fusing

Using birch bark as the starting point, investigations have been made in order to unravel and observe different cultural and physical layers related to the bark. As such, the birch bark serves as the project core, onto which additional themes have been attached and integrated. The project arc has been about finding ways to separate these layers, observe them individually, and then fuse them together in new constellations under a uniting narrative.

In this sense, the birch bark itself can be considered a method of exploration, since it enables the opportunity to branch out and collect input from several fields of knowledge, but still have a set limitation to keep a manageable project overview.

## Model making

Physical and digital models have been used as investigative tools to examine and frame spatial and emotional qualities in the different chapters. The models were iterated and developed to further highlight aspects of their individual qualities, or emphasize ways in which different themes related to each other.

## Material studies

The large part of the material studies took place during fall 2021 in the master course Matter Space Structure 3. By manipulating the birch bark, the aim was to investigate in what different ways the material could behave. The goal was also to get to know the material more thoroughly through the experience of working with it by hand, investigating the relationship between body and material.

New materiality: Jane Bennett  
Social theory: Neil Smith

The events set in motion when matter is redistributed and undergoes transformation have a profound impact shaping global structures. Jane Bennett's book *Vibrant Matter* (2010) and the works by geographer Neil Smith are two theoretical starting points addressing the complex relations shaping our societies. In different ways, their aim is partly to alter the way in which we view non-human matter, to instead consider it as an entity with an agency of its own. Through consulting these ideas of agency, the dual position of matter as something affecting, and something affected *by* has been of interest during the work of this thesis.

Spirituality in nature: David Thurfjäll

One underlying theme throughout this thesis is the role the forest plays in the human collective consciousness. The deeply rooted connection between the forest and humans have been frequently explored in different publications in recent years. One of these works is *Granskogsfolk* (2020) by David Thurfjäll. His approach as an historian of religion suggests that Swedes' relationship to the forest has become increasingly spiritual, where the connection to nature has replaced that to the church. In his view, the forest becomes a carrier of spiritual qualities, reinforced by the far-reaching tradition of Sweden as a forest nation. This reinforced interest towards nature is also viewed as a search for extended meaning and belonging, an alternative reality in opposition of modern urbanity.

Resonance: Hartmut Rosa

The sociologist Hartmut Rosa follows a similar track as Thurfjäll when he introduces his concept of resonance. In his publication *Resonance - A Sociology of Our Relationship to the World* (2021) he addresses a lack of deeper connection experienced in today's society. This lack of connection, he argues, tends to alienate us from profound feelings of meaning and purpose. Rosa acknowledges that it might prove impossible for modern day society to deviate from a current path of acceleration and constant growth. Instead, he argues for a transformation of the personal relations to the external world as a starting point for change.

Traditional sloyd: Emma Dahlqvist

Emma Dahlqvist dedicated the final year of her education in textile design to explore the contemporary possibilities of birch bark, resulting in the book *Näver: fläta, tampa, vika* (2018). The book expands on the historical background of the material, as well as serving as a practical guide on different sloyd techniques. Since the end of the 19th century, sloyd has been the main area in which birch bark has been used. In later years however, an increased interest in renewable resources has renewed an interest in traditional materials and methods.

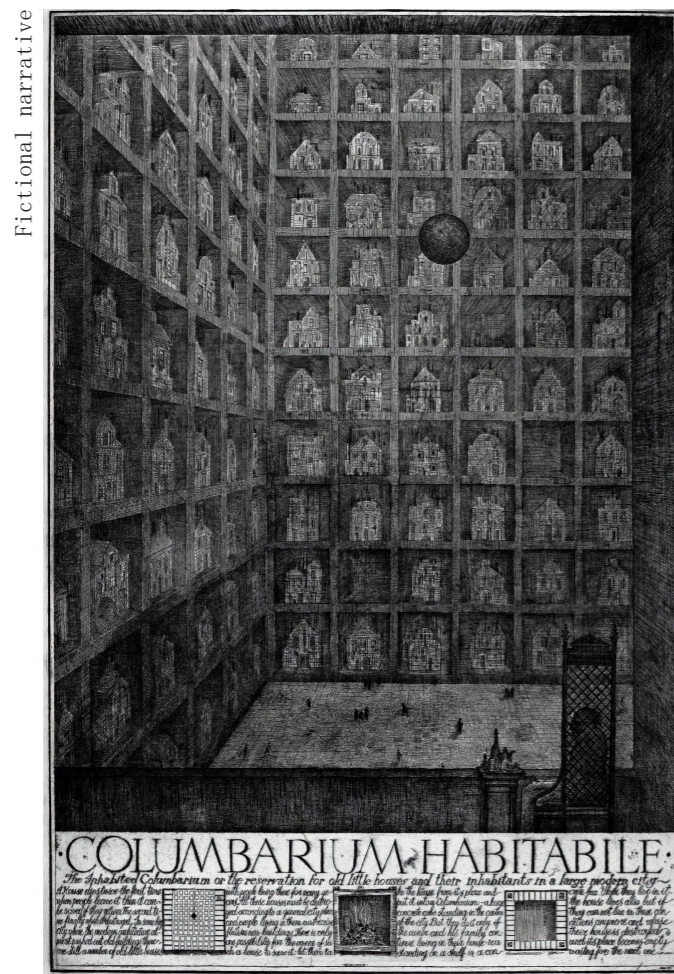


Fig 10

Fictional narrative

Paper architecture,  
Alexander Brodsky, Ulaya Utkin

The atmospheric and suggestive images of Alexander Brodsky and Ulaya Utkin have been an inspiration for this thesis by their way of illustrating an idea or theme through the use of speculative architecture. In their projects they present altered realities, where the play with scale, natural laws and symbolism allows them to address contemporary events and topics in complex ways. Rather than presenting definitive answers, they allow ambiguity and emotion to become part of the proposal, placing their work between artistic exploration and architecture. As in *The continuous monument*, the negative utopia is also depicted as a way to emphasise a critical standpoint.

The continuous monument  
Superstudio (1969)

The continuous monument uses architecture and context as a way to illustrate critique against the contemporary. The proposed structures embodies the concept of the constantly evolving city. Instead of two separate entities, the idea of the city is stretched beyond its usual boundaries, merging into the wilderness. It becomes a visualisation of an otherwise intangible presence, addressing the relationship between architecture and nature by placing them in direct relation to each other.



Fig 11

Large scale structures

The Woodland Cemetery (1915)  
G. Asplund and S. Lewerentz

In the execution of the burial site *Skogskyrkogården*, the landscape plays a crucial part in the designed space. The use of trees enhances an atmospheric experience, as well as carrying strong symbolic meaning.



Fig 12

Landscape design

Cambio (2020)  
Formafantasma

In the exhibition *Cambio*, the design duo Formafantasma explore the extraction, production and distribution of the wood industry. The varied techniques and medium outputs such as artefacts and film have influenced the methods and work process throughout the project.



Fig 13

Art installations

## DELIMITATIONS

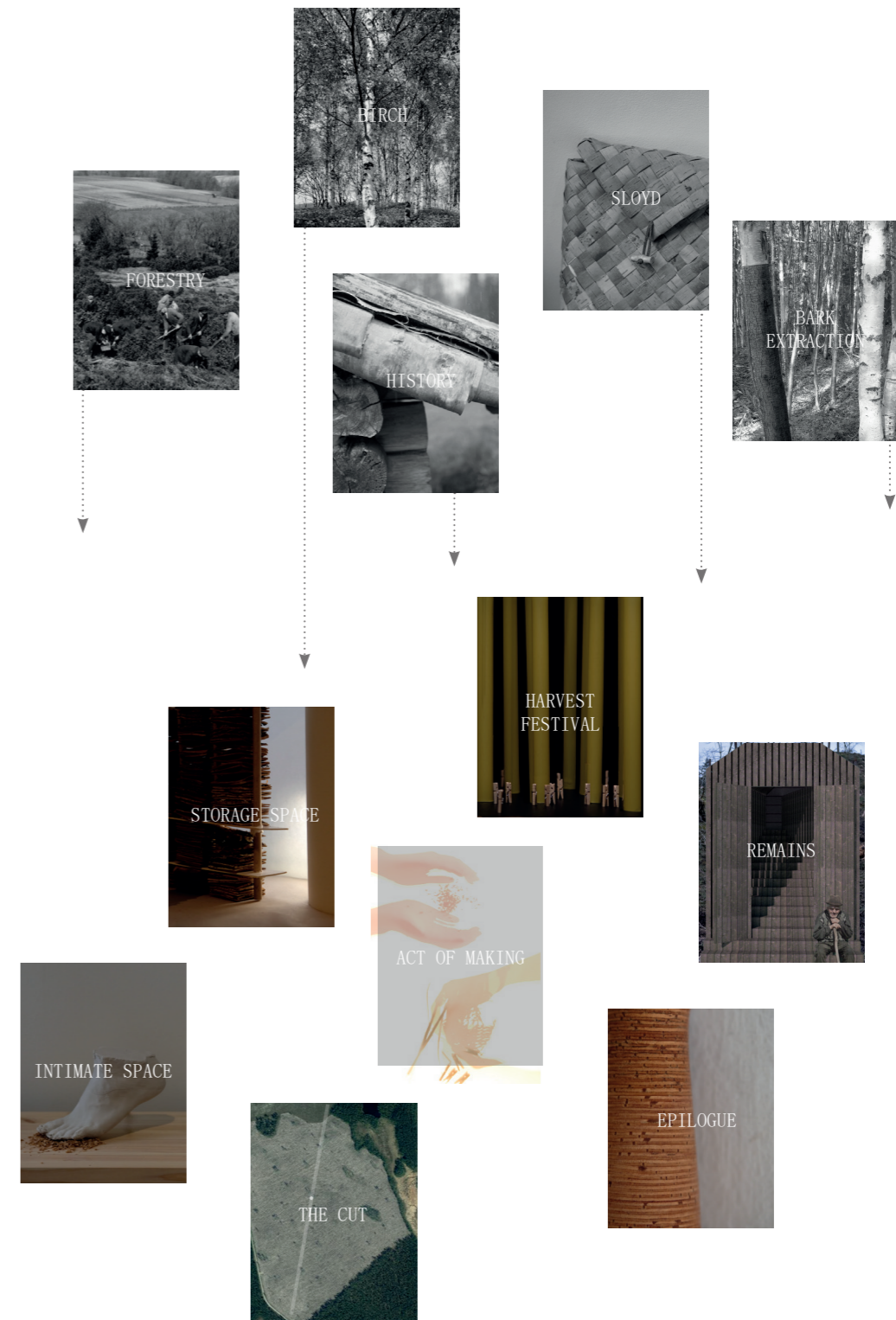
This thesis addresses contemporary Swedish forestry, as well as referencing historical traditions and buildings. It also strives to observe the traces of historical and contemporary approaches to forestry visible in the Swedish landscape. It does not, however, attempt to make a completely feasible suggestion as how to replace the forest industry of today. Nor does it strive to achieve uttermost rationally in the designed building proposal. The proposition is rather to be considered as a somewhat fictional scenario, interpreting aspects and consequences of real current events.

The architectural elements are considered as supporting the narrative of the different scenes, rather than the structures being the central core of the thesis topic. As such, the technical aspects of the structures have not been the main focus for this project. However, it has been important that the buildable aspect remains, to keep the connection between fictional narrative and existing prerequisites.

## READING INSTRUCTIONS

The following part of the project is divided into chapters, inspired by the different stages of, and topics related to, birch bark. The chapters take place inside a fictional narrative where these existing stages are re imagined and reinterpreted into design investigations.

The content of the chapters is the result of intuitive explorations with a starting point in current events or existing facts. From this framework they have evolved into a essayistic collection of ideas.



Chapters

I  
Remains





## Remains

The forest evokes memory and emotion. The connection between the human mind and the forest have been subjected to countless depictions in art and literature. When the 18th century philosopher Edmund Burk elaborates on nature's embodied beauty, he differentiates the beauty of a flower to that of a mountain cliff or high raised trees. The former, he argues, is simply beautiful, while the latter he prefers to describe as sublime. A thing of sublime beauty inhabits a layer of unease, something unknown that overwhelms the beholder, a carrier of potential power or danger.

Perhaps one aspect of this distinction can be found in a differentiation of scale in the relation between ones own body and the surrounding space. In the shadow of a group of trees you can feel sheltered and protected, but also exposed or in fear of getting lost. The presence of a structure much larger than myself feels daunting.

Can such a presence be noticeable after it has disappeared?

The natural growth cycles in the forest are intensified through contemporary forestry. Refined trees are planted and felled simultaneously, making large patches of forest disappear from one day to the next, leaving little trace behind.

When something is threatened to slip away, it can evoke a longing to embrace it, to keep it closer or value it higher.

Is it possible to let the forest slip away? To value it when it exists, and grieve when it is gone. To use it. To dwell in nostalgia on weekend walks, and then drive back to the city.

*Why do we need the forest?*



Fig 14-20 Traces of forest industry

### Large scale traces

The vastness of the forest is reflected in the traces of production. Through different times, it has left behind more or less transformed landscapes. The Swedish deciduous forests of the 17th century have been exchanged for forests dominated by spruce and pine.



1. Military remains 2. Hunting tower 3. Barn wall 4. "Fäbodar" 5. Stolpbod

### Small scale structures

Remaining in the forest, traces of human activity can be found as scattered small scale structures. Visited sparsely or abandoned, they manifest as memories of an ambition to control and collect. The military bunker and the hunting tower symbolises an attempt to exercise power over their surrounding. The *fäbod* and the *stolpbod* manifest the desires of collecting and safe keeping by placing something out of reach for the uninvited.



### The outpost

In the book *Walden* (1856), author Henry David Thoreau leaves the city during a period of two years to live alone in a forest cottage in Massachusetts. He is driven by the urge to escape the rush of modern day society, to become self sufficient by growing food and producing his own tools. To him, the forest becomes an escapist symbol, an place to visit when in need of a different prospective of the self.



### The remaining structure

The re-interpretation of the remaining structure becomes a manifestation of this longing towards the forest. It is a space for contemplation, observation, shelter and rest. Dimensioned for a single visitor it contains a bench, a table and a shelf. With the bark clad sliding walls fully opened, the view is visible in all directions. When closed, the walls encapsulates the visitor, separating them from the surrounding landscape.

II  
The cut





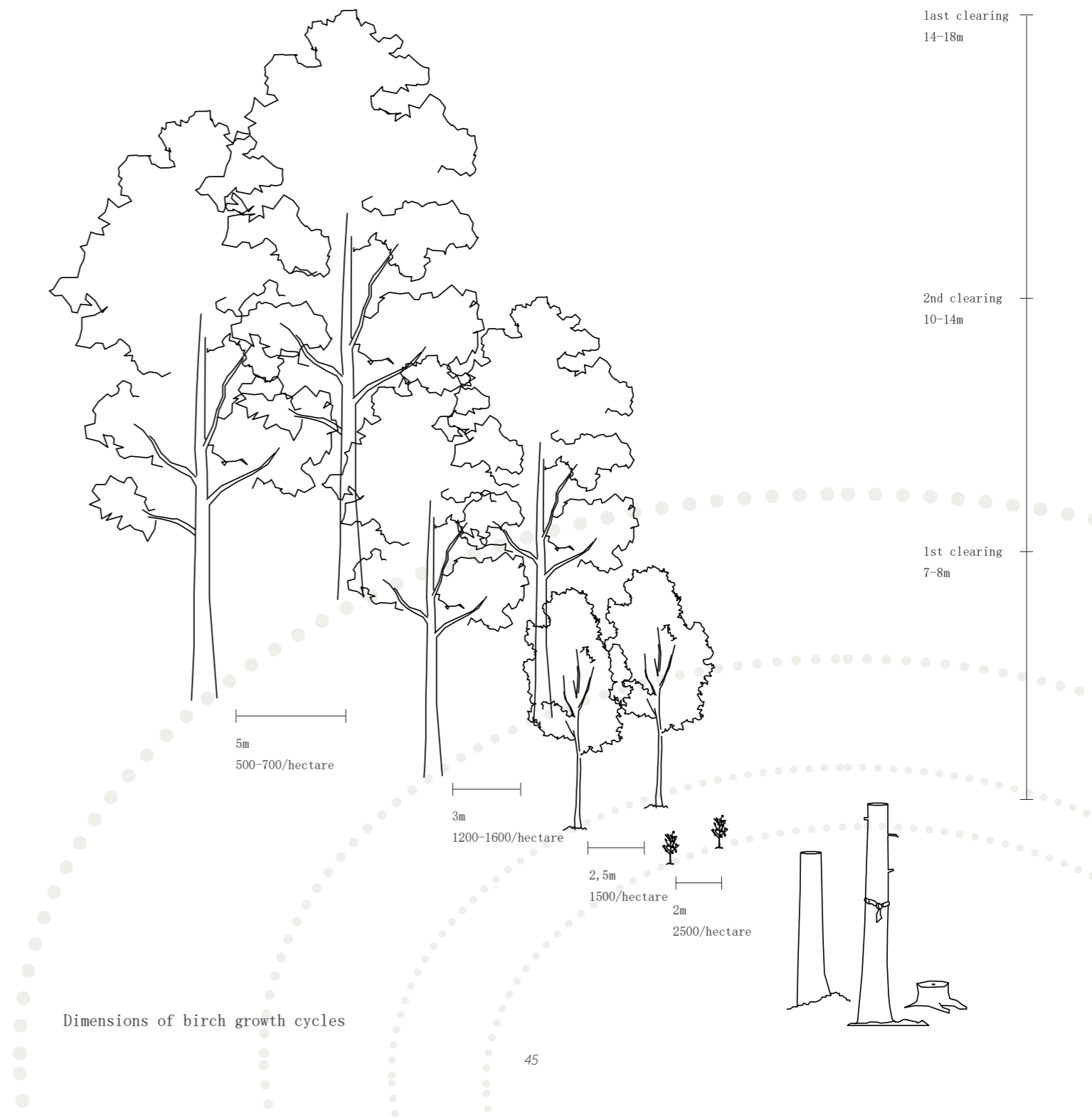
Google Earth

### The cut

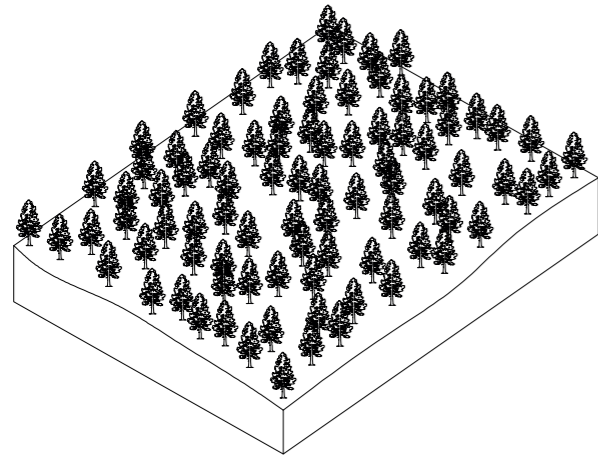
*a re-choreographed forestry*

All forests used for timber production are to some extent choreographed spaces. By choosing the species, refining new plants and clearing away unwanted trees, these forests are kept in a way that mainly aims to increase the amount of extracted wood. In this chapter, this procedure of control is acknowledged through the speculative proposal of replanting a new birch forest in a strict circular pattern, replacing one manufactured forest with another. The pattern derives from guiding measurements used in birch plantations, where the fully grown trees have an optimal distance of five meters between the trunks.

Using the outlines of an existing final felling area, this transformation represents an alternative time line, where the conifer forest is gradually replaced by birch in a choreographed shift. Instead of timber extraction, the birch forest is used as a sourcing place for birch bark. As the trees do not need to be cut down to extract the bark, the harvest can be continued without disruptive forest clearings.

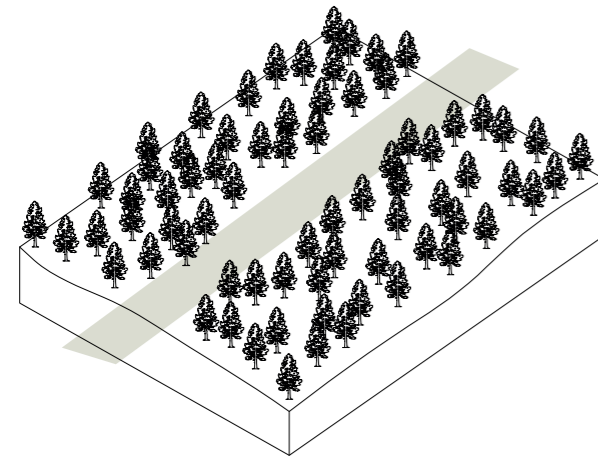


Dimensions of birch growth cycles



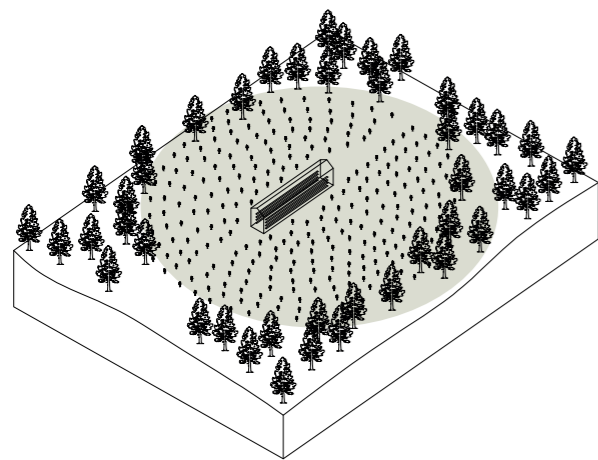
1st year

The production forest area, a mono cultural landscape of pine trees in its last growth phase before the final felling.



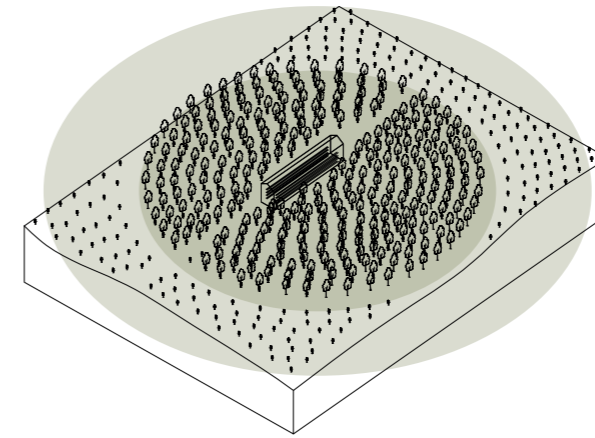
2nd year

A corridor is cleared through the area, a road for transportation of machines, a defined cut in the forest landscape.



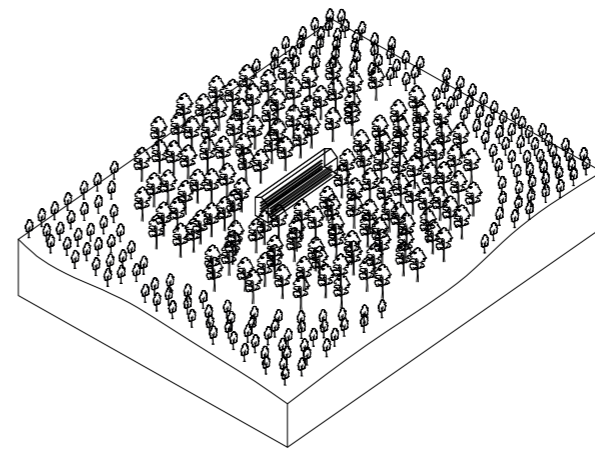
3rd year

A cleared circular space expands from the corridor. In the centre, a structure is built using the extracted timber, serving as a temporary sawmill and shelter protecting the drying timber logs. The cleared area is replanted with birch.



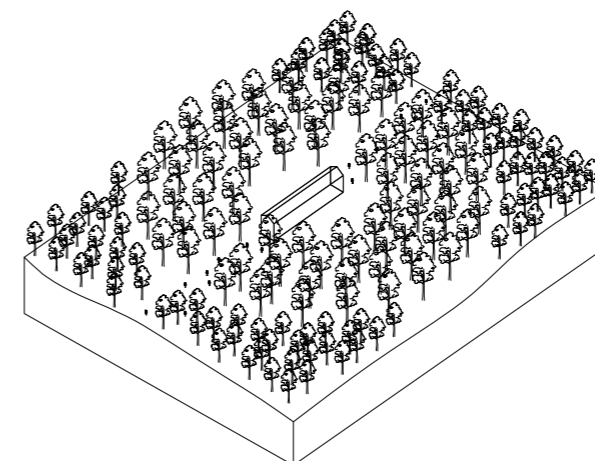
10 years

The new birch forest is further expanded by another growth ring. The building still functions as timber storage.



40 years

The growth rings continues to be added until the entire pine forest is replanted with birch. The bark of the trees in the first rings are ready to be harvested. The building is transformed into a storage and maker space.



60-80 years

After a growth cycle of 80 years, the inner circle can once again replaced with new plants.



III  
Harvest festival



Harvest of the bark in the early summer



Darrel Austin, 1972

### Reintroducing the bark harvest tradition into a contemporary Swedish context

Inspired by the fact that birch bark can only be harvested from the living trees in June, a seasonal festival is established surrounding the act of extraction. The harvest festival is an annual event, reinforcing the collective memory of the cultivated forest as a space.

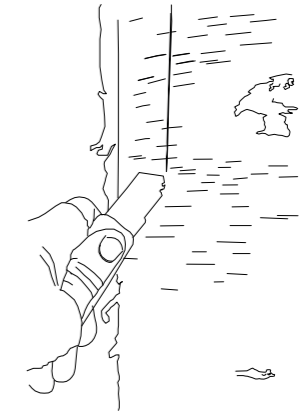
A festival, carnival, or feast can have the power to reshape the way in which we perceive the surrounding space. Through symbols, specific customs and rituals, otherwise ordinary situations and objects become uplifted and given new meaning.

The festival invites the observer to become a participant, a part of a production chain, a collector of resources.

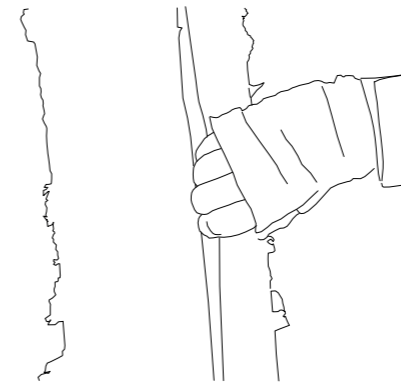
After each harvest the tree trunks are left with visible scars, remaining as permanent marks in the landscape.



The bark is harvested from the birch when the sap has risen, making it possible to remove the bark without damaging the tree.



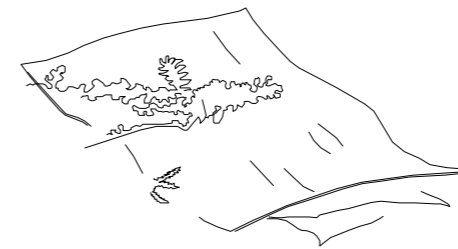
Carefully cut a slit in the outer layer of the bark, without damaging the layers beneath.



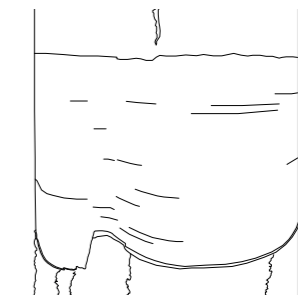
The slit is carefully expanded to separate the bark from the trunk.



The sheet is unwrapped all the way around the tree.



The removed sheets are stored flat to dry and to avoid deformation.

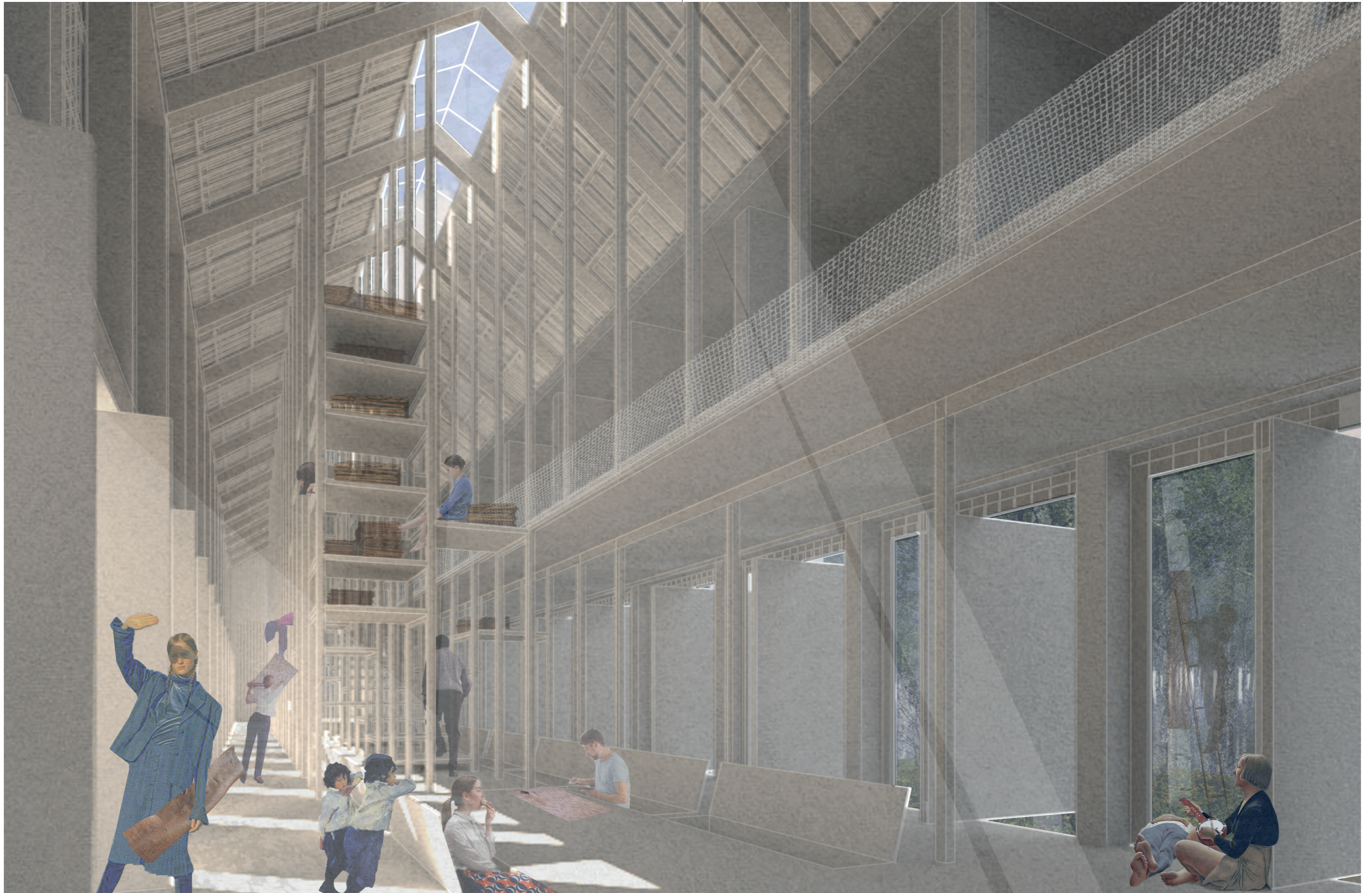


It takes 8-10 years for the trunk to heal, the removed part still being a clearly visible contrast to the rest of the trunk.



Celebration in the evening

IV  
Storage space





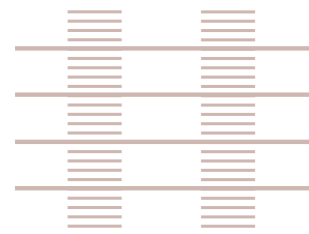
solid



stable/unstable



symmetric removal



pillars



partial removal



figurative removal



### Storage space

Today there is no organized extraction of birch bark in Sweden, but sheets of bark can be bought online from Finnish or Russian forests, measuring 500x500 millimetres. In this chapter this standardized measurement becomes the starting point for a spatial investigation of the bark as a building unit. The storage space has been influential as a symbol of the in between, where a material have been taken from its origin place, before it has reached its final destination.

The spatial explorations derive from a scenario where the supply of birch bark peaks in the summer directly after harvest, when the shelves are being stacked to the brim. Over the year, the stock gradually declines until the shelves become empty, before they are once again filled up. The supply of bark defines the room as it goes from solid walls to a see through grid system of shelves.

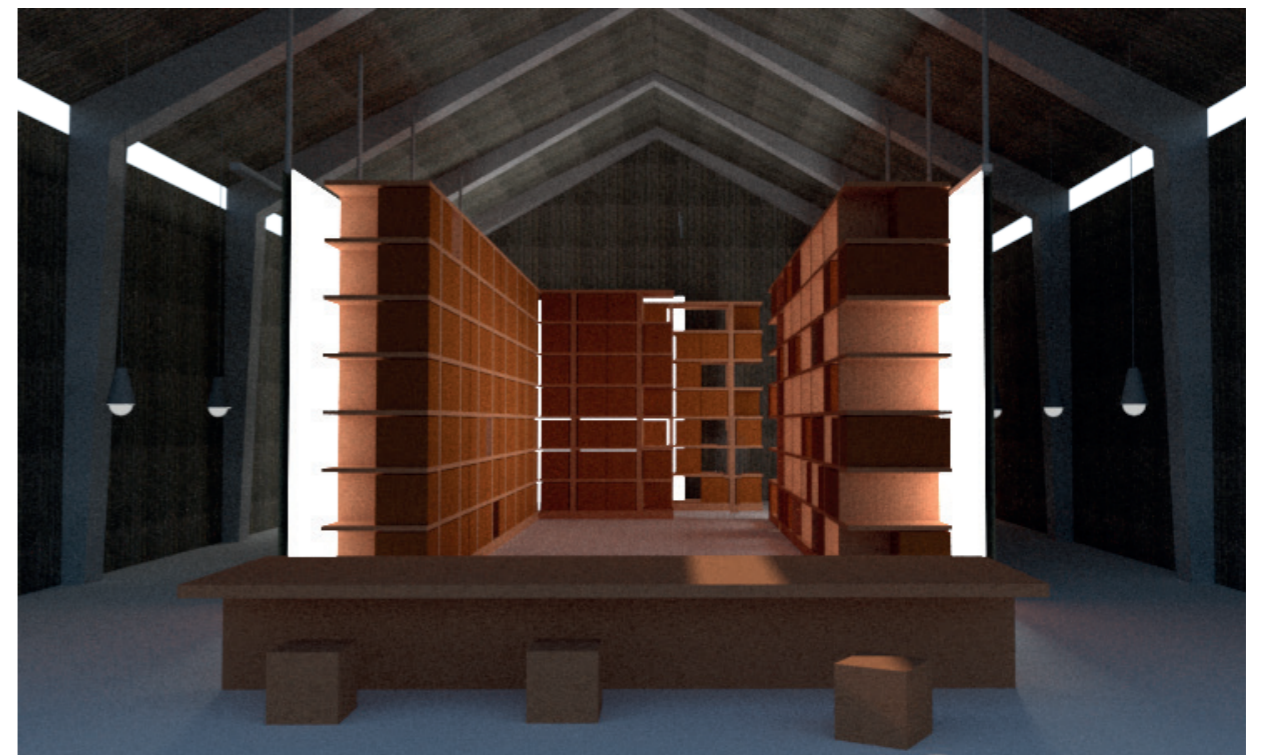
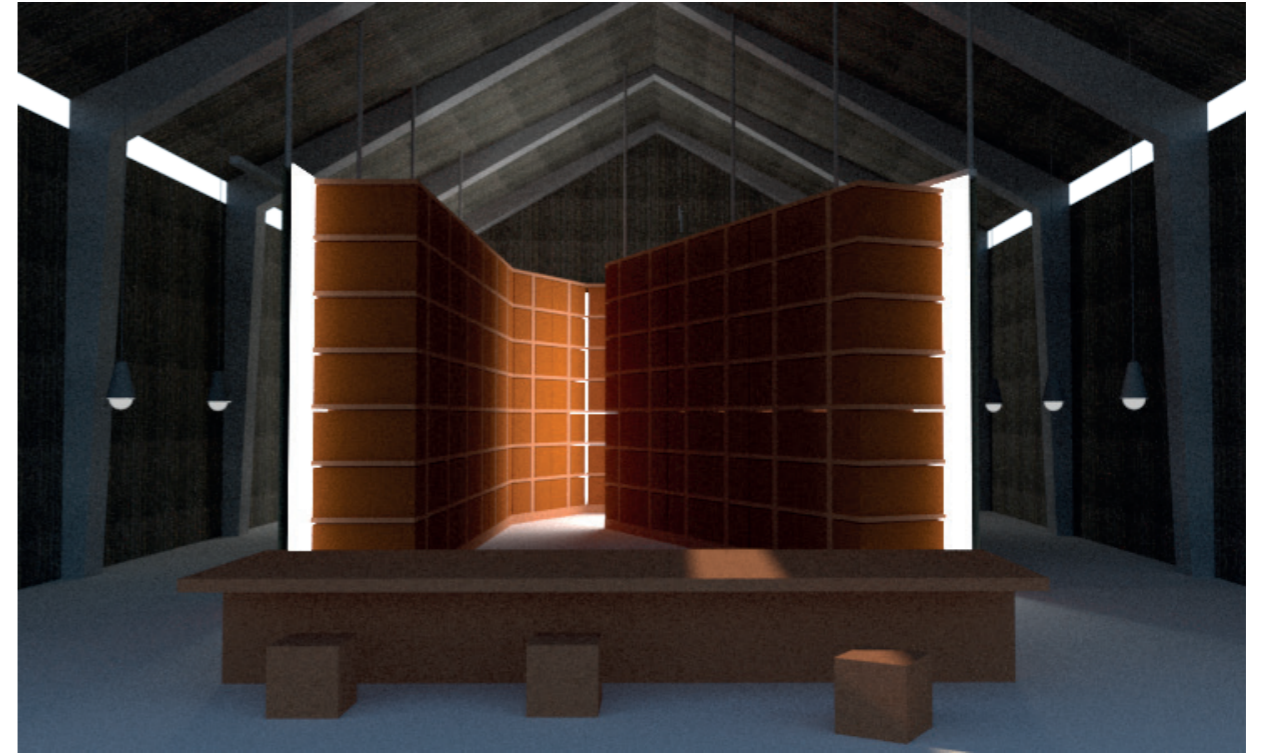
In the speculative proposal, the storage space is manifested as an interior shelving system with an integrated stair, containing the bark harvested during the festival.

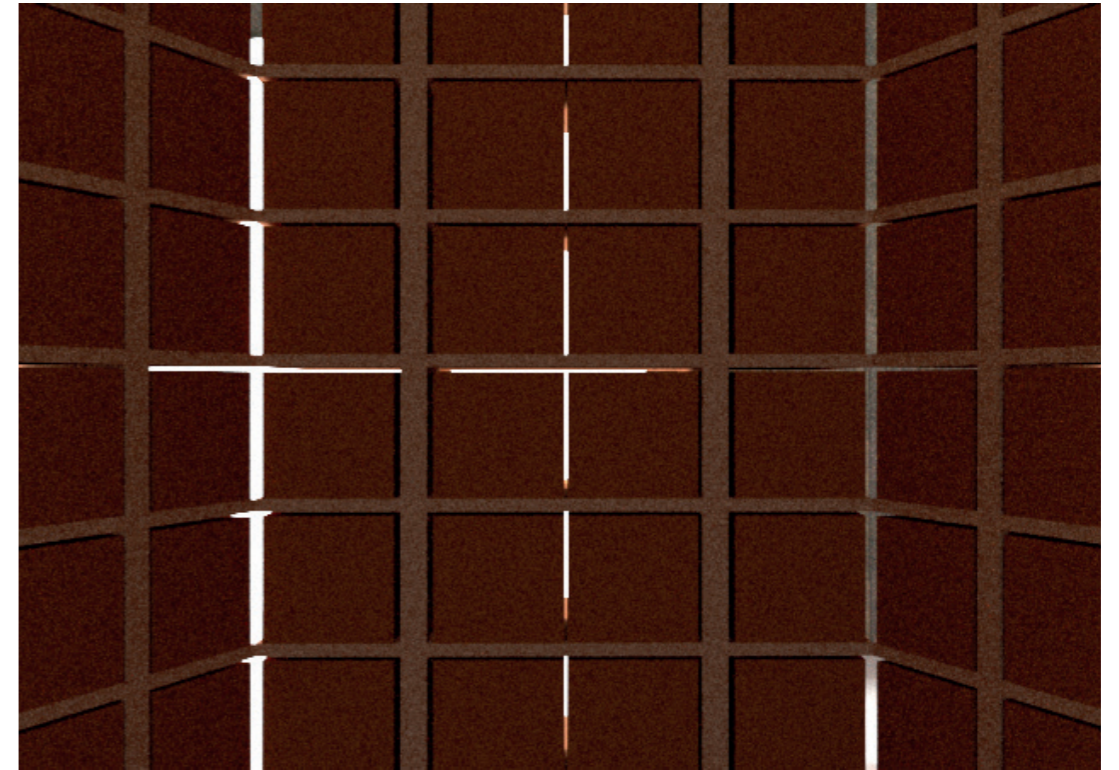
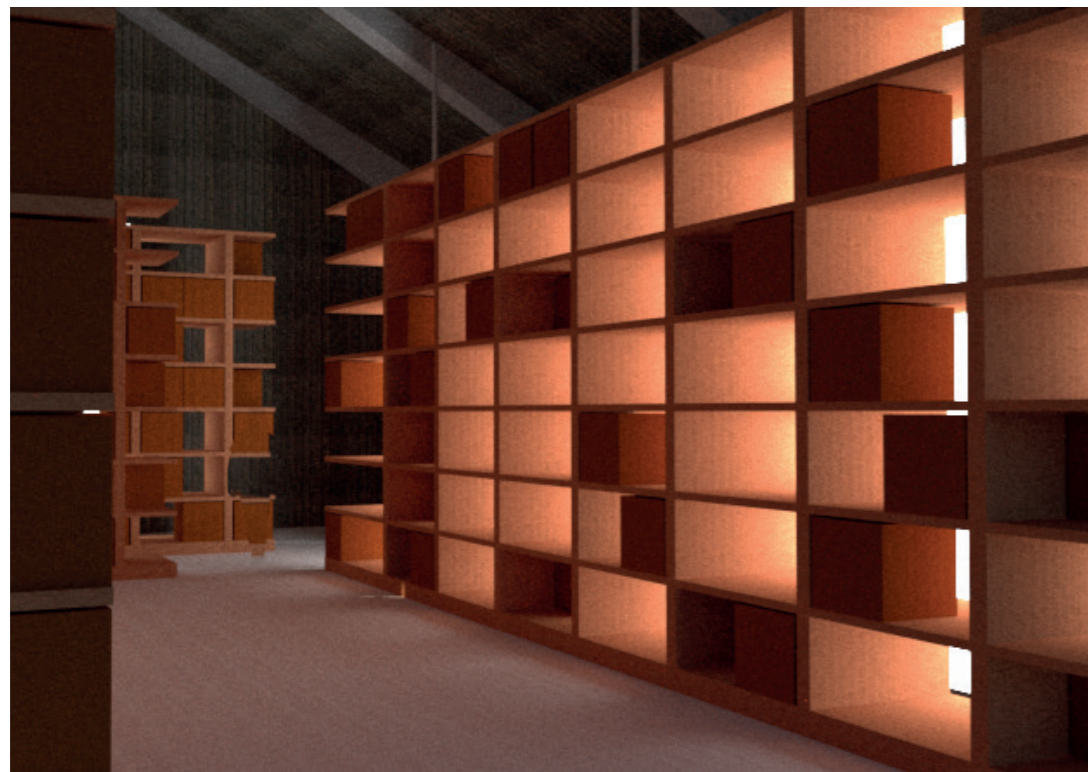
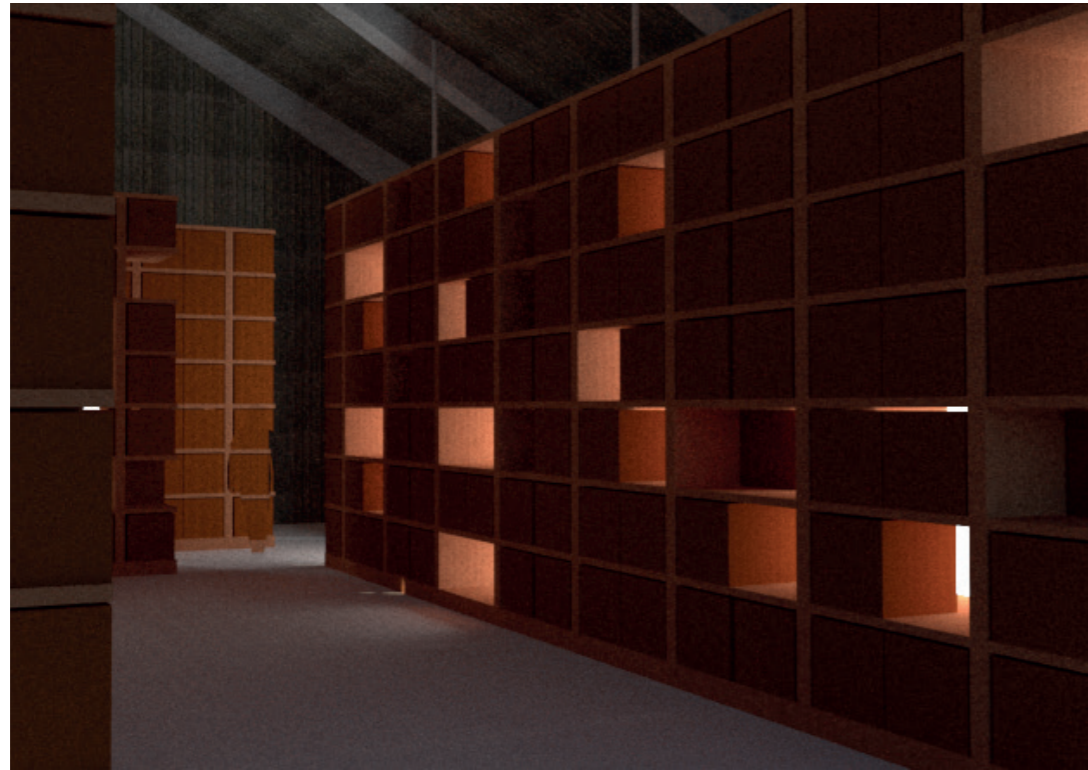


Model studies 1:20



Spaces such as these storages are often anonymous. Functioning as temporary stops along the way to a final destination, they are usually located in the outskirts of cities or factory areas. Transportation routes connect these spaces to each other, as parts of an infrastructural pattern.



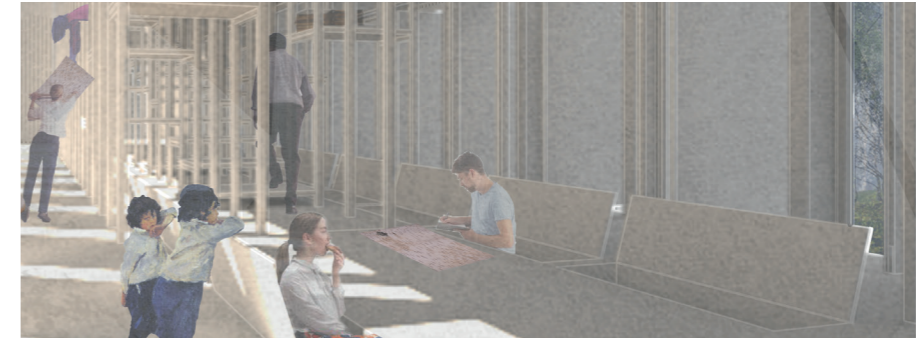


gradual removal

V  
The act of making



stills from film



making space

## The act of making

The act of making is dedicated to the field of craft and the connection between the working hands and the material. Acknowledging the element of craft as a social and communal activity a video was produced documenting the movements of hands during the making of traditional birch bark baskets, which was projected during the final project exhibition.

In the initial phase of the thesis process, the investigations of birch bark included a variety of material manipulations as a way to get to know the qualities of the bark by hand. A selection of these are showcased on the following page. Apart from providing material knowledge, these iterations served as foundation for the element labelled the making space in the proposed structure. This space is integrated in the floor of the storage building. Concealed as floorboards when unused, the sunken seating area is revealed as the lids of the benches are opened.



film: *Craft night*

*Changing a material into becoming  
something  
Can it become like paper  
like stiff boards  
or flowing fabric  
useful*

*what happens if you burn it a bit?*

*useless*

*Just the joy of doing  
something*

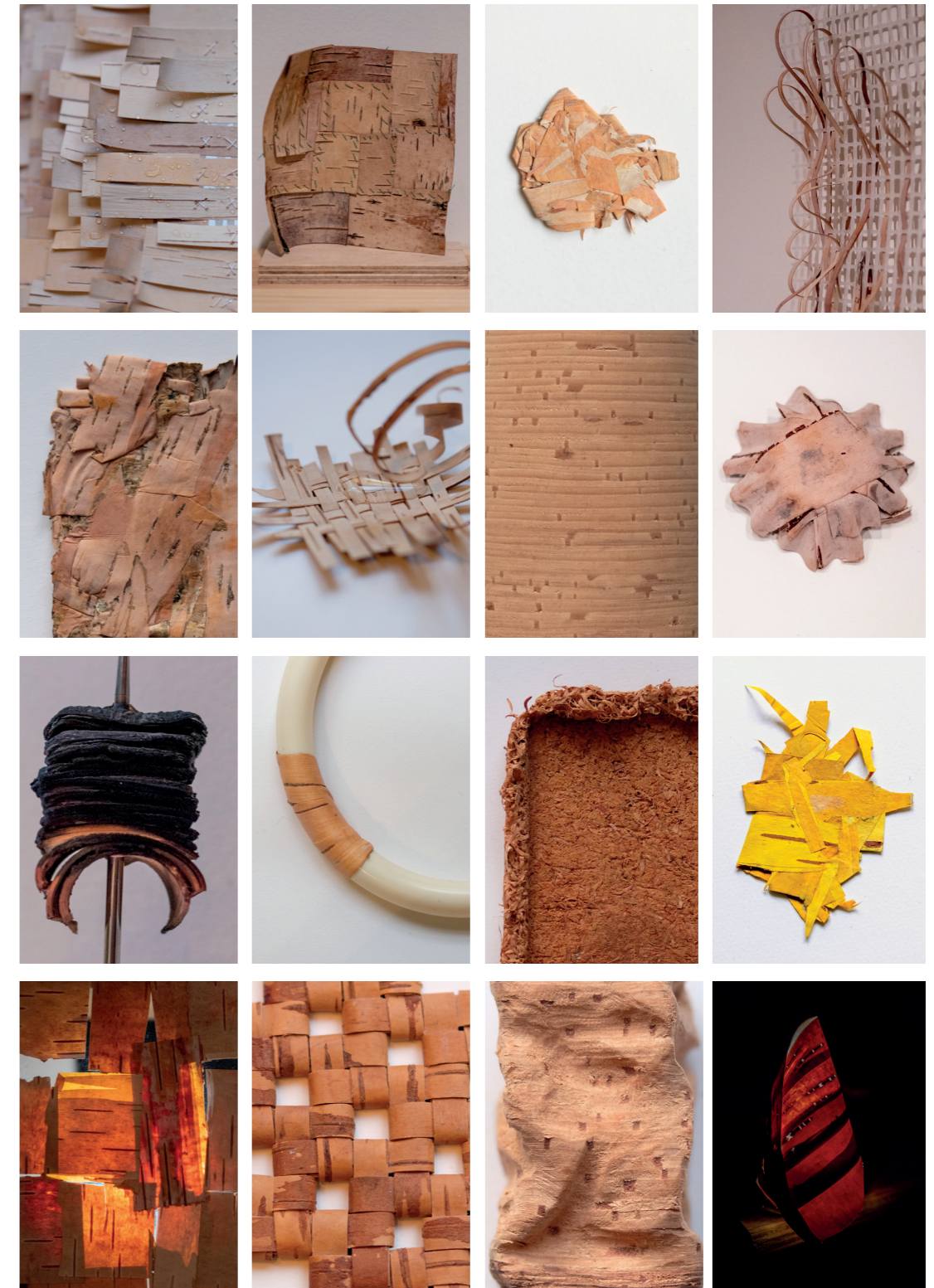
*Can it be worn  
draped  
shelter someone*

*Some things useful  
some things not*

*sometimes just ugly boxes resting on shelves in kitchens,  
and then resting in second hand stores*

*Probably better than plastic, right?*

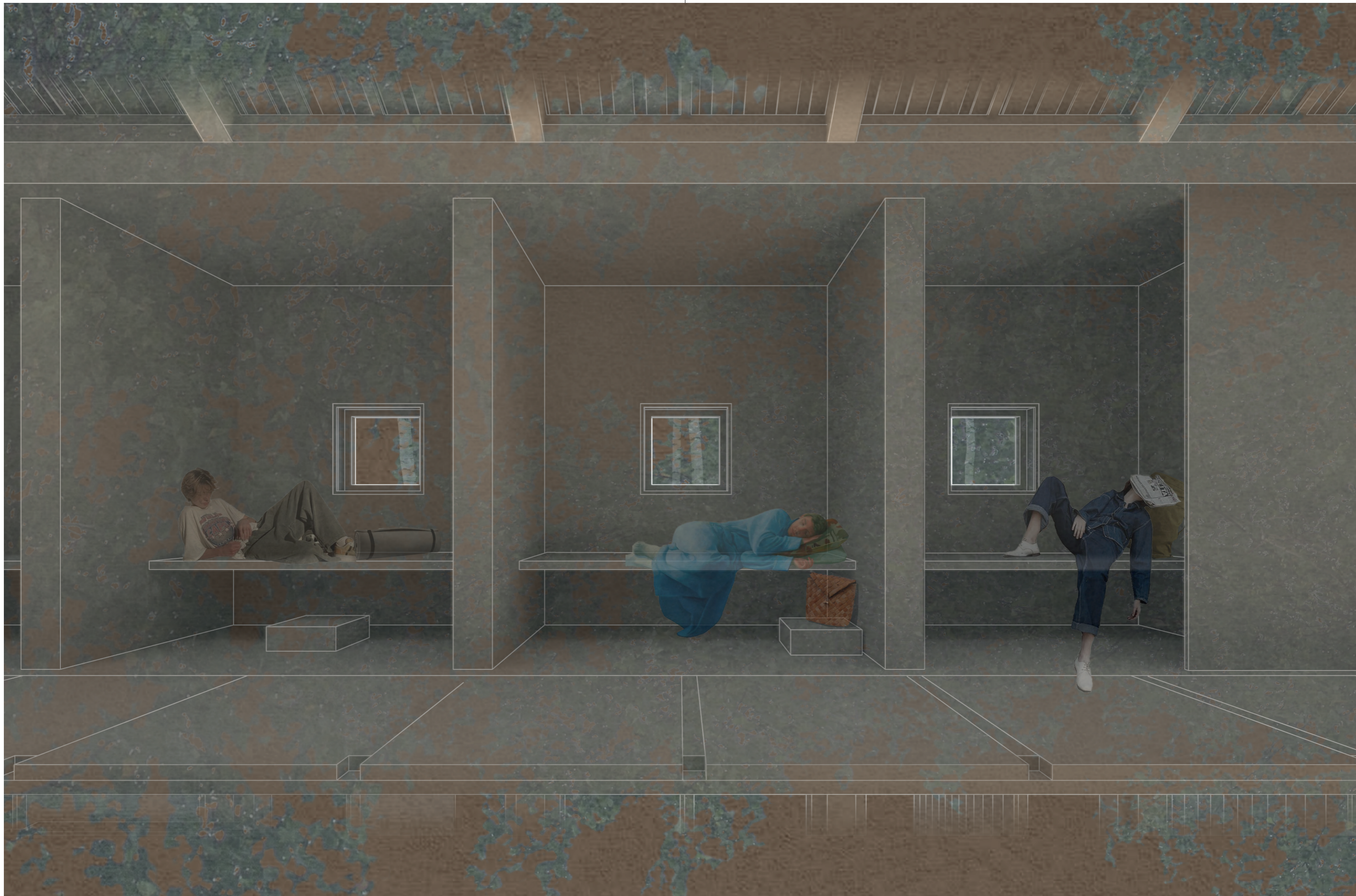
*Objects providing purpose  
or some money  
the thrill of spending money  
or some peace of mind*



material manipulations

VI  
Intimate space

Intimate space.



The resting place

Intimate space.



Investigative model

## Intimate space

### *second skin*

*To protect, to hide, to decorate,  
to keep warm. To be a layer between  
the body and the surroundings.*

Birch bark has a long tradition of relating to the body in different ways. For more than 4000 years it has sheltered it as shoes, boats and building material, kept the body separated from the elements. At times it has also been connected to stronger symbolic meaning, as in the historic tradition of using birch bark in burial ceremonies as a way to wrap the body. These relations between the body and the bark have been the starting point for this chapter, as an exploration of how the materials surrounding us become part of a bodily experience.

In the speculative scenario, this is represented as the resting space, placed above the ground and the making space. A row of simple nooks are separated by walls and made semi-private by sliding walls clad with bark, as a layer sheltering the one sleeping. Raised above the ground floor dedicated to production and social interaction, the resting space allows the visitor to be inactive and to have the possibility of solitude.

*Maker of space*

*creating landscapes in its traces*

*serving purpose for its users*

*serving longing and identity*

*serving doubts and future ruins*

*serving meaning by existing*

*serving promise and potential*

*serving sense of time,*

*purpose and reckless ways*

*the origin of things*



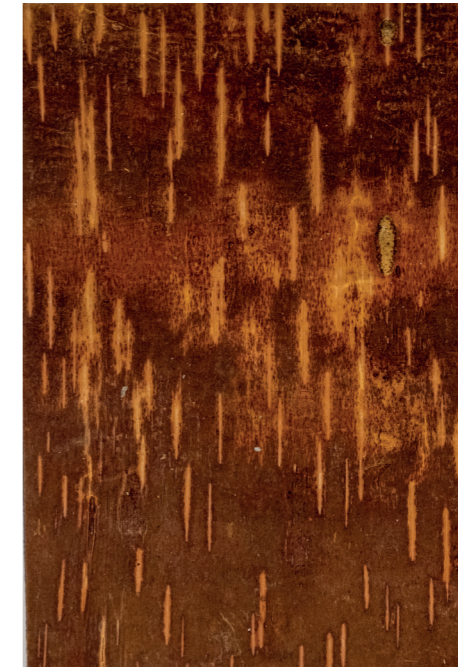
## Discussion

In this project, birch bark is placed in the centre of a story, expanded on through different chapters. The chapters have been adding to a larger speculative scenario where this specific material is needed and extracted to the point where it starts to have a visual and spatial impact on the surrounding landscape.

Rather than offering a feasible proposal, the aim has been to push this material into view, and by doing so addressing questions of production chains and the existing relationships between product, producer and consumer. These relations have been stretched by global industrialisation to the point where it becomes hard to experience these connections, making the link between action and impact difficult to grasp. Through this thesis, these different steps of production have been placed side by side in its origin environment and thereby invites the consumer to become a participant in a communal harvest act.

There is no acute need for birch bark to be exploited in a strictly rational sense, however, what constitutes a need or a desire is a mixture of many different feelings and longings. The bark in question could be represented by almost any other material or resource, since the surrounding structures are similar, although operating on different scales. By using a material with its origin in the Swedish forest, I could place the narrative in relation to one of our largest current production chains, Swedish timber extraction. Increasingly expected to be one of the keys in the transition towards a sustainable society, and therefore a focal point of contemporary interest.

By treating the forest as a large scale structure and placing a building in its centre, spatial design was used as a way to convert statistics into atmospheric scenes. When discussing matters of consumption and the extraction of resources, it is difficult to distinguish a line between what is needed and what is excess, what is disruptive and what is natural. Though this work can be considered as a critical voice concerning the current systems presented, the proposal is not necessarily to be considered as a utopian attempt. It could just as well be argued that this work presents a dystopian scenario where every aspect of life should be ruled by meaning, that it is encouraging dwelling in the past, longingly looking backwards rather than searching for answers in the contemporary. Despite this, I believe it to be important to aspire to unravel the different forces that drive us, which can be rooted in many things other than sober rationality.



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Figure 2: [https://stromsbergsforeningen.se/\\_\\_\\_impro/1/onewebmedia/Varsadden%20tittar%20upp\\_Badplatsen%20i%20bakgrunden.jpg?etag=%224f369b-56f028d4%22&sourceContentype=image%2Fjpeg&ignoreAspectRatio&resize=734%2B489&extract=0%2B22%2B734%2B467&quality=85](https://stromsbergsforeningen.se/___impro/1/onewebmedia/Varsadden%20tittar%20upp_Badplatsen%20i%20bakgrunden.jpg?etag=%224f369b-56f028d4%22&sourceContentype=image%2Fjpeg&ignoreAspectRatio&resize=734%2B489&extract=0%2B22%2B734%2B467&quality=85)

Figure 3: [https://th.bing.com/th/id/R.16bbbd0bfcdeb4b697aeac391eb12394?rik=Y1LK3VesvD8FrA&riu=http%3a%2f%2fi.ebayimg.com%2f00%2fs%2f0TAWDE2MDA%3d%2fz%2f1WMAAOSwQP1V8XSN%2f%24\\_32.JPG-G&ehk=luxVky1%2f0Ykng%2bs7zqPvA9mxvgmlw2Xu%2frnFRmLWGU%3d&risl=&pid=ImgRaw&r=0](https://th.bing.com/th/id/R.16bbbd0bfcdeb4b697aeac391eb12394?rik=Y1LK3VesvD8FrA&riu=http%3a%2f%2fi.ebayimg.com%2f00%2fs%2f0TAWDE2MDA%3d%2fz%2f1WMAAOSwQP1V8XSN%2f%24_32.JPG-G&ehk=luxVky1%2f0Ykng%2bs7zqPvA9mxvgmlw2Xu%2frnFRmLWGU%3d&risl=&pid=ImgRaw&r=0)

Figure 4: <https://i.pinimg.com/originals/b0/2e/36/b02e36b1a59ef1d47118fb4bcf67869e.jpg>

Figure 5: [https://th.bing.com/th/id/OIP.LTSnbSzMDEGCM\\_q7U3wmzwHaE7?pid=ImgDet&w=84&h=84&c=7&dpr=1,5](https://th.bing.com/th/id/OIP.LTSnbSzMDEGCM_q7U3wmzwHaE7?pid=ImgDet&w=84&h=84&c=7&dpr=1,5)

Figure 6: [https://th.bing.com/th/id/OIP.yk4pJh54fxJ4P5Lcn\\_137QHAE7?pid=ImgDet&w=84&h=84&c=7&dpr=1,5](https://th.bing.com/th/id/OIP.yk4pJh54fxJ4P5Lcn_137QHAE7?pid=ImgDet&w=84&h=84&c=7&dpr=1,5)

Figure 7: [https://freight.cargo.site/w/640/q/94/i/46d7d0358fd833512505361f52a0571cc0a5c-457f4ee7b60615d793df0b6afff/EmmaDahlqvist\\_1.jpg](https://freight.cargo.site/w/640/q/94/i/46d7d0358fd833512505361f52a0571cc0a5c-457f4ee7b60615d793df0b6afff/EmmaDahlqvist_1.jpg)

Figure 8: [https://freight.cargo.site/w/640/q/94/i/46d7d0358fd833512505361f52a0571cc0a5c-457f4ee7b60615d793df0b6afff/EmmaDahlqvist\\_2.jpg](https://freight.cargo.site/w/640/q/94/i/46d7d0358fd833512505361f52a0571cc0a5c-457f4ee7b60615d793df0b6afff/EmmaDahlqvist_2.jpg)

Figure 9: <https://www.bing.com/images/blob?bcid=RGYE210-nDsEOA>

Figure 10: [https://blogs-images.forbes.com/jonathonkeats/files/2015/08/PG\\_21\\_PLT\\_03r1\\_64A\\_S\\_smaller-1282x1940.jpg](https://blogs-images.forbes.com/jonathonkeats/files/2015/08/PG_21_PLT_03r1_64A_S_smaller-1282x1940.jpg)

Figure 11: <https://www.moma.org/media/W1siZiIsIjE1NTk0NyJdLlFscicIImNvbnZ1cnQilCItcXVhbG10e-SA5MCAtmVzaXplIDlwMDB4MjAwMjAwZSjDdXQ.jpg?sha=cb537c8bd16d6c7>

Figure 12: <https://skogskyrkogarden.stockholm.se/globalassets/2-om-platsen/landskap/alm-trappan-bred.jpg?preset=fullbredd-kort-full>

Figure 13: <https://th.bing.com/th/id/OIP.xw9ubp3EyoS1LgzFTxxMSAHaEK?pid=ImgDet&w=84&h=84&c=7&dpr=1,5>

Figure 14: <https://th.bing.com/th/id/OIP.7FxCbulrxyYI-P0b26hue9QHaJ3?pid=ImgDet&w=84&h=84&c=7&dpr=1,5>

Figure 15: <https://th.bing.com/th/id/OIP.fEftgQgjbB8ZeRKK10z5QHaFo?pid=ImgDet&w=84&h=84&c=7&dpr=1,5>

Figure 16: <https://th.bing.com/th/id/OIP.dn-rRfAlIbJKg9ib3kHzygHaKC?pid=ImgDet&w=84&h=84&c=7&dpr=1,5>

Figure 17: [https://64.media.tumblr.com/ffb9a343c2bf850ac792179fc55f8413/tumblr\\_n1m6ptExJY1sy-lcyao1\\_1280.jpg](https://64.media.tumblr.com/ffb9a343c2bf850ac792179fc55f8413/tumblr_n1m6ptExJY1sy-lcyao1_1280.jpg)

Figure 18: [https://www.railwaysleepers.com/files/images/post/RailwaySleeperStackPic10\\_med.jpg](https://www.railwaysleepers.com/files/images/post/RailwaySleeperStackPic10_med.jpg)

Figure 19: <https://www.elinstallatoren.se/app/uploads/imported/stormen-gudrun2.jpg>

Figure 20: <https://cached-images.bonnier.news/gcs/bilder/epi-30-dn/UploadedImages/2017/9/11/93804d34-8238-4cbd-8ed0-5319970f3d47/bigOriginal.jpg?interpolation=lanzcos-none&fit=around%7C1540:867&crop=1540:h:center,top&output-quality=60>

Figure 21: [https://www.sfv.se/media/kcwpilnt/digtuna-spannm%C3%A51-2\\_for1.jpg?anchor=center&mode=crop&width=1142&rnd=132521750488800000](https://www.sfv.se/media/kcwpilnt/digtuna-spannm%C3%A51-2_for1.jpg?anchor=center&mode=crop&width=1142&rnd=132521750488800000)

Figure 22: <https://www.utsidan.se/obj/cache/d/d9ce330f3fdb7a23cd73f45d765c1537.jpg>

Figure 23: <http://www.artnet.com/artists/darrel-austin/forest-carnival-1972-oXYOT-zYk2Mo51-CnoUPQDw2>

Figure 24: <https://s3.eu-west-1.amazonaws.com/s3.housseniawriting.com/wp-content/uploads/2019/10/28135354/travail-keynes-720x340.jpg>

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All non referenced photographs are taken by the autor.

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2020 Lighting Composition in Design 7.5 ECTS, HDK



**CHALMERS**

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Master's thesis 2022