# Skellefteå (SE)

## The Octopus Enigma

**From Horizon to Insect: Exploring Microcosms**

The land is predominantly covered by vast stretches of forests, interrupted by immense bodies of water fed by long rivers originating from the Norwegian Fjords and flowing into the Gulf of Bothnia.This landscape, which may seem inhospitable due to the harsh climate and limited sunlight in winter creates unique living conditions.

This contrasting territory offers a unique coexistence between the giants of nature, insects, humans, animals, and infrastructure. The endless horizon, dense forests, and scattered small red houses all contribute to the enchanting beauty of these landscapes.
Faced with this vastness, adopting a project approach based on small cohabitation systems appears essential: microcosms. It is crucial to provide harmonious coexistence among different groups while also caring for the landscape and all living beingsThe challenge in this territory is to achieve a successful coexistence between humans, insects, rodents, and production activities while humbly respecting the impressive landscape.

The octopus, a living creature gifted with remarkable intelligence, demonstrates unparalleled flexibility and adaptability, allowing it to face perilous situations. Capable of changing colors and camouflaging itself to protect against potential dangers, it embodies a source of inspiration for approaching projects with agility.
Faced with the immensity of the landscape, it might be tempting to conceive large-scale projects. Instead, we prefer a flexible and malleable approach, capable of reinventing itself and adapting to the rhythm of the seasons. Like a living organism, we create fragile situations in constant mutation, seeking the interstices to bring forth resilient projects.

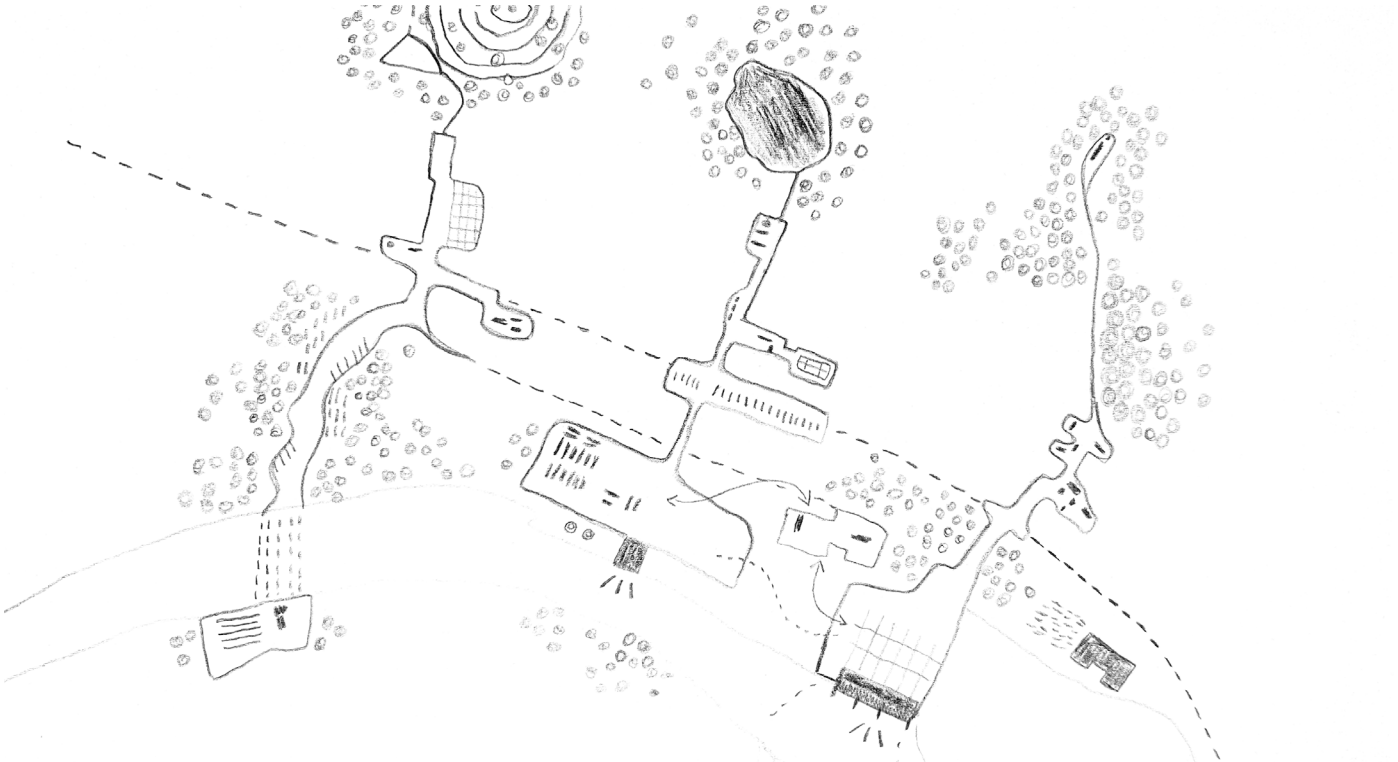
**Metropolitan Strategies: Coexistence of Plural Systems**

Skellefteå plays a vital role in its economic growth by effectively utilizing its resources and adapting to changes in the global market. The presence of Northvolt in the area greatly contributes to its economic progress.

However, ensuring long-term appeal requires finding a balance between economic development and preserving local interests, such as protecting agricultural areas, marine resources, nature reserves, and the fragile climate.

Skellefteå faces the challenge of managing tensions between global interests that prioritize free trade and intensive resource exploitation, and local concerns that focus on preserving cultural identity, agricultural traditions, and natural heritage.To turn these challenges into opportunities, it is essential to promote sustainable development initiatives that encourage innovation while safeguarding the environment.

The collaboration between policymakers and local stakeholders is crucial in formulating inclusive economic development strategies that consider varying development speeds and actively involve the local communities in decision-making. This approach will pave the way for a prosperous future while preserving the region’s unique identity and sustainability.



**Territorial Canvas, a Productive Logic**

The country is structured in a “string of pearls” pattern, with urban and agricultural zones interconnected through a network of roads and airports. This infrastructure facilitates the transportation of goods, particularly wood, using waterways in the gulf and railways throughout the nation. The road, rail, and river networks serve as corridors to transport inland resources to the gulf, where they are centralized before being redistributed. This setup simplifies the transportation of resources to global markets and fosters economic growth.

Additionally, a dense network of airports and roads enables easy internal travel, allowing residents to move efficiently across the country.

**Innovation Territory**

Creating jobs in the renewable energy sector can be associated with an increase in labor demand, and some companies, including Northvolt, will need to hire seasonal workers to meet fluctuating demands. Seasonal workers often come from neighboring regions or other countries to work for a period and then return home when the activity slows down.

Skellefteå and Ursviken are strategic points for Northvolt. These two cities in northern Sweden offer favorable conditions for renewable energy development. The geography and climate of the region allow for the efficient use of energy sources such as wind and solar power. Thus, Northvolt has chosen these locations to establish its facilities and production plants.

How can we ensure a good quality of life for seasonal workers and promote a welcoming and inclusive environment so that they can positively contribute to the local community?

**The Landscape as Infrastructure**

Considering the landscape as infrastructure offers opportunities to restore and protect natural habitats by creating ecological corridors that facilitate the movement and reproduction of animal and plant species. Preserving biodiversity enhances ecosystem resilience and ensures crop pollination, crucial for food security.

Beyond the environment, the landscape profoundly impacts citizens’ quality of life. Accessible green spaces and riverfront promenades promote social cohesion by providing places for people to meet and share experiences.

Green infrastructure encompasses vast forests, well-maintained urban parks, and preserved green spaces, functioning as the Earth’s lungs, absorbing carbon dioxide, producing oxygen, and providing habitats for diverse species. By nurturing respect and appreciation for nature in these environments, we can instill a passion for preserving our planet.

Blue infrastructure represents water resources, including rivers, lakes, and oceans, crucial for life, agricultural irrigation, commercial and tourist transport, and recreational activities. However, it’s essential to be mindful that certain human-made structures, like dams or constructions along watercourses, can disrupt access to water and hinder the free flow of rivers.

White infrastructure plays a crucial role in maintaining global climate balance. It contributes to shaping rigorous climatic conditions that foster creativity and elicit innovative solutions to adapt to this challenging environment, thereby creating favorable project conditions. This infrastructure provides a conducive environment for recreational and tourist activities, generating employment opportunities, and boosting the local economy.

**From a diffusion logic to an amplification logic : the levers of a changing territory**

The pursuit of harmonious coexistence with our environment encourages us to recognize the unique characteristics of each place, the delicacy of ecosystems, and the

valuable biodiversity they house. To preserve these essential elements, it is crucial to strengthen, appreciate, and protect them while seamlessly integrating them into our daily lives.

However, this approach necessitates reevaluating our lifestyle and spatial occupation due to climate change and rapid urbanization. To tackle these challenges, we must show creativity and innovation in designing more sustainable, eco-friendly habitats that prioritize our well-being.

**The edges as living system**

The fast expansion of urban and industrial areas is causing the gradual loss of forest spaces, leaving little room for these essential ecosystems. In this context, edges have a significant role to play in preserving biodiversity and guiding us towards a more sustainable future.

Edges, situated between forests and open spaces like fields, villages, or urban areas, provide diverse habitats that support numerous plant and animal species. These hybrid zones act as ecological corridors, enabling species to move between forest habitats and access vital resources for their survival. However, they are often fragile and susceptible to the negative impacts of urbanization.

Uncontrolled urban development leads to the fragmentation of forests, breaking them into smaller patches. This phenomenon, known as sprawl, poses a threat to the survival of many species. Animals and plants rely on sufficiently large territories to find food, shelter, and breeding partners. When the forest is fragmented, their ability to move and adapt to environmental changes diminishes, resulting in reduced genetic diversity and an increased risk of local extinction.

To address this alarming trend, it is crucial to consolidate and protect the edges from the detrimental effects of urbanization. Preserving these transitional zones will help maintain connectivity between forest ecosystems and safeguard biodiversity. Implementing appropriate land-use planning measures is essential to limit urban sprawl and prioritize densification in already urbanized areas.

**The necessity of phasing out**

One of the first essential measures is to open the site to the public, allowing them to discover the richness of the territory and encouraging them to get involved in its preservation. However, this opening must be done with caution, gradually integrating housing while ensuring the preservation of the fragile ecosystems on site.
In this approach, it is necessary to understand the dynamic of the territory. It involves understanding the expectations and needs of residents, visitors, and local stakeholders to respond to them effectively. By actively involving the community in the planning and management of the site, tailored and sustainable solutions can be ensured.

Before proceeding with any modifications or developments, prioritizing soil remediation is of utmost importance. This critical step is necessary to restore the ecological health of the territory and ensure that any potential negative impacts on the fauna, flora, and surrounding populations are minimized or eliminated.

By remediating the soil, we can create a healthier and more sustainable environment, providing a strong foundation for future developments that are in harmony with the natural ecosystem.

It is necessary to carefully plan the urbanization process in advance by determining road layouts and reorganizing parcels on the site, which is currently under the ownership of the Skellefteå municipality as a single large piece of land.

This parcel reorganization will facilitate better land management and enable a comprehensive study for future urban development. The municipality will be able to manage the land more efficiently by allocating specific areas for different purposes, such as residential, commercial, industrial, or green zones. This will preserve natural spaces while allowing controlled development.

**Methodology of Territory Study**

Our approach to developing a virtuous project on the site aims to promote an active understanding of the existing environment, taking into account various biological and socio-anthropological scales, as well as situational intelligence. The goal is to restore degraded territories by eliminating environmental pressures and creating new favorable conditions.

To achieve this, we will implement intelligent tools that leverage local resources, including encouraging architectural projects that prioritize the use of more economical materials, techniques, and energy, while considering the available resources.

The architectural design will incorporate the staging of seasons, thus creating a harmonious environment where residents will be constantly connected with their surroundings while benefiting from adaptable spaces throughout the year.

Large roofs will play an important role in this approach as they will capture snow to insulate buildings from winter cold and collect rainwater for sustainable resource management, thereby reducing reliance on traditional sources of drinking water. Thermal comfort will be rethought by considering the existing energy infrastructure and our relationship with fire as a hearth.

By studying the pre-existing typologies in Ursviken, we have identified a recurring pattern of collective housing in the form of row houses. Our objective is to evaluate the qualities of these elements to better understand and make the most of them. Special attention will be given to the size of the housing to meet the diverse needs of seasonal workers and families. We will seek to diversify the quality of housing by offering solutions tailored to different types of potential residents. For this purpose, we will conduct a detailed analysis of the advantages and disadvantages of each identified typology of collective housing to design comfortable and practical living spaces that specifically address the needs of each demographic group.

By fully exploiting the qualities of collective housing and adapting their designs accordingly, our aim is to offer a diverse and appealing range of housing options for potential residents. This approach will enable us to optimally respond to the demand for 1000 to 3000 housing units, creating living environments that meet the diverse expectations and needs of the local community.

**The situations**

Situational Intelligence refers to the capacity to analyze, comprehend, and respond to situations in a specific and contextual manner. It involves avoiding the application of generic and preconceived solutions, instead focusing on identifying the unique elements of each situation to make informed decisions and improve the current conditions.
By paying close attention to the details and inherent characteristics of each place or situation, we can uncover hidden or overlooked aspects that enhance our experience. This allows us to gain a deeper understanding of the true essence of the place; the Genius Loci.

**The Fictions**

Through the analysis of situations, fictions emerge as valuable tools for crafting the master plan, providing a sensitive perspective of the site. These fictions incorporate the aspirations and needs of citizens, urban planners, architects, and all stakeholders involved in the city's creation.