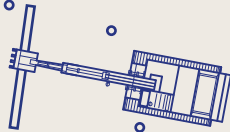


The background of the entire page is a pattern of light blue geometric shapes: small circles, some with a central dot, and thin, elongated rectangles of various orientations. These shapes are scattered across the white background, creating a textured, technical feel.

The Activists' Shelter

Enabling Activism Through Architecture_Ellen Boman





CHALMERS
UNIVERSITY OF TECHNOLOGY

2023

The Activists' Shelter
Ellen Boman
Chalmers University of Technology
Department of Architecture and Civil Engineering

Examinator: Isabelle Doceau
Supervisor: Bri Gauger

Architecture and Planning Beyond Sustainability

January 25th, 2023

Gothenburg

Dear Architect or whoever it may concern,

I hope this letter finds you well. Sadly I am writing to you with great distress and urgency. I do not know if you have heard but the earth's ecosystems are on the brink of collapse. Please take caution when navigating your field, you have an impact.

Architecture can not be unbiased. When you create something, when you design something, when you write something, when you vote for something, when you say something, when you do not say something, you have an impact.

See this letter as a pledge to you; please do something! Every chance you get, do something with a good impact. Every chance you get, question the ways in which we work, question the jobs you receive, question the ways you measure success, question the content of the quarterly reports and question it out loud. For when you say something, when you do something, when you do not do something, it has an impact. Do something! Please.

Attached you will find my Master's Thesis. I have done something and now I am telling you about it.

Whatever you believe, act on it fully. I believe that environmental activists are carrying out the most valuable act of service towards humanity and all living species, more than anyone ever has. They are not only trying to revive the environment but they are sacrificing their safety, lives and futures to make more people realise the scale to which we as a species are continuing to fuck up. Today I am many things, professionally I identify as an activist who's actions take the shape of architecture.

You have an impact, please take caution.

Best Regards,
Ellen



Virgin Forest

January 25th, 2023

Gothenburg

Dear Activist or whoever it may concern,

I hope this letter finds you well. Fortunately I am writing to you with great excitement and urgency. I do not know if you have heard but the blueprints for the activists shelter are ready! Please take action, you are making an impact.

Attached you will find my Master's Thesis. I have done something and now I am telling you about it.

Whatever you believe, act on it fully, you have inspired me to do exactly this! I believe that environmental activists are carrying out the most valuable act of service towards humanity and all living species, more than anyone ever has. You are not only trying to revive the environment but you are sacrificing your safety, lives and futures to make more people realise the scale to which we as a species are continuing to fuck up.

Today I am many things, professionally I identify as an activist who's actions take the shape of architecture.

You are making an impact, please take action.

Best Regards,
Ellen



Thank you

I would like to thank my big brother who made it possible for me to practice provocation and perseverance from such an early age, I wouldn't have dared to do this without years of practice with you. To my tutor Bri Gauger for her encouraging words and enthusiasm. To my expert tree-climbing-activists-friends. Thank you to the playlist "study lofi" on spotify. To Johan, Otto and Christian for being so kind and providing me with the random material request for me to reuse and experiment with. Thank you to Akademiska Hus for letting me test-build in your trees, and thank you to all the help from the architecture workshop!

I would also like to thank the Swedish government, the Swedish Forestry Agency, Sveaskog and the rest of the Swedish forestry, biofuel and paper industry for giving me the opportunity to find an issue that I feel so passionate about. Without your tireless efforts on destroying ecosystems and the forest biodiversity through pure neglect of science and blinded by economic profit, I wouldn't have felt inclined to identify as a climate activist nor dedicate my time, energy and resources towards standing up for nature.

Thank you! It's been a blast!

A handwritten signature in blue ink that reads "Ellen B". The signature is stylized and enclosed in a blue oval.

Ellen Boman

Abstract

The purpose of this Master's Thesis within the subject of Architecture is to design and build a treehouse for climbing climate activists who wish to stay in them when carrying out blockades in forests as an action to protest against deforestation.

The main finding from this thesis is that designers can - by being intentional with their actions, aware of design decisions and by being conscious about what they produce – angle what impact they have. I have chosen to enable activism through architecture because activists are at the frontline in the war between society as we know it, and a liveable planet in the future.

There are three objectives to this thesis:

1. The act of designing this treehouse is a way to showcase how the designer can choose which impact her design will have. In the case of this thesis, designing a tool for activists to use.
2. Explore and challenge in writing the role of the architect in the aspect of climate action and activism. The thesis itself should be: provocative, empowering and informative both for the architect and the activist.
3. The impact the design will have for the environmental movement. The treehouse should be: reproduceable, materials should have minimal environmental impact, shelter two people from weather, wind and water cannons, be easy to set up for two people, be able to move to new locations (reusable), the design needs to fit a variety of types and size of tree. The design should enable smoother and longer forest blockades.

The research methods used were a combination of participatory observation by, informal interviews and immersion with climbing climate activist, and literature research about the fields of knowledge surrounding architecture and activism, politics and climate, and lastly researching by designing and building.

Presented in the form of a how-to-handbook is the final design proposal, as well as being built in scale 1:100 and 1:1.

Keywords: Activism, Architecture, Forestry, Treehouse, Treesit.

Writers Background

Besides a bachelor from Chalmers in Architecture and courses in the master's program Architecture and Planning Beyond Sustainability, most of my personal discourse comes from the naivety of wanting to save the world from climate change. More realistically help save the world from a brutal change in climate, the climate is already changing. Or honestly, I simply want to try to make some sort of difference. I've always been interested in geography, biology, creativity and nature, why I applied to study architecture is a memory I since long forgotten. I've been telling myself that I wanted to study something more concrete than only art, but I had no idea what architecture implied. Yet here we are, writing a master's thesis in architecture, two internships and one part time job in building permits later, frustrated, scared and clueless.

There's no other more pressing question to me than how people in power could make the world a better place but don't. I get really triggered by authority figures who misuse their position, so here I am helping the grassroots movements.

I took a summer course in 2022 from Södertörns Högskola called Rhetoric and Climate Transition. This course really showed me how words have power, and how I can use my words to shift frustration towards action, it also changed my view on writing. It used to be something I struggled feeling enthusiastic about, now I know that I enjoy it.

All this come together in my master's thesis within the direction Critical Spatial Perspectives. See it as a manifest if you will, or a trial, hopefully something slightly inspiring at least. For me it has become something grand.



MASTER OF ARCHITECTURE - MPDSD
Architecture and planning beyond sustainability
Chalmers University of Technology, Gothenburg
2020-2023

STUDIOS

ARK650 Sustainable development and the design professions
ARK174 Planning and design for sustainable development in a local context
ARK620 Beyond Sustainability: crash course
ARK496 Reality Studio
ARK128 Architecture and urban space design
ARK636 Master thesis preparation course 1
ARK641 Master thesis preparation course 2

INTERNSHIP

Sweco Architects, Gothenburg
2021-2022

BACHELOR OF ARCHITECTURE

Chalmers University of Technology
2017-2020

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Reading Instructions

This thesis consists of three main parts, a background, a discourse review and process and design.

First, an introduction to the process of this thesis, the purpose of it and the methods used and the reasons for using those methods.

Second, a short background about the forest and forestry industry as well as a simplified outline of the climate action movement.

Next is a conversation with my different fields of knowledge which makes up my discourse and positioning. Architecture and design as political tools, and architecture as activism.

What follows is a process-diary focused on my actions, findings and experiences as an architect navigating a political project.

To conclude the process the next part is a summary of findings and how they influence the design decisions and requirements.

The outcome of this thesis is a design proposal in the format of a handbook, and a 1:1 structure. The handbook will be attached as an appendix.

Lastly, discussion, reflections and conclusion.

It is recommended to read the thesis from start to finish as presented, with the exception of reading the handbook (appendix 1) when stated to do so in the design chapter.

Throughout the document you will find segments of the glossary in the margins, this is an attempt to further close the gap of knowledge between activism and architecture.

Introduction

Project Background

The chapters Forests & Activism and Design as Activism provide a more in depth view of the importance and significance of the research topic. Here I will present how the topic came to be in the first place.

I first had the idea of creating a treehouse as my master's thesis in the spring of 2022, while on a date with an arborist. The idea started as a tiny house in the form of a treehouse, but this idea didn't make it to the preparation course in the fall.

I had been searching for an architectural organisation on the more radical spectrum hoping to find like-minded people. First I found Architects Declare (1), but soon felt like that wasn't enough. I kept looking, and on social media I found ACAN (2). I attended one of their start-up meetings online. During the meeting they presented some of the projects they are working on and they mentioned a collaboration with Greenpeace (3). Greenpeace had reached out to ACAN wanting to organise a student competition about treehouses for activists. This project never left the draft table, that's how it goes sometimes when it comes to collaborations and volunteer work. I however was intrigued, so I reached out to ACAN and now here we are, with a master's thesis in architecture about designing treehouses for climbing climate activists.

I felt it necessary to have an activist contact who I could meet up with, while Greenpeace work from Stockholm I reached out to Extinction Rebellion Gothenburg (4). They responded to me within seconds and have been of much help throughout this process.

Although the basepoint of the thesis stems from the collaboration between Greenpeace and ACAN the process and outcome has been my own work. I'm happy to now be able to hand it back!

(1) Architects Declare

Architects Declare Climate and Biodiversity Emergency. An organisation who collects a list of signatures of architectural companies who declare climate and biodiversity emergency and should work towards achieving 12 goals stated on the website on which they sign.

(2) ACAN

Architects Climate Action Network. a non-profit organisation focused within the field of architecture.

(3) GREENPEACE

The world's largest independent environmental organisation.

(4) Extinction Rebellion - XR

Extinction Rebellion is a global network practicing nonviolent resistance and civil disobedience to mitigate the threat of ecological collapse, advocating for drastic measures to tackle climate change.

Glossary

ACTION

An action is another word for an event organized by the activists, it can be a demonstration, blockade or some other sort of happening.

ACTIVIST

A person engaged in advocating a cause, often political.

BLOCKADES

Mobilisation to prevent and limit movement of entry and exit.

the COMMONS

Noun: The commons or a common is a space often made up of natural resources like forests, water, land.

Verb: Commoning is a caring act from a community who through radical approaches protects our shared space.

ECOSYSTEM SERVICES

Ecosystem services is all the ways in which nature provides for humans, but in the field of design and architecture is the practice of implementing nature into the built environments. It could be collecting rainwater, building ponds for birds, insects and fish or planting local flora for pollinators. It's often a form of greenwashing a buildings performance.

FOREST

A natural process and place that occurs when trees and other flora are left untouched, a self- sustainable ecosystem.

FORESTRY

The act of humans dabbling in the natural process that is seeding, growing, maturing, dying, decomposing of trees.

GRASSROOT MOVEMENTS

A social movement grown from the ground up, a bottom-up approach. The opposite would be top-down movements like governments or most companies.

MAPPING (skogsinventering)

When mapping of the forest (Riksskogstaxering) began in 1923, and still today, the reason behind was to measure how much timber the forest held.(Skogsdata, 2022)

NATURA-2000

Unique nature areas which under EU-law is to be protected and preserved.

NATURAL FOREST

(continuity forest/ lübeck model forestry) is a forest that rejuvenated through natural processes, not through de- and deforestation.

NUDGING

Nudging is a method architects and designers use to influence people to behave more sustainable and healthier. Examples include making stairs more inviting than elevators or making good spaces for recycling bins.

OCCUPATION

Occupying a place, a blockade at a specific site.

PPE

Personal protective equipment.

PRODUCTIVE FOREST

Land that produces more than 1 forest-cubic-meter per year and is suitable and used for timber production.

REFORESTATION

Replanting seedlings in areas where trees previously were cut down.

TIMBER PLANTATION

Multiple planted rows of monocultures made up of trees, planted to be harvested for timber.

TREE

A living plant that heals it's offspring and bleeds when being cut down, produces oxygen and stores carbon, breathes through its leaves and is one of the most complex organisms in the universe.

TREESIT

The act of physically sitting in a tree to prevent it and those around it to be cut down.

TRIPODS

Tripods is a structure build by three often wooden beams tied together at one end, it is used by activists who sit on top of them during road or forest blockades.

VIRGIN FOREST

A forests that never has been affected by human intervention. It is full of old and big trees as well as fallen trees in decay.

Aim & Purpose

The act of doing the thesis

There are two aims to this thesis, the first one is through me deciding to spend my time and knowledge designing a tool for climate activists. I wish to lead by example and inspire or provoke other architects to do the same and use their skills, time and energy for a good cause they believe in.

The design outcome

The second aim is connected to the design outcome. Through the final design itself the goal is to enable climbing climate activists to make a greater impact during blockades (1) and occupations (2). The protest against deforestation could be carried out for longer, be safer and be more humane if the activists had access to shelter. It will have a great impact on the look of activists, it will increase the feeling that they are doing crucial and essential work. Instances of architecture will bring more credibility to the cause they're fighting. My hope is that it will be improved and altered to better fit needs and wants that come up. Hopefully it will survive many blockades and be set up with such love and care that it will not be torn down, but carefully dissembled.

Through the process of designing the treehouse in collaboration with activists I wish to empower them and their cause. Through taking up physical space at Chalmers I wish to shine a light on the climate activist movement.

It is presented as a handbook. By distributing the handbook to different climbing climate activist organisations that I've been in contact with throughout my process I wish to make the treehouse and handbook an accessible tool for them to use and recreate during actions. I do not own the handbook or the design, it is meant to be distributed, used and improved.

I wish for the thesis to be perceived equally professional for both architects and activists alike.

Personal reasoning

It's due to deeply egoistic reasons the theme of this master's thesis came to be. I've since long been affected by climate anxiety and anger. During a course in the third year at Chalmers I wrote a report about the architect and her climate anxiety (appendix 2), I came to the conclusion that the anxiety is soothed by action. The anger on the other hand is triggered by inaction and a kind of apathy I witness is happening in the real world that is the professional architecture sphere. In this realm of internal admiration and praise there's plenty of talk: talk about action, climate change, sustainability, profit, workshops, projects, competitions, recognition, clients and bonuses. I'm nervous about entering this field and not finding my place as an architect who wish to practice for radical change in how we work and live. In a way this thesis is both proof, a promise and a manifest to me.

GLOSSARY

(1) BLOCKADES

Mobilisation to prevent and limit movement of entry and exit.

(2) OCCUPATION

Occupying a place, a blockade at a specific site.

I don't want to do it

I don't want to do it; that's exactly why I have to.

I don't want to become an architect. I don't want to contribute to the murder of our home. I don't want to have any part of it.

But I can't quit, not now. Not when I know this much, I'm too invested to not take part.

Let's say I quit. Let's say I've had enough, got too angry, too scared or felt too guilty and left. As a statement:

"I'm quitting architecture because my ethics don't align with how the field is operating!"

Silence...

Then what? Nobody would be affected, it wouldn't matter to anyone. Abstaining architecture won't matter. And I need my actions to matter.

A drop in the sea, a grain of sand in the desert and so on...

So that's why I'm here, that's why I stayed. Because I have to, for me. I am going to try to change the ways of architecture as we know it today. Because I have to try.

That's my reason why.



Thesis Question

How do you design a tool that will help lengthen climate activist actions?

How does a built structure improve the effectiveness of a climate action?

Can a built structure provide climate activists with increased credibility, accomplishing a greater affect activists have on fighting climate change?

What does architecture supporting activism look like?

Methods

My overall technique has been to do, start every task when inspiration hits, send the email to that person, order the book you stumbled upon, sketch the idea now, write the thought down, follow up on the leads and tips you get told would be relevant, start everything and come back to it later. Although this technique was not very successful when inspiration was low.

Ethics

There is a heavy responsibility on me while moving through this process and handling all these findings in an ethical way. The activists have shared their knowledge so generously I don't want to risk exposing too much as this thesis should not contain any information that might be used against climate activist organisations. There's a spectrum of anonymity that filter what I share and how I handle the different occasions of data collection. The knowledge I feel most free to document and share is information that I've read or stumbled upon from more than one source. For example, tree climbing techniques I learned from participatory observation with the activists, and later reading the same instructions in a book as well as on a blog online. If it's open-source information, handling findings is easier. The most confidential information is the information about the activists themselves and insider information just meant for those inside the network, this type of information was never collected in any way as it was only verbally communicated.

It is a tricky line to walk; I handled it by letting my two expert activists read through this thesis before it got published, when attending events or other meetings I've verbally explained the dual purpose of my presence, during the one planned informal interview I brought forms which among other things stated the purpose of

the research and how they would remain anonymous. I've been attentive not to share any sensitive knowledge verbally to others during my design process only necessary findings. When taking photographs, I've been using my camera which doesn't store the location of the picture taken, I've never photographed other people who hasn't agreed to being photographed in advance. No contact information or any names have been written down or stored in my notes nor my computer.

This thesis does not contain any information not already published that may harm the climate activist moment, nor should it be able to be used by law-enforcement to in any way better shut down actions of peaceful civil disobedience.

Documenting my process

I've been working with three digital documents, this booklet, a working document filled with reflections, design ideas and random thoughts that I wanted to write down. I've also been keeping a media library that I've filled with tips of books, films, documentaries, articles and songs that create my discourse without being direct references to my work. Oh and an analogue notebook and my camera.

Literature review

In order to position myself in-between the different fields of knowledge that is design and activism I've read books, articles, reports and debates about: treehouses, tree climbing, climbing techniques and tools, trees, forests, forestry, activism, design as activism, the radical architecture movement, design strategies both historical and newer publications.

Research for Design

Participatory Observation

This method is a form of data collection based on observing the focus group (in my case climbing climate activists) and participating in the activities alongside them. The data collected for this thesis was an understanding about the different network structures, behaviour, jargon, knowledge exchange, use of tools and skills, which events occur and how, their interactions as well as motivations for attending. This method was chosen instead of interviews as my own basic knowledge about the subject was so low, as well as my own intention of wanting to become involved in the movement. Interview questions requires a higher level of knowledge within the intended field. Participatory observation only requires an open mind and a high social battery. During the events I took field notes and pictures, never of the people attending. Casual observations is a method typically used with the intent to collect basic information when the field is new to the designer (Martin & Hanington, 2012).

I submerged myself into the climate activist movement, with the intent of both learning for the sake of the thesis and with a genuine hope to become a part of the movement. I've attended their workshops; I've answered their questions as well as they have answered mine. Martin and Hanington (2012) called this "full participation", the act of full immersion into the group. During these occasions I made sure that the participants and activists present were aware of my dual intentions: my reason for participating being the wish to expand my basic knowledge about the climate activist movement and using findings in this thesis. The events I attended were open and published online for anyone

to apply to attend, which puts the data collected more in the middle on the confidential - open-source spectrum. The conversations and discussions held I can't disclose nor who attended, but the hands-on-how-to skills taught I can state if needed under findings in this thesis.

Informal Interviews

Informal or unstructured interviews is a form of conversation that just like formal interviews has an agenda but does allow for side-tracks in a more relaxed setting for the participants. There's still a need for guiding questions that the interviewer aligns the conversation through (Martin & Hanington, 2012).

During my first encounter with two of the activists I had them sign a form that allowed me to use the knowledge gained through the informal interview in this thesis. The form also stated that they would remain anonymous and can at any point in time withdraw their involvement and would get an opportunity to read through the thesis before it got published. Although they were quite liberal with sharing their identity and knowledge, it is important for all parties to remain anonymous as they don't know what I'll get up to in the future, nor do I know what they will do. Now that everyone is one google-search away.

During the short meeting with the arborist, we had an oral agreement that I was free to use and write down what I've learned.

I've had some contact with an activist who has experience building treehouses to ask about construction and tools used. We had a verbal agreement that it was ok for me to use the knowledge gained. I've only asked about hands-on tools and the built structures.

Research on Design

Case studies

Looking at and learning from case studies is a well-known method for designers. It's used to build on top of each others knowledge, preventing a reinvention of the wheel.

I visited treehouses built by climbing climate activists in Uppsala as well as analysed photos I've found online throughout my process in books or that has been sent to me. My main aim with the case studies was to find out different ways of attaching the treehouse to the tree as well as which materials were used to construct it. I briefly looked at generic treehouses but chose not to present these as I didn't find them relevant since they are meant to be permanent structures. Read more about the precedents under Process.

Research by Design

Design experimentation:

This method can be executed in many different ways, through sketches, model building both analogue and digital.

The design brief is made up partly by the initial Greenpeace idea as well as my own ideas for what it should be that I've gathered throughout my process. I quickly found that sketching in this three-dimensional-tree-space was quite challenging, so I ended up doing most experimentations with scale models in 1:100. I've been consulting my tree-climbing-experts and workshop carpenters on some occasions about the design. The final design was built on campus in 1:1 scale.

Design Outcome

The design outcome is the structure in itself and the handbook presented as an appendix to this document. The

final prototype and all its parts will, if accepted, be handed over to Extinction Rebellion Göteborg and become part of their "forest occupation kit", as a thank you for their help and encouraging words throughout this process.

Handbooks became popular in the field of architecture in the 1930s and 40s as a way to rationalise and streamline knowledge exchange and building productivity. Handbooks are often not presented with a singular author as a way to enhance that the content originates from multiple contributions and sources. Just like the content in this Handbook - The Activists' Shelter - although physically written by Ellen Boman, its content is collected from many sources. Handbooks are often visually limited to minimalistic diagrams, drawings and precise explanations as if to appear rational, efficient and legit (Cupers, 2013).

In 1960 a radical architecture organisation called Street Farm published two magazines (Hunt, 2014). In one of their issues they had a short series explaining and illustrating how to build a platform in a tree, to get closer to the greenery and birds (Grau, et.al. 2010). Street Farm inspired me to communicate architecture in this way: with bold texts, monochrome graphics and a "how-to series".

Historically the handbook user was the architect. With the rise of do-it-yourself like Ikea furniture, handbooks switched to the user being whoever wanted to use it. The Handbook - The Activists' Shelter is made for but not exclusively for activists because of the required skills needed.

My Network

Collaborations and other contacts

It has taken a village to write this

GREENPEACE

The world's largest independent environmental organization.

ACAN

Architecture Climate Action Network, a non-profit organisation focused within the field of architecture.

Extinction Rebellion

Extinction Rebellion is a global network practicing nonviolent resistance and civil disobedience to mitigate the threat of ecological collapse, advocating for drastic measures to tackle climate change.

thesis. What started as a collaboration between Greenpeace and ACAN has turned into a bigger network of contacts from Extinction Rebellion Gothenburg, Activists in Uppsala, Arborist, Adventure Park owner, engineers, carpenter, climbers and my rope & knot expert-sailor-brother.

Delimitations

The thesis' process has had limitations influenced by me and these are:

- The thesis is not a design project.
- Therefore the method participatory design was not chosen even though it would have been suitable to use.
- The focus has been on climbing climate activists, not all types of activism.
- The thesis and handbook is printed on paper as this is required by the school.
- The design outcome is not a guide of how-to-become-an-activist, it is an explanation of how to use the Activists' Treehouse.
- This thesis does not explore the legal implications of activism, building treehouses or treesits.
- The main point of contact has been with the organisation Extinction Rebellion because of their proximity to where we are located (Gothenburg) and their willingness to cooperate. Other climbing climate organisations will benefit from the final outcome.

The design has its own delimitations, read about these under design requirements in the chapter Findings.

Forests and Activism

Trees vs. Timber

What does the forest mean to you? Imagine if it was no more. For me the forest is a constant, a space that always will be there, waiting, just existing. It's been here for hundred millions of years before us, and will be here long after we're gone. A forest (1) goes through life on a completely different dimension of time. While we are born, age, and eventually die, a forest has gone through a fraction of its natural process. Not to be dramatic but if tomorrow there would be no more forests, I wouldn't want to be here anymore.

Benefits of biodiverse forests

It's important to know that a forest spared from human involvement thrives (2). Historically forests' decline and civilisation growth correlate to great accuracy, and when civilization collapse, forests thrive (Perlin, 1989) and vice versa. The forest ecosystem is built up by thousands different species, living and dead, some of these are trees. The trees (3) provide for other species by giving shade to plants that need it, produce food for fauna, hold nutrients and carbon, and are home to smaller animals and insects. Trees benefit by being part of a biodiverse forest and a forest is nothing without trees (Wohlleben 2015). Trees and forests have been around for so many years, they have been through natural selection so many times, how foolish of us to think we could care for the forest better than it can care for itself.

Trees that create a forest together shelter each other from strong winds that would knock a lonesome tree down. More trees are lost during storms if they stand in a plantation (4) than the forestry industry wipes out in a year (SVT. 2021). When trees do fall, if they are left to rest on the

ground they decay. Decaying plants give nutrients back to the soil.

In healthy soil, humus, there exists another world! Did you know that fungi (also known as mycelium) in the ground enables trees to communicate with each other. A parent tree can send extra nutrients to its offspring through the ground, some tree species send out warning signals when they are attacked by pests so that neighbouring trees start producing pest repellents, trees will send nutrients to other trees close by when they've been hurt or cut down - a tree stump can stay alive for many years this way.

The state of the Swedish forests today

In the late 19th century huge parts of our virgin forests were cut down (5). In the beginning of the 20th century reforestation (6) began. Compared to the first mapping of the forest (7) in 1923, we have more trees today. But compared to maps from the 19th century we are not even close (SVT, 2022). Only a few percent of forests in Sweden are natural forests (8) (SVT. 2022). Not much of the Swedish forest is protected, only 8,8% (Naturvårdsverket, 2022). 58% of forests are productive forests (9) (SLU, 2022), which means the land is being used to produce timber (Skogskunskap).

Planted forests (4), or timber fields as some call it, are monocultures. The issue is not that the trees themselves are threatened, it's the forest that is going extinct. The solution is not only to plant more trees but to also leave the forest be (SVT, 2022).

GLOSSARY

(1) A FOREST

A natural process and place that occurs when trees and other flora are left untouched, a self sustainable ecosystem.

(2) VIRGIN FOREST

A forests that never has been affected by human intervention. It is full of old and big trees as well as fallen trees in decay

(3) TREE

A living plant that heals it's offspring and bleeds when being cut down, produces oxygen and stores carbon, breathes through it's leaves and is one of the most complex organisms in the universe.

(4) TIMBER PLANTATION

Multiple planted rows of monocultures made up of trees, planted to be harvested for timber

(5) FORESTRY

The act of humans dabbling in the natural process that is seeding, growing, maturing, dying, decomposing of trees.

(6) REFORESTATION

Replanting seedlings in areas where trees previously were cut down.

(7) MAPPING (skogsinventering)

When mapping of the forest (Riksskogstaxering) began in 1923, and still today, the reason behind was to measure how much timber the forest held. (Skogsdata, 2022)

(8) A NATURAL FOREST

(continuity forest/ Lübeck model forestry) A natural forest is a forest that rejuvenated through natural processes, not through de- and deforestation.

(9) PRODUCTIVE FOREST

Land that produce more than 1 forest-cubic-meter per year and is suitable and used for timber production.

(10) ACTIVIST

A person engaged in advocating a cause, often political.

Young trees remove carbon from the atmosphere, old trees store it, trees that are cut down release it (Ayrey, 2021). Forests hold carbon much better if left alive.

There are some sustainable forestry practices, like the Lübeck model or Plockhugget for example, these we need to promote. We probably can't stop using wood for buildings, wood is a renewable material after all, yet forests are not. Use timber with caution, treat it as if it has been growing for decades or hundreds of years, because it has.

Who speaks for the tree

The forest's supposed to do so much, it's supposed to provide for so many, yet all it should be doing is to exist. A forest can't tell humans to leave it alone, obviously. Yet some people have listened and seen them anyway.

“Now she sees a forest, spreading across these mountains since before humans left Africa, giving way to second homes. She sees it in one great glimpse of flashing gold: trees and humans, at war over the land and water and atmosphere. And she can hear, louder than the quaking leaves, which side will lose by winning.” (Powers, 2019)

Some claim trees should have legal right, to give them a fair chance in this overly structural organized society we've created. Someone once told me that we think only human beings can have legal rights, yet cooperations and companies have rights too, those are not people. Still, we believe they should have rights. So maybe trees are next.

There are people who try to speak for nature and trees, some are called climate activists (10).

Climate Action Movement

Actions, networks and consequences

Every organisation work in different ways, they all have their own methods, aims and levels of disobedience. They all strive towards different things, but the core-issues are similar, saving the world. I will try to explain the overall networks used leading up to a forest blockade and why treesits (1) are one of the methods. Just as the organisations are different, your views and opinions on activism differ. The media often portraits the most extreme cases of activism and most times ones opinion is based on what we see in the media or in the news. I understand that we all have differently tainted views on political issues, I encourage you to try and challenge your perception.

The activist organisations cooperate, in the relay-race towards a liveable future, they are on the same team. The opponents are those who exploit or profit from exploiting natural resources. We will all run out, there is no infinite profit on a finite planet.

Extinction Rebellion exists in 84 countries, in Sweden there's 12 local groups (Extinction Rebellion, 2022), each local group has multiple sub-groups with different focuses and responsibilities. Before and during an action there's also different constellations of networks.

On the scale of radical activism all organizations position themselves differently. Extinction Rebellion is on the more extreme side of things, yet they only practice peaceful or nonviolent civil disobedience, which mean they have no intention of putting anyone (but themselves) in harm's way. Some may argue that disrupting commuters or limiting companies growth is harm, but in that case one could argue that the government and all big cooperation are harming the whole population by not taking enough action to prevent climate catastrophes and devastation. I have seen more sides of the activist movement now and will present a biased but simplified layout of the whole system. Hint: it's not only people gluing themselves onto highways.

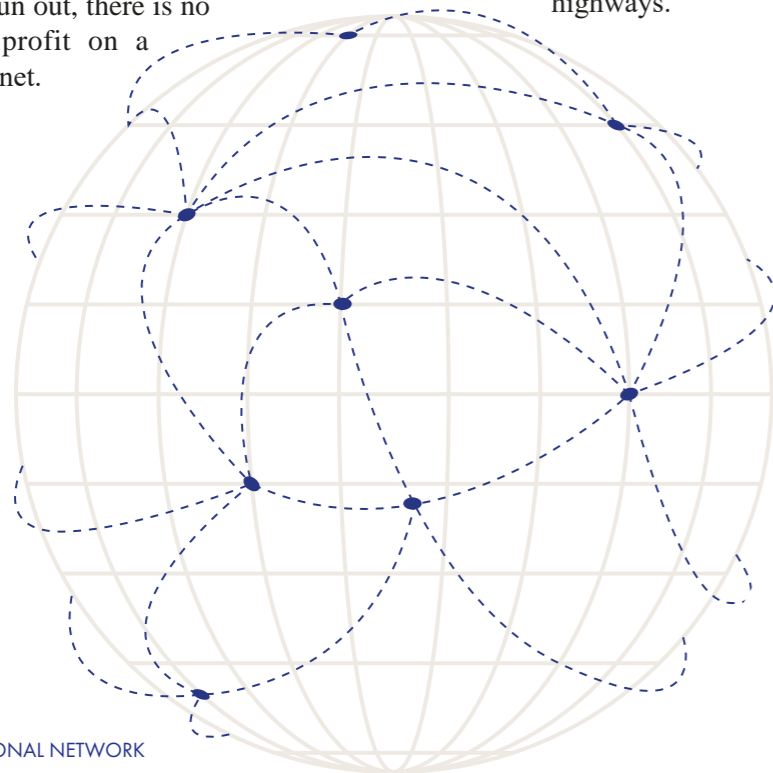
GLOSSARY

(1) TREESIT

The act of physically sitting in a tree to prevent it and those around it to be cut down

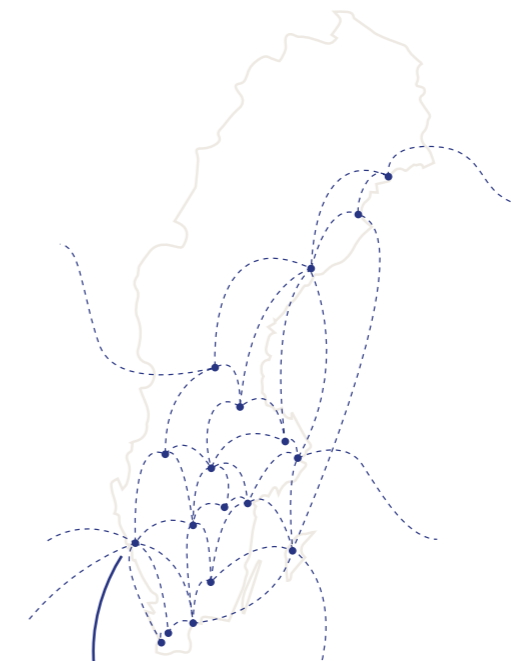
(2) ACTION

An action is another word for an event organized by the activists, it can be a demonstration, blockade or some other sort of happening.

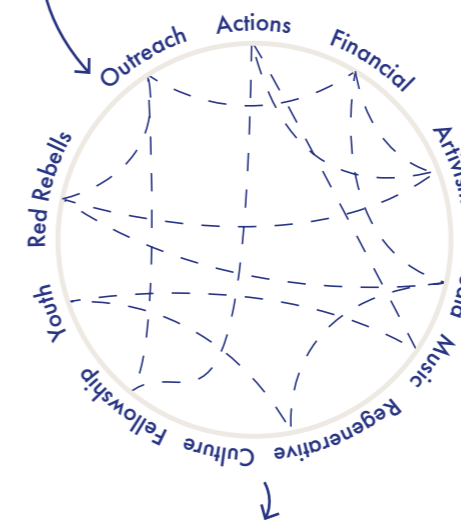


INTERNATIONAL NETWORK

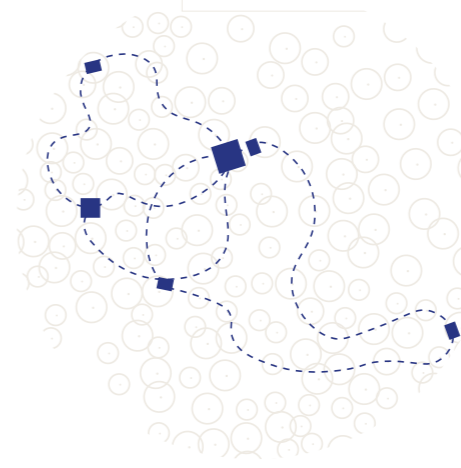
NATIONAL NETWORK



PRE-ACTION NETWORK



ACTION NETWORK



All around a visible action (2) are just as important invisible ones. Even before a headline-worthy treesit happens there has been negotiations and summons with authorities, petitions, peaceful legal protests, workshops, “how to peaceful disobedience workshops”, establishing local contacts and networks, preparing legal and press teams. When the phone call finally comes, it's time to head to the forest, you grab your go-to bag with the most essential tools and materials and hurry to arrive before the chainsaws.

It's not just anyone who climbs up a tree, there has been training beforehand. You should know how to keep yourself and the others involved safe under these unsafe conditions. When a blockade is happening there is equally as important work on the ground as up in the trees. People need to prep food and sanitation, be emotional support for each other, have media coverage and someone responsible of negotiating with police when they arrive. Leading up to every action there's enormous amounts of preparation for it to run as smoothly as possible and have as great impact as possible. One action has multiple subgroups, all these work alongside each other, there are systems in place to avoid hierarchy issues, since the main focus is to either get a message across or physically save a forest.

Julia Hill (2000) said it best:
“Tree-sitting is a last resort. When you see someone in a tree trying to protect it, you know that every level of society has failed. The consumer have failed, the companies have failed, and the government has failed. Friends of the forest have gone to the courts, activists have tried to make consumers aware, but with no result. Corporations have neglected their responsibility as landowners, while the government has refused to enforce its laws. Everything has failed, so people go to the trees.”

Who are they?

They come in all shapes and sizes, ethnicities, nationalities, classes, ages, genders, they work with you, they build your house, they care for your children, they grow your food, they are your boss, they are your children, we are all over. Activists are everywhere, and we all met through the simple cause that is to dare to hope for a better tomorrow. A role shared with the architect.

“These are the people who understand, at the most fundamental level, how the fate of humanity is entwined in the fate of the natural places they are defending. It’s why they are prepared to risk everything to defend these places. And it’s why they, more than anyone, deserve protection.”

- Dr Vandana Shiva (Global Witness. 2021)

In January 2023 Manuel Esteban Paez Terán was shot and killed while staying in a forest near Atlanta in the USA, he along with many others were occupying a forest that is threatened to be cut down to give space for a police-training facility (Pratt, 2023). In 2021, 200 climate activists were killed, that’s almost 4 people per week (Global Witness. 2021). At the same rate as one climate defender is killed, 75 million trees are cut down (Crowther, et al. 2015). That’s almost 300 million trees per week. In 1998, the year I was born, 25 years ago a 24-year-old named David Chain (aka Gypsy) was killed while sitting in an ancient redwood tree in California, USA (Beach, P. 2004). The fight has been going on for too long. Still, there’s no end in sight.

Treesitters

In 1997 Julia Butterfly Hill started a tree-sit that would end up lasting 738 days

(Julia Butterfly Hill, 2023). Julia named the tree Luna, the more than 1000-year old redwood is still standing today. In 1993 Jesmond Dene was the first one in the UK to use a treehouse as a tool for non-violent activism (Pearson. D, 2001).

Today, internationally, treesits can last for months or even years. This doesn’t seem to be the case in Sweden. When you enter a blockade with the goal of carrying out a treesit you will have agreed along with your assigned group for how long you can stay before exchanging your space with someone else. You don’t need to quit your job or abandon your children as it’s possible to treesit for only one or two days in a row.

A successful fight

The tactic works, protests, demonstrations and other types of actions work, sometimes.

In the spring of 1971 Stockholm city planning authorities had decided to cut down the elms in the cherished, central park Kungsträdgården so that the construction for the planned entrance to the new subway could commence. The action peaked the night 12th of May when workmen armed with chainsaws arrived at the site. Going at night with the hopes that people would be asleep was a tactic that backfired. People were asleep, but they were at home and could answer the phone and soon after attend the demonstration - to climb the trees. In the end the city officials had the police and workmen removed from the site and they decided to build the subway entrance in a nearby already existing building instead. The trees live on! (Arrhenius, T. 2010)

Almstriden was a turning point in many ways, it was the first time such strong voices were raised concerning

GLOSSARY

(1) NATURA-2000

Unique nature areas which under EU-law is to be protected and preserved.

city planning in Sweden (Biörnstad, M. 1989). It was also the first time ever that an already made decision was changed because of a demonstration in Sweden. Hjalmar Mehr, Stockholm’s municipality financial adviser in 1971, said in an interview that he felt worried about how this action and its newly found methodology of activism will affect democracy moving forward (SVT. 2021).

But demonstrations are part of democracy.

Another fight that proved that active citizens is essential for a living democracy was the battle against the expansion of a limestone-quarry on the island Gotland. In the fall of 2012 while Greenpeace activists climbed the trees of Ojnarekogen to prevent the deforestation, critical voices were heard elsewhere claiming that the activists should know when it’s time to throw in the towel. The decision had already been made, the papers had been signed, it had gone through a democratic process already so the activists should simply accept the fallout. But Ojnarekogen had been through investigations by the Swedish Environmental Protection Agency and the County Administrative Board who concluded that the forest and surrounding area contains such high nature values that it should be protected through Natura-2000 (1), the paperwork had just been moving a little too slow. A Natura-2000 area should not be affected by operations with the main goal of economic profit.

The activists took it upon themselves to sound the alarm, they climbed the trees, and the government listened. Today Ojnarekogen is a Natura-2000 protected area.

Ojnare is an important case that shows how civil disobedience and activism strengthens a democracy and hold society accountable on its fundamental values. If the activists hadn’t physically stopped the deforestation, there would have been nothing left for the government to protect by law (Jacobson, 2015).

Design as Activism

Design as Activism

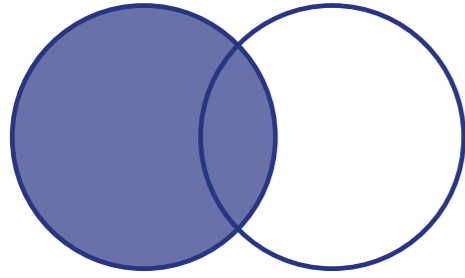


Illustration: Venn-diagram showing the overlap between design as activism and activism through design.

This thesis is not revolutionary in its content - although perhaps unique in the space of Chalmers - within this field of design as activism there are many before me.

Environmentally conscious design could be so much more than what we see in the mainstream field of architecture today. It must be more than nudging (1) by designing accessible recycling stations, it has to be more than solar panels on the newly built parking garages or ecosystem services (2) squeezed into concrete jungles. Design is a way to control - or at least have an impact on - people's behaviour. Design is power and Joanna Boehnert (2018) wrote:

“Not everyone shares responsibility for ecologically destructive modes of development. Power and responsibility are concentrated on those who have the ability to influence industrial development and system structure.”

And Krasny & Fitz (2019) wrote that although architecture is a form of artistic expression, it's also a practical science that creates things, things like structures and built environments. Hence it is the ultimate form of human power. Krasny & Fitz (2019) go on to talk about power in the sense that design makes requests and demands on material use, labour, natural and human resources as if it's quite a hefty demand to do so. Designers and architects are often associated with or employed by those who possess social or

political power as well as the economic means. Designers can be used to facilitate power on behalf of others if not taking power into our own practice. While we as architects talk about user-groups and users, we also are used.

Design is Political

Design is problem solving made visual, Boehnert (2018) wrote that design is uniquely positioned between theory and practice and moving through different disciplines and sectors while engaging with all and facilitating transdisciplinary actions, is solving problems with design. Design is often physical, architecture is very rarely not physical, anything physical demands material use and a request for space. Krasny & Fitz (2019) makes the point that architects and planners use *things* “to give voice to particular sentiments, especially power and capital”. While design can stem directly from politics, often it does so through multiple funnels of decision-making-power-structures. Still, we shouldn't diminish our impact, Boehnert (2018) also wrote that ***“the system would fall apart instantly if enough of us stopped ascribing to norms that enable it. It is the subjective grip of the values of the dominant order that designers reproduce.”*** The system functions because we all as a community believe in it, politics. As designers it's not surprising that this is the case, Krasny & Fitz (2019) explains how capitalism has rewarded architects and designers who enable the productivity which profits economic growth and efficiency for the sake of capitalism.

Individual designers do make a difference, through the act of responding to political issues our designs become political. ***“To make architecture is to map the world in some way, to intervene, to signify: it is***

GLOSSARY

(1) NUDGING

Nudging is a method architects and designers use to influence people to behave more sustainable and healthy. Examples include making stairs more inviting than elevators or making good spaces for recycling bins.

(2) ECOSYSTEM SERVICES

Ecosystem services is all the ways in which nature provides for humans, but in the field of design and architecture is the practice of implementing nature into the built environments. It could be collecting rainwater, building ponds for birds, insects and fish or planting local flora for pollinators. It's often a form of greenwashing a buildings performance.

GLOSSARY

(3) GRASSROOT MOVEMENTS

A social movement grown from the ground up, a bottom-up approach. The opposite would be top-down movements like governments or most companies.

a political act.” (Dutton & Mann, 2000). Designs that don't profit the people already in power or capitalist systems is a political statement. Designs that do profit these systems is also a political statements, if you do not say something you have an impact too.

During the pandemic of 2020, when people stayed at home and didn't drive into the city to work, the city planners in Brussels took advantage of the situation and changed multiple car lanes into bicycle lanes. 40km of dedicated cycle paths were marked out by September 2020 (Harding, G. 2020) and probably way more by now. A right-wing party weren't too keen on the quick changes, some backlash is expected whether the change is done by legal measures by city planners or let's say civil disobedience by activists. Adding bicycle lanes profits only bicycle retailers and general wellbeing, not the car industry, not gas and oil companies, which historically hold plenty of power.

In Sweden when recycling cans and plastic bottles you get some money for it. On the side of public trash bins you can sometimes find a compartment for putting your empty soda cans and bottles in instead of in the bin itself. Designers must have wanted it to be easier for people who collect cans for a living to do so. It won't improve their living situation; it won't have any effect on legislation. Still, it is a political statement through design. In a world ruled by profit and people with money, to design for those who have neither, is a political act.

Another example is the sneaky architecture like “co-machines” designs that take over the streets with small interventions on wheels (Hugill, A, et-al. 2020). They're a collective who by simple interventions bring life into the streets with simple structures, as a

statements against prioritising cars in a city which should be designed for people. Designing things and places has always been a political act, it can't not be political. In the 1960s architectural grassroot movements (3) rose and multiple magazines and manifestos were published, and some actions were taken. Overall, there was a longing for freedom and human-centered spatial planning. Architecture became more publicly viewed as more than an art form but a social and political expression. They've been called many things; I will call them Rebel Architects. The rebel architects were all part of the counterculture concerned about the architectural education, city planning and living situations. In short, they were all active in reaching for urban and social change through revolution. Street Farm was a collective of rebels that produces two issues of “little magazines” in the 70s. The authors met during their education at the architecture school in London where they found a common vision: strive to design more sustainable living in cities (Hunt, 2014).

All these examples are designer-based political acts. Activists also produce designs, these would fall under the same category, *design as activism*, as activism is a political act in itself, and design is design. It's all part of the same scale: the oblivious designer, the intentional designer, the rebel designer, and the activist that designs. Which one are you?



Illustration: four different types of designers on the scale “design is a political act”

They all produce things, which has impact and makes statements. My point is not that politics is the issue, nor is democracy (capitalism might be the problem). My point is that just like activists practice activism, which is a political and democratic act, designers do the same, whether intentionally or unintentionally.

Design through activism

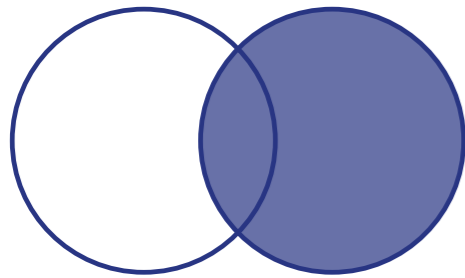


Illustration: Venn-diagram showing the overlap between design as activism and activism through design.

Design as activism by activists is not much different from design as activism by designers, the difference is that there is no economic profit for the activist and the main aim is political or social impact while one aim for a designer is economic profit. The core is still the same: it's a political act.

Climate activist movements are often flat structures and non-profit organisations based on the efforts of individuals who see no other solution for expressing or achieving social or political change than taking it into their own hands. The visual parts of climate activism is design, and it is the colourful flags, stickers, banners and chants during protests, pamphlets, websites and documentaries, tripods (1) and treehouses during blockades and actions (2) or performances and spectacles in public spaces to raise awareness about certain issues. Things, structures and visuals by climate activists is naturally design as activism.

Designing is Caring

“In our view, architecture and urbanism are central to caring for the habitat, its habitation and continued livability” (Krasny & Fitz, 2019).

Architecture will always reflect the world as it is today. A designer will always address a need or a current issue, our job is to create solutions. But we also created problems: One created cigarettes, the other created anti-smoking patches. One created the scooter, the other created the treadmill. The designer is rarely the client, but as previously explained, there's power in design.

We critique the consumer for overconsumption, creating waste or promoting unfair working conditions further down the chain. We don't critique the producer or designer for designing these object, workspaces and manufacturing chains. Since the producer and designer is only doing what they are paid to do. We could choose whose money to work for, which clients to take on. But that would mean changing the quest from finding unlimited economic growth towards measuring productivity and success by other aspects like longevity, environmental ease, or ecological and social responsibility. Unfortunately good morale doesn't get you a holiday in the tropics. Boehnert (2018) quoted Klein (2014) in one of her texts: *“Our economic system and our planetary system are now at war. Or, more accurately, our economy is at war with many forms of life on earth, including human life. What the climate needs to avoid collapse is a contraction in humanity's use of resources; what our economic model demands to avoid collapse is unfettered expansion. Only one of these sets of rules can be changed, and its not the laws of nature.”*

GLOSSARY

(1) TRIPODS

Tripods is a structure build by three often wooden beams tied together at one end, it is used by activists who sit on top of them during road or forest blockades.

(2) ACTION

An event for demonstration or blockades held by activists.

GLOSSARY

(3) THE COMMONS

Noun: The commons or a common is a space often made up of natural resources like forests, water, land.

Verb: Commoning is a caring act from a community who through radical approaches protects our shared space.

Similarly as previously quoted Powers (2019) wrote *“And she can hear, louder than the quaking leaves, which side will lose by winning”*.

Designers who wish to be on the victorious side of history – nature – are conscious designers who consider their impact. It requires a wider sense of caring and responsibility. Albena Yaneva (2018) wrote that the traditional mention of politics in design is about who participates in designing, while it should be rephrased to also include who it engages, the relations, associations, and scenarios it creates: *“How do different design, construction and renovations practices transform human experiences and affect human trajectories?”* Humans being the maker, designer, planner, builder, user, inhabitant, or de random passer-by (Yaneva, 2018). This relates to the impact that design have.

It's not that all contemporary architects and designers are uncaring, evil or intentionally promoting more harm than good, we care, just often about the wrong things (Krasny & Fitz, 2019). Later on they continue by quoting Joan Tronto (1999) who said that:

“On the most general level, we suggest that caring be viewed as a species activity that includes everything we do to maintain, continue, and repair our ‘world’ so that we can live in it as well as possible. That would include our bodies, ourselves, and our environment, all of which we seek to interweave in a complex, life-sustaining web.”

Caring is different from how we might think of sustainability, caring is a more holistic practice. Caring in combination with Carli. B (2021) definition of the commons (3) creates a way of thinking about design that hold space for other types of impact and profit than economic.

“The commons are generally constituted

by three elements: a pool of common resources, a community that uses and reproduces these resources, and a set of values, protocols and norms for collaboration, sharing, and care that this community agrees upon.”

(Carli, B. et. al. 2021).

The commoning of the city is based on the initiative of sharing, resources, space and values which allows the community to tackle urgent issues like climate change through a radical approach. Commons as space is primarily natural resources like forests, land and bodies of water. (Carli, B. et. al. 2021).

The climate activist movement is in a way also based on these three elements: sharing of resources, skills and knowledge exchange, a great will to involve new activists and all striving towards a shared goal, to save the world through collective care, regeneration and resilience. The climate movement is in many ways a common dedicated to caring.

Emergency Architecture

We live in different realities, we see the world differently, naturally. The architect might see the state of the world in need of improvement, but the activist might see the world as screaming for urgent help. Design for climate movement groups is design for disaster zones, in one reality the world is burning and these communities demand urgency and immediate relief. Cameron Sinclair (2012) wrote in the book *Design like you give a damn*, that: *“In the eyes of a community, be it recovering from disaster, living in systemic poverty or ravaged by blight and neglect, visions and designs for a project are simply a dream [...] not a solution”* This is an emergency.

Tree-Climbing Climate...

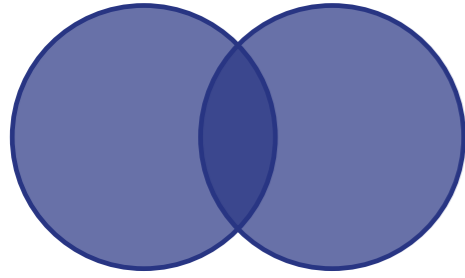


Illustration: Venn-diagram showing the overlap between design as activism and activism through design.

Where I position myself

This thesis and design proposal is based on the junction of the two fields of activism and architecture. Where the two meet is where the treehouse comes in. It is through the process of writing this thesis and designing the treehouse that I practice architecture in the way I hope I will continue to do when entering the profession after graduation.

Design is power

I recognise that I possess power naturally by navigating in the field of architecture in a western society. I am in a privileged position and have the means to spend my time and energy on causes that has other values than economic profit.

Although I have designed a *thing* which will take up space and demand resources, hopefully it's impact will improve the climate activism movement and our wish to practice care through it.

Design is Political

This whole process is political. Right now before using the treehouse, the process is political. And it doesn't just

happen to be political; both designing and using it is meant to be political. It is a political position as it is taking a stance against what politicians have decided is the best faith for the planet's forests. Activism is a democratic and political act and a right we by law are welcome to practice. Encouraging, enabling and promoting activism is therefore highly political. This was the intention.

Design through activism

Depending on the day, who I'm talking to, what I'm doing, or where I am, I position myself differently. I put on different roles depending on the situation. Either way, as activist or architect or both, this is design as activism and activism as design.

Designing is caring

Seeing The Activists' Shelter as a common or a space for commoning very much aligns with how I intend for it to live on. As a tool that creates a space for activists to gather around and use, while also being something we continuously improve and reinvent. A forest blockade is a common space already without the Activists Shelter, but the shelter provides a deeper sense of care and becomes a tool to reinvent.

Just like this process is political, it is also part of a commoning. This is care as it is a joint effort for a cause which aims at achieving, maintaining, continuing and repairing our world, for our bodies, ourselves and our environments (Krasny & Fitz, 2019).

...Activism Through Architectural Structures

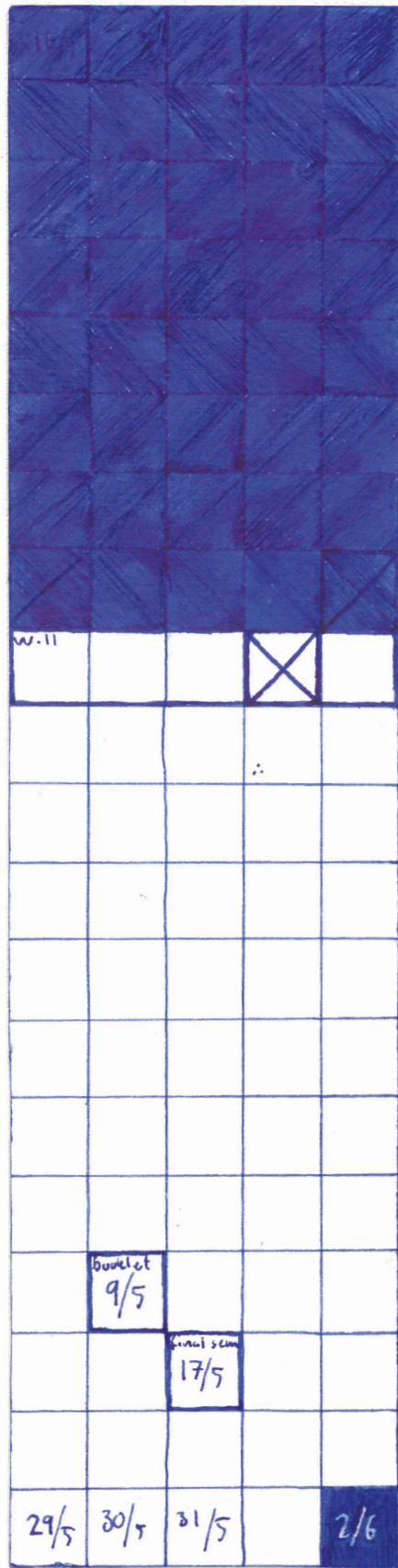
Emergency architecture

Using the treehouse during an action or blockade makes it emergency architecture because the cause is urgent and if the action fail the consequences are devastating. Activists are exposed both physically and socially and do navigate post-disaster-relief with every action carried out.

I identify as a rebel architect, which implies that I make intentional design decisions. Throughout this design process I've tried to point out and clarify when and why said decisions have been made.

Process

Scanned photo: My schedule, this is all of it, this is all of the days. Squares are filled as the days go by.



What does the design look like right now reflection sketches



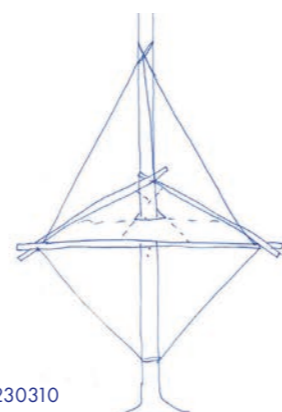
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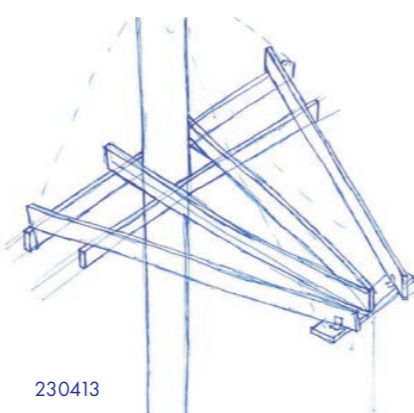
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FINDINGS:

230125

There are multiple organisations where climbing activism is a method used.

The different organisations are working on creating a common "hub" for coordinating skills, materials and knowledge as well as a "activists on call" system.

They were happy I attended!

Timeline

230125_Meeting Participatory observation

Spontaneous zoom meeting with different organisations about tree climbing activism: Greenpeace, Skydda skogen, Naturskyddsföreningen, Skogsuppröret and then me. I was invited after talking to Skogsuppröret on Instagram. They had posted that they were looking for people who wanted to come join them in Norrbotten for winter-activism-blockades. I'm interested in joining everything at this point so I reached out. They had already filled all their spots but she was kind enough to invite me to this meeting, that same day.

The main subject for the meeting was "How to coordinate tree climbing- skills, equipment, different techniques within different organisations. We all agreed that it would be good to collect resources, contact information and knowledge in some sort of hub. They also discussed how some sort of "activist on call" system could work.

During this meeting I felt very unhelpful, but they were happy I was there still. It was good that I've "met" with some more organisations since it will help when I want to tell the world about my final output (handbook).

230131_Climbing trees with XR

After a week or so of contact we finally found a date to meet up and climb, me and two activists from XR (Extinction Rebellion). We got to climbing right away, it was fun and quite easy. The tools we used were only a harness, slings, rope (for trees semi static), carabiners, prusiks.

I was told young trees (slanor) can be used as building materials, sisalgarn (natural fiber string) is also sometimes used but when using natural materials, it tends to stretch over time. Normally they use cheap plastic rope for building.

The first technique was called "självssäkrande klättring" translated to self-secure or self-belayed climbing. I put one sling (not a climbing sling, but a carry-construction-material-sling) around the tree at head-height, looped it through itself and attached it to my central-loop in my harness with a carabiner. I did the same thing with another sling but at thigh height, to put my foot in. I had one extra sling with me on my harness for getting by branches. The technique was to simply move one sling up at the time. Quite time-consuming but slow often means secure.



Photograph: Climbing trees using rope, slings and prusiks

Then we found a tree with big branches that were low enough for us to throw a rope over. At one end of the rope we tied a double eight knot to create a small loop. Threw the rope over, threaded the rope through the loop and pulled it to secure. To attach me to the rope we used a prusik rope (a thin rope tied into a loop with a prusik knot) that we tied around the main rope. One prusik for the harness and one for the foot. This was called **prusik climbing**.

We discussed an idea that they had come up with about constructing a triangular platform, and how to overlap the “beams” so that they lean on each other. The idea during this time was to fully attach the construction to three trees with slings wrapped two laps around the stems. They also showed me how to make “an incognito harness”. This gave me the idea that the treehouse should be quite quick to set up, or at least quick to get up off the ground.

We talked afterwards and I had some questions; I found out that they had been staying in blockades for maximum a couple of days, then they can get go back home or to work and someone else will take over. The materials they use is a mix of newly bought (like the harness and rope, PPE approved), reused from construction sites (slings and reused timber).

As a blockade is happening there’s a network of other action groups around working in the background: Mobilization (getting more people to get involved), media, planning (how will the action be carried out), acting activists, police contact, helpers during action, logistics, petitions and motions appeals to authorities.

I was also asked to download and use the app Signal, as it is safer than other communication tools for “alternative movements”.

230204_Climbed trees!

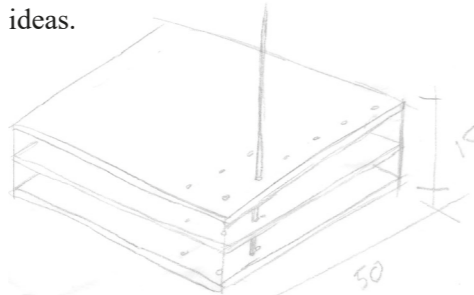
This was a snowy and sunny weekend, I took my brother with me out in the forest. We found a pine tree with many and strong branches and climbed up. We shared a thermos of coffee and the whole thing was very wholesome.



Photograph: The perfect pine tree in Änggårdsbergen

230207_Build a box

I was in need of a better base for my mockup designs as the styrofoam ones I started out with were too light and flimsy. The workshop solves everything! I went down with no plan to look around, eventually found a piece of OSB with pre-drilled holes. Perfect! I made a box of it and use it to test out different design ideas.



Scan: Box construction sketch.

230213_Blodstensskogen

I met up with two climbing activists that I got a hold of through those I climbed with a few weeks ago. We met in Blodstensskogen, 10 min with bus from Uppsala central station. It’s not a forest anymore, it’s more of a medium size grove. Three or some years ago it was

FINDINGS:

230131

New tree-climbing techniques.

What an XR climbing activist climbs, trees, buildings, bridges, other things. Along with other stories.

In Sweden during forest blockades an activists is usually only in the forest or in the trees for a few days, then you go home, rest and recharge and come back again later. The movement is always present during an action, just not every single person at all times.

Materials used. They have tried and tested their own methods, like using the blue plastic rope. In theory it is not safe, but it has been thoroughly tested and approved within the organization.

They were very happy to help me out!

230204

What a joy! How fun and foolish, and how simple it is to let time go by in a forest!

230207

Things always work out, just keep moving, and always do something.

GLOSSARY

(1) PPE

Personal Protection Equipment

FINDINGS

230213

If you show interest people are very happy to tell and show you more.

Stories about how trees are cut before they are allowed to cut them.

Some activists do this lifestyle “full time” with not much of a safety net.

Construction of the treehouse feels stable, but they used plastic rope and fully attach the trees.

Living in them full time seems not too nice, hygiene and sanity vice.

threatened to be removed, so they built the treehouses and occupied the area for about two weeks, two houses and maybe three platforms. The issue seems to be that the city start removing forests before all precautions have taken place, before the final decision has been made, they are sneaky in that way.



Photograph: Treehouse in Blodstensskogen

Nobody is staying there permanently or in longer periods of time, they come on occasion to check it out and make sure it’s still safe to use. The city has put up fences around the structures with signs that say the reason being the safety of people walking on the ground below.

I was early to the meet up spot so I walked around the area, I noticed that there were a few platforms scattered around, but all were connected with “rope-bridges”. I found the network of ropes fascinating, and it made me think of how we talked about the network of treehouses on a bigger scale. As well as the network that makes up a resistance/ the climate movement.

Platforms are used alongside treehouses during forest occupations to create a network of structures. Usually connected with long rope-bridges they can cover more of the forest, further preventing it

from being cut down easily.



Photograph: Platform in Blodstensskogen

These are not used or intended to host people for days at a time, but to be inhabited when the occupation climaxes. When forestry machines arrive on site, these platform are ready for an activist to sit on. If there’s people in the area, no trees can be cut down.

We climbed up a pink rope using harnesses and prusik knots. We had some tea that they brought, talked about the treehouses and had a look around. We repelled down and I had to rush back to Stockholm to meet with the arborist. Big permanent treehouses are built during forests blockades that last for more than a few weeks. They are usually attached to multiple trees using ropes. Materials are gathered from all over, most often



Photograph: Me climbing up the treehouse using prusiks

reusing old or leftover planks and beams. These are permanent which isn't good for the trees. A structure shouldn't constrict a tree for longer than two years. Historically these types of structures are torn down and destroyed eventually.

They are attached to the trees usually using plastic rope with knots. Although the arborist and structural engineers would disagree, it is a well-tested method by the activists.



Photograph: Construction detail treehouse Blodstenskogen

Most of these treehouses are attached between or onto multiple stems. This prevents the trees from moving freely during windy conditions. You will risk unnecessary forces being put on the construction when not allowing any slack or dynamic movements.

This treehouse hosted activists full time during some weeks in the summer of 2020 when Blodstenskogen was under



Photograph: Construction detail treehouse Blodstenskogen

threat of being cut down.

It being a two-storey treehouse is quite rare, but the more interesting. The first floor has the function of a livingroom, some chairs, shelves and a table. Almost all around it is a terrace-walkway, while walking on it you should be clipped into the safety line. Your safety should not only rely on the construction. On the second floor there is an insulated bedroom with a bunkbed, candles and some art. There used to be a toilet, or a bucket-situation on the backside of the terrace.



Photograph: You should be clipped in when moving around the treehouse

I was sent a PDF to a zine written by "A few people from the forest" called *Technische & Taktische - Erfahrungen im danni*. It explains a couple techniques for building treehouses, monopods and skypods and other hard blocks. The biggest finding from this document is that a treehouse should be built at least 2,5 meters from the ground. That way in order to be evicted the police need to bring in a special cherrypicker to reach the activists.

FINDINGS

230213

A treehouse should be built at least 2,5 meters above the ground in order to make it less accessible for police to evict the activists.

Be careful of restricting the trees, both their individual stems but also multiple trees to each other. If the treehouse uses non-PPE approved material, the climber must be attached to her own anchor as a safety precaution.

230213

It is necessary to talk to different people, they all say slightly different things. Especially when it comes to safety.

Some new knowledge about trees.

Contact and a PDF from someone who wrote a paper on treehouses and how to attach them.

(1) PHLOEM

The Phloem is part of the bark but is more alive and is responsible for transporting energy through the tree to where it is needed, shoot, stem and roots.

FINDINGS

230304

Who the activists are and why they are there: Normal people who live normal everyday lives, some my age, some older. All people who wish to help save the forest. So much so that they spend a whole weekend attending this workshop

230213_Meeting with arborist

I was just supposed collect a hammock to bring back down to Gothenburg for XR, but they had a few minutes to talk with me. They explained how the slings typically used for activist tree-climbing aren't safe to use in that way. They are made to lift heavy objects carefully, not wrap around and potentially take a fall. She was concerned with using materials and tools that are not PPE approved. Which includes those blue plastic ropes I saw being used to construct the treehouses in Blodstenskogen. If I would use something like this she would recommend always being attached to another safetyline as well.



Scan: The arborists explaining through a sketch the basics of trees.

They also gave me a very basic "what you need to know about trees" introduction as well as send me a thesis one of her colleagues had done about building treehouses!

So: trees move a lot, and not in sync so you shouldn't attach them to each other in a strict way. Obviously penetrating the bark in anyway harms the trees, but wrapping something around them can also be harmful. You shouldn't attach

something around the tree for more than two years, and never wrap it too tight. This damages the phloem (1) and it will eventually die. Also keep in mind the use of dynamic equipment and giving the structure slack and space from the treestems.

After meeting with them I started looking into arborist equipment and tools and how they handle catching big branches etc. While I was in Stockholm I visited Kungsträdgården to look at the giant elms which are still standing thanks to the blockade and treesitters in 1971.

230304_Workshop with XR

As part of the "immersion method" (but also I'm personally interested in becoming more involved) I'm attending everything I get invited to, going along with the current I'm on. So I went to this workshop in How to: Peaceful Civil Disobedience. What I found here was a group of people, new -as well as experienced - with activism, who I genuinely felt connected and safe spending time with. We were about ten attendees, all strangers to me, but I look forward to seeing them again.



Photograph: XR flags hanging outside to welcome you

I got to see who the activists are, and why they are there. Most said it was because they love the forest, they want to do something to save it, some simply said that it's a joy to climb trees as an adult. When was the last time you climbed a tree?

I also got to talk a little with my "climbing activist expert", who had some more ideas about the design and materials. We discussed using slings vs ropes, and who I choose to listen to, the arborist or them. I'm thinking I'll listen to both! I will also look up "daisy chain".

When I introduced myself I said that I had been invited through me working on this Masters' Thesis. During lunch multiple of the other attendees came up to me and wanted to talk more about it! They thought it was cool, and I think I inspired them. Not everyone is impressed by name-dropping Chalmers or other universities, saying that real change happens on the street but I still get the sense that they appreciate how the movement is spreading to different sectors and levels of society.



Photograph: How a tripod is tied

On the second day we could practice how to climb ropes, trees and **tripods**. A tripod is a construction inspired by the photographer's tripod as well as the hikers stool and cooking setup. This is

the most basic and well known of the activists' structures. Three legs typically made out of wood are tied together at one end. The legs are separated to create a stable base. These are used to sit on top of or hang from during blockades, typically on roads in forests or in cities. This form of blockade structure is sometimes called a hard block. The benefit of this construction is the flexibility, both how it can be used and ease of building and relocating it.

On the tram on the way home I sat with two new friends, we discussed feeling powerless or empowered. They told me how they had been met with a mocking attitude when trying to talk about their concerns about the climate at work. Then I told them about my experience after I had held a "speech" at my workplace, meta-communicating how we talked about sustainability and architecture, how I was met with encouraging words and praise. I told them about the summer curse where I learned how to speak about the climate transition, I think they'll apply!

During this meeting I was invited to join the "social app" they use to communicate events like these, not everything is published on facebook.

230313_Informal meetup with ACAN

I helped with some preparations for ACAN Sweden's yearly award Tänk Om! that this year they hosted here at Chalmers. I shortly mentioned this thesis to one of the others and he said that I definitely should reach out to the magazine Arkitekten!

He was convinced that they would want to write about me or this thesis. And

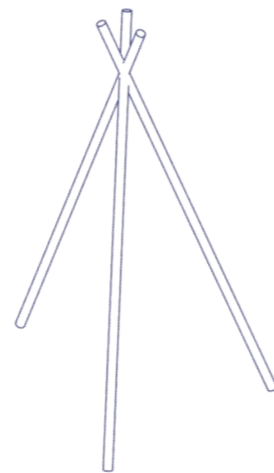
FINDINGS

230304

How to climb up a tripod.

TRIPOD

Findings: Materials used are three regular 45x45 wooden beams, rope or thick strings, a knot. It's good to be three people, one person who climbs up on it and two who hold it stable during. When sat it's stable enough to be left alone. It's tricky for police to get people down from tripods as they can fall and police usually don't want to hurt people.



230313

In many ways I am in charge of this thesis' impact, I need to talk about it and make sure it starts circulating online. I want both the thesis in itself to be impactful and the treehouse to increase the impact the climate activist movement has. The treehouse will be left to do it's thing, but the thesis will not have it's own life quite as naturally.

FINDINGS

230314

I'm definitely scared of confrontation. Which makes me convinced that I should be enabling activists, perhaps not being the one on the front-line myself.



Photograph: ACAN pin

maybe that's true! That would definitely be a big impact. I'll probably wait until I'm done to reach out to them.

230314_Email with Akademiska Hus

Akademiska Hus is the company that takes care of everything on campus, including the trees. I reached out to them to ask for permission to experiment in 1:1 scale in some of the trees, asking which trees they taught would be suitable. I was at first met with a very harsh tone, like it was ridiculous of me to think I knew enough about trees or treehouses to not harm the trees. They asked me who would pay if (or when) I break any of the trees. The tone was condescending, like of course I would end up breaking the trees. Anyhow, they soften up and now I guess I'm allowed to try it out for real in some of the trees that they suggested. But I don't want to anymore. I'm definitely afraid of conflict and I had to ask a friend to read the email responses before I did, as I got too much anxiety. I'm questioning if civil disobedience really is for me. This time I wasn't even disobeying, I was very much obeying... First setback in the sense that not all people will like what I'm doing, which I should have estimated.

230317_Midcrit

The mid way critique went well! I had created a video-loop of film of pine trees I had captured throughout this term. I had that on in the background as well as very quiet birdsong while I read my manuscript. The comments I got back

were really good but what stuck with me was when one of the listeners said that the contrast between the beautiful visuals along with the birdsong and the quite terrible things I was saying made my presentation have a big impact on her, and that she will remember it for a long time!

230329_Case Studies

I spent some time looking at previously built structures, both structures built by activists, tools for mountain climbing, and structures built by carpenters. First these upgraded beacons featured in Dezeen:

"The new beacons are lighter, more agile, more chaotic and organic, mimicking the structures that nature has shown us, ones that quiver and wobble to the touch but possess deep reserves of strength and resilience. Standing up to 11m tall these beacons will create a striking presence in the urban environment." (Extinction Rebellion, 2020)



Figure 1. Beacons, intricate structures used by activists for publicity

A protest tower/beacon is a delicate construction used in the same way as a tripod. They are an impressive display of balance and design. Just like the tripod

this is a so called hard-block usually used to disrupt traffic. They are sometimes placed strategically on roads leading up to parliaments or oil refineries other times used at a less crucial part of a protest.

In an article published on Dezeen a reporter wrote about these structures as sustainable high-tech structures that could be printed on the first page of magazines not under the heading “activism” but “architecture”:

“Architecture rarely makes the headlines, yet all of a sudden these two structures were at the centre of a national debate” (Harper, 2020).



Figure 2. Portledge, Shelter during big-wall-climbing, singular anchor-point

A portledge is typically used during big-wall climbing (when climbing such huge mountain faces that you need to do it over multiple days). It’s a rectangular platform built up by a thick canvas material, metallic lightweight beams and a system for hanging it in what’s called an anchor (bolt into the rock).

The safety system works in a way that separates the climber from relying solely on the platform itself, by always being attached to another anchor on the wall.

So if the portledge hanging system fails, the climber hangs from a separate system.



Figure 3. Triangular portledge



Figure 4. Monopod, by civilian, using metal attachment and wire

I’ve encountered pods that only require one post, both as hard-blocks and as platforms in trees. A monopod is a vertical stick held in place with rope from the top tied down to something on the ground, a person or a fixture of some sort. Three anchors are necessary.

A mono-platform is a platform that only relies on one stem. This allows for the platform to move with the tree, not restrict it.

FINDINGS

230329

Separate safety systems, the climber and the construction in itself.

Using only one anchor-point, but four lines.

FINDINGS

230412

Allowing myself to use slightly more sturdy and semi-permanent techniques really puts some ease to my mind that maybe it will actually work out.

Walking on slacklines is a balancing sport. Attaching slacklines to trees is a method that looks similar to how I vision the treehouse can be attached.



Figure 5. Slackline

230412_Site Visit

I brought a friend and we went to look at a local tree-top-rope-course in Skatås, I wanted to see how they attached their platforms to the trees. I found out that I had forgotten my SD card so no high-quality pictures were taken, but hopefully my phone captured it well enough. I’ve never seen this type of attachment before. They had one big bolt through the entire stem from which multiple wires and ropes were attached. At first glance



Photograph: Small platform

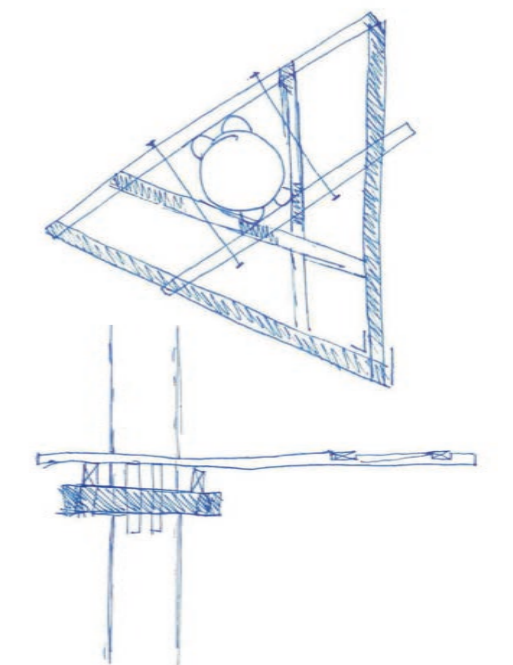
it looked as if the platform base also was attached with bolts into the tree, but they were only stabilised with rubber-like-bolts on the bark. The platforms were hanging from the giant bolt.



Photograph: Small platform support around stem

2304_Design-week

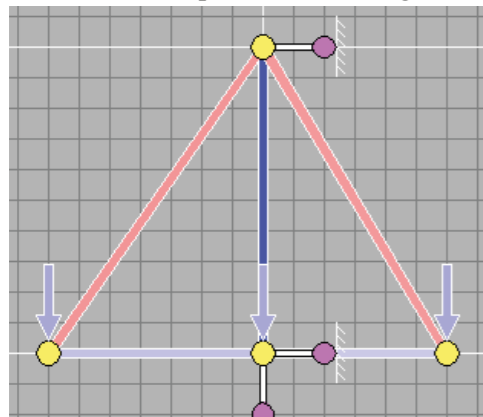
I feel quite ridiculous standing in the workshop at the moment, experimenting with my increasingly large sticks which are supposed to represent trees in scale 1:100, string to represent rope and the tiniest threaded rod and bolts I’ve ever



Scan: Sketches and ideas for the treehouse

seen - trying to attach them in different ways that is simple but at the same time somewhat structurally sound. In the meantime my colleagues are building realistic scale models of walls and buildings, all the things we've been taught how to make and draw throughout this education. They (the school) didn't prepare us for building treehouses as emergency shelter for activists. Alright in a way they did because here I am doing it, but it's more like they prepared me to be able to tackle whatever design project I'm up against, I'm able to figure it out. But actual square houses, I have years of experience designing that.

It turns out it's quite tricky! So far I've asked two teachers for input, one being the schools workshops very experienced carpenter, and the other being the division of architecture and engineering's old head of program. They have not been able to present an obvious solution. Which in a stressful way confirms that this task is indeed quite tricky! The engineering guru suggested anchoring the structure more on the tree, not only hanging. Which could help with the twisting issue.



Screenshot received via email: Construction sketch

My friend who told me that he had worked at a tree-top-rope-course suggested that I reach out to his old boss who has started his own adventure park. Apparently they used to attach trees in a special way.

My biggest issue right now with the

design I would say is to get a level base. How do you stack beams in a manner that still limits the number of beams used, and uses enough to create a level base for the platform. It's been good practice to explain and discuss design choices with other people, as their questions can work as the base or framework for the chapter "design requirements".

I do feel quite lost and exposed, like who am I to make design decisions? Who gave me authority? I'm scared it won't work out, and I've told so many people about this so I really want it to at least not be a terrible proposal. I thought one of the "experts" I talked to would give me the go-ahead, it would have given me more confidence. Intellectually I know I am exactly the right person to make these decisions as I am the only one with this exact knowledge, but it just doesn't feel like I am.



Photograph: Model 1:100 testing

230418_Approval

The guy I emailed who owns the tree-top-rope-course adventure park responded! And he said I'm on the right track, finally some approval. I will go ahead with this idea now. I just need to figure out whether to use climbing rope or "straps". He gave me the idea that straps might be a good idea since it would make for easy adjustment of the tension. He also agreed

FINDINGS

2304

It is indeed a tricky puzzle to solve, especially since I'm not spending all my time on it.

230418

The bolted technique should work, no need to use those small blocks of wood in between.

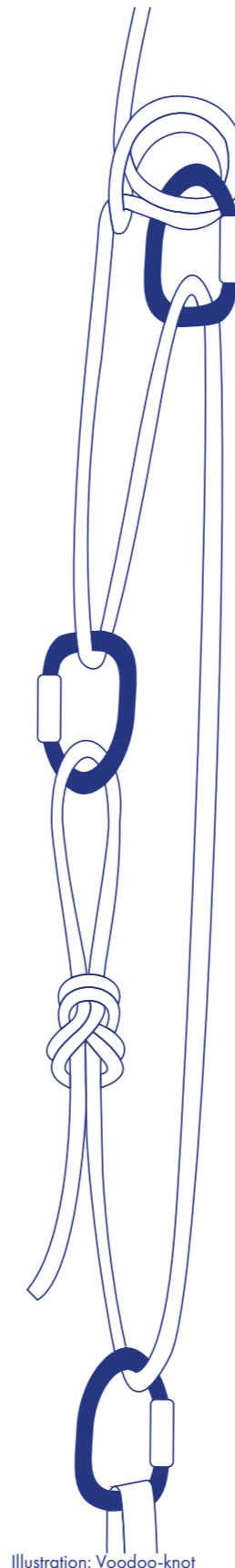


Illustration: Voodoo-knot

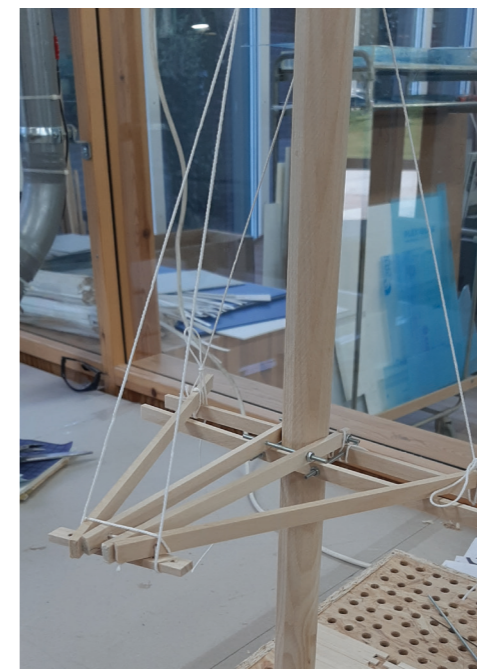
that using one tree is better than three, as the structure would risk breaking with the movement of the trees.

230419_Set back

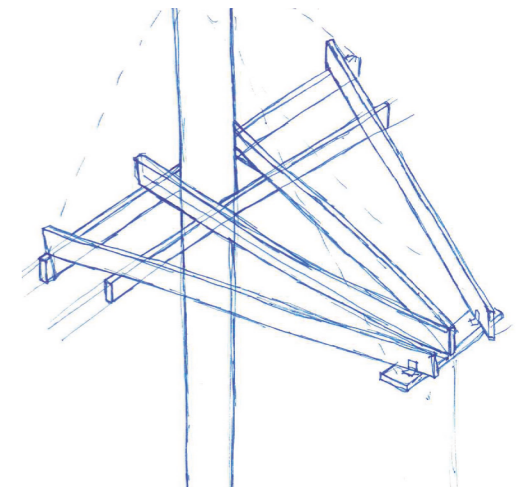
I met up with an engineering student who asked good questions but completely made me derail. We discussed other cooler ways of building the structure, but when one limitation is money and not using "special parts" the most rational thing would be to build a square platform. Feels boring.

230420_Figuring it out

Oh man this week was a roller-coaster! Today I figured it out! And it's still a triangle, so it's still cool! And there's no beams that overlap. I went to the workshop again thinking I'd try building a rational square structure, I must have looked defeated because I got good help that made me want to try more triangular solutions.



Photograph: Model 1:100 final test



Scan: Final design sketch

230421_Knot-tests

Although using "straps" to hang the structure would be handy, it seems to be difficult to get a hold of straps with loops at the end since they usually come with hocks. But I found a rope-knot-solution! It's called the voodoo-knot. Me and my brother (good-at-knots-person) tried it out, and it should work.



Photograph: Trying out the voodoo-knot

230424_1:1 Test

Today was the day I put in my schedule that I would try to build it in scale 1:1. And we did! Or we tried to, halfway success. It needs to be adjusted to be more flexible, the tree was thicker than expected. But it should work! It was quite heavy but not too heavy for two people to manage to carry it.

The small “base plank” where the four main beams rest needs to be longer to accommodate for the planks moving. It should also be more holes in this base plank. There should be more big holes for the metal rods to go into depending on the size of the tree. We had some issues with adjusting the length of the rope, but testing on a taller tree would help with this since then there’s more room for rope. Hopefully I will find the time to make readjustments and try it out again!



Photograph: 1:1 built construction ready to be carried to site



Photograph: 1:1 base structure laid out

230502_Tools & new skills

I reached out to the activist I visited in Blodstensskogen to ask how they hoist building materials up into the trees, since the newly found voodoo-knot can re-adjust tension but not hoist so very far. They told me they use one or more blocks/pulleys, the climbing equipment kind. I will use the same principle but I was surprised over how much more equipment they use that I didn’t know about. I might have taken this “inexpensive and available” aspect too far.

230509_Cross-check

The booklet was sent to the activists I had been in contact with and no comments came back to me about disclosing any sensitive information. The feedback was more focused on the design of the treehouse and already many good ideas started to be discussed!

FINDINGS

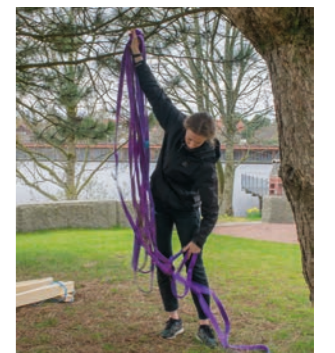
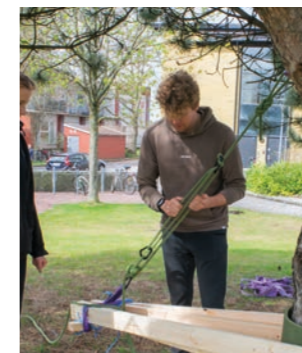
230424

It works, but it needs to be more flexible. Make more bigger holes and the small plank needs more options for holes too. It is light enough for two people to carry it!

230502

Using block/pulley systems to hoist materials up into the tree.

1:1 Test Build



Finishing off

What a journey! The Activists' Shelter - Iteration one is complete, the thesis semester is coming to an end but the fight is far from over. All that's left is to spread the word and save more forests.

So far I have shined a light on climate activists at Chalmers during two presentations, and coming up is an open presentation and exhibition where I have the possibility to reach many more architects whom I might provoke or inspire. I will probably hold another presentation at my workplace as well as one online for ACAN.



Photograph: Picture of the final design, model 1:100

Findings

Research outcome

Here's what finding out comes down to regarding the treehouse:

Design requirements

The preconditions stem from the program Greenpeace set when they introduced the idea as an architecture student competition, but throughout my process I've added other aspects.

- Size: It need to be big enough to fit two people and their gear, yet small enough for two people to be able to carry it through a forest as well as set it up.

It needs to fit a big variety of trees and sizes.

- Time: It should be easy to set up since more time spent on the ground means higher risk of being arrested or stopped. Aim to do it under 1 hour. If it's easy to set up it won't be a mental barrier to move it. It is not mean to be inhabited for more than a couple days per person in the treehouse, activists replace each other. If the blockade lasts more than a couple of weeks, the treehouse should be moved to another tree in order to not damage the tree as well as being an opportunity to check the material and construction.

- Weight and size: It needs to be light enough for two people to set up, yet not so light that it is unstable in the wind. It needs to be light enough as not to set of the trees natural stabilization.

- Height: It need to be high up enough from the ground for police to not be able to easily reach it, yet low enough to limit the extra movement the structure will cause the tree when catching wind. It should be built at least 2,5 meters from the ground. That way in order to be evicted the police need to bring in a special cherrypicker to reach the activists, which further delay eviction.

- Material: The materials used needs to be easy accessible so that the design can be reproduced elsewhere, preferably materials the activist already use. Virgin materials should be limited. If wood, make sure it is from truly sustainable forestry (plockhugget) or reused. Money doesn't grow on trees, it needs to be inexpensive to build.

- Sustainability: It should not harm the trees or the surrounding environment in any way. There's a risk for strangling and denting the trees if attached for a long time or in a bad manner. It should be able to be taken down and reused elsewhere.

- Shelter & safety: It should shelter from wind, weather and water canons. Always use and climb at your own risk and make your own assessments. Even while in the treehouse the climber should be attached to her own anchor on the tree stem, not to the construction itself.

- Skills & knowledge: It is meant to be used by someone who has some previous experience with tree climbing from previous actions or trainings. You should know the basic climbing techniques and how to build simple structures.

- Reproduceable: The construction should be easily reproduceable, using the skill level the climbing activist already have.

Design decisions

I have designed a shelter for climbing climate activists who wish to stay in these during forest occupations. There are many ways to build a treehouse, this is how I've done it and the diagram describes some of the decisions I've taken.

- Number of tree stems: 1. Finding one good tree is more likely than finding three good trees in a perfect triangle. Attaching multiple trees to each other using beams and rope will restrict their movement and might break the structure.

- Main construction material: Wooden beams as it's an easily available material, can be bought to support sustainable forestry methods, can be reused. It is already a widely used material within the activist field as well as it's easy to get a hold of. Although using wood is contradictory, buying new beams from sustainable forestry practices is a way to promote alternative logging practices. There's also the possibility to reuse wooden beams, or even using logs found in the forest.

- Number of beams: 6 wooden beams <3 meters and 95x45mm thickness. One smaller piece, about 70cm.

- Attachment to stem: Using metal threaded rods to grip and compress the

primary beams around the stem. This will prevent twisting and be more secure than solely relying on a hanging construction. The secondary beams are laying on the primary beams as well as hanging from anchors higher up on the stem. The anchors are construction-slings, rope used are semi static climbing rope, and carabiners.

Climbing rope is more expensive than plastic rope, but safety should be prioritised in such an already unsafe situation. Carabiners, as links between slings and rope to prevent chafing on the rope. Slings, from construction sites but preferably from PPE approved retailers, to use around the tree stems as rope over time can cut through the bark.

- Attaching beams: Plastic rope to tie beams together, proven through precedent structures that these hold up.

- Walls: Tarps as walls. Easily available material.

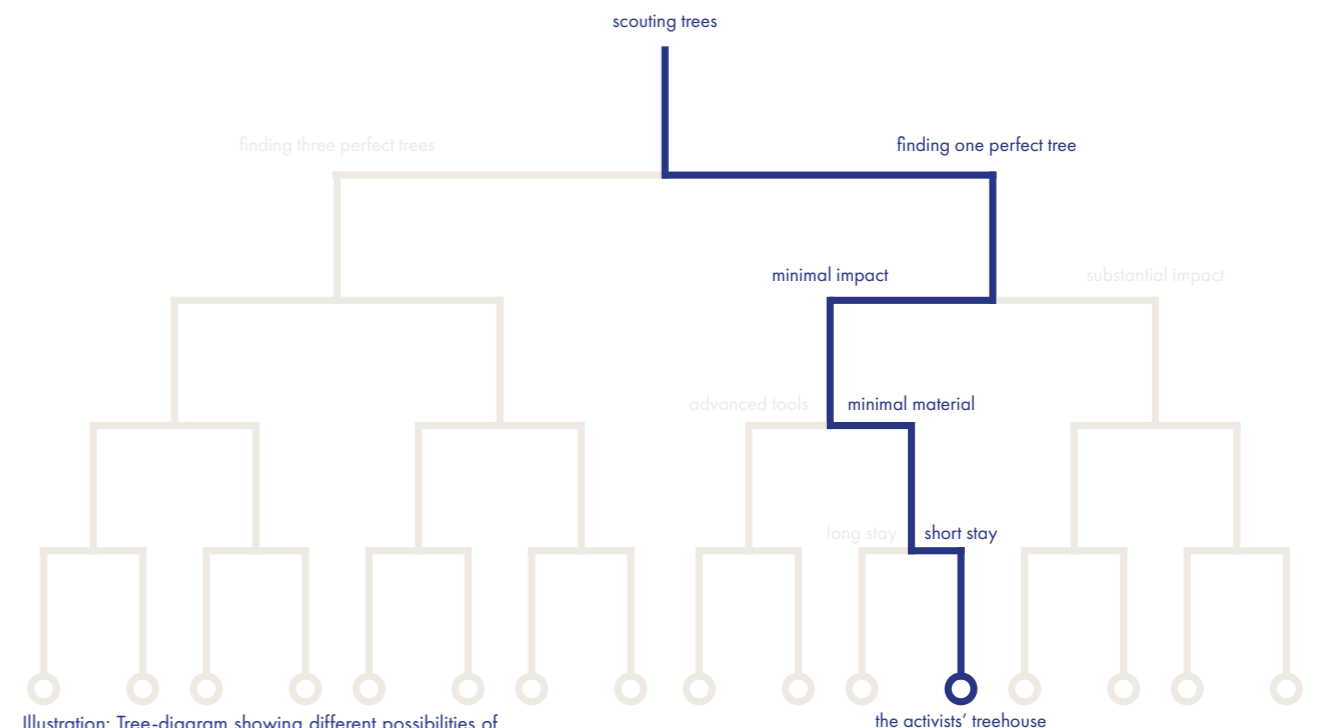


Illustration: Tree-diagram showing different possibilities of designing treehouses

Design

Store handbook here
(appendix 1)



Store handbook here
(appendix 1)



Conclusion

Conclusion & Discussion

My main finding is: **be intentional with your actions.** Whether you're an architect or activist your every action has an impact, so take caution.

Aim & Purpose

Having impact, navigating impact and to achieve greater impact has been an overall theme throughout this thesis. Impact the movements efficiency by lengthening the duration of forest blockades. Provide greater credibility and legitimacy by using design both to individual actions and to the movement in itself.

This thesis had two aims: inspire or provoke fellow architects to be conscious designers, and to design a tool for fellow tree-climbing climate activist which enables them to lengthen the time spent in a forest blockade. The design process has also been a way to shine a light on the climate activist movement and create an opportunity to talk about issues and solutions concerning humans role and involvement with the climate catastrophe.

There is no way to measure or prove if this thesis will provoke change in the way an architect operates, but it has changed the way I expect to be able to have an impact through my profession. I see potential in its content to act as a conversation starter to discuss the architects role in a political context. Perhaps it can unite like-minded people.

How does a built structure improve the effectiveness of a climate action? *

Forest blockades do already lengthen the process of deforestation, this has been proven. Whether or not this treehouse will lengthen the process even more is up to prove. It probably won't benefit the blockade as much as the comfort of a permanent treehouse does, but

hopefully the blockade can be more effective compared to carrying it out only sitting in a tree without any structure at all. Perhaps the Activists' Treehouse can provide "mental comfort" in the sense that the shelter doesn't need to be reinvented every time one enters a forest to blockade.

Impact

Bringing awareness to the movement: The impact I've already had while doing the thesis has been directly linked to the people I've met or written to. I've been met with such enthusiasm and cheer! Any feedback from the activists has been along the lines of : "What an inspiring thing that this movement has reached the academia. Even if this comes to nothing you have taken up space at Chalmers for our cause, who knows maybe you'll inspire one other student to help save the forests."

This in turn has made me feel empowered, partly due to the response that I'm doing something that is being appreciated, and due to the provocative part: that it's indeed taking up space here in the academia, a space that often feels intended to be used for speculative design, iconic landmarks, unnecessary houses or other types of "by the book architecture".

I've gotten feedback from my peers, and friends that I have indeed managed to challenged their view on our responsibility when entering a career based the built environment.

Legitimacy & lending credibility:

Can a built structure provide climate activists with increased credibility, accomplishing a greater affect activists have on fighting climate change? *

* thesis question

* thesis question

I wish this thesis will provide more legitimacy to the climate activist movement, but who gives legitimacy? Is it me, anyone with a degree, the public eye, people in power, perhaps legitimacy happens when one field of knowledge recognizes another? I can attest that my peers have changed their view on climate activism slightly through me taking about my process within this thesis semester. I haven't yet heard anyone mention that they wish to join an organisation, but maybe that's still to come.

During the XR-workshop there was a short comment from one of the attendees about city planning and its power in directing society in the right direction, concerning sustainable living. It never came to a discussion, but I did feel that I had an important role in representing the field of planning and design in that room at that moment. Perhaps my presence increased their view of designers slightly for the better.

Let's say that climate activists have and will receive some credibility from this thesis, can this credibility accomplish a greater effect they have on fighting climate change? I think so! I think that empowered activists can carry out a stronger and more effective revolution.

My view on activism now:

We are witnessing a shift, that the academia and activist movement are uniting moving forward in this war against those who are fighting against earth. I saw in the news lately that scientists are starting to join or recognise climate activist movements (SVT, 2023). One scientists explained her reason being that they have tried writing books, they have written reports, but apparently it's not enough. There is a need to be heard in other ways. I interpreted this as her aiming critique against politicians and their inaction during these last 30+ years.

The politicians response later in the broadcast was that biased scientists give fuel to climate deniers. He's missing the whole point. We, activists, scientists, are first and foremost talking to the people in power, not to people buying diesel cars, flying or non-vegans. I found it frustrating that not even on the news directly talking about how scientists aren't being listened to by politicians is he (the politician) listening... The politicians point was that people will stop trusting scientists, but reading the comment section (P3 Nyheter, 2023), it seems like that is not the case. People aren't trusting politicians. Maybe that's what they're scared about, losing their power. Scientists are supposed to be unbiased, how is it more unbiased to walk in a demonstration shouting your research result, than only publishing it in a report? It is completely proportional to use this type of actions considering the future we are facing. Designers on the other hand, can and should be biased! Go ahead.

"Universities should be unbiased mediators of knowledge." - Swedish Minister of Education (SVT, 2023).
Oops!

Academia, the institution & education: After five years of education I found myself yet again building with sticks and string, just like in our very first course in the first year, #low-tech architecture. We have been taught to design houses, and if you chose the right courses you have been taught how to manage alternative design processes. Overall I'm content with my education, but I wish we would have had more opportunities to explore how design is political and how we need to navigate within our role. I wrote that I didn't feel prepared to design a treehouse for activists, because I found it so challenging. It was my first time doing anything like this, obviously it wouldn't be easy.

*What does architecture supporting activism look like? **

Building it:

On more than one occasion fellow students have asked me shockingly why I built the treehouse in real scale. Architects don't usually build stuff other than scale models. My first response was that well it's quite easy to build it, so I might as well. But most of all I need to make sure that the proposed design actually works. As a piece of emergency architecture, good ideas and drawings aren't enough, it needs to be built.

I doubt many people will actually read this thesis, hence a physical provocation is well suited to further impact the built-environment-professionals.

Before I built it I was quite pressed on time and I found comfort in the thought that maybe it doesn't need to be built, as architects usually only produce drawings for others to follow. I'm glad I did build it, but if I hadn't I would nonetheless have taken up time and physical space here at Chalmers for enabling climate activism. I have for this whole term, during presentations, exhibitions, conversations and now with you reading this, I have created a political space that bring awareness to a cause I believe in.

In another direction for the master's thesis within architecture there is a consensus that a master's thesis should be able to be built. That direction is focused on buildings, details and constructions, typical architecture you could say, my nemesis. But my master's thesis has been built, this rarely happens. So, voilà!

Limitations

Biased literature:

I haven't read any literature which

claims activism isn't efficient, nor any publications that design isn't political. I entered this process with an agenda, not with an unbiased scientific approach.

The design:

The most rational thing to do if looking for a temporary and flexible treesit structure would be to get a portaledge and secure it in a tree. I expect that the treehouse structure won't be very comfortable to stay in for more than a day. A bigger design would enable more movability when in the treehouse.

Design outcome

The Activists' Shelter:

The final outcome is a physical treehouse, built both in scale 1:1 and in 1:100. As explained both in the thesis and in the Handbook there are many ways to build a treehouse. As a way to defend my proposal I've represented this in a tree-diagram which shows some of the decisions I've had to make, like focusing on less radical treesits that usually lasts only a few days per person, compared to weeks in other parts of the world. Or making it very temporary, compared to more stable and permanent structures, not creating any special parts or overly complicated solutions, which as a designer and problem solver is a challenging constriction.

The Activists' Shelter - The handbook:

Concluded in the Handbook is the how to build it guide. Hopefully there will be a hub for tree-climbing activism soon where there will be room to discuss improvements, challenges and eventually upload new versions of the Activists' Treehouse Handbook.

* thesis question

Findings & Process

Choosing to present my process intertwined with my findings in such a chronological manner is unconventional as usually a "process diary" often is completely separate from the final document. But as parts of this thesis has been to explore the architects role and *how* to design a structure supporting activists, I found it important to share how I navigated this whole process, it's equally important to document the experience as it is to actually design.

My main finding is that a designer needs to be intentional and aware of the impact her decisions produce.

Implications

How to - intentional designer:

A challenge that has stayed consistent throughout this whole process is feeling ok with writing so many words. We aren't usually as architects encouraged to write, or we are encouraged to write summaries and to always be concise. During every tutoring session there has been feedback about me needing to flesh out or elaborate on parts of the thesis, that my tutor felt I wasn't mentioning everything that needed to be said. I understand the importance of this now, to write it all and never summarise findings or ideas. Because design decisions happen in the smallest ways, and if my conclusion is that designers need to be conscious about what they produce, one needs to be aware of when and why they are making decisions.

Further work

As an architect: I intend to continue to provoke and be intentional with design. I hope to continue collaborating with climate activists on the evolution of the Activists' Treehouse and maybe some day I'll be brave enough to participate in an action myself.

Typically, when finishing school projects, it's done and complete when we submit, but this work will never end. This is only just the beginning.

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Image References

The figures, photos or drawings not found in this list, are either the authors own work, received from personal communications or exports from used softwares.

Figure 1

Morris, G. (2020). [*Beacons*, Photograph]. Chuffed (<https://chuffed.org/project/light-the-beacons>). Copyright by Morris, G.

Figure 2

Exped Tribe, (n. d.). [*Portaledge*, Photograph]. Exped Tribe. (<https://expedtribe.com/en/portaledge-overnights/>). Copyright by Exped Tribe.

Figure 3

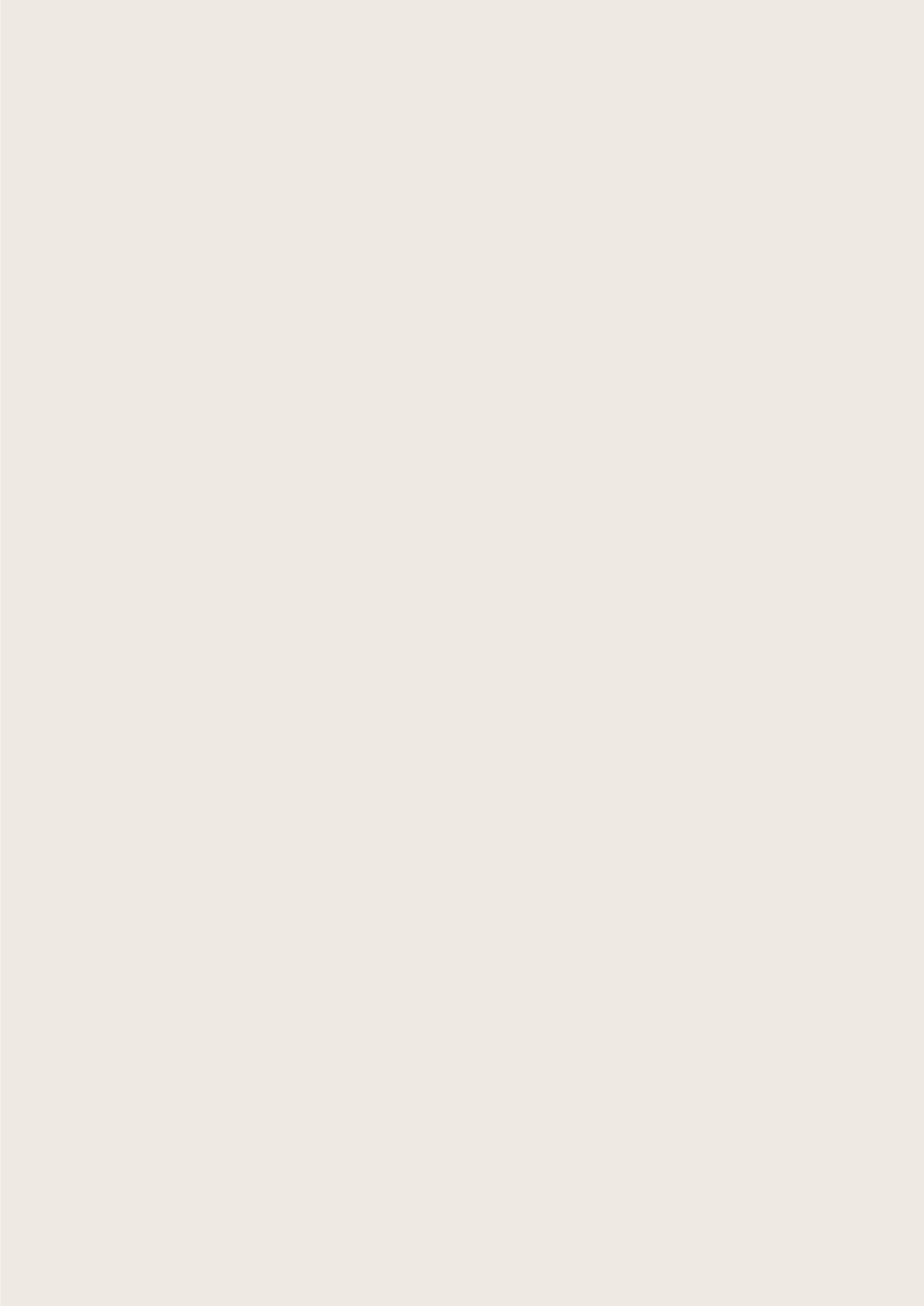
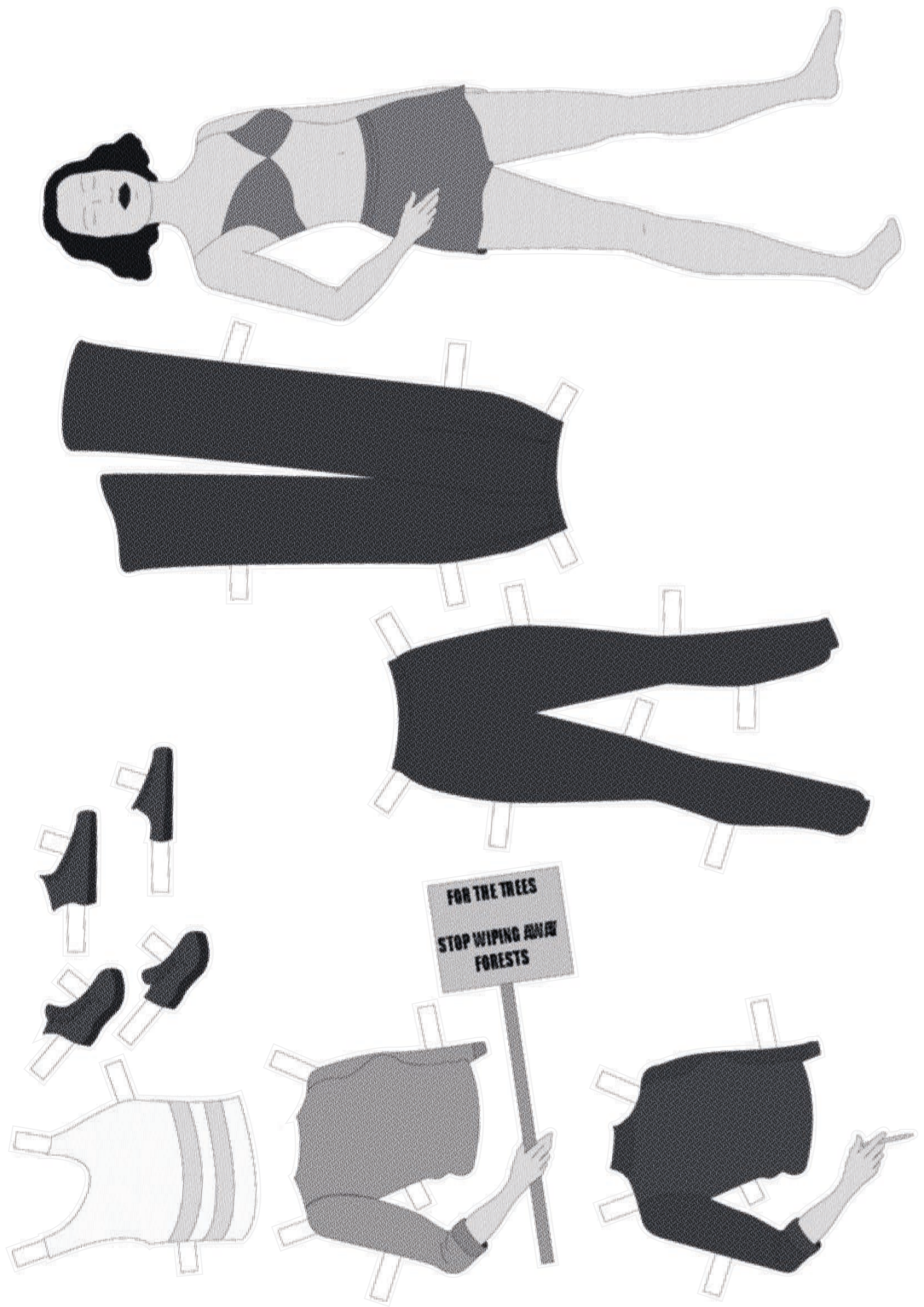
[*Triangular Portaledge*, Photograph]. (n.d.). Pinterest. <https://www.pinterest.se/pin/511369732664270745/>.

Figure 4

Haske, R. (2016). [*Monopod*, Photograph]. Hudson Valley One (<https://hudsonvalleyone.com/2016/02/22/phoenicias-gallaghers-elevated-tree-pee/>). Copyright by Haske, R.

Figure 5

Slackline Hive Fly. (n. d.). [*Slackline*, Photograph]. Slackline Hive Fly. (<http://slackline.hivefly.com/gibbon-flowline-kit/>). Copyright by Slackline Hive Fly.

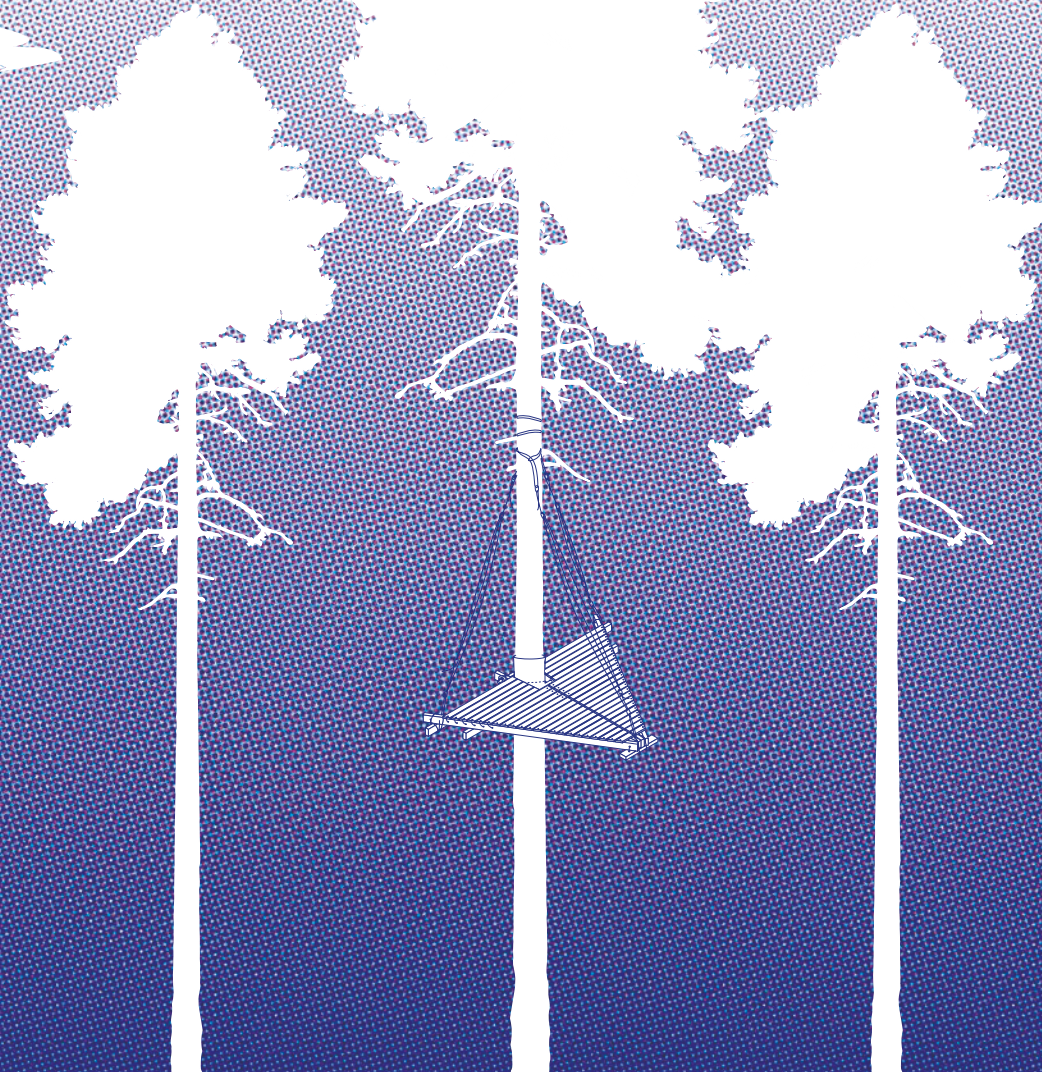




For The Trees!

The Activists' Shelter - Handbook

First Edition



Content

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Introduction

GLOSSARY

(1) HARD BLOCK

A built structure often a tripod, monopod or a barrier made of scrap material placed on roads in an attempt to slow down police reaching that specific blockade or for example trucks with oil exiting a refinery.

“Att bygga trädhus är en konst som för-
enar läran om naturen med byggteknik,
två områden som kommit allt längre ifrån
varandra på senare år.”

“To build a treehouse is an art which
unites the field of nature with architec-
ture/engineering/construction, two
fields who have been drifting apart these
last couple of years.” (Skoglund, 2013).

How To Use This Handbook

This How-to-build-activist-treehouse-
guide exists as a tool for tree-climb-
ing-climate-activists. It was made and
written as part of a master’s thesis in the
field of Architecture at Chalmers Univer-
sity of Technology by Ellen Boman in the
spring of 2023. The full master’s thesis can
be found published at odr.chalmers.se in
case you found this Handbook separate
from it. Every method and skill presented
or used in this handbook stems from the
findings of that master’s thesis.

The main users are intended to be
tree-climbing climate activists. You should
already have prior knowledge and expe-
rience of tree-climbing, both climbing
stems of trees using slings and climbing

rope using the classic prusik knots.

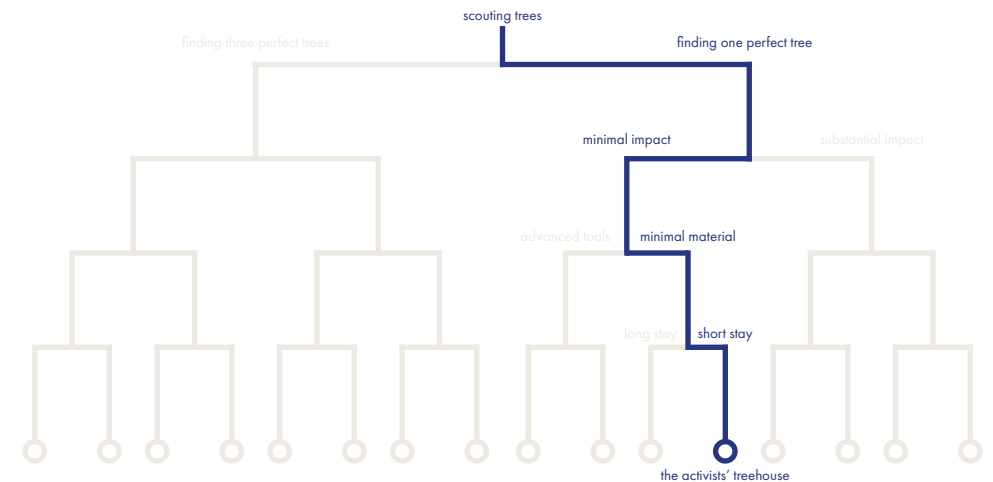
Use at your own risk

If you sense that you don’t have the re-
quired prior knowledge the first step will
be to become involved in your local cli-
mate activism organization. There you will
find tree-climbing workshops and activi-
ties to get you started. You can also find
more detailed tips for activist climbing on
EarthFirst!’s website ([https://earthfirst-
journal.news/downloads/](https://earthfirst-journal.news/downloads/))

It is important to be aware about all
that happens before it comes down to
building a treehouse as a hard block
(1). Putting yourself physically on the site
and in the trees is the absolute last resort
and should not be done without proper
training and preparation. Implement the
buddy-system, never climb alone.

Delimitations

There are many ways to build a treehouse.
The diagram below illustrates as a sum-
mary which path the learnings from this
masters’ thesis has lead to the design
proposed. This is not the only way. This is
one of the least intrusive ways considering
tree-health.



Tree Anatomy 101

(Skoglund, 2013)

Finding the right tree is essential when deciding whether to climb it or build any structure in it. It has to be healthy and strong enough to hold the additional weight of humans and construction materials.

Unlike humans, trees don't replace hurt or damaged cells, they can only incapsule cells that are sick. Any wound or cut to the tree will effect it's health and increase the risk of fungi or rot. As explained in the related master's thesis *The Activists' Shelter*, this treehouse is meant to increase the chances of saving trees and forests, no trees should be harmed in the process of

carrying out a blockade which is why it's not recommended to put bolts in the tree or leave the treehouse up for too long.

The bark is a protective layer for the tree. It protects the inner important layers from bumps, fungi and extreme heat.

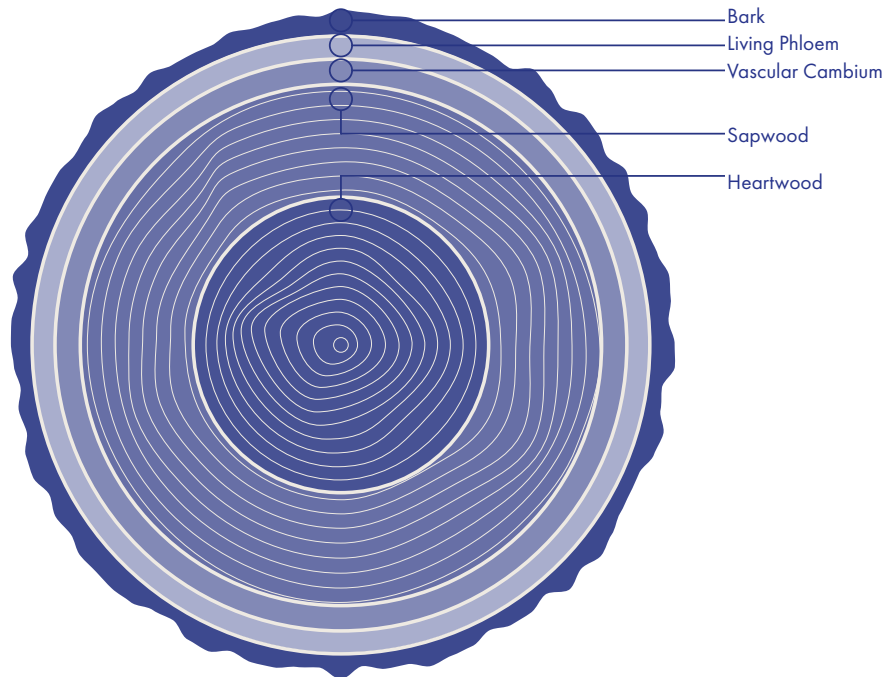
The Phloem is also part of the bark but is more alive and is responsible for transporting energy (produced in the leaves) through the tree to where it is needed, shoots, stem and roots.

Cambium is the layer of the tree where growth happens. Here the cells split both to the inside to create new sapwood and to the outside creating new Phloem. It also grows upwards.

Damage to any of these parts could have a big impact on the overall health of the tree. If just more than half the circumference is damaged the whole branch or tree could die. Strangulation is a big risk to the tree, especially to the cambium.

The sapwood is responsible for transporting nutrients and water through the tree as well as being mechanical support for the tree.

Not all trees develop heartwood, some who do are pine, oak, walnut, cherry, elm and larch. Heart wood is sapwood but drained of all useful nutrients. Heartwood has an increased amount of chemicals that preserves the wood and it becomes a very dense layer that helps stabilize the tree. Tree species that have the ability to develop heartwood have an increased ability to grow very old as it has less wood to keep alive.

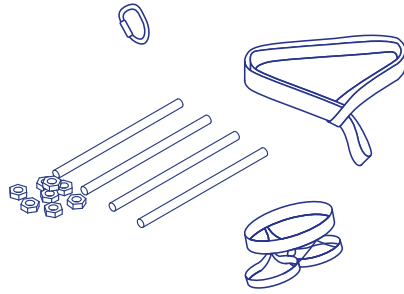


Preparations

1. Gather material

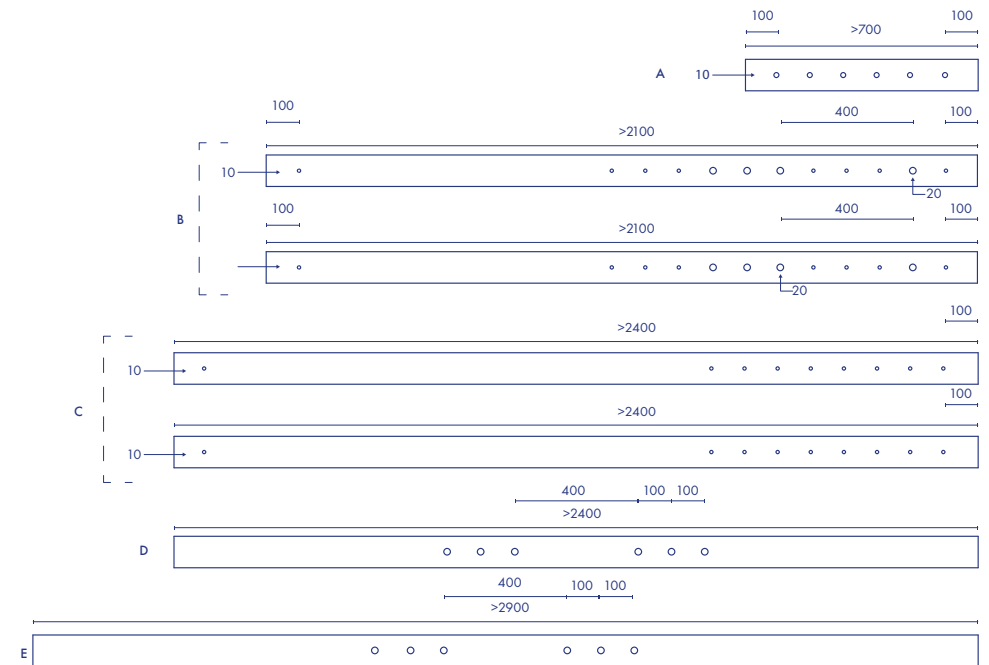
What you need to bring, buy and prepare before setting up this temporary treehouse:

1. 6x 45x95mm beams in different lengths and with pre-drilled holes as shown on the next page.
2. Slat-flooring made up by >17x75mm planks and slings. Total 33m, cut into 1500mm planks in store if possible. See further instructions. Transport these rolled up.
3. 4 metal threaded rods, 8 bolts and washers. Minimum 15mm thick.
4. 2 Wrenches and other tools
5. Screwdriver and drills (size depending)
6. Saw
7. Knife/scissors
8. Lighter (burn ends of plastic blue rope)
9. x5 Climbing ropes semi dynamic - x3 20m, x2 40m
10. Blue rope
11. Carabiners (12 for the structure + 3 per climber + extra)
12. 1x Blocks/pulleys
13. Slings (6 for construction, 3 each per climber)
14. Tarps
15. Foam pad
16. Harness
17. General camping gear, first aid kits, duct tape etc.



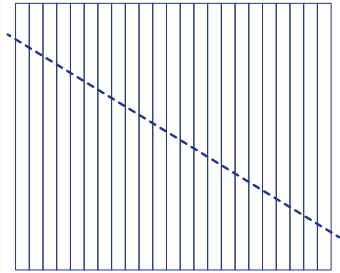
2.1 Prep Material

1. If bought at a hardware store, ask if you can have the beams cut to size. The recommended sizes are minimum sizes, longer or larger beams should also work.
2. Cut beams to size.
3. Drill holes in beams as shown: The drilled holes depend on the size of blue rope and metal rods, the bigger the better. The larger holes where the metal rod go should be drilled larger than the rod to give space to the rods not being placed completely straight.

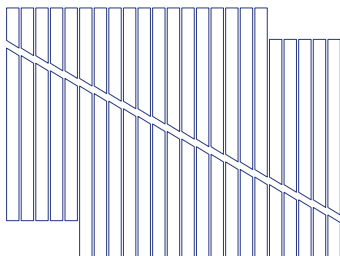
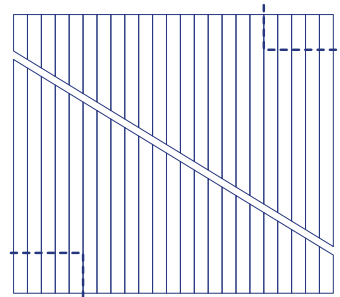


2.2 Prep Material

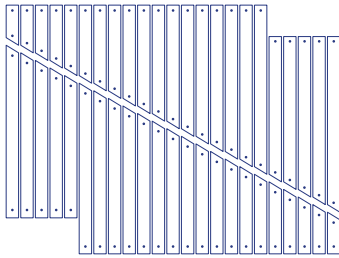
1. To fabricate the slat flooring, lay out the planks in a rectangle, you should have about 22 planks which are 1500mm long. Draw a diagonal line 18-20cm from each end, cut along this line.



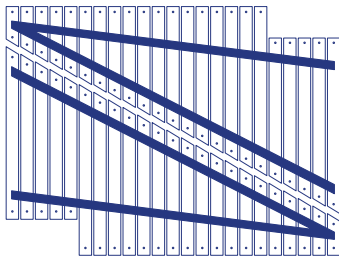
2. Now you should have two triangles made up by planks.
3. On the wide edge, cut 20cm of on 5 of the planks.



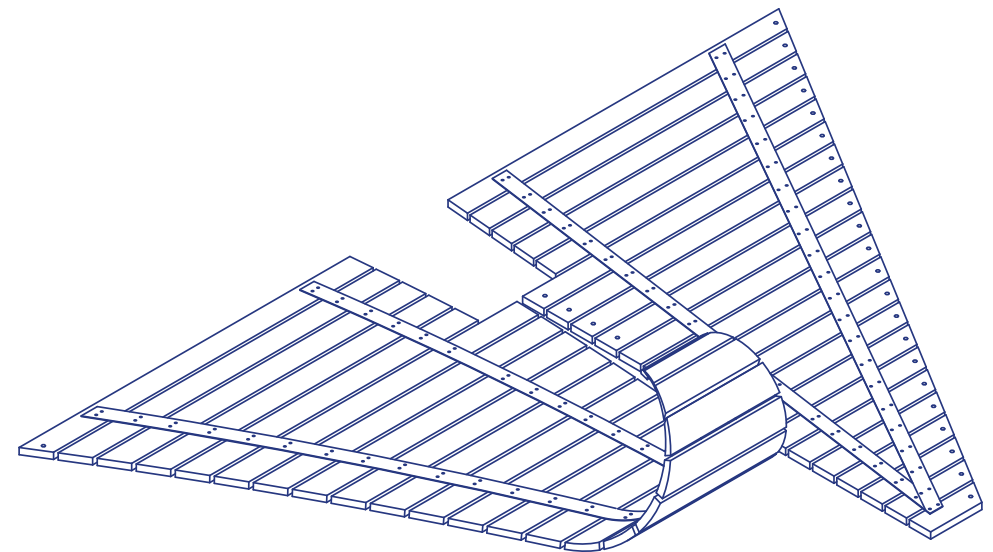
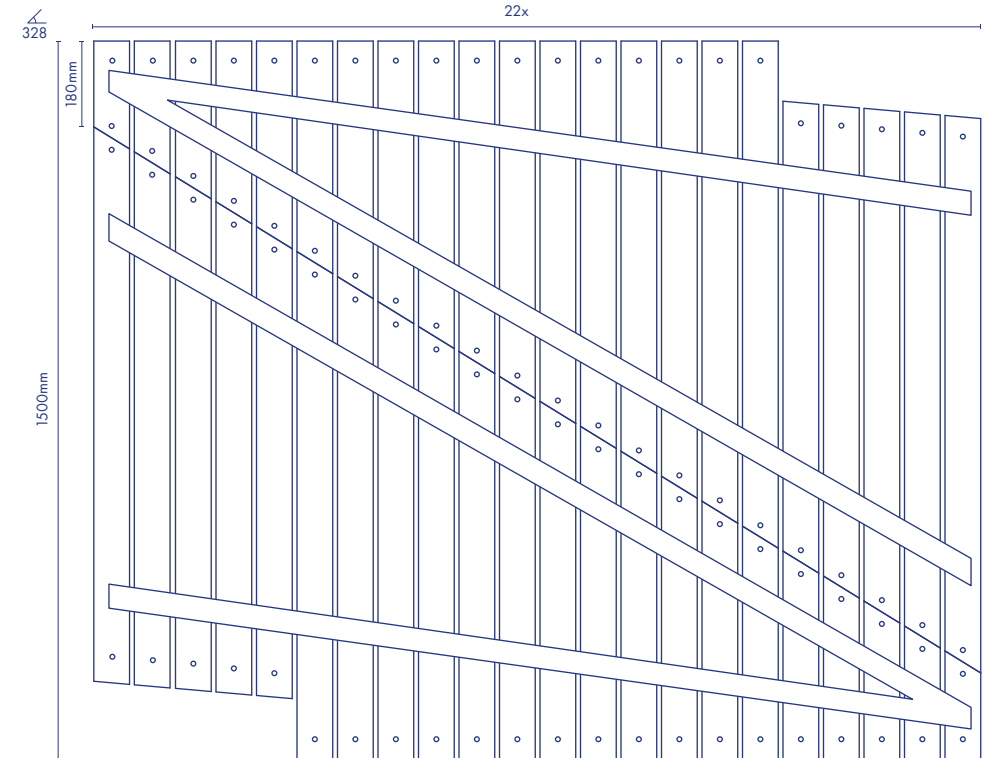
4. (optional) to prepare for an easier attachment drill >10mm holes on each edge. You can later use these holes to "weave" the flooring in place on the base structure.



5. Space the planks with about 1-2 cm gap in-between. (use spare pieces to space the planks)
6. Staple or nail a cut up sling in a V formation.



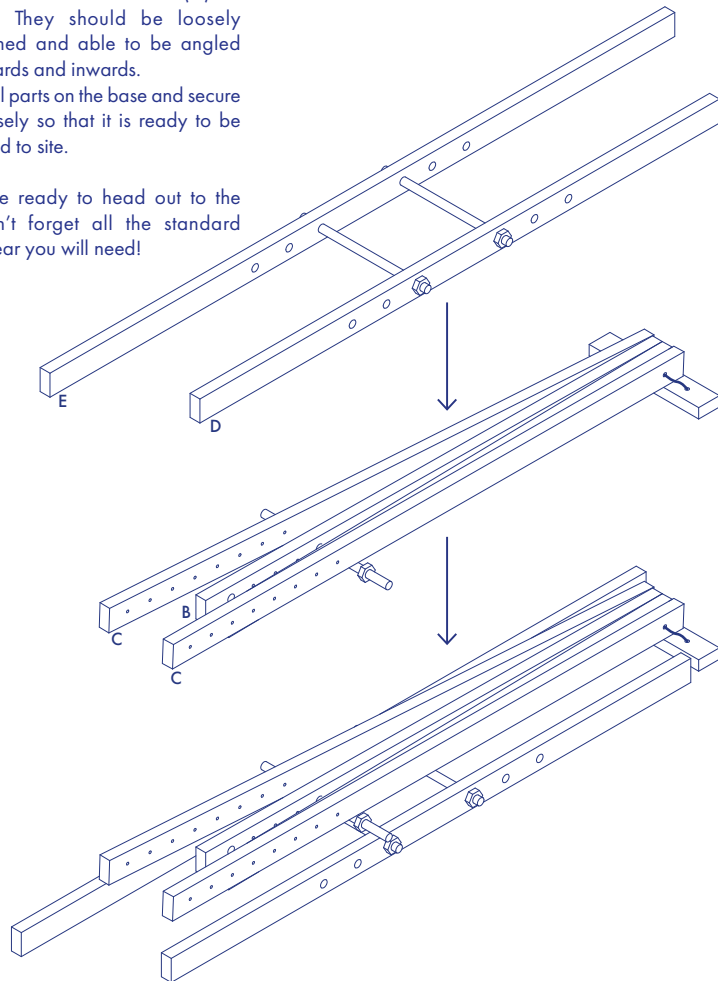
7. The slat flooring should now be able to be rolled up and secured using rope and your knot by choice. I recommend the constrictor knot or the clove hitch.



2.3 Prep Material

1. Attach the two base beams (D + E) together with two metal rods, washers and bolts. This will act as a base for carrying the structure to the site.
2. Tie the four beams (B + C) together using the smallest beam (A) as base. They should be loosely attached and able to be angled outwards and inwards.
3. Lay all parts on the base and secure it loosely so that it is ready to be carried to site.

Now you're ready to head out to the forest. Don't forget all the standard camping gear you will need!



Scouting trees

Now that you've prepared all the material and equipment, you're ready to head to the forest and find a suitable tree:

Find a tree that has a stem of at least 30cm in diameter, it should be old and stable enough to hold a small treehouse. Trees that are too young, old, small, rotten, sick or infested should not be used or climbed. When choosing a tree you should do a visual assessment:

- **Check the roots.** Any fungi infestation, abnormal growth or damage to the bark near the base of the tree is a sign that much more damage could be going on with the roots. Is the soil surrounding the tree extremely compacted? This can damage the roots due to the limited process of gas exchanges.

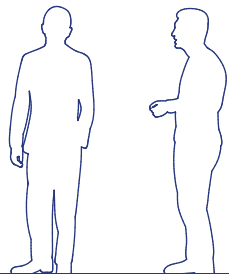
- **Check the stem.** Look for big pieces of missing bark, rot-fungi or cavities. You can carefully knock on the stem with a stick and listen for any echoing sound which may indicate a void or cavity. Multiple dead branches, miss coloured leaves or leaking sap may be an indicator that the tree is unhealthy.

- **Branches.** If you plan on attaching a structure around a branch, they should be thicker than 15cm in diameter. Branches that attaches to the stem are strongest at 90 degrees, down to 45 is ok but less would not be suitable as the attachment could be too weak.

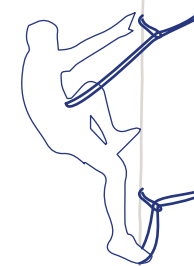
Trees are stronger against wind when standing close together, avoid lonesome trees. For this type of treehouse a pinetree would be best suited as less branches makes for easier setup.

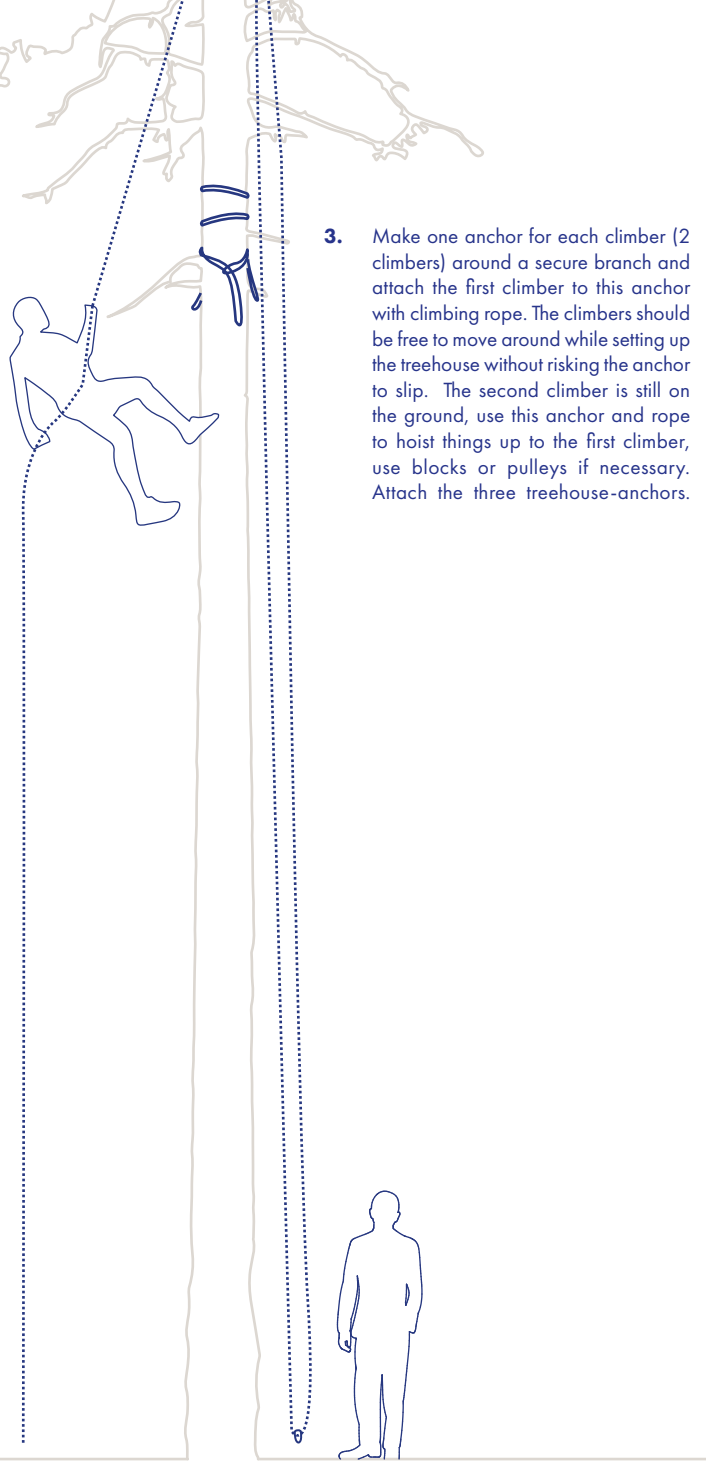
BUILDING INSTRUCTIONS

1. Find a good tree (see previous pages for scouting trees)

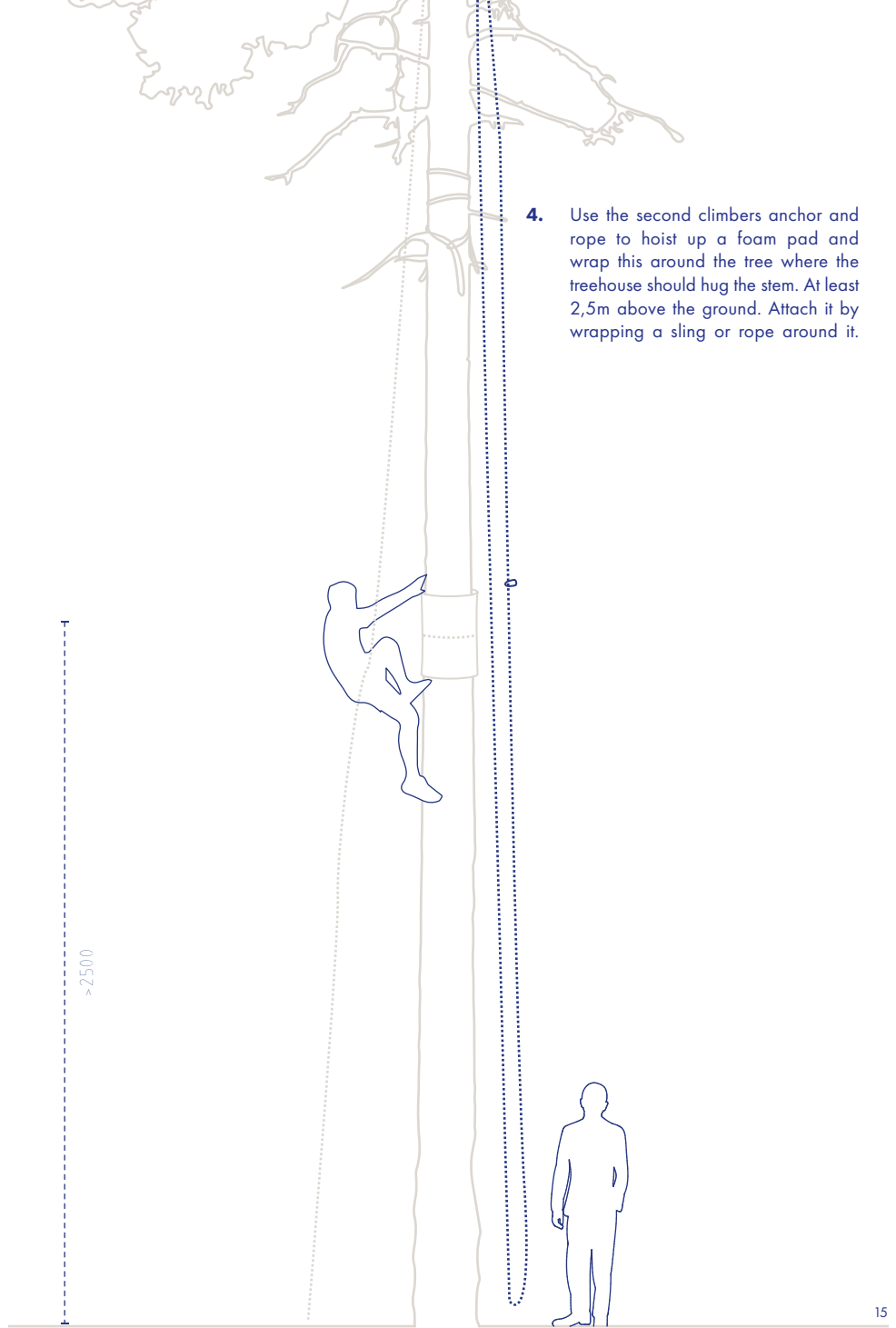


2. One person climb the tree using a suitable technique. Bring three slings + carabiners for the treehouse anchor, two slings + carabiners for climbers anchors, + one pulley for the pulley/hoisting system, two wrenches, extra carabiners and blue rope. The second climbers rope will first be used to hoist material up, so attach this to an anchor and a block/pulley.

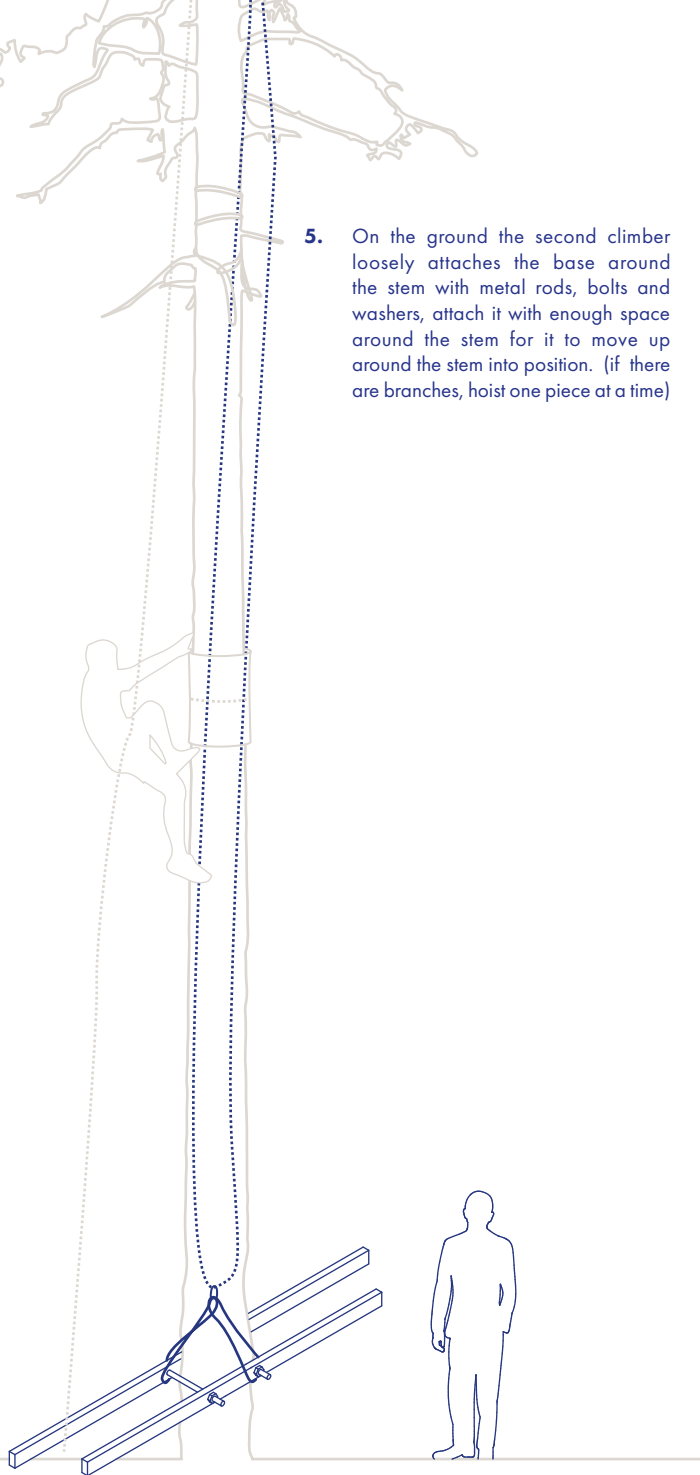




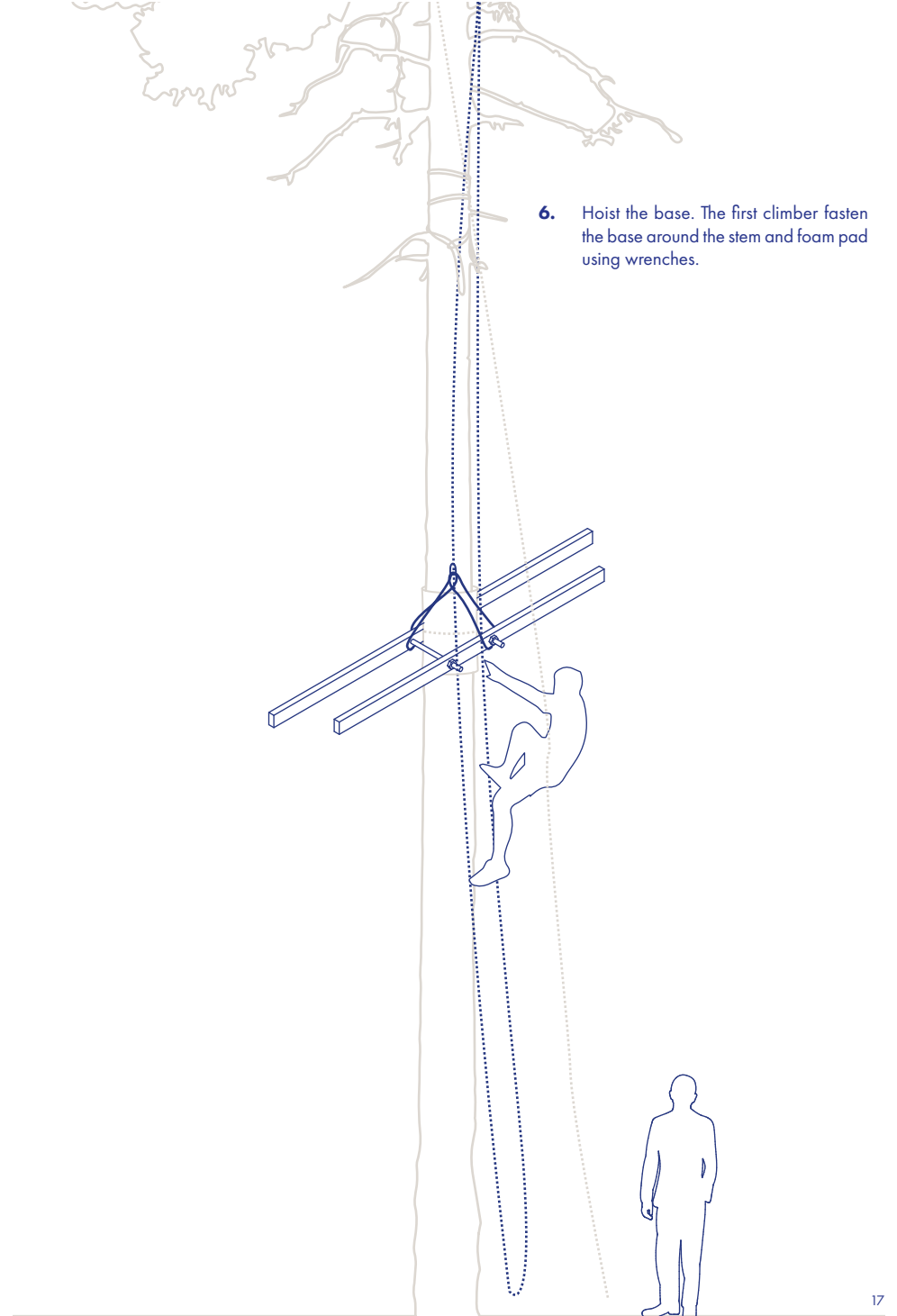
3. Make one anchor for each climber (2 climbers) around a secure branch and attach the first climber to this anchor with climbing rope. The climbers should be free to move around while setting up the treehouse without risking the anchor to slip. The second climber is still on the ground, use this anchor and rope to hoist things up to the first climber, use blocks or pulleys if necessary. Attach the three treehouse-anchors.



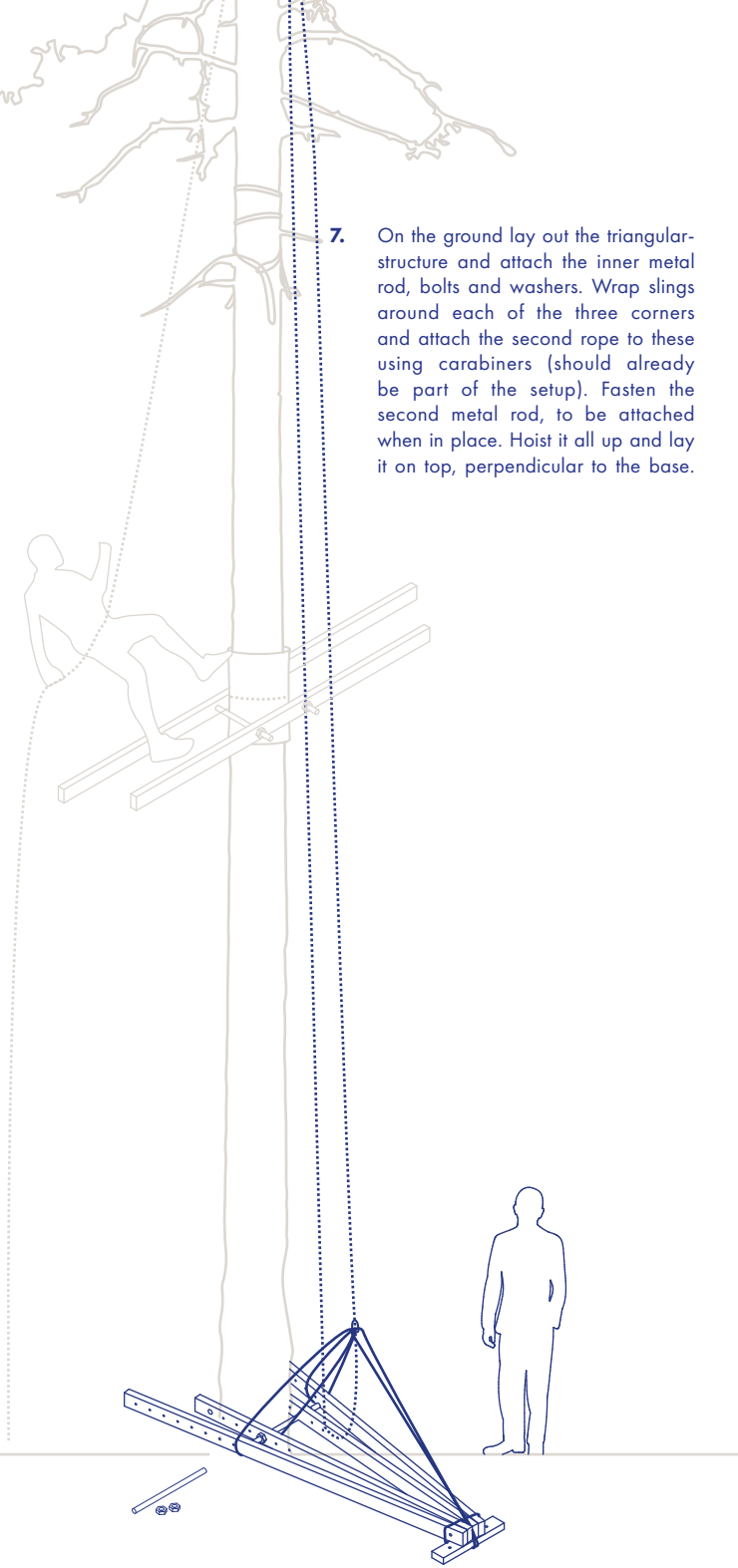
4. Use the second climber's anchor and rope to hoist up a foam pad and wrap this around the tree where the treehouse should hug the stem. At least 2,5m above the ground. Attach it by wrapping a sling or rope around it.



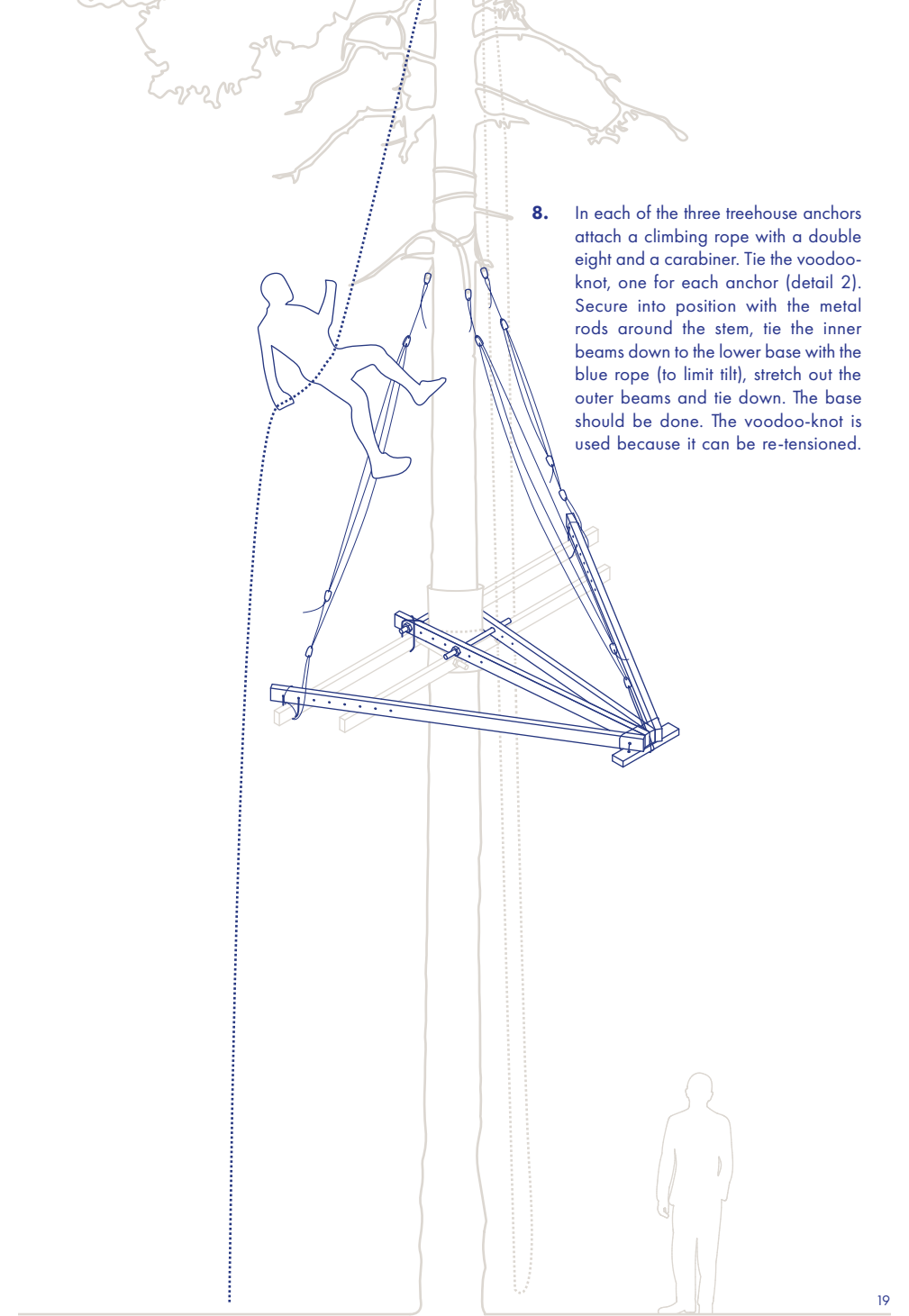
5. On the ground the second climber loosely attaches the base around the stem with metal rods, bolts and washers, attach it with enough space around the stem for it to move up around the stem into position. (if there are branches, hoist one piece at a time)



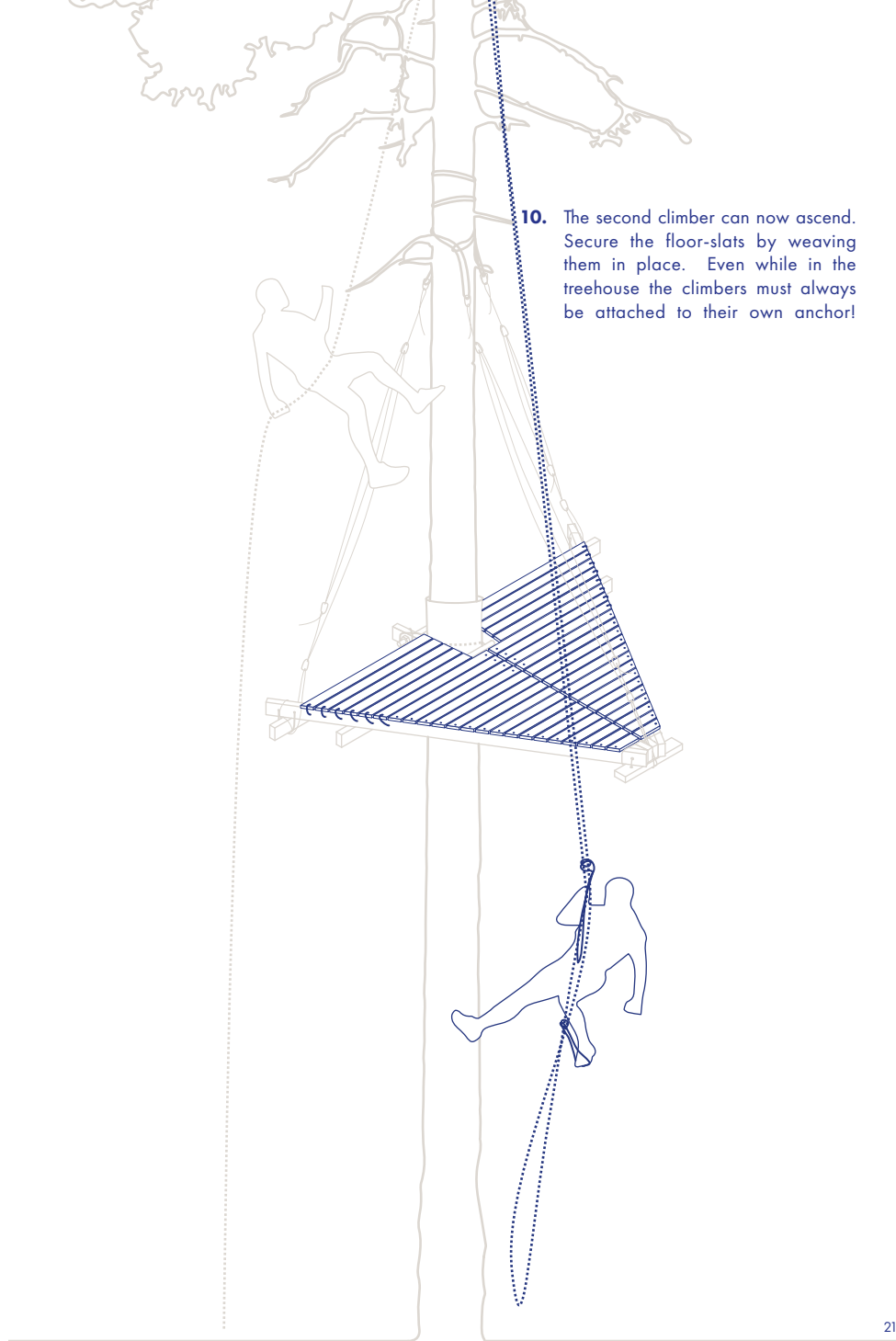
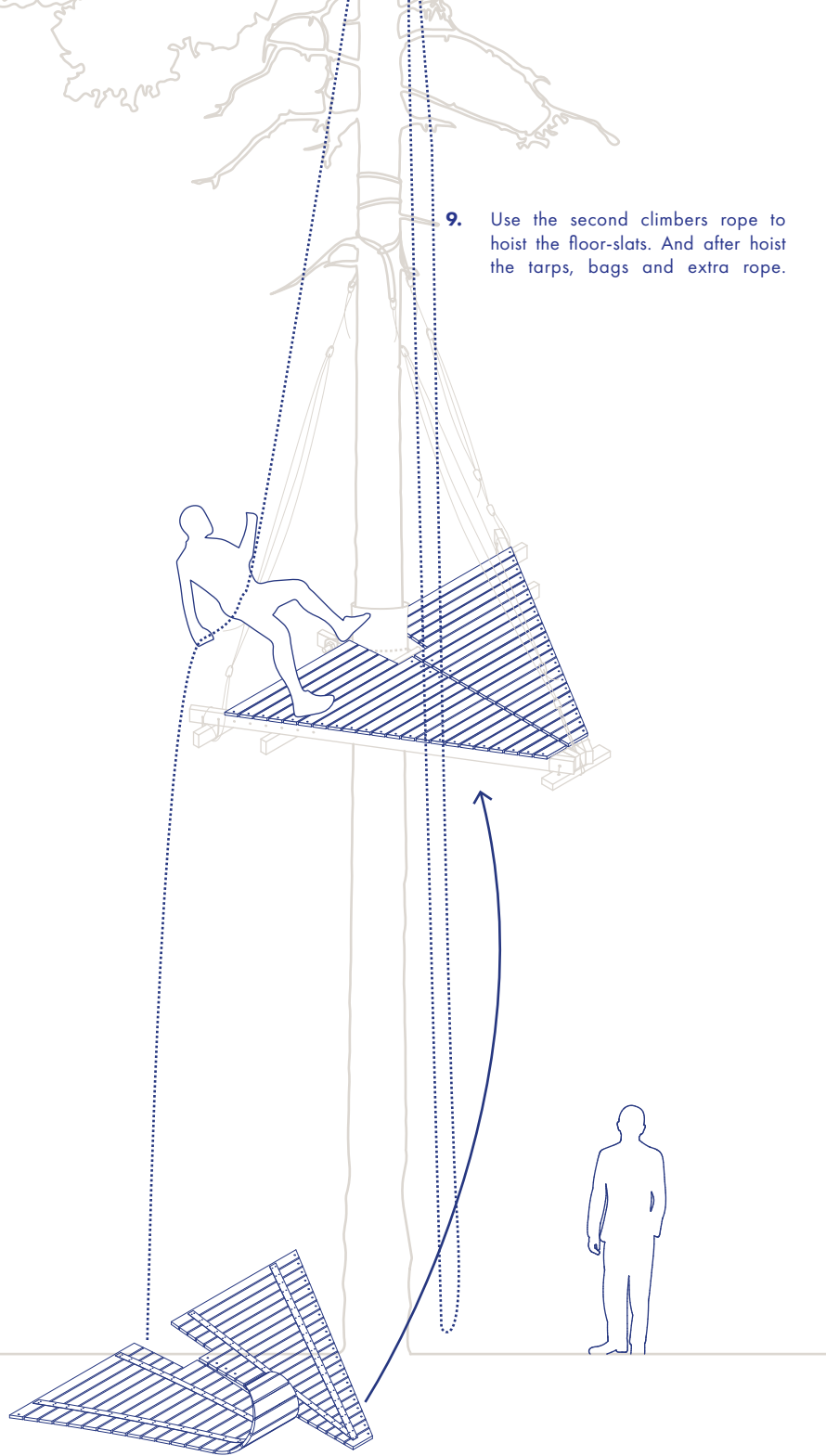
6. Hoist the base. The first climber fasten the base around the stem and foam pad using wrenches.

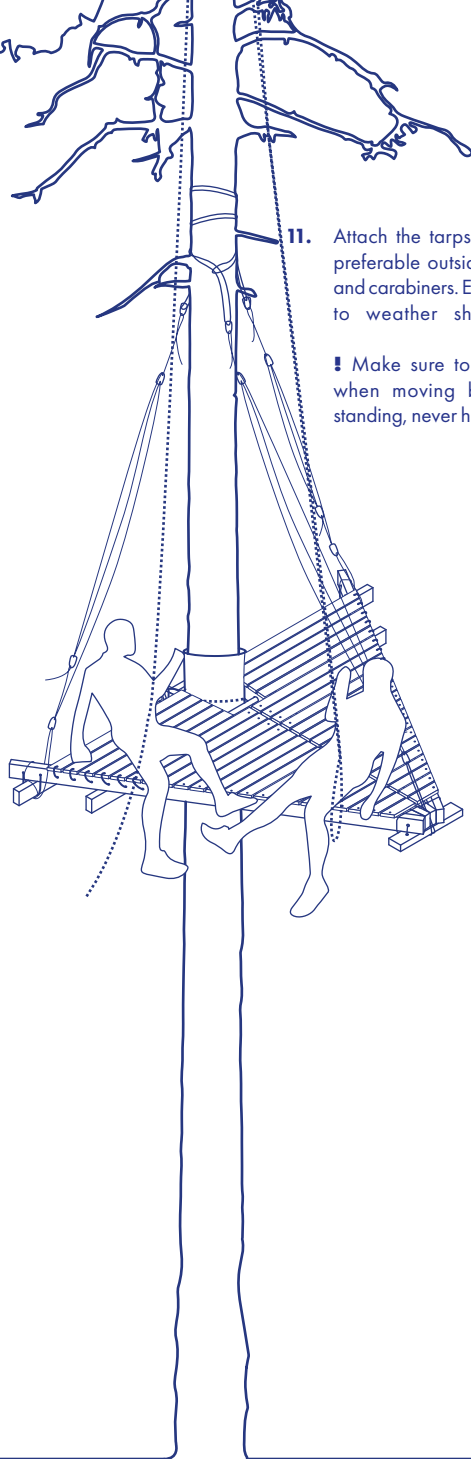


7. On the ground lay out the triangular-structure and attach the inner metal rod, bolts and washers. Wrap slings around each of the three corners and attach the second rope to these using carabiners (should already be part of the setup). Fasten the second metal rod, to be attached when in place. Hoist it all up and lay it on top, perpendicular to the base.



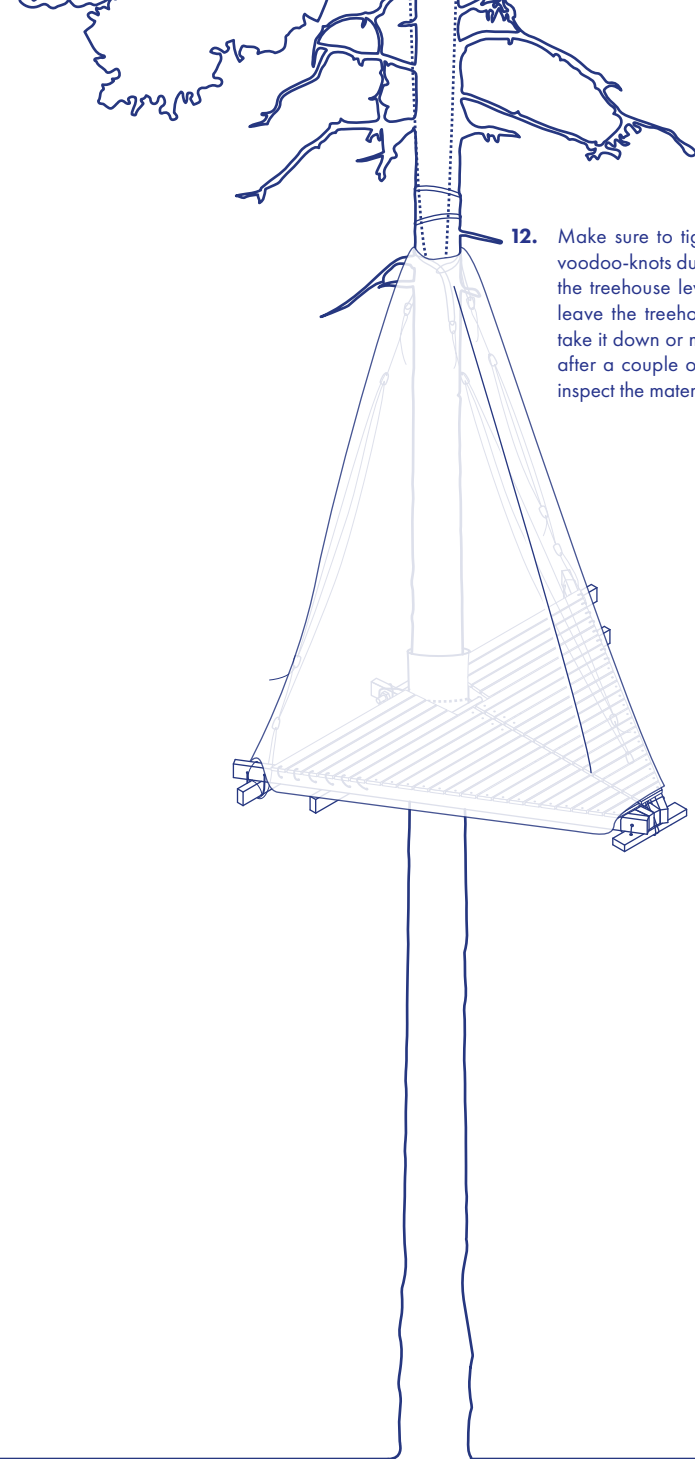
8. In each of the three treehouse anchors attach a climbing rope with a double eight and a carabiner. Tie the voodoo-knot, one for each anchor (detail 2). Secure into position with the metal rods around the stem, tie the inner beams down to the lower base with the blue rope (to limit tilt), stretch out the outer beams and tie down. The base should be done. The voodoo-knot is used because it can be re-tensioned.



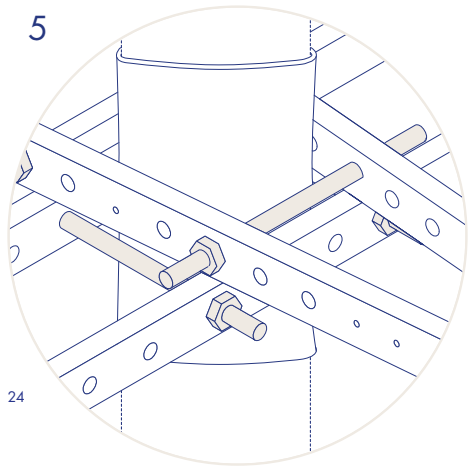
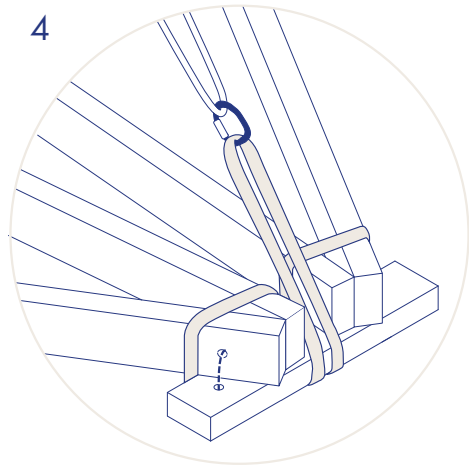
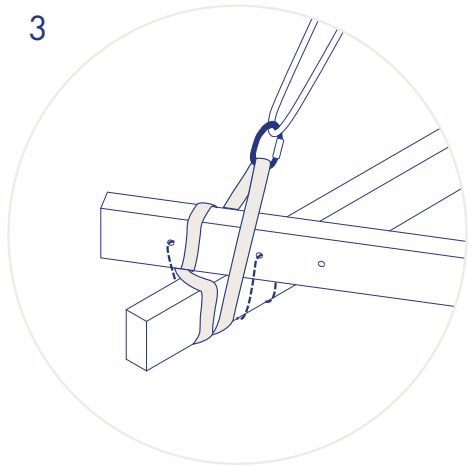
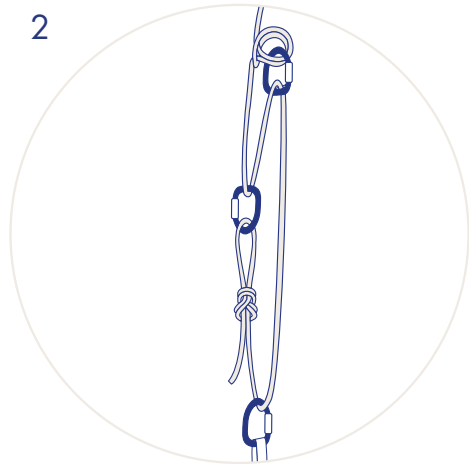
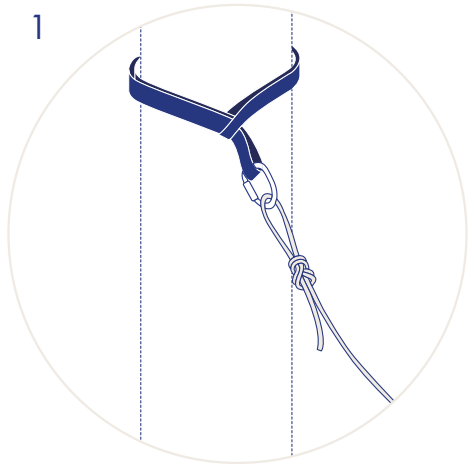


11. Attach the tarps as best as you can, preferable outside of the ropes, knots and carabiners. Exposing the equipment to weather shortens its lifespan.

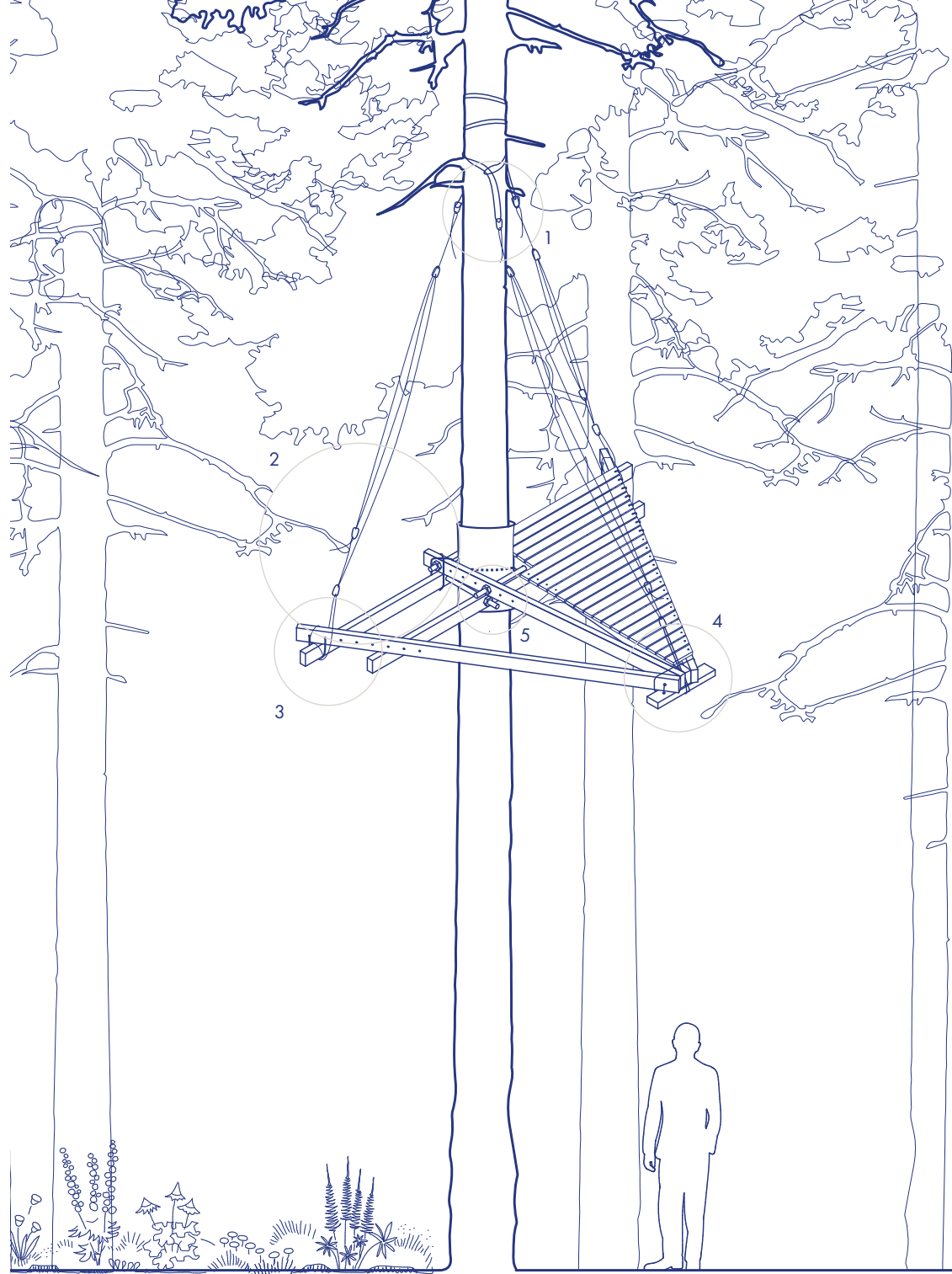
! Make sure to readjust your rope when moving between sitting and standing, never have slack in your rope.



12. Make sure to tighten and loosed the voodoo-knots during your stay to keep the treehouse level and secure. Don't leave the treehouse unattended, and take it down or move it to another tree after a couple of weeks. Take time to inspect the material for wear and tear.



1. Treehouse-anchor: A sling, carabiner and climbing rope.
2. The voodoo-knot, attached to the treehouse-anchor. Recommended to use due to it's tightening/flexible properties.
3. Wrapping slings around beams, wrap same sling twice if too long. Lower end of voodoo knot.
4. Wrapping slings around beams. Lower end of voodoo knot.
5. Metal threaded rods securing the base.



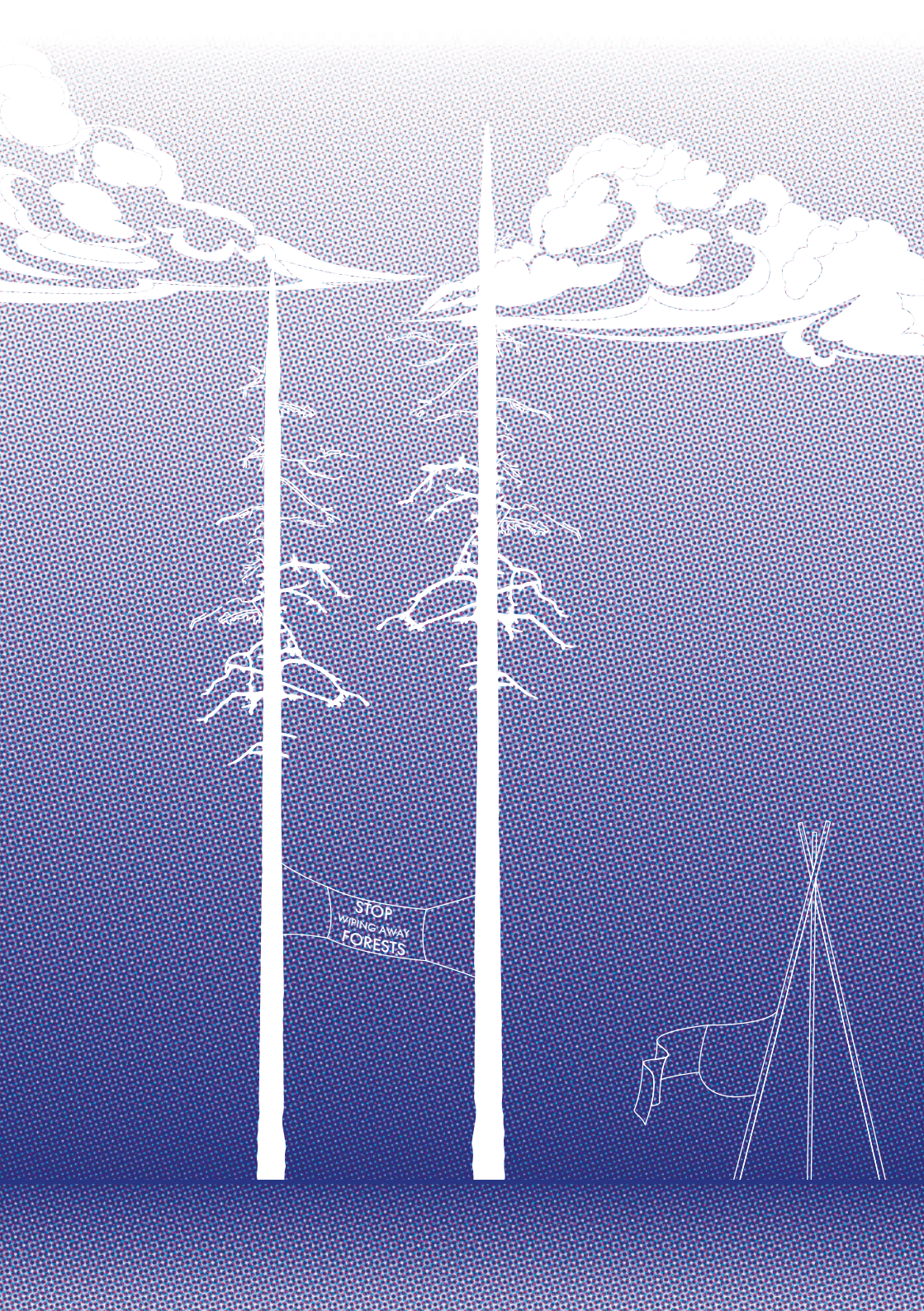
Further Work

This handbook presents the first version of the Activists' Shelter, it is meant to be upgraded and evolve into new iterations.

When the tree-climbing-activist-hub is up and running, this handbook will be available there. The idea is that any new iterations, tips or changes can be published there as well.

Until the hub is up, you can reach me for any questions on the Mattermost XR Server or by email ellen.boman@hotmail.com

For The Trees!



STOP
WIPING AWAY
FORESTS



Ellen Boman

Tema 3 - Stadsliv, arkitektur, global rättvisa och ditt arbete som arkitekt

AKA 083 - Teori och Text

2020

Abstrakt

I den här akademiska uppsatsen behandlas frågor kring arkitektens roll och ansvar i förhållande till klimatångest. Då byggsektorn står för en stor del utav koldioxidutsläppen i världen kan det kännas motigt att ge sig in i den. Forskning visar på att fler och fler lider av klimatångest, oron är som högst hos unga. Problemet är att jag själv personligen inte vill ha klimatångest när jag ger mig ut i yrkeslivet, men att risken är stor då byggsektorn står för stora delar av världens koldioxidutsläpp. Genom att fråga yrkesverksamma arkitekter ett antal frågor kring klimatångest och deras yrke för att sedan analysera svaren enligt min valda teori kommer jag fram till att det finns många förhållningsätt till klimatångest. Teorin utgår från att det finns fyra förhållningsätt mellan en arkitekt och klimatångest. Allt ifrån att inte känna någon ångest för att man gör gott för klimatet till att känns klimatångest för att man inte gör gott för klimatet. Resultatet är att dessa förhållningsätt finns bland yrkesverksamma arkitekter idag och att du bidrar till klimatpåverkan som arkitekt. Men beroende på hur du arbetar kan du bidra mer eller mindre.

Nyckelord:

Klimatångest, arkitektens roll, undersökning.

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Introduktion

Bakgrund

Idag pratas det mer och mer om ångestkänslor av alla de slag och på senare år har ordet klimatångest bubblat upp. Den årliga SOM-undersökningen utförd av Göteborgs universitet uppger att oron kring klimatet ökar för varje år som går, speciellt hos unga kvinnor där andelen "mycket oroliga" är som högst på hela 56 procent (SOM-Institutet, 2018; Backman, 2017). Vid efterforskning kring ämnet är det tydligt att organisationer som Climate Psychologists blir fler och fler då efterfrågan kring hjälp med klimatångest ökar globalt. Enligt Boverkets undersökning från 2017 stod byggsektorn för 19 procent av alla Sveriges växthusgaser, det är nästan en femtedel! (Boverket; 2020)

Om du precis som jag är på god väg att ge dig in i just byggsektorn kanske du också känner av en viss oro över vad du kommer att bidra med i det stora hela. Kanske du precis som jag hade tänkt rädda världen men nu kommit till insikten att det kanske kommer visa sig bli precis tvärt om. Genom denna undersökning vill jag få med mig en bredare förståelse för arkitektens roll och vilka verktyg man ska bära med sig ut till yrkeslivet.

Problematisering

Ångestkänslor och oro är ett problem för många i samhället (The Guardian, 2020). Det är ett tillstånd som kommer och går och som man i slutändan vill bli av med helt och hållet. Många hemsidor (Kennedy-Williams, 2020), klimataktivister och artiklar (Holden, 2020) som skriver om ämnet klimatångest och vad man kan göra åt det hävdar att, det bästa man kan göra för att bli av med sin ångest är att göra gott för klimatet (Taylor and Murray, 2020). Är det då fortfarande rättfärdigat att jobba som arkitekt? Problemet för mig själv, och säkert andra inom arkitekturyrket, är att känna att man kan bidra positivt till klimatet och inte blir ännu en bov, ett problem.

Idag finns det bara undersökningar om klimatångest relaterat till ålder, kön, nationalitet och politisk tillhörighet. Det finns inga undersökningar kring klimatångest kopplat till olika yrken. Den här undersökningen ska bidra med en mer specifik vinkling av problemet och undersöka arkitekters relation till klimatångest.

Syfte

Syftet med texten är att ta reda på om man som arkitekt kan jobba inom ett exploaterande yrke och samtidigt göra gott för klimatet. Och även att undersöka vilka verktyg man som arkitekter kan använda för att hantera sin klimatångest kopplat till ens yrke. Syftet är också att samla in åsikter och tankar kring arkitektens roll från yrkesverksamma arkitekter.

Den frågeställning jag haft med mig under skrivandets gång har varit:

- "Känner arkitekter av klimatångest kopplat till deras yrkesval? Hur kan man bära sig åt för att inte ha det samtidigt som man är verksam i en exploaterande sektor?"

Teori

Den teori jag själv kommit fram till är att det finns fyra olika alternativ när det kommer till ens relation med klimatångest. (1) Antingen gör du ingenting gott för klimatet och som följd av din omedvetenhet känner du inte av någon klimatångest. (2) Eller så gör du ingenting gott för klimatet och känner klimatångest på grund av ditt icke-engagemang. (3) Du gör allt du kan för att gynna klimatet men känner ändå klimatångest då du blir mer och mer informerad om hur allvarligt problemet är. (4) Du gör allt du kan för att gynna klimatet och känner tack vare din insats ingen klimatångest. Det sistnämnda alternativet är enligt mig det optimala tillståndet. Om man kan nå dit, hur ska man bära sig åt?

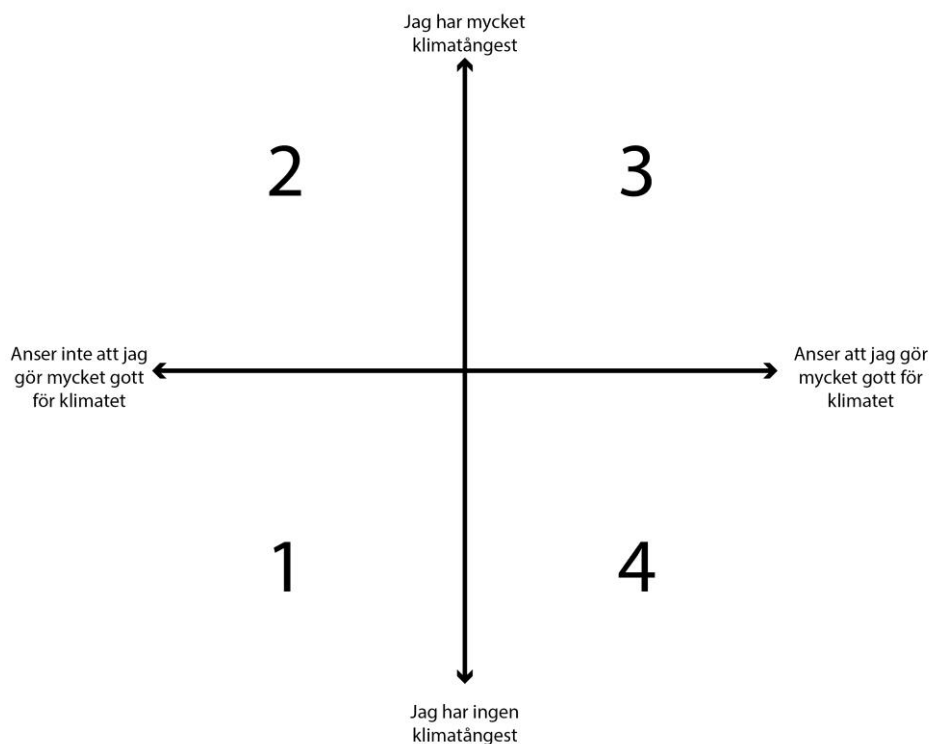


Bild: diagram som förklarar teorin, de fyra olika alternativen i relation till varandra på ett spektrum.

Metod

Genom att skicka ut frågor till ett antal arkitekter vill jag få en god uppfattning om hur arkitekter tänker kring klimatångest kopplat till deras yrkesval. Frågorna skickades ut till fjorton anställda på fjorton olika kontor i Göteborgs närområde. Det går det inte att veta hur många fler som fick frågorna och alltså nåddes av undersökningen. Frågorna framtogs genom en diskussion med andra studenter, med grund i den teorin jag själv kom fram till. På grund av bristen av tidigare undersökningar anser jag att metoden "Diskutera med andra studenter" för att komma fram till en egen teori är den enda genomförbara. Svaren sammanställdes och analyserades i relation till teorin. Några tidigare undersökningar användes också, detta gäller siffror kring ångest hos den svenska befolkningen i det stora hela och fakta kring klimatkrisen. Efter att ha försökt hitta artiklar eller undersökningar kring klimatångest hos arkitekter, eller olika professioner, utan resultat känner jag ännu mer att jag vill undersöka frågan och bidra med en egen vinkel till det hela.

Jag har valt att endast undersöka ångest inom yrkesgruppen arkitekter, specifikt klimatångest. Jag har även utgått från att klimatångest är ett negativt tillstånd, även om en viss klimatångest kan behövas för att motivera förändring. Den data jag själv samlat in kommer bara från kontor runt omkring Göteborg.

Fokus ligger på att undersöka vilka som känner av klimatångest på grund av sitt yrke, och efter det få en uppfattning om hur man kan bära sig åt för att inte ha klimatångest. Svaren på frågorna jag ställer kommer sammanställas helt anonymt, alltså oberoende av kön, ålder, namn och arbetsplats.

Så här såg enkäten som skickades ut

”

Det frågor jag skickat ut och fått svar på är:

- *Anser du att majoriteten av de projekt du jobbar med har en positiv klimatpåverkan?
Ja/Nej*
- *Känner du av någon klimatångest? Ja/Nej*
- *Känner du av någon klimatångest på grund av ditt yrke? Ja/Nej*
 - *OM JA*
 - *Varför gör du det?*
 - *Vad gör du för att försöka minska din ångest?*
 - *Vad skulle du behöva göra annorlunda rent yrkesmässigt för att bli av med din klimatångest?*
 - *OM NEJ*
 - *Varför gör du det inte?*

Utefter frågeställningen:

“Känner arkitekter av någon typ av klimatångest och hur kan man bära sig åt för att inte ha det samtidigt som man är verksam i ett exploaterande yrke?”

- *Tror du att man kan jobba inom ett exploaterande yrke och samtidigt känna att man bidrar positivt till klimatet? Ja/Nej, Utveckla gärna*

”

Undersökande

Empiri

Så hur ser verkligheten ut egentligen?

På frågan: Anser du att majoriteten av de projekt du jobbar med har en positiv klimatpåverkan? svarade 50 procent Ja och 50 procent Nej.

På frågan: Känner du av någon klimatångest? svarade 83 procent Ja och 17 procent Nej.

På frågan: Känner du av någon klimatångest på grund av ditt yrke? svarade 67 procent Ja och 33 procent Nej.

Svaren på följdfrågorna till JA redovisas i form av citat

- Varför gör du det?

“Byggande står för en stor del av klimatpåverkan.”

“Det är inte lätt att ändra rutiner, dessutom har jag inte alltid möjlighet att påverka val som beställaren till exempel redan gjort.”

“Byggbranschen har en väldigt stor och dålig påverkan på klimatet generellt.”

- Vad gör du för att försöka minska din ångest?

“Svårt att göra något inom yrkesverksamheten men jag gör det jag personligen kan göra; avstå flyg, kött, onödiga inköp av kläder prylar.”

“Aldrig ge upp att få igenom faktorer som bidrar positivt till klimatet.”

“Funderar över min roll, kan jag göra något annorlunda för att påverka? Försöker göra det lilla jag kan men måste också inse att min möjlighet till påverkan är ganska liten.”

- Vad skulle du behöva göra annorlunda rent yrkesmässigt för att bli av med din klimatångest?

“Enbart arbeta med träbyggnadsprojekt kanske.”

“Att ha mandat att kunna ta beslut”

“Den klimatångest som är kopplad till yrket skulle jag bli av med om jag slutade jobba som arkitekt alternativt jobbade pro-bono. Så länge man är kvar i den kommersiella delen av branschen kommer man inte kunna vända utvecklingen. Utvecklingen drivs av pengar, vi lever i en marknadsekonomi där allt mer ansvar flyttas till privata intressen vars enda målsättning är att tjäna pengar. Så länge det fungerar så så är det svårt för enskilda arkitekter, som precis som andra behöver ställa mat på bordet, att påverka”

Svaren på följdfrågorna till Nej redovisas i form av citat

- Varför gör du det inte?

“Jag känner att jag genom mitt yrke kan hjälpa till att styra delar av vårt samhälle till det bättre vad gäller klimatpåverkan.”

“Nej det gör jag inte för egen del, men jag tänker förstås på hur framtiden ska bli för våra barn och barnbarn. Vi som är verksamma som arkitekter nu har absolut ett ansvar för kommande generationer. Ångest är något helt annat och sådan känner jag inte. Däremot är det viktigt att tänka framåt, inte minst för oss som arkitekter, även om man inte kommer att vara med själv i ”framtiden”. All form av planering som vi sysslar med har någon sorts påverkan – negativ eller positiv, i stort och i smått – på klimatet.”

“Tycker vi jobbar på ett konstruktivt sätt när det gäller detta, har hänt mycket de sista 2-3 åren. Vi jobbar mycket med bostadsprojekt passivhus/plusenergihus mm, miljöbyggnad silver på kulturhus, kontor, kyrkor mm, svanenmärkt, solpaneler, massiva trähus, fågelholkar, insektshotell, bikupor mm. Det är integrerat i stort sett alla projekt.”

- Vid den sista frågan (“Tror du att man kan jobba inom ett exploaterande yrke och samtidigt känna att man bidrar positivt till klimatet?”) svarade hälften Ja och hälften Nej.

“Jag tror att man kan minska den negativa påverkan något med rätt inställning. Man kan bidra positivt till klimatet på olika sätt. Man kan se till att göra skadorna mindre, man kan försöka bidra positivt till klimatet utanför sitt yrke eller driva opinion för att få andra (som kanske har mer möjligheter att påverka) att vakna och göra något.

Sen är det ju frågan om du menar att man bara ska känna att man bidrar positivt till klimatet eller om man faktiskt ska bidra positivt till klimatet. Och huruvida det räknas som att man bidrar positivt till klimatet för att man bygger ett insektshotell som bidrar till en lokal ökning av insektsarter samtidigt som man frigör miljontals ton koldioxid för att man ritat ett standard flerbostadshus som byggs helt i betong på en plats där det redan stod ett kontorshus från 60-70-talet som revs för att det blev billigare än att bygga om det till bostäder.

Så om man kan sätta skyggglappar och fokusera på de små lokala frågorna så tror jag man kan känna att man bidrar positivt till klimatet, så då blir svaret ja.

Däremot så gör man ju inte det egentligen.”

De verktyg och tips som de verksamma arkitekterna beskriver är:

- Jobba med en Livscykelanalys
- Försök minimera CO² utsläpp genom att välja bra material (återvunnet, återbrukat, förnybart osv.)
- Säkerställ en bra produktion och att det är korta transportvägar för byggmaterial
- Rita mest energieffektiva byggnader som är självförsörjande
- Ta vara på platsens specifika egenskaper (vatten, växter etcetera även med tanke på klimatförändringar)
- Iaktta sociala, ekonomiska och ekologiska komponenter för att nå hållbarhet i uppdragets helhet
- Jobba mer med träbyggnationer
- Jobba med passivhus/plusenergihus
- Försök nå nivå miljöbyggnad silver, eller svanenmärkt,
- Rita in solpaneler,
- Arbeta med massiva trähus,
- Integrera fågelholkar, insektshotell, bikupor mm.
- Där det är möjligt välj alltid alternativet med minst klimatpåverkan (Underlätta för kollektivtrafik, inte bilar till exempel)
- För projekt gör en miljökonsekvensbeskrivning, det får dig och beställaren att tänka efter en extra gång.
 - Efter att problemet är belyst, åtgärda det på bästa möjliga sätt.
- Kolla upp kontorets miljöpolicy, följ den
- Lev ditt privata liv så hållbart som möjligt

”Jag känner att jag genom mitt yrke kan hjälpa till att styra delar av vårt samhälle till det bättre vad gäller klimatpåverkan.”

Analys

Det är blandade svar som kommit in men det alla verkar ha gemensamt är att de på ett eller annat sätt känner av klimatångest. Enligt min teori skulle det finnas fyra olika förhållningssätt till frågeställningen. Tre av dessa varianter kommer fram i undersökningen. Den variant som arbetar med projekt med positiv klimatpåverkan och inte känner klimatångest. Den som inte arbetar med projekt med positiv klimatpåverkan och känner av klimatångest. Den som slipper känna klimatångest tack vare att hen bara arbetar med projekt med positiva klimatpåverkan, det optimala tillståndet, har också svarat på enkäten! Hen anser att ångest inte är en konsekvens av medvetenheten kring klimatkrisen och byggsektorns påverkan utan att faktumet istället ger en känsla av ansvar. Av de som svarade på enkäten höll alla med om att arkitektur är ett exploaterande yrke och att det bidrar till byggsektorns klimatpåverkan.

Undersökningen gav även en hel lista med verktyg man som arkitekt kan använda för att göra bättre för klimatet och då också minska sin klimatångest.

Hade undersökningen varit större och nått ut till fler hade resultatet såklart varit mer trovärdigt. Av de som svarade, svarade inte alla på allt, vilket också påverkat resultatet. Men i syftet att på en ren självisk nivå få bevis på att man kan jobba som arkitekt och göra gott för klimatet = bli kvitt sin klimatångest så har undersökningen definitivt varit tillräckligt givande.

Bara faktumet att flera tog sig tid att svara ingående på alla frågor gör mig taggad till att fortsätta på arkitektspåret och tillslut hamna i byggsektorn för att göra så gott för klimatet som det bara går.

Avslutande

Slutsatser

Beroende på hur du väljer att använda din utbildning som arkitekt kommer du påverka och ha möjlighet att påverka på olika sätt och på olika djup. Ingen av de som svarat på undersökningen sa emot att arkitektur är ett exploaterande yrke och att detta kommer resultera i ett arkitektens arbete kommer ha klimatpåverkan. Flera valde att se på den problematiken på så sätt att *antingen gör jag projektet med en minimal klimatpåverkan, eller så gör någon annan det med värre.*

En som svarade att hen har klimatångest på grund av sitt yrke sa att för att bli av med den måste hen jobba pro-bono, eller sluta jobba som arkitekt. En annan vinkel jag fick från en kurskamrat var att man som involverad i ett exploaterande yrke faktiskt kan minska den klimatpåverkan det har, medans om man inte jobbar i ett exploaterande yrke saknar man den makten.

Förhoppningsvis kommer du snart känna att det du kan göra, det räcker. Bara om du mår bra kan du orka göra mer. Rädda först och främst din värld, sedan, din omgivning i stort och sist världen.

Resultatet med min undersökning är att jag kommer fortsätta utbildningen och försöka minimera byggsektorns klimatpåverkan när jag kommer ut i arbetslivet.

Syftet med texten är att ta reda på om man som arkitekt kan jobba inom ett exploaterande yrke och samtidigt göra gott för klimatet. Och även att undersöka vilka verktyg man som arkitekter kan använda för att hantera sin klimatångest kopplat till ens yrke.

Enligt min undersökning verkar det vara möjligt att arbeta som arkitekt och samtidigt göra så gott som möjligt för klimatet. Men det är också möjligt att arbeta som arkitekt och inte göra gott för klimatet. Om man som verksam arkitekt känner klimatångest till följd av ens yrke finns det verktyg att använda sig av för att till viss mån bli kvitt sin ångest.

Problemet är ångest, lösningen är väldigt personlig även om den ofta är liknande. Nämligen att göra någonting! Gör så gott du kan i den situationen du är i, du gör förmodligen mer än någon annan. Detta kan ge dig energi till att göra mer och mer.

Självgranskning

Den teorin jag själv kommit på och använt mig av fungerade bra. Det hade blivit ännu tydligare om fler hade svarat på undersökningen, och också om en större bredd hade svarat. Metoden att skicka ut en enkät var den lämpligaste för att ämnet är så personligt och svårt att läsa sig till om. Jag tycker att jag behandlat temat "Stadsliv, arkitektur, global rättvisa och ditt arbete som arkitekt" väl. Eftersom klimatångest starkt är kopplat till global rättvisa, och konsekvenserna som kommer när rättvisa inte nås. Men också arkitektens roll.

Egna spekulationer

Om mer tid hade funnits hade jag velat skicka ut frågorna till betydligt fler arkitekter och även anordna samtal och djupare intervjuer med arkitekter. Det hade även varit kul att se mer officiella undersökningar och forskningar kring klimatångest och oro hos olika professioner.

Motivationen till att skriva den här uppsatsen var att hitta befoget till att jobba som arkitekt. Kurserna vi läser är uppbyggda på gamla sätt och värderingar. Där hållbarhet är ett plus i kanten, ett koncept men oftast något utöver det vanliga. Hållbar design och arkitektur måste vara det första alternativet, det är något vi måste lära oss under utbildningen för att kunna ta med oss kunskapen till yrkeslivet och alla de kontor vi kommer hamna på. Vi som ritat framtiden måste veta hur man ritat för den verkliga framtiden.

Framöver ska jag komma ihåg att makten man har som arkitekt i byggbranschen fortfarande existerar, ibland är den stor, ibland liten. Men vi har möjlighet att påverka lite grann. Jag hade hoppats att resultatet skulle vara att man som arkitekt kan rädda världen, men så verkar inte verkligheten se ut. Det finns många olika jobb man kan ha efter den utbildning vi läser, många jobb kommer göra mycket gott för klimatet och vissa kommer påverka mycket negativt. Men för att bli av med sin klimatångest säger alla att det bara är att göra gott för klimatet, så gör det!

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