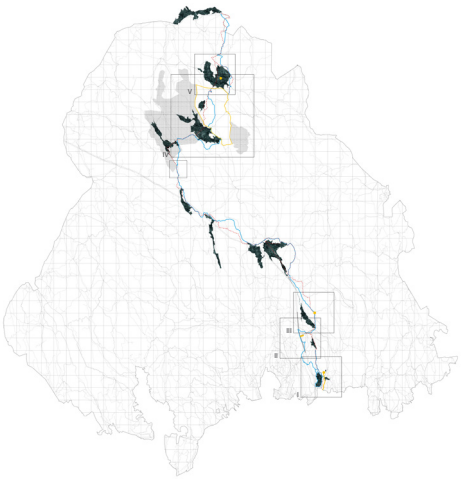
East of the Sun and West of the Moon

Architectural and infrastructural interventions in Oslos forest, Marka



Abstract

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Introduction

East of the Sun and West of Moon investigates the forests surrounding Oslo, commonly known as Oslomarka, or short, Marka, through 5 specific projects that take on universal issues in Marka. The project argues that Marka is Oslos quintessential public space and opposes the public spaces of the recent Fjordcity development, both as the other border containing Oslos urbanization and as spaces with room for a collective imagenation.

Marka is Oslos quintessential public space and object of cultural construct. To be in the forest on a sunday afternoon is to be in the city, but different. The complexity of the city persists, with all its activities, economic interests and endless different users and stakeholders, making for potential conflicts behind every tree. This peri-urban forest is an institutionally delimited territory, artificial environment and machine for the logging industry, concealed as a natural everchanging landscape that today serves as the immidiate and closest neighboor for the consumption of *friluftsliv** for roughly 1,5 million people.

During the semester I have investigated Marka from different viewpoints. I have researched and gathered knowledge through making maps in a territorial scale, gathering hard data. I have conducted frequent walks in the forest, both as sitevisits and for the mapping of infrastructures, architectures, trails, roads, paths and forests, gathering soft data. As a way of understanding and getting into the mythical and cultural meaning of the forest I have read the stories and folktales that Asbjørnsen & Moe collected from 1837 to 1869, one of them lending its name to the title of my thesis.

Architecture of Marka

Marka is delimited by a border known as 'Markagrensen'. This border is institutionally anchored and has its own set of Acts and rules. Though Markagrensen is no ordinary border, as separation or clear distiction between two parts. Markagrensen is not a finite border, citylimit or border for development, nor is it a border between the urban and the `wild`. It rather is a distinction between different urban programs. Marka is part of Oslo`s urbanity as a whole.

Marka is a made landscape, though often portrayed and thought about as natural and pure through a romanticized idea about nature. Only 14 % of marka has never been clear-cut by industrial forestry.[1] Seen through the trees, layers of infrastructure, buildings and man-made objects infiltrate Marka completely. Though no coherent image of an architecture is visible in what appears to be a make-shift jungle of provisional decisions.

The architecture of marka can be classified into 5 categories;

- Mass produced architecture and objects; lightposts, benches, garbage cans, toilets and road-barriers. They are mostly found in the periphery of the forest, along trails and paths that are universally accesible, though occasionally get lost deeper into the forest.
- Janitor architecture, an architecture that is driven by good intensions, but often fails, at most, it works for it purpose, commonly given life through impregnated 2x4s.
- Primitive architecture, is an architecture of instict; making a bridge by cutting down a tree to get acros a small river.
- Vernacular architecture, almost extinct, though it can still be found.
- Infrastructural architecture; an architecture not made directly for humans.

1 https://www.aftenposten.no/norge/i/J18JE6/oslomarka-drives-hardest-i-landet (Accessed 12.12.20)

Thesis question

For the past 20 years, the collective public effort has been aimed towards the development of the Fjordcity, Oslos new waterfront development, as *"the capital city's most important factor for identity-building and marketing"* as stated by The City of Oslo's architectural policy of 2013. [2]

Through my thesis, I want to argue for that there already lies an latent idenity within the city of Oslo. An identity or idiosyncracy that one could not make, build or manufacture, but one inheret in Oslo`s morphology and landform and already culturally embedded within its citizens. Ironically, this identity is embedded across the other 'border' containing Oslo's urbanization; the forest.

When considering Marka a made landscape, what other programmatic and spatial potentials does the forest contain? The project embraces the artificiality of the forest. Re-imagining the forest as unique urban arena by dealing with principal aspects of Marka while searching for an inherent spatial identity and architecture between the spruce and pine trees.

Strategy

Marka consists of multiple forests, when considered together, forming an megalopolis of trees and infrastructures, stretching for 67 km from north to south. Acknowleding the shortcommings of the traditional tools of urbanism on this scale, the projects resorts to architecture, rejecting the notion of the masterplan.

Marka as project is instead investigated as a linear journey through Nordmarka. Structured along existing roads, paths and trails. The chosen path is one of many, it is not special, but is has been instrumental for getting into the forest, uncovering conflicts, places, histories, myths and programmatic and spatial potentials.

Along this path the project proposes 5 interventions, each one crucial in dealing with one or more principal aspects of Marka. The exact locations and programs of the projects spring out the research and knowledge gathered throughout the semester. The architectural idea for each project has come from different places. Some have root in the site, type of forest, landscape , ones journey to a place, historical references, myths and stories, conflicts or laws and regulations. I think that all these reasons are equally valid and that they all are equally important, as they all belong to Marka. The projects are projects in their own right, as they attempt to gain new and further insights into a subject-matter of Marka. While together, they attempt to create an image and trace the outlines of a new possible architecture for Marka.

1. Entrance point and the parkbelt, transition between city and forest

Along the periphery of Marka, between city and forest, the forest and lakes function as parks in the city. The parkbelt hosts a wide rage of activietes in the forest. The parkbelt is accesable to all, as the trails and paths are made in a universally accessible matter. People arrive to the entrance points and parkbelt by walking, biking, driving or by public transportation.

The site of the entrance point of the project is Sognsvann, one of the most popular parkforests and entrance points to the forest in Oslo. The metro is the most popular mode of public transportation to arrive at Sognsvann. When the metro arrives, a parade of people marches through to the parkbelt, some with the parkbelt as destination while many continue further into the forest. The metro station today neighbours to Oslos sports college, a large parking lot, the State Archive and Olympiatoppen, enclosed by asphalt and cars.

The project proposes to extend the Metro that today has its endstop at Sognsvann with one stop into the forest, surpassing the parkbelt. Not rejecting the parkbelt with its variety of uses as park and swimming facilities, because Sognsvann is a destination in itself, but with the forest beyond the park-belt as destination in its own right.

The extension follows the existing parkinglot and swings into the forest, here it follows the topography and natural features in the landscape. The tracks swings into a valley, up a small hill, over an existing dam by a lake and ends in a small natural indentation in the landscape. When leaving the`city` behind, the fence that protects people from the tracks on its way, is free of its obligation of strictly following its course and gets another role of creating spaces in the forest. Along the fence, the now separated 2 landscapes are connected with a bridge over the canyon and with a underpass next to the dam.

The site of the new endstop is a pineforest. The pineforest is collection of trees, rocks and logs. They appear as islands in a blanket of heather and blueberry bushes, together creating an archipelago in an ocean of green. Needlebushes spring out from the treetrunks, floating not to close to one another, filtering light, and evenly distributing it across the heatherblanket. The pineforest is a field, repeating the same conditions as one wanders through, creating an uncanny feeling of places being strangely familiar. Everything looks the same, while being slightly different.

The metrostation takes form as a dam holding an ocean of gravel that fills out the small indentation in the landscape. The gravel

2 Jonny Aspen, "Oslo - The Triumph of Zombie Urbanism", in *Shaping the City*, ed. Rodolphe El-Khoury and Edward Robbins (Oxfordshire: Routledge, 2013), 188

secures an even surface that holds up well against wear and tear and does not get muddy when being frequently walked upon. The dam that holds the gravel is a building with a small kiosk, toilets, and resting room for metrodrivers. The neccesary infrastructure and furniture for the station follows the rules of the pineforest, distributed as islands in an ocean of gravel.

2. High voltage powerlines and the cuts they create

The High voltage powerlines that cut through the forest supply Oslo with its electricity, some of the powerlines stretch up to 160 km from Hardangervidda to Oslo. While being planned in 1949, they triggered one of the biggest protests to date in Oslo. They do not obstruct any programmatic use of Marka, as one is free to wander beneath the masts, but the common opinion still seems to be that the masts and cuts are intrusive and that they violate nature as they have no apparent other uses.

The masts are planned as the shortest distance between A and B, and the forest beneath the powerlines has to be held clean cut, in order to not cause power-outages by potential falling trees. This creates extensive cuts through the forest, conquering valleys, hilltops and lakes transfering 320 kV 20 meters above the ground. The project seeks to highlight the views that the powerlines create as an extraordinary side-effect of the masts.

The site is situated on a peak with a view deep into the forest to the north, and the city and sea to the south. A smaller powerline with a lower voltage crosses the bigger one and provides electricity for 3 lightposts. 500 m next to the site is Ullevålseter, one of the bussiest inns in Marka.

The project consists of a table and a toilet. The table is placed directly under the powerlines, with a view towards both sides of the cut, and the summing of power above ones head. The toilet is placed in a new cut in the forest, created by a lightpost in front of the toilet.

3. The overgrowing of cultural landscapes/heritage and the public cabins/inns

Marka is a field of past and present infrastructures. It is dotted with the ruins of mills, sawmills, cabins, small power stations, summer mountain pastures and farms. These infrastructures created clearings in the forest, often placed on natural heights or flat areas in the forest. They creating an archipelago of gardens, as these clearings blossomed with grass, flowers and plants that would normally not survive on the forestfloor. The buildings were always placed in the middle of the clearing, as king of the hill. A summer mountain pasture or farm consisted of multiple buildings making up the `tun` an agglomeration of buildings, one building for every use; one for living, one for the animals, one for food, one for the workshop. Due to the unprofitability of operating small scale farms and thereby also the need for summer mountain pastures, many of these cultural landscapes and heritages are partly or fully overgrown, by natural succesion or planting for industrial forestry.

The present infrastructure as buildings are; inns, cabins, houses and public cabins. They make up a network of destinations or stops along the way when wandering through the forest, providing shelter, food and something to drink.

The projects revitalizes one of these soon to be fully overgrown traditional `tuns`. Traditional farming is here replaced by the consumption of friluftsliv and leisure activities, giving a new frame to the `tuns` that otherwise are soon to be forgotten and overgrown, both as spaces in the forest and as a memory of traditions and its history.

The site is a partially overgrown clearing with ruins and traces of a farm. It is located on a hillside, accessed by an old forest road that used to be the main connection from the city to Marka and the territories beyond. Today it still serves as an important connection point for several paths and ski trails. The partially overgrown ruins of farmhouses stand on the top of the hillside while a totally overgrown agricultural field stretches down the ridge for 800m. The stones in the earth of the agricultural fields were collected in piles in the nearby forest, instead of walls, as they did not need to keep any animals in.

The project reuses these stones and assembles them as a composite fence of stones and concrete around the clearing.
The clearing is defined by the trees, while the fence is set back 4 meters into the forest, but still visible. The fence encloses the space for 8 wild sheep that clear the clearing by grazing.

The fence is built by circular formwork in 3 radius sizes, adjusting to terrain and snaking around trees, making for a self-stabilizing shape. The 5 buildings, a house, workshop/garage, guesthouse, sheephouse and inn, which is placed on the top, are part of the fence, placed in the forest while still overlooking the clearing. Leaving the clearing empty and ruins free.

4. Industrial forestry and nature/endangered species conservation

Industrial forestry is practiced in the whole of Marka, except for the stately protected areas protecting wildlife, plants and rare and endangered species of fungi, lichens and mosses. Industrial forestry in Marka is under strict regulation,and follows a set of rules as described in the Marka Act. Still, forestry in Marka is practiced mainly in two different ways, by clean cutting big parts of the forest,

leaving next to no trees behind, or by selection felling, cutting the most profitable trees and leaving the rest for later. These two methods can be linked to geographical areas in Marka. Clean cutting is mainly practiced in the forest owned by the Løvenskiold company, the biggest forestowner in Marka, while selection felling is mainly practiced in the forest owned by the municipality of Oslo.

Forestry makes for the everchanging landscape we experience in Marka today. Only 14 % of Marka has never been cut and the merging of existing clearings and continous forestry makes for unconnected pieces of forest between the reserves. The reserves are islands in this timber producing machine and clean cutting forestry limits the propagation of endangered species.

The project proposes to connect two nature reserves, creating the possibilty for species to travel and propagate, while still practicing industrial forestry within the same area. The project is a redefenition of the existing forestry rules and proposes a new set of new rules within a demarcated area.

The site is located between an existing naturereserve and a proposed naturereserve, which is under bureaucratic evaluation as protected area. The forest is owned by Løvenskiold and has been prone to extensive cleancutiing over a several decades. The project considers the proposed naturereserve as given and accepted. The site measures approx. 3x4 km and is delimited by existing features on the site, such as roads, lakes and the two naturereserves.

To connect the two reserves, the project proposes a network of protected forest, weaving through islands/rooms of forest for industrial forestry. To promote the propagation of species, the oldest parts of the forest are incorporated into the connecting forest. Areas with impediment and low quality of soil for planting fields are incorporated into the connecting forest, optimizing forestry income by giving the areas with medium and high quality soil to forestry. Roads, lakes and rivers are offset and protected as network forest for maximum contact area for species to migrate. No scalping of distinct heights in the landscape.

The existing rule of a maximum size of the clear cuts of 50 acres is kept, and existing clearcuts are used as starting point to achieve the maximum room size. New clearings are established between the protected areas, maximized to 50 acres. Connecting corridors must be at least 80m wide, 30-50m is sufficient for the migration of rare and endangered species of fungi, lichens and mosses, while 80m is set as a roomexperience buffer between two rooms by securing a wall of trees one can not see through. Geometric plantingschemes optimize forestry and define a geometry within the dynamic forms of the clear cuts, that defy clear definition. When a room is to be cut, treestubs with painted marks are left standing to guide the way.

5. Watercourse networks and the seasonal changes

The watercourses in Marka form an extensive network of lakes and rivers. The many lakes in Marka are dammed up and function as regulated water basins that supply Oslo with its water and are regulated to avoid flooding in the city. The lakes and rivers are popular swimming destinations, fishing spots, ice skating and canoeing sites.

The site is Gjerdingen lake. The lake is approx 2x2 km in size and has a forestroad on 3 sides. The buidlings that are placed around the lake are an old farm on a peninsula, a closed school by the dam and Rajebråthytta, an inn on the north eastern side of the lake, with canoes for use during the summer. During winter the lake is criss-crossed by several skitrails made by a snowmobile. The waterlevel in the lake can be regulated down with 7 m.

The project seeks to highlight the seasonal changes and the radically different experience they create, while taking in consideration the large fluxations in waterheight.

The project is a floating raft, located 350 meters from the peninsula. It takes inspiration from the ephemeral log islands that floated down rivers and lakes when the main transportation method of moving timber was log driving. It is accesable by skiing during the winter, and by canoe or swimming during the summer. The raft has one anchorpoint as foundation at 15 meters deep, making it possible for the raft to follow the waterline when regulated, while drifting with the wind, making the project directionless. The main wind direction during summer is from the southeast, so the most concurrent placement will be to the north of its foundation. By tilting the roof of the raft towards its foundation the roof becomes an optimal sundeck and jumping spot.

The enclosed space of the raft offers a totally different experience to the vast open lake, it has no windows, an only gets its light from the smokehole through the roof. The gallery around the enclosed space is an intermediate space between the edge towards the water and the enclosed space, here there are benches, storing and firewood.

The projects are concieved and communicated through the traditional tools of architecture; plans, sections, models and images. The projects are projects in their own right, as they attempt to gain new and further insights into a subject-matter of Marka. While together, they attempt to create an image and trace the outlines of a new possible architecture for Marka.