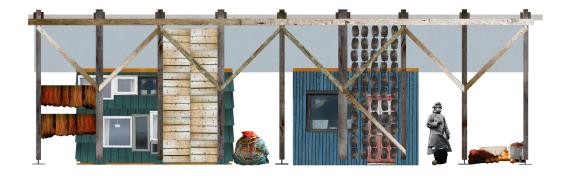
EGNEBU IN VARDØ

with Sámi values as guidlelines



BINDER 2

DIPLOMA - AHO - SPRING 2022

Candidat: Helle Brænd Rabbås

> Supervisor: Tine Hegli

CONTENT



01	Abstract (included in binder 1)						
	Thesis Method Case Project						
	Summary						
02	Values						
	Organic Landscape Reuse Improvisation						
03	Vardø						
	General info Historical pictures Field trip to Vardø						
04	Egnebu						
	Research Interviews + observations Diploma program						
05	Site						
	Historical Pictures Existing situation Further registrations						
06	Process						
	Program Placement Structure + Materials						
07	Project (partly included in binder 1)						
	Drawings Strategy Illustrations Details Model photos						
Further registrations 06 Process Program Placement Structure + Materials 07 Project (partly included in binder 1) Drawings Strategy Illustrations Details							
08	Prediploma						
	Sámi Architecture						

Photo: Kåre Kirijärvi

THEISIS

The diploma investigates the relevance indigenous cultures have for sustainable design today, selecting the Sámi as it is an indigenous people in Norway. Choosing three values from my study of Sámi architecture, I developed a method of using these as guidelines for a design process. My case study is a fishing industry site in Vardø, working on both a strategy for the site and the design of *Egnebu* (fisher's sheds).

Does Sámi architecture contain values that are relevant and can aid sustainable design in Norway today?

INTRO

The project started with an interest in my Sámi ancestries (The Sámi people is an indigenous people with settlement across the borders of Norway, Sweden, Finland and Russia). I used my prediploma to read about and have conversations about Sámi architecture. Randi Sjølie, Joar Nango, Elin Kristine Haugdal and Sunniva Skålnes were among those who introduced me to the discourse.

Through my research I uncovered a complex and varying picture of Sámi architecture. The concept of Sámi architecture can be hard to define, partially because it is based on an oral tradition. Also, Sámi culture has developed close to other cultures, and there are great variations within their own traditions and climate conditions. There are many ways of looking at Sámi architecture, from the traditional wooden structures and nomadic lifestyle, to the big public buildings found around Sápmi today. Many of these public buildings are drawn by non-Sámi architects, portraying/translating an old culture more or less successfully. Equally interesting are the small changes and individual adjustments to a more modern Sámi architecture is. Therefore, the basic values embedded in their building traditions became the core of my prediploma study. (*Read more in Binder 1, Appendix*)

Towards the end of my prediploma study I no longer wanted to draw a "Sámi building", but rather continue to learn by letting my study inspire a "non-Sámi" project. Among the values that I discovered, three stood out to me because I find them highly relevant beyond the Sámi, values that I can learn from and use in a non-Sámi building reaching for sustainable strategies within our design practice. As we are entering an era of climate change leading to changes in our industry, learning from cultures with traditions for ecology, limited resources and nature can inform future architecture.

The chosen values are: ORGANIC LANDSCAPE – functionally adapted, REUSE – humble efficiency, IMPROVISATION – self-made solutions. These values are general, and are found in many other cultures as well. My focus however, has been the Sámi way of relating to them.

METHOD

This diploma investigates a method of using the chosen values as guidelines in a design process. Creating a base for making decisions where both cultural and environmental factors are considered. The three values are a part of every decision, guiding the project, looking for ways of implementing the values in both direct and philosophical ways. When using the method for a project, the values of place and program are added, in this case *Vardø* and *Egnebu*.

ORGANIC LANDSCAPE – functionally adapted

The Sámi settlement grows in an organic way, also called *organic topographic principle*. Placing the buildings relating to each other, nature, terrain, landscape, water, resources, weather and transport lines. The internal context, and use of the buildings when harvesting and utilizing nature resources, are and was the core of the structure of a Sámi settlement. Coexistence with landscape makes the lines between inside/outside, settlement/nature, blurred.

The settlement normally consists of buildings, racks and vehicles, filled with everything you need, changing through the seasons. Function ties them together.

REUSE – humble efficiency

A minimum use of resources is in the backbone of Samí architecture. A creative reuse and a vivid imagination create an almost non-existence of trash. Everything has a value, and can be used for something. The material leads the way, maximizing its potential using it as it is, for example whole walls or boats are reused, and in the Sámi shed "njalla" the whole timber log is used including the roots. In the same way it's important to build in a way where the materials can be used again in a new structure, when the old has served its purpose.

Local and available materials where used. An example is driftwood form Siberia used in the Varanger region where this was found on the beaches.

IMPROVISATION – self-made solutions

When the expert is far away you must improvise and do it yourself, making something into something else. A flexible way of adjusting a broken car or boat. Nothing is sacred, everything can be changed/fixed. An example is additions of sheds to dry meat on top of post-war houses, or removal of an entrance becoming a shed in the garden.

When you make something yourself, you know how to fix it or add/remove from it, improvising on the way. Improvisation is rooted deep in Samí culture and we also find it in the music. Limited by accessible materials and tools the imagination grows.

(Read more about the values in Binder 1, Values)

CASE

The project aims to revitalize a worn-out fishing industry site in Vardø, by looking at the site as a whole, adding new programs and buildings. With inspiration from the Sámi values, the project aims at;

Organic landscape:

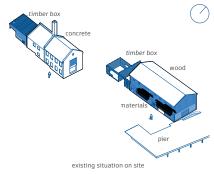
- a close connection between the program and the built structures
- a starting point for something that can continue to grow

Reuse:

- construction system suited for reuse of materials
- possible to disassemble/remove and reuse,
- when changes are needed

Improvisation:

- dimensions and technical solutions for self-building
- flexibility within the system to aid improvisation



VARDØ

The case is set to Vardø, a location where both culture and climate makes the method relevant. Placed in Finnmark, on an arctic island as far north-east in Norway as you get. Vardø is in Sápmi, in the area were the Sámi culture developed, but has little or no Sámi identity today, as it is a harbour town where cultures have mixed. The town is built on the resources of the ocean and has very engaged inhabitants, who love their town and are currently in a process of rebuilding after a period of depression. The cod crisis in the 80s lead to a 50 % decrease in inhabitants over a period of 40 years. Today there is only 2000 inhabitants in Vardø. (*Read more in Binder 1, Vardø*)

EGNEBU

Egnebu (fisher's shed), has a function that carries long traditions in the Norwegian coastal culture. Today the fishing industry in Vardø is growing again, and there are not enough *egnebus* in the modern harbour environment.

The word *egne* means to thread bait on the hooks of the line in longline fishing, and a *bu* is a small shed. Today *egnebu* is a shed to store, prepare and repair fishing gear in addition to the traditional *egning*. It is also a place where you meet other fisherfolks and make a social- and knowledge-network. It's a place to get warm after a long and cold day at sea. (*Read more in Binder 1, Egnebu*)

SITE

The chosen site is at the southeast part of the harbour, with the fish reception and other *egnebus* nearby. A large chimney formerly used for cod liver oil production welcomes you to the site from the road. It has been used for fishing industry earlier, but today the site is decaying, not taken care of, and partly used as storage. The pier on the site is frequently visited by inhabitants to watch the seals visiting the harbour.

Both the placement and buildings on site today have high potential to develop into a lucrative place for both fish industry and public involvement. Referring to the values; The site has good wind conditions with sheltering buildings in both main wind directions, access to both sea and the main road, buildings with potential for reprograming, and materials on site suitable for reuse. It also has a large open area suited for adding structures and making self-building possible.

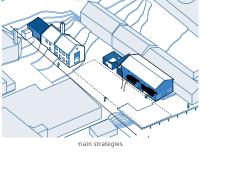
The site already consists of buildings from early 1900 and building materials. Next to the road there is a small lafted timber structure (referred to as *timber box*) that will be rebuilt and reprogramed. Connected to the *timber box* there is a two-storey building built in concrete, that will be refurbished. Towards the pier there is a large wooden structure with two tall floors. This building will also be refurbished. On the east side of the building there is another timber box. Most of the timber is in good condition, but will be moved before reused due to the rotten foundation. There are also wooden materials in large dimensions on the ground floor of the wooden building and on the east side of the site. (*View illustration on top of page*) (*Read more in Binder 1, Site*)

PROJECT

The project has three main strategies

- Reintroducing a former public path between the water and the main road called *allmenning*
- Refurbish/rebuild the buildings on site and give them new program
- Building new structures on the open area mainly using materials found on site and around Vardø

My focus has been on the last part, designing the new structures.



DIPLOMA PROGRAM

The Samí buildings are extending outside the four walls of a house into the courtyard, normally with a varying program all tied together with the practicalities and necessities needed to utilize the resources. The program is often varying from the most private shed, to the more public smoke *lavvu* (tent) that your neighbour can borrow.

My diploma program is divided into three users, *the fisher, the fisher community* and *the inhabitants of Vardø*. It's also divided into three types of activities moving from *execution* by the harbour front to *prepare* and *produce* by the road. The users take part across these categories.

PRODUCE

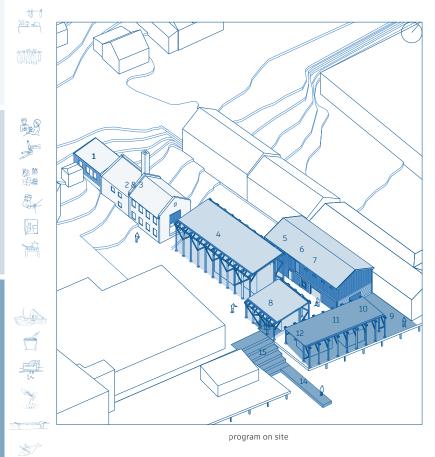
- Shop for sale of fish products
 Area for small scale
- 2. Area for small scale production of fish products, such as salted, smoked and dried fish
- 3. Freezers

PREPARE

- 4. 2 x private *egnebus* (sheds) with small kitchen and bathroom
- 5. Freezers
- 6. Storage for gear7. Common workshop
- with larger equipment 8. Common break room with kitchen and bathroom

EXECUTION

- 9. Load on/off boat 10. Section for cleaning
- gear
- An insulated room for making bait
 An insulated room for
- egning 13. Public roofed space
- for gutting and filleting fish 14. Floating pier for short
- time parking 15. Stairs giving access
- to the water and the floating pier



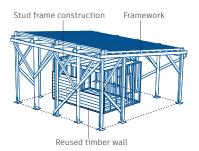
CONSTRUCTION

In Vardø, three houses are demolished every year. Most of these houses are made of the same type of material as I find on my site, lafted timber from Siberia and wooden stud frame houses. In addition, there is plenty of materials lying around in Vardø after a time of depression and demolishing. Among these materials are timber logs of large dimensions, some formerly used for pier foundation.

In my project I have focused on the large timber logs and the *timber boxes*. The large, dimensioned timber is used to create large frames for an outer roof. The walls from the *timber boxes* are used in smaller insulated volumes (underneath the roofs), as wind brace, insulation and interior. The roofs are built first, providing shelter for further construction, and creating both room for improvisation and a limit for further development. These two structures together create different types of situations, grading from the most shelter insulated room, to the zone between in- and outside, to the open air on site, to the open sea. How they communicate, their void and placement, make sure there always is a place in shelter and a place to feel the forces of nature.

FRAMES + ROOFS

The structure of the frames is made of reused materials, and aids for different dimensions of the pillars and beams in both width and length. The frames are founded to the pier's foundation with a grid of 2x2. Between the pillars the space can be left open or be closed off to create permanently or temporary shelter. I imagine this to happen in an organic way, using what is available, for example old fishing boxes, panel from a demolished house, parts of a sail from a boat et cetera. This type of temporary improvised shelter is a tradition through the Norwegian coast that the project facilitates and continues.



CLIMATE PROTECTED + INSULATED VOLUMES

The insulated rooms are not dependent on the pier's foundation and stand freely underneath the outer roof. They are constructed of 60x60 wooden stud frame combined with reused lafted timber walls from the site. The volumes on the pier are placed on a strip footing foundation of impregnated wood to make them less dependent on the pier's foundation. The volumes on ground are founded with Leca blocs. Unlike the outer roofs, the volumes have an almost flat roof making a gap between the two, making the construction of the insulated roof easier and creating extra storage space.

The project allows for varying window sizes, as reused windows from Vardø are used. In the meeting between the reused timber wall and the stud frames, the windows are placed on the outside, allowing them to extend past the timber wall, visually exposing the old timber in the facade of the building. On the pier a hole in the floor allows for the rooms to be cleaned, flushing fish waste into the harbour for the seals to enjoy.

PLACEMENT + EVOLUTION

Placing the volumes on site, both the programmatic specifications and the existing situation on the site has been important. The site has an old former *allemning* (public access between road and harbour front) in south. As most of the former *allmenninger* no longer exist in Vardø, it became important to leave this part of the site open.

Today there is a large open underutilized area by the harbour front. As the program seeks nearness to the sea, this became the starting point for my project. The roofs grow from the pier towards the road, leaving the public passage free and making an offset to the existing buildings. There is also made extra room in front of the main entrances of the existing buildings and a courtyard protected from wind.

I expect the project to develop in steps:

- 1. Refurbishing of the wooden building and building of the roofs
- 2. Building the insulated rooms
- 3. Refurbishing the concrete buildings and timber box by the road
- 4. In need of more space, adding volumes under the roof in east and expanding at the north-east part of the site
- 5. Partly or fully disassembling/removing to make room for something else

SUMMAR Y

To answer my own question, "Does Sámi architecture contain values that are relevant and can aid sustainable design in Norway today?" yes, definitely. This project has given me a new way of viewing the important subject of sustainability. Old traditions gave me a refreshing insight. Using the values, I manage to focus and get inspired at the same time as they made limitations.

METHOD + ACHIEVEMENTS

Close connection between the program and the built structures, a starting point for something that can continue to grow

The project facilitates for further development both with its step-by-step plan and by leaving open areas under the roofs. Even if the project shows a final proposal for the development of the site, it is possible to make adjustments within the framework without destroying the concept. My proposal is likely to be changed depending on the fisher using it. I have researched to understand the fishing profession and the program, which vary depending on the fisher. Therefore, the project creates boundaries, but also attempts to give freedom within the framework.

Construction system suited for reuse of materials, possible to disassemble/remove and reuse, when changes are needed

Available materials from the site and the area around inspires the projects, focusing on the properties and potential of the materials. In the frames for the roof the joints are made to allow for pillars and beams to continue past the joints to maintain their dimensions to potential reuse later in its lifecycle. To make disassembly possible, there are steel joints, Leca foundation and whole materials.

Dimensions and technical solutions for self-building, flexibility within the system to aid improvisation

The project focused on having dimensions and joints possible to execute without large machinery. This has been both a limitation and an inspiration source during the semester. How to plan for improvisation? This has been a huge and important question through the semester. My solution is found between the pillars and under the roof, where it facilitates for different types of infill and improvised solutions. The concept, roofs with insulated volumes underneath, creates a framework while it also invites to playing around and improvising.

What would the project be without the values?

To imagine the project without the values is almost impossible, as they have been a part of every decision. Somehow, the values have been most obvious when they have made limitations, including in the discussion of foundation, use of materials, flexibility et cetera.

OUTPUT

The project has been enlightening, but for another time I would probably choose only one value. This would give me the opportunity to go even deeper and further into how a value could influence the project to a greater extent. At the same time this project has given me a taste of the method of focusing on values and some of what Sámi architecture has to offer.

Next time, I might look into movable structures or biodegradable houses? – two other relevant topics for the era we are entering, a future architecture will design.

VALUES

- Text about the three chosen values from my study of Sámi architecture



Photo: Sunniva Skålnes

DIPLOMA - AHO - SPRING 2022

Produced during prediploma Jan-Mai 21.

To get a deeper understanding of Sámi architecture, I have looked into some of their values. I decided to choose the three values I found the most interesting for me and my future as an architect; *organic landscape, reuse and improvisation*. As resources are getting limited, we need an alternative way of thinking when designing buildings, the Sámi way of thinking with recourses and nature as a natural starting point is interesting. The three values that I have chosen are all connected to sustainability. These values will be the main knowledge I bring into the diploma project.

Erskine and his project "Resolute Bay" is an interesting reference, a pioneering project that was all about adapting to a harsh climate and working with the indigenous people of Canada, but ending as a failure. There were many reasons why the project didn't succeed, one of them the lack of understanding of the indigenous way of life, and how they coped with the harsh climate.¹ As to not repeat this project, I think the key is digging deeper and trying to understand the complexity of surviving with limited resources in a harsh climate.

An ecological arctic town, drawing by Ralph Erskine 1958



https://digitaltmuseum.se/021029512055/ritning

Looking for information about my chosen values, I realized that not much has been written about this. When I called Mia, a woman who has been working with Sámi architecture for many years, to ask her about the tradition of reuse, she told me; "There has been and is a lot of reuse, and there is information in every Sámi building, but no one has gathered and systemised that information."¹ In my limited time of research, this reoccurred for all the topics. My search for specific techniques and systems became a lot less concrete, and more about the bigger picture of the values and gathering of the examples.

1 De Coninck, Conversation. 14.03.21

ORGANIC LANDSCAPE – functionally adapted

REUSE – humble efficiency

IMPORVISATION – self made solutions

I have giving each value a colour, used to highlight the value/s in focus on slides from now on.



As we in the west define cultural landscape as landscape effected by physical human activity, this is a too easy way to look at it in a Sámi perspective. Culture and nature intertwine and live together in the "landscape".1 The closeness and coexistence with the landscape is in all parts of their traditional way of living. What we define as untouched nature is what has been their base of resources and livelihood.² Vidda (mountain platau) and the landscape are their workplaces, food tray and home in Sápmi. It has been vital to read, understand and respect the nature to be able to survive.³ As we make the nature adjust to us, they have been adjusting to and with the nature. This is reflecting in both their religion and their language, with a rich vocabulary and a religion giving life to everything in nature.

Nango, Does Reality = Dahka Duohtavuohta. (Trondheim: Joar Nango, 2008) Skålnes, Sunnvia. Conversation 10.03.21 Nango, Does Reality = Dahka Duohtavuohta. (Trondheim: Joar Nango, 2007).



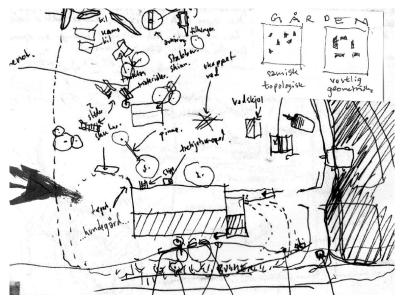
Drawing of an alter for sacrifice, Johannes Scheffers book from 1674⁴

4 Scheffer, The History of Lapland



This way of thinking affects the architecture. The borders between home, garden and the *vidda* are in many ways blurred. Many look at their siidas (group of families working together to utilise the resources) whole area as a home. Not only the houses, tents and sheds, but also everything in-between and around.¹ The way of organizing a Sámi settlement also reflects this coexistence with nature. Kjell Borgen called their way of organizing their courtyard "organic topographic principle", a courtyard organized based on needs, work and practicality.² The courtyard would normally consist of multiple buildings all placed based on the landscape, their purpose and practical connection to the other buildings, some movable and some permanent.³These settlements may seem random for someone observing, but the internal contexts and the specific way of relating to nature make the pattern of the courtyard grow. ⁴ With other words, there is not a system we recognize from other European courtyards, but a system that makes sense for the user and the way they live.

Sjølie, Byggeskikk I Sápmi. (Kárášjohka: Čálliidlágádus, 2016) s.31 Sjølie, Byggeskikk I Sápmi. (Kárášjohka: Čálliidlágádus, 2016) s.29-03 Nango, Does Reality = Dahka Duohtavuohta. (Trondheim: Joar Nango, 2007).



Hand skech of Sámi courtyard from Joar Nangos Sámi Huksendáidda : The FANzine : 15

5 Nango, Sámi Huksendáidda : The FANzine : 1 : For Begynnere (Trondheim: Joar Nango, 2007) s. 9

Skålnes etc. Ein Plass for Alle Meahcce-tinga (Stamsund, 2015)



In Sunniva Skålnes' article about the gardens in Kautokeino she describes the Sámi "work-garden" compared with the recreation gardens. The space in and around a Sámi home is often filled with everything you need to live, work, harvest and move around the *vidda*. There are many small practical sheds for drying meat, storing tools etc. As the seasons change, so will the appearance of a Sámi home because of the changes in tasks. ¹ An important aspect in the modern Sámi garden is the vehicles, that are going to transport you from the house out to the vidde, and practical placement for easy access.²

Skålnes, The sámi Self-building Tradition (Indigenuity Project, 2010) Skålnes, ect. Ein Plass for Alle Meahcce-tinga (Stamsund, 2015) 1 2



A small site with room for many different activities. Photo: Sunniva Skålnes³

³ Skålnes, ect. Ein Plass for Alle Meahcce-tinga (Stamsund, 2015) s.10



I tried to find specific knowledge about how one should place different buildings in the landscape, but there is little knowledge written down. I have begun to see that the understanding of surviving in the nature was something so natural to them, but now so far away from my way of approaching with digital tools and weather forecasts on my phone. It makes sense that its written little about it, as this was a natural way of adjusting, but the fact that this knowledge is getting lost is sad.



Tent on the *vidde.* https://digitaltmuseum.no/021016988971/n-328-telt-pa-vidda-g4-star-det-pa-glassplaten-pa-bildetser-vi-et-telt



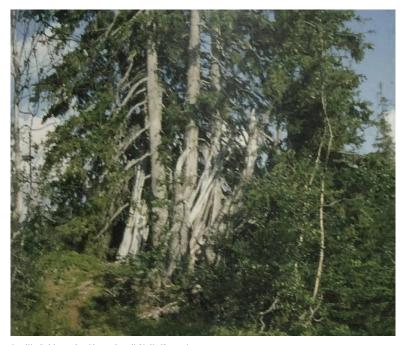
REUSE - humble efficiency

As the resources were limited, good materials where highly valued and reuse of these materials became natural. Giving a humble resource-efficient way of building, with a life cycle of buildings from nature going back to nature. On a Sámi settlement you would find buildings in all states of life, a new building, a reused one and a tuft (round pits, traces of buildings).¹

An early and common example of reuse is found in the traditional *Bealljegoahtis* where the *bealljit* (arch construction) was very important and would be taken along when travelling and used again when restoring or building a new *goahti*.² These arches were not only of a very fine material, but had also been worked on by hand. It would not be thrown away, but taken care of.

Sjølie, Byggeskikk / Sápmi. (Kárášjohka: ČálliidLágádus, 2016)
 Sjølie, Byggeskikk / Sápmi. (Kárášjohka: ČálliidLágádus, 2016)





Bealjit, Johkegaske. Photo: Randi Sjølie/Sametinget On this picture bealljit from a goahti is placed safely up against a spruce at a summer settlement in Johkegaske waiting to be used again.³

³ Sjølie, Byggeskikk I Sápmi. (Kárášjohka: ČálliidLágádus, 2016) s.73



REUSE - humble efficiency

Driftwood was an accessible resource along the coast and was used as a building material. Wood soaked in salt water for a long time is extremely durable and is naturally impregnated. Therefore, other wooden materials that had been used in the water such as strakes from boats were used as well.¹

1 Sjølie, Byggeskikk I Sápmi. (Kárášjohka: ČálliidLágádus, 2016) s.45-57 and 114-115



Sommerfjøs, Mellomjord. Photo: Randi Sjølie/Sametinget Picture of a summer-barn in Lyngen with cladding of reused boat strakes. ²

² Sjølie, Byggeskikk I Sápmi. (Kárášjohka: ČálliidLágádus, 2016) s.115



Many in Sápmi prefer to build with a standing structure because this allows for multiple materials varying in dimensions.¹ In more modern times there has been a creative way of reusing materials, use of impregnated railway sleepers and lamppost as timber, and oil barrels as cladding under the turf. There have been lavvus (tent structure) made of sleds and garages for a snowmobile made out of an old car.² The wood from fish boxes has also been popular as these have the same dimensions and are easy to reuse.³

- 1 2
- Sjølie, Byggeskikk I Sápmi. (Kárášjohka: ČálliidLágádus, 2016) s.45-57 Nango, Does Reality = Dahka Duohtavuohta. (Trondheim: Joar Nango, 2007). Sjølie, Byggeskikk I Sápmi. (Kárášjohka: ČálliidLágádus, 2016) s.31



skutergarasje av buss / snowmobile- garage of a bus Picture by Nango and Figenschou $^{\rm 4}$

⁴ Nango etc. The Sámi Indigenuity Project.



REUSE - humble efficiency

Not only single materials have been reused, but also whole parts of structures and buildings. In the old turf huts, elements from timber buildings where added. This could be structural elements such as roof trusses and wall-logs, or entire timber walls. This reuse was a part of the modernisation of the old structure of the turf hut.¹ Moving of buildings is another normal way of reusing in Sapmi. Many houses have marks both from the tools that have been used to make them, and moving marks (in Sámi buildings showing as small dots instead of roman numbers).²

I was told a story about a house in Tana built before the 1970s, consisting of building materials of three different houses moved down from the mountains. Another story was about an entrance area that was disassembled and reused as a shed in the garden.³

Sjølie, Byggeskikk I Sápmi. (Kárášjohka: ČálliidLágádus, 2016) s.45-57 Sjølie, Byggeskikk I Sápmi. (Kárášjohka: ČálliidLágádus, 2016) s.86

De Coninck, Conversation. 14.03.21



Sauegamme. Fotografi: Randi Sjølie This sheep shed is a turf hut with reused structural elements from a timber cabin.⁴

Sjølie, Byggeskikk I Sápmi. (Kárášjohka: ČálliidLágádus, 2016).s.52





IMPROVISATION - self made solutions

The Sámi people have had to adjust to a changing climate and neighbouring cultures. Improvisation and adjustments is rooted deep in the Sámi soul. It can be read in their houses and in their music joik (tradtional singing style protaing a person, nature or animals). There is a humble flexible attitude that has resulted in many creative solutions.¹ Joar Nango and Silje Figenschou Thorsen explored this in their project indigenuity project. Photo documenting improvised self-made solutions around in Sápmi.²

 Nango, Does Reality = Dahka Duohtavuohta. (Trondheim: Joar Nango, 2007)

 Nango etc. The Sámi Indigenuity Project



sledeutedo / sled-outside-toilet Picture by Nango and Figenschou ³

3 Nango etc. The Sámi Indigenuity Project



IMPROVISATION - self made solutions

The physical work and hands on lifestyle has led to an understanding of how to solve practical problems with what you have or can find. On the vidda it's far to the nearest expert and you will have to figure it out yourself. This reflects in the modern housing of the Sámi people today. After the war a lot of standard houses were built in Finnmark and today these houses are the normal dwelling for a Sámi family. They have been concurred by improvised solutions, adjusting them to the Sámi way of life, making the standard houses Sámi. Examples of these adjustments are found in the gardens, with *lavvu* for smoking meat, or on top off the house, with sheds for drying meat, or on the walls where reindeer skin is put to dry. Sunniva Skålnes has written an article about the self-building traditions dividing the types of interventions into three:

1- deft and practical - smart on-site adaptions

2- useful and beautiful - aesthetic assessments are more decisive

3- tradition and belonging - ties to a somewhat older way of life¹

1 Skålnes, The sámi Self-building Tradition (Indigenuity Project, 2010).



The habitat area has space for winter fuel and the tent for smoking meat and fish. Photo: Sunniva $\mathsf{Sk}^{\texttt{a}}\mathsf{lnes}^{\texttt{c}}$

² Skålnes, ect. Ein Plass for Alle Meahcce-tinga (Stamsund, 2015). s.10





IMPROVISATION - self made solutions

I have found beauty in this improvisational way of adjusting, both in its relevance in today's changing climate and in my own longing after a practical and self-doing way of life. They are not afraid to add on to buildings or adjust them with improvised solutions, not everything needs to be decided beforehand nor are too sacred to be changed when the use of the building demands it.



Mittens in the window. Photo: Sunniva Skålnes¹

1 Skålnes, The sámi Self-building Tradition (Indigenuity Project, 2010).

VARDØ

- Observations, analysis, research

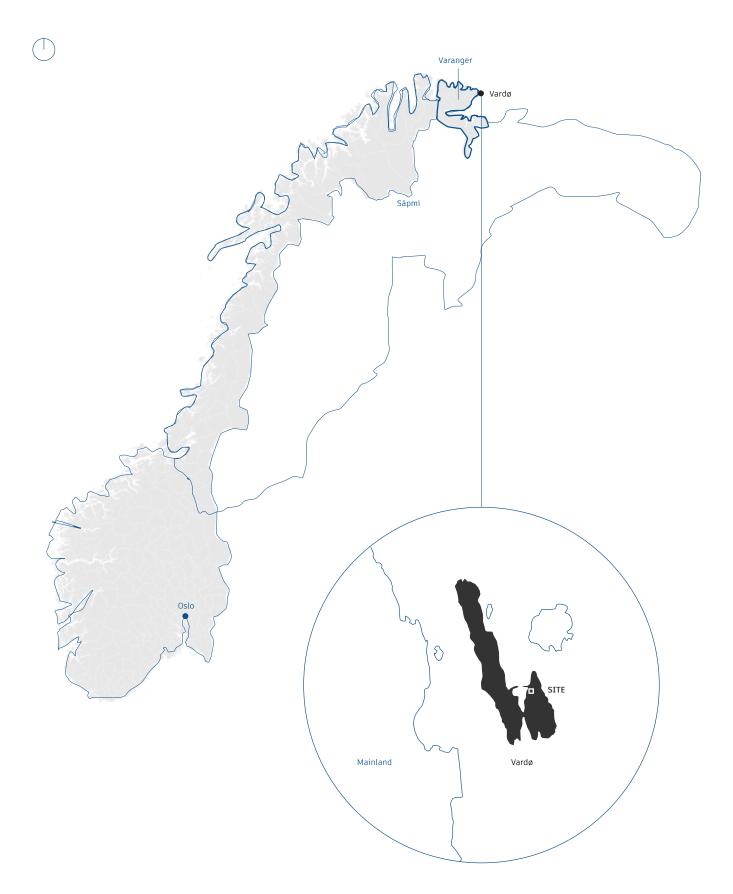


photo: biotope

DIPLOMA - AHO - SPRING 2022

Produced Aug-Sept 21. and Jan-April 22.







Searching for a site to place my diploma, Vardø was brought to my attention. AHO has a long relationship to the town through research, studio courses and elective courses. It turned out Vardø was interesting for multiple reasons. Not only is it placed in Varanger, one of the areas with the richest Sámi history, it also is built on the resources of the ocean and has very engaged inhabitants, that love their town and are in a process of rebuilding after a period of depression. Vardø is lacking its Sámi identity today, but as a town with resourceful inhabitants engaging in reutilize the building heritage, pride and identity, a case-study of bringing Sámi values into non-Sámi buildings should be suitable.

"An island in an ocean of fish" .1

Vardø is a town in Finnmark. Placed on an arctic island as far north-east as you get in Norway. It has two harbours, one on the island and one on the mainland, a local airport and a tunnel connecting it to the mainland. Today it has about two thousand inhabitants. Through history fish has been the most important resource, and today the industry is rebuilding after the collapse in the 1980s. After a depressing period where the number of inhabitants went down from 4000 to 2000 the town determined to turn the trend and shine again. Projects like «Vardø Restored», «Komafest» and festivals like «Tenning» and «Blues i Vintermørke» are evidences of a flourishing town with inhabitants as resource.

"In vacated places, where houses are what you have the most of, it is the people in the houses that are the value.

The first settlers came to Vardø during the Iron Age. The rich fishing areas in the ocean just outside made the island attractive, and the sea has been the workplace of the inhabitants, both Sámi and non-Sámi. For a period Vardø was the richest town in Finnmark and worked as a capital for the region. As a harbour town with great connections and ice-free waters, it's been strategically important. The Danish had an outpost for administration and rule in Vardø. Trading of fish made this little town in the arctic global, closely connected to the international market. Vardø was the Norwegian capital of Russian Pomor trade (1700-1917)³. In 1897 the first harbour financed by the government was built in Vardø.4

In the 17th century there were executions for witchcraft around Norway. In Finnmark many of the so-called witches where Sámi. In Vardø more than 100 persons where burned on stakes as execution for witchcraft.⁵ In 2011 a memorial was built, drawn by Louise Bourgeois and architect Peter Zumthor. This is a very debated monument today as the locals feels lees connection to it as there was no involvement of locals in the process.⁶

During the second world war most houses in Finnmark were burnt to the ground. Even though Vardø was bombed by the Russians in 1944, it is the only town in Finnmark with pre-war settlement with a clear historic urban structure.⁷ Because of the dry and windy climate, the houses have kept well

- Hemmersam etc. Future North: Vardø s. 21-31 Brekkhus. Vern gjennom bruk. (Arkitektur N nr.8-2014)
- Store Norske Leksikom, "pomorhandel" Hemmersam etc. Future North: Vardø s. 21-31
- Hemmersam etc. Future North: Vardø s. 11-17
- Lawrence. Husene som våknet fra koma. (Arkitektur N nr.8-2014) Brekkhus. Vern gjennom bruk. (Arkitektur N nr.8-2014) 6
- 8 Larsen. Conversation 14.03.2021



Husegården, the last remaining complete townhouse from the Pomor period, was built around 1860. It is in the course of restoration and houses local cultural businesses.¹

¹ Brekkhus. Vern gjennom bruk. (Arkitektur N nr.8-2014)



from being a town with 4000 inhabitants, thousands of visiting fishermen and hundreds of smaller fishing boats to 50 % reduction in population in the course of 40 years.¹² At the same time government offices moved from the town and it was left in a vacuum with empty houses.³ Today 3 houses are demolished every year because there are no one to take care of the houses.

Before 1980 everyone that could afford a boat was free to fish in the sea outside Norway. In the eighteen and nineteen hundreds about 2-4000 foreign fishermen lived in Vardø during winter.⁴ After the second world war the fishing technology developed, boats became larger and equipment such as echo sounder became available. Leading to unsustainable fishing, and the fish stock was in danger. In the 1960s the herring was endangered. This worked as a wakeup call for both the fishermen, scientists and the government. UN gave the opportunity to make economic zones, Norway would now manage the resources of the ocean up to 370 km from land.

To stop the unsustainable fishing, the government stopped establishment of new fishing boats and made quotas for the different types of fish. The quotas of fish allowed to harvest varies, and is every year decided by a scientific council of marine scientists. There are negotiations where the quotas are shared between countries. The politicians in Norway divide the quotas between the boats based on the size of the boat, where big boats got more than the smaller ones. This was to make the fishing more profitable.⁵

In 1989 the cod was endangered and all fish receptions and factories in Vardø were shut down. The locals sold their fishing boats, with their quotas to big trawlers. Big fishing shipping companies bought most of the quotas in exchange for delivering the fish to the local harbours.⁶ The shipping companies did not keep their part of the agreement and fish is not being delivered to the local harbours

"When the right to fish is given to others, not those who live by the coast, the coast dies." 7

During the 90s the fish was no longer threatened, but the government had sold most of the quotas to the large travlers. Because of the big money in this industry, the quotas have become very ex-pensive, and it's hard to establish as a fisher these days.

Vardø went into a depression with little optimism, but as the shops closed down and people moved away, those who were left behind wanted to fight for their home town. Cultural life started to blossom during these harsh times. Festivals led to optimism.⁸

Today Vardø has a very engaged population. "Kystopprøret" is a movement that aims to get the natural resources to the people, and use fishing to create more work and activity along the coast. "Vardø Restore" has been a project by locals to revitalize Vardø's building heritage. The project has been working 1:1 with people, buildings and history.⁹ Svein Harald Holmen has been the leader of this project, helping with application for money to make the restauration of the old buildings in Vardø possible. Always working with getting the owners involved, having workshops and training, it has been important to inspire people to take part in and invest in future development of Vardø.

"KOMA fest" is another project that has been important in the identity development. In 2012, Pøbel, a Norwegian street artist, invited 9 other artists to make a festival in Vardø. They talked to the locals and got inspired by the history and buildings. 55 walls where used as canvases. The name of the festival is based on the buildings sleeping, being in "coma", and the festival wanted to wake them up.¹¹ Later other projects/festivals by KOMA has been successfully completed.

The fishing industry in Vardø is slowly rebuilding, and new fishing boats are appearing in Vardø. The resent years two big fishing industry sites has been refurbished at østre and vestre molokrok. But infrastructure on land, such as egnebu (fisher's shed) and fishing reception, is missing to sup-port the development of the local fishing industry.¹²

Vardø also has a hidden story, the story about the Sámi people that has lived there. They were not mentioned with one word in the sources I have read. As a coastal city, Vardø is blessed with the influence of different cultures. By bringing these different cultures back into the light, the understanding of Vardø will grow. Therefore, Vardø is in my opinion a good site for a non-Sámi project, built on Sámi values.

"Our culture is our biggest resource"¹³

Lar Hemmersam etc. Future North: Vardø s. 21-31

Brekkhus. Vern gjennom bruk. (Arkitektur N nr.8-2014) 2 3

Lawrence. Husene som våknet fra koma. (Arkitektur N nr.8-2014) Larsen. Kystfolke i opprør!. (Morgenbladet)

nofirma, «verd å vite» Larsen. Conversation 14.03.2021

⁶

Larsen. Kystfolke i opprør!. (Morgenbladet)

⁸ Holmen, Lecture 16.03.21

Brekkhus. Vern gjennom bruk. (Arkitektur N nr.8-2014)

¹⁰

Holmen. Lecture 16.03.21 Lawrence. Husene som våknet fra koma. (Arkitektur N nr.8-2014) 11



After a depressing period the town is determined to turn the trend and shine again.

Projects like «Vardø Restored», «Komafest», political engagement as "Kystopprøret", and festivals like «Tenning» and «Blues i Vintermørke» are evidences of a town with inhabitants as resource.

Statistics from Fiskeridirektoratet (The Norwegian Directorate of Fisheries) shows that the numbers of registered fishing boats was low between 1986-96 and 2018-14 but has increased during the last years.

Vardø municipality has engaged Norconsult (consulting company) in 2019 to make a future strategy. The municipality wished to make a plan for the harbour with a long-term strategy. Norconsult have developed a plan with strategies for offshore, fisheries, usage of harbour, tourism and contingency.

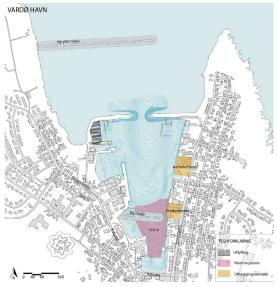
Concrete plans for Vardø harbour is:

make a new 185 meter breakwater in the inner harbor (just finished) and dredging in this are (ongoing)
 make a new breakwater on the outside of the breakwaters today

- reintroducing fishing industry to two large sites in the harbor, Aarseter and Proden

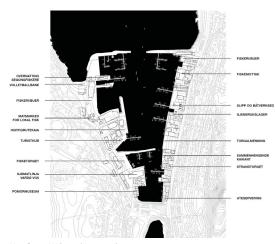
In addition, the report points out the pore state of many of the piers in the harbor and plan to restore some of them.

This summer Vardø municipality also engaged two students from AHO to do a study of future plans. They concluded that a focus on the primary industry, fishing, should be the first step, a facilitation for sustainable fishing industry and an activate the port. Strandgata was also a focus point in their study, wanting to enforce the previous shopping street as a binder between the local housing and the fishing industry.



Figur 7 Vardø havn med tiltak (mudring innbefatter også sprengning

Map from Norconsults report

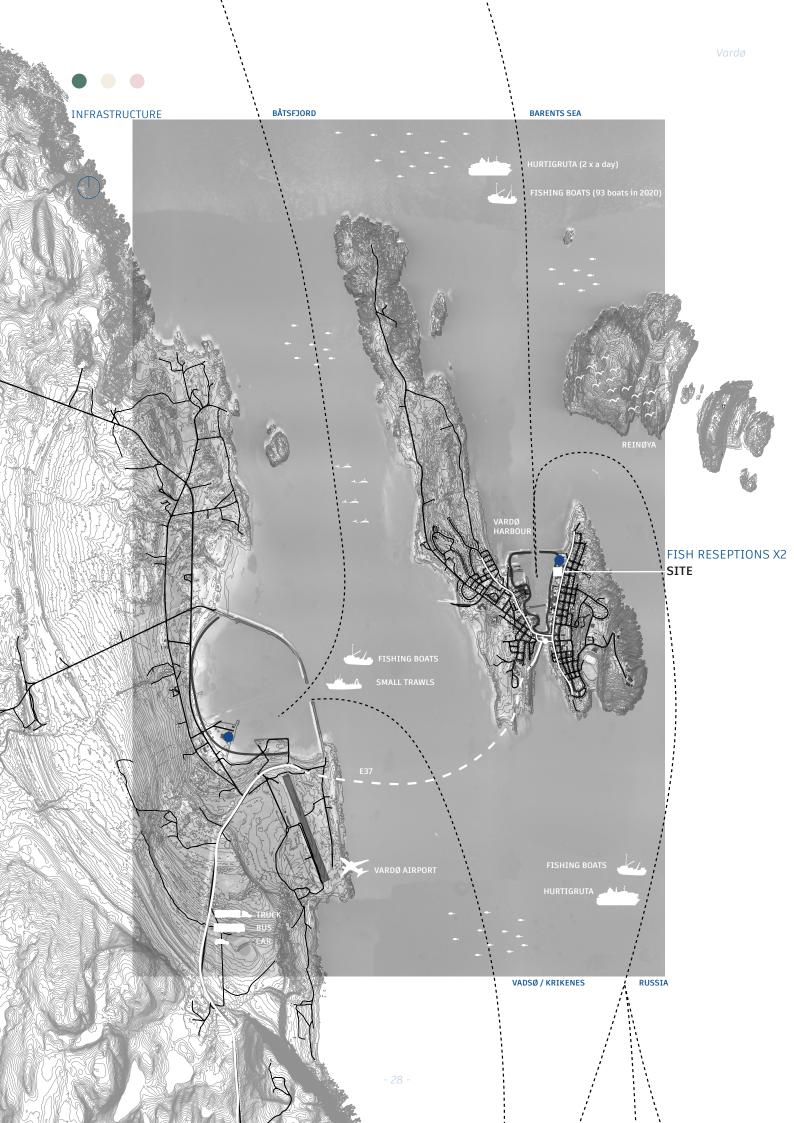


Map from AHO students study

Tabell 4A Fiskarar som har fiske som hovudyrke. Fordelt på fylke. 2011-2020.

Fylke/County	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020 ¹⁾
Finnmark	1 058	1 098	1 062	1 074	1 101	1 140	1 143	1 194	1 188	
Troms	1 309	1 171	1 154	1 105	1 074	1 056	1 0 4 7	1 073	1 058	
Troms og Finnmark										2 213
Nordland	2 4 2 1	2 357	2 288	2 295	2 299	2 285	2 185	2 130	2 069	2 059
Nord-Trøndelag	219	211	201	203	199	193	196			
Sør-Trøndelag	403	384	348	305	292	298	314			
Trøndelag								494	478	481

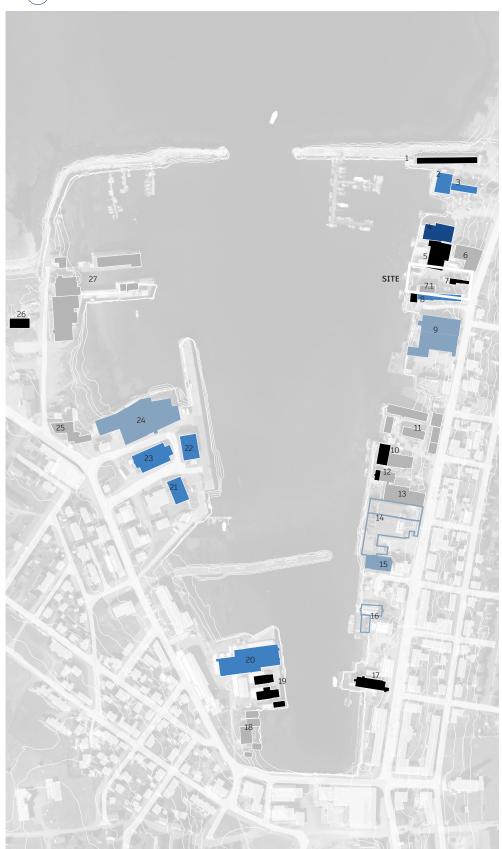
Statistics from Directorate of Fisheries, number of fishermen with fishing as their main income in Finnmark





FISHING INDUSTRY ACTIVITIES





Egnebu (fishers shed) today:

 Row of egnebus
 "Egnesentral"
 Egnebu, old fasility for steaming of cod liver oil (trandamperi)
 Egnebu
 Egnebu
 Egnebu
 2-3 Egnebus
 4 Egnebus

Fishing industry today:

 Common storage/crain
 Fishing gear storage
 Fishing gear storage
 High school, national seafood program
 Domstein
 Hurtugruta/cargo terminal
 Frizer storage

Fish reseptions:

4. Insula Norge, fiskemottak

Future fish industry:

 9. Previous fish factory, unspesified plans
 10. Plans of making multiple egnebus
 23. Previous Molnes Seafood AS, unspesified plans

Previous fishindustry:

6. Biat supply, "fiskevær-sjøbruksanlegg" 7. Stockfish storage 11. Martin Olsen bruket (built 1850-1910) 11. Fish reseption 13. Used as storage today 18. Used as promor museum today, previous "fiskevær-sjøbruksanlegg" 26. "Vardø slipp", dockyard 27. Vestremolokrok, "fiskevær-sjøbruksanlegg"

Demolished:

14. ? 16. Fishing gear storage



HOW SAMÍ VALUES EFFECTED MY CHOICE OF SITE

ORGANIC LANDSCAPE - functionally addapted

Short summary of prediploma:

closeness to nature understand and respect the nature adjusting to nature blurred lines between home, garden and "vidda" organic topographic principle organisation based on needs, work and practicality garden filled with everything small practical sheds changing through the season

factors:

closeness to the sea, how does it connect to the sea?

climate conditions

accessibility



REUSE - humble efficiency

Short summary of prediploma:

good materials are valued parts of boats and drift wood vertical construction creative reuse, (old car, fridge, lamp posts) reuse of whole elements reuse = moving

factors:

closeness to good materials

possibility of moving and reusing the existing buildings on site

an area to do adjustments and preparation of materials for reuse (empty space on the site)



IMPROVISATION - selfmade solutions

Short summary of prediploma:

humble flexible attitude solve problems with what you have making something your own a wall can have many purposes in additon to being a wall unafraid adjusting and adding on to buildings

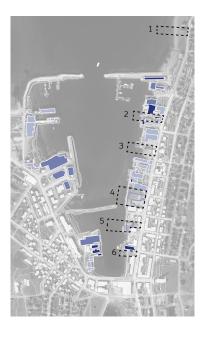
factors:

space on site to expand the building -> big site

site containing buildings with potential, not protected nor well functioning

EVALUATING SITES







SITE 1 - outside the molo

closeness to the sea

climate conditions

accessibility

closeness to good materials

possibility of moving and reusing the existing buildings on site

an area to do adjustments and preparation of materials for reuse

space on site to expand the building -> big site

site containing buildings with potential



SITE 2 - trandamperiet

closeness to the sea

climate conditions

accessibility

closeness to good materials

possibility of moving and reusing the existing buildings on site

an area to do adjustments and preparation of materials for reuse

space on site to expand the building -> big site

site containing buildings with potential



SITE 3 - beach

closeness to the sea

climate conditions

accessibility

closeness to good materials

possibility of moving and reusing the existing buildings on site

an area to do adjustments and preparation of materials for reuse

space on site to expand the building -> big site

site containing buildings with potential



SITE 4 -placa rabla

closeness to the sea

climate conditions

accessibility

closeness to good materials

possibility of moving and reusing the existing buildings on site

an area to do adjustments and preparation of materials for reuse

space on site to expand the building -> big site

site containing buildings with potential



SITE 5 - fire site

closeness to the sea

climate conditions

accessibility

closeness to good materials

possibility of moving and reusing the existing buildings on site

an area to do adjustments and preparation of materials for reuse

space on site to expand the building -> big site

site containing buildings with potential



SITE 6 - centre

closeness to the sea

climate conditions

accessibility

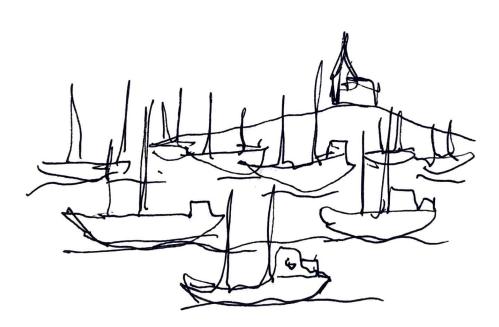
closeness to good materials

possibility of moving and reusing the existing buildings on site

an area to do adjustments and preparation of materials for reuse

space on site to expand the building -> big site

site containing buildings with potential

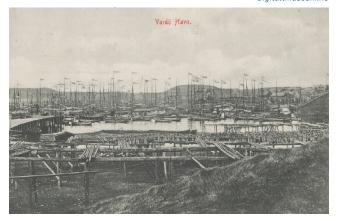


HISTORIC PICTURES





Severin Worm-Petersen, 1890 – 1910 digitaltmuseum.no



Vardø harbour, 1892 digitaltmuseum.no



Wessel, Ellisif Rannveig, 1897 digitaltmuseum.no



Vardø 1934 digitaltmuseum.no



Vardø Harbour, 1930 – 1939 digitaltmuseum.no



Vardø harbour, 1953 digitaltmuseum.no





Vardø Harbour, 1955 digitaltmuseum.no



Photo: Sverre Sørsdal digitaltmuseum.no



Vardø harbour digitaltmuseum.no



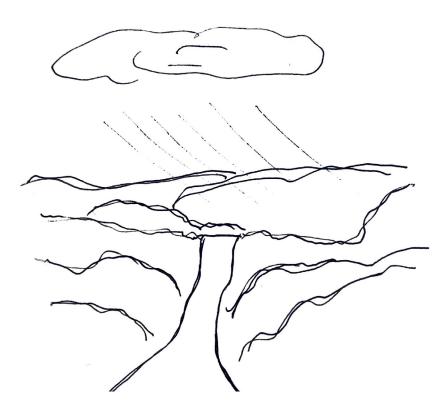


1750 kartverket.no



FIELD TRIP

May 2021 September 2021







SITE









MATERIALS IN VARDØ

 \bigcirc



1.





3.

6.







7.



5.

8.





10.





14.

12.

Walking the city centre of Vardø you stumble upon mateirals left in the open, waiting to be used. Some more organized than others, some might have a plan for the future and some are waitng to see if they can get a second chance in life.





SECTION THROUGH VARDØ AND SITE



House by the sea

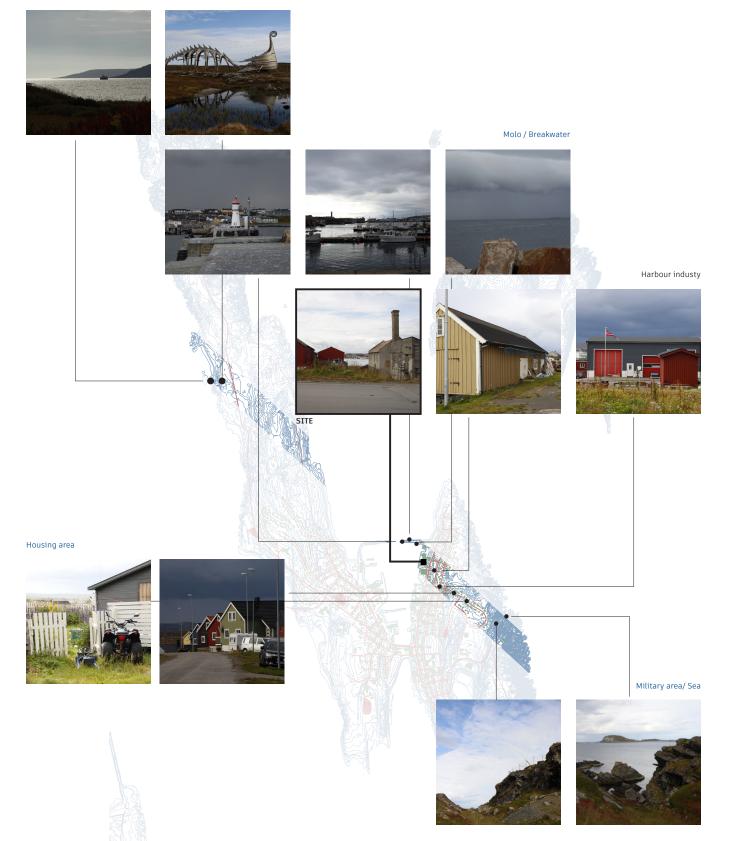




SECTION THROUGH VARDØ AND SITE



Nature and sculpture



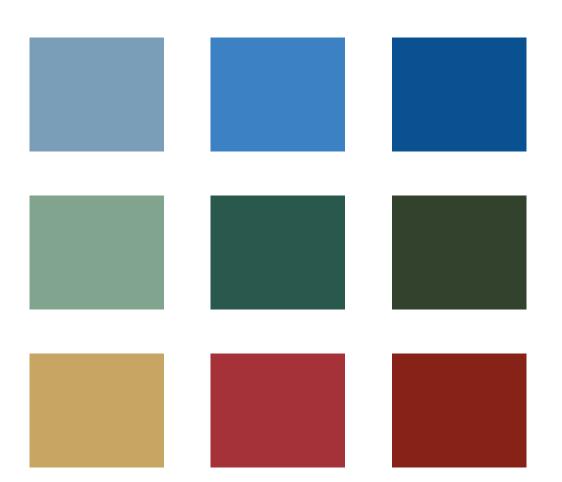






COLORS OF VARDØ

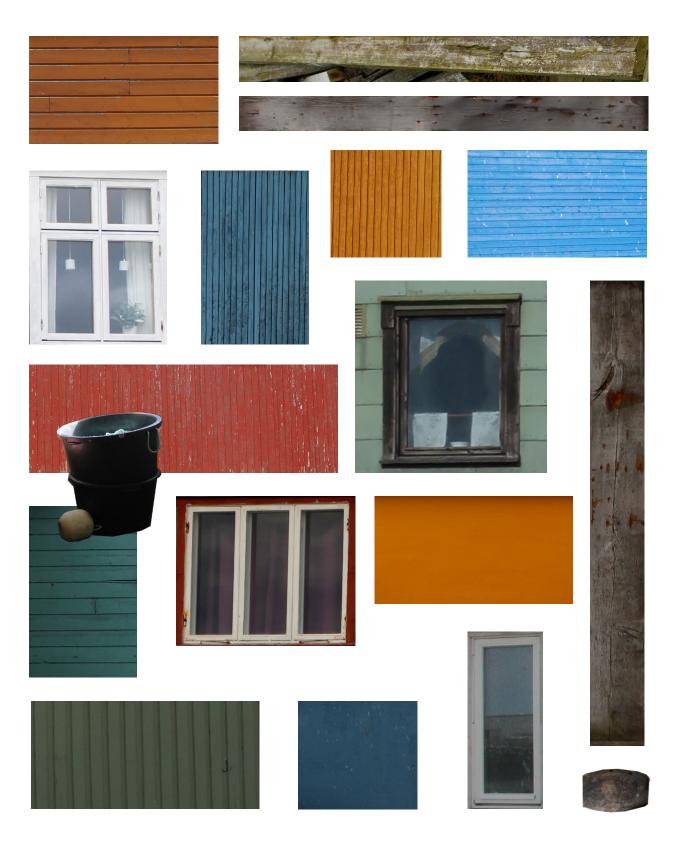
- used to communicate the project





COLLECTION

- used in collages of project



Through the semester I have used collage as tool, combinding what I'm making with actual pictures taken in Vardø. This is a collection of some of the pictures I have used in my collages both as a tool for the prosess and in the final illustration of the project.







fishing coil





the ice ocean

red vegetation



in line



strip of light



fly me away















waiting for summer or winter



a small break



left, lost, broken



russian timber, forgotten but not broken?



- 46 -

EGNEBU

- Research, interviews, studies



DIPLOMA - AHO - SPRING 2022

Produced Aug-Sept 21. and Jan-April 22.



PHOTO BY KÅRE KIRIJÄRVI





source: https://www.nb.no/kivijarvi/fotokunstner.php





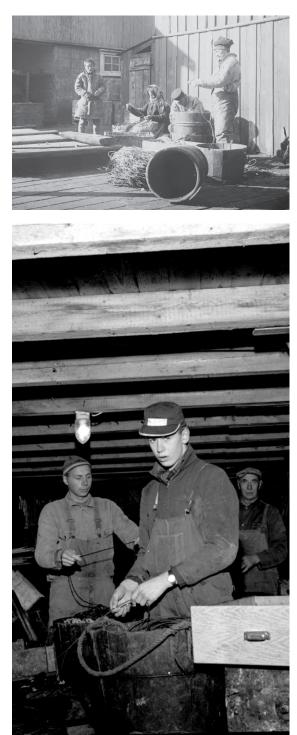
source: http://www.galleribalder.com/photo4679406.html#photo





source: http://www.galleribalder.com/photo4679406.html#photo https://www.nb.no/kivijarvi/fotokunstner.php





ENGE = to thread bait on the hooks of the line in longline fishing **BU** = a small shed

Egnebu is a shed to store, prepare and repair fishing gear. It is also a place where you meet other fisherfolks and make a socialand knowledge-network. It's a place to get warm after a long and cold day at sea. Some places the Egnebus are placed in a row along the harbour, or connected into one larger building. Normally there is one Egnebu for every fishing boat (*Sjark*).¹

Today some outsource the egning to larger *egne*-centrals. But still the locals call their sheds *egnebu* (or *bu* for short), even though not all of them do *egning*.

Asking local fishers in Vardø to describe egnebu I got these answers:

- A shed that is suitable for most things
- The word "fish garage" is better
- A place to do your stuff
- You must be able to use it for nachspiel, that is a good rule

Important program:

- store and repair your gear
- egning
 - hanging out with fellow fisherfolks

Importan features:

- A small kitchen to make some coffee and food

- Enough room for plenty of gear
- Good light conditions
- Warmth and no draft
- Running hot water - Toilet
- Esay to keep kleen
- Easy access to freezer, boat, car

As the prices for fish is decreasing fishers might have to look at prosessing their own

fish to earn more money. In a case of small scale production nearness between the *egnebu*, and the production area would be preferable.

1 Store Norske Leksikon, «egnebu»



Longline fishing is a passive method of fishing where you use bait to lure the fish onto the hooks. It consists of a longline with ca. 2-500 hooks with bait. There are two types, the "autoline" where the bait is put onto the hook automatically by a machine on the way into the water, and manual line, where the bait is put onto the hooks manually on land (conting) on land (egning).

Boats that are 8 meter and above fish with longline. The most common fish to catch on the longline is cod, haddock, ling, tusk and other demersal species. As bait is normal to use mackerel, shrimp, saithe and herring, depending on what you want to catch.

Adding bait to the hooks is called egning, traditionally done on land by women, crating female jobs along the Norwegian coast. The line is stored in big buckets, now in plastic but traditionally in wood, called *stamper*. Therefore, the number of lines are today measured in *stamper*. The hooks with bait is put into the stamp in layers with pieces of paper in between. A boat can take between 10-50 *stamper* when it goes out to fish, 1 stamp is 1 line containing ca. 2-500 hooks. One fishing trip is called a stubb.1

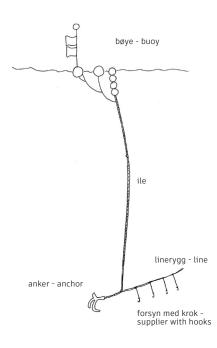
The hooks are connected to smaller supplier lines (forsynere) that are connected to the main line (lierygg). There is 1-20 meter between the supplier lines depending on what fish you want to catch.

Line fishing was brought to Norway by the English and Hollands at the end of 1500. $^{\rm 2}$

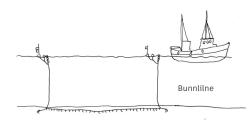
https://ndla.no/subject:13/topic:1:167083/topic:1:183020/resource:1:179157 09.09.21 https://snl.no/line 09.09.21 2

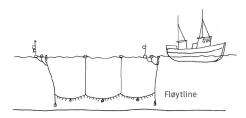


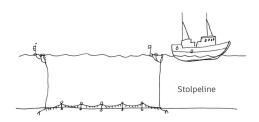
Drawing by Lauritz Haaland, drawn around 1900, showing line fihing. From Norway fisheries museum.



Three different ways of placing the longline

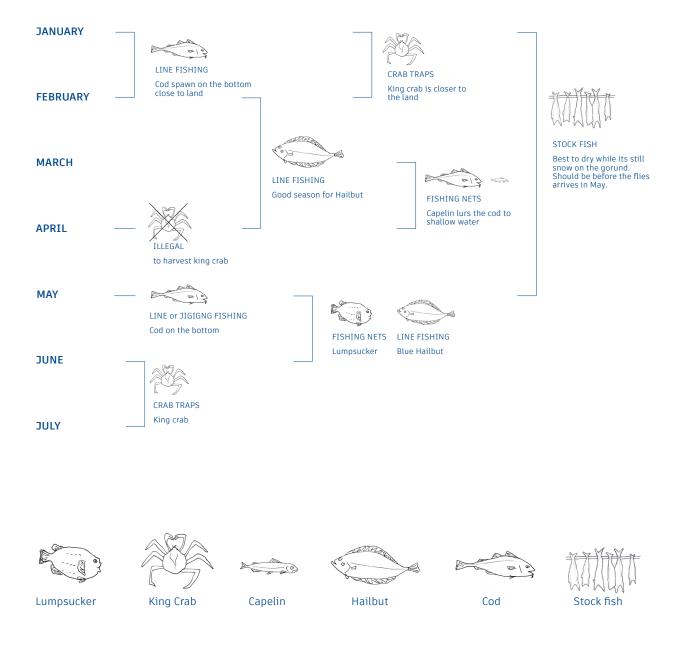








FISHERS CHANGE IN ACTIVITIES

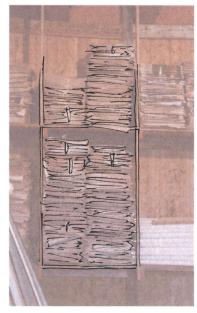


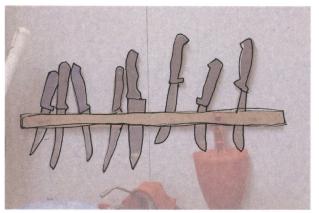
The activities will constantly change through the year. This is a small selection of half a year to illustrate some of the changes in a fishers activities. Every fisher has their own way of doing things and what fish they prefer to catch.

Source: conversation with a fisher in Vardø



ELEMENTS OF AN EGNEBU





sharp knifes

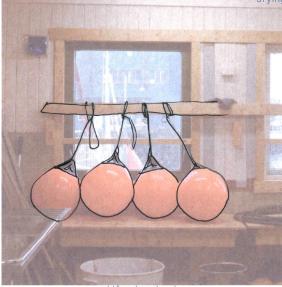






drying of fishing line





blåse / anchor bouy

Interviews and observations





Gjøran is a fisherman from Hamar. He has lived in Vardø for a long time. Not fishing as mutch now as he has done earlier. For a long time he had to go from egnebu til egnebu as he only rented and would be forced to move. Now he has bought the neighbour site of my diploma project site, alreaddy renovated one part as a gear shed, bar, music room, bathroom with sauna and bedrooms. He thinks that fishing with longline is a lot of work and don't know if he thinks it will still be used in the future.



summary ENGLISH

NORWEGIAN interview

Hvordan vil du definere ordet egnebu?

"En bu som er egnet for det meste". Viktig at det er varme og konfor. Et sted å egne lina. Toalett og vask. Kafferom (mini kjøkken) og sittegruppe. Sosialt, der du bruker tiden din på land.

Line fiske synger på siste verset. Du kan også egne automatisk med egnemaskin. Men viktig å huske at egning er sysselsetting.

Hva er det viktigste i din egnebu?

Det å ha en plass. Folket som egner for deg. Det er viktig at de som egner ikke fryser. Line er hovedsakelig høst og vinter drift.

Hvor mye tid tilbringer du i bua?

Om du selv er på havet kan man ha en landman/kvinne. De kutter papir, egner fikser og ordner. Landmannen/kvinna møter opp 4 om morgenen for å egne og blir i 12-15 timer. Hvis det er en båt med 20 staamper er det rundt 4 stk. som egner. En person egner ikke mer enn 6 stamper. Fin pensjonist jobb. Egenede stamper settes på kjøl eller frys.

Hvordan deler du inn bua de i rene og skittene steder?

Pause/kafferom er ofte rent/renere. Kafferommet kan være både egent rom og en krok. Fisker du med line er du garantert fisk.

Hvilke tjenester/ting er det viktig å ha i nærheten av egnebua?

Varmt og kaldt vann, lyst/godt med lys. Opplegg for det di driver med, riktig høyde på benkene for de som skal egne og jobbe. Tilpasset hver person. Bør ha fryser og kjøl i nærheten. Båten bør komme inn til kaia i nærheten. Fryser-egnebu-kai hanger tett sammen og det burde være praktisk å gå mellom. Bør ha tralle eller vogn. Vinsj på kaia.

Hva savner du i din egen egnebu? ingenting. Kanksje et pauserom

Hvor ofte har du folk/andre fiskere på besøk i bua?

Det kommer folk innom hver dag.

In an egnebu warmth and comfort is important. This is the place you use your time on land when your not at sea, with visitors everyday. When you are at sea there might be a land-woman/man that spends 12-15 houres in the egnebu prepearing.

"A shed that is suitable for most things"

Longline fishing is mostly in atumn and winter and its importante that those who enger the line does not get cold. One person can egne about 6 stamper. (se page about longline fishing)

Important features:

- a place to egne
- toilet and sink
- caffe room, small kitchen, social space
- warmth, electricity
- closeness to warm and cold running water
- good light conditions
- personally adjustments to hight and
- way of doing things
- fridge and frizer nearby
- a pier where the boat can be loaded
- nearby
 - winch at the pier

"Fridge, frizer, egnebu and pier are closely connected, and it should be practical to walk inbetween"

Gjøran don't know if he sees a future for longline fishing, it is a lot of work, but at the same time it makes jobs and you are assured to get fish using longline. He told me a littlebit about the atuline, and the maschines that egner the hooks automaticly for you.

- 56 -



NORWEGIAN interview

Hva er det mest praktiske med bua di?

Den var funksjonabel. Hadde varmt vann og strøm. Viktig å ha et fast sted. Fordi jeg ikke bare rodde kun med line ble jeg flyttet fra bu til bu. Slitsom og gir deg ikke mulighet til å tilpasse deg engen drift til den graden man skulle ønske.

Hva er det fineste i bua di? Å ha en plass

Kunne du tenkt deg å dele bu med noen? det beste er å ha bua alene. Hver og en fisker ror på sin måte. Kanskje derfor sentralene kommer mer og mer?

Hvilke redskaper er de viktigste du har her?

agnskjærere maskin, bånnsag til å kutte papir, tenger, agnavrenser, skap og hyller, benker, kniver, lagerrom. Noe for å holde klaver oppe.

Hvor personlig synes du bua di er?

Det blir din plass. Alle gjør ting forskjellig så du innreder etter din måte.

Hvordan rengjør du bua og hvor ofte?

Spyler over og kanskje vaske en gang i blant. Spyler hver dag, vaske i helga. Viktigste er at overflatene er enkle å vaske.

Hvordan har måten du bruker bua forandret seg siden du begynte?

De gode gamle var i tre. I dag mer betong og moderne materialer. Tre gulv trenger behandling.

Er bua en plass i livet eller bare et redskap?

For en av de gamle fiskerne som var på kaia her tidligere var bua hans andre hjem. Det er et sted man møtes for å løse verdensproblemer

Minner fra samtalen som ikke ble skrevet ned:

Gjøran ser for seg at det ikke vil være noe egning i fremtiden, at linefiskingen går over til mer helautomatiske metoder som egne maskiner. Gjøran fikser mange ting selv, han har sveise apparat og verktøy tilgnengelig. Tidligere var det noen som var gode på å fikse forskjellige ting og man dro til dem for å få det ordnet. Gjøan synes det er viktig at det er et sted du trives og et sted hvor du kan ordne istad slik at det passer din egen bu.

summary ENGLISH

Gjøran experienced beeing forced to change eqnebu multiple times in his first years in Vardø. This was tiring, and taught him the importance of having your own place and stability.

"The best thing bout my egnebu is to have my own place"

Important tools:

- bait-cutter-machine
 bandsaw to cut paper
- pliers
- bait cleaners
- cabinets and shelves
- benches
- knives
- storage rooms

The egnebu needs to be cleaned regulary and its important that the surfaces are easy to clean. Normally you flush everyday, and clean in the weekends.

> "Every fisherman have their own way of doing things"

"Eqnebua is a place to meet to solve the problems of the world"



Vitor is a fisherman from Uløya. He has been fishing in Vardø for some years now. He has built his own storage-shed of steel and plastic cover. Some of the inside is built with leftover materials from around the harbour. It has an enclosed heated space with a caffe machine and tools. In the bigger space its room for reperations, gear, a freezer, a truck ect. Viktor is not fishing with longline but uses the shed for other types of fishing, and he has bait in the freezer for crab traps.



NORWEGIAN interview

Hvordan vil du definere ordet egnebu? Den må kunne bli brukt til nachspiel, det er en god regel. Varme og musikk.

Hvor mye tid tilbringer du i bua? Ganske mye. 3 timer om dagen i gjennomsnitt kanksje?

Egner du i bua di? nei

Hva savner du i din egen egnebu? savner innlagt vann

Hvor ofte har du folk/andre fiskere på besøk i bua? hver dag

Ser du for deg å bytte bu? nei

Kunne du tenkt deg å dele bu med noen? nei

Hvordan deler du inn bua de i rene og skittene steder? hele bua er gnaske rein, eventuelt så skjærer jeg agn i trucken helt ute ved døra.

Hvor personlig synes du bua di er? den er personlig. Så på bildene, se på de gamle gjenstandene. Og den er orda sånn jeg liker det.

Om noe blir ødelagt i egnebua, kan du fikse det selv?

Jeg har bygd kaffe rom delen av bua selv. Brukt mye gjenbruks materialer, vasken, døra veggene, tromlene der ute, alt er hentet fra folk/steder som ikke ville ha det lenger. Jeg reparerer mye selv, har er lite verksted. Har masse utstyr og deler, en hel haug med syrefaste skruer

Er bua en plass i livet eller bare et redskap? Den er en plass i livet, en sosial møteplass, erstatning for Oslo kafé.

Minner fra samtalen som ikke ble skrevet ned:

Han liker å ha orden og det er viktig å ha sitt egent sted slik at det ikke blir rot i stystemet, du finner ingenting om du ikke har orden. Han oppdaget dette da han flyttet til vardø og fikk mulighet til å lage en bu med plass til alt. Er et stykke til båten men bruker trucken, bil og timing med tidevannet for å få ting til å fra mellom båt og bu.

summary ENGLISH

Viktor spends a lot of time in his shed, he predicts an average of about 3 hours a day. For this warmth and music is important.

"You must be able to use it for nachspiel, that is a good rule"

Today Victors shed does not have running water. He would prefere to have it, but luckly the shed does not get as dirty because he does not egne in it. If he needs to deal with bait for the crab traps he does it in the truck just by the door.

The shed is personal filled with old objects, pictures and it is organized the way he likes it. If anything breaks he has planty of tools and speare peaces.

> " The shed is a place in life, a social meeting place, a replacement for the Oslo café."





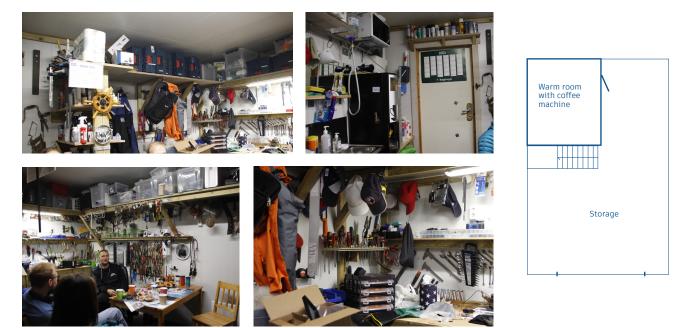
Victors shed is a steel framed garage with wind proof fabric. Inside there is a insulated room for hanging out and drinking caffee ect.

Victors shed is on the oposite side of the harbour to his boat. When he is going fishing he uses a car to move the gear.





You need many tools to take care of your boat and fishing gear. Victor have found used tools and gear from the closed fish reception.



The indide of the insulated room, with room for both tools, caffee and friends.



JAN VIDAR 03.09.21

Jan Vidar has been fishing his whole life. He is from Lindesnes and has been a nomad until he settled in Vardø 5 years ago. Here he has rented an egnebu at Østremolokrok. He has now bought a big building at the habour front with another fisher and they are intending to make it into egnebus, storage ect. He has beer brewing gear in his egnebu.



summary ENGLISH

NORWEGIAN interview

Hvordan vil du definere ordet egnebu?

Da jeg egynte var det egning, så har det blitt et sosialt møtested og verksted. Vi sier mest bare «bua». Mer sosialt og reparasjoner i dag. Man trenger lager og et sted å ha fiske utstyret. «et sted å gjøre tingene sine»

Hva er det viktigste i din egnebu? Kaffemaskina er det viktigste.

Ranemaskina er det viktigste.

Hvor mye tid tilbringer du i bua? Aah mye! Jeg har vært en kai-rotte de siste fem årene.

Egner du i bua di?

Har egna før og kommer til å gjøre det igjen men gjør det ikke nå. Har vært spesielt vanskelig å få tak i egnere nå pga. korona.

Hvordan deler du inn bua de i rene og skittene steder?

Når det egnes er det frontfasaden som blir mest skitten. Individuelt hvordan man gjør det i de forskjellige buene. Blir basket over med såpe og vann hver dag. Så spyles det ned i hullet, det ligger fullt av kroker under brygga.

Hvilke tjenester/ting er det viktig å ha i nærheten av egnebua?

tilgang til frys, lager, kran, kai plass, strøm, vann og toaletter. Overnatting for enerne er bra. (ofte utlandsarbeidere)

Hvor ofte har du folk/andre fiskere på besøk i bua? Daglig

Om du kunne bygd på bua, ville du det, og hva ville du lagt til? Hva savner du i bua? Savner å ha sitt egent.

Det nye stedet: egnerne står sammen, felles fryserom. Altså et felleskap på egning og fryser.

Når vardøveringene styrer ressursene selv er da det går bra.

To Jan Vidar egnebu is a social meeting place and a workshop to fix gear. The caffe machine is the most important thing in his egnebu. He spends a lot of time there and categorises himself as a "kai-rotte" (pier-rat) with visitors everyday.

"A place to do your stuff"

Today Jan Vidar does not egne in his shed, but he has done it before and will do it again. It has been harsh to get hold on people to egne for you because of Covid-19, most of those who does this job today are foreign workers.

Important to have nearby your egnebu:

- freezer
- storage
- winch crane
- a spot for your boat on the pier
- electricity
- running water
- toilets
- accommodation for the egne-workers

In the newly bought builing Jan Vidar imagines that the egne-workers can have a common room, and freezer facilities to be shared. At the same time it will be important that the fisherman gets his own shed to make his own.

> "When the people from Vardø deals with their resorses themself, things normally goes well"

summary ENGLISH

NORWEGIAN interview

Hva er det mest/minst praktiske med bua di? kunne vært litt større. Beliggenheten er det mest praktiske. Nært kaia med kran og frys.

Hva er det fineste i bua di?

Det sosiale og at jeg får gjord det som er nødvendig.

Hvilke redskaper er de viktigste du har her? kaffemaskina, rotator, snurrern til stampen, agnskipper, egnebenker, vann til rengjøring, bånnsag til å kutte papir.

Hvor viktig er det for deg at bue er fin/behagelig å være i/koselig?

Praktisk er det viktigste. «fint og flott har aldri betalt regninger».

Er bua en plass i livet eller bare et redskap? det har blitt en plass i livet. Var nomade før, så lenge jeg kan huske, siden 1996 da jeg begynte å fiske. De siste 5 årene har det blitt en plass i livet.

Minner fra samtalen som ikke ble skrevet ned:

Egnerne rengjør etter seg når de egner. Det varierer veldig hvordan og hvor mye folk griser, så man masker etter behov. Blir fint å få sitt egent sted så man kan tilpasse seg selv. Det at det ikke egnes så mye lenger er jo en stor forskjell fra hvordan det pleide å være, at man nå samler egneren mer i sentraler og at egning ikke skjer i like stor grad i buene. Han har en del verktøy for å kunne fikse ting selv, bua er som et lite veksted.

Ser du for deg å bytte bu? – har kjøpt seg et sted for å lage seg en egen bu Kunne du tenkt deg å dele bu med noen? – noen funksjoner kan dels, som frys og egnerom. I dag har de ordet istand en felles fryser som er koblet opp mot et agnskjære rom hvor det står to agnskjære maskiner (en oppfinnelse fra Vardø). Today his shed is too small, but the placement with both freezer, storage and pier with winch crane are optimale.

The last five years the egnebu has becomed an important place in Jan Vidars life, with the most important feature to be practical.

"beatuiful and nice have never paid bills"

When there are workers egning in the shed, they normally clean up after themselft. Its important to clean after egning has been done, it smells awful. The hole in the floor for flushing out water and waste when cleaning is important.





Jan Vidars shed is at Østremolokrok, a large building with a row of multiple fishermans sheds. His shed consists of one main room with a bench for "egning" and some chairs and a cafee machine in addition to a lot of fishing gear. There is also a toilet and a small storage.

In the building on the oposite side he has storage space, Jan Vidar does different type of fishing and all needs spesial gear. In the same house there is a room for bait preperation that is shared among the fishermen. Between the houses there is a container used as a common freezer.

His boat is 50 m from the shed at the harbour.



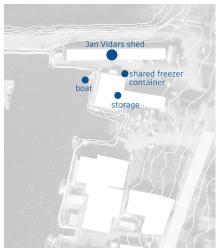
The caffee machine





Bench for "egnig"







Hole in the floor for cleening



Gluecifer, Jan Vidars boat



Storage in the neighbor building





SVEIN HARALD 05.09.21

Svein Harald is a newly established fisherman in Vardø, renting an egetbu at Østremolokrok at the moment. He is born and raised in Vardø and is very engaged in the local community. He has been the leader of "Vardø restored" and has been involved in restoring of houses in Vardø for many years. Recently he bought a new and bigger boat. Now he is considering to buy the site of this diploma project to build his own egnebu and facilities around it.



summary ENGLISH

NORWEGIAN interview

Hvordan vil du definere ordet egnebu?

Ordet «fiske garasje» er bedre. Bindeleddet mellom hav og land. Operasjonssenteret ditt. Egnebu er jo forbundet med egning, men akkurat nå egner jeg ikke der. Egnebua er hovedsakelig reparasjoner og sosialt. Jeg har fått satt in kjøkken så jeg skjærer fileter og lager mat. Det har vært em viktig plass for å lære, en læringsarena. Det er mye prat over kaffekoppen. Du deler info om fisking, og hvor fisken er. Egnebua er en plass for å bygge nettverk, og en plass for dine ting. Derfor er det fint å ha sin egen plass så man kan utfolde seg. Det har mye å si for egnerne hvordan bua er. Er det en god plass er det lettere å få ta i egnere. Egnerne har forskjellige preferanser, noen liker å være for seg selv. Det viktige er at det er praktisk og lettvint å flytte stampene rundt. Eventuelt lagt til rette for at noen kan flytte stampene for deg. I den nye bua har jeg for eksempel sett for meg å plassere fryseren på fremsiden (mot kaia) av trandamperiet og den eksisterende egnebua. Da kan tomme stammer settes inn fra utsiden, hentes rett inn i bua av egnere, bli satt tilbake på fryserne rett fra bua og hentet utenifra til båten

Det er viktig å skape en god kultur i bua. Det er viktig met trivsel i bua, det skal være en plass for trivsel.

Hva er det viktigste i din egnebu?

Det viktigste i den egnebua jeg har i dag har kanskje vært det store arbeidsbordet og kjøkken plassen. Men det viktigste for meg har vært plasseringen av bua, at den er nær båten.

Hvor mye tid tilbringer du i bua?

Det varierer veldig. Det er ikke så sykt mye tid, det går i perioder. Når du drifter er du der mye. Jeg er vel i bua omtrent hver dag. Det jeg har egnebua i dag er vi flere ved siden av hverandre og det har vært litt drama, dermed frister det mindre å dra dit. Jeg tenker at det kan bli bra med et egent sted så slipper man å forholde seg til slikt. Svein Harald (SH) describes the egnebu as your connector between sea and land, your operation center. Today he mostly uses it to do reperations and beeing social.

"The word "fishing garage" is better word for egnebu"

Kitchen and a place to make food and filletes of the fish is important to SH. The most importan has been how the scosial aspect of the egnebu is a learning arena for fishers. Sharing knowledge about fishing and where the fish is. He has visitors every day and easly fill up his needed amount of socialization, sometimes it is even too much.

"Egnebua is a place to build your network and store your stuff"

Because egne-workers are hired, its important to make the space practial and good for them to work, so that it gets easy to hire people. Well-being is extreamly important.

SHs shed today is not very big, whitch has made his big multi-function table very important. Even though this is the most important thing in his egnebu today, he is not shure if it is the way he would to it if he had more space.

To SH the placement of the egnebu is very important, to be near the pier and his boat. The amount of time hi spends varies from time to time, but he imagines he will use more time there when he gets his own place.



NORWEGIAN interview

egner du i bua di? Nei, ikke nå

Hvordan deler du inn bua de i rene og skittene steder?

Alt er skittent. Har et kaos system sånn det er nå. Kunne tenkt meg det annerledes og jeg kjøpte tomta i Strandgata. Om du har klart definert hvor du skal ha ting, er sjansen for å holde system bedre. Det er større og mer rom i Strandgata, dermed vil det bli lettere å holde orden.

Hva savner du i din egen egnebu?

Kanskje det å kunne ha skilt ting litt mer fra hverandre ville vært bra. Lagret er litt langt unna slik det er i dag, så det skulle man gjerne hatt nærmere. Jeg ønsker meg også et godkjent mat produksjons lokale. Som fisker lager jeg mye filleter, det er veldig naturlig, men griser også veldig, hadde kanskje vært praktisk met et grovkjøkken.

Hvor ofte har du folk/andre fiskere på besøk i bua?

Hele tiden, det er nesten slitsomt, haha. Om de ikke ror eller fisker vil de prate skit. Men det er også utrolig fint. Du får dekt det sosiale behovet på jobb.

hva er det minst/mest praktiske med bua di? Det minst praktiske med bua i dag er at alt skjer på samme plass. Det mest praktiske må være det store bordet som kan brukes til så mangt. Allikevel er jeg ikke sikker på at jeg vil ha et slikt bord om jeg bygger en ny bu, mulig det ikke trengs om man får bedre plass og mulighet til å dele inn mer.

Ser du for deg å bytte bu? ja

Kunne du tenkt deg å dele bu med noen?

Jeg har blitt eldre og mindre tolerant for andres rot osv. Jeg gidder ikke bullshit og er litt lei av å forholde meg til andre. Dermed tror jeg at jeg helst vil ha min egen bu.

Hvilke redskaper er de viktigste du har her?

Det store bordet blir nok svaret igjen. Oppvaskmaskinen, og ordentlig utslagsvask er også viktig. Ikke minst også hullet i gulvet så du kan skylle gulvet.

Hvor personlig synes du bua di er? Den er personlig.

hvordan rengjør du bua og hvor ofte?

Skulle gjerne hatt et system, men faste vaske tider. Når det ikke egnes i bua så blir den ikke skitten på samme måte og trenger ikke samme daglige vask.

Har du noe forhold til historisk/gammel egnebu?

Jeg er jo litt romantisk av meg. Jeg mener det historiske har sin egenverdi. Jeg ville helst hatt egninga på kaia. Drifta trumfer det meste, så nært kaikanten som mulig er best. Korte avstander er bra.

Om noe blir ødelagt i egnebua, kan du fikse det selv?

Joda, bobob jeg er ikke «mister fikser», men jeg har jo verktøyet jeg trenger. Samtidig vil jeg gjerne ha inn fagfolk til å ordne ting, særlig når det gjelder viktige deler på båten.

hvor viktig er det for deg at bue er fin/behagelig å være i/koselig?

Det Jan Vidar sa om «fint og flott» stemmer ikke. Fordi det har enormt mye å si om du triver på jobb, du blir mer effektiv om du har det bra. Jeg merker det ekstremt godt på den nye båten. Men det varierer vel fra fisker til fisker hvor viktig det er, godt mulig at Jan Vidar ikke bryr seg så mye. Men i fiskeryrket har det en tildens til å ski ut og bli utrivelig om man ikke har ordentlig systemer og tilrettelagte løsninger. Jeg liker at ting er fint.

Er bua en plass i livet eller bare et redskap? En plass i livet, helt klart en plass i livet. Jeg driver å teller på knappene om jeg skal kjøpe tomten i Strandgata eller bygge meg en plass

hjemme. Om jeg lager meg en plass hjemme kan jeg lettere inkludere familien enda mer. Jeg håper på å få ordnet meg i stand lik at jeg kan drive med litt produksjon, røyking av fisk osv. Det er noe jeg har lyst til å holde på med for trivsel, om det blir hjemme eller i Strandgata vil kanskje ha noe å si for skalaen.

summary ENGLISH

Everything in an egnebu is dirty and kaotic, but the more space you get the more organisation and clean area. SH refelcts that it might be good to be able to seperate the diferent funtions to a larger degree. He also wishes to have the egnebu and the storage closer together. SH dreams of getting a sertified food productions space to do small scal production of eg. smoked fish.

SH is ready to have his own place where he can do his stuff and dont have to deal with other peoples bullshit. He sees his egnebu as very personal and finds it important that it is a good place to be.

"If you like where you work, you work harder"





Svein Haralds shed is at Østremolokrok. Its a building with multiple Egnebus in a row. In addition to the main room with a big working table, a kitchen and windows there is a toilet and a small storage where he has outdoors clothes, washing machine and a small frizer.

In the neighbouring builing Svein Harald is renting storage space for the larger gear. Between the houses there is a container used as a common freezer.

His boat is only 50 meters away from the entrence door to his shed.





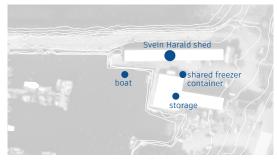
Large table for work and social hangouts



Hole in the floor for washing

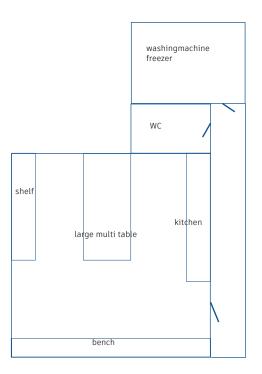
Washing machine and small freezer







Common freezer





ROGER 30.08.21

Roger is a Swedish carpenter specialised in traditional building. He has been working in Varangerbotn at the Sámi museum there for the last 25 years. In addition to working on the museum he restores Sámi buildings in the area. He has also been part in restoring and refurbishing egnebus, knows a lot of fishermen and has spent a fair amount of time in egnebus.



summary ENGLISH

NORWEGIAN interview

Hva er viktig å tenke på når du bygger en egnebu?

Kvinnfolk har blitt satt til å jobbe i iskalde lokaler, noe som har gitt dem blærekatar og andre sykdommer. Fordi mannfolka har gitt faen. Derfor er det veldig viktig at det er trekkfritt i egnebua, det er viktig at luka i gulvet kan lukkes ordentlig. «det er litt som å ha en kanin, de kan være ute i tretti minusgrader, men er det trekk dør den». Andre viktige ting er godt lys, eller god belysning. God varme. Verktøy, hyller. Legge til rette for at men unngår tunge løft. Det må være nokk plass til samper og utstyr slik at man slipper å klyve. Det skal være enkelt å holde rent. Du trenger et bra gulv som du ikke sklir på, men som er lett å vaske, men fall mot hullet. Det må være bra med vinduer eventuelt god lyssetting. Det er monotont å egne i mange timer. Det er viktig at det ikke er unødvendig kaldt. Fint å ha tinemuligheter i et rom ved siden av, fordi det stinker.

Jeg mener at bua helst burde vært flislagt. Det må i hverfall være vaskbare flater. Om du har tregulv kan du få «jævla makrell ned i spekker». Tregulv er dog mykere å stå på. Man må kunne spyle gulvet! Traditionally women workt with egning. They had to work in cold rooms with a draft and they would get sick. Hence, the most important thing in an egnebu is to be draft free.

"It's a bit like having a rabbit, they can be outside in minus thirty degrees, but if there is a draft, it dies"

Other important factors:

- warmth
- posible to close the hole in the floor properly
- good lighting
- tools
- shelfs
- organised in a way that you dont need to do havy lifting
- enough space for all the gear
- surfaces that are easy to clean
- a floor that isnt slippery
- the opertunity to thaw the bait in a neighbour room (smells)





Arnes shed is next to the highschool. It has two stories, has one larg room for tools, reperations etc., one small room for bait preperation, a storage and a large freezer on the first floor. On the second floor there has been apartments, today used as storage.

In a neighbouring building there is more storage space. Just outside the shed is the boat.





Shed

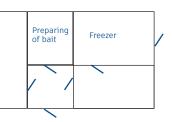




Storage



Storage	
	Shed



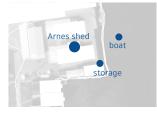




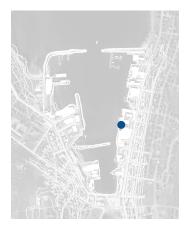
2. floor storage, old apartement



Freezer







Leif Olas shed is devided into two rooms, a main room for preperation, egning and reperations, and a smaller kitchen. On the second floor there is a large storage room for gear.

Just outside the shed he has placed a container, installed the oposite side of a heat pump that makes it a freezer.

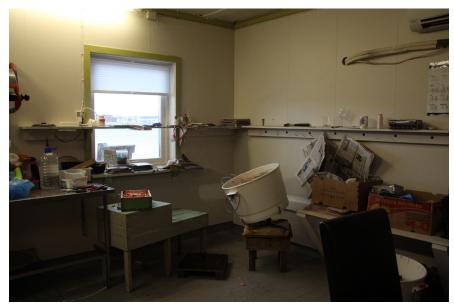
The boat is just outside the shed, ca. 6 meter away from the door.



Kitchen



Storage



MAHH

Main room





"EGNEBU AT THE SITE"



On my site there is a engebu that is not in use at the momtent in the first floor of the concrete building.

On the second floor there is storage space for gear.













DIPLOMA PROGRAM





The samí buildings are extending outside the foure walls of a house into the courtyard, the foure walls of a house into the courtyard, normally with a varying program all tied together with the practicallities and nessesarities needed to utilize the resources. The program is often varying from the most privat shed, that a child will take lanong when it moves out, to the more public smoke *lavvu* (tent) that your neighbour can borrow. The social meetings happens while working.

On my site I also want to look into this transittion from the needs of a private fisher to the needs of the inhabitants of Vardø. Creating situation where people can meet through work.

The program is devided into three categories based on the prosess (execution, prepare, produce) and three users:

the fisher

- egnebu + preperation of bait
- private shed
- storage - load on/of the boat



the community of fisherfolks

- common workshop with lager machines
- breack room for networking
- small scale production of fishproducts
- shop with fishproducts

the inhabitants of Vardø

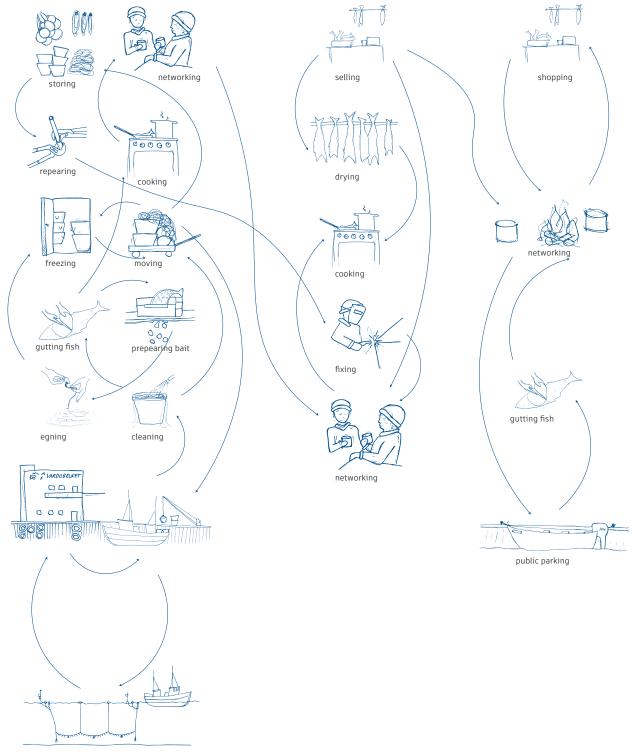
- public path to the water
 a place to gut/fillet fish
- public temperary boat parking
 stairs down to the water
- shop with fish products



the fisher

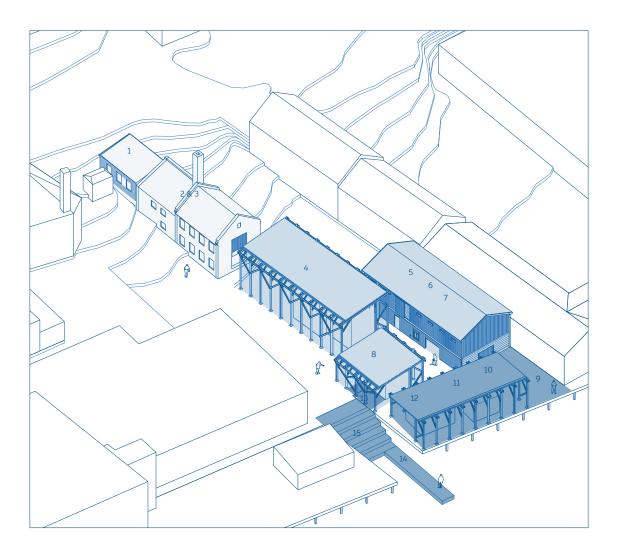
the community of fisherfolks

the inhabitants of Vardø





PROGRAM PLACED ON SITE



PRODUCE

- Shop for sale of fish products
 Area for small scale production of fish products, such as salted, smoked and dried fish
 Ereagers
- 3. Freezers



PREPARE

- 4. 2 x private *egnebus* (sheds) with small kitchen and bathroom

- kitchen and bathroom
 5. Freezers
 6. Storage for gear
 7. Common workshop with larger equipment
 8. Common break room with kitchen and
- bathroom

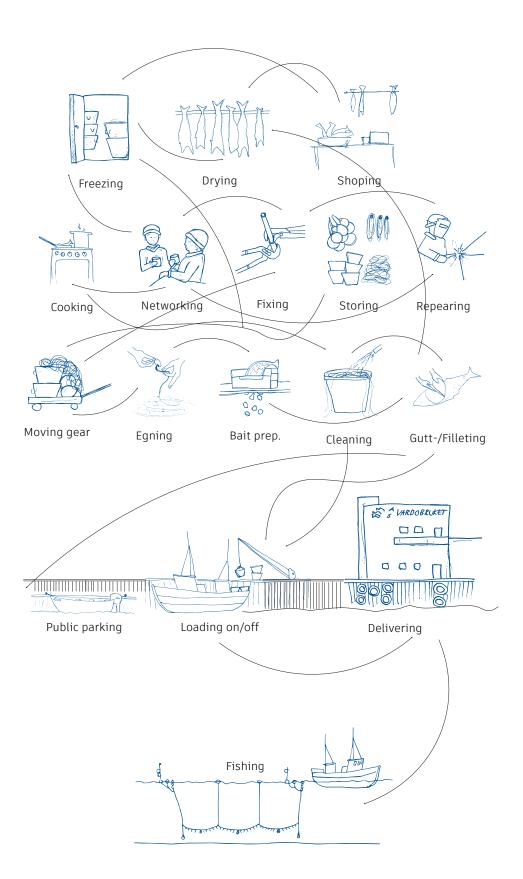


EXECUTION

- 9. Load on/off boat 10. Section for cleaning

- Section for cleaning gear
 An insulated room for making bait
 An insulated room for egning
 Public roofed space for gutting and filleting fish
 Floating pier for short time parking
 Stairs giving access to the water and the floating pier





SITE

- existing situation, drawings and pictures



DIPLOMA - AHO - SPRING 2022

Produced Aug-Sept 21. and Jan-April 22.





Photos from Svein Harlald Holmen



HISTORIC PICTURES OF THE SITE



Historic picture of site



HISTORIC PICTURES OF THE SITE



Oluf Torkildsens steamship expedition, ca. 1912. The pier, today Strandgata 49 (matrikkelnr. 78), this was also the place where King Haakon VII went ashore during his first visit to Vardø, 1907 1

1 https://digitaltmuseum.no/011012805682/oluf-torkildsens-dampskipsekspedisjon-ca-1912



HISTORIC PICTURES OF THE SITE



King Haakon VIIs visit in 1907. $^{\rm 1}$

1 https://digitaltmuseum.no/011012805186/postkort-kongebesok-1907

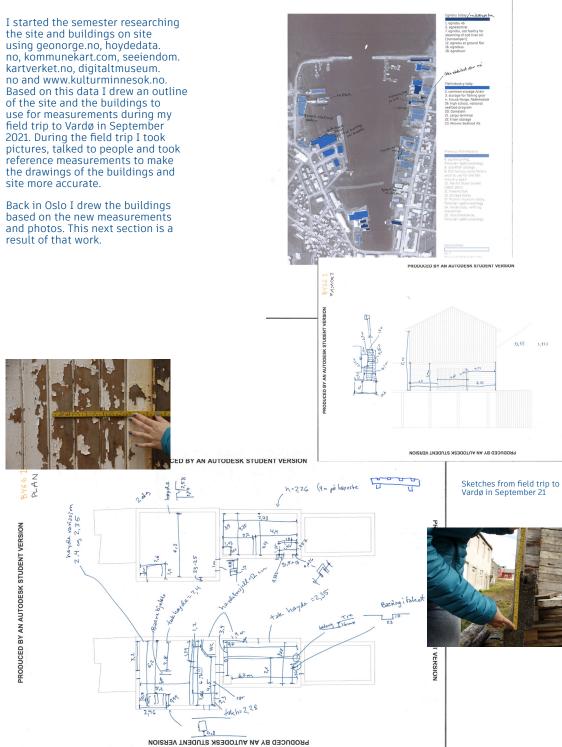


DRAWINGS - PHOTO



PROCESS OF COLLECTING KNOWLEDGE ABOUT SITE AND BUILDINGS

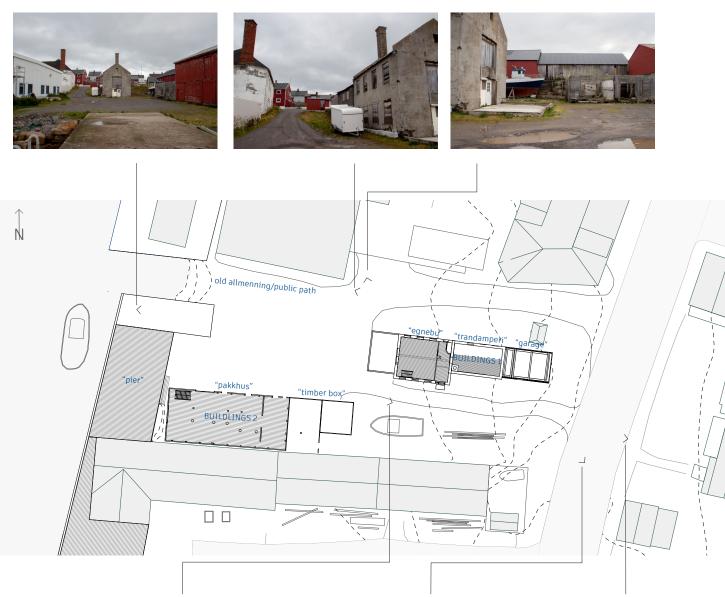






site plan 1:600 on A4

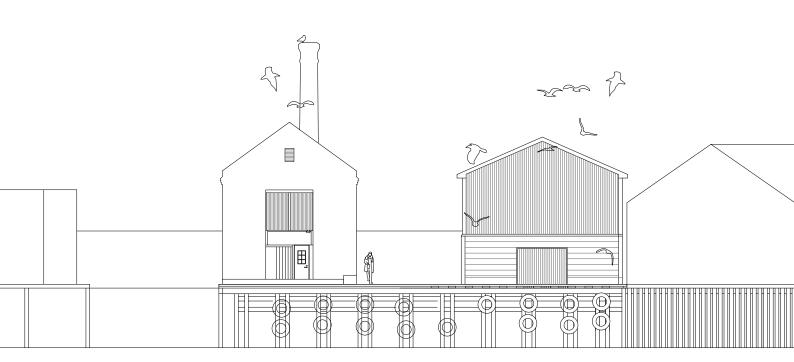
 \bigcirc





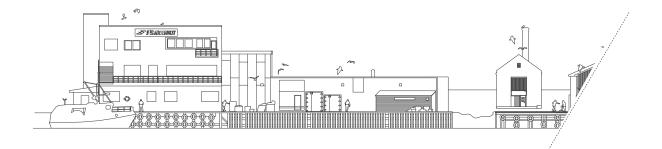


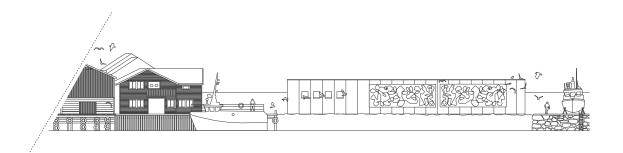
elevation from the harbour 1:200 on A4





elevation harbour 1-600 on A4

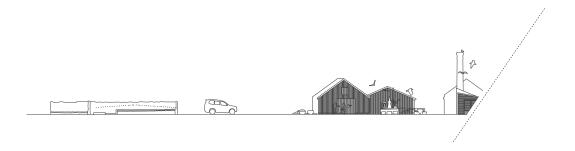


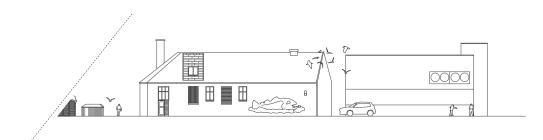






elevation street 1-600 on A4

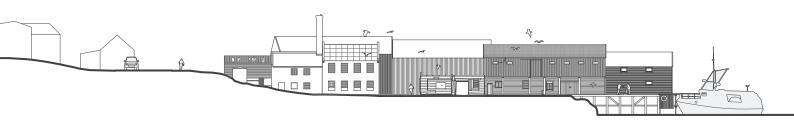






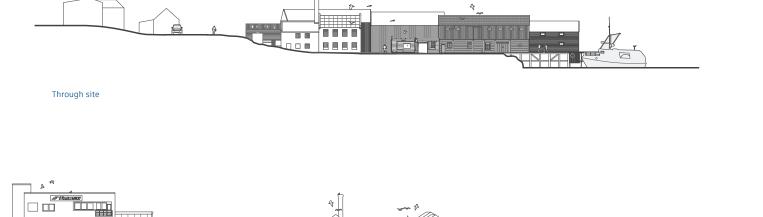


elevation through site 1-600 on A4



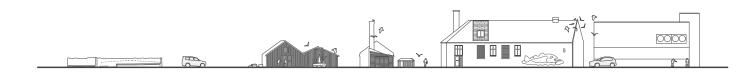


elevations





Harbour front



From the road





Buildings 1 is a former cod liver oil production factory (trandamperi). The buildings are from 1900.

Buildings 1 consists of three buildings connected to each other. I gave each of them names.

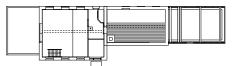
"Egnebu" was not in use when I was there, but had been in use only weeks before. Needs maintenance.

"Trandamperiet" is empty and needs larger maintenance to be used.

"Garage" is just a three walled lafted timber structure balancing on stacks of wood. It needs rebuilding to be used.

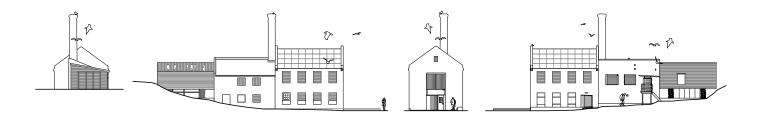
Area Egnebu+Trandamperi = (32x2)+(51x2) = 166 m2





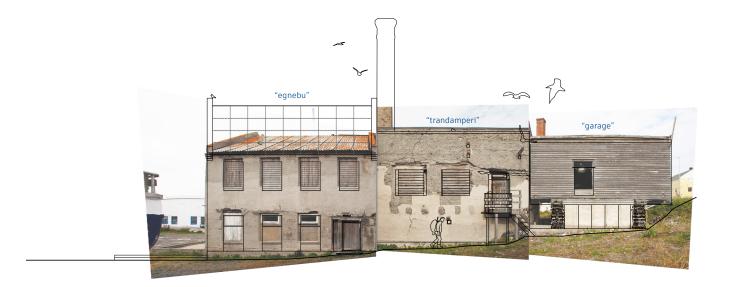






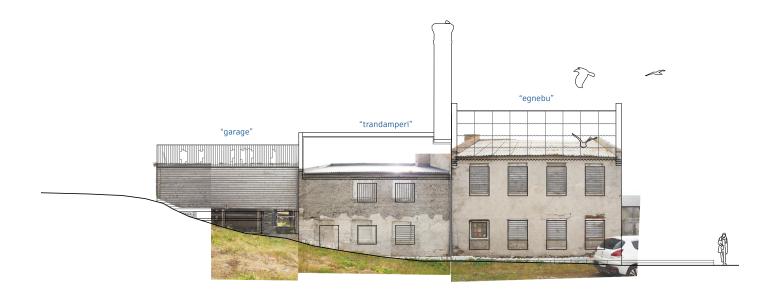


elevation 1:200 on A4





elevation 1:200 on A4

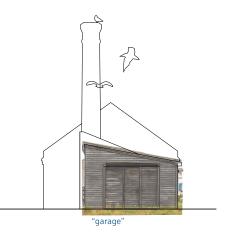




elevation 1:200 on A4



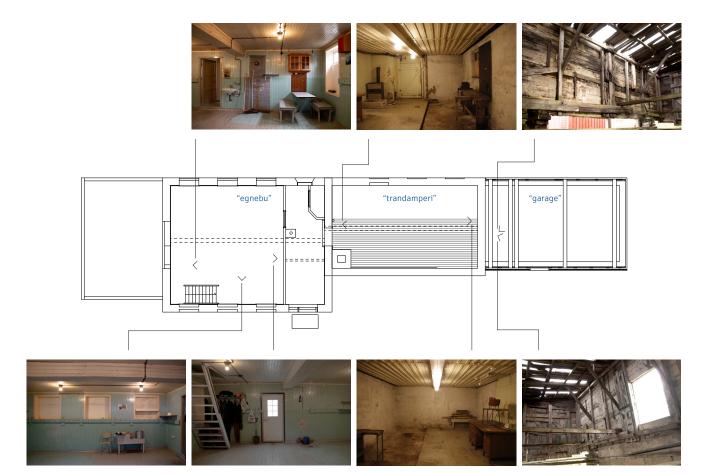
"egnebu"





plan 1 1:200 on A4



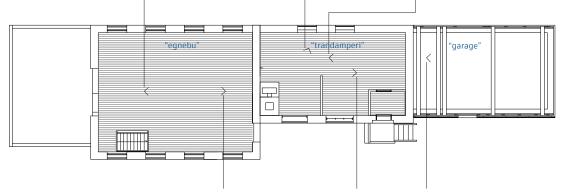




plan 2 1:200 on A4









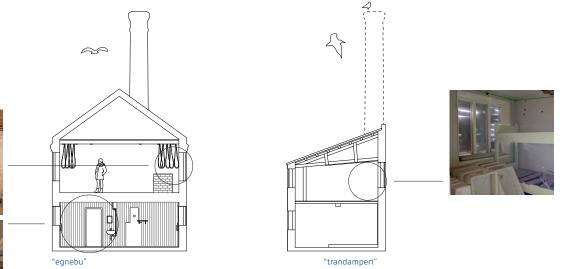


long section 1:200 on A4





short sections 1:200 on A4











Buildings 2 also consists of three parts, named by me.

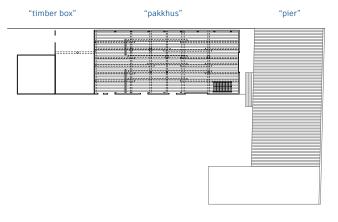
"Timber box" has unknown age and former program. I have heard it was used as egnebu, but I was not able to confirm it. Today only the lafted timber walls are left. They are standing on a rotten floor, and will have to be moved to be restored.

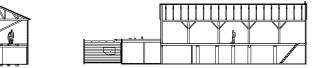
"Pakkhus" is from early 1900. It is a two-story pakkhus/storage used in fishing industry. Today there is timber materials stored in the ground floor and some fishing equipment on first floor. All the windows in the building are covered with panels, so it's very dark inside.

The wooden part of the pier is from 1913. It is a traditional wooden pier. Some of the pillars needs to be changed, especially the pillars made of old railway sleepers. A smaller part of the pier has changed the wooden panel with concrete.

There is a retaining wall in concrete underneath the pier to prevent erosion of the land.







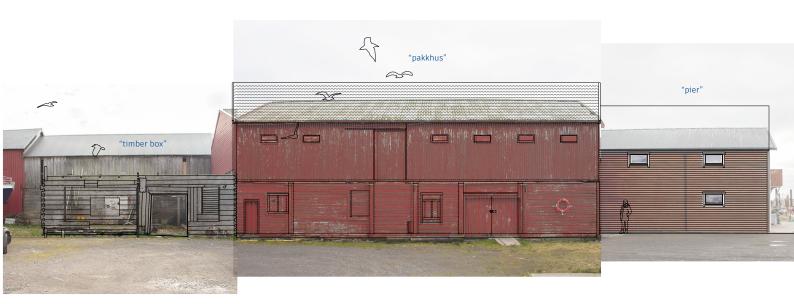
Area of storage building = 200x2 = 400 m2

The pier deck is about 170m2.





elevation 1:200 on A4





elevation 1:200 on A4

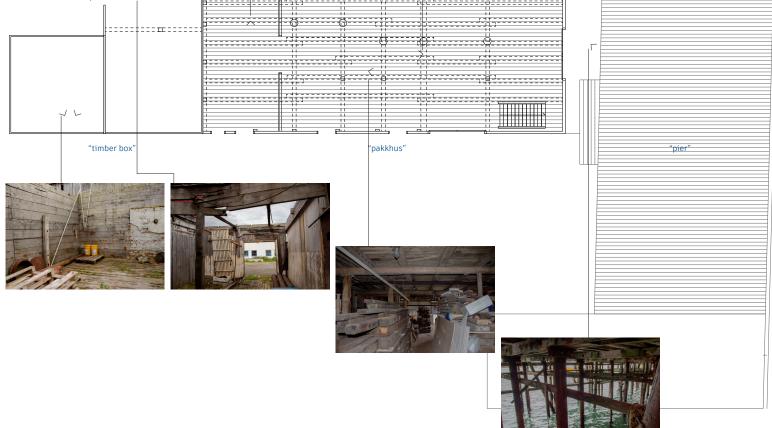




plan 1 1:200 on A4









plan 2 1:200 on A4





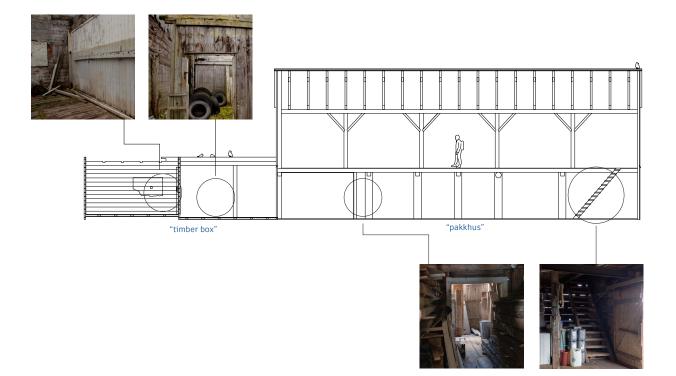
>	

"pakkhus"



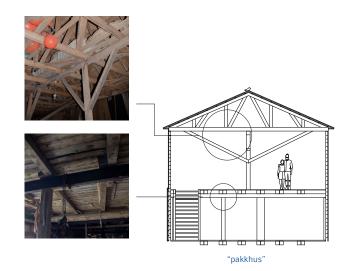


long section 1:200 on A4





short section 1:200 on A4





PIER

structure 1:200 on A4







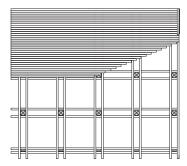




Two main types of pillars



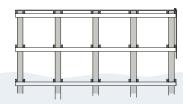
Plan

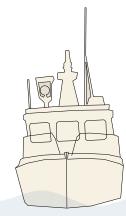


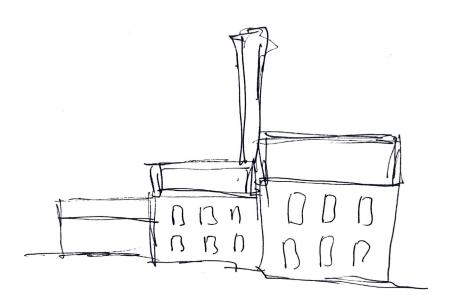
Front



Side



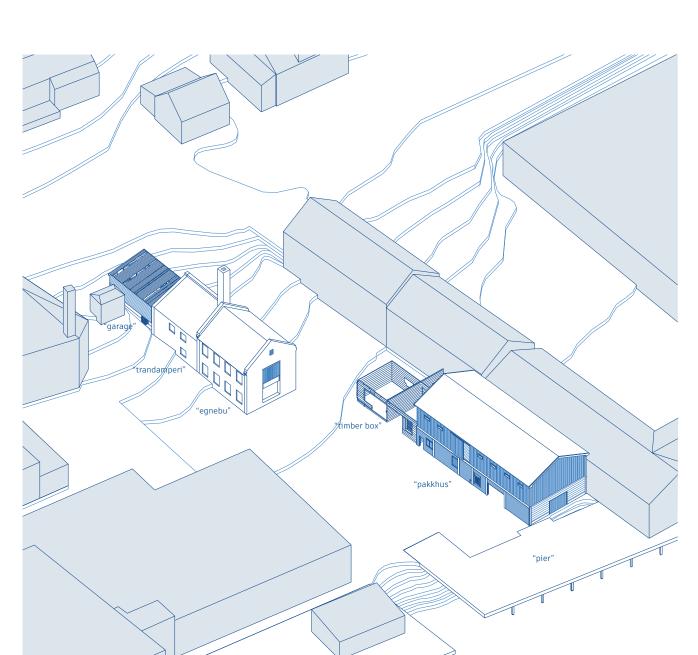




FURTHER REGISTRATIONS



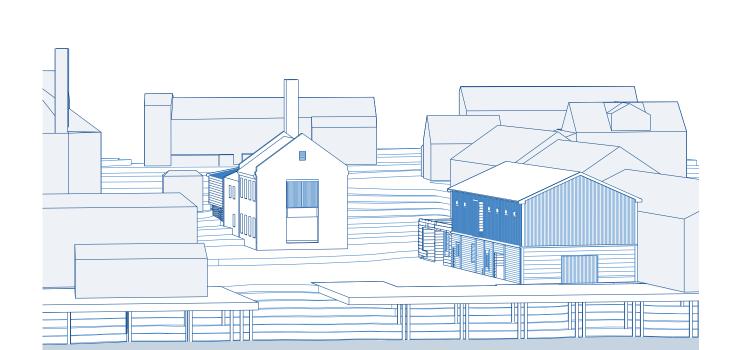
 \bigcirc



1

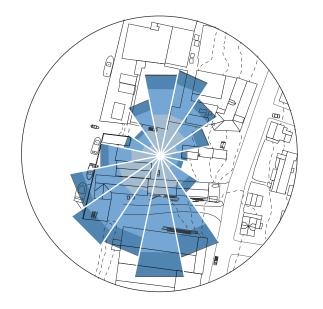
ුලු

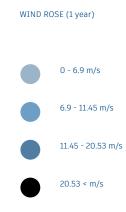


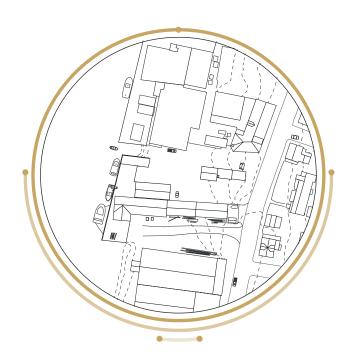




\bigcirc











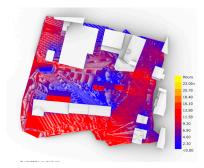


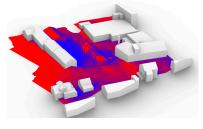
SUNHOURS ON SITE

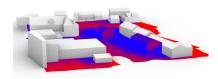
01.02.22



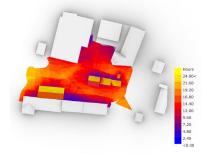
23. March at 00:00-23:59

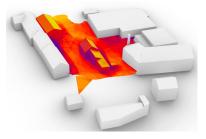


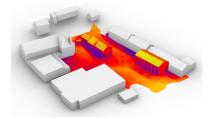




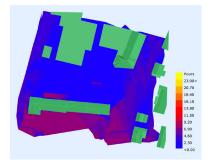
23. June at 00:00-23:59

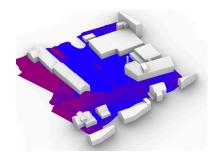


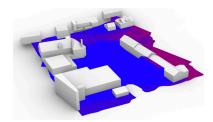




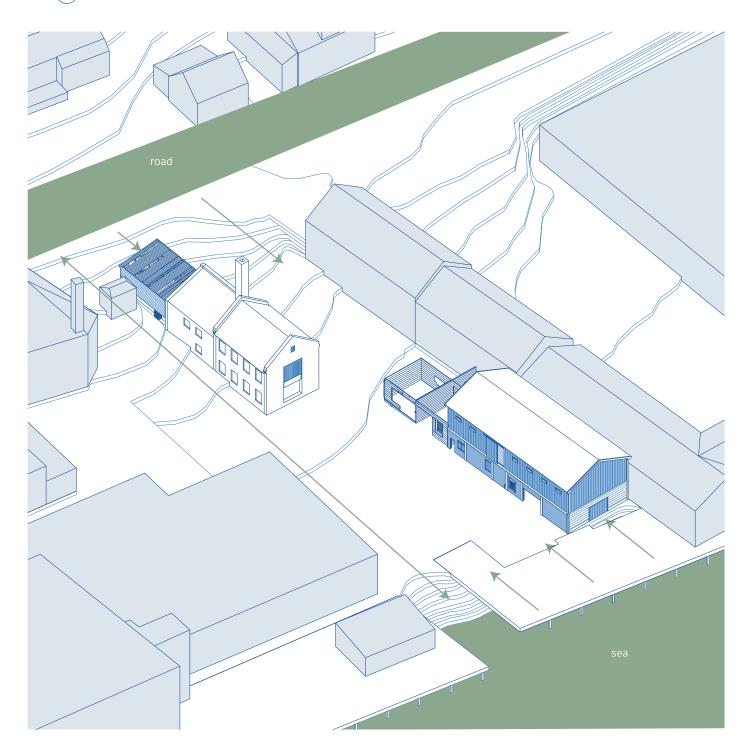
1. November at 00:00-23:59

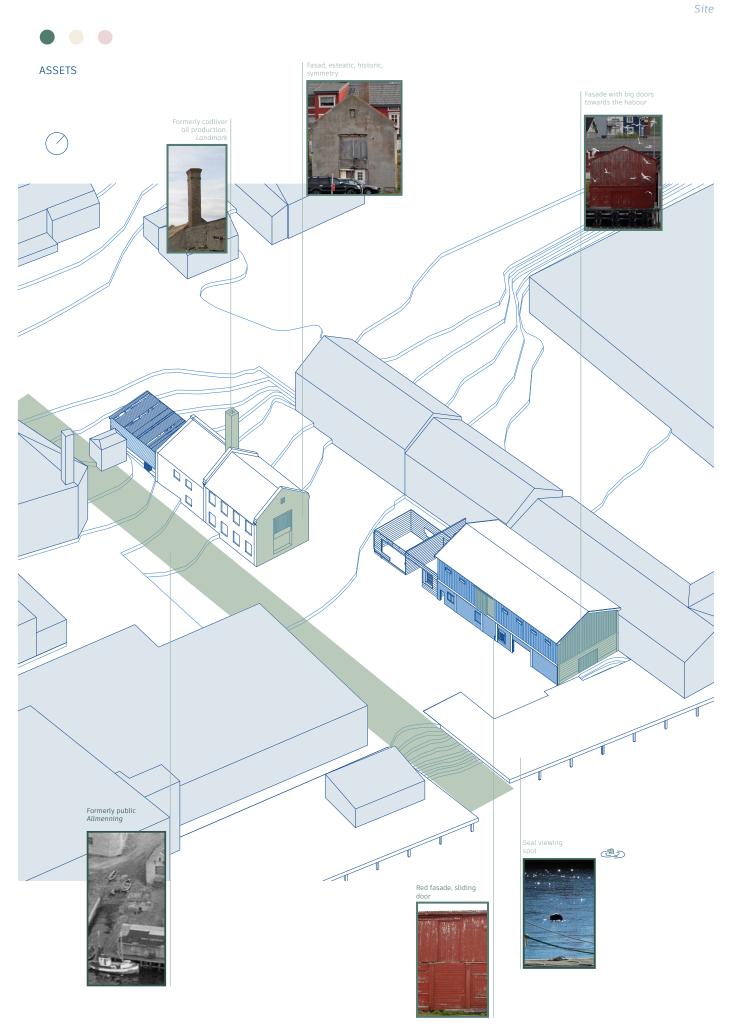




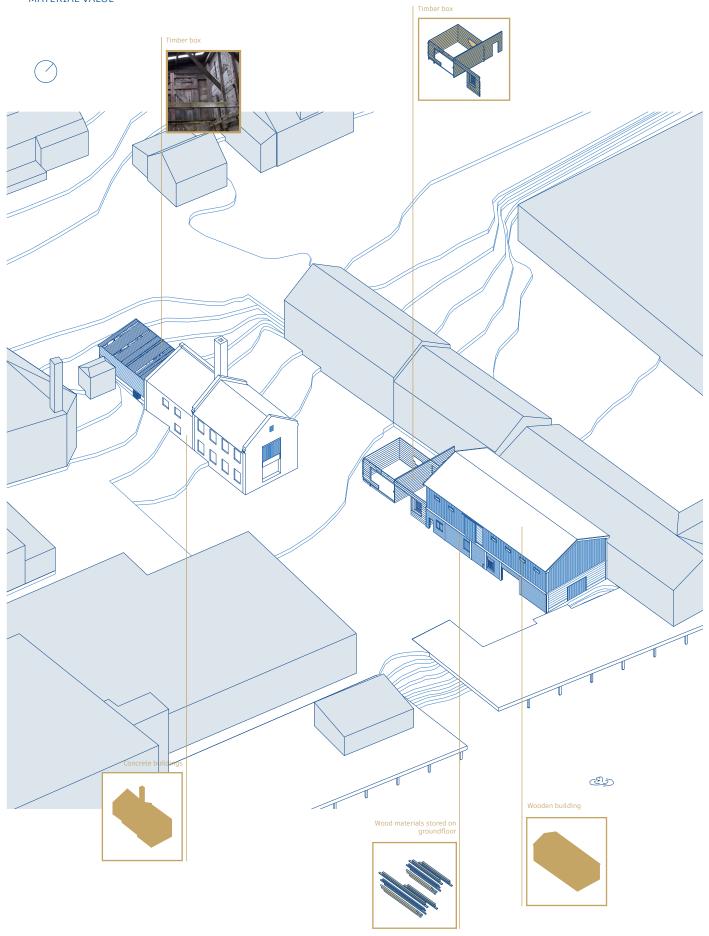




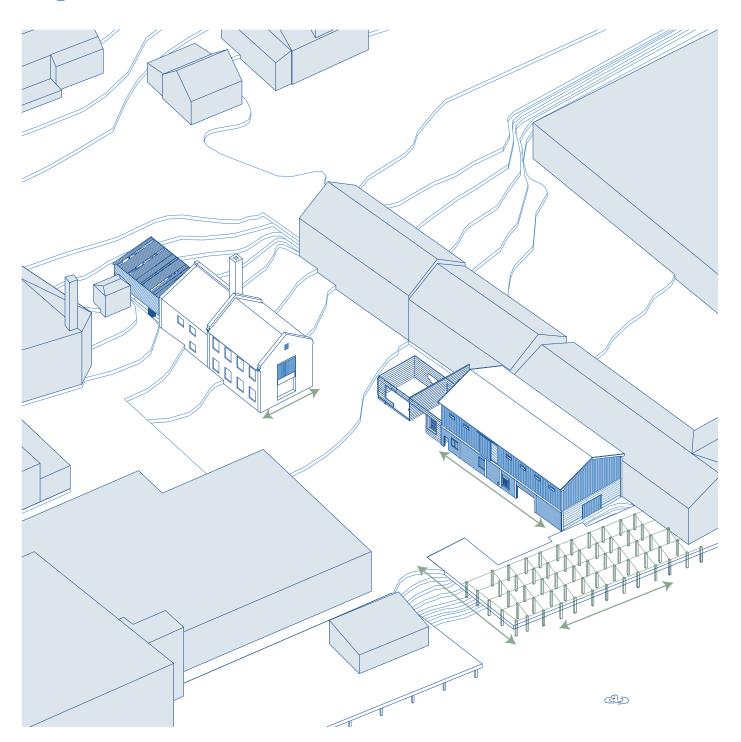




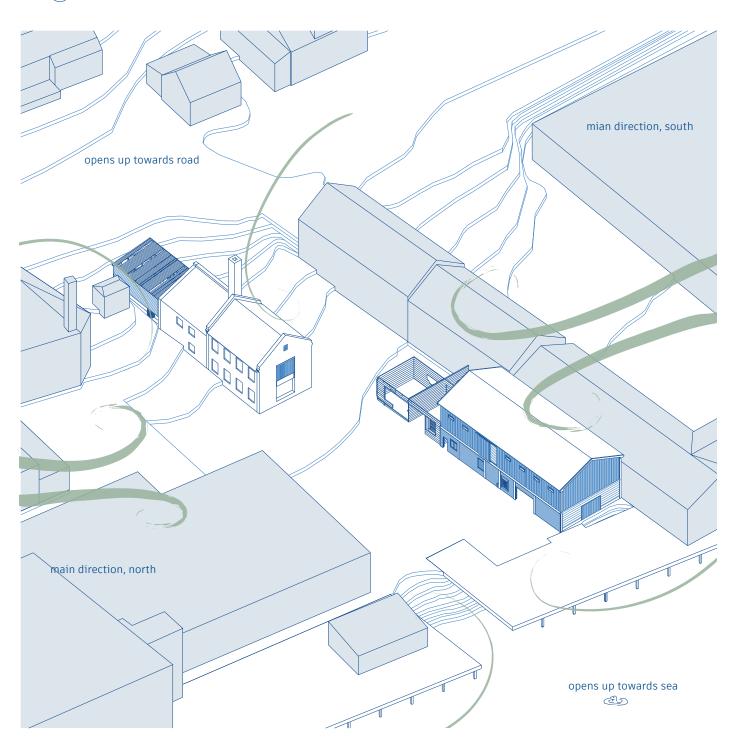












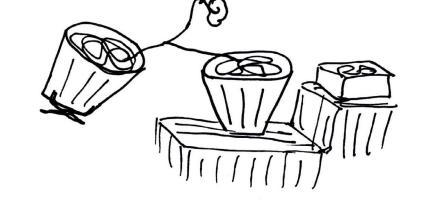
PROCESS MATERIALS

- sketches, models and collages



DIPLOMA - AHO - SPRING 2022

Produced Aug-Sept 21. and Jan-April 22.

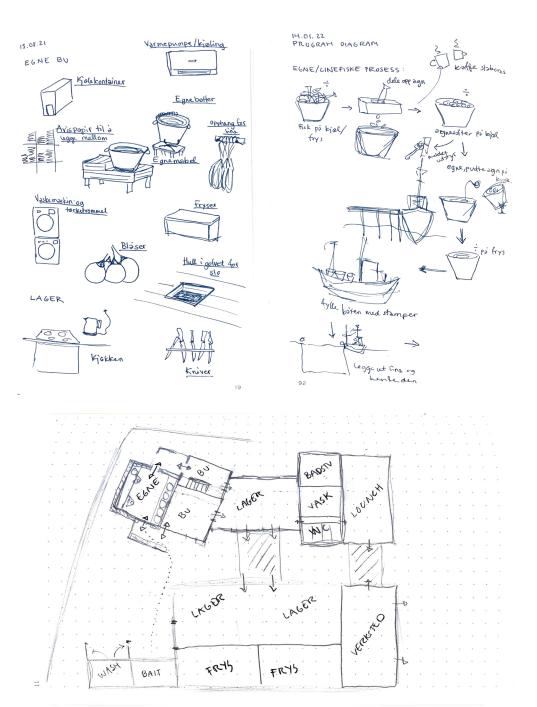


PROGRAM



PROGRAM SKETCHES

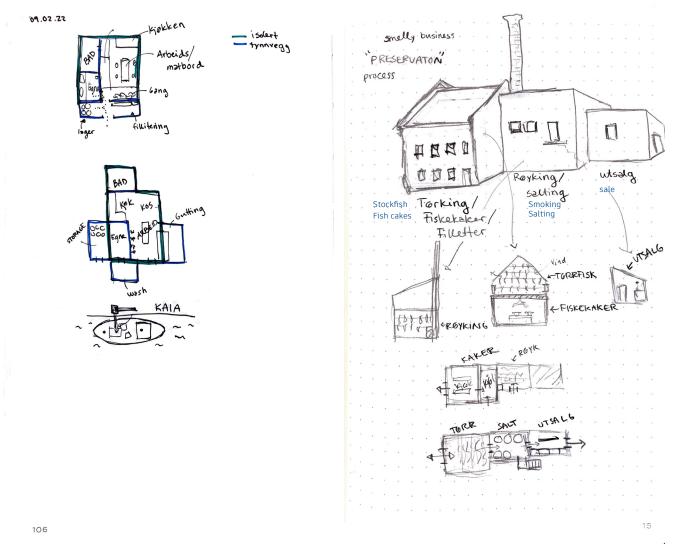
february





RELATIONS WITHIN THE PROGRAM

february



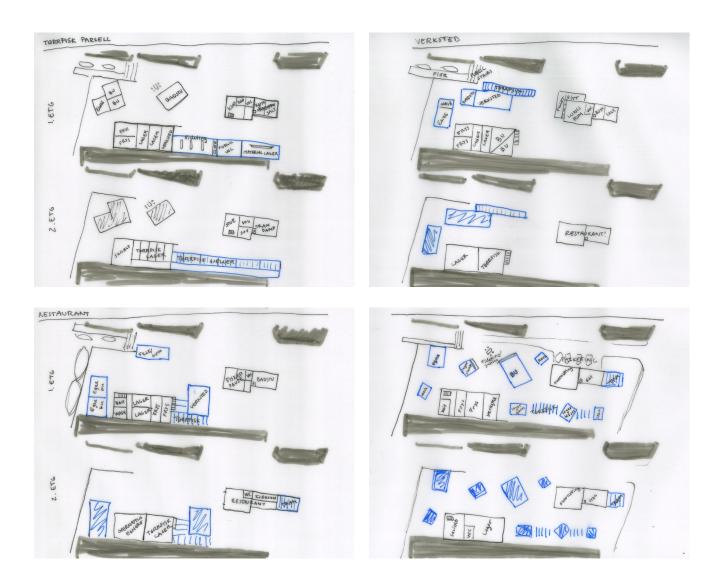
Borders between inside and outside

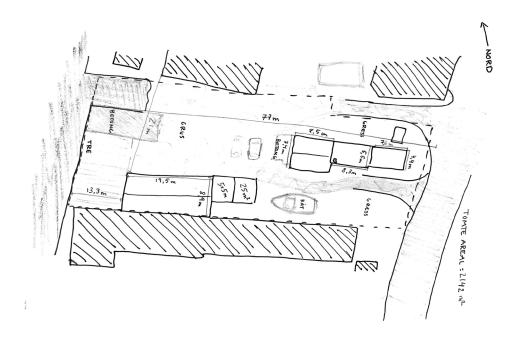
Placing preservation of fish in existing building, formerly codliver production



TESTING PROGRAM ON SITE

04.02.22



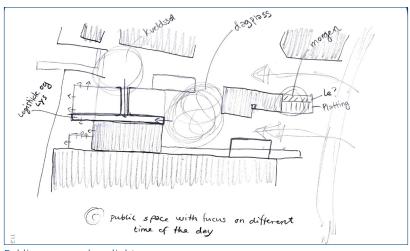


SITE

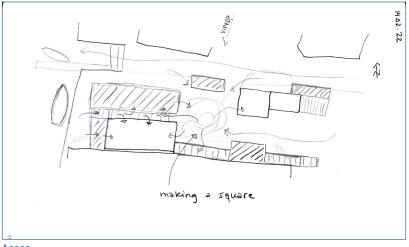


PLACING VOLUMES ON SITE

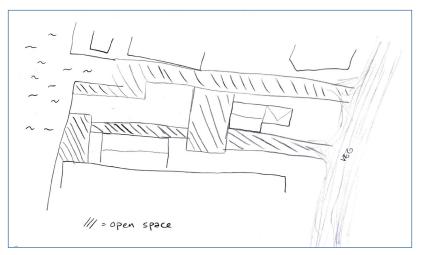
february



Public space and sunlight



Acess

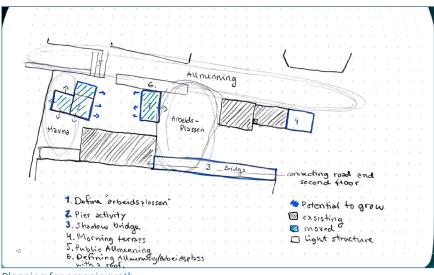


Open space

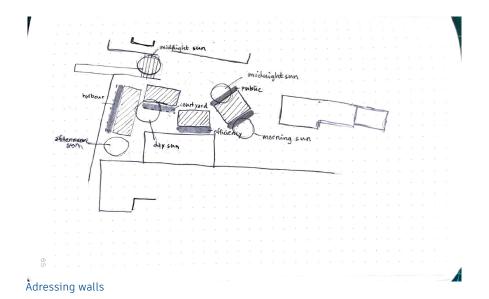


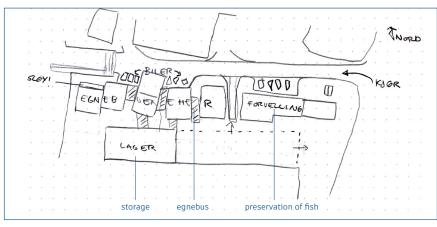
PLACING VOLUMES ON SITE

february



Planning for organic groth





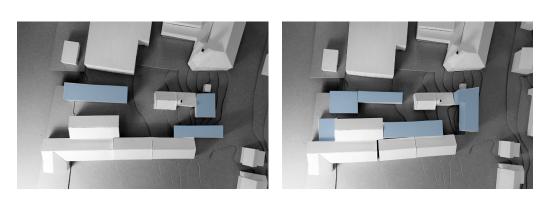
Seperating programs and give room to cars



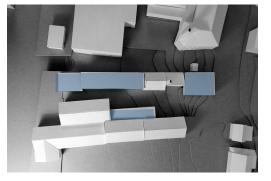
TESTING IN MODEL

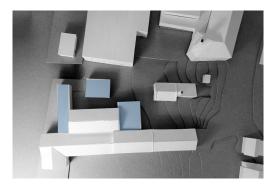
27.01.22



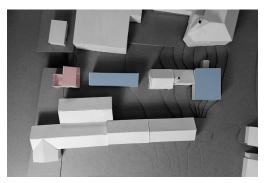




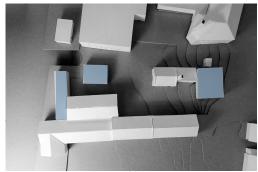


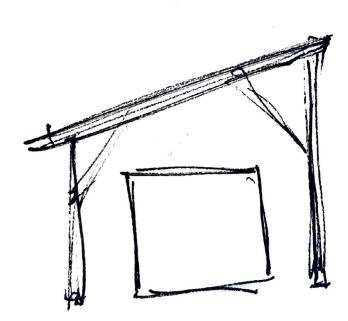








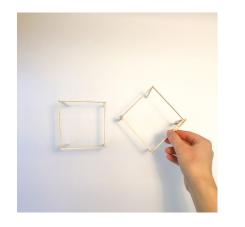




STRUCTURE + MATERIALS



PROCESS MODELS













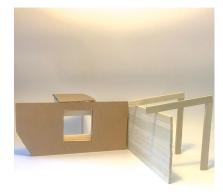






PROCESS MODELS



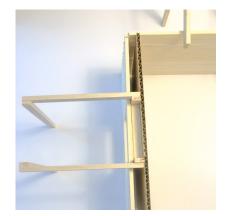






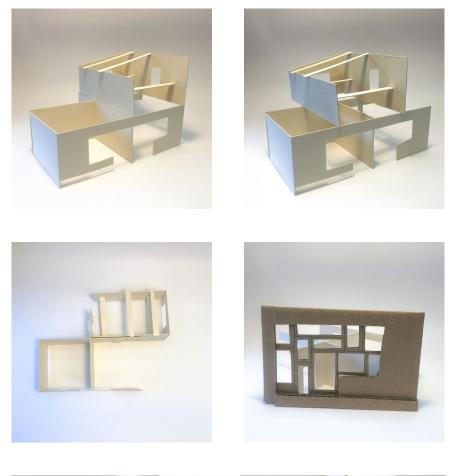








PROCESS MODELS





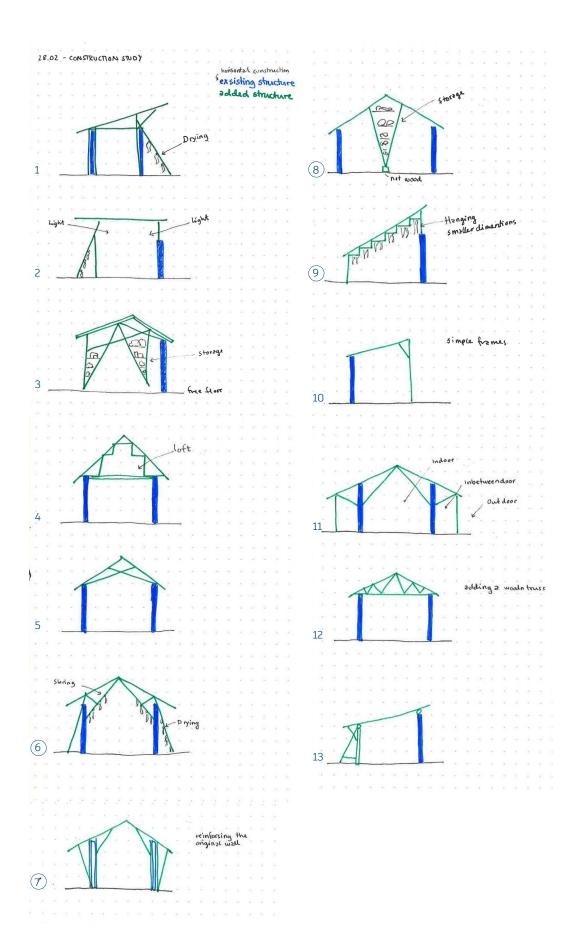


COMBINDING TIMBER WALL AND FRAMES

03.02.22 11.02.22 russhian timber logs: BURDE UNDERSEKES: Hvordan bruke de to byggere? miter à legge til ull?tre? 61257? Einer? PREMISSER 75×220 mm Ĩľ. ull'the 6123: Se på reportene over gjenbruksmaterialer fre inbance? Hvorden 12 verdiene veilede meg? kan de hjelpe? timberbox 5×5m nber box \$\$ 7.5m 08.02.22 mange små hus/ som lern flyttes nundt/opp är hvered Fest remene som solle, ezimmen på forrkjelli, måte? r. takstoler I Th Kjølekontzi ner Skis vinkel forti 2ndre hus på fornten har det, praktisk med av rennin? 3×6m ₽ TO DO: Kan rammene 23 102 25.02.22 STRATEGI 1 Q. D. D. 019 . Vegg STRATEGI Z wall do? iat can th Ø org. box tre STRATEGI 3 000 org. 12 box stender vegg STRATEGI 4



CONSTRUCTION SKETCHING





TESTING SKETCHES IN RHINO







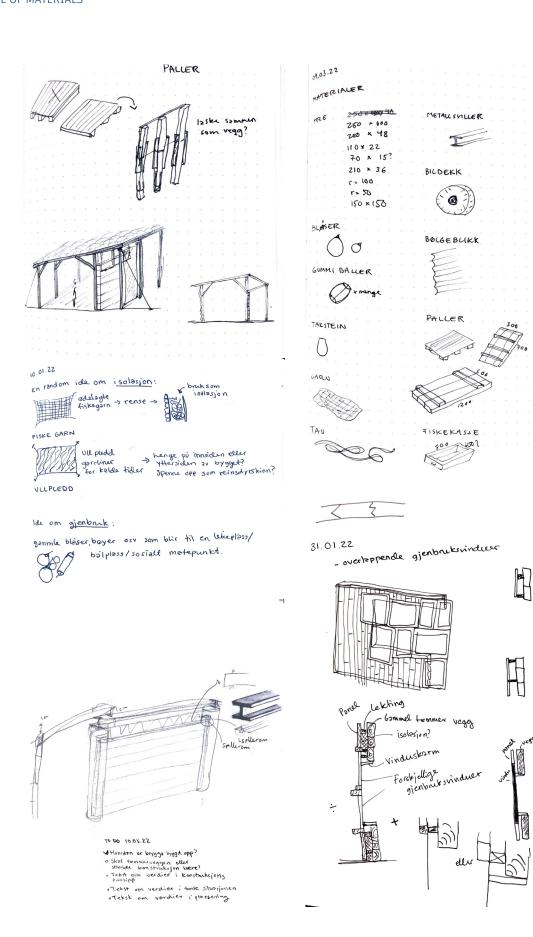






99







MATERIAL COLLAGE

09.03.22

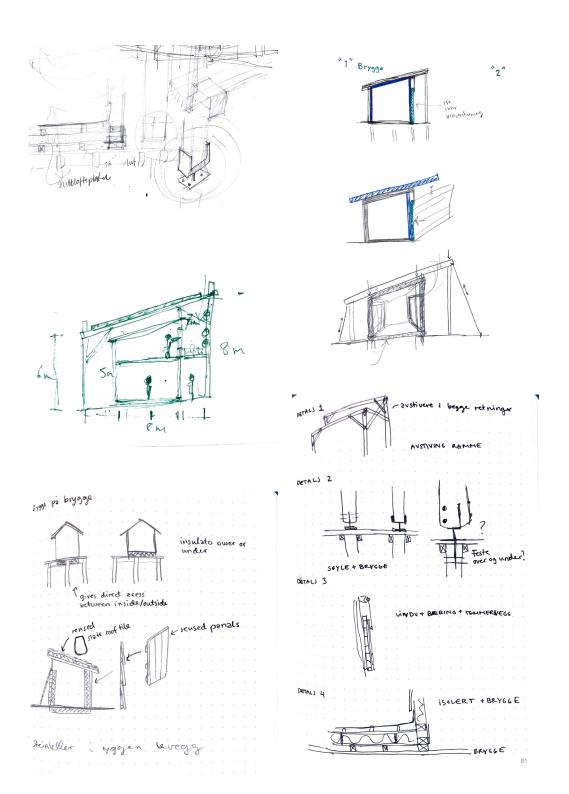




MATERIAL COLLAGE

09.03.22



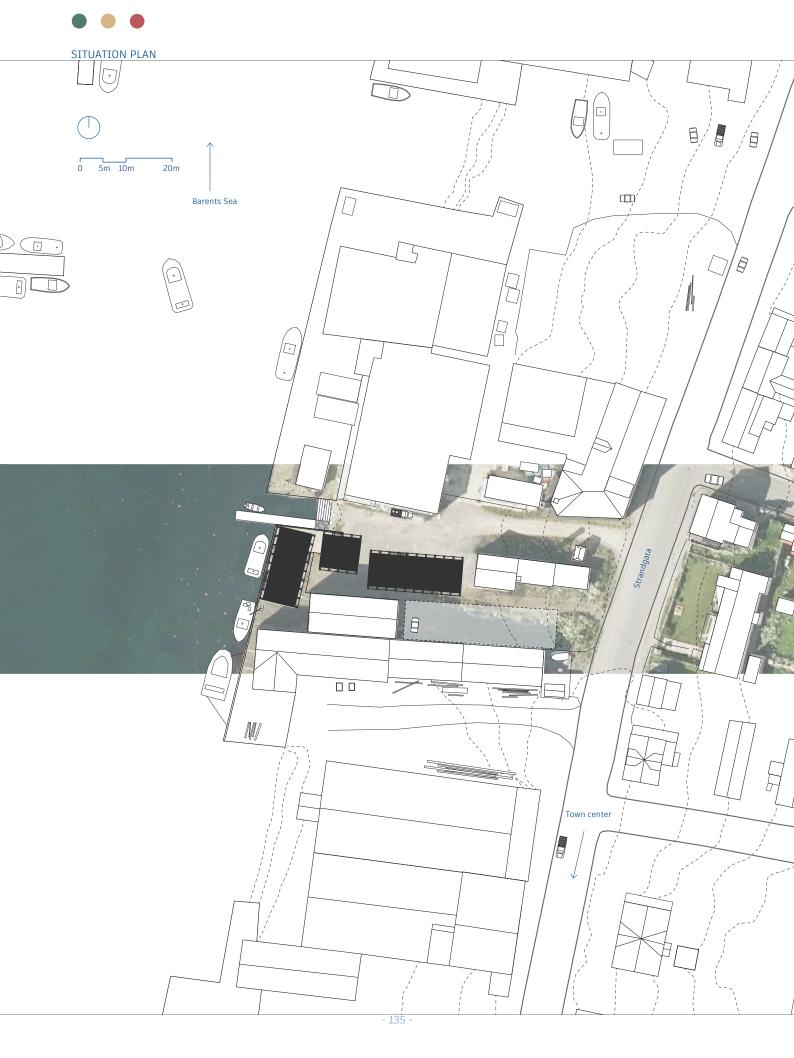


PROJECT

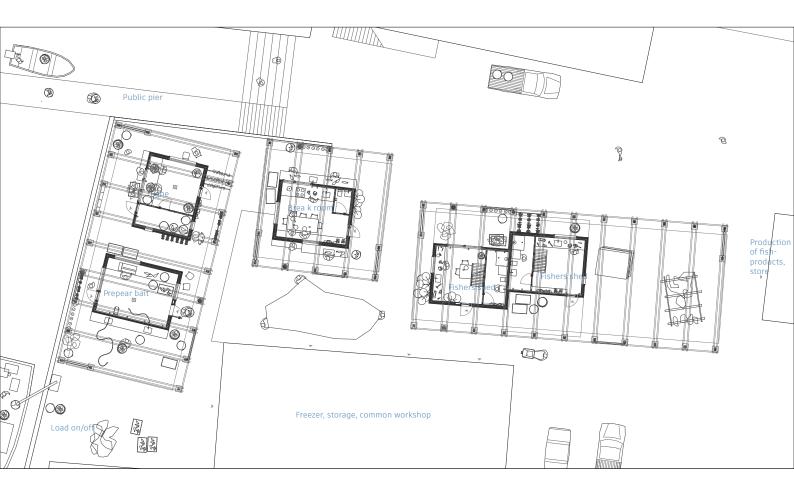
- Final drawings, illustrations and models

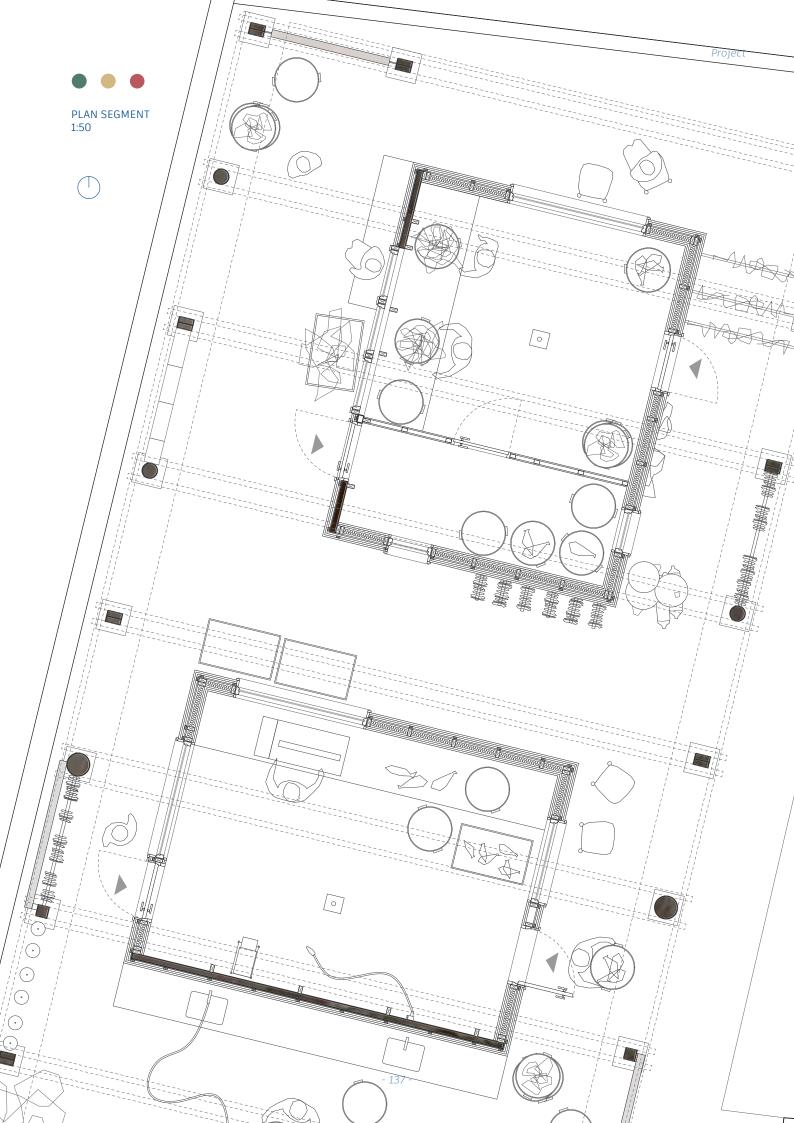


DIPLOMA - AHO - SPRING 2022 produced April 22.



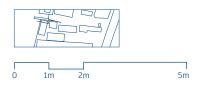
• • •	
PLAN	
\bigcirc	
0 1m 2m 5m	

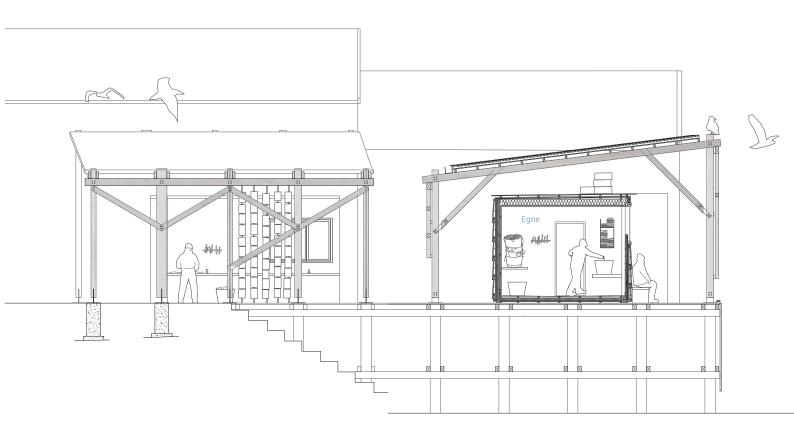




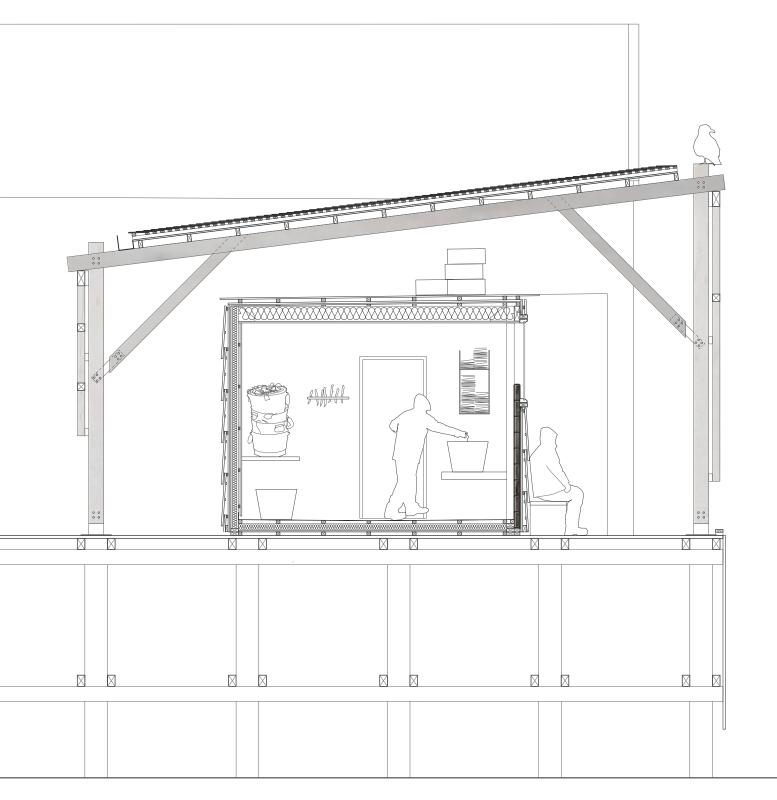


SECTION 1





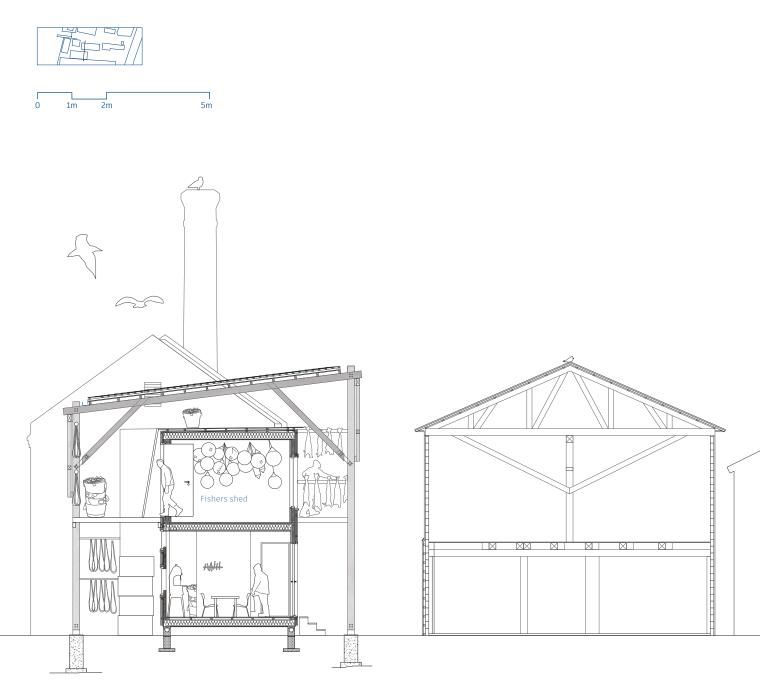


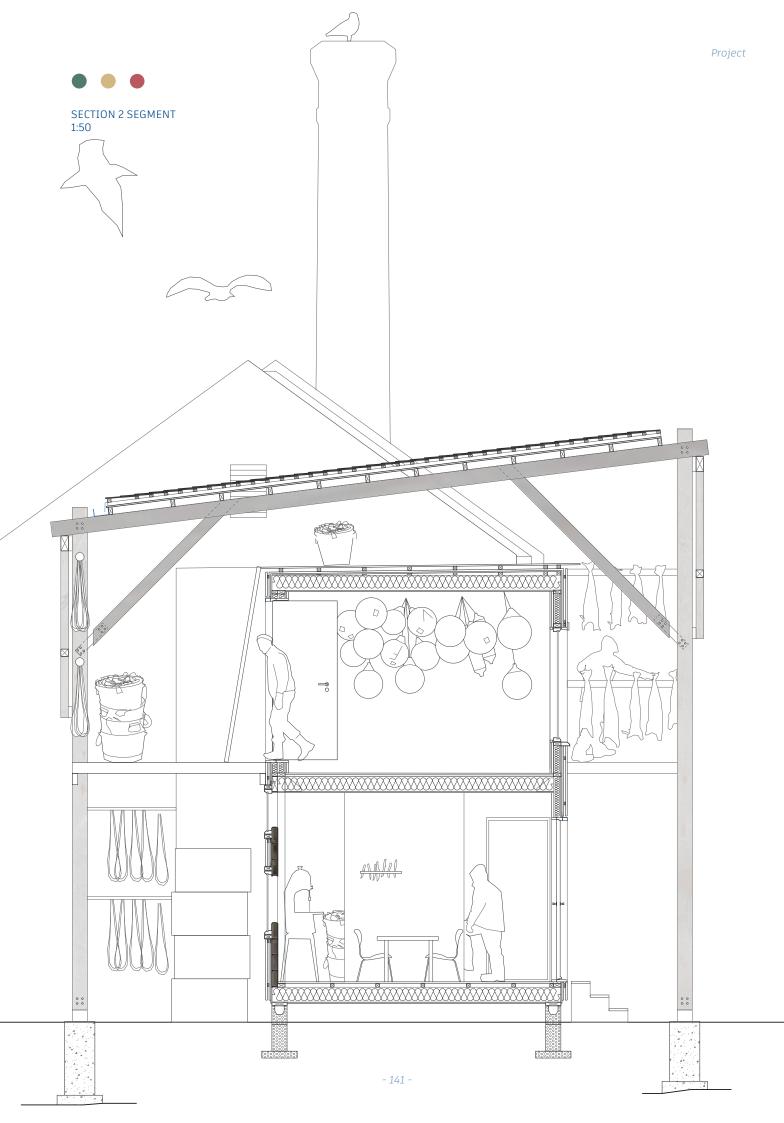


Project



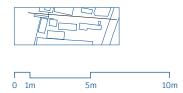
SECTION 2



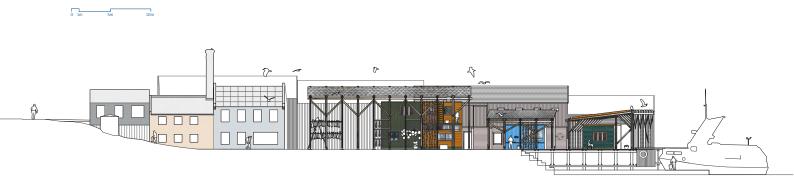




ELEVATION THROUGH SITE

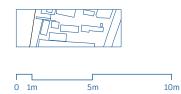


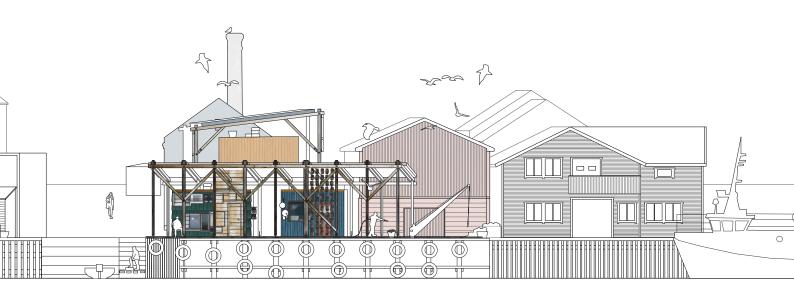


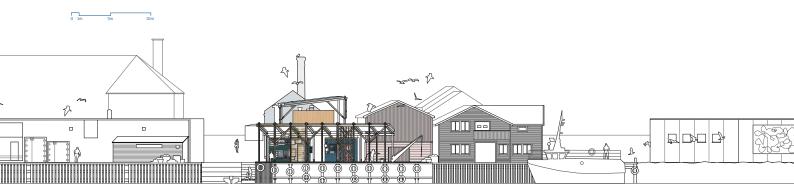




ELEVATION FROM HARBOUR

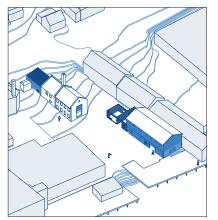






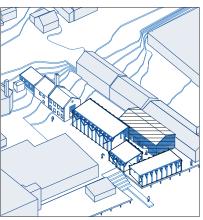


1



Disassembling timber box for reuse

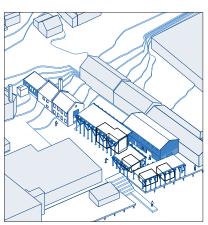
2



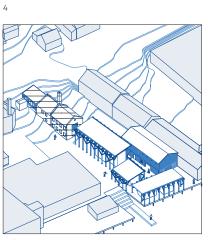
Refurbishing of the wooden building and building of the roofs

3

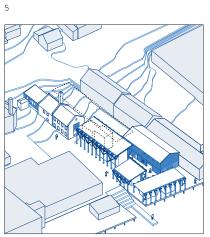
б



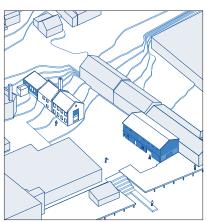
Building the insulated rooms



Refurbishing the concrete buildings and *timber box* by the road



In need of more space, adding volumes under the roof in east and expanding at the north-east part of the site



Partly or fully disassembling/removing to make room for something else









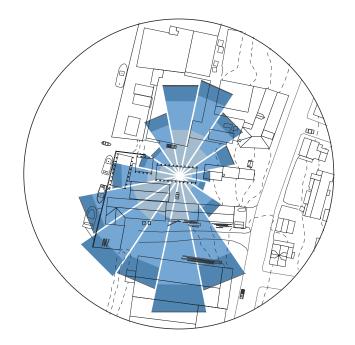


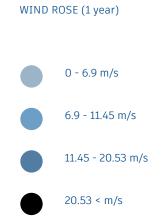






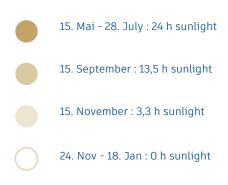








SUN PATH





INTERIOUR EGNE







EXTERIOUR COURTYARD

















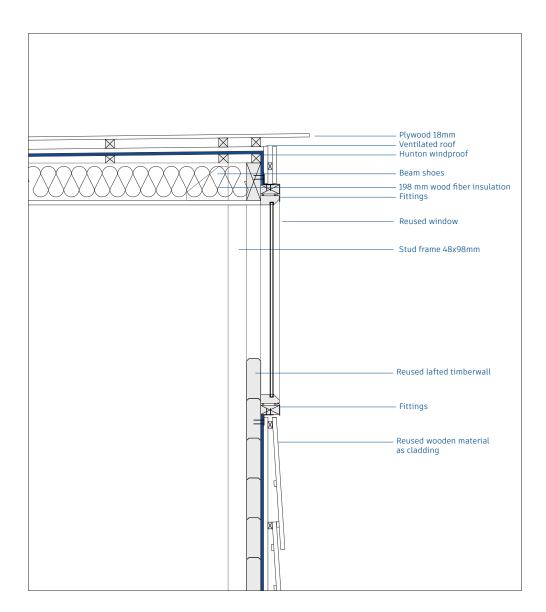






INSULATED ROOM + WINDOW

1:20





Wooden material used for cladding

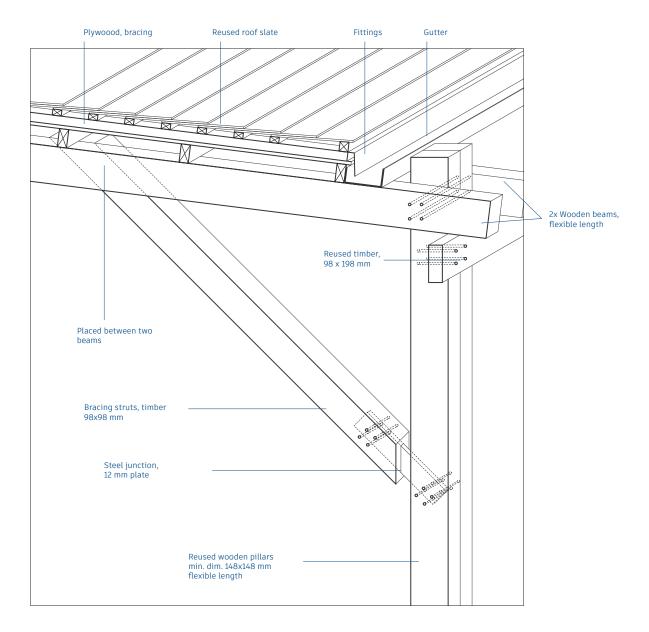
Lafted timber wall used as, insulation, interiour and wind bracing

Reused window



ROOF + FRAME

1:20 on A1





Wooden mateirals used for the frame, stored at site today

Roof slate

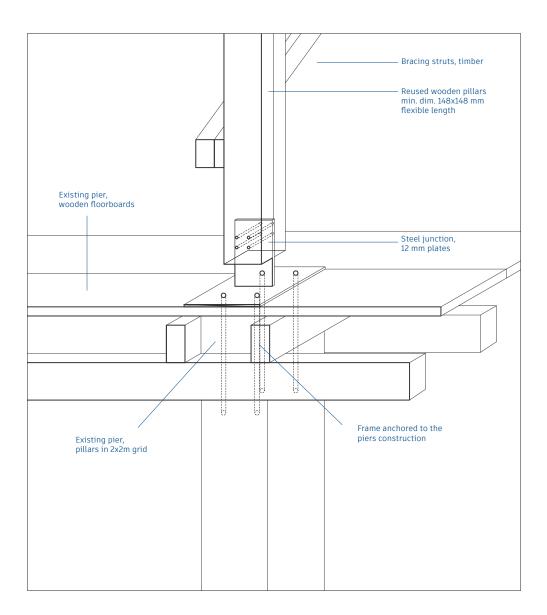


Wooden mateirals used for the frame



FRAME + PIER

1:20 on A1





Wooden mateirals used for the frame, stored at site today



Existing pier, with 2x2 m grided foundation



MODEL PHOTO 1:20 model











- 156 -



1:20 model





1:20 model





1:20 model

Break room





1:20 model

Break room





1:200 model









1:200 model





1:200 model



SÁMI ARCHITECTURE

- a notebook from my readings during prediploma



Man outside a turf hut in Ridalen https://digitaltmuseum.no/021017351967/mann-i-sorsamisk-gapta-utafor-gamme-holmstad-i-ridalen

PRE-DIPLOMA - AHO - SPRING 2021

Candidat: Helle Brænd Rabbås

Supervisor: Tine Hegli Through history Norway have tried to "teach" the Sámi, the indigenous people of northern Fennoscandia. "Teaching" them to believe in Christ, "teaching" them to become Norwegian and finally now "teaching" them to make a new modern architecture.

In my opinion we should stop "teaching", and rather start listening and LEARNING.

TABLE OF CONTENT

01 s.4	INTRO
02 s.5	BACKGROUND
03 s. 7	DEFINITIONS
04 s. 8	SÁMI SOCIAL STRUCTURE
05 s. 14	SÁMI BUILDING STRUCTURES
06 s. 23	SÁMI ARCHITECTURE TODAY
07 s. 31	DISCUSSION
08 s. 39	OUTRO
09 s. 40	LITTERATRUE



Reindeer feeding in between houses. Photot: Sunniva Skålnes 1

¹ Skålnes ect. Ein Plass for Alle Meahcce-tinga (Stamsund, 2015)

INTRO

Entering this topic in January I didn't know much about neither Sámi architecture nor culture. My own expectations, predetermined opinions and presumptions has been tested. My curiosity has driven me and even when I did not find what I was looking for, I would find something pushing me forward. I've learnt a lot, and this is the start of a living document that will be my notebook, changing as my points of view and understanding changes.

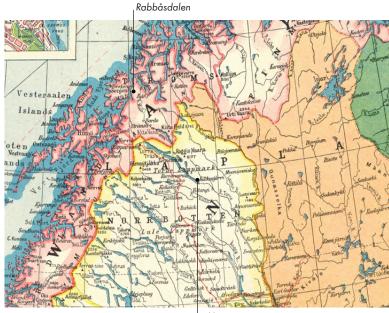


Goahti. Photo: Dration https://www.flickr.com/photos/dration/36426897503/in/photostream/

BACKGROUND

My interest in Sámi culture has been present since I was a child, when my dad told me I was partly Sámi. On my great grandfather Peder's 75th birthday he told his grandson Per, in shame, that he had found out that his parents where Sámi. He never spoke of this again.

I started this semester by calling Per to learn more about our family history. It turns out that my ancestors where reindeer herders, Lule Sámis with winter shed in Sweden and summer shed in Sørreisa just inside the big island Senja. In the early 1800 they settled in Rabbåsdalen. I don't know their story, or why they left their traditions, but my great grandfather got to know he was Sámi after he retired. With time to spare as a pensioner, he started reading about his heritage and realized that both his mother and father where Sámi.



Jukkasjärvi

Map from: https://www.ebay.com/itm/SCANDINAVIA-NORTH-Norway-Sweden-inset-Oslo-Christiania-Bergen-1920-old-map-/401293681301

BACKGROUND

During my schooling I have been shocked by how little we learn about Sámi traditions and culture, a living indigenous people in our country. There are many small events in my life leading me to choose this as the topic for my prediploma, and I am excited that I got this opportunity to get to know my heritage better.

This is my personal starting point for my interest in Sámi architecture. Based on a lost family memory of the traditions and my late ancestors.



Grat-grandparents. Peder Rabbås told his grandson he was Sámi on his 75th birthday, and never talked about it again

DEFINITIONS

When you hear Sami architecture it is easy to only think of the iconic *lavvu*. A movable tent used by the nomadic Sámis, carried on reindeer sleigh. This is one of the shapes that has been frequently used in modern Sámi institution buildings in the Sápmi region. But as I have learned after deciding on the topic of this prediploma, that is a very simplified and small part of what Sámi architecture is.

First I want to define three important terms in this prediploma, Sámi, architecture and my definition of Sámi architecture.

The Sámi people:

Store Norske Leksikon (SNL - Norwegian cyclopedia) defines the Sámi people as an indigenous people with their traditional settlement in Norway, Sweden, Finland and Russia. This settlement area is called Sapmí in the northern Sámi language, it does not have any clearly defined borders. The Sámi people consists of different sub groups, and a total of eleven different languages.² Unfortunately the history of the treatment of the indigenous people in Norway is as terrible as most other places in the world. The norwegianization of the Sámi people is a big topic and will not directly be a part of my prediploma, but it is unavoidable as it colors the discussion of what Sámi architecture is today.

Architecture:

By the oxford dictionary architecture is defined as the art or practice of designing and constructing buildings.³ This is a very limited definition. A wider definition is taken from SNL describing architecture as the design of things, buildings and structures in the landscape, seen individually or together, with the meaning that the practical and spiritual needs of the different environments are thereby satisfied and coordinated in a convincing way, all in terms of available resources and prevailing technical skill. All physical human work can thus be given the rank of architecture.⁴ Reading architecture in a more open sense also opens up the door to understand Sámi architecture in a bigger scale than the "lavvu". How cultural values effects the way we build, and how architecture the other way around can change our culture and way of living.

Sámi Architecture:

Sámi architecture is both the built structures of the Sámi people as well as the values that shaped them. In addition to the built structures, the space between, the nature around and the connection between the three of them needs to be understood to get a grip on the Sámi architecture.

² Store Norske Leksikon, "samer"

³ Ordnett.no «Oxford Dictionary architecture

⁴ Store Norske Leksikon, "arkitektur"

To understand the built environment in the Sámi tradition it's important to understand the traditional way of life. Being a people living in one of the world's harshest climate conditions, utilisation of the resources and living with nature has been the key.



Hundene får mat. The dogs get food. https://digitaltmuseum.no/021016875479/n-513b-hundene-far-mat-samer-mater-trekkhundene-sine-handkolorert-bildet

The definition of when the Sámi culture was established is not scientifically defined, but we know it evolved from the hunting and fishing culture that was established in the north after the latest ice age.⁵ At Træna, an island in Nordland, there is traces of settlement going back 10-12 000 years, with constructions with a clear link to the Sámi traditional buildings.⁶ The houses grew in size and into the ground as the moving patterns lead people to stay at one place for longer periods. Today we can find round pits as traces from this, in Varanger there ae large tufts form buildings that was there 2-4000 year ago. Even though this is the backdrop of the Sámi culture, the first period of established Sámi culture is from around year 0-1000, with tent structures and nomadic lifestyle.⁷

- 5 Sjølie, Byggeskikk I Sápmi (Kárášjohka: ČálliidLágádus, 2016). s.
- 6 Borgen, "Samenes Bygningskultur" (Byggekunst 36, 1954
- 7 Sjølie, Byggeskikk I Sápmi (Kárášjohka: ČálliidLágádus, 2016). s.21-25



house *tuff* from the stoneage at Mortensnes in Varangerfjorden. By: Frans-Arne Stylegard https://snl.no/Mortensnes

The Sámi people was divided into *siidas*, a consultation of a few families that cooperated to utilize the resources of the land. One *siida* had its territory with their moving pattern and seasonal settlements. Within the *siida* there was internal rules, rights and leaders.⁸ In these societies the socio cultural function's and the hierarchy were shown by subtle cues. These needn't be visible for someone from the outside, but where present and clear for the users. The structures where primarily expressed through the division of the room and by the usage. This differs from the western way of making these type of socio cultural structures expressed through visuals such as shape, material, colours, details etc. ⁹

9 Nango, Sámi Huksendáidda : The FANzine : 1 (Trondheim: Joar Nango, 2007).



A Sami family in front of a goahti in the foreground and a lavvu in the background (the picture is taken around 1900). https://en.wikipedia.org/wiki/Lavvu#/media/File:Saami_Family_1900.jpg

⁸ Sjølie, Byggeskikk I Sápmi (Kárášjohka: ČálliidLágádus, 2016). s.27

The seasonal moving patters where found within all the different subdivisions of the Sámi people. It was a way of adjusting life to the nature, to harvest as much as possible with the least resources. This way of life applied to fishing, hunting, farming and reindeer husbandry. Even as residency, and farming of the land became more normal, there was still moving patterns, sometimes reduced to only two settlements, summer and winter. It was a good way of making a sustainable use of resources. Nature, landscape and resources were a part of the whole.¹⁰ An example of the moving patter is winter settlement in the inner part of the fjord, summer settlement at the end of land before the open sea, and the autumn hunting in the mountains. There are clear traces of this moving patterns in Varanger.¹¹

10 Sjølie, Byggeskikk I Sápmi (Kárášjohka: ČálliidLágádus, 2016). s. 28

11 Vorren etc. Samekulturen : En Kulturhistorisk Oversikt (Tromsø: Universitetsforlaget, 1976)



Painting by Ivar Sælø. Lavvo on the summer mountain. https://digitaltmuseum.no/021028382032/maleri-av-ivar-saelo-lavvo-pa-sommerfjellet

The mobility gave restrictions to the built structures. Each settlement was carefully selected based on shelter, resources, climate and access to materials. They consisted of what was needed for its site and time of year. Some of the bigger structures were left behind as the *siida* moved on, while some of them were moved with the *siida*. ¹²

As the Sápmi region is covering four different countries, the founding of the different countries and the drawing of the borders ruined the traditional *siida* territories, which crossed borders. Even though there is little left of the *siida* territories today, many of the bigger Sámi towns, such as those in Varanger, still have the *siida* organisation.

12 Sjølie, Byggeskikk I Sápmi (Kárášjohka: ČálliidLágádus, 2016). s.21-30



Map of Sápmi, crossing four countries.

The Sámi people have lived side by side with the other settlers of the region, and have had a close trading relationships. This also mean that the different cultures were influenced by each other. What cannot go unmentioned, is how this relationship developed. The Sámi people went through a massive assimilation and their rights and culture have been suppressed for generations. I will not go further into this topic now, but it has been with me for the entire research and is necessary to bear in mind to understand the development of Sámi architecture and culture today.



Art by Máret Ánne Sara, made of 400 reindeer skulls, in front of the parliament as a protest against forced slater of Sámi reindeers (2017). Photo: IRJAN BALTO / NRK SÁPMI https://www.nrk.no/sapmi/trist-og-forbanna-_-henger-400-hodeskaller-utenfor-stortinget-1.13808195

To define Sámi architecture is not straight forward. The Sámi people have lived side by side with Norwegians, Swedes, Finns and Russians. This naturally results in cross knowledge and sometimes a blurry line of who made what. The Sámis have been influenced both in a natural way and a forced way during the development of their architecture. One example of shared knowledge is the used of wooden laft constructions. Sometimes one could inherit the lafted houses of once neighbours. This interaction has made it hard to separate the building traditions.¹³ This is one of the reasons why it's important to look at a bigger picture than only the built structure, when trying to understand Sámi architecture.

13 – Siglie Byggeskikk I Sápmi (Kárášiohka: Čálliid) ágádus 2016) s 16



Áiti with Reindeer skin, Mierojávri. Photo: Randi Sjølie/Sametinget¹⁴

¹⁴ Sjølie, Byggeskikk I Sápmi (Kárášjohka: ČálliidLágádus, 2016). s.96

Another factor making it hard to define Sámi Architecture is that it consists of so many sub groups with huge difference in language, climate conditions and structures. What they have in common, the climate in their area, excess to materials and profession, have been the main keys to the development of their architecture. Living with nature, adjusting to it, instead of making nature adjust to them. It's a part of their mind-set, with limited resources and continuous adjustments to changing conditions.¹⁵ Because of this, flexible and movable structures have been important.

There is little information about Sámi buildings. Not much was written down, and today there is few old Sámi buildings. During the second world war almost all buildings in Finnmark was burned to the ground. The traditional turf huts where built to go back to the nature (rot) and this applied to a lot of their traditional structure. Hence the traces are vague and the information little.¹⁶ Many may look at traditional Sámi architecture as "only tents" or primitive structures. But as Kjell Borgen put it in his book from 1954; there is experience behind all the things that was to be packed together on a reindeer sled, shipped long distances, being unpacked to become a shelter from harsh climate, only to be packed back down the next day.¹⁷

- 15 Skålnes, Conversation 10.03.21
- 16 De Coninck, Conversation, 14.03.2
- 7 Borgen, Kjell. "Samenes Bygningskultur." (Byggekunst 36, 1954

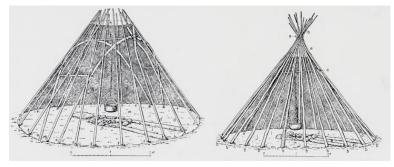


Photo: Alfred Skaar https://digitaltmuseum.no/021018573006/tilbake-til-vidda-etter-varmarkedet-i-bossekop-1939

The turf-hut construction is the earliest type of Sámi dwelling. This type of dwelling is called *goahti* in northern Sámi. It had different type of construction and cladding based mainly on the access to materials. It has been the most important structure in Sámi settlements, and has a life span of about 30 years.¹⁸ There are two main types of construction in the *goahti*, arch barrier construction and *kløftstenger* (branched cleft timber post). The constructions could be light and easily movable covered with tent cloth, or heavy and more permanent covered with turf. ¹⁹ There are also examples of *goahti* from the Swedish forest covered with wooden cladding, and examples of *ghoahti* with a lafted construction.

18 Nango, Sámi Huksendáidda : The FANzine : 1 (Trodehim: Joar Nango 2007)

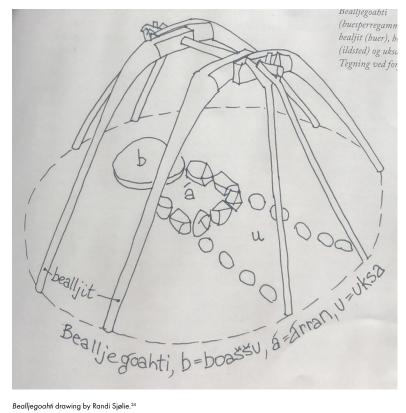
19 Sjølie. Byggeskikk I Sápmi (Kárášjohka: ČálliidLágádus, 2016) s.38



Arch barrier construction and kløftstenger 20

20 Vorren, Ørnulv, and Ernst Manker. Samekulturen : En Kulturhistorisk Oversikt. 2. Utg. ed. Tromsø: Universitetsforlaget, 1976. s. 70-71

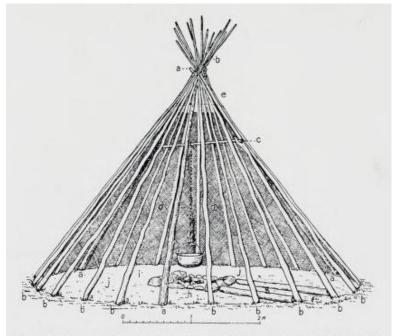
The plan of the goahti is round or oval, with a diameter of about 5m. In the middle there is a fireplace, arran. Between the entrance and the arran there is a framed area called uksa used for storing firewood and as a workplace for women. The opposite side of the arran is called boassu, a holy place used for the spiritual drum, hunting gear and kitchen garment.²¹ On each side there was room for the family members, parents in the inner part of the tent, children and servants towards the entrance.²² In the goahtis branches from the birch and spruce from the area was used to cover the floor. Reindeer skin was used to make it more comfortable.²³



Bealljegoahti drawing by Randi Sjølie.²⁴

Lávvu is the most mobile type of ghoati. They are pointy tents that could easly be moved around on a reindeer sleigh. The construction consists of three main pillars with a *kløft* (branched cleft) in the top, making a tripod stand. There are between 12-18 wall pillars, they should be straight, slim and ca. 4 m. There is an opening in the tentcloth in the top to let the smoke out.²⁵ To divide the room into sleeping spots, one could hang smaller tents of canvas called raggas in the constructions. This was often used by reindeer herders in the summer.²⁶ During winter thick multi-coloured woollen fabrics made by permanent resident Sami or sea Sami, was used as tent fabrics. In the summer both canvas and thinner woollen fabrics where used. ²⁷ This dwelling was easy to build and it could be taken along to the next stop, or the pillars could be left for the next visit.²⁸

- 25 Sjølie. Byggeskikk I Sápmi (Kárášjohka: ČálliidLágádus, 2016) s.36-41
- 26 Vorren. Flyttsamenes Husformer (Tromsø: Universitetsforlaget, 1966)
- 27 Vorren etc. Samekulturen : En Kulturhistorisk Oversikt (Tromsø: Universitetsforlaget, 1976
- 28 Sjølie. Byggeskikk I Sápmi (Kárášjohka: ČálliidLágádus, 2016) s.36-39



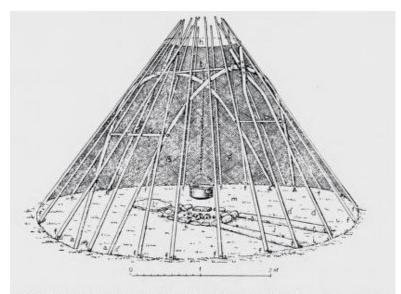
Enkelt teltskjelett som brukes i skogsområder. a: hovedstenger med suler, b: teltstenger, c: røykås, d: teltduk, e: røykåpning, f: døråpning, g: plass for brensel, h: ildsted, i: «kjøkkenavdeling», j: oppholdsrommene på begge sider av grua.

Drawing of a goahti with kløftstang construction ²⁹

²⁹ Vorren etc. Samekulturen : En Kulturhistorisk Oversikt (Tromsø: Universitetsforlaget, 1976) s. 71

Bealjit means arches, and Bealjitgoahtis are buildings constructed of two arch barriers. These are put together of two pillars of carefully choses trees cut down on rising moon. They should be about 3 meters long and have the right curve. They are put upside down and joined with a finely executed wooden connection. An ås (ridge) is pulled through holes in the arches, connecting them. There are two extra pillars on each side of the ås (ridge) ends. They shape the entrance and work as extra support. In addition, there is supporting beam connecting the arches on each side. ³⁰ Outside of the main skeleton there is 10-12 pillars for the walls.

30 Sjølie. Byggeskikk I Sápmi (Kárášjohka: ČálliidLágádus, 2016) s.29-03



Teltskjelettet til det typiske sametelt. a: de buede sperrene, b: røykåsen, c: tverrtrærne, d: dørkarmene, e: bakre støttestang, f: teltstengene, g: teltduken, h: røykåpningen, i: døråpningen, j: plass for brensel, k: grue, l: kjøkkenavdeling, m: oppholdsstedene på begge sider av grua.

Drawing of a goahti with kløftstang konstruksjon³¹

³¹ Vorren etc. Samekulturen : En Kulturhistorisk Oversikt (Tromsø: Universitetsforlaget, 1976). 71

Ligh versions of the *bealjitgoahti* was covered in canvas or wool, and specialised reindeer sleds where constructed to move the *goahti*. Normally the wooden structure, canvas, door and sometimes even the stones for the *arran* was taken along. ³²

The turf-hut version of the *bealjit* was more permanent, even though the wooden construction could be reused. The main skeleton would be filled with wooden straight pillars serving as the inner walls. Outside of this a layer of *never* (birch bark) would be used as a water repelling layer, before the turf served as insulating. In the south Sápmi the wall pillars are extending beyond the arches creating a cone shape, the turf was placed flat along the construction (sometimes they would use *kløftekonstruksjon* (branched cleft construction) under the turf as well). In the north Sápmi the pillars where cut and bended at the supporting beam between the arches, creating an arched shape. Here the turf layer was placed horizontal like a brick wall.³³

- 32 Sjølie. Byggeskikk I Sápmi (Kárášjohka: ČálliidLágádus, 2016) s.32-33
- 33 Sjølie. Byggeskikk I Sápmi (Kárášjohka: ČálliidLágádus, 2016) s.36-41

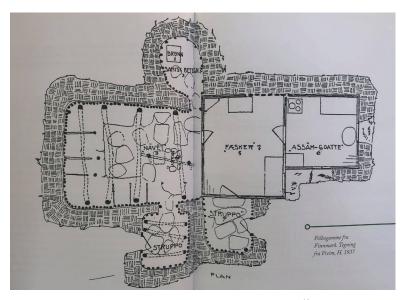


South Sámi Gamme. Foto: Schrøder/Sveresborg Trøndelag Folkemuseum

https://digitaltmuseum.no/011012893470/matheusmortensson-fra-elga-engerdal-med-datter-og-sonnerved-den-gjenreiste/media?slide=0 North Sámi Gamme. Finnmark. Finnmarks fylkesbibliotek https://digitaltmuseum.no/021016397463/mann-i-samedraktstar-utenfor-en-torvgamme-dora-til-torvgammen-er-apen

The turf-hut, gamme, later developed to bigger more complex structures. They could have multiple rooms, with different wooden structures underneath eg. a combination of laft and arches. These could be houses both for people and animals, and sometimes for both. ³⁴

34 – Sjølie. Byggeskikk I Sápmi (Kárášjohka: ČálliidLágádus, 2016) s.39-56



Gamme for both humans and animals. Finnmark. Drawing from Vreim, H, 1937 $^{\rm 35}$

35 Sjølie. Byggeskikk I Sápmi (Kárášjohka: ČálliidLágádus, 2016) s.46-47

Other important structures in Sámi architecture are all the different sheds and stands. There where all types of stands, dedicated to specific chores, like drying meet, storing gear up from the ground etc. *Njallae* is an example of a storage shed on stilts. Usually filled with gear for the different season waiting at a certain place in the moving pattern. *Njalle* is a lafted structure on top off rooted logs.



Stolpebur, Hattfjelldal. Foto: Elin Kristina Jåma/Sametinget³⁶

36 Sjølie. Byggeskikk I Sápmi (Kárášjohka: ČálliidLágádus, 2016) s.59

The colonisation and assimilation of the Sámi people have forced them into adjusting to modern Norwegian houses and institutions.



A newly built house and the traditional rack for drying fishing nets. Sunnvia skålnes. $^{\mbox{\tiny 3}}$



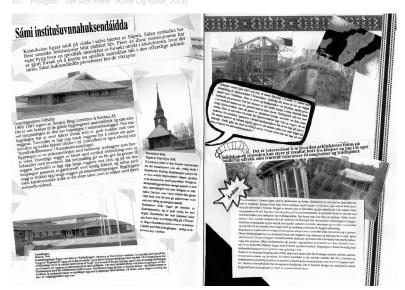
Entrance hall i Kautokeino cultural building (1979-81), signed BOARCH, Bodø. Arti in the concrete wall by Aage Gaup. Photo: Jan Martin Berg, 2003.³⁸

³⁸ Haugdal. "Det Skal Råtne" (Kunst Og Kultur, 2013) s.7

Many sees the modern Sámi architecture as the newly established institutions in Sápmi. During the postmodern period this buildings and architecture was perceived as a picture, resulting in symbolism. Today its more focus on building process, peculiar rooms, connection to landscape, climate adjustments, social practise, use of materials and sustainability. But still it is easy to end up with projecting the stereotypes. ³⁹

Elin Haugdal has written an article about use of materials in modern Sámi architecture, comparing the use in the new big Sámi institutions, questioning if the material use produce Sámi awareness or barely mediate serotypes.⁴⁰ The large public buildings built in Sápmi since 1970 are mostly built by non-Sámi architects making their own understanding of what Sámi architecture should be. Weather they have succeeded or not is hard to evaluate. These buildings are important to lift the Sámi culture up and forward in our society, and consists of recognised symbols. But at the same time, they are simplified and might even limit the future of Sámi architecture as Joar Nango discusses in his three booklets about Sámi architecture.

³⁹ Haugdal. "Det Skal Råtne" (Kunst Og Kultur, 2013)



A page from Joar Nangos booklet nr.1 ⁴¹

⁴¹ Nango, Sámi Huksendáidda : The FANzine : 1 (Trondehim: Joar Nango 2007)

As materials appeal to your senses, these are often used to try to translate the old traditions into new buildings. The materials are given meanings, normally paradoxically, when trying to connect them to a Sámi context. Hence text work and descriptions of the buildings becomes important when making this connection. Also the text for the architectural competitions becomes important when defining a sensitive identity approach. Some word pairs becomes important when describing the use of materials; imported/local, extravagant/rational, high-tech/natural and polished/ruff.⁴²

⁴² Haugdal. "Det Skal Råtne" (Kunst Og Kultur, 2013



De Samiske Samlinger (Sámi Collections) in Karasjok from 1972. Art by Aslaug Juliussens. Photo: Elin Haugdal 2010⁴³

⁴³ Haugdal. "Det Skal Råtne" (Kunst Og Kultur, 2013) s. 2

One of the most famous Sámi buildings is Sametinget (Sámi parliament) in Karasjok, designed by non-Sámi Stein Halvorsen and Christian Sundby. The parliament room is shaped as a lavvu, with a circular plan and a circular opening in the roof, symbolizing the openings for the smoke to exit. The material use in the facade is untreated wood from Siberia and refers back to the ruff wooden material use in Sámi tradition. Big windows make the connection to the landscape. Lars Sundstöm criticises it for being a building for Sámi instead of by Sámi, pushing to involve Sámi artist into the process to get a better understanding of the deeper values, not only the symbols. He highlights that the Sámi way of connecting to the landscape is practical not visual.⁴⁴ Use of Siberian wood can be criticised as the traditional reason for using wood was local available resources, ruining the attempted connection.⁴⁵ Joar Nango points out that there have been built enough giant lavvus, and that what they all miss is the corner stone of the structure, the fact that its movable.46

- 44 Påvall, Samisk Arkitektur Okänd I Sveriae, (Arkitekttidningen, Stockholm: SAR, 2001)
- 45 Haugdal. "Det Skal Råtne" (Kunst Og Kultur, 2013)

46 Nango, Sámi Huksendáidda : The FANzine : 1 (Trondheim: Joar Nango, 2007)



Lavvu shaped parliament hall at Sametinget. Photot from Stein Halvorsen Arkitekter website. read 27.04.21 http://sh-arkitekter.no/portfolio/courthouse/sametinget/

Making an opening in the roof, like the smoke opening in traditional Sámi architecture, has been done in many modern "Sámi" buildings. Often text is used to make a connection, in Karasjok church described like this; "*lysinslippet* (the light opening) over the centre of the roof gives associations to the smoke hatch in a gamme" and in *Indre Finnmark Tingrett* (courthouse); "As in the *lavvo* and *gamme*, the sky light fills the room". ⁴⁷

47 Haugdal. "Det Skal Råtne" (Kunst Og Kultur, 2013



Karasjok church. Photo: Helge Høifødt https://no.wikipedia.org/wiki/Karasjok_kirke#/media/Fil:Karasjok_kirkeJPG

Though these institutional buildings are the once that are flagged and most known, we find modern Sámi architecture in the houses of the Sámi people today. After the burning of Finnmark during the war, *Bealljegoahtis* have been exchanged with post-war standard houses. Assimilation and entry of modernity also changed the Sámi housing. When the first ovens were installed in the *Goahti*, there was no more need for the smoke opening in the roof. This led to no light entering and less heat because the oven was less efficient than the open fire. Hence there had to be made more changes. At the same time the economic change from exchanging goods to the use of money brought the settlements of the different nomadic Sámis closer together instead of spread around the *vidde* (platau).⁴⁸

⁴⁸ Vorren. Flyttsamenes Husformer. (Tromsø: Universitetsforlaget, 1966)



Åmod guatte. Photo: John Ole Nilsen 1967 https://digitaltmuseum.no/021016546942/amod-guatte-a-eikjoks-gamme

As mentioned, today most Sámi lives in standard houses, houses that are the same all over the country. These houses gave a new standard, but lacked site adaption and more importantly did not meet the needs of the Sámis. The state overruled the minority, and made the minority problem into a social problem where the Sámi became the social clients. ⁴⁹ Some standard houses tried to adjust to the Sámi lifestyle, eg. *Klemet, Kautokeino* and *Hus for flyttsame*. ⁵⁰ However, you cannot define Sámi architecture only by looking at these houses, which clearly are not designed by Sámis. To understand Sámi architecture today we need to look at the whole living space that continues outside the house into the garden and further out on the *vidde*. If you look closely, you will find small interventions and changes in the houses revealing Sámi culture and identity.

50 Sjølie. Byggeskikk I Sápmi (Kárášjohka: ČálliidLágádus, 2016) s.152



The fence is used for drying reindeer skins early in the spring (springwinter). Photo: Sunniva Skålnes ⁵¹

⁴⁹ Nango, Sámi Huksendáidda : The FANzine : 1 (Trondheim: Joar Nango, 2007)

⁵¹ Skålnes etc. Ein Plass for Alle Meahcce-tinga (Stamsund, 2015) s.368

The space in and around a Sámi home is often filled with everything you need to live, work, harvest and move around. There are many small practical sheds for drying meat end storing tools. As the seasons change, so will the appearance of a Sámi home, because of the changes in chores. ⁵² Some of the identity also lies in the smaller changes and use of these standard houses. ⁵³ Sunniva Skålnes describes these small interventions in her booklet "The sámi self-building tradition". She writes about a porch turning into a dedicated place to dry reindeer skin and a woman hanging colourful traditional mittens in the window. Practical solutions that also shows identity to the people passing by. It's important to remember this part of the architecture when talking about modern sámi architecture.⁵⁴

- 3 Skålnes, "Samtidig Samisk Arkitektur." (Arkitektur N Årg. 90, Nr. 3, 2008) s. 20-27.
- 54 Skålnes, The sámi Self-building Tradition (Indigenuity Project, 2010).



Mittens in the window. Photo: Sunniva Skålnes 55

55 Skålnes, The sámi Self-building Tradition (Indigenuity Project, 2010)

⁵² Skålnes, The sámi Self-building Tradition (Indigenuity Project, 2010)

From the moment I decided I wanted to work with Sámi architecture, I asked myself: who am I in this? Coming from the outside, entering someone else's traditions. Yes, my great grandfather was Sámi, but it is still not a part of my identity, or is it?

My intentions are only interest and curiosity, but still my presumptions and ignorance colour me. I have/had my ideas and thoughts about what this culture and traditions are. During a phone call with Joar Nango (Sámi artist and architect), he mentioned exotification and museumification, and I realized that I myself have the tendency to look through the eyes of "exotic-binoculars". I think it's an easy trap to fall into when you are entering from the outside. I will have to face this and all the other misunderstandings and mistakes I have done and will make.



A picture of Sara Paulsen 55, with daughters and Morthen Mortensen 69. Picture is taken in 1922 in Ridal. Racial scientist Jan Aldred Mjøen is measuring Saras skull as a represent for racial biological science in Norway at that time. Photo: Vindern Laboratorium

I have through these months realized that the picture is much more complex than what I first thought. This prediploma of research, and my diploma task will only be the beginning of trying to understand. History, lifestyle and traditions cannot be separated. Therefore, I find it hard to write these two documents, I don't feel like I know this well enough yet to be allowed to write about it, still I will try with a note that I most likely will correct myself at a later stage.

In my first text about this topic I wrote "my ancestors and their culture has grown in me as a mystic northern light". I think there is two reasons for my understanding of Sámi architecture as mystic, one; no one ever taught me about it, two; I have a total lack of contact with nature.

After watching the Swedish documentary "samernas tid", informing about the tight trading relationship that has been between the Sámi and the Norwegians, how the Sámi made seal-fat that was used to maintain the Viking ships, it suddenly appeared to me how close our histories are, in fact how they are woven together. Not shocking when thinking about it. In a way I felt like half of our history has been erased, by eliminating the Sámi from the history, only half a picture is drawn, a part we will need to understand our self. Not only because we traded and where depended of each other, but also the fact that we have crossed knowledge back and forth, and last but not least, "they did fuck" as it was put to me straight from a fisherman. Most of us have a Sami ancestor and our histories should not be told separate. I think this understanding can help clearing some of the mystery and decrease the gap.



A screenshot from "samernas tid" showing a remake of a trading situation between Sámis and Vikings. https://tv.nrk.no/serie/samenes-tid/sesong/1/episode/1/avspiller

The second reason is the connection to nature. As a university student in Oslo, the capital city, my main relation to the weather is through yr.no (weather forecast) and simulations in data programs when analysing a site when placing a building. My relation to nature is purely pleasure and my relation to resources comes wrapped in plastic from Rema 1000 (grocery store). I as many others have lost "touch" with nature, it somehow feels exotic and mystic the way the Sámi reads nature and lives with the landscape and resources. At the same time this coexistence is not unique and any fisherman or other person living with and of the nature will have this type of understanding. It's a way of thinking that I can learn a lot from, making it important to trying to understand as I am to design for the future.



Reindeer on the Vidda. Photo: Guro Lien https://hardangervidda.com/dyreliv-hardangervidda/

These are some of the discussions I have had with myself during this semester. I have also been enlightened with discussions from the texts I've been reading. These questions and critical points of view have been important to me on my path.



East Sámi museum in Neiden. Architects: Pir II arkitektkontor. Photo: Honna Havas⁵⁶

56 Haugdal. "Det Skal Råtne" (Kunst Og Kultur, 2013) s.1

The modern institution architecture in Sápmi is often what is though about when mentioning modern Sámi architecture. They are drawn by non-Sámi architects, defining how we look at Sámi architecture. Sunniva Skålnes writes about this in her text "The sámi Self-building Tradition", describing them as good attempts, but pointing out that there is a need to go through them, differentiate good and bad to learn. She asks if the will to help is the problem.⁵⁷ One of the problems of making monumental institutional architecture is that this is not a part of Sámi tradition. It became a hasted project, where the Sámi where not given the time to find their own way. It is easy to anchor identity in the past, but in "Sámi Huksendáidda" by Joar Nango its described how expressing through a set of fixed characters and symbols can lead to stagnation instead of development.⁵⁸

⁵⁷ Skålnes, The sámi Self-building Tradition (Sámi Huksenárbevierut : Golbma Gova. S.I.: Indigenuity Project, 2010).

⁵⁸ Nango, Joar. Sámi Huksendáidda : The FANzine : 1 : For Begynnere. Vol. 1. Trondheim: Joar Nango, 2007

The Swedish architect Lars Sundström criticises Sametinget in Karasjok for being a building for, not of Sámi people. He claims that the building is better suited for a western public setting than a Sámi. By involving Sámi artists, the building would have gotten closer to become Sámi. 59

At the same time as these buildings might give a wrong impression of Sámi architecture, and sometimes maybe limit what Sámi architecture can be, trying to modernise architectural traditional expressions can help decreasing the gap between indigenous people and the modern world. But to do this there is a lot of considerations that needs to be taken, to not make an assimilation-tool using conventional buildings to force a change in their traditions.⁶⁰

Elin Haugli has written an article called "Det Skal Råtne" (it shall rot) about the use of materials and rhetoric in recent Sámi architecture. In this article she describes different buildings and the importance of words, when the materials are over analysed, to find a Sámi connection. She highlights the importance of rhetoric in competitions when sensitive identity questions are at stake. The shapes of light openings in buildings are utilized and described as "northern light", "the belt in the traditional costume", "flashing iceblock in the sun" etc. to associate and refer to Sámi culture.

An example of over interpreted materials are turf and birch, they have been given a meaning outside of their practical role in the historical building tradition. Around the year 2000 they have been given a more superficial and metaphorical meaning. Another critic is raised against the symbolic use of movable structures in public buildings in Sápmi. Again Sametinge is criticised, this time for the lavvu shaped parliament hall, a tangible interpretation of a tent where its advantages as movable and flexible is made grounded and unchanging.⁶¹

⁶⁰ Nango. Does Reality = Dahka Duohtavuohta (Trondheim: Joar Nango, 2008)
61 Haugdal. "Det Skal Råtne" (Kunst Og Kultur, 2013)

These days the new way of thinking when discussing indigenous architecture is to look away from materials and towards activity and use. Where values become more important than pictures. This is mentioned both by Nango and Haugli. As a different way of thinking Nango asks if the Sámi festivals can become the new Sámi landscape as the seasonal movement patterns and their landscapes are disappearing.⁶²

62 Nango. Sámi Huksendáidda : The FANzine : 1 (Trondheim: Joar Nango, 2007)



Picture from the Sámi festival Riddu Riddu https://riddu.no/nb/reise-og-overnatting

The Sámi as reindeer herders has become the known picture. Enforced by truism and media. But this is a limited picture not showing the diversity and numerus ways of being a Sámi.⁶³ The sea-Sámi culture is also big, but less talked about, maybe because it's not as easy to define. The coast is an important trading place and different people have met to exchange goods and ideas. There is also the Sámi teacher, doctor, musician, politician or electrician, not living of the traditional professions, but still being Sámi. "the Sami is not clear and distinct in the same way that Sami art is not unambiguous" ⁶⁴

63 Skålnes. "Samtidia Samisk Arkitektur." (Arkitektur N Åra. 90, Nr. 3, 2008)

64 Nango. Sámi Huksendáidda : The FANzine : 1 (Trondheim: Joar Nango, 2007)



Aili Keskitalo, the president of the Sámi Parliament. https://sametinget.no/aktuelt/sametingspresidentens-nyttarstale.10179.aspx

As I did, many outsiders entering the sámi culture, traditions and architecture tend to search for the differences. By only looking at the differences between the Norwegians and the Sámi, we are making Sámi exotic and increasing the gap.⁶⁵ Sometimes it seems like the modern architecture for indigenous people is all about making an appearance and stand out, like there are no rules or guidelines.⁶⁶ Everything is about showing how different and special the culture is. My phone call with Nango made me aware of how we over analyse what was only done in order to survive. By looking for a recipe that is not there, or having a too dogmatic view, it's easy to end up musemificating.⁶⁷

- 56 Nango. Does Reality = Dahka Duohtavuohta (Trondheim: Joar Nango, 2008)
- 67 Nango. Conversation 02.03.21 and 12.04.21

⁶⁵ Skålnes, The sámi Self-building Tradition (Sámi Huksenárbevierut : Golbma Gova. S.I.: Indigenuity Project, 2010)

OUTRO

At the end of this semester, I'm left with the feeling of just starting. I'm ready to continue learning and making mistakes. By trying to use what I have learned in a design process, I'm hoping to get an even better understanding.

The discussions and interest is what is needed. I was scared of making mistakes and overstepping because of the sensitivity in discussion about minority with a harsh history. But to make a bigger foundation, allowing for elbow room and a more open definition of the modern sami, it's important to have discussions and welcome different people.



Not being afraid but curious.

Girjegumpi, a nomadic Sámi architectural library by Joar Nango at Márkomeannu festival. Courtesy of Joar Nango. https://pinupmagazine.org/articles/interview-mimi-zeiger-joar-sami-architecture-joar-nango

LITTERATURE

Books and articles:

Almaas, Ingerid Helsing. Verktøy. Arkitektur N nr.8-2014 updated 10.03.20 https://arkitektur-n.no/artikler/verktoy

Amundsen, Tormod. Arkitektur med luft under vingende. Arkitektur N nr.8-2014 published 27.10.17 https://arkitektur-n.no/artikler/arkitekter-med-luft-under-vingene

Berg-Nordli, Mikkel and Harald Gaski. Store Norske Leksikon, «samer» 21.01.21 https://snl.no/samer

Borgen, Kjell. "Samenes Bygningskultur." Byggekunst 36(1954):4 (1954): 85-92.

Brekkhus, Ingrid Vedeler. Vern gjennom bruk. Arkitektur N nr.8-2014 published 27.10.17 https://arkitektur-n.no/artikler/vern-gjennom-bruk

Brochmann, Odd. Store Norske Leksikon. "arkitektur" published 22.01.18 <u>https://snl.no/arkitektur</u>

Callejas, Luis, Janike Kampevold Larsen, and Dale Wiebe. The Ocean Garden. Oslo: Oslo School of Architecture and Design, 2019.

Haugdal, Elin Kristine. "Det Skal Råtne". Materialbruk Og Retorikk I Nyere Samisk Arkitektur." Kunst Og Kultur, 2013, Kunst Og Kultur, 2013.

Hemmersam, Peter, Janike Kampevold Larsen, Andrew Morrison, Vlad Lyakhov, and The Oslo Center for Urban Landscape Studies. *Future North : Vardø*. Pamphlet Series. Oslo: Oslo School of Architecture and Design, Oslo Center for Urban and Landscape Studies, 2019.

Horstkotte, Utsi, Larsson-Blind, Burgess, Johansen, Kayhko, Oksanen, and Forbes. "Human-animal Agency in Reindeer Management: Sami Herders Perspectives on Vegetation Dynamics under Climate Change." 2017.

Karlsen, Inghild, Hans Petter Boyne, and Harald Janet Jensen. "Kristians Hus / Inghild Karlsen ; [samisk Tekst: Hans Petter Boyne ; Engelsk Tekst: Harald Janet Jensen] = Kristiana Viessu." Kristians Hus / Inghild Karlsen, 2013, 12-33.

Kystopprøret homepage, «om oss» read 24.04.21 <u>https://www.kystopproret.no/om-oss/</u>

Labba, Elin Anna. Herren sendte oss hit: om tvangslyttingen av samene. Oslo: Pax forlag, 2021

Larsen, Janike Kampevodl. Kystfolke i opprørl. Morgenbladet. published 01.03.18 <u>https://www.morgenbladet.no/ideer/kronikk/2018/03/01/kystfolk-i-oppror/</u>

Lawrence, Don. Husene som våknet fra koma. Arkitektur N nr.8-2014 published 27.10.17 <u>https://arkitektur-n.no/artikler/husene-som-vaknet-fra-koma</u>

Nango, Joar. Sámi Huksendáidda : The FANzine : 1 : For Begynnere. Vol. 1. Trondheim: Joar Nango, 2007

Nango, Joar. Sámi Huksendáidda : The FANzine : 2 : goes to america. Vol. 1. Trondheim: Joar Nango, 2007.

Nango, Joar. Does Reality = Dahka Duohtavuohta. Vol. 3. Trondheim: Joar Nango, 2008.

Nango, Joar, and Thoresen, Silje Figenschou. The Sámi Indigenuity Project. 2010

Ordnett.no «Oxford Dictionary architecture»

read 11.03.21 <u>https://www.ordnett.no/search?language=en&phrase=architecture&showSignLanguage=false&selected-Pubs=24</u>

LITTERATURE

Påvall, Kerstin. Samisk Arkitektur Okänd I Sverige. Vol. Nr. 2 (2001). AT (Arkitekttidningen. Stockholm: SAR, 2001.

Scheffer, Johannes. The History of Lapland Wherein Are Shewed the Original, Manners, Habits, Marriages, Conjurations, &c. of That People. Project Gutenberg.

Senses Atlas. "Resolute Bay, Ralph Erskine and the Arctic". published 08.01.21<u>https://www.sensesatlas.com/territory/architecture/resolute-bay-ralph-erskine-and-the-arctic-utopia/</u>

Sjølie, Randi. Byggeskikk / Sápmi. Kárášjohka: ČálliidLágádus, 2016.

Sjølie, Randi. Samisk Byggeskikk. Vol. Nr 21. FOK-programmets Skriftserie. Oslo: Program for Forskning Om Kulturminnevern, Norges Forskningsråd, 1995.

Skålnes, Sunniva. "Samtidig Samisk Arkitektur." Arkitektur N Årg. 90, Nr. 3 (2008) (2008): 20-27.

Skålnes, Sunniva, and Gavin Tanguay. Ein Plass for Alle Meahcce-tinga : Hagetypar I Kautokeino. Stamsund, 2015. [348]-383.

Skålnes, Sunniva, and Indigenuity Project. The Sámi Self-building Tradition : Three Images = Sámi Huksenárbevierut : Golbma Gova. S.I.: Indigenuity Project, 2010.

Statistisk sentralbytå, «Vardø (Troms og Finnmark - Romsa ja Finnmárku - Tromssa ja Finmarkku)» read 29.04.20 <u>https://www.ssb.no/kommunefakta/vardo</u>

Store Norske Leksikon, «egnebu» published 30.09.20 <u>https://snl.no/egnebu</u>

Tim Ingold. "Earth, Sky, Wind, and Weather." The Journal of the Royal Anthropological Institute 13, no. S1 (2007): S19-38.

Uhre, Kjerstin Elisabeth. "The Perforated Landscape : A Study on Contested Prospects in Sápmi." CON-TEXT. PhD Thesis, The Oslo school of architecture and design, 2020.

Valkeapää, Nils-Aslak, and Harald Gaski. The Sun, My Father. Guovdageaidnu: DAT, 1997.

Vardø Restored homepage, "anout us" read 28.04.21 http://vardorestored.com/about-us/

Verdt å vite om fiskekvoter. nofima.no updated 05.10.20 <u>https://nofima.no/verdt-a-vite/verdt-a-vite-om-fiskekvoter/</u>

Vorren, Ørnulv, and Ernst Manker. Samekulturen : En Kulturhistorisk Oversikt. 2. Utg. ed. Tromsø: Universitetsforlaget, 1976.

Vorren, Ørnulv. Flyttsamenes Husformer. Vol. Nr 50 (1966 Nr 4). Ottar (Tromsø : Trykt Utg.). Tromsø: Universitetsforlaget, 1966.

Film and series:

Samernas tid, from January 2018, Program creator: Swedish Educational Broadcasting Company. watched 25.04.21 https://tv.nrk.no/serie/samenes-tid

Joks, Solveig, Káren Elle Gaup, and RiddoDuottarMuseat. Darfegoahtehuksen Dološ Vuogi Mielde : Prošeaktajođiheaddji: Káren Elle Gaup ; Filbmadahkki: Solveig Joks = Torvgammebygging På Tradisjonelt Vis. Karasjok: RiddoDuottarMuseat, 2010.

Fjellheim, Eva Maria, Ingrid Fadnes, Susanne Normann, Astrid Fadnes. *I Elena Laulas fotspor*. Podcas NRK published 16.01-06.02.19 <u>https://radio.nrk.no/podkast/i_elsa_laulas_fotspor</u>

LITTERATURE

Hele historien: Alta-aksjonen. Podcast NRK published 11.03.21<u>https://radio.nrk.no/podkast/hele_historien/sesong/alta-aksjonen</u>

Solen, min far Nils Aslak Valkeapää, NRK dokumentar published 03.04.1991 <u>https://tv.nrk.no/program/FKUM00000491</u>

Lectures and conversations:

Bakke, Sidsel. Conversation 02.03.21 De Coninck, Mia. Conversation. 14.03.21 Holmen, Svein Harald. Lecture 16.03.21 Holmen, Svein Harald. Conversation 12.04.21 Larsen, Janike Kampevold. Conversation 26.03.21 and 14.03.2021 Nango, Joar. Conversations 02.03.21 and 12.04.21 Skålnes, Sunnvia. Conversation 10.03.21