Country /City Tromsø/ Norway

University / School UiT The Arctic University of Norway

Academic year 2022 - 2023

Title of the project The Gardens at Roahtoviiknjárga

Authors Didrik Leslie Hembery

TECHNICAL DOSSIER

Title of the project	The Gardens at Roahtoviiknjárga
Authors	Didrik Leslie Hembery
Title of the course	2022 - 2023
Academic year	UiT The Arctic University of Norway
Teaching Staff	Kierstin Uhre (Course Leader), Magdalena Haggärde and Marc Ihle (teachers)
Department / Section / Program of belonging	Academy of Arts, Landscape Architecture
University / School	UiT The Arctic University of Norway

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Written statement, short description of the project in English, no more than 250 words

The planned electrification of the Norwegian oil and natural gas industry caters for unprecedented wind energy and infrastructural development coastal mountain areas. Based on media records, government documents on energy development politics, map analysis of reindeer migration routes, seasonal pastures, and cultural heritage sites in the Nordkinn peninsula/Čorgašnjárga in North Norway, this project touches on major dilemmas in the transition to a carbon emission free society. Analytical diagrams demonstrate understanding and visualize the time-space dynamics of Sami reindeer husbandry as well as the planning and operation timespan of several proposed and operating wind industry projects. In managing landscapes, the municipalities face several conflicting responsibilities in safeguarding Sámi reindeer husbandry, protecting important culture heritage areas, hosting wind energy development, and the upgrading of a weak electric energy grid. Wind power concessions are granted for 25-30 years, due to the endurance of the wind turbines. When the concession period is over, either the wind power plant is renewed for a new concession period, or the areas are supposed to be restored to its “original” state. Discussing the afterlife Kjøllefjord windfarm in reindeer grazing district 9 Olggut Čorgaš/Oarje-Deatnu, this project asks how rehabilitation strategies can incorporate dislocated or lost landscape practices in the design solutions. Inspired from ancient stone works at nearby cultural heritage sites, the project transforms the installation spaces and materials to a series of gardens with pasture plant species that over time reclaim the landscape.

For further information

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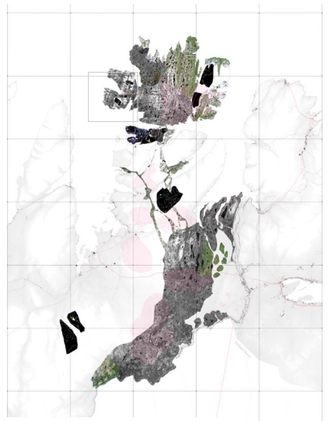
12th International Biennal Landscape Barcelona

Barcelona **October 2023**

SCHOOL PRIZE

Olggut Čorgaš/Oarje-Deatnu/Nordkinnhalvøya/Vestertana

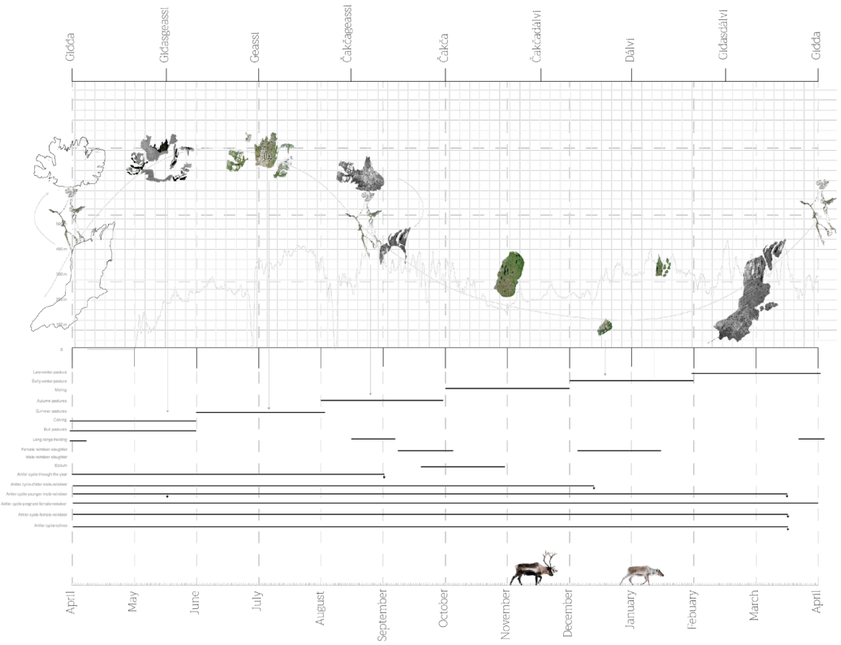
In my project, I want to gain an understanding of conflicting landscape practices on the Nordkinn peninsula in Nothern-Norway. The site presents several challenges with regard to important Sàmi reindeer grazing pastures, energy development, important cultural indigenous areas and a weak energy network.

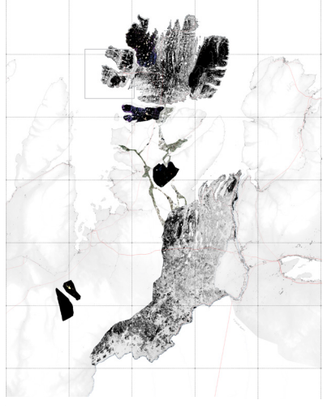


Seasonal Pastures

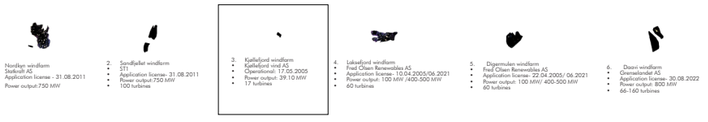
The reindeer herding is based at the Nordkinn peninsula in summer and spring. During the autumn and winter, the reindeer move towards the Tana valley. To get to the winter pastures in West-Tana, the raindeer move over the Duolbagáisáfjellet and Laskefjordvidda. The Sàmi annual cycle starts in April when the female give birth to the calve. This is often in smaller groups to prevent separation. The ideal calving spots are often in low elevation and hilly landscapes. The summer is an important time because the mother and the calve create a tight bond.

During autumn, the long trek to the winter pastures begins. During this period, slaughter takes place. It's often the biggest bulls and calves. Later, when the snow has subsided, non-pregnant females are slaughtered.
It is also time for estrum and mating. When winter ends, the animals move towards areas with light grazing, which is usually dry snow-free. If it is too hot, crowding can occur which makes it difficult for the animals to find food.

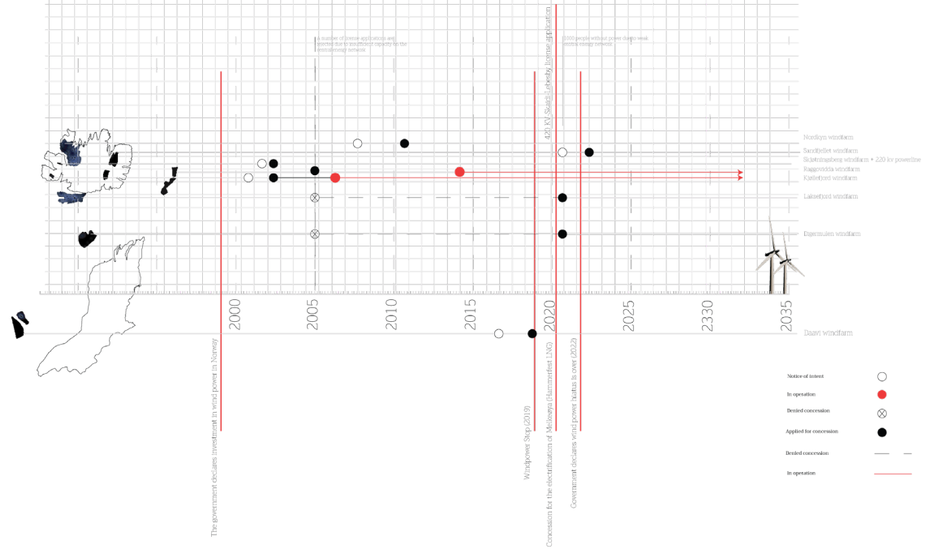




Conflicting Green-Energy development



The government declared in June 2021 that the break for wind turbines was over, but the only municipality that has shown interest for land-based wind power is Lebesby and Gamvik municipality. Previously, the development of energy plants has been very limited due to weak central energy network. But the electrification of the gas processing plant on Melkøya has caused several untreated or refused licenses to be reopened, this has a direct negative impact on the traditional sámi reindeer husbandry.



Sámi Cultural & Historical sites

The Nordkinn Peninsula and the Tana River have had settlements dating back to more than 10 000 years. On the peninsula, you can find traces of previous use of the landscape.
Stone formations tell of the past practices, such as shooting hides and stone walls. These monuments tell the story of the time before the tame reindeer but testifies that early Sami populations lived in tandem with the animals. Especially Gartefjellet (project site) has a number of these formations, these date all the way back to older Stone Age. The walls have been important for the local reindeer herders ever since.
The walls and hides have been strategically placed between the typography and follows an east to west direction. The monuments are placed carefully and intelligently before a large vegetation belt.

Sámi hide, used as cover when hunting reindeer.

Stonewall used to lead the migrating animals.

Monument called the Labyrinth.

Traditional Sámi grave.

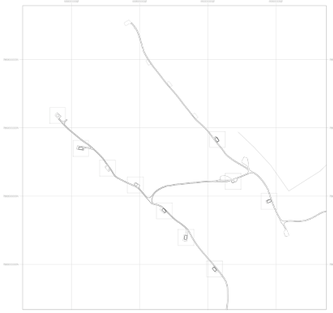
According to Norwegian law the wind power plant's license has a lifetime of 25-30 years, this is because of the wind turbines limiting lifespan. When the time has passed, the wind power plant can either be improved or the area can be returned to its original state.

But how do you repair damage to the cultural landscape?

I use Kjøllefjord windfarm as a casestudy to discover ways to interwov rehabilitation on a cultural and ecological level.

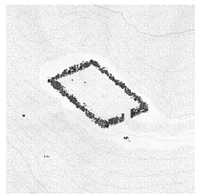
Using long term natural processes as a basis for design. (100 years after the wind turbines are discontinued: 2037-2137)

Landfills used as a platform for installation of the windturbines.

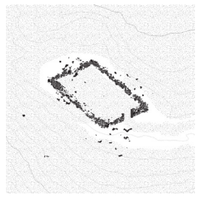


2037

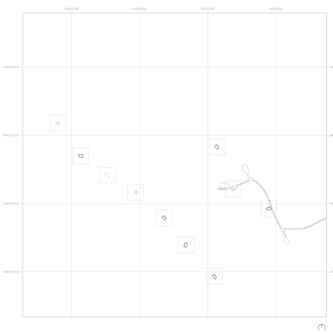
The Turbines will be taken down.



Using the material from the removed roads as a base for the walls.

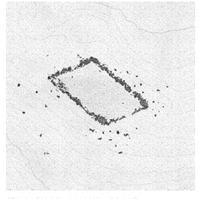


The wall will over time start disintegrate and the plants within will be one with the landscape.

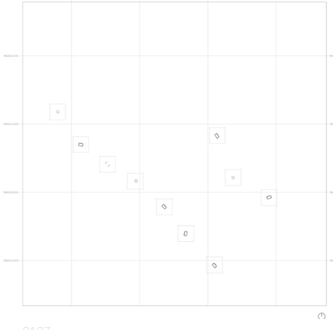


2087

Only the most essential roads are left, the reason is to make the reindeer herders job easier.



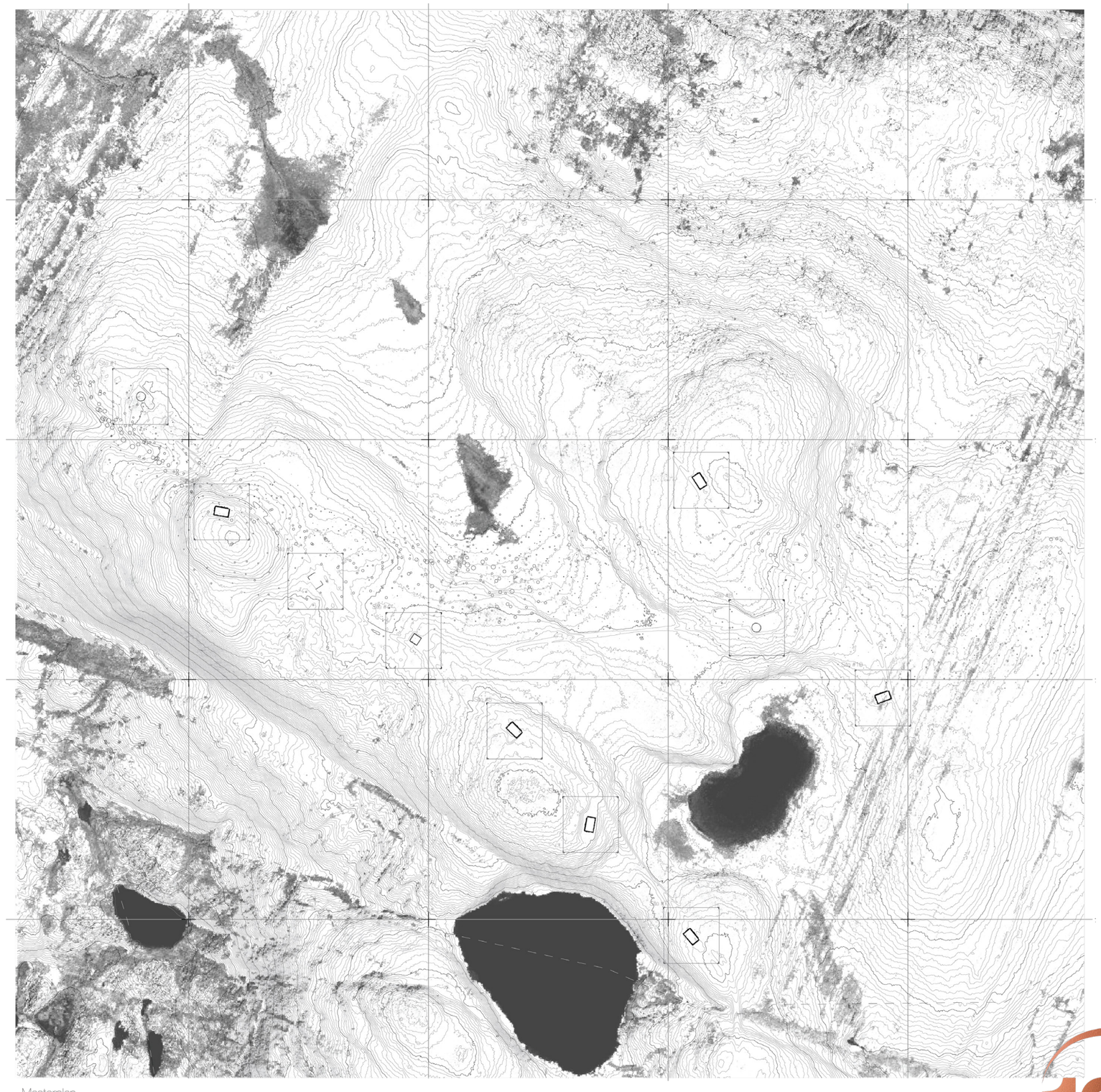
After a while only remnants will be left.



2137

After 100 years all the roads have been removed.

In the future nothing will be left.

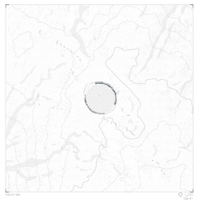


Masterplan

0 250 500 m

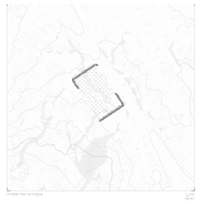
Garden Typologies & Different Use

Different gardens with different functions. By using the existing landfills to create a series of gardens with drywalls. The walls are created by the material already used in the road and is used to create different microclimates.



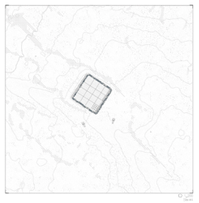
Site #1: Spring and summer grazing for reindeer

The plants have been chosen on the basis of their different adaptations to wind conditions. Site 1 has the plants already extend beyond the leeward zone. This is because the plants are adapted for exactly such areas. further in, the walls will provide more protection. The shape of a circle makes it easier for the reindeer to navigate around or move through.



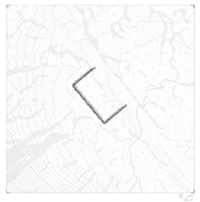
Site #3: Areas with increased moisture

Site #3 has qualities in the typography that creates the build-up of moisture and water. Therefor in the garden there are several plants which the reindeer eat. The plants on site #3 are especially suited for areas with higher moisture.



Site: #4 Research projects

One of the areas is adapted to research, the form has been chosen because of its ability to create stable growth conditions. Doing research so close to reindeer husbandry will increase the dialog between the research community and the Sámi reindeer herders.



Site #7: Other use

Some of the areas have been adapted for other uses. The idea is that the space is adapted to the needs of reindeer husbandry. These can be places to set up camp, places to park vehicles / motorhomes or a place for storage. I do not facilitate for specific activities or use but allow reindeer practitioners to use them, at the time they need it.

Site #9: Plants that both reindeer and people can use.

The plants in this garden have various qualities that are beneficial for us humans, as well as for reindeer. Most of the plants are edible, but other plants have uses such as medicinal plants or plants that can be used for tea or clothes. All the vegetation in this garden have been important cultural plants for the Sámi people.