

Skellefteå (SE)

INFLUENCER FLOD

a land from the beginning

The approach and the philosophy of the project

The territory of Sweden, in its landscape's dynamism and uniqueness and the peculiarity of its habitation typology, is composed by a set of places where small scale prevails over density. However, in the context of Skellefteå, the development of industries and their production, together with the increase of users in the foreseeable future, opens the opportunity to reinterpret sections of the area according to an alternative principle of urbanization to that of more traditional Swedish neighborhoods.

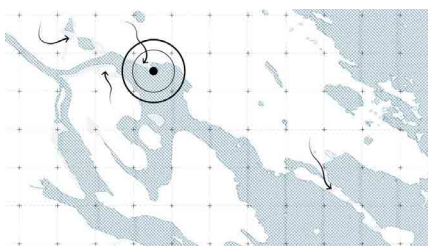
Some critical issues were encountered, such as the rationality of the building fabric mainly consisting of single housing units, a dense and rigid infrastructural network, the scarcity of public spaces for the local community, and the discontinuity of public services and public transport. These criticalities are reinterpreted by a mediation between the character and identity of the place and the brief requirements in order to improve the qualitative aspects of the city.

Therefore, the project is based on the idea of combining aspects related to planning with the active and dynamic enhancement and conservation of the natural landscape; this effort is made in search for a strong integration between man, nature, and water, to be able to realize a unique urban form, capable of reinterpreting the river as the "origin" of the city, thus as the starting point of the project. This philosophy guides the process of re-naturalization of the river by strengthening the territorial ecological system while establishing the basis and values for an interesting and diverse urban environment.

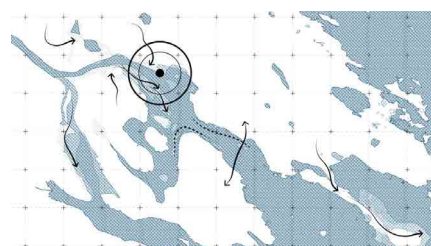
The potentiality of a unique site

The Sharin project site covers an area of about 400,000 square meters and forms a green digression between the town of Ursviken and the Skelleftea River. The area we see today, where vegetation and water fluxes appear to dominate the landscape unchallenged, bears however the marks of a long dialogue between man and nature. The area has been transformed several times by the hand of man because of its position and morphology: being both close to the outlet of the sea and the town of Skellefteå, and being well protected by the tortuous meanders of the river.

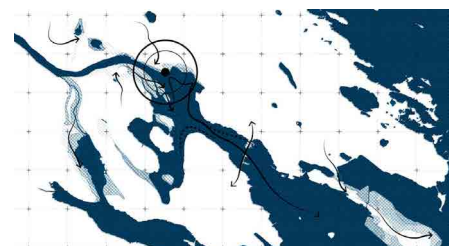
River fluxes evolution



1911-1934



1960-1980



Current



The area was first a harbor, then a lumber mill, and later a cellulose industry. In 1992 the industry went bankrupt, and in the early 2000s all structures were permanently removed; therefore, nature once again became the only element present in the area, at least apparently. Indeed, the Sharin area today looks very different from when the first communities settled there. A study of the historical transformations of the banks shows how this side of shoreline had originally a very different form: it was more organic, eroded and subjected to the tides and flows of the river. Since 1934, the area, thanks to a system of embankments, has had a rigid, sharp-cornered shape, and has therefore compromised the constant dialogue with the water.

The relationship with the river didn't cease completely to exist but became more subtle thanks to the floating piers and logs that were moored there, awaiting their transport or process. While the boundaries of the site have remained unchanged since, there are many changes still happening on other shores, where islands and peninsulas of sediment have continued to form and collect as result of the river's push and the sea's resistance. In addition to the shape of the ground, the other major transformation is the composition of the soil.

In fact, the area has a large concentration of pollutants: dioxins and heavy metals that, between 2001 and 2018, led to the urgency of reclamation of the area, through processes of removal of polluted soil and its replacement. Although 7,000 tons of soil have already been cleaned up, the area is still unsafe for human use and therefore the remediation work remains to be completed. Furthermore, recently, the municipality desires to use Sharin for the development of a new urban expansion area, which will serve as solution to the housing demands of all the people who will come to work in Europe's largest battery industry, currently under construction a few kilometers away, and which will require the construction of more than 2,000 new apartments.

Strategic vision of the site



A new solid territorial structure for the Reflection area

The design of the Reflection Area comes from the study of the evolution of the surrounding landscape, which is composed by large forests and an intricate hydrographic system.

The project identifies a new ecological network that, by bridging interstitial spaces and taking advantage of isolated green areas, connects the large tree-covered areas to the river, defining links where nature is free to move and inhabit its own spaces. This structure, in addition to providing an ecological connection for animals, seeds and spores, will also have the potential to provide safety and quality of life for the city's residents, who will thus have available areas that can absorb heavy atmospheric precipitation and, at the same time, break the rigid urban mesh, connecting more effectively to the nature around it.

On top of this new network, an enhanced bicycle and walkable network is laid down; the network is anchored to the pre-existing routes, reaches all public services in Ursviken, collaborating to the transformation goals of the 15-minute city. Moreover, the light mobility and public transport system becomes, with these interventions, another pivot around which the spatial strategies take shape, constituting, in addition to a less polluting solution than the car, a fundamental opportunity to suggest a "slow" lifestyle in relation with nature.

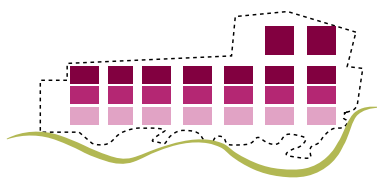
An innovative neighborhood between land and water

The transformation of the site is a complex operation since its context has ecological significance and high landscape potential. The quest for high housing density is mediated by the construction of a sequence of organic wetlands that are unveiled through a set of large public areas that contain the urbanized sections. The urban form is defined by an alternation of distinct and homogeneous built clusters, marked by the ecological permeability belts, which make them autonomous but still permeable.

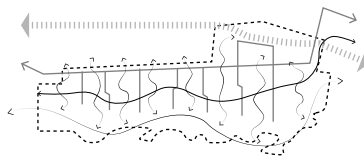
In this design, the urban texture is grafted into the natural texture, like the fingers of two hands intertwined. Future citizens will be able to live between these fingers, embedded in the natural environment, but connected to the city's services, through dense, diverse, and collective forms of living, preserving the scale of the place and the natural identity of the area.

The definition of the clusters and the green areas establish a deep connection with the place and increase the qualitative livability of the site -which is barely present at the moment- specifically, mitigating the possible hydraulic risk and the presence of snow.

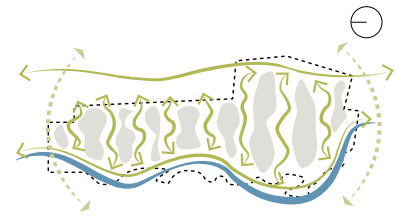
Subdivision into clusters, new networks and ecological structure



high, medium, low density clusters



new shared mobility network



new permeability gaps

Variety of living environments

In this structure, differentiated living environments have been proposed. Crossing the neighborhood of Järnvägsleden to the Skellefte River, means also crossing living environments with specific spatial and living qualities, from dense urban blocks in the vicinity of Järnvägsleden, characterized by formally designed public spaces, to isolated apartment buildings near the Skellefte River in which buildings are integrated with the river landscape, passing through areas of intermediate transitional density. The buildings are optimally oriented, with prevailing east/west exposures, with fronts that are characterized by large openings, loggias, and balconies. Buildings with other orientations are protected by a buffer strip designated for access and services.

The various clusters are connected to Järnvägsleden by cul de sac (woonerf) street axes headed by a multipurpose building intended for cluster parking, vehicle sharing and neighborhood services (social hub). In this way, vehicular traffic in the neighborhood is limited to loading and unloading operations and opportunities to use the enhanced public transportation system along Järnvägsleden are maximized.

The clusters are combined with areas of high environmental value that become landscape viewpoints, areas for sports and leisure activities, animal grazing trails, and elevated walkways that provide continuity with the neighboring urban areas.

The riverside strip becomes a new reserve to be protected, a natural space, a sacred space. Reaching it, whether through clusters or from green areas, becomes an experience, an explosion of perceptions and new discoveries. The elements dedicated to observing wildlife arise from the idea of continuing the experience of the urban walk within the denser fabric. Visual glimpses of the landscape allow the identification of attractive points on the new wetlands and the Skellefte River, the elemental shapes of the observation points lend recognition.

Here the wildlife walk is intimate and protected, slowly reaching the observation window, through which one can enjoy the outdoors and be amazed by the wonders of the place. The idea of linking nature with humans comes through different experiences: the trails and observation points are alternated with green areas and wetlands in which to carry out collective activities, in another reality located just a few steps away from the urban/residential one.

The process of landscape modeling

The urbanization of the area will be managed as a landscape-building process. Each intervention will be preceded by soil remediation operations, which will have to be removed, cleared of pollutants, and, finally, placed back in the area. This necessary process is exploited within the project as a rare opportunity to reshape the elevations of the area, thus providing for the creation of depressions between clusters, which will subsequently be re-naturalized by consolidating the soil. Apt for snow storage in the winter period and rainwater management thanks to rain gardens and collection areas, they will be of fundamental importance in the ecological connection between the riverbank and the natural system of the hinterland, but also as a recreation space for residents, who will be able to locate dedicated seating, sports areas, and paths here.

As the phases proceed, there will also be interventions on the riverbank, through earthworks and construction of retaining baffles, thanks to which the body of water will regain its natural freedom to modify the banks. The expansion of the river area will define a type of wetland landscape, ecologically structured in new and performing micro habitats, and capable of absorbing any floods and heavy rains, thus also acting as an expansion box, protecting the new settlement.

The time scanning considers the need by municipal agencies to build new housing in minimum time and a high increase in the years of workers around. The use of local materials such as spruce, larch, pine and other natural materials for architecture, the choice of a technological solution with the use of CLT glued laminated timber and wood frame help to reduce the cost and time of construction works.

The urbanization process, as well as the re-naturalization process, proceeds punctuated by the stages of soil remediation. The project implementation phases will proceed from west to east, that is, from the area that already has almost no soil pollution. On this area, therefore, the first core, consisting of two clusters, is expected to be completed already by 2030: 3 more clusters by 2040, and the last 2 by 2050.

Urban life close to the existing context



Landscape experience between clusters



The site near the Skellefte river



Manifesto for a roadless city

For Sweden, the dynamism of river landscapes, that nontrivial relationship between land and water, represents what mountain ranges are to Italy or great continental rivers are to Germany or France. But more than the geological landscape elements, the dynamic river landscapes have the advantage that they can be shaped by man within a surveyable span of time.

If we learn to use these landscapes as places to live, many Swedes in the future could live in small urban areas “without roads” but with a clear relationship to the landscape and its dynamics, without giving up purely urban amenities or pace of life. We wonder if that’s not a great quality!