

Abstract

MOIST, MIST AND THE IN-BETWEEN

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Valle Hovin is a formal valley located in Oslo, Norway in an area with high urbanisation pressure due to an ongoing development project, creating from the former industrial area a new neighbourhood called Hovinbyen. There is expecting to create 30,000 - 40,000 new homes, with 60,000 - 80,000 new residents, in addition to the 40,000 that live here today. While trying to meet the demands for growth and development in the city, Oslo municipality set the goal to reopen rivers and streams and create blue-green corridors. Valle Hovin is positioned in the vicinity of the stream opening projects, the same stream - Hovinbekken - which is buried also under the Valley. In my diploma project, I am engaging with the diversity of water in the place, where water used to be a huge part of the identity, something that the other stream opening projects may be falling short of.

The valley as it looks today contains only three elements: football fields, a dam and open turf. The only program of the place is a sport. Within the valley, there are 10 different sports fields. Most of them are covered by artificial grass, the ones which not, are because of the wetness often muddy. On the lowest point of the valley is located Hovindammen. It looks like it is detached from the surroundings but underground has hidden the source of water, stream which was piped in the 1970s.

The stream collects its water from lakes and marshland from the Nordmarka region of Grefsen and Årvollmarka. It used to run from the hilly forest until it met flat land and started to meandering in the landscape until it finished in Oslo fjord. On the soft, fertile land people established farms. Through time from his whole catchment area became an economical project. On suitable sites, ice dams were built because the slow flow of Hovinbekken was perfect for ice harvesting. Irrigation channels started to distribute water between agricultural fields. The piping of the stream in the 1970s and growing city brought significant change and the area became an industrial place. Two streams were connected much northern than the original trace used to be so that Hovin Valley became disconnected from its main water source and now its fuel only with its micro catchment. Hovin Valley always reflected the general trend in the development of the Hovinbekken catchment area as in a mirror. To find what is the real notion of water in Hovin Valley I went through the history of the stream and by comparing the historical layer I found the richness which this place offers.

On the hill of the Valley, the farm was present already from before Christmas and used to be part of seven Hovin Farms. It was surrounded by a meander of Hovinbekken stream. Into the mainstream was connected the moist area with natural terrain depression, which created a pond, where sometimes was water and sometimes not. When Farmer realised the presence of a wetland, they cultivated the terrain depression and built the channel in order to create constant water flow and bring more water into the pond, which was started to use for ice harvesting during the winter months. Together with the farm growth the house and garden also expanded. Part of the farm also became a brick factory connected to the Hovinbekken stream. The ice industry became very prosperous, therefore 2 more dams were built in the trace of the natural depression. They utilise the source into maximum but with minimum effort and minimum changes of the landscape. The growing city and new development did the opposite and meant great changes and earth movement for the Hovin Valley. The farm became part of the city. Together with building a new highway in the 1980s, all original topography was confused. Hovinbekken stream was piped and 2 streams were separated, now the Hovin valley is fed only by a small stream and its micro catchment. From the moist wet area full of dams only one remains - Hovindammen. Football fields were added against the natural topography, that is the reason why they are often wet and muddy, so that grass had to be replaced by artificial grass.

In the concept of my proposal, I decided to return to this landscape its old shape. To achieve the older topography comes the rule that the sports fields need to be rearranged. Then the landscape would receive its natural depression. By adding dams into this new ditch and re-opening the stream, the cascade of dams could be reintroduced again. Most of the problems in the area are caused by rainwater so that I decided to catch it and lead away from sport fields to the natural moist depression. By terracing, I divided the slope into several floors where rainwater will be gradually stored, clean, soak or evaporate. By splitting those terraces into small dams, I achieve that water spread gradually within the terrace on the principle of communicating vessels and by its way, it cleans itself and the different quality of water is kept separate. The main dams of the cascade work like bridges and connect two parts of the valley.

Referring to the winter work of ice harvesting, each sport field has a space on the side, where snow can be stored during winter and melt into the system in spring.

The design proposal is dealing with various forms of water and shows the landscape in dynamic through the seasons. Water in each terrace is perceived differently. From unwanted element causing mud in the sports field to disappearing storing terraces of ponds, which are sometimes full of water and sometimes completely dry. From where water overflows to the channel crossing pathway, made by bricks with a wider gap and end up as a moist present in soil and vegetation in the rain garden. In the case, that the rain garden would be full water can continue to stream dams.

On the same principle of concentration and dispersal as I am working with water I used for vegetation and usage layers. Trees are organized in two typologies, in large formal areas of sports fields are planted in rows creating formal bosquet. When the trees leave the sports terrace they get their freedom and grow spontaneously in the groups, according to their location. On the open field, there are larger groups, in the terrace systems smaller.

The movement of people and usage are organized by the geometry of the design. Open fields are suitable for gathering people. Sportsfields are divided into professional and open ones for free games, which allows using the space for more diverse groups. The connection between them is provided by stream dams. Water terraces contrast the open fields and creating intimate spaces for individuals. It is a space for wandering around, sitting on the edge of ponds, or walk-in between the rain gardens.

In the large context of Hovinbyen Valle Hovin is going to play a crucial role in the community life, therefore, was important to connect it well with its surroundings. Due to the disturbance of natural terrain, flowing towards the fjord, by highway the connection with the northern part of the neighbourhood is limited, nevertheless, it is possible to connect the valley by a cycle path in the route of a piped stream. The main connection with the surroundings takes place vertically, where the valley forms a connection between the two housing estates and at the same time provides a sufficient path network between the sports fields, the arena, and the sports halls. The plan also shows the catchment area of the proposed design, located in future development area as a condition which is needed to be taken into consideration in planning. Further downstream, the plan envisages the opening of a stream and connection to the ongoing construction of a residential housing estate with an open stream.