Visit Nature

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Master's Thesis 2023
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“Study ***nature,***

Love ***nature,***

Stay close to ***nature.***

It will never fail ***you.”***

-Frank Lloyd-Wright

ABSTRACT

Environmental degradation, limitations of resources, biodiversity loss, and disruption of ecosystems are a few of the issues humanity has brought upon the world. Academic research shows that when people have less interaction with nature, they are less likely to recognize environmental degradation as their problem. It is time for a change and it starts with human actions and for humans to admit the problem and their responsibility.

This thesis investigates the roots of these problems which are based on the lost connection between humans and nature. From a critical perspective, the thesis addresses our problematic human-centric worldview that positions humans as superior to nature. The thesis then uses a more ecocentric worldview to deal with environmental issues by raising awareness of human symbiosis with nature.

The thesis translates the knowledge and need of reconnecting to nature tourism and regenerative ways to coexist. The study consists of developing an already existing tourism attraction with an ecocentric mindset and a concept that strives towards ‘nature as the protagonist’. The aim is to find a balance between converting the site into a well-used tourist attraction and limiting the exploitation and distribution of nature and its systems.

The project will use research for and through design that is integrated and explored in a case study for creating measures that respond to the thesis aim and the concept. The chosen site for the case study is a small mountain in Värmland called Tossebergsklätten. The result of the thesis is a proposed development plan for Tossebergsklätten and a design proposal based on the developed strategies that strive towards ‘Nature as the protagonist’.

Lastly, the thesis discusses the opportunities to adapt the found investigations and development measures to a more general framework that can help to activate and support less utilized land areas to balance and relieve over-consumed nature in exploited areas.

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Bachelor 2017 - 2020

Architecture and Engineering, Chalmers University of Technology

Internships 2020-2021

Norrøn Architect, Copenhagen
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Architecture and Urban design, MPARC, Chalmers University of Technology

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INTRODUCTION

Problem setting |Purpose & Aim| Research questions

PROBLEM SETTING

Connecting to nature

Sweden is a country with low population density and large areas of open landscape and woodland. Despite 100 years of urbanization, the exploitation of land continues to grow to serve our cities with resources. In addition, urbanization has created and distance between humans and nature. The distance has resulted in the loss of insights into the consequences of society's demands on these land areas. These consequences are e.g. environmental degradation, limitations of resources, biodiversity loss, and disruption of ecosystems (Seppelt and Cumming, 2016).

These negative consequences of urbanization include the reduction of humans' sense of responsibility towards nature. It has been shown that when people have less interaction with nature, they are less likely to recognize environmental degradation as their problem (Seppelt and Cumming, 2016).

Despite urbanization, there is an ongoing human urge to reconnect to nature, and in the 1940s it was shown through the establishment of "the freedom to roam" which is the right for humans to be and act in nature (Sandell, 2008). This urge might be the solution to restore what has been lost. It is therefore important to reestablish the bond between humans and nature and increase our knowledge about its systems and our codependence. Eventually, it might lead to an increase in the human desire to take care of, learn, and respect nature.

Nature tourism

During the last pandemic, many changes in people's behavior were noticed. One of them was the increased need to be outdoors which became the only physical platform for socialization. The trend was not only shown in our daily lives but also in our leisure time and how we were able to travel. Nature became more exploited by a larger span of community groups. As the trend is continuing the necessity of making nature tourism more sustainable gets even more crucial.

Human health

Being in nature has multiple positive impacts on human health, both in our physical bodies and our mental health (Soga and Gaston 2016).

By exploiting nature areas we are not only claiming land from other species and disrupting their life cycles, we are also dismissing our own needs.

PURPOSE & AIM

The primary purpose of this thesis is to examine and reflect on how to develop a tourism destination based on nature´s conditions.

The aim is to find a balance in achieving nature experiences for humans without disrupting nature and its systems. It is an opportunity to gain knowledge to change our view of how we respect our surrounding nature and showcase our position as visitors rather than owners of the land we use.

The thesis takes inspiration from moving from a worldview based on the anthropocentric or human perspective into a worldview based on the perspective of ecology, the ecocentric perspective (Herbrechter et al, 2016).

The idea is to position nature and its systems at the top of the hierarchy, while humans are seen as a part of these systems without being superior. The thesis conceptualizes this theory as a strive towards 'Nature as the protagonist'. Since nature has no physical voice, the thesis uses and reflects upon research that focuses on nature.

THE OUTCOME

The result of the thesis is a set of guidelines for implementing nature and sustainability in the design process for tourist attractions in rural Sweden. The outcome composes of two parts. Part one is guidelines presented as a destination development plan for the chosen site. Part two is a design proposal on the site based on these guidelines.

RESEARCH QUESTION

"How can we, through thoughtful and sustainable design, develop destinations that work both as tourist attractions and for the good of nature?"

SUB-QUESTION

"How can we upscale these local destination strategies nationally to activate and support less utilized land areas to relieve over-consumed nature?"

INTRODUCTION

Discourse | Context | Delimitations

DISCOURSE

The discourse is focused on the disconnections between nature and humans today and the resulting environmental implications. It resolves the need to reconnect and how to balance distance and closeness to nature from different aspects. The theory then emphasizes contradicting agendas and factors between nature and humans when trying to reach the objective of coexistence. It continues to look at various approaches based on Regenerative design for inspiration to coevolve with nature. Lastly, it presents and reflects on principles and strategies of Nature tourism and the development of destinations as measures to bring forward in the process.

TOSSEBERGSKLÄTTEN

To implement the purpose and integrate the discourse the thesis needs a site. The chosen site is Tossebergsklätten in Värmland. The site was found by coincidence through interactions and conversations with an actor in Sunne municipality. In summary, Tossebergsklätten requires development and it has stakeholders with the ambition to realize them. This provides a foundation to build upon and the site will act as a case study for implementations of the theory.

DELIMITATIONS

[will include]

This thesis is about investigating the topic of nature tourism in Tossebergsklätten. It includes discussions with the municipality and stakeholders and finally comparing their development proposal with the result of this thesis. The focus is mainly on the context and case study. The limitations are based on a summarized framework from methodologies collected from regenerative design, nature theory, and investigation from the site itself.

The architectural intention is to integrate the design into nature rather than competing for attention. Nature and the experience are in focus whilst the design is a tool to make it sustainable and accessible to more people. The relevance of this is to make the site used for the right purpose and not risk losing “nature as the protagonist”. The proposed destination development plan and the buildings are mainly based on the program given by conversations with the municipality. Only small iterations are made to suit the overall concept and solve issues on the site.

[will not include]

The thesis proceeds from functions on the chosen site. Due to the concept to strive towards ‘Nature as the protagonist’, some important aspects will be given lower attention in the design phase. The presented technical system and the construction are shown in schematic and simplified. Yet, they are based on references or known structural bearing systems. Due to the thesis constraints, the presented material choices and construction methods are simplified. The importance of sustainability in these choices does remain.
Due to the lack of exact material on the site such as previous floorplans or detailed development plans the drawings made are estimated measurements from the site. The exact position of the so-called “important trees” are also estimations from the site. Studies on nature values are limited and based on site visits in a period between February to April. Year-round studies would have been a more substantial source and the knowledge from an eclogue would have been preferred. The nature values are in some cases assumed due to these limited resources.

VOCABULARY

Destination development

In short, Destination development is the strategic planning and development of a specific area to strengthen the local tourist industry. (Tillväxtverket, 2017)

Protagonist

The word protagonist is mainly used in the concept of “nature as the protagonist” and the word refers to the main actor.

Nature Tourism

Nature tourism is when consumption in the form of activities, accommodation, and other tourism services is replaced by the nature experience itself. (Visit Sweden, 2016)

Ecotourism

”Eco-tourism is responsible travel to natural areas that conserves the environment, sustains the well-being of the local people, and involves interpretation and education”. (TIES,n.d)

”nature” and ”Nature”

In the theoretical context, nature is referred to as the ordinary use of the word. When putting nature with a capital letter it’s referred to a name and in our case ”the protagonist”.

Biodiversity

Biodiversity is a term that describes the amount and the variation of all living organisms that live and act on Earth. It is the base for all organisms and species living in symbiosis and sets the foundation for all ecosystems.

Anthropocentrism

Anthropocentrism is a philosophical viewpoint that put humans in the center and at the top of the hierarchy.

Ecocentrism

Ecocentrism is a philosophical viewpoint that put all living organisms and ecosystems in the center and at the top of the hierarchy.

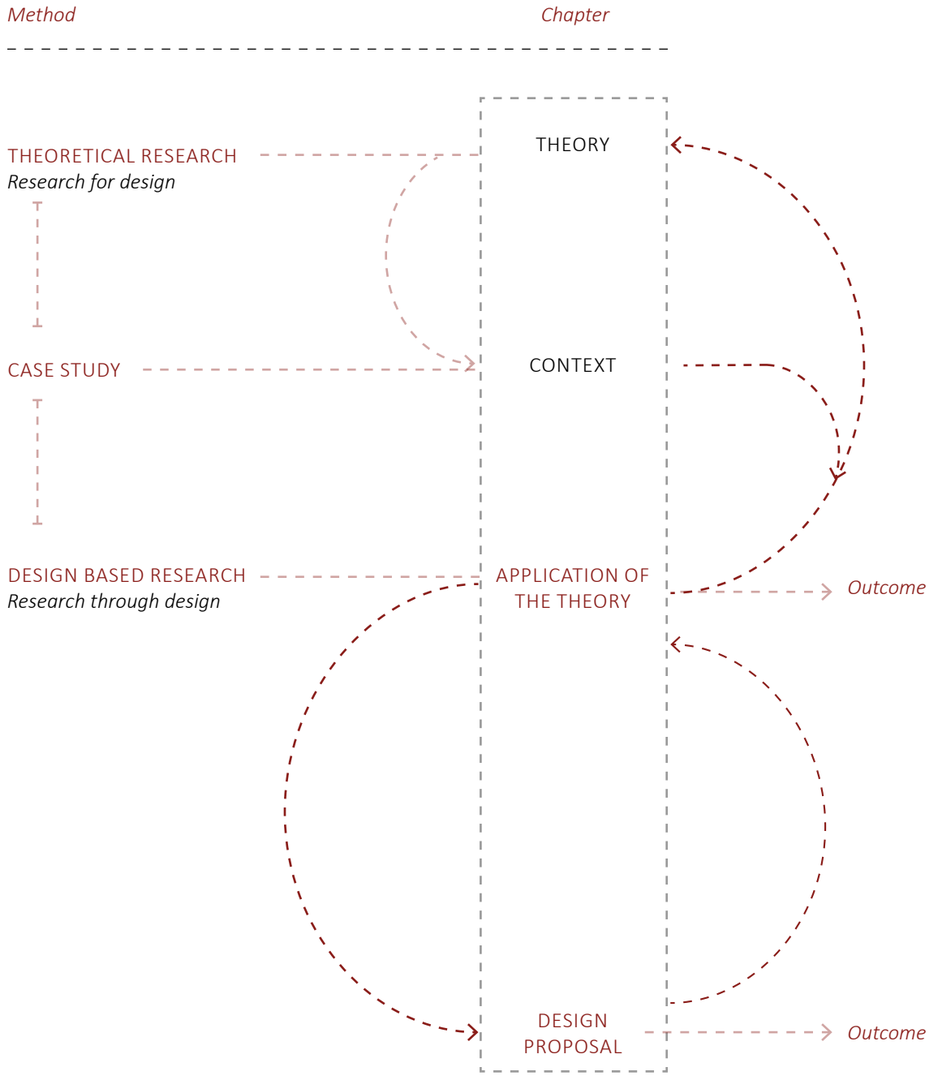


Fig 2. - Diagram showing the structure of the Thesis

THESIS STRUCTURE

The thesis consists of four chapters. The first one is presenting theory and the second is presenting the context. In the third chapter "Application of the theory" the theory is contextualized. This chapter results in part one of the design outcomes. The outcome is a destination development plan for the site. These guidelines or development proposals are tested in the fourth chapter, Design Proposal.

The outcome of this chapter is the second part of the design. Methods and where they are implemented are shown in the left column of the diagram. The right column shows the two outcomes. The strive towards "Nature as the protagonist" follows all the chapters and supportive research is integrated in two chapters. The study is summarized in the last chapter "discussion" at the end.

THE CHOICE OF CONTEXT

The chosen context is as mentioned Tossebergsklätten in Värmland. The local municipality has an ongoing process of development of the site to entice an entrepreneur to invest and take care of the enterprise. It provides an opportunity for this study to involve active stakeholders and engagement in this exploration at an early stage. The fact that the chosen destination is in a less utilized area contributes to the discussion of how we can take pressure off high tourism areas and reduce wear and tear on the environment. The idea is to improve less exploited tourist destinations and spread out the demand.

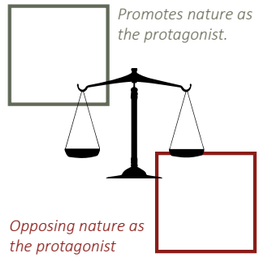


Fig 3. Color code for the given position and its consideration of "nature as protagonist".

At the end of chapter 2 a color code is presented (*fig 3*). In general, the color green symbolizes the promotion of nature as the protagonist, and red symbolize when something opposes nature as the protagonist. To emphasize the coexistence of humans and nature in ecosystems positive impact nature has on humans is also included in the green color code for what eventually promotes "nature as the protagonist".

METHODOLOGY

1. Theory

The chapter focuses on the established discourse about the disconnection between humans and nature. The chapter introduces Regenerative design and theoretical research of nature tourism and tourism strategies. Lastly, the chapter summarizes the theory through symbols for each principle or strategy. These symbols result in a theoretical framework that is implemented in the following chapters.

Method: Literature studies and research for design
Outcome: A theoretical framework

2. Context

The chapter starts with an introduction to the site and the surroundings. It continues with observations and inventory from the two site visits and collected data from the municipality. The site visits include inventory and evaluating conditions on existing infrastructure, hiking routes, buildings, nature, etc. It examines the experience of the site and maps the flows. Photographs are taken of the sites as material and inspiration. Lastly, the chapter examines the inventories and the site and presents scenarios of development.

Method: A case study with inventory
Outcome: Scenario 1 and 2 and an introduction to Scenario 3

3. Application of the theory to the context

The chapter "Application of the theory" combines the inventories from the site with theory to find measures and development proposals. The inventories are combined and divided into two scales with four subgroups each. The first scale focus on the site as a whole and the second scale focus on buildings. All development proposals follow Scenario 3. The results are summarized in a site-specific destination development proposal.

Method: Research through design
Outcome: Part one of the design outcome. Destination development proposal

4. Translation of development plan into a design proposal

In the last chapter, the destination development plan is translated into a design proposal that fulfills the program and the functions of the site. It is presented through various drawings and perspectives and annotated with information on where and how the previous process is shown in the design.

Method: Drawings and perspectives
Outcome: Part two of the design outcome. A design proposal

CHAPTER 1

Theory-Nature as the protagonist

The chapter focuses on the established discourse about the disconnection between humans and nature. The chapter introduces Regenerative design and theoretical research of nature tourism and tourism strategies. Lastly, the chapter summarizes the theory through symbols for each principle or strategy. These symbols result in a theoretical framework that is implemented in the following chapters.

DISCONNECTION

Disconnection from nature | Human ..?.. Nature

PROBLEM STATEMENT: DISCONNECTIONS

Over the last 100 years, new measures, such as improved infrastructure and new technologies, have resulted in larger and more efficient food production and a decrease in the number of farmers. In today's society, living in rural areas is not immediately associated with farming. It is more usual to have an income generated from other occupations, located either locally or in the larger cities. The shift in lifestyles and a desire for proximity to work has resulted in urbanization and thereby an imbalance of economic wealth between cities and rural areas. When more people move into cities they lose important insight into the consequences of society's demands, such as environmental degradation and biodiversity loss. (Seppelt and Cumming, 2016).

THE IMPLICATIONS OF DISCONNECTIONS

Technological developments, globalization, and urbanization have implications in terms of how humans treat the biosphere. Positive implications can be summarized in information, communication, and mass action. Receiving accurate information on e.g. resource availability creates the foundation for sustainable development, (UNDP, n.d.). Information can include different sources of education and observations, that can inform both appreciation of nature as well as its threats. Communication gives the opportunity to spread the news about environmental change and the measures to work against it. Communication continues to be the base for creating sustainable trends in the human population that can lead to mass action. (Seppelt and Cumming, 2016).

The negative implications are externalization, relevance, and demand. Externalization is a consequence of globalization where no one takes real responsibility and rather devolve the responsibility to authorities or others. The term relevance is how globalization has shifted the human focus. With less interaction with nature, humans do not accept environmental destruction as their own. Loss of knowledge of previous conditions has led to a misconception of what level of change is acceptable. Demand is conceptualized around the search and urges for more. Especially in wealthy societies, the increase of various consumption of products and natural resources continues to grow. When people lose experiences limitations and the upscaling continues.

THE HUMAN NEED FOR RECONNECTION

Terms have arisen during the last year from various disciplines and agendas. Many of them focus on human health in connection to nature. There are terms such as "Nature deficit disorder", which stands for the lack of simulations from outdoor environments and the effects it has on children's health and development (Ives et al., 2018). Another similar term is "extinction of experience" which relates to the reduction of nature experiences caused by urbanization. The term argues that nature has an impact not only on our health but also on our emotions, attitudes, and behaviors (Soga and Gaston 2016). These terms indicate the relevance of the subject and the importance of not letting urbanization conflict with our interest in nature and natural experiences.

The article Extinction of Experience (Soga and Gaston 2016) continues by establishing how nature and human exposure enhance the physical and psychological well-being of humans. It also improves social skills and the feeling of belonging. Being in nature is shown to have a positive influence on diseases such as diabetes and heart disease. The article state that being outdoors and being connected to nature might increase longevity and general health. The article continues by stating how being in nature impacts our emotions toward nature. Creating these emotions sets the framework for human attitudes. The emotions connected in nature results in the attitude of wanting to protect it and from there the behavior and actions to do so.

To summarize the result of disconnections, we need to find measures to reconnect to help human to find the urge to protect. The focus is to reconnect with nature by evaluating nature's perspective.

Health

Well-being in nature

Physical health in nature

RECONNECTION

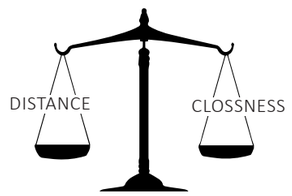
Connection with nature | Human ..?.. Nature

DISTANCE AND CLOSENESS

Literature from Seppelt and Cumming, 2016, raises another perspective and argues around the expression, "distance from nature", and the ongoing debates if segregating humans from nature is a solution for reducing the increased pressure on the environment. The expression is based on creating a solid relationship between caring for nature and ways to reduce pressure on it. To conclude, the study lands in a two-pronged strategy where humans reconnect by both increasing and decreasing the distance to nature in different aspects.

The aspect to create closeness is by reconnecting and using the positive effects of knowledge through education and communicating and adding physical closeness of plants and animals in e.g. urban areas. The education is centered around understanding ecosystems by learning more about the importance of organic food, urban agriculture, and ecological local production to help foster a sustainable mindset that understands limitations and opportunities. Distance from nature is based on lower the impacts of human activities on ecosystems to protect and maintain the state of the earth and its systems. They introduce our debt to nature and how we can create methodologies and environmental austerities to repay that debt and adjust our impact. The methods introduced both encourage physical distance from nature and question it. They highlight the importance of preserving nature in protected areas and expanding the protection of other natural areas. The importance is to lower our impacts on ecosystems and introduce and increase taxation environmentally on harmful activities and actions. It is all a matter of finding a balance between consumption and conservation.

Other concrete objectives of the study are to reduce waste, stop deforestation, and reduce greenhouse gas emissions. They argue that the method to rebuild natural capital takes time and effort and to succeed we need combined efforts. We need to increase responsibility on the individuals as well as get commitments from governments and businesses.



CONNECTION OF HUMANS TO NATURE

In the literature "Reconnecting to Nature" (Ives et al., 2018) they conceptualize five different connections between humans and nature. The categorization is, material, experiential, cognitive, emotional, and philosophical. The study formulates that even though the categorizations are various perspectives of the subject, they still correlate and interact with each other. The same goes for the discourse of using nature as the protagonist, which will interact and be influenced by these other conceptualizations due to their shared agenda. To showcase nature as the protagonist is comparable to wanting to understand and reconnect with nature. As in any discussion or dispute human to human, the process of understanding and reaching an agreement is by reflecting on the matter from the other's point of view.

NATURE AS THE PROTAGONIST

To make an in-depth analysis of the concept of "nature as the protagonist" one has to understand the meaning of the word protagonist in the context. To understand various environmental attitudes three terms are introduced, anthropocentrism, ecocentrism, and biocentrism.

The terms value nature but focus on different perspectives and viewpoints. Ecocentrism and biocentrism value nature for the sake of itself while anthropocentrism values nature for its benefits and provides for the sake of humans. The difference between eco- and biocentrism is that ecocentrism focuses on the ecosystems as a whole and thereby brings in both biotic and abiotic factors whilst biocentrism only focuses on biotic factors. Since the biotic factors still are depending on the abiotic factors this thesis focuses on ecocentrism to understand the whole picture.

Biotic factors- *concern all living organisms.*

Abiotic factors- *concern all non-living organisms but also other components of nature that support the ecosystem such as chemical and physical components of nature. Examples of Abiotic factors are temperature, geology, and wind. (National Geographic, n.d.)*

REGENERATIVE DESIGN AND DEVELOPMENT

Regenerative paradigm position the context in the center of design and development processes. It works with the relationships between living systems and investigates how they work to be able to use them to support the place for its characteristics and already existing systems. As a result, the project integrates the mutual relationship and codependency of humans and ecosystems through co-evolution.

There are various approaches to regenerative design where permaculture and downshifting are two of them.

Two approaches are presented in the article “Permaculture and Downshifting-Sources of Sustainable Tourism Development in Rural Areas” (Epuran et. al, 2020) that investigate sustainable tourism in rural areas. The text argues that the rural tourism industries can choose one of two directions, either they focus on commercial tourism, or they choose ecologically and context-oriented tourism. The last mentioned direction, which is represented in this thesis, can use sources of development and approaches from permaculture and downshifting.

The first approach, *permaculture*, is based not only on the return to nature but also on the range of sustainable development based on natural principles. It is a methodology of learning from already existing systems and balances of nature. Permaculture provides and contextualizes three ethical orientations, care for humans, care for the earth, and synergies of fair actions and future planning between the two.

Downshifting is based on permaculture values but adds a minimalistic worldview. The approach opts for a simpler yet ecological lifestyle, to escape materialism, to implement spiritual values, integrate into nature and capitalize on local culture. In the tourism industry, it has been a shift of mindset among tourist that now values experiences in their simplicity, the ability to capture the atmosphere and immerse themself in the local context instead of the previous urge for a wide range of entertainment.

The tourism industry can use permaculture and downshifting as a response to this increased demand for green destinations that support the local context and engage in initiatives to reduce harm to the environment.

Permaculture

Three ethical orientations of permaculture presented as design and developement concepts.

Care for humans

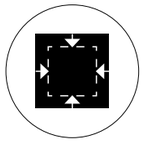
Care for the earth

Fair actions and future planning for for humans and the earth

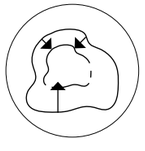
Downshifting

The minimalistic worldview of downshifting presented as design and developement concepts.

Minimize buildings footprints



Minimize exploited areas



FRAMEWORK FOR REGENERATIVE DESIGN

Regenerative design is not only sustainable for the current situation and measure. It is important to understand that “Regenerative design is a process, not an event” (Mang & Reed, 2012, p.34). The design should support future changes and evolve continuously. A framework for regenerative design is summarized in the following five phases.

Understand and Conceptualize

The first phase is to understand and conceptualize the relationship to the place. The understanding is based on evaluating existing dynamics, its potential, and its context. It is important to understand that the dynamics are part of larger systems and unique patterns. The regenerative approach continues to find the core of the place to then conceptualize the understanding and the patterns. This phase also includes conversations and dialogues with stakeholders and the local community to fully understand the narrative of the site.

Understand and conceptualize the relationship to the place

Design in harmony

The second phase is to design in harmony with the place and is an extension of the previous phase. The importance of this phase is to develop a site, a building, or an infrastructure based on harmony with the place rather than a so-called formula. The idea is to not miss opportunities for inventive and creative solutions.

Design in harmony with the place.

Co-exist and Coevolve

The third and last phase is to co-evolve. This phase is primarily about not seeing the development och the place in a stable state but rather seeing it as a dynamic process that continues to progress.

The design and systems need to have and maintain an adaptive capacity, ready to change with the future and its constant developments.

Co-evolve and co-exist

Include all drivers in the process

To manage the previous phases an extended approach of regenerative design is to include all drivers and challenge and rethink what counts as a “stakeholder”. In regenerative design, the stakeholders are redefined as all the involved that have the ability to shape the site. This method is created to enhance, support, and create larger aspirations for the site. A way of inviting many wise minds together to avoid template approaches.

Include all drivers in the process

Conservation and preservation

Conservation and preservation are other fundamental principles of regenerative design. Both conservation and preservation strive towards the protection of nature yet they do it in different ways. Conservation is centralized around the utilization of natural systems and promotes sustainable ways of using nature and its system. Preservation focuses on separating human and natural systems and instead promotes careful consideration when humans interact with nature. Whilst the approach of preservation is important in protected areas, conservation is an approach where human efforts can support biodiversity rather than destroy them. (National Geographic, n.d.)

Conservation and preservation

NATURE TOURISM

Nature tourism connections | Human (in) Nature

NATURE'S BEST

Over the years, initiatives have been taken to protect Swedish nature. Sweden has gone from implementing its first national parks in 1909 (Visit Sweden, 2016) to embracing the concept of ecotourism created by the international ecotourism society in the late 20th century.

In 2002 an initiative by The Swedish Nature & Ecotourism Association was launched called "Nature's Best" which at the time was one of the first quality labels of ecotourism. The labeling is based on 6 main principles that provide a clear foundation for three of the sustainable goals of Agenda 2030. The three topics respond to economic, environmental, and social criteria.

The 6 main principles

1. Respect the limitation of the destination
- Avoid wear and tear on nature and culture.

2. Promote and support the economy of the rural context - The program should contribute to the destination's finances.

3. Environmental adaptations to the entire business- Minimize the environmental impact on transport, accommodation, waste, etc.

4. Requirements for active protection of nature and cultural heritage- Support nature conservation in various ways.

5. Quality of guidance and information on site
- Good hospitality and well-communicated knowledge lead to a curious and respectful attitude.

6. Quality and security assurance - An approved ecotourism organizer must be reliable.

(Naturturismforetagen, (n.d))

Principle 1

Principle 2

Principle 3

Principle 4

Principle 5

Principle 6

OTHER CERTIFICATIONS

Other certifications are e.g. Green destinations, their criteria are similar to Nature´s Best. In Sweden, there are other important certifications for sustainability. Among them, there are "Svanen", The green Key, and KRAV- certification. These certifications concern the hospitality industry but all three do it by certifying businesses rather them the destination as a whole.

TOURISM STRATEGIES

From research gathered by Tyrens, in the report "Framtidens besöksnäring- strategi för Sunne Kommun" from 2016, they introduce four main development strategies that can be used in most of the tourism industry and consist of the following categories: Collaboration, Digitization, Sustainability and lastly, Theme and experiences.

The 4 main strategies

Investing in *collaboration* has become an established method for developing destinations, where the municipality and actors come together to create a wholeness and work towards the same goal for sustainable development.

Digitization comes with both positive opportunities as well as negative consequences. The ability for visitors to share their experiences of places and travels through social media and other platforms creates awareness and informs about events and destinations on a large and fast scale. These platforms create a way to rapidly increase demand and interest for destinations. Digitization comes with new opportunities to inform and handle booking, planning, and documentation that makes traveling more accessible and reachable. It provides the opportunity to analyze data from various studies and make conscious decisions. There are possible consequences e.g. the visitor/user needs to be updated with recent progress and be in control of the platforms that are used. The increased demand/pressure of the organizers and other actors might rise and they have another expectation to be constantly accessible for questions and contact.

The category, *Sustainable development,* has several factors to consider. Sustainable development consists of both environmental factors but also durability and resilience for many years to come. To be sustainable means thereby to be able to address several target groups with demographic differences. The increasing general awareness raises the overall requirement for a site with multiple transportation alternatives, and safe and maintained public spaces. Early sustainable strategies and achieved certification get more relevant and mandatory.

Theme and Experiences is a category where the tourist industry is encouraged to use its local context as a theme for developing unique experiences. The scale can be general and influenced by current trends. Still, the tourist industry in rural areas is encouraged to be more site-specific to create various experiences between places and enhance their local profile and supply.

In addition to these strategies, four goals from Agenda 30 can be added and combined. The interim goal 17.17 addresses the importance of collaborations between private and public sectors that goes hand in hand with the collaboration strategy. Goal 12.8 points out the importance to increase public knowledge about sustainable lifestyles that can be transformed by digitization. 12. B raises the question about verifying sustainable tourism and tools that can control the verifications. And lastly, goal 8.9 of agenda 30. (UNDP, n.d.)

Collaboration + 17.17 Encourage effective partnerships
Digitization + 12.8 Increase public knowledge about sustainable lifestyles
Sustainable development + 12:B Develop and implement tools for verifying sustainable tourism
Theme and Experiences + 8.9 Strengthening economic growth and sustainable tourism for local culture and products

Collaboration
Goal 17.17

Digitization
Goal 12.8

Certification for sustainable development
Goal 12.B

Theme and Experiences
Goal 8.9

THEORETICAL FRAMEWORK

A summary of the collected theoretical research that together with the context is implemented in the design and development measures.

Health

Well-being in nature

Physical health in nature

Regenerative design

Understand and conceptualize

Design in harmony with the place.

Co-evolve and co-exist

Conservation and preservation

Include all drivers in the process

Permaculture

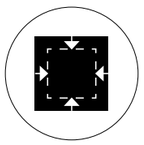
Care for humans

Care for the earth

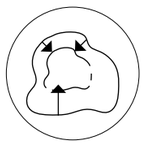
Fair actions and future planning

Downshifting

Minimize buildings footprints



Minimize exploited areas



Nature tourism

Respect the limitation of the destination

Promote and support the economy of the rural context

Environmental adaptations to the entire business

Active protection of nature and cultural heritage

Quality of guidance and information on site

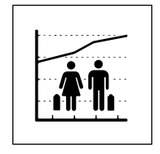
Quality and security assurance

Tourism strategies

Collaboration Goal 17.17

Digitization Goal 12.8

Sustainable development Goal 12.B

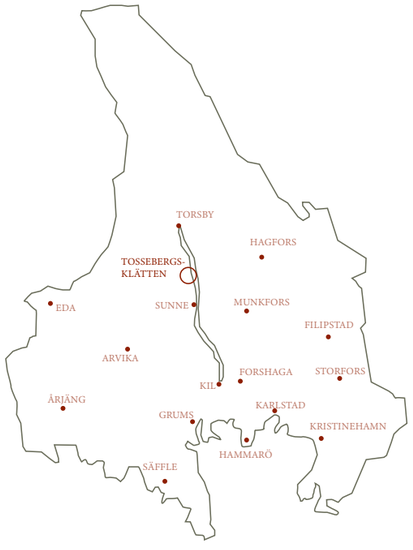


Theme and Experiences Goal 8.9

CHAPTER 2

Context-Tossebergsklätten

The chapter ”Context” start by introducing geographical and historical context. It continues with a list of inventories collected from site visits at two scales and from two perspectives. The anthropocentric perspective and the ecocentric perspective. Lastly, the chapter evaluates the site based on the existing scenario and possible future scenarios.



GEOGRAPHICAL CONTEXT

Värmland

Värmland is located on the southwest side of Sweden. Europe road 18 connects Värmland to the Norwegian capital in the west and large Swedish cities such as Örebro, Västerås, and Stockholm in the east. From the south “Europe road 45” crosses Sweden and Värmland, connecting Denmark with the north of Sweden. (VisitVärmland, n.d.) “Värmlandstrafik” is the regional bus and train provider and offers travel opportunities for both commuters and visitors. It serves both the local communities and their tourist industries.

The municipality of Sunne

Sunne is a town situated at the intersection of the lakes “Övre Fryken” and “Mellan Fryken. The city has train and bus connections to Kil and Karlstad which have more direct connections to the largest cities in Sweden.

Stöpafors

Stöpafors is a small village between Sunne and Torsby. It has a few residents, a preschool, a large farm, and a local mill. Stöpafors has three bus stops, one next to the preschool, one by the highway, and one next to the large farm.

Tossebergsklätten

The 342-meter-high mountain is located on the western side of Lake Fryken in the northern part of Stöpafors. The top is reached by a 2 kilometers serpentine road that rises about 200 meters from the main road.

HISTORICAL CONTEXT

Two of Swedens’ most famous writers originate from Sunne, Selma Lagerlöf and Göran Tunström. The municipality of Sunne takes great value in its historical storytelling. Selma Lagerlöf wrote about Tossebergklätten by the name ”Gurlita Klätt” in her book “Gösta Berlings Saga” and the name is still a way of promoting the place. At this time, when Selma visited the place, the road was not constructed and visitors had to hike or by horse. (Sagolikasunne.se, n.d) Göran Tunström was fascinated by the views and a translated quote from him is “ ”The highest thing is to see God. The next highest thing is to stand on Tossebergsklatten and look out on this world”.”

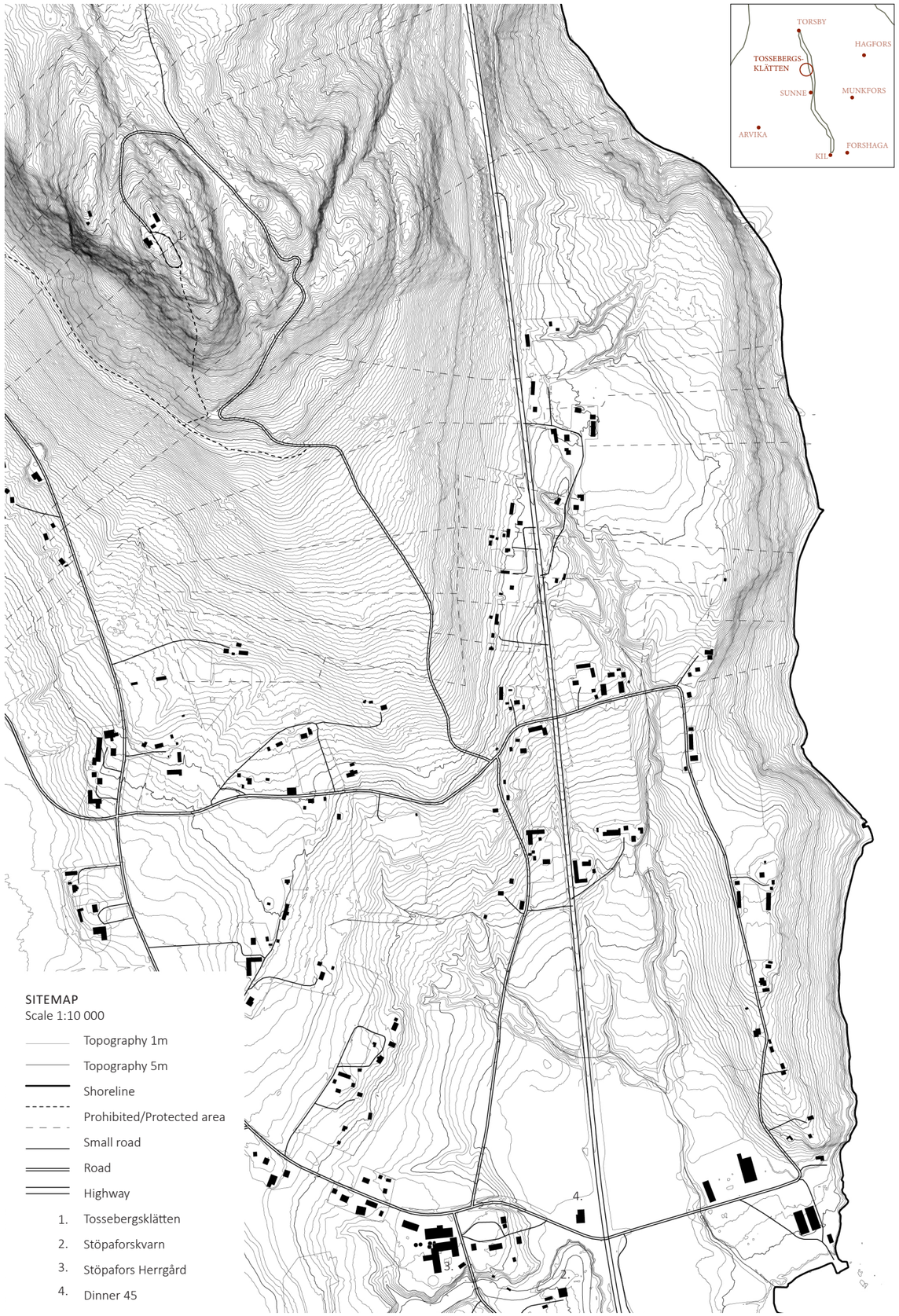
The artist Maria ”Vildhjärta” Westerberg originates from Sunne. She makes art from sticks in the forest and works with the restoration of biodiversity. (Westerberg. Söderqvist, 2023)

A strong culture and tourist attraction in Stöpafors is the mill. Since 1917 “Stöpafors Kvarn” has ground and sold the so-called ”Skrädmjöl” in a traditional manner and the flour is a part of the food culture of Värmland. ”Nävgröt” is e.g. a specialty of Värmland that has its base in the flour. (Visit Värmland, n.d)

Picture: Sunne Hembygdsförening, 1939
(Sunne hembygdsförening, 2013)

THE VISION

The municipality wants to develop the site to increase tourism and the number of visitors and make Tossebergsklätten a functioning enterprise. Their vision is to strengthen the local economy as well as find an interested entrepreneur that can take the responsibility of running the business. They see a possibility to develop the restaurant into an all-year-round tourism attraction and continue the narrative of ”Gurlita Klätt” (Living Cities, 2023).



SITEMAP
Scale 1:10 000

- Topography 1m
- Topography 5m
- Shoreline
- Prohibited/Protected area
- Small road
- Road
- Highway

1. Tossebergsklätten
2. Stöpaforskvarn
3. Stöpafors Herrgård
4. Dinner 45

Inventories from an

ANTHROPOCENTRIC PERSPECTIVE

	INVENTORY	SITUATION	STAKEHOLDERS
INFRASTRUCTURE	European Road 45 passes by the site from the south of Sweden to the north. It connects to the serpentine road that leads both to the top as well as diverges in the forest. The road ends in a circular path on the top of the mountain.	Road 45 and the serpentine road are in working condition. The road goes from asphalt to gravel. There is no maintenance in the winter season e.g. snow shoveling and graveling to prevent slipping.	The road is used for the cafe and visitors. Other users are forestry and activity seekers for paragliding and skating downhill. The road needs to obtain the capacity of both transportations as well as vehicles for delivery and waste.
HIKING TRAILS	There are old hiking trails connected to the serpentine road and another road west of Stöpafors. They are no longer registered as hiking paths on public maps but can be found through maps from “lantmäteriet”.	The condition of the trail is varied. It is difficult to find and navigate. Parts of it are in better condition with stone stairs and clear directions. The trail offers great views and beautiful nature near the top.	At present, no target group seems to use the trail. Yet there are recommendations from locals and previous hikers. The trail has previously been cared for by local initiatives but not anymore due to lack of use.
SURROUNDINGS	In the surrounding area, there is a lay-by area next to Fryken, a preschool, a well-established diner with a retro theme, and an old yet productive wheat mill. The neighborhood has signs of local initiatives such as flea markets etc.	The diner, Diner 45, is well known and provides guests from far and wide due to its unique atmosphere. The wheat mill is still in service and provides local traditions of specific wheat.	Various investors and stakeholders. The local community might benefit from events and collaborations between the actors can enhance activity and attractivity of the context.
VISITORS	The highest percentage of visitors comes from Värmland. Beyond that, there are visitors from other parts of Sweden and internationally (Research One 2022).	The municipality hopes to increase tourism and the number of visitors and make Tossebergsklätten a working enterprise that helps to achieve more local financials.	Target groups are the stakeholders that can make a profit from having visitors. The surrounding community can gain a lot by having collaborations and enhancing the local economy.
ACTIVITIES	A large range of various activities on site, “Tossebergsracet” arranged by Fryksdalens MK, paragliding, and skateboarding occur on the site (Living Cities, 2023). There are, yet rarely, social events in the lodge.	No specific efforts such as signs to promote the physical activities on site. For paragliding, there is a platform on the west side of the mountain. The condition of the lodge seems suitable for the scale of activities.	The target groups are Fryksdalens MK associations, young adults with an interest in downhill skateboarding, hikers, view seeker, and paragliding associations. Locals use the lodge for different events.

VASCULAR PLANT

Scientific name	Red List category
Salix caprea	LC
Arabidopsis arenosa	LC
Atocion rupestre	LC
Campanula rotundifolia	LC
Jasione montana	LC
Pimpinella saxifraga	LC

INVERTEBRATE ANIMALS

Scientific name	Red List category
Stictoleptura maculicornis	LC
Phratora vitellinae	LC
Phratora vulgatissima	LC
Plagiodera versicolora	LC
Lochmaea caprea	LC
Anoplus plantaris	LC
Strophosoma capitatum	LC
Deporaus betulae	LC
Temnocerus nanus	LC
Trichius fasciatus	LC
Pseudopanthera macularia	LC
Lasiocampa quercus	LC
Pyrgus malvae	LC
Plebejus idas	LC
Argynnis paphia	LC
Melitaea athalia	LC
Vanessa cardui	NA
Papilio machaon	LC

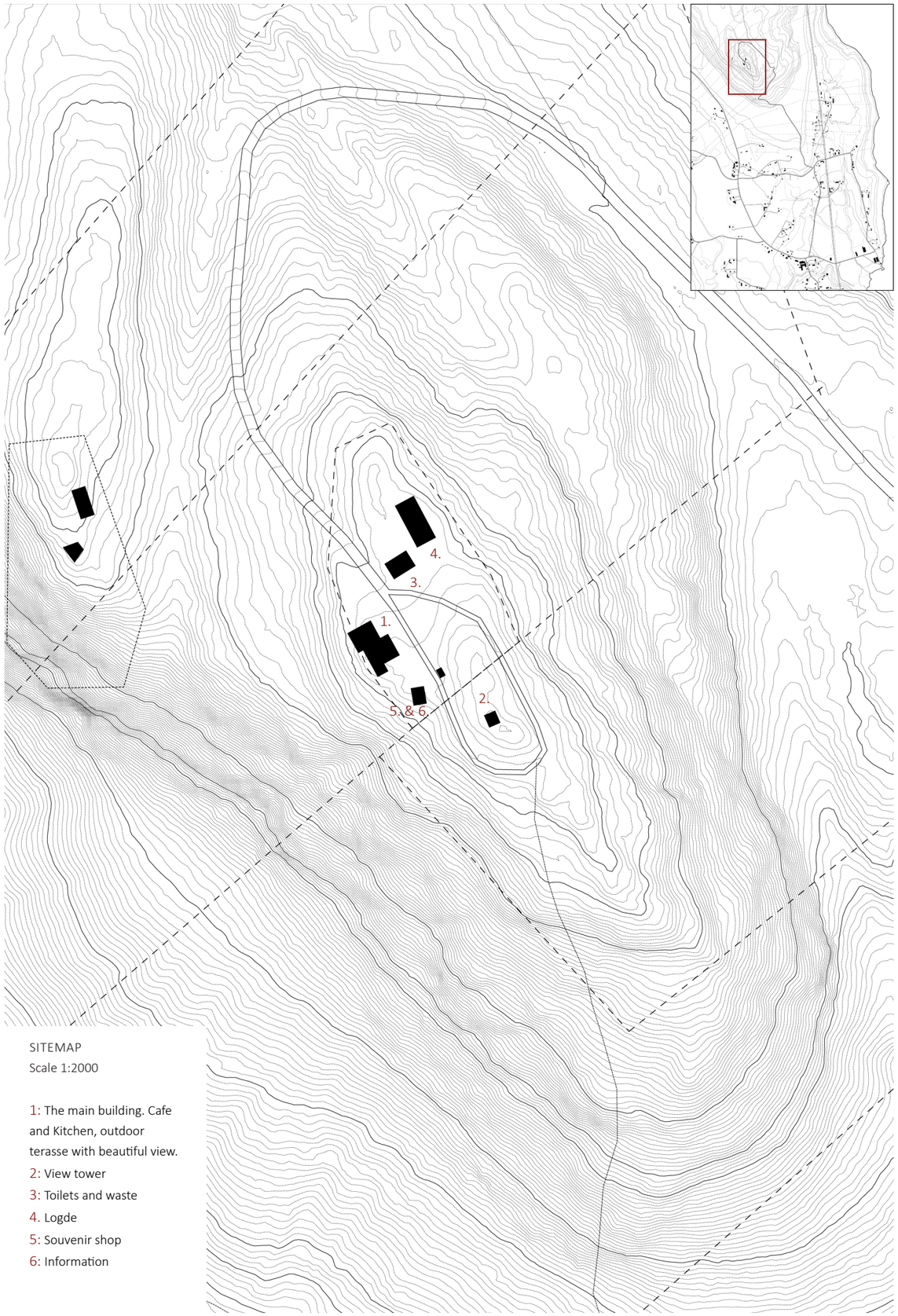
BIRDS

Scientific name	Red List category
Branta canadensis	NA
Branta leucopsis	LC
Anser anser	LC
Tetrastes bonasia	NT
Tetrao urogallus	LC
Lyrurus tetrix	LC
Apus apus	EN
Columba palumbus	LC
Grus grus	LC
Numenius arquata	EN
Scolopax rusticola	LC
Chroicocephalus ridibundus	NT
Larus canus	NT
Larus argentatus	VU
Pandion haliaetus	LC
Pernis apivorus	LC
Aquila chrysaetos	NT
Accipiter nisus	LC
Haliaeetus albicilla	NT
Buteo buteo	LC
Aegolius funereus	LC
Surnia ulula	LC
Glaucidium passerinum	LC
Asio otus	NT
Strix aluco	LC
Dryocopus martius	NT
Picus canus	LC
Falco peregrinus	NT
Falco tinnunculus	LC
Lanius collurio	LC
Lanius excubitor	LC
Nucifraga caryocatactes	NE
Corvus monedula	LC
Corvus corone	NT
Corvus corone cornix	NE
Periparus ater	LC
Lophophanes cristatus	LC
Poecile palustris	NT
Poecile montanus	NT
Parus major	LC
Hirundo rustica	LC
Aegithalos caudatus	LC
Phylloscopus trochilus	LC
Phylloscopus collybita	LC
Sylvia borin	LC
Curruca curruca	NT
Regulus regulus	LC
Troglodytes troglodytes	LC
Sitta europaea	LC
Certhia familiaris	LC
Sturnus vulgaris	VU
Turdus viscivorus	LC
Turdus iliacus	NT
Turdus pilaris	NT
Muscicapa striata	LC
Erithacus rubecula	LC
Ficedula hypoleuca	NT
Phoenicurus phoenicurus	LC
Motacilla alba	LC
Anthus trivialis	LC
Fringilla coelebs	LC
Pinicola enucleator	VU
Pyrrhula pyrrhula	LC
Acanthis flammea	LC
Loxia pytyopsittacus	LC
Loxia curvirostra	LC
Spinus spinus	LC
Emberiza citrinella	NT

Inventories from an

ECOCENTRIC PERSPECTIVE

	INVENTORY	SITUATION	SUPPORT
NATURE AREAS	The nature areas on the mountain are trivial forests, mixed deciduous coniferous forests, and pine- and fir forests, both separately and as coniferous forests. There are also temporarily open fields with and without vegetation.	In the west, there is a 1,5-hectare area with so-called key biotopes with both rock escarpment and aspen forest. No red-listed tree species are found except Sallow which is listed as the least concern, LC. (SLU Artdatabanken, n.d.)	Forest areas and their characteristics are important for the well-being of biodiversity and ecosystems. It is important to inform visitors about how to respect and protect these areas.
IMPORTANT TREES	Trees close to buildings are marked on the site plan on page 66. The importance of precise mapping is to make sure of the upcoming proposal don not conflict with them. The site plan showcases their condition and size.	Most trees are in good condition. Evaluating the condition of the trees is important for arguing that they will be preserved. The pine close to the Café has a broken treetop and needs to be evaluated further.	The trees have a larger root system and can be harmed during construction. Avoiding deep construction methods such as basements gives more space for the root system.
SPECIES	Predatory animals in the area are wolves, wolverines, lynxes, and even golden eagles and bears. Other larger mammals are e.g. red deer and mooses. No invasive species were found on or in the immediate area.	No marked wolf territory in the specific site. Wildlife care area with red deer protection area and moose management area (Länsstyrelsen Geoportal).	Wildlife is important for the well-being of biodiversity and ecosystems. They spread seeds and restore balance in nature. Humans need to respect and learn how to act to not disturb the local wildlife.
PROTECTED SPECIES	There are over 90 protected species on the site and in the close surroundings. The species detected are mostly various bird species, see Appendix (SLU Artdatabanken, n.d.).	Around 30 of the found species are on the red list. Two species are listed as endangered, EN, Storspove, and Tornseglare. Four are listed as Vulnerable, VU, whilst the rest are listed as Near Threatened, NT.	Birds and their ability to feast on insects and spreading speed are Important for biodiversity and ecosystems. They might be extra fragile during their bird breeding season so humans need to learn how to act in these seasons.
PROHIBITED AREAS	There is a prohibited area for the protection of bird species in the west. There are also planning documents for another prohibited area for important nature areas next to it.	The prohibited area is 4000m2 and is protected during 1/4-15/7 (Naturvårdverket, 2014). In the protected area, a building and a ramp for paragliding are located.	The same support as the previous one. Nature needs help in informing us about respect and how to act in general and in different seasons.



SITEMAP
Scale 1:2000

1: The main building. Cafe and Kitchen, outdoor terasse with beautiful view.
2: View tower
3: Toilets and waste
4. Logde
5: Souvenir shop
6: Information

Inventories from an

ANTHROPOCENTRIC PERSPECTIVE

	INVENTORY	SITUATION	STAKEHOLDERS
PROPERTY BOUNDARIES	Tossebergsklätten is divided into long sections from south to northeast with different landowners. The differentiating middle property boundary on the top is owned by the municipality of Sunne and the others are private.	The issue with the existing property boundaries is how parts of the cafe/restaurant building owned by the municipality are located on private property. The view tower is also on another private property.	The people involved are the several property owners who either need to find ways to continue cooperating (allocation of land areas) or they need to expand and sell areas to each other.
EXISTING BUILDINGS	The top of Tossebergsklätten has a cafe/restaurant, a lodge, a building with public toilets and waste, a view tower, and two small supportive buildings for tourism (Living Cities, 2023).	The cafe/restaurant building has been extended due to a lack of space. The condition of the buildings varies. The kitchen is in need of renovation and the property has problems with mold and water supplies.	The cafe/restaurant is in use and attractive to visitors depending on the service and quality of the enterprise. It is presently not attractive for entrepreneurs to run the business due to a lack of water supplies etc.
RECREATIONAL FACILITIES	The site has two fireplaces with cooking opportunities and several benches supporting the area. The benches are scattered around which support the whole area and not only the main viewpoint areas.	The condition is in seemingly working condition but has opportunities for further development. One of the seating areas is sheltered and the rest are not.	The user group is mainly the visitors both for the cafe and for the visitors there for the views. The recreational facilities can be maintained by the cafe owners and work together to create a thriving and attractive area.
WASTE, WATER SUPPLY, LOGISTICS	The waste is managed by having a waste room in one of the buildings close to the road. The site has supporting electricity and an undrinkable water supply. The logistics and waste are carried by the serpentine road.	The water supply is low and contains high levels of fluoride that make it undrinkable. Today large water bins are transported to support the service. Waste bins are scattered around the area and seem functional.	This concern is mainly on the entrepreneur and the municipality to find a functional solution. Although a working system with toilets and waste management is as important for the visitor as well.
ACCESSIBILITY AND AVAILABILITY	The site has a ramp to the main building and a road to the viewpoint. Limited accessibility during the winter season since there is no maintenance then. Opening hours are limited and only during the summer season.	The existing management could be developed for both better use of the site and better economic growth by extending the business to more of an all-year enterprise.	The user groups are visitors who get more accessibility through more availability. Economic growth for the municipality or the entrepreneur as well as economic growth and support for the local community.

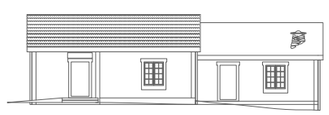


Fig 5a: Building One

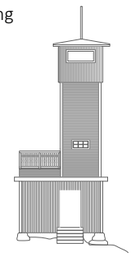
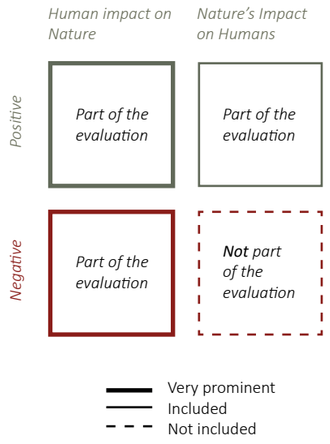


Fig 5b: Building two

EVALUATION

The process continues by understanding the current situation based on the inventory. In the strive toward nature as the protagonist the site and situation can be evaluated from different aspects in terms of success or failure. The Success of this project is based on two factors, the positive impacts human has on Nature and the positive impacts Nature has on humans. The failure is classified by the negative impacts humans have on nature.

The reason the positive impacts nature has on humans are part of what is classified as success in the strive towards ”nature as the protagonist” is related to the previous theory. The theory states that the positive impacts nature has on humans eventually result in human care and understanding of the environment. That means, from a long-term perspective, it is important to not separate humans and nature for the sake of the well-being of nature.



Analysis

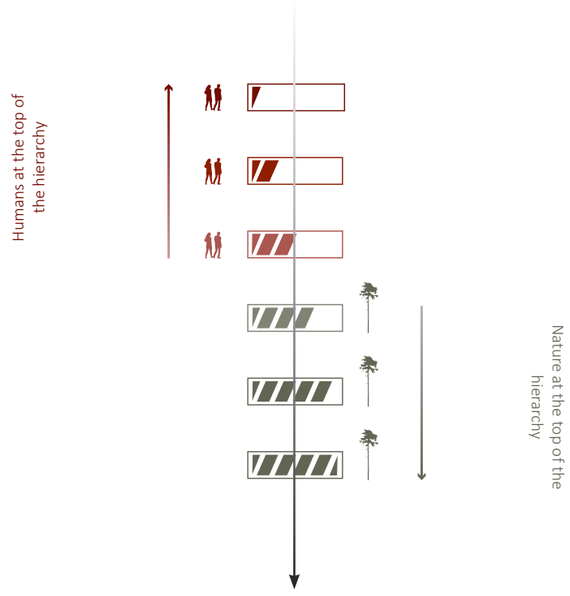
Promotes nature as the protagonist.

Opposing nature as the protagonist

The level of success or failure is marked in colors and gradients. Low gradients are colored red and stand for failure since the focus has been only from the anthropocentric perspective and their function has been to satisfy human needs. High gradients are marked in green colors. They stand for success in achieving nature at the top of the hierarchy, in focus, or at minimum part of the equation.

Level of success

The gradient of success in the strive for ”nature as the protagonist



Scenario 1:
Current situation without actions

Evaluation

SCENARIO 1

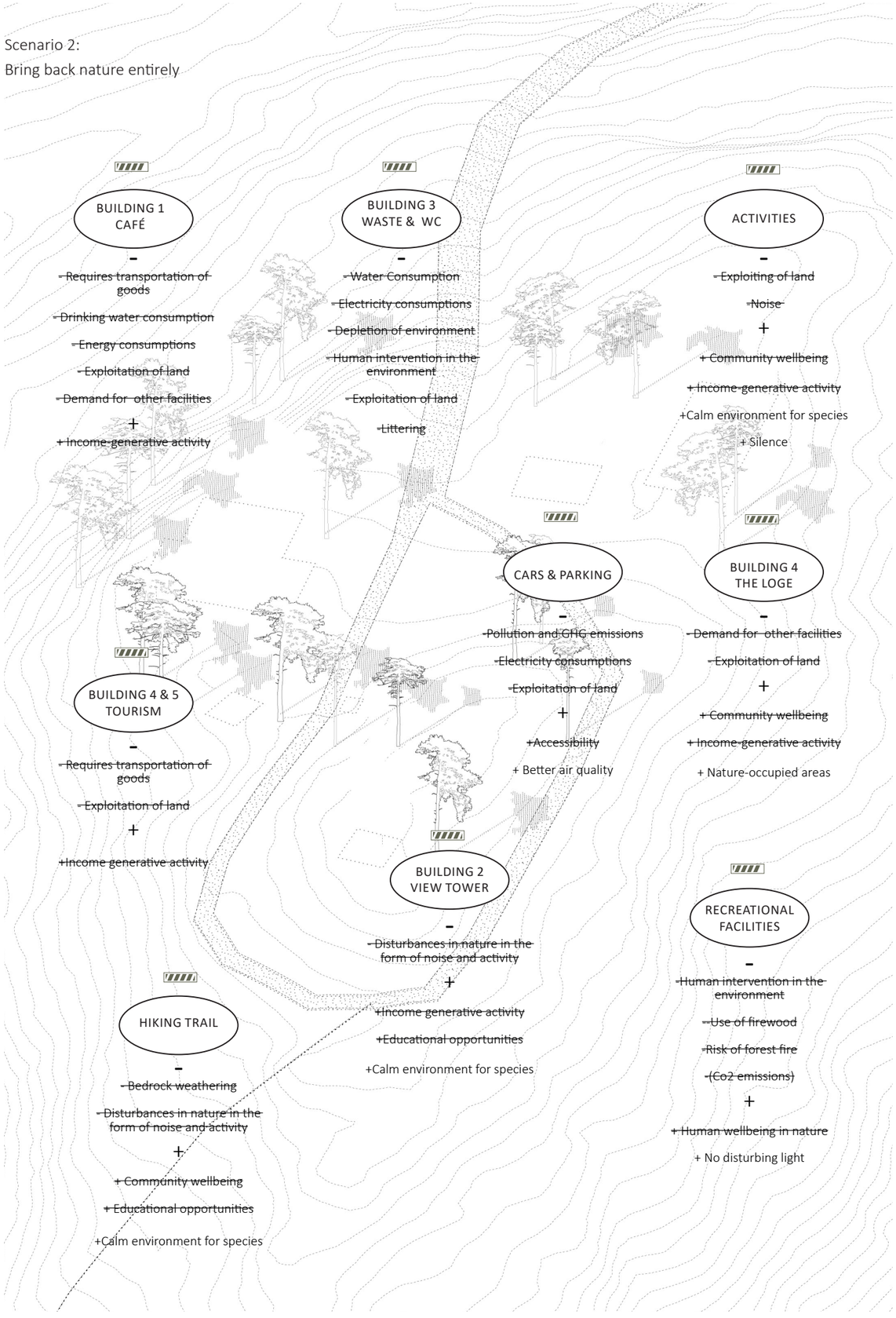
Scenario 1 is based on the current situation without actions.

A list of evaluations from an ecocentric and an anthropocentric perspective is presented. The list focuses on showing both the positive and negative impact humans have on the environment as well as the positive impact nature has on humans.

The gradients show that the site has failed regarding the strive towards “nature as the protagonist” in many aspects. The separation of the buildings and their functions creates human movements that result in unnecessary disruption. The activities are not adapted to enhance nature and the transportation is mostly by cars that demand exploitation and emits emissions.

The conclusion is that site has the potential for improvements and change in regard to both nature and humans. These changes and improvements are presented in new potential scenarios.

Scenario 2:
Bring back nature entirely



Evaluation

SCENARIO 2

Scenario 2 is based on bringing back nature entirely. The list of evaluations is now crossed out since all activity and human footprints are taken away from the site. Nature will eventually take over the place completely. As a result, new and positive effects will be added to the scenario. Better air quality, a calm environment for species, more nature-occupied areas, silence, and no disturbing light or littering. This is the scenario that suits the concept the best. *Nature is the protagonist.*

After coming to this conclusion, the failure persists. When the negative impacts were eliminated, some of the positive ones disappeared as well. Nature and humans need to coexist and from a historical point of view, they have managed to do so in harmony. The challenge of finding this bond and co-existence should be seen as an opportunity for us architects and other stakeholders to embrace and take knowledge from.

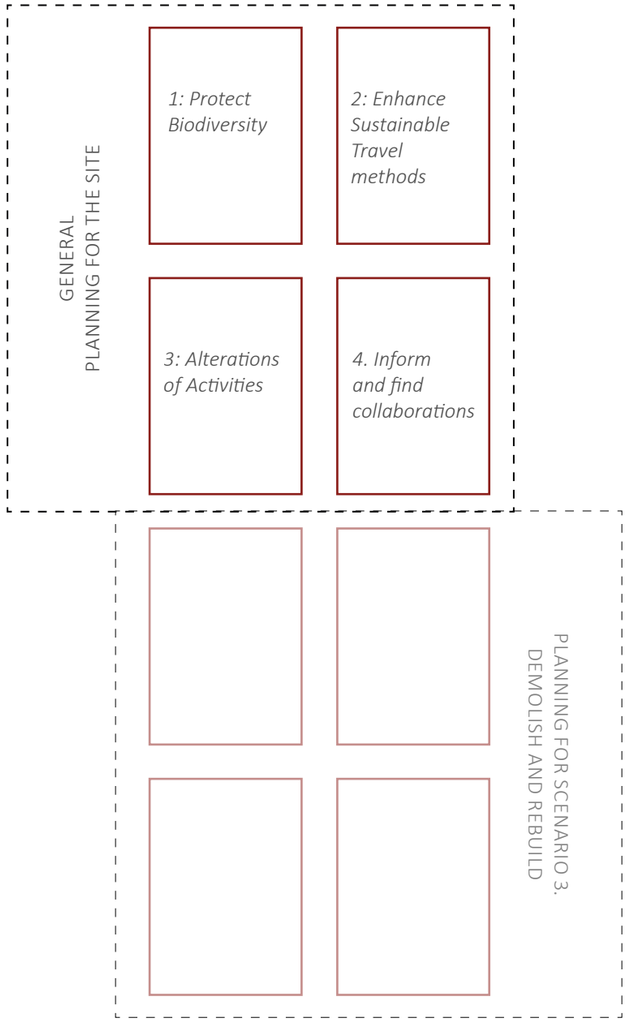
Another important argument for not proceeding with this scenario is the value of the site. This site specifically has historical importance for humans. It is an established site full of storytelling and memories. It is a place loved by many. Other factors are the already-paved road to the top, the well, and the existing systems. The risk of eliminating this place is that other places might replace it and more land will be occupied and exploited.

Conclusion: The need for another scenario. Scenario 3. This scenario focuses on finding a balance between ” no actions” and ”bringing back nature”. Scenario 3 consists of a scenario where the existing buildings are demolished and new ones are built. These new buildings face high demands on working for and with nature and its systems. To really grasp the challenge, Scenario 3 uses the existing program of functions in its development.

Scenario 3: Developing the site with nature as the protagonist using concepts from theory.

CHAPTER 3
Application of the theory to the context

The chapter “Application of the theory” combines the inventories from the site with theory to find measures and development proposals. The inventories are combined and divided into two scales with four objectives each. The first scale focus on the site as a whole and the second scale focus on buildings. All development proposals follow Scenario 3. The results are summarized in a site-specific destination development proposal.



GENERAL
PLANNING FOR THE SITE

The first four development objectives are focused on transforming the site towards optimal conditions for nature.

In summary, the following work contains analyzes and reflections based on various aspects of the context in relation to the theory. The specific theoretical framework that has been used is listed below the text. The work results in proposals and guidelines for building topology that contribute to the concept of striving towards ”nature as the protagonist”.

The first four development objectives are:

1: Protect Biodiversity

2: Enhance Sustainable Travel methods

3: Alterations of Activities

4. Inform and find collaborations

DEVELOPMENT 1.

PROTECT BIODIVERSITY

The mild levels of territories of wild predators and other large mammals make the activities and the hiking trail accessible to use. If the distribution from the activities is minimized human activity can occur. It is an importunity to meet wildlife and explore it but it needs to happen on the condition set by nature. For e.g. the prohibited areas for birds and important natural values need to be considered when planning the hiking trail, the activities need to be evaluated and adapted and the buildings need to follow certain premises set by nature´s best.

The design and placement need to consider the protected areas for birds and make sure the surrounding environment does not affect the biosphere. Any changes on site will be dependent on ecological studies.

The species

By using Artportalen (SLU Artdatabanken, 2023) a list of species occurring on the site was detected.

Järpe	Tetrastes bonasia	NT
Tornseglare	Apus apus	EN
Storspov	Numenius arquata	EN
Skrattmås	Chroicocephalus ridibundus	NT
Fiskmås	Larus canus	NT
Gråtrut	Larus argentatus	VU
Kungsörn	Aquila chrysaetos	NT
Hornuggla	Asio otus	NT
Spillkråka	Dryocopus martius	NT
Pilgrimsfalk	Falco peregrinus	NT
Kråka	Corvus corone	NT
Entita	Poecile palustris	NT
Talltita	Poecile montanus	NT
Ärtsångare	Curruca curruca	NT
Stare	Sturnus vulgaris	VU
Rödvingetrast	Turdus iliacus	NT
Björktrast	Turdus pilaris	NT
Svartvit flugsnappare	Ficedula hypoleuca	NT
Tallbit	Pinicola enucleator	VU
Gulsparv	Emberiza citrinella	NT

In the list of species certain bird species stand out for being red-listed. Extra care for these species can be implemented by studying them more in detail and their specific need from the site.

The thesis looks at the five most threatened birds in the categories vulnerable (VU) and endangered (EN) and for aspects when developing the site. The similarities are a lack of hollow trees and large areas of dense production forest. A delimitation in the investigation is that “Storspov” (Numenius arquata), Gråtrut (Larus argentatus), and Stare (Sturnus vulgaris) usual habitats for breeding are not corresponding with Tossebergsklätten. For these species, the focus is to give conditions for access to food such as worms, caterpillars, beetles, and spiders. (SLU Artdatabanken, n.d.) Tornseglaren (Apus apus) feed on feed on rams, nest at higher elevations, and enter their nest with a direct flight that requires free access. Tallbiten (Pinicola enucleator) nests in spruce forests near fields of lingonberry and blueberry sprigs. It lives on buds and seeds from, for example, blueberries and rowan. Lives in low elevations in nests in coniferous trees.

By setting up nest boxes, specially designed for various bird and their needs, the bird habitat are improved. Important in this context is that the nest boxes are placed both high and low.

Other measures for improving biodiversity in general and creating more extensive food access for the birds are insect nests and flower plantations for the pollinators.
It is important to leave as many flourishing trees as possible. Protect deciduous trees from variation in nature and forest areas. If trees are cut down, compensation is needed such as birdhouses or abandoned trees. Making water storage in e.g. ponds creates conditions to prevent dehydration for all living species in all seasons. In general spreading knowledge is important for all living things to co-evolve and co-exist.

Theoretical framework

The parts of the theoretical framework implemented in the development measures for: Protect Biodiversity

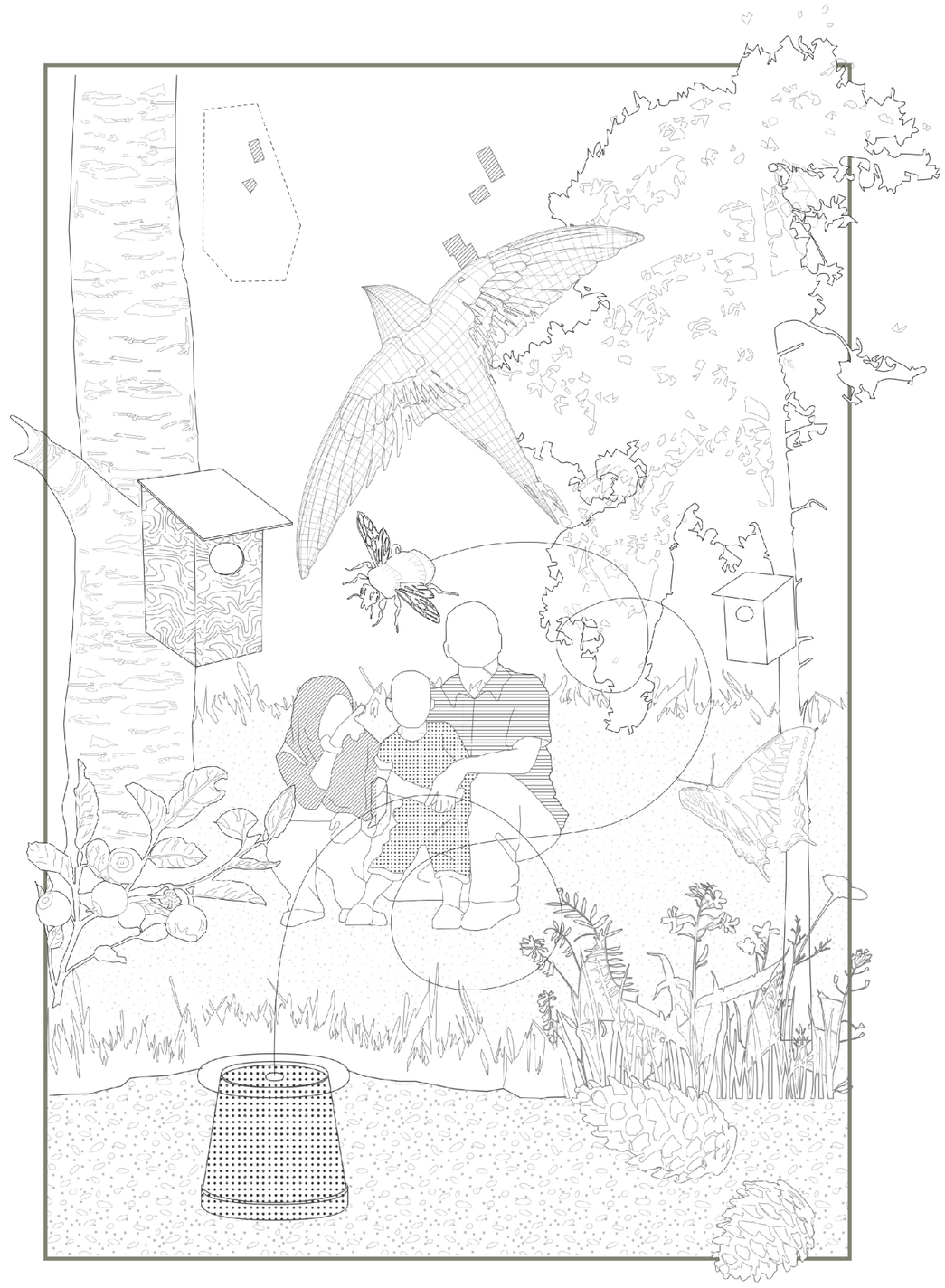
Well-being in nature

Co-evolve and co-exist

Care for the earth

Conservation and preservation

Active protection of nature and cultural heritage



PROTECT BIODIVERSITY

DEVELOPMENT 2.

ENHANCE SUSTAINABLE TRAVEL METHODS

The evaluation and analysis of the optimal travel methods are based on ecocentric factors of unnatural disruption of natural areas and the need for exploited areas on site.

Infrastructure

Cars demand land areas for parking and the sound and emissions of fuel-powered vehicles can be considered unnatural. The number of cars is relatively high in relation to the number of visitors they provide. Buses have roughly the same problems with emissions and noise but bring more visitors per trip and disruption.

In addition to the discussion to strive towards ”nature as the protagonist”, a certain restriction of flow is also seen as beneficial to preserve the natural environment which is also taken into account. Bicycles are beneficial in needing less parking space and from an anthropocentric perspective promote physical health. In regards to the topography and the steep climb is not accessible and beneficial for most target groups.

To conclude the best option today is to mix alternatives and promote walking at least parts of the way. One is to restrict and move most of the parking spaces from the top to halfway down or at the foot of the hill. Another is to strengthen the path from the local bus station with information to make it easier to choose the option of walking from there.

By using digitalization, information about available parking and alternative transportation can help and direct visitors to better choices. Through information, the site can encourage respect by e.g. being more silent in nature when traveling to the top. Collaborating with the local context with rentable bicycles for the whole area or co-use existing parking spaces is a complement to the previously mentioned alternatives.

Looking at future options for travel methods the expansion of electric cars and bicycles has lots of advantages. They are silent and environmentally friendly. The optimal alternative complementing the hiking trails would be electric bikes to help travelers in steep areas whilst still respecting the site. The site needs to accommodate the need for electric resources that could come from e.g. renewable resources.

Hiking trails

A strong development opportunity is to reestablish the old hiking trail and promote it as an alternative transportation method. If the trail is cared for, well-promoted, and easy to find, the likelihood of people using it increases.

A further approach is to also expand the number of hiking trials to increase utilization. Several hiking trails give an opportunity to have different moderations for various target groups. It allows different paths and experiences and several starting positions with dedicated parking facilities or connections to public transportation. The concept of “nature as the protagonist” emphasizes making hiking roads sustainable and protecting nature in the hiking trails and the surroundings. Different measures to protect it physically can be implemented. By establishing several trials the pressure will be divided among them and there will be less pressure on each.

Another complementary approach to promoting the hiking trails can use and conceptualize the narrative of the site. There is the option to have informative storytelling along the way as presented by Livings Cities and their report “Platsutveckling Tossebergsklätten” (2023). Another option is to use art installations, preferably by local artists such as e.g. Maria ”Vildhjärta” Westerberg and her ”Pinnkonst” (Westerberg, 2023).

Theoretical framework

The parts of the theoretical framework implemented in the development measures for:Enhance Sustainable Travel methods

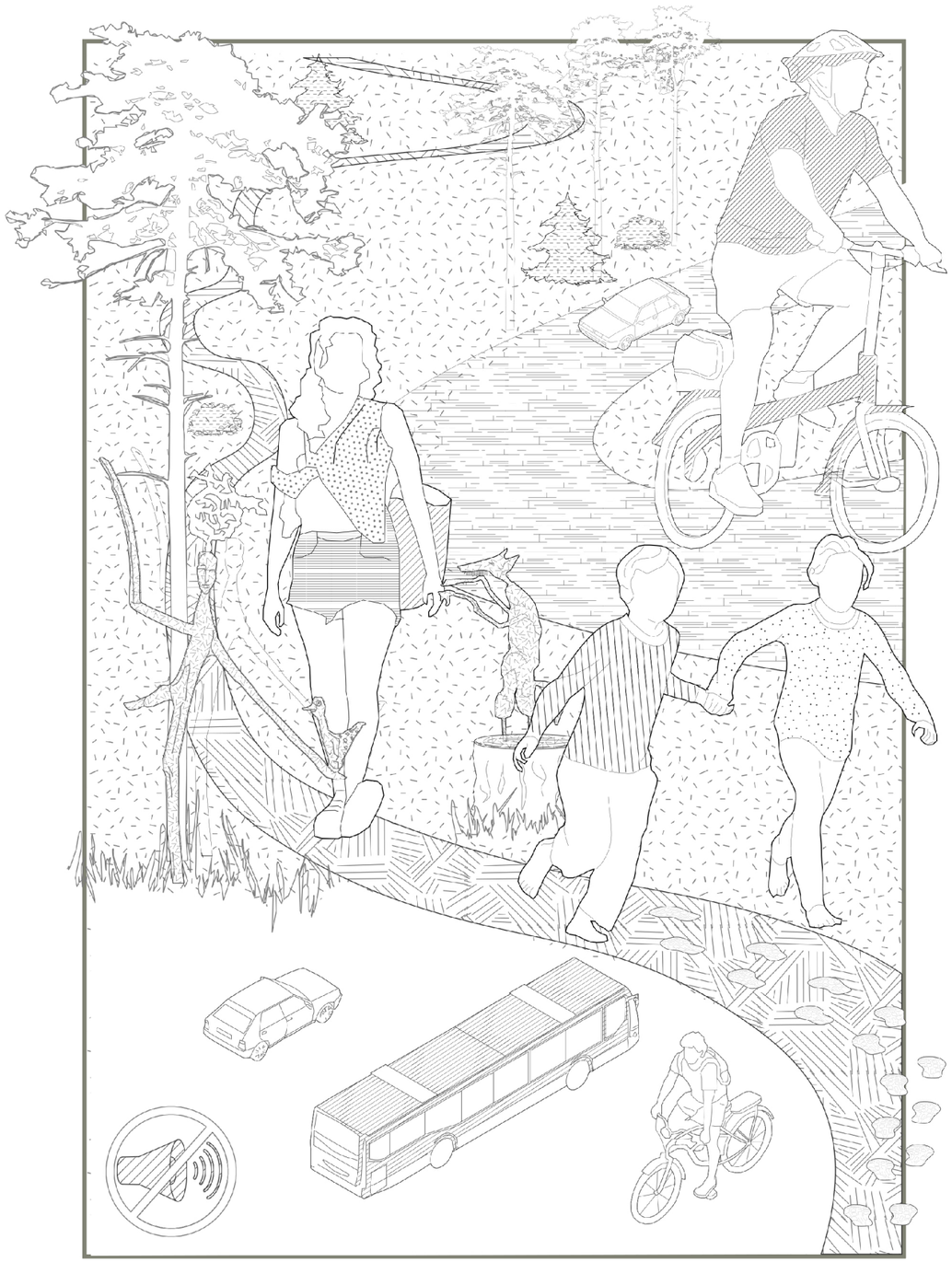
Physical health in nature

Understand and conceptualize

Respect the limitation of the destination

Environmental adaptations to the entire business

Digitization Goal 12.8



ENHANCE SUSTAINABLE TRAVEL METHODS

DEVELOPMENT 3.

ALTERATIONS OF ACTIVITIES

In general, the guidelines for evaluating the activities are based on their impact on nature. Suitable activities that work in the context according to users and nature. If nature tolerates it the activity can stay. The condition of each activity gets refined, both regarding the activity itself and in regard to nature and the surroundings.

Restaurant

The development proposal is based on giving quality assurance to the facilities. The facilities need to achieve requirements in sustainable maintenance, both the building physiology and the served products. The products served in the restaurant and in the craft shop should be locally produced and ecological. A part of the experience is to get to know the context and the history and thereby strengthening the economic growth of local culture and products.

Scenic view

The 360 o view is how the site primarily attracts attention and visitors. Any design implementation needs to work in advance to strengthen this asset. The existing view tower accommodates the view but through improvements or a complete rebuild, the view tower can accommodate more functions, larger accessibility and relieve the surrounding nature by providing an anthropocentric experience through eyesight instead of movement in the surroundings.

Recreational

The recreational facilities on-site work together and support the other activities. Storytelling over campfires and opportunities to prepare food outdoors is an important habit that runs back in human history. For the sake of nature, fireplaces on site should be clearly established and maintained to avoid the risk of wildfire. Fire bans in other areas can be banned completely.

Paragliding

The situation today, in the question concerning the paragliding take-off in a prohibited area for birds, is to leave it and trust paraglider communities to not use it during these protected periods. To emphasize the limitations of the site and the aim of the thesis, the takeoff zone is proposed to be moved completely. The new site of the take-off is proposed to be where movement and flows from humans already exist e.g. next to the restaurant.

Skating and Rollerskis

The activity of downhill skating and roller skis on site is a relatively rare occurrence since they need to occur when the road is not in use. The activity takes place on the already-established road and provides free marketing on social media.

Rally and motorsport

The tradition of the rally and motorsport is an activity in Värmland and meetings occur onTossebergsklätten. The site accommodates rentable facilities and the possibility is retained. The activities should respect the surroundings with sound and the capacity and follow the same limitation of travel methods as any visitor.

Hiking

The experience of reaching the site by foot and the wild nature with animals, nature sounds and vegetation depending on the season is as mentioned in the theory of medicine for our souls. The trail today is demolished at places and needs to be re-established. By strengthening parts of the trail either with wooden footbridges (Spänger) or extending the existing yet partly demolished stone stairs the trail works better both for preventing damage to nature and for accessibility for hikers.

Theoretical framework

The parts of the theoretical framework implemented in the development measures for: Alterations of Activities

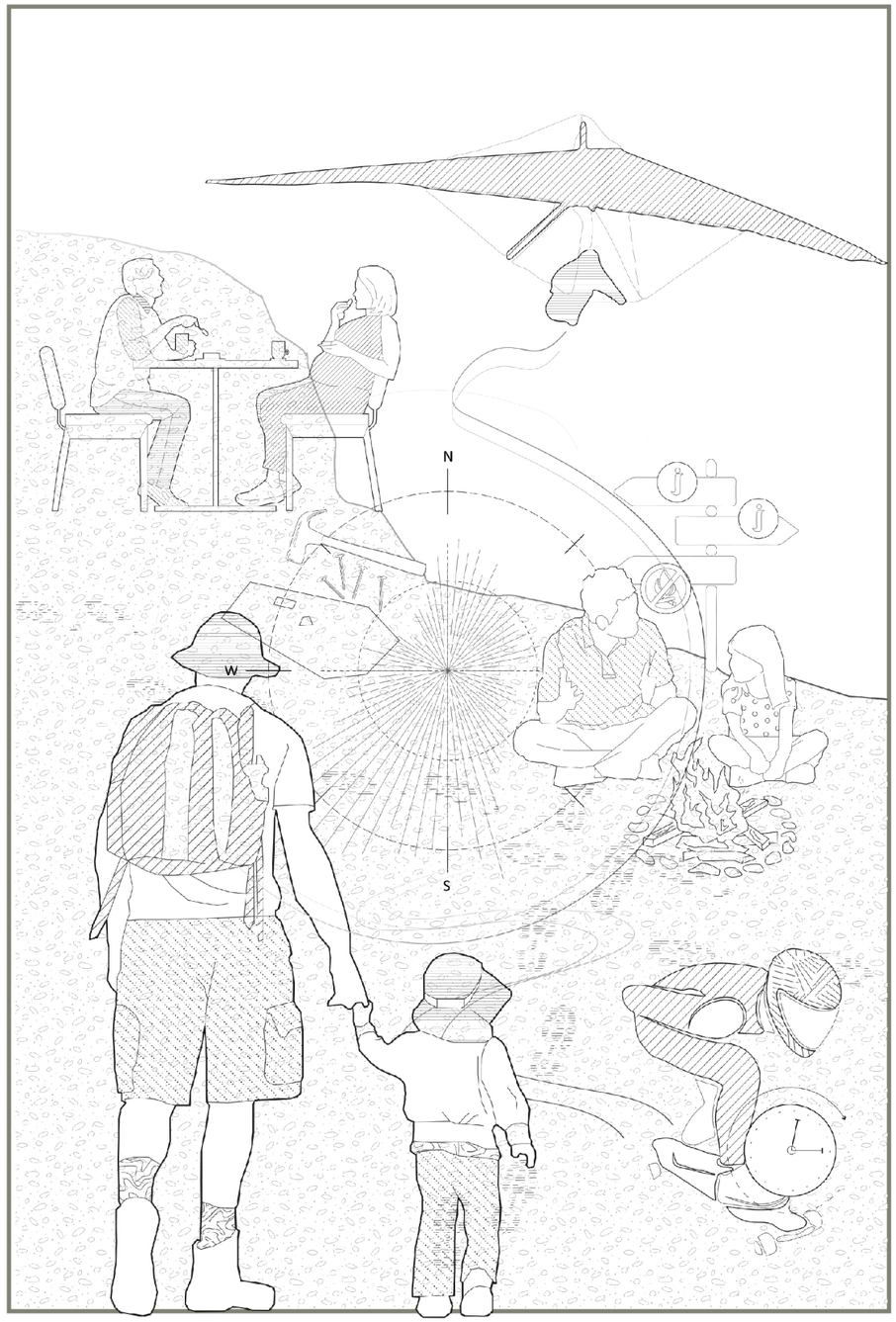
Physical health from being in nature

Respect the limitation of the destination

Environmental adaptations to the entire business

Quality and security assurance

Theme and Experiences Goal 8.9



ALTERATIONS OF ACTIVITIES

DEVELOPMENT 4.

INFORM AND FIND COLLABORATIONS

Site Identity

The site has an interesting and relevant history and it is known by many locals as a great destination. As “Living Cities” suggest in their report “Platsutveckling Tossebergsklätten” (Living Cities, 2023) the site can use this asset for creating a strong narrative and storytelling about the site. The narrative can be presented in various ways, as previously mentioned it can be a part of the hiking trail but also on-site with information boards both outdoors and indoors.

The site identity is also based on the local context of Stöpafors. The wheat mill and the traditional meal “nävgröt och fläsk” has been served at the top and should remain to contribute to the storytelling and local context.

The location

The location besides E45 is an asset to bring a lot of visitors that pass by. The importance of the strive towards nature as the protagonist is to make sure the visitors meet the site with respect. The signs and the information presented along the way and beside the exit of the road will have a great impact. Signs can be informative with slogans such as “Welcome to Tossebergsklätten, Keep the voice down and visit with respect, you are now entering the home of many”.

Collaborations

Tossebergsklätten can find collaborations in the neighborhood, Sunne municipality, and Visit Värmland to strengthen the development. To collaborate with the local mill for products and the local dinner for parking spaces and gain better connections with public transport from Sunne, Kil, and Karlstad. The site can both gain visitors as well as promote other tourist attractions. In the strive towards the concept of “nature as the protagonist is a great advantage that one hiking trail promotes others trails to share the pressure caused in nature.

Information

Promote information about Värmlands wildlife and what to do and act around it. Spread the word about not disrupting whilst visiting nature, by keeping lower voice and sound levels, keeping safe fire camps, and making sure no garbage is left on the site. The information can contain consequences of certain behaviors to strengthen the will to do right.
Today, the hiking trail is not marked as a route on any maps, to make it more available, it can be marked on general maps and the municipality’s homepage.

Digitalization

Digitalization brings a lot of advantages that can be used. There are apps for hiking trails where Tossebergsklätten can be promoted. The app “Sagolika Sunne” can be updated with more information about specific wildlife and bird habitats for educational opportunities.

“Welcome to Tossebergsklätten, Keep the voice down and visit with respect, you are now entering the home of many”.

Theoretical framework

The parts of the theoretical framework implemented in the development measures for:Inform and find collaborations

Quality of guidance and information on site

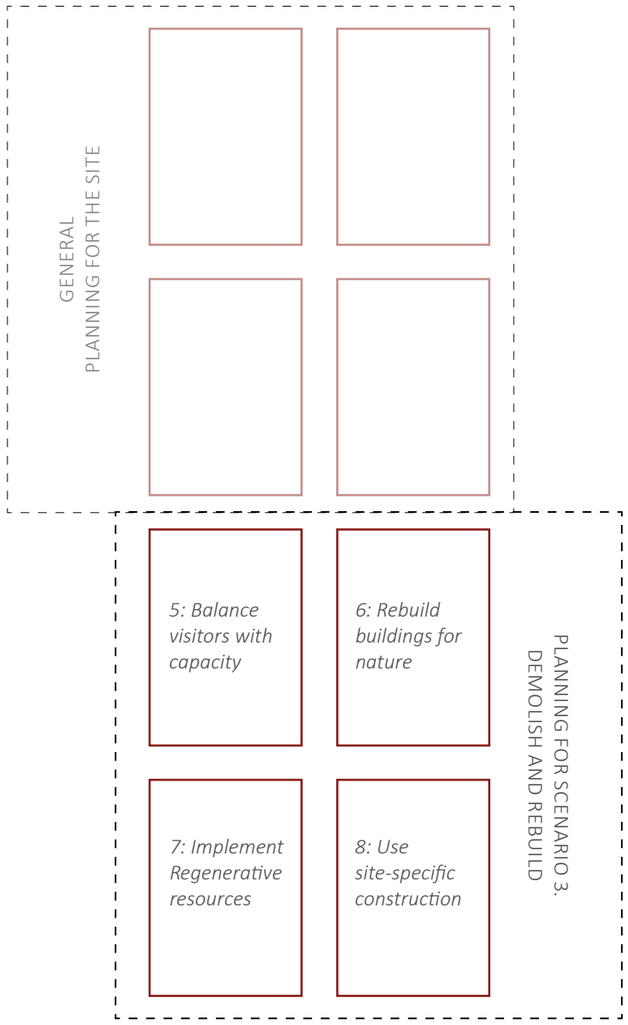
Quality and security assurance

Collaboration Goal 17.17

Digitization Goal 12.8

Theme and Experiences Goal 8.9

INFORM AND FIND COLLABORATIONS



PLANNING FOR SCENARIO 3. DEMOLISH AND REBUILD

The last four development objectives are based on scenario 2, i.e. without buildings that give optimal conditions for nature. From there, new buildings are implemented with specific requirements of protecting nature in interaction with human coexistence.

In summary, the following work contains analyzes and reflections based on various aspects of the context in relation to the theory. The specific theoretical framework that has been used is listed below the text. The work results in proposals and guidelines for building topology that contribute to the concept of striving towards ”nature as the protagonist”.

The last four development objectives are:

5: Balance visitors with capacity

6: Rebuild buildings for nature

7: Implement Regenerative resources

8: Use site-specific construction

DEVELOPMENT 5.

BALANCE VISITORS WITH CAPACITY

Manage the flows

The overall content is to find a balance between demand and capacity. The analysis is based on accessibility and the consequences it brings. Analyzing the theory, external resources can be found in the profitability of having visitors and the internal opportunities are what the place has to offer. These must both balance each other together with the limitations of the site. By evaluating the existing accessibility and flows of the site an assumption is that some movements appear by simply moving from different facilities. One can assume that the building for waste and restroom arise from the increased need and demand of the restaurant business.

The resulting analysis is to minimize unnecessary movement and exploited land area by combining facilities in one building instead of separate. By reducing buildings and minimizing occupied areas, nature gets an opportunity to re-establish itself. The new building can be optimized to minimize the disturbance of nature and can bring nature views on the inside to separate some audio factors without losing visuality. From an ecocentric perspective, limitations of how large the capacity of the new building can hold should be considered to not increase exploitation and large pressure on the site. From an anthropocentric perspective, these improvements can enable accessibility for a larger span of target groups and increase the utilization of people with functional variations.

Manage the capacity

Different travel methods result in a variation density of flows on the site. A busload brings more visitors for a shorter period of time. Cars bring visitors in portions and hikers arrive at different paces. The number of visitors leaves an imprint on the experience and how extensive the nature experience is.The design can manage the capacity by clearly separating the nature-focused area and the facility-focused area.

To conclude the matter of if it is preferable for nature to receive visitors over time rather than momentarily is hard to decide. Birds and wildlife might prefer momentarily visits since they might stay away from human noise and movement. The vegetation gets destroyed more if a large number of visitors trudge around without it having time to recover. Based on the availability, one solution is to extend the availability and get more visitors over time seasonally. This makes more visitors over a longer period of time. By extending target groups there will be more diverse community groups that meet and experience nature.

Bring back nature

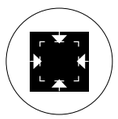
When changing the perspective from exploiting an area and instead giving it back there is an opportunity to bring inspiration and knowledge. The “new and free” space can be customized and restored in a beneficial way in regard to biodiversity. By planting trees optimal for the site and its current shortcomings the new nature can help be a part of compensation for the land visitors do take claim of and utilize. Here is an opportunity to invite the local community and bring in their desires to restore the site.

By evaluating the principles of Conservation and Preservation from regenerative Design. Conservation promotes sustainable ways of using nature and its system. Preservation promotes careful consideration when humans interact with nature. Both principles need to be active on the site. The new design has the ability to direct movements where people should and should not go to preserve what needs to be preserved. Conservation can thereby be considered a more holistic approach and bring opportunities for humans to be involved and make a change. The parts of the site that can manage this pressure can thereby be a part of human care. Where people get the opportunity to learn from nature and give back by e.g. planting trees or setting up bird nests.

Theoretical framework

The parts of the theoretical framework implemented in the development measures for:Balance visitors with capacity

Conservation and preservation



Minimize buildings footprints

Minimize exploited areas

Respect the limitation of the destination

Active protection of nature and cultural heritage

BALANCE VISITORS WITH CAPACITY

DEVELOPMENT 6.

REBUILD BUILDINGS TO REBUILD NATURE

Expectations of the site

The functions accessible at the site today are a restaurant with indoor seating and seating outdoors on a terrace. There are toilets and a waste room in one separate building, a lodge, an information stall, and a craft shop in other separate buildings. They are all situated around a large open gravel and asphalt area. Further away there is a view tower. The expectation of the site is to keep the same facilities as today. It is thereby important to evaluate and argue how this nature area can meet these expectations. As previously stated these development proposals take their base in the vision of scenario 3 which claims that all functions and activities today will stay with alternations that are beneficial for nature and the concept of striving towards nature as the protagonist. The expectation from the municipality is profitable businesses that will support both the local tourism industry and thereby the local economy.

Engage Community

One regenerative design approach focuses on involving all drivers in the process and reevaluating the word stakeholder to anyone that has the ability to shape the site. To make sure all the expectations of the site are met there is a lot to gain by involving various thoughts and ideas from different stakeholders early in the process. For the local community or for people who have a lot of emotions connected to the site it is important for them to have a say. It could happen through surveys and interviews or even physical support in the establishment or maintenance of the new buildings. It is with large consideration the new building need to take shape to change too much of the narrative of the site.

Deficiencies in the existing buildings

The restaurant has gone through additions to the building over the years and has ended up outside the property boundary.

The municipality needs to lease land from the neighboring property. The lodge was built and given to the municipality by the sports association of Stöpafors in exchange for utilization (Living Cities, 2023). The view tower is owned and situated on another property. The water supply from a private well is limited and has high levels of fluoride that make it undrinkable. The kitchen is in substandard condition and the number of buildings on site and their hierarchy amongst each other are confusing.

Facilities

Measures to meet the expectations of facilities exploiting more land area are to find flexible and hybrid solutions. These solutions might even minimize and optimize the utilized areas. It could be floorplans for flexible use, optimizing the footprint by using the roof. Understanding and conceptualizing systems and patterns is important for the upcoming design.

Conserve existing patterns and material

The existing buildings have log construction and pitched roofs with peat or clay tiles. The buildings have either basement or solid foundations while the view tower has an open foundation with a plinth attached to large stones or the bedrock. To ensure that the living environment remains, the development proposal includes taking inspiration from the existing buildings for the new design to maintain and strengthen the existing patterns.

Opportunities

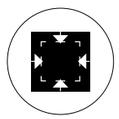
In conclusion, the design needs to examine and respect flows and patterns from the ecocentric perspective. The anthropocentric external and internal flow will then be intertwined in the design to determine the position, orientation, and placement of the new building.

Theoretical framework

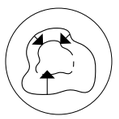
The parts of the theoretical framework implemented in the development measures for: Rebuild buildings to rebuild nature

Include all drivers in the process

Co-evolve and co-exist

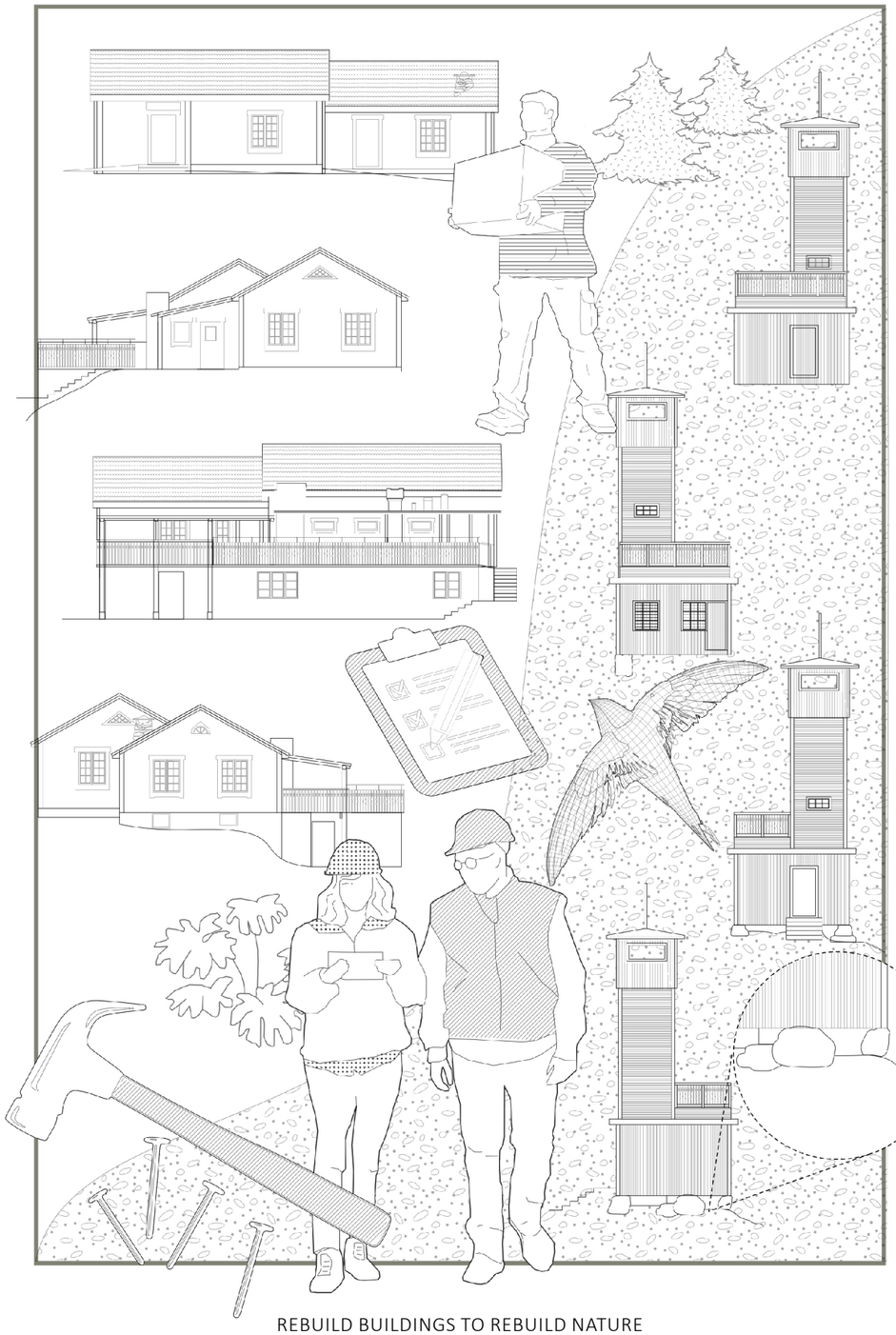


Minimize buildings footprints



Minimize exploited areas

Promote and support the economy of the rural context



REBUILD BUILDINGS TO REBUILD NATURE

DEVELOPMENT 7.

IMPLEMENT REGENERATIVE RESOURCES

These development proposals take focus on understanding and conceptualizing natural and regenerative resources.

Solar panels

The site has a more open area in contrast to the surrounding forest and the ability to generate solar power through solar panels is an option to be more self-sufficient. To not exploit more are and use already utilized footprint the pitched roof is the location for the panels. Sun studies need to be made to find a balance in the orientation of the roofs together with avoiding the shadows from the surrounding trees.

Water harvesting

To strengthen and recharge the private well and to create ponds to support biodiversity the concept of collecting and harvesting rainwater is a suitable addition. The collection can use the built footprint by rooftop harvesting. To slow down the flow measures to slow down the rin's on the roof can be implemented. From there the water can be collected and recharge the aquifer through infiltration ponds. (Datta, 2019) Finding ways to control the water stream can help with erosion and soil loss.

Biological wastewater treatment

Today there are new techniques in wastewater treatment plants for individual drains and these can be implemented to avoid the need for sludge suction and the traffic from the vacuum truck. One alternative is biological wastewater treatment plants for individual drains. This new technique uses plants and microorganisms when purifying the water. (Alnarp Cleanwater Technology AB, 2021)

Wooden slats

Design implementation with multiple functions in movable wooden slats. As previously mentioned the design should accommodate views and transparency. This transparency brings advantages and disadvantages. From an ecocentric perspective, there are two main disadvantages. The first is that birds might fly into transparent glazing and the second is the fact that during nighttime indoor light disrupt the usually dark spaces. By implementing movable wood slats that can cover areas with extensive glazing the problems can be minimized.

Ventilations

The larger kitchen and depending on the capacity of the restaurant the new building needs extensive ventilation. The ventilation systems can be located in the attic to not add to the total footprint of the building. FTX systems can be used to reduce costs and prevent unnecessary heat release from the building.

In conclusion, the location and orientation of the buildings need to be examined and analyzed to accommodate the perfect foundation for the optimal use of these natural resources.

Theoretical framework

The parts of the theoretical framework implemented in the development measures for: Implement Regenerative resources

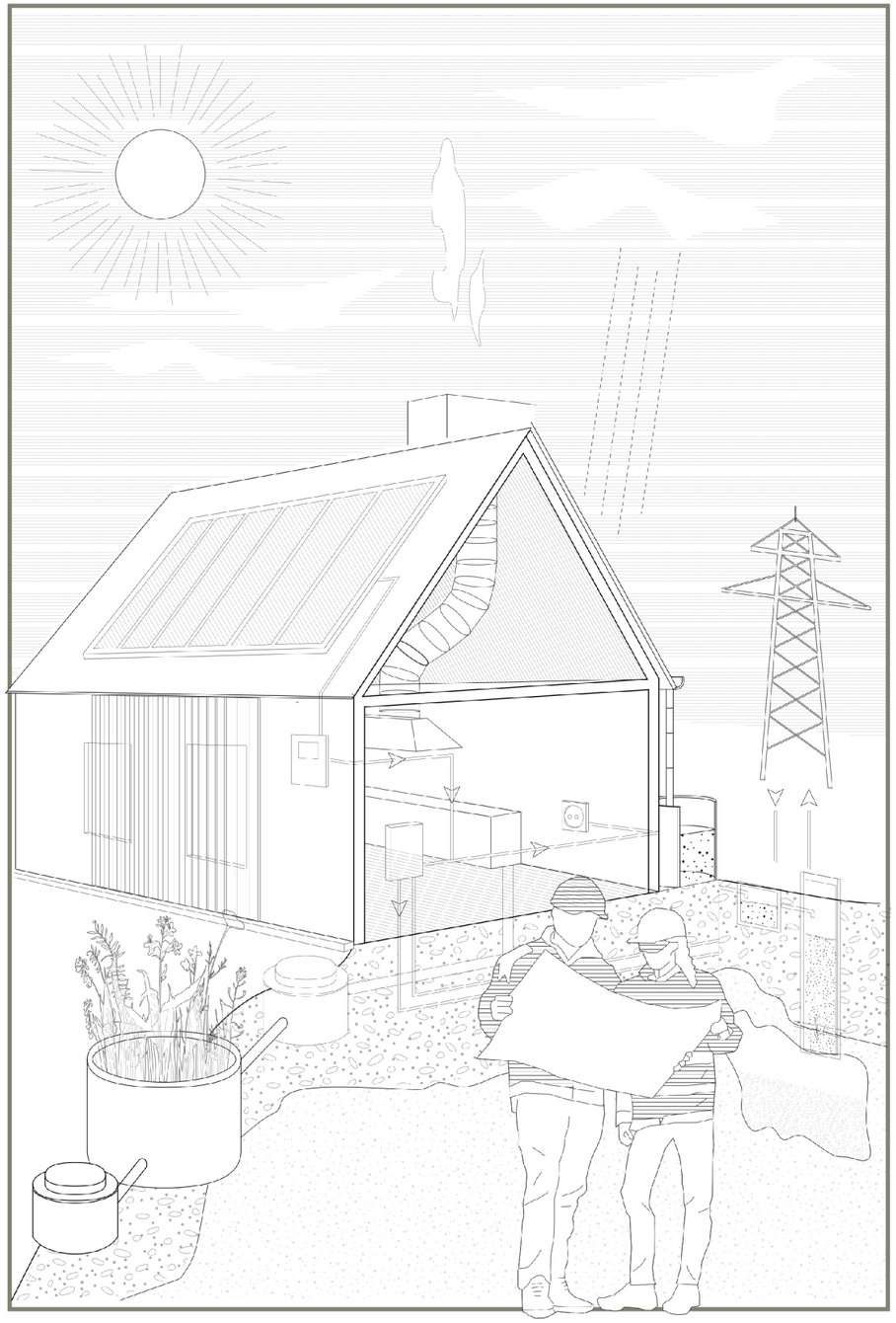
Design in harmony with the place.

Understand and conceptualize

Fair actions and future planning

Environmental adaptations to the entire business

Sustainable development Goal 12.B



IMPLEMENT REGENERATIVE RESOURCES

DEVELOPMENT 8.

USE SITE-SPECIFIC CONSTRUCTION

These development proposals focus on understanding the constraints of the context and how human footprints can be minimized by the built environment. It is about understanding the topography of the site and which functions should be adapted accordingly.

From an Ecocentric perspective boundaries for placement are proposed. The new building must avoid disturbing existing systems. By using the new building and the topography as a physical wall but with visual transparency it directs human movements and protects nature from unnecessary exploitation. The visual transparency and the indoor views help keep human activities partly on the inside to disturb less. The placement should utilize already exploited areas, e.g. the existing buildings, parking area, and hard surfaces. It should minimize these exploited areas and build around existing and healthy trees on the site. The noise from the building needs to be evaluated and the orientation of the new building can help in avoiding disturbance to the protected areas for bird habitats.

Accessibility

In addition, the new building needs to fill criteria from an Anthropocentric perspective. Since the site has natural limitations in accessibility the main building is focused on giving full accessibility for people with disabilities. It needs to be accessible from the parking space to the entrance, the indoor functions, and the terraces connected to the building. The inside is going to accommodate views in multiple directions. The building needs to have clear and accessible connections from the turning points of the vehicles to delivery and waste management.

Roof

By using inspiration from the existing buildings the new roofs will follow the same typology. A proposition is to have a pitched roof with solar panels installed in the southwest, south, or southwest direction. By having peat roofs the building replaces parts of the land area the building has claimed. The peat roof camouflages the building from above and makes the building more intertwined with nature. In addition to the pitched roof, the use of roof terraces is an option to get optimized usage of the building footprint.

Foundations

By using an open plinth foundation the ground and the landscape get less damaged. This foundation protects existing trees and vegetation. The area underneath the building gets less or no light which brings a new living space for species. If the open foundation is partially closed, it can provide nooks and crannies for curious wildlife to hide. Another measure is to use the footprint to the largest extent possible e.g. by double floors or roof terraces.

Flexibility

As earlier stated, one measure to avoid unnecessary movements and land use is to combine functions in the same building. When combining functions whilst minimizing the building footprint some areas and spaces need to be flexible for hybrid use. In a restaurant, the dining area can be hybrid and rented for other occasions. The floorplan needs to be adapted for these occasions with reachable supporting functions a the ability to close off spaces. The floor plan needs multiple entrances and is adapted according to analyzes of flows to achieve this hybridity.

Theoretical framework

The parts of the theoretical framework implemented in the development measures for: Use site-specific construction

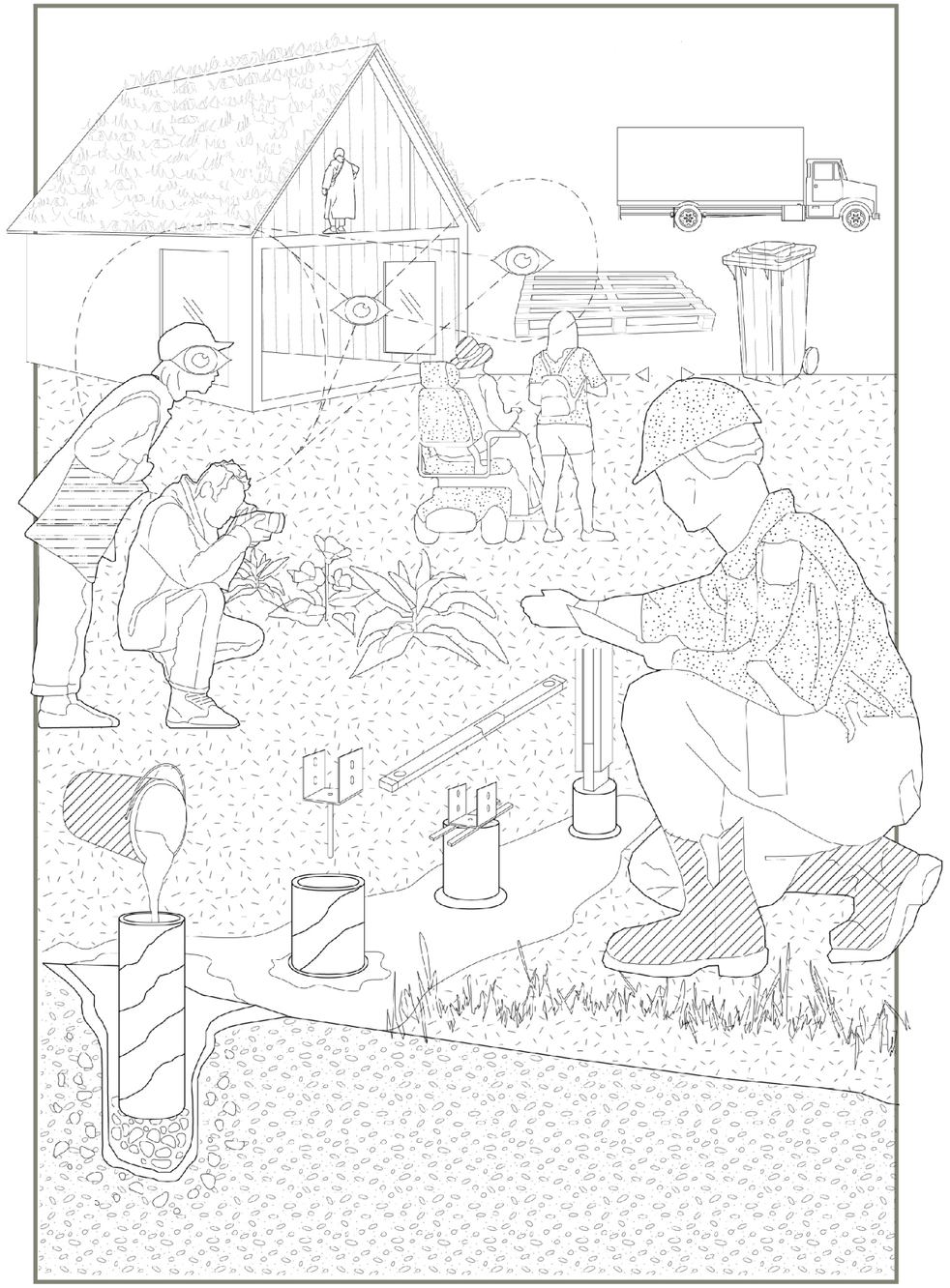
Conservation and preservation

Care for humans

Co-evolve and co-exist

Respect the limitation of the destination

Active protection of nature and cultural heritage

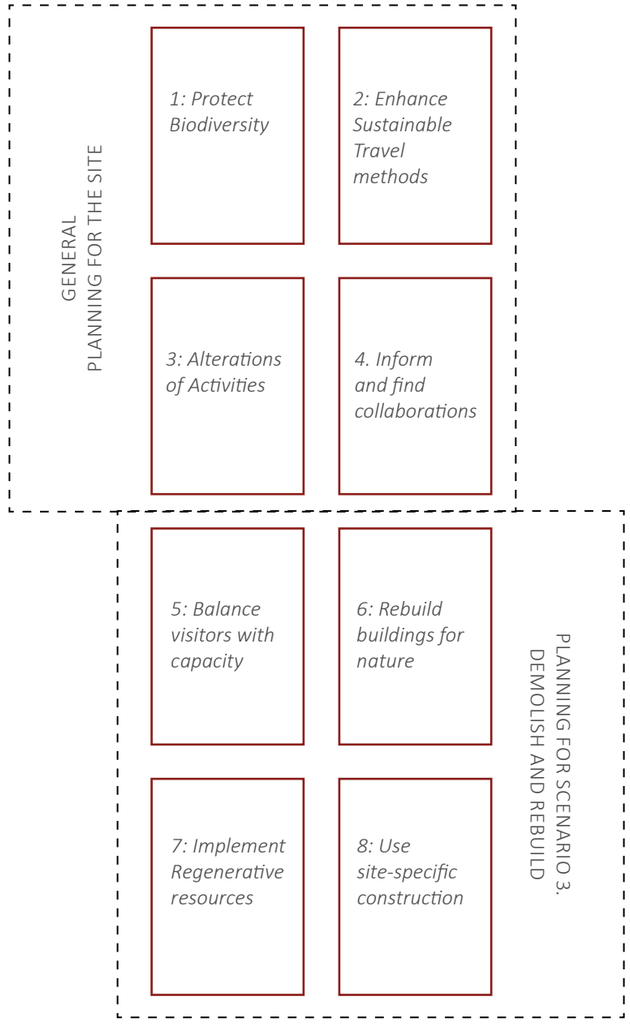


USE SITE-SPECIFIC CONSTRUCTION

A SUMMARY OF DESIGN OUTCOME 1.

A destination development plan according to Scenario 3

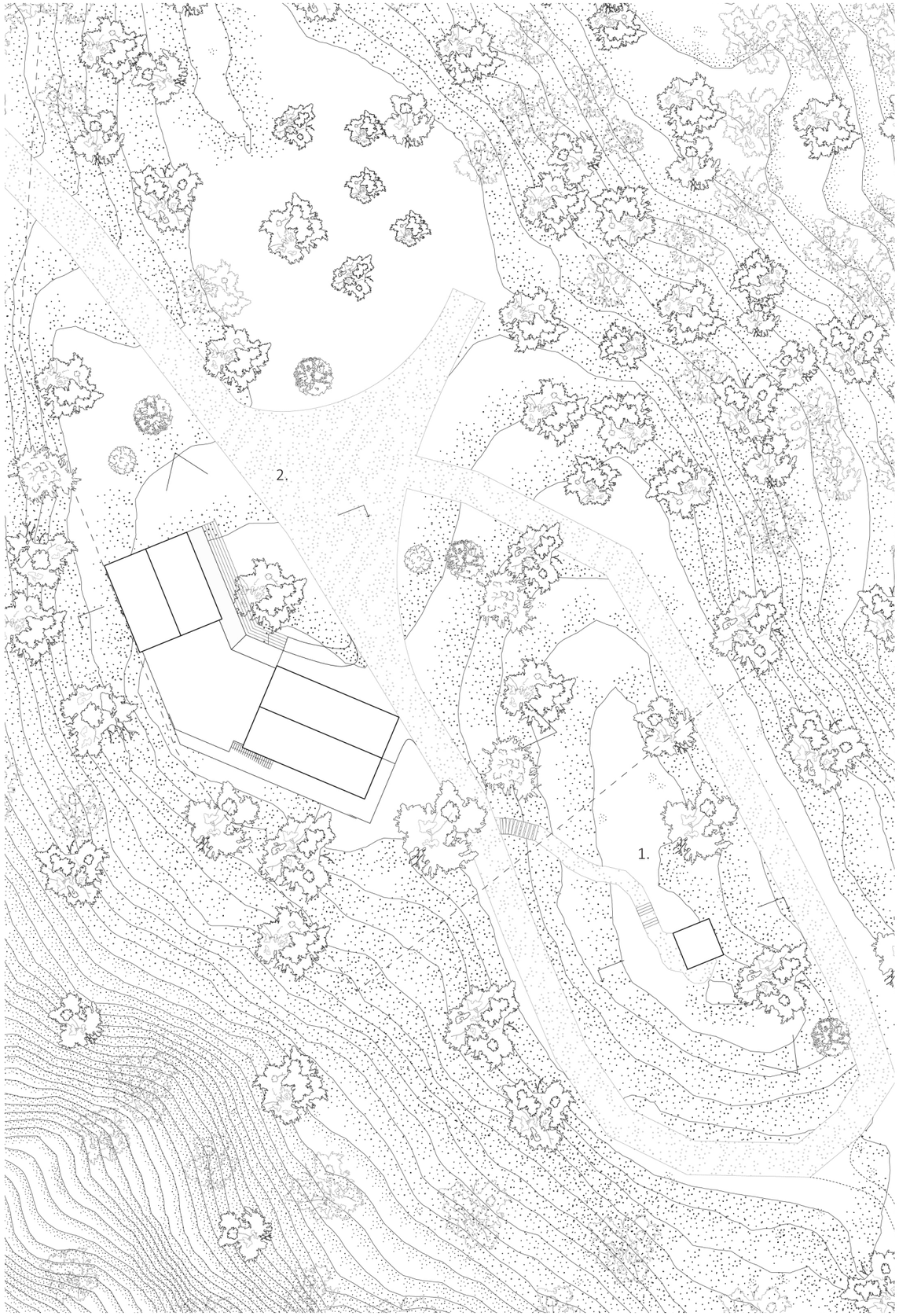
Conclusion: These eight destination development sub-groups are part one of the thesis design outcome. They are based on developing the site with measures that put nature first in decisions making. These measures are visible and implemented in the next chapter. The chapter contains a design proposal for Scenario 3.



CHAPTER 4

Translation of development plan into a design proposal

In Chapter 4, the destination development plan is translated into a design proposal that fulfills the program and the functions of the site. It is presented through various drawings and perspectives and annotated with information on where and how the previous process is shown in the design.



SITE PLAN 1:500

SITE PLAN

The ecocentric entrance

When entering the site from the hiking trail you first meet the main experience, the top and the view of 270 degrees. This area promotes feelings of contemplation, tranquility, and appreciation.

Moving past this area you meet the building for recovery and supporting facilities. The general location of the restaurant building is based on a modest approach. It is located where the topography is lower to emphasize the nature experience above other experiences on site.

The antropocentric entrance.

When entering the site from the road the building is the opening up and welcoming the visitors. Moving past the building you meet the real view and nature is left in its own glory.

The design has a larger priority to emphasize the ecocentric entrance from the trail rather than from the road. The approach is based on Development 2 which promotes hiking above other transportation methods.

Placement and orientation

The approaches used for the placement and orientation of the buildings are a combined result of external and internal flows. It is based on ideas from Development 5 to gather flows to receive less disturbance. The internal flows and the facilities are mainly based on an anthropocentric perspective.

The external flows integrate ecocentric factors. It includes natural areas and the use of already exploited areas. The resulting placement conserves all surrounding trees and surrounding vegetation.

Significant factors in the choice of the orientation of the building were to analyze and emphasize sightlines, the sun's directions, and wind flows.

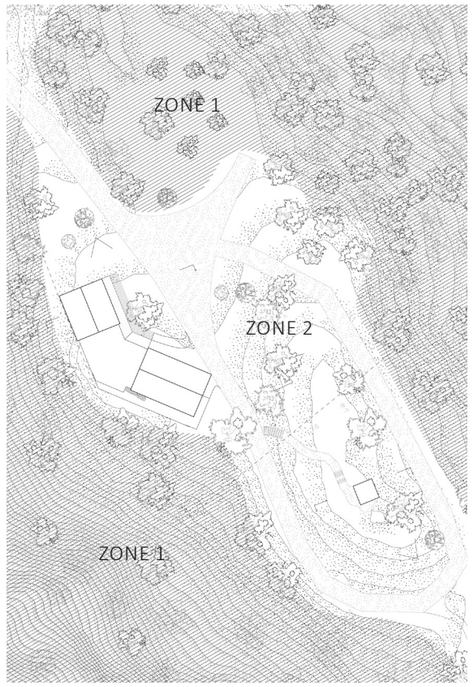
Sightlines and the possibility of transparency have been implemented to avoid letting the building disrupt views according to Development 8. Transparency is integrated into the design through large glazed surfaces with sightlines as well as from the indoor environment.

According to Development 7, regenerative resources such as e.g. solar panels are integrated into the design. To receive optimal output from these solar panels sun studies were made to evaluate the orientation and placement depending on the surrounding pine trees.

Understanding the most current wind flows in the area is an important factor to be able to promote a design that can transform activities according to development 3. The idea is to move the problematic skydive take-off site from the existing position in the protected area for birds. A new take-off zone can be implemented in an already-tested location next to the building. There are even possibilities to make the terrace an alternative take-off zoon.

1. Space for contemplation, tranquility and appreciation

2. Space for recovery and facilities



Zone 1: Where humans preferably should not be
Zone 2: Where humans and nature co-exist

ZONES OF MOVEMENTS

To delimit unnecessary movements in the area the site is divided into zones of reachability to nudge people in the direction of where to be and not to be. Zone 1 is less accessible and should be preserved for wildlife and nature. Zone 2 which also includes the road and the hiking trails is a place for nature to be conserved with the help of human activity. It is a zone where the biotopes mostly consist of bedrock that is more durable for human movements. The placement and shape of the building help to show the direction of these zones. The existing biotopes of the sloping on the sides and the dense forest areas in Zone 1 reinforce this agenda.

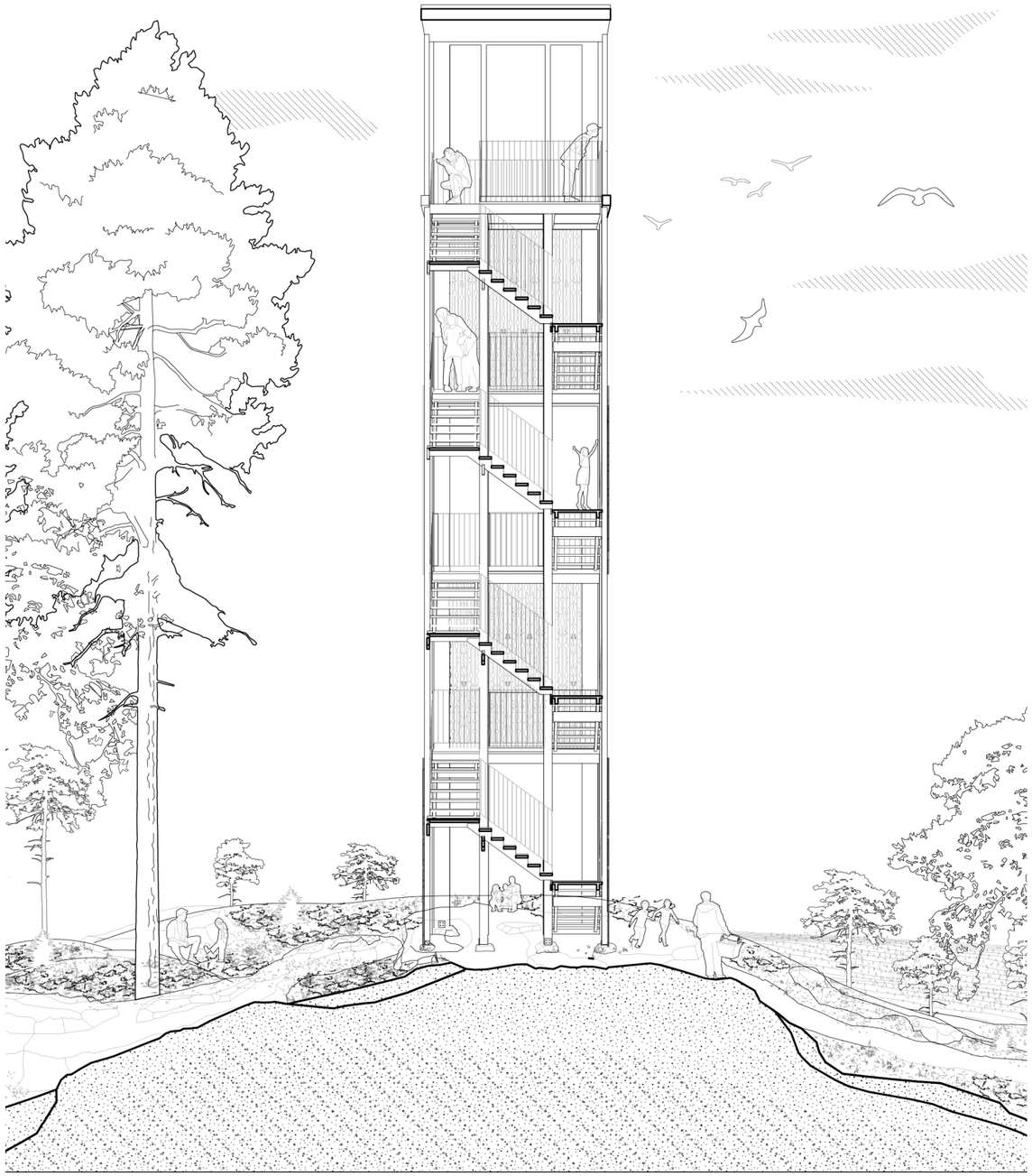
Perspective: the south view of the restaurant building

THE VIEW TOWER

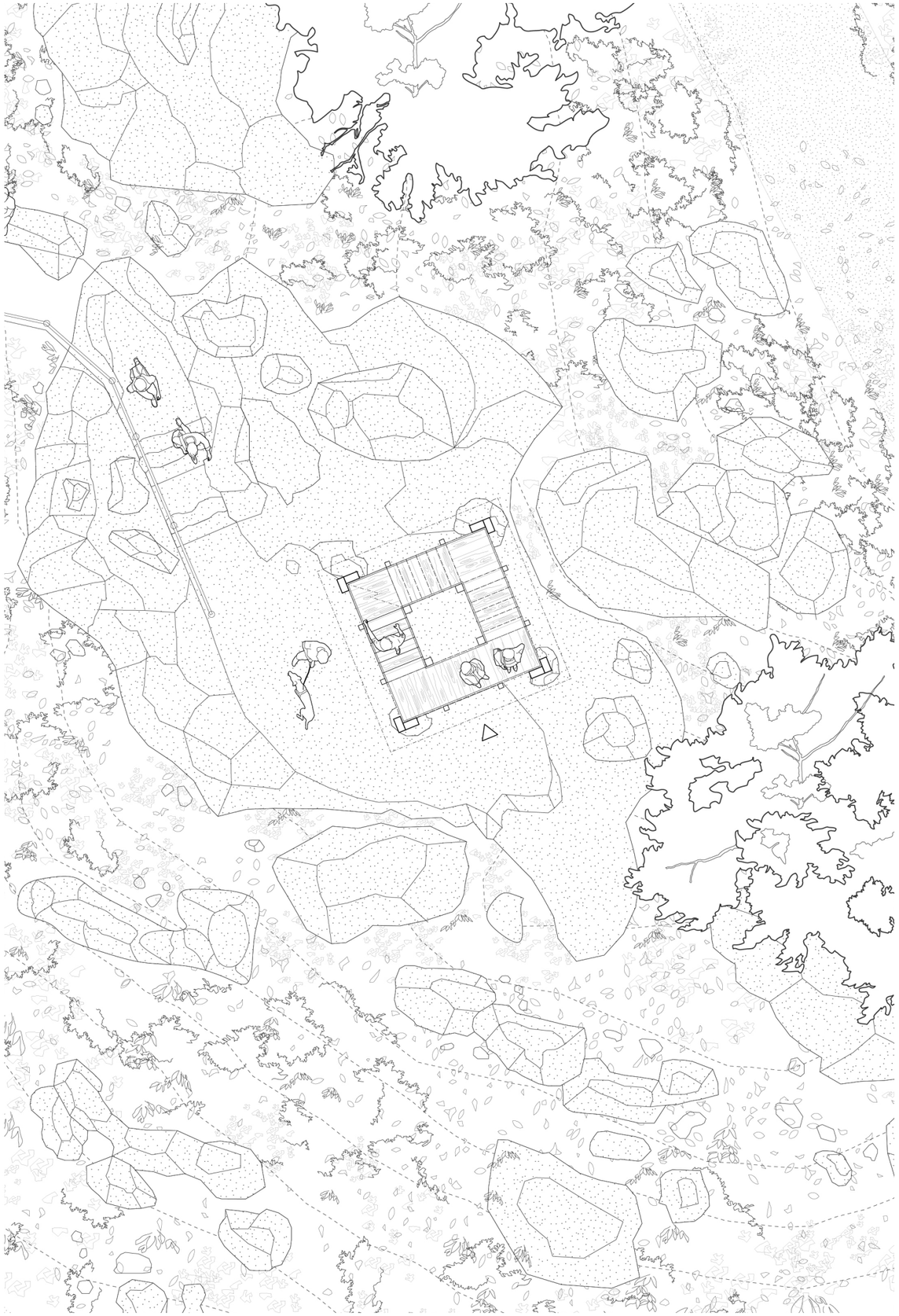
Space for contemplation, tranquility and appreciation

The view tower is 4 stories high with a total height of 16 m. It is located on the highest points of Tossebergsklätten and the tower offers a 360-degree view from an altitude of 354 meters. The construction is wooden pillars that are stabilized against shear using steel wires and bars. The foundation is an open plinth made of large rocks. The whole construction is anchored in the rock bed. The open construction is partly covered in wood slats inspired by the existing railings to give an interesting appearance and shadowplay on the rock foundation.

Perspective: the view tower from south



SECTION VIEWTOWER 1:100



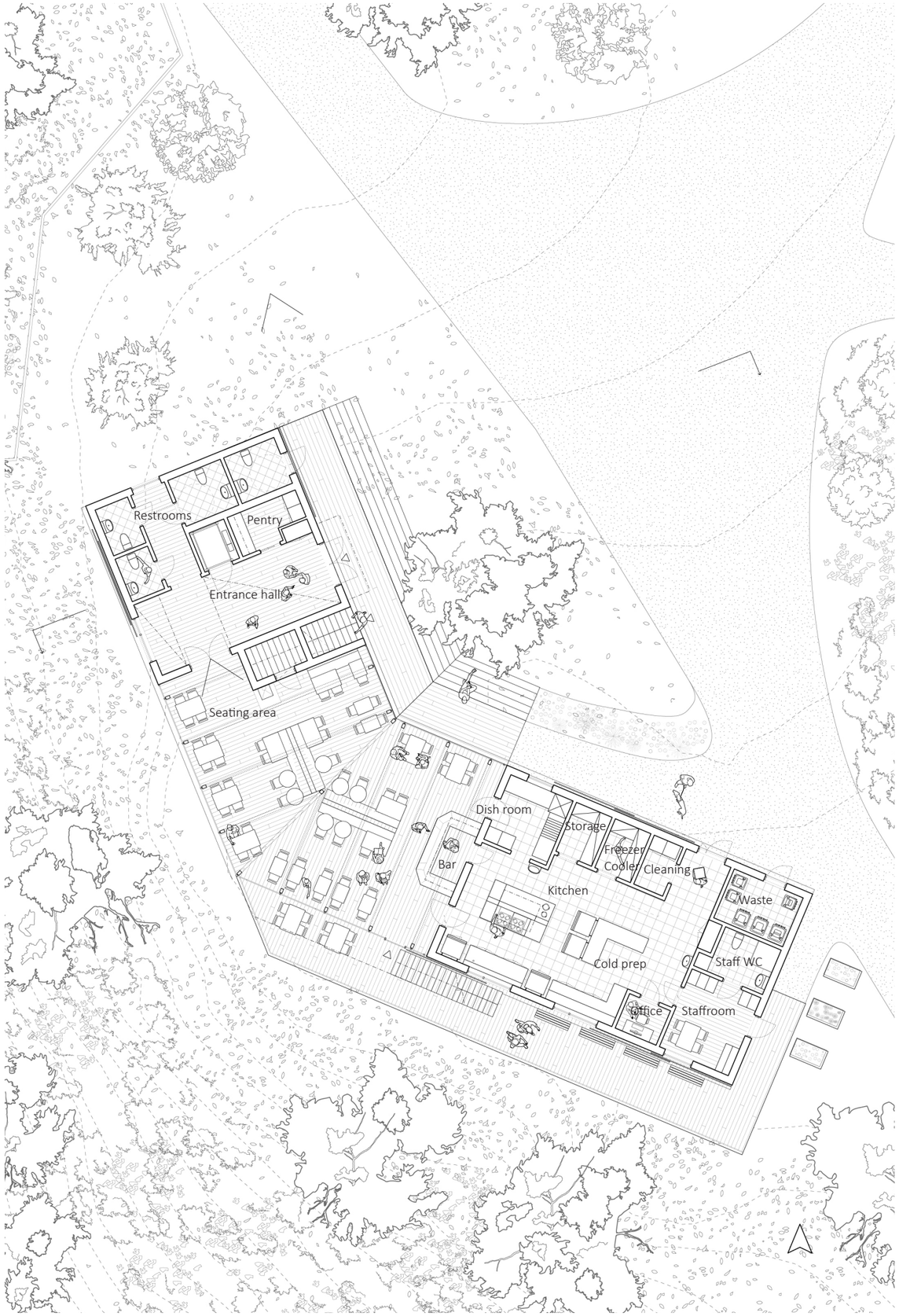
FLOOR PLAN VIEWTOWER 1:100

THE RESTAURANT

Recovery and facilities

The restaurant building is divided into three volumes. One smaller volume in the north and one larger in the south. These two volumes share building typography with log construction and gable roofs. The roof is made of turf and is developed for water harvesting according to development 7. The volume combining these two has a different appearance with a flat roof serving as a terrace and fully glazed and transparent walls. The whole structure has an open plinth construction according to Development 8 to leave as small a physical footprint as possible.

Perspective: the north view of the restaurant building



FLOOR PLAN 1:200

FLOOR PLAN 1

The overall floor plan is based on regenerative design concepts and ideas formed in development 5. To combine functions and erase unnecessary external flows. The division of the first floor includes an entrance volume, a kitchen volume, and a glazed serving space between them.

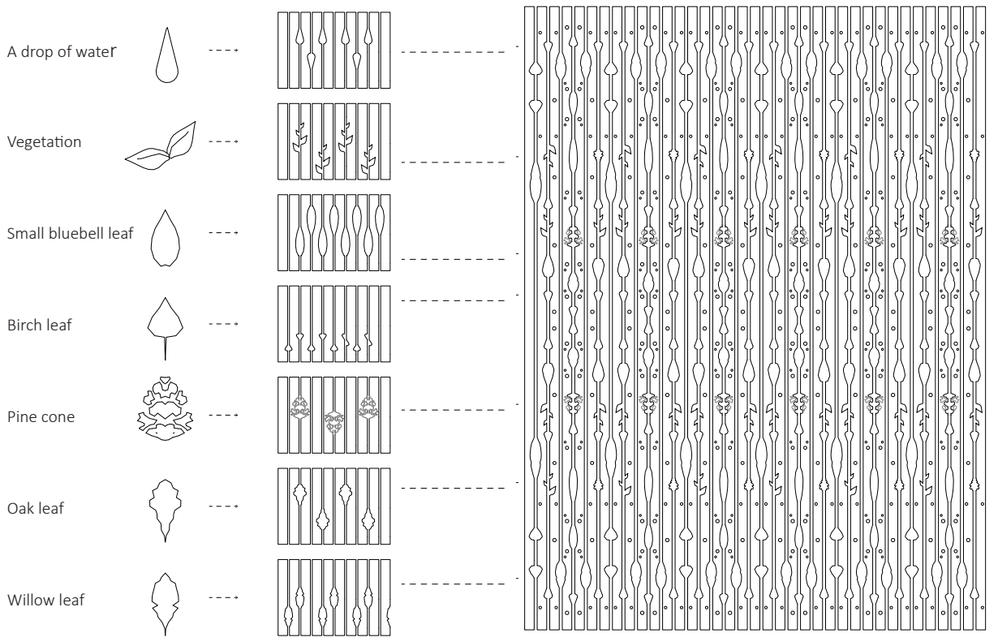
The functions

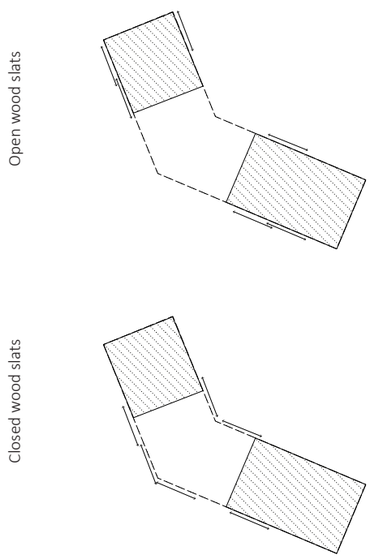
The functions of the entrance building include an entrance room an information wall, exhibition space, restrooms, a platform elevator, and a kitchenette with cleaning facilities.

The functions of the glazed space have flexible use yet the functions are mainly a restaurant serving space, views, and a bar counter. The volume has a staircase reachable from the outside with storage opportunities underneath.

The functions of the kitchen building are a staffroom with lockers, a staff toilet, an office space, a large kitchen area with space for both cold and warm food prep, a freezer/cooler, a storage room, and a cleaning and dish room. Integrated into the volume yet only reachable from the outside there is a waste room next to the delivery entrance. The two doors are in close connection to the road for easy delivery. The staffroom has a separate entrance.

Each of these spaces has at least one entrance to give enough fire exits, flexible movement, and an invitation to enter from different directions.





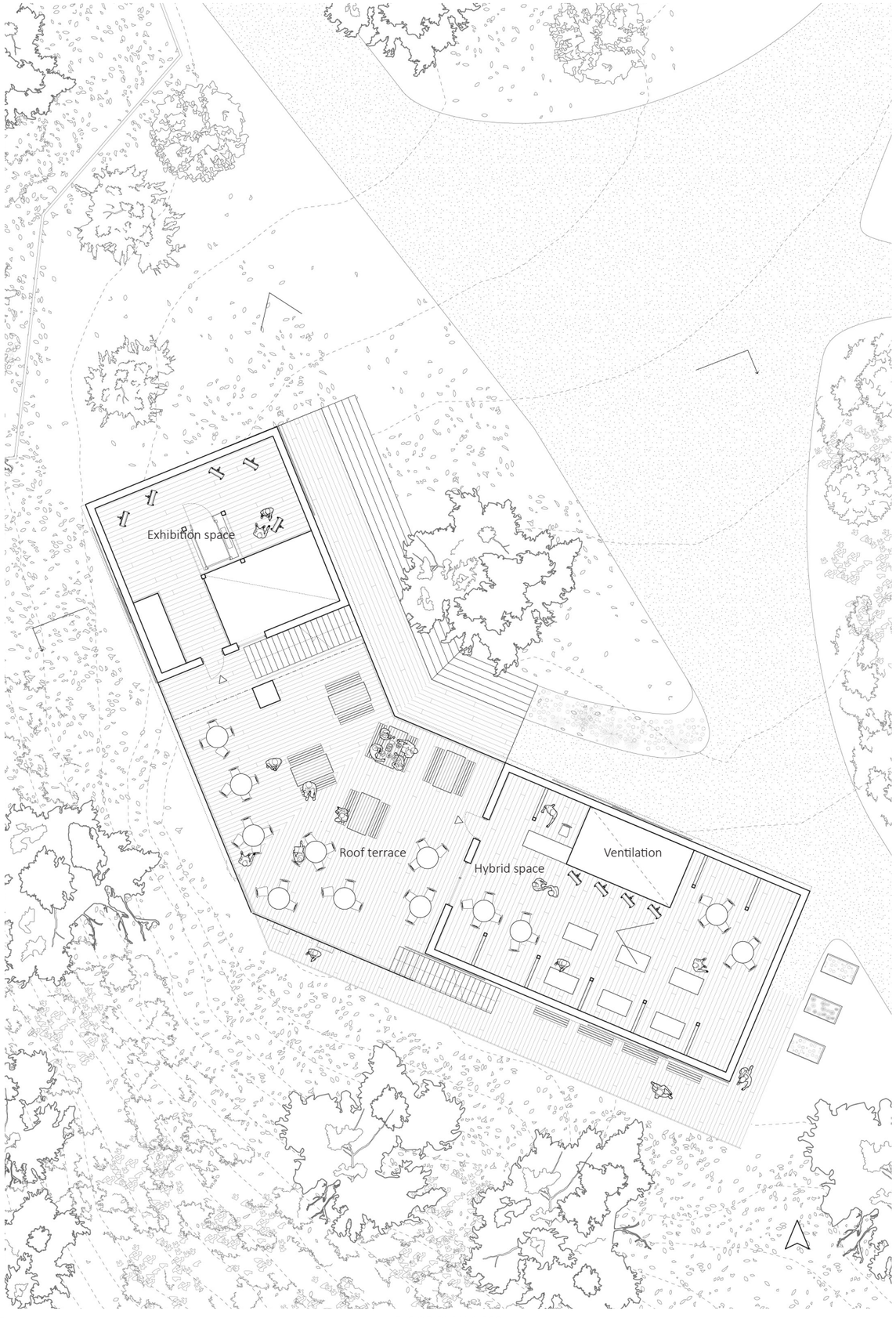
MOVABLE WOODPANELS

Wooden slats are implemented according to Development 7 to protect flying birds and limit light and noise when closed.

The cut-outs in the slats are inspired by natural elements. The ambition with the cut-outs is to create a biomimetic light pattern that resembles shadows from trees. The vertical light pattern resembles the light through tree trunks and the cut-outs resemble the light passing through tree canopies.

The wood slats function not only to cover glazed space. These also have the ability to cover up functions when they are not used, such as delivery, waste, and the toilet reach from the outside. The wood slats are divided into sections and are able to cross one another to allow flexible use and make sure they do not cover the fire exits.

Perspective: entering the restaurant seating area



FLOOR PLAN 1:200

FLOOR PLAN 2

As previously mentioned the regenerative design has a core in the ability to coevolve. The argument for having a second floor is based on the initial idea and development 8, to give maximum use of the footprint on the exploited area. To give maximum use to the attic floor these have been developed as additional spaces. The flexibility of these spaces is optimal for renewal in the future.

The functions

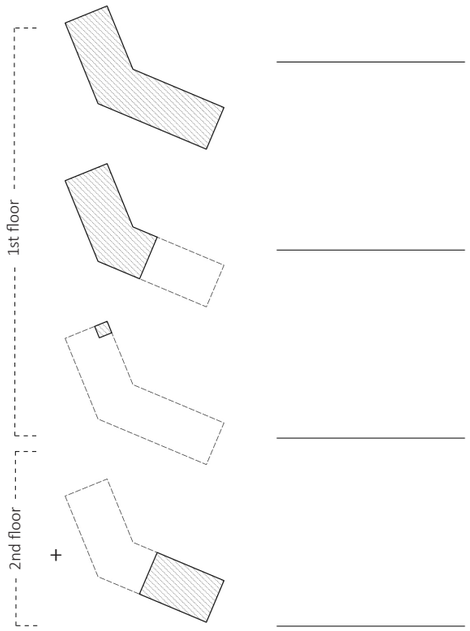
The division of the second floor is the attic space of the entrance building, the outdoor roof terrace, and the attic on top of the kitchen.

The attic above the entrance is connected to the entrance room through the double ceiling heights and a walkway. The space consists of a platform elevator with connecting path to the terrace and a space for exhibitions. The exhibitions are a possibility to inform and find collaborations according to Development 4 as well as conceptualize the narrative of the site. The exhibition function as a way to reconnect to the historical values of the site, the values of nature, and local artists who have been inspired by the site in various ways.

The terraces are angled in two directions to promote views in the west of the agricultural landscape and in the south for glimpses of Lake Fryken and Stöpafors. The reasoning for placing the terrace between the buildings and their roofs is more optimal from an ecocentric perspective. The sound and movements from human activity are more restricted and not too close to the nearby protected area for nesting birds.

The attic above the kitchen is reachable from the outside. The functions of this space include ventilation from the kitchen and open space for various functions. It could extend the exhibition space, extend the terrace space or provide space for the functions of the souvenir or craft shop.

RENTAL OPTIONS



Four levels of availability and rental possibilities

To reach the optimal utility and to relate to Development 8 the proposed floor plan is organized to give different rental options.

The first includes the whole building, with the entrance building, the restaurant, and the kitchen building.
Opening hours: When the leased restaurant space is in full use.

The second includes the entrance building with supporting functions plus the restaurant seating space. The space can be used for leasing for private or association events. The glazed space can be used as a dance hall or conference room when refurnished.
Opening hours: Leased when the restaurant is closed, flexible.

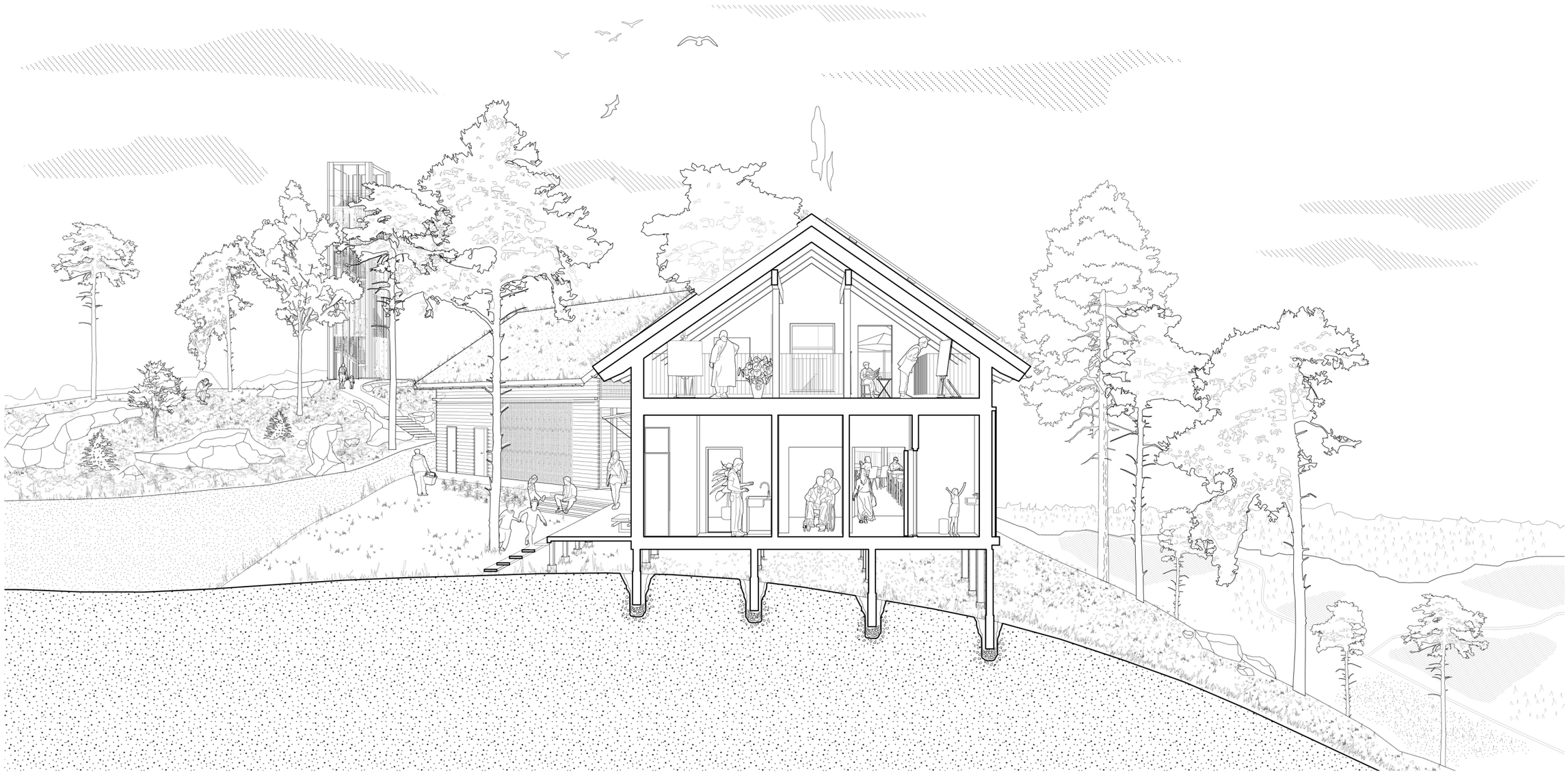
The third level of availability is one of the toilets. The toilet in the northeast is reachable from the outside and can be used independently.
Opening hours: When the other toilets are out of reach, for events, or when the building is closed.

The attic above the kitchen is reachable from the outside and has the ability to be completely disconnected from the other functions. This attic space creates a fourth and additional ability for leasing.
Opening hours: Leased when the restaurant is closed, flexible.

The third option opens the area for public use for a larger extent of time. It promotes hikers, view seekers, and people enjoying recreational facilities on the site.

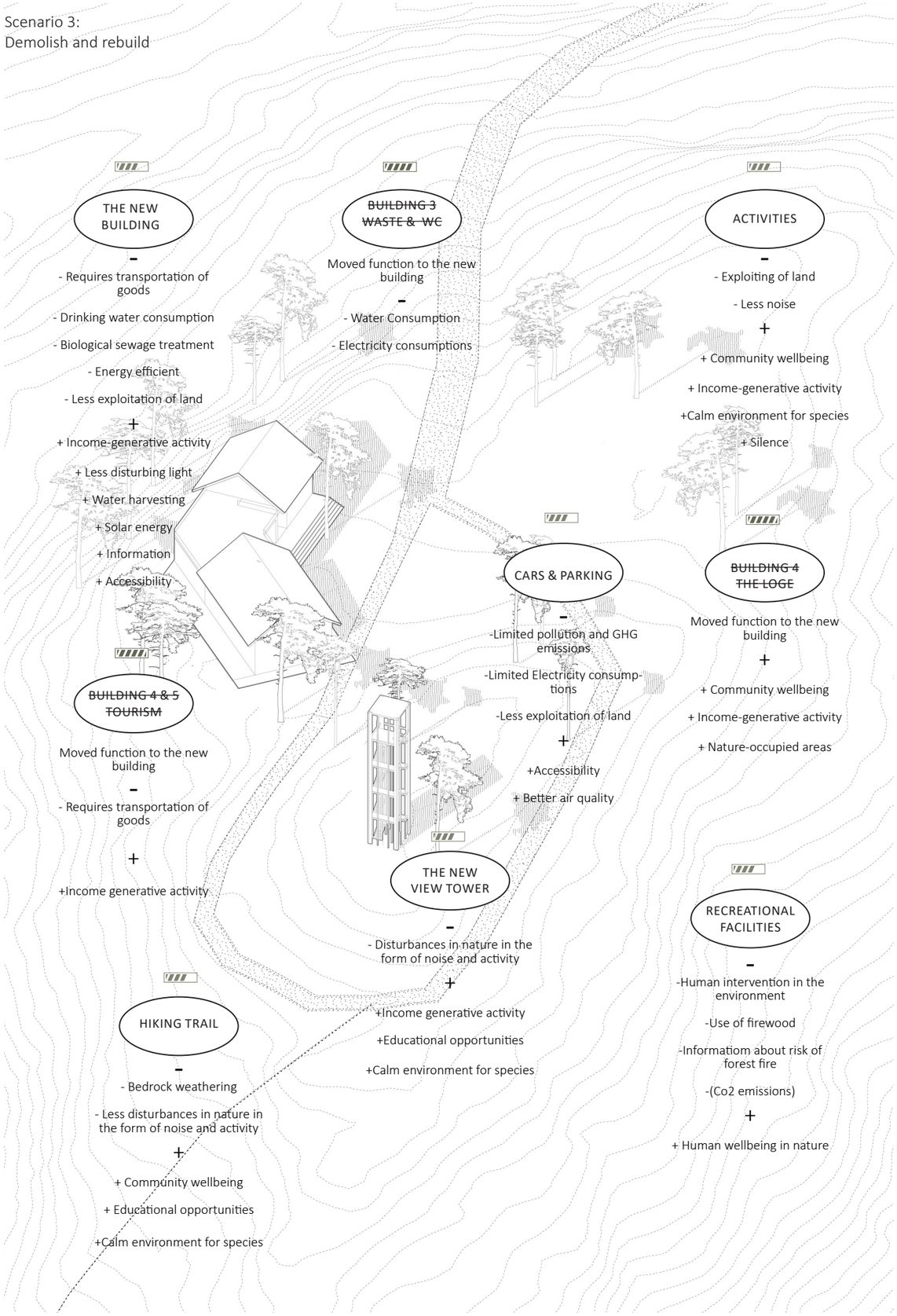
Perspective: the hybrid attic space above the kitchen

The construction of the roof varies between the building volumes. The north building has partly double ceiling heights and has a roof ridge construction with a central rafter and pillars. In the south buildings, using a wooden framework truss to give an open floor plan for the kitchen without supporting pillars is more suitable.



SECTION 1:100

Scenario 3:
Demolish and rebuild



Evaluation

SCENARIO 3

Scenario 3 manages to be a scenario in between ”no actions” and ”bringing back nature”. The new proposal has still some of the negative impacts that humans cause in nature. Although all these impacts have been modified to reach a better result. These modifications are e.g. a more self-sufficient building that uses solar energy and harvest water back to nature ponds and to refill the aquifer. The proposal minimizes exploited areas by promoting other transportation methods and combining the functions of the site into one building. The intended construction causes low harm to the environment with less land occupation from the plinth foundation.

Since many of the negative impacts remain the bigger importance has been to value and compensate for the positive impacts from scenario 2. Implemented designs to compensate for the impact are eg. protective wood slats that result in less light and noise caused by humans as well as extra protection for flying birds. There is integrated information on site and initiatives that support biodiversity in various ways.

DISCUSSION

Arguing and achieving the objective of the thesis has at times been challenging. The aim to find a balance in nature experiences for humans without disrupting nature is contradicting since it initially requires exploitation. To argue that the exploitation of land areas is good for nature will never be true. The hardest challenge has been balancing where and how “nature as the protagonist” can be successfully implemented. During the process, I decided to make part of the design with a focus solely on human utility. I based the decision on the fact that e.i. making indoor space in the preferences of nature fills no purpose. It was an important establishment for my continuous process to evaluate where the changes most successfully would be implemented for the concept to still succeed.

The choice

The choice of Tossebergsklätten and the choice to develop a destination with a focus on tourism felt natural as it relates to the experience of nature and natural environments. It is a public environment where many desires and ways of thinking will be represented. It is both a difficult place to manage and a place to have a great influence on. It is a place where design can shape behavior patterns and inspire new ways of thinking.

It was important to use an already exploited site. Conserving and transforming something that already exists, with its history, narrative, and the human emotions connected to it felt valuable. For the sake of the concept, it was also important to use an already exploited area and make it something else. It is important to state that the answer to our overexploitation, is not by exploiting more. We need to change what we already have claimed and make it better. That is where tomorrow is, not in our thriving nature.

The site

The site came with its own difficulties and the human existence and the rules and conditions we require after urbanization contributes to demands and expectations on established places. These expectations have been challenging to meet alongside the initial agenda. However, the demands have established boundaries and the base to find and investigate inventive solutions and explorative design.

To evaluate the proposed design, both parts manage to include the concept in various ways. The regenerative framework to design from and in harmony with the place has been a natural achievement due to the concept. Evaluation of the natural area in species of both flora and fauna has been integrated into the design.

When evaluating the used approaches one of the approaches from regenerative design the “Include all drivers in the process” could have been more successfully implemented in the process.

Interviews and dialogues were held with the municipality yet additional dialogues with visitors, leaseholders, and the local community would have increased the quality. It could have helped to see all of the opportunities the site has. Using an ecologist would have been a great input in the research and when analyzing the inventory.

The municipality

During the process of this thesis, the municipality of Sunne received a destination development plan from Living Cities. Their report focuses more on the short-term development of the site and thereby differs somewhat from this work. It is, therefore, a question of whether the municipality is prepared to make a large financial investment in the site or not. Based on how the experience of the site is today and the great potential that exists there, I hope the municipality with or without external investors finalizes its visions for Tossebergklätten and its future.

Without Nature as the protagonist

After evaluating the project outcome and how it succeeded in terms of “nature as the protagonist” it is interesting to establish what would have been different and similar if the same project was executed without the concept.

Similarities would probably be found in the floorplans since the inside of the buildings is focused on the users and thereby from an anthropocentric perspective. Evaluation of the flows that resulted in a proposal that to combine functions is beneficial from both the anthropocentric and ecocentric perspectives and it is therefore likely the result would have been similar.

The exterior, from construction methods to the general appearance, would have resulted in a different design for economical and convenient reasons. In that design process, other priorities would have been made and some parts such as the bird’s nest on the facade would have been retrofitted and not be a part of the initial design.

The placement of the buildings would probably be different if the focus were solely from an anthropocentric perspective. The view of Fryken is stunning on the east side and is now only experienced from Zone 1. In zone 2 where the restaurant is located a number of trees cover this view. To change the placement and gain a more extended view of Fryken multiple trees need to be cut down. Cutting down healthy trees for an anthropocentric purpose goes against the strive towards nature as the protagonist and was not an option in this project.

To conclude the decisions made from anthropocentric perspectives would have been similar and the ones with strong roots from the ecocentric perspective would have been different.

END NOTES

To answer the sub-research question and if these and how these local destination strategies can be implemented nationally I see no limits. These development measures are made site-specific but the framework and the guidelines can be implemented on other projects with similar objectives.

In the long run, engagement, investments, and support of less utilized tourist attractions might lead to the aim to relieve overutilized and exploited nature tourism areas. It also means that people may travel shorter distances for nature experiences, which reduces emissions and wear and tear on infrastructure and can strengthen the local economy of rural areas.

ACKNOWLEDGMENTS

Thanks for all your commitment and support,

Maria Nordmark and Sunne Kommun

Ida Röstlund

Marco Adelfio

Jonas Högberg

Friends and family

LITERATURE REFERENCES

Alnarp Cleanwater Technology AB. (2021). ACT – natural onsite wastewater treatment.alnarpcleanwater.se. https://alnarpcleanwater.se/en/

Datta, P.S. (2019). Water Harvesting for Groundwater Management : Issues, Perspectives, Scope, and Challenges.John Wiley & Sons, Incorporated. https://ebookcentral.proquest.com/lib/chalmers/detail.action?docID=5612909

Epuran, G., Tescasiu, B., Tecău, A-S,. Ivasciuc, I-S., Candrea, A-N., (2020). Permaculture and Downshifting-Sources of Sustainable Tourism Development in Rural Areas. Sustainability 2021, 13, 230. https://doi.org/10.3390/su13010230

Friluftsfrämjandet. (n.d). Vår historia. https://www.friluftsframjandet.se/om-oss/organisation/historia/

Herbrechter, S. Callus, I, Rossini, M. (2016). European Posthumanism. Routledge. https://doi.org/10.4324/9781315560441

Ives, C.D., Abson, D.J., von Wehrden, H., Dorninger, C., Klaniecki, K,. Fischer, J,.(2018). Reconnecting with nature for sustainability. Springer Science. https://doi.org/10.1007/s11625-018-0542-9

Living Cities. (2023). Platsutveckling Tossebergsklätten- rapport framtagen av Living Cities & Communities, på uppdrag av Sunne kommun. Received from the municipality of Sunne 2023-04-12.

Länsstyrelsen Geoportal. (received 2023). ext-geoportal.lansstyrelsen.se. Informationskartan Västra Götaland (lansstyrelsen.se)

Mang, P. Reed, B. (2012) Designing from place: a regenerative framework and methodology, Routledge, https://doi.org/10.1080/09613218.2012.621341

National Geographic. (n.d.). Conservation. nationalgeographic.org. Conservation (nationalgeographic.org)

National Geographic. (n.d.). Ecosystem. nationalgeographic.org. Ecosystem (nationalgeographic.org)

Naturturismforetagen, (n.d). Nature's Best® – 6 Grundprinciper. naturturismforetagen.se . https://naturturismforetagen.se/natures-best-6-grundprinciper/.

Naturvårdsverket.(2018-05-14). Allemansrätten – en vägledning. file:///C:/Users/Anv%C3%A4ndare1/Downloads/978-91-620-1304-2.pdf

Naturvårdverket. (2014). skyddadnatur.naturvardsverket.se

Research one. (2022). Besöksundersökning i Sunne 2022. www.researchone.se. Received from the municipality of Sunne 2023-01-09.

Sagolika Sunne. (recived 2023-04-27) Tosseberg-klätten. Sagolikasunne.se. https://sagolikasunne.se/gora/natur-aventyr/utflyktsmal-i-naturen/tossebergsklatten/

Sandell, K. (2008). Friluftshistoria : från ”härdande friluftslif” till ekoturism och miljöpedagogik: teman i det svenska friluftslivets historia. Carlsson

Seppelt, R. Cumming, G.S. (2016). Humanity's distance to nature: time for environmental austerity?. Landscape Ecol (2016) 31:1645–1651. https://doi.org/10.1007/s10980-016-0423-5

Soga, M., & Gaston, K. J. (2016). Extinction of experience: The loss of human-nature interactions. Frontiers in Ecology and Environment, 14, 57– 112. https://doi.org/10.1002/fee.1225

SLU Artdatabanken. (Received 2023-03-01). Artportalen. www.artportalen.se. https://www.artportalen.se/ViewSighting/SearchSighting

SLU Artdatabanken. (n.d.). Storspov/Tornseglare/Gråtrut/Stare/Tallbit. Artfakta.se. Storspov- Naturvård från SLU Artdatabanken (artfakta.se). Tornseglare- Artbestämning från SLU Artdatabanken (artfakta.se). Gråtrut- Naturvård från SLU Artdatabanken (artfakta.se).
Stare- Naturvård från SLU Artdatabanken (artfakta.se). Tallbit- Artbestämning från SLU Artdatabanken (artfakta.se)

Statistikmyndigheten. (Updated 2022-04-08). Befolkningstäthet i Sverige. www.scb.se. https://www.scb.se/hitta-statistik/sverige-i-siffror/manniskorna-i-sverige/befolkningstathet-i-sverige/

Tillväxtverket. (January 2017). Hur utvecklar vi hållbara turist- destinationer?
Erfarenheter och slutsatser från regeringsuppdraget Hållbar destinationsutveckling 2012–2015. Gullers Grupp. https://tillvaxtverket.se/download/18.f607e5d15aeacd3b3d4a69/1490025413895/Hur%20utvecklar%20vi%20h%C3%A5llbara%20turistdestinationer%3F.PDF

The international ecotourism society, TIES. (n.d). Our Story. ecotourism.org. https://ecotourism.org/our-story/

The United Nations Development Programme (UNDP). (n.d.) Goal 12 Responsible consumption and production. www.undp.org/. Goal 12: Responsible consumption and production | Sustainable Development Goals | United Nations Development Programme (undp.org)

Tyréns. (2016) Framtidens besöksnäring- Strategi för Sunne kommun. Tyréns. Received from the municipality of Sunne 2023-01-09.

VisitSweden. (2016). Hållbar naturturism och ekoturism på landsbygden. https://visitsweden.com/. https://s3-eu-west-1.amazonaws.com/images.corporate.visitsweden.com/documents/Foerstudie-Naturturismprogrammet_Pog6zlN.pdf

Visit Värmland. (n.d) Stöpafors Kvarn. Visitvarmland.com. https://visitvarmland.com/sunne/mat-dryck/gardsbutiker/stopafors-kvarn

Westerberg, M. Söderqvist, J. (2023). Vildhjärtas skog. vildhjarta.net. https://vildhjarta.net/miljon

DIAGRAM REFERENCES

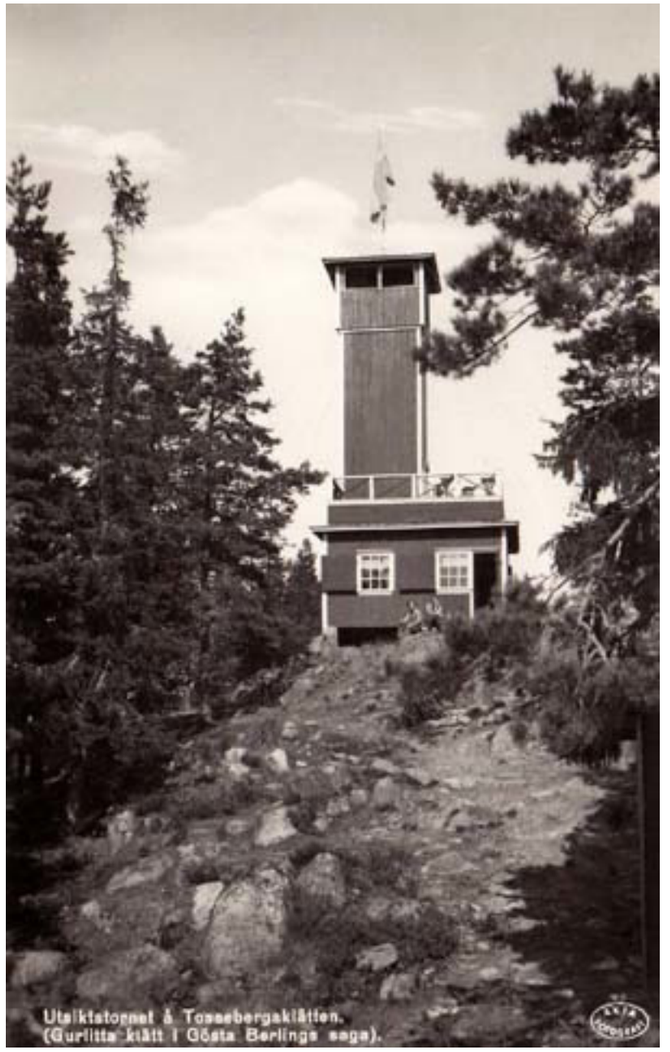
Regeringen.se (n.d). Agenda 2030 | Mål 8/12/17. https://www.regeringen.se/regeringens-politik/globala-malen-och-agenda-2030/agenda-2030-mal-8-anstandiga-arbetsvillkor-och-ekonomisk-tillvaxt/

Studio Alternativi. https://studioalternativi.com/

PHOTOGRAPHS REFERENCES

Sunne hembygdsförening. (2013). 17163 D04120- Grupporträtt. vlh.kulturhotell.se. https://vlh.kulturhotell.se/search?query=gurlita&submit_search=S%C3%B6k&query_type=exact_match&record_types%5B%5D=Item&record_types%5B%5D=Individual

(Wermland). Utsiktstornet å Tossebergs klätten.
Axel Aurelius Vykortsförlag, Sunne. (Kopiering förbjudes).


Utsiktstornet å Tossebergsklätten.
(Gurlitta klätt i Gösta Berlings saga).

LIST OF DETECTED SPECIES

VASCULAR PLANT

Name of species	Scientific name	Red List category
Sälg	*Salix caprea*	LC
Sandtrav	*Arabidopsis arenosa*	LC
Bergglim	*Atocion rupestre*	LC
Liten blåklocka	*Campanula rotundifolia*	LC
Blåmunkar	*Jasione montana*	LC
Bockrot	*Pimpinella saxifraga*	LC

INVERTEBRATE ANIMALS

Name of species	Scientific name	Red List category
Fläckhornad blombock	*Stictoleptura maculicornis*	LC
Bronsvidebagge	*Phratora vitellinae*	LC
Blå videbagge	*Phratora vulgatissima*	LC
Bred videbagge	*Plagiodera versicolora*	LC
Sälglövbagge	*Lochmaea caprea*	LC
Björktassvivel	*Anoplus plantaris*	LC
Buskögonvivel	*Strophosoma capitatum*	LC
Svart rullvivel	*Deporaus betulae*	LC
Småkäkvivel	*Temnocerus nanus*	LC
Bandad humlebagge	*Trichius fasciatus*	LC
Pantermätare	*Pseudopanthera macularia*	LC
Ekspinnare	*Lasiocampa quercus*	LC
Smultronvisslare	*Pyrgus malvae*	LC
Hedblåvinge	*Plebejus idas*	LC
Silverstreckad pärlemorfjäril	*Argynnis paphia*	LC
Skogsnätfjäril	*Melitaea athalia*	LC
Tistelfjäril	*Vanessa cardui*	NA
Makaonfjäril	*Papilio machaon*	LC

BIRDS

Name of species	Scientific name	Red List category
Kanadagås	*Branta canadensis*	NA
Vitkindad gås	*Branta leucopsis*	LC
Grågås	*Anser anser*	LC
Järpe	***Tetrastes bonasia***	**NT**
Tjäder	*Tetrao urogallus*	LC
Orre	*Lyrurus tetrix*	LC
Tornseglare	***Apus apus***	**EN**
Ringduva	*Columba palumbus*	LC
Trana	*Grus grus*	LC
Storspov	***Numenius arquata***	**EN**
Morkulla	*Scolopax rusticola*	LC
Skrattmås	***Chroicocephalus ridibundus***	**NT**
Fiskmås	***Larus canus***	**NT**
Gråtrut	***Larus argentatus***	**VU**
Fiskgjuse	*Pandion haliaetus*	LC
Bivråk	*Pernis apivorus*	LC
Kungsörn	***Aquila chrysaetos***	**NT**
Sparvhök	*Accipiter nisus*	LC
Havsörn	***Haliaeetus albicilla***	**NT**
Ormvråk	*Buteo buteo*	LC
Pärluggla	*Aegolius funereus*	LC
Hökuggla	*Surnia ulula*	LC
Sparvuggla	*Glaucidium passerinum*	LC
Hornuggla	***Asio otus***	**NT**
Kattuggla	*Strix aluco*	LC
Spillkråka	***Dryocopus martius***	**NT**
Gråspett	*Picus canus*	LC
Pilgrimsfalk	***Falco peregrinus***	**NT**
Tornfalk	*Falco tinnunculus*	LC
Törnskata	*Lanius collurio*	LC
Varfågel	*Lanius excubitor*	LC
Nötkråka	*Nucifraga caryocatactes*	NE
Kaja	*Corvus monedula*	LC
Kråka	***Corvus corone***	**NT**
Gråkråka	*Corvus corone cornix*	NE
Svartmes	*Periparus ater*	LC
Tofsmes	*Lophophanes cristatus*	LC
Entita	***Poecile palustris***	**NT**
Talltita	***Poecile montanus***	**NT**
Talgoxe	*Parus major*	LC
Ladusvala	*Hirundo rustica*	LC
Stjärtmes	*Aegithalos caudatus*	LC
Lövsångare	*Phylloscopus trochilus*	LC
Gransångare	*Phylloscopus collybita*	LC
Trädgårdssångare	*Sylvia borin*	LC
Ärtsångare	***Curruca curruca***	**NT**
Kungsfågel	*Regulus regulus*	LC
Gärdsmyg	*Troglodytes troglodytes*	LC
Nötväcka	*Sitta europaea*	LC
Trädkrypare	*Certhia familiaris*	LC
Stare	***Sturnus vulgaris***	**VU**
Dubbeltrast	*Turdus viscivorus*	LC
Rödvingetrast	***Turdus iliacus***	**NT**
Björktrast	***Turdus pilaris***	**NT**
Grå flugsnappare	*Muscicapa striata*	LC
Rödhake	*Erithacus rubecula*	LC
Svartvit flugsnappare	***Ficedula hypoleuca***	**NT**
Rödstjärt	*Phoenicurus phoenicurus*	LC
Sädesärla	*Motacilla alba*	LC
Trädpiplärka	*Anthus trivialis*	LC
Bofink	*Fringilla coelebs*	LC
Tallbit	***Pinicola enucleator***	**VU**
Domherre	*Pyrrhula pyrrhula*	LC
Gråsiska	*Acanthis flammea*	LC
Större korsnäbb	*Loxia pytyopsittacus*	LC
Mindre korsnäbb	*Loxia curvirostra*	LC
Grönsiska	*Spinus spinus*	LC
Gulsparv	***Emberiza citrinella***	**NT**

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