

PAAPUURI – THE PORT-FACING NEIGHBOURHOOD

Paapuuri, meaning port in English, presents a vision for a comprehensive neighbourhood in Vaskiluoto that embodies sustainability, adaptability, and a deep connection of the forest and the sea. Our design aims to create an attractive living environment that promotes a sustainable lifestyle for future residents. With a focus on ecological transition and the integration of human and non-human spheres, Paapuuri strives to establish a thoroughly unified and timeless community. By highlighting and strengthening the neighbourhood's proximity to the sea, along with its connection to the forest, it is sought to promote a profound sense of place and embrace the surrounding natural beauty. By incorporating renewable energy systems, green infrastructure, and sustainable building practices, the aim is to create a neighbourhood that treads lightly on the Earth and minimizes its ecological footprint.

The neighbourhood is laid out on a fan-shaped grid, facing the nautical port direction, hence the name. We included the starting point as a landmark in the middle of the forest. This landmark is a tall structure, not only marking the grid, but serves as a perch for residents and visitors. A panoramic, symmetrical view of the whole neighbourhood, emerging from the forest, with the sea in the far distance, is facing the viewer. Our preference is that a local artist will design the landmark, as it will also serve as a large-scale artwork. A path encircling the peninsula leads to the landmark.

This dedicated path for biking and walking encircles the shoreline, transforming it into a focal point for both residents and tourists. This path not only promotes physical activity and a healthy lifestyle but also attracts visitors to explore the neighbourhood and appreciate its natural beauty. By prioritizing light means of transport, we reduce the carbon footprint, emphasizing the connection between sustainable mobility and the surrounding marine environment. Smaller paths separate and join from the main path, and meander within the borders of a flower meadow and sea grass plants. The flower meadow is not



The grid layout is seen from above.

only beautiful, but also promotes pollination. These smaller paths lead to discoverable, scattered activities, such as fire pits, a foraging garden, a pier on the tip of the peninsula, and a snow park. Additionally, our intention is to place an outdoor art exhibition, which provides an opportunity for residents and local artists to showcase their artwork. This will be in the form of a gallery as well as a game, as visitors can search for hidden artwork along the way. The snow park, located in the northwest corner of the peninsula, gets its name from piled up land, accumulated from the land digging process of building the neighborhood. In the summer, the park serves as a cluster of pleasant little hills intended for play and picnic, or anything within the limits of imagination. During winter, snow will pile up according to the topography, creating hills perfect for sledding. The path crosses through the shared, enlarged beach, extends deep into the forest, passes through the landmark and another birdwatching tower, merging into the existing track in the Vaskiluoto forest. The beach includes a floating sauna with

Aurora huts, perfect for catching the northern lights in winter. Further south, the forest will house several activities such as bird feeding spots. The sea plays an essential role in our project, both conceptually and visually. We strategically placed the residential units to maximize views of the sea and capitalize on natural daylight. Public spaces and recreational areas are seamlessly integrated along the coastline, encouraging residents and tourists alike to engage with the waterfront, promoting physical and mental well-being. Additionally, the design includes a network of waterfront promenades, enhancing the overall connectivity of the neighbourhood.

Ecocampuses are found in the heart of each block. These green oases serve as unique yards for residents, providing tranquil spaces with winding paths that invite environmental exploration for all ages and create a strong sense of community. The borderless yards also serve as habitats for various animals, including native birds and bats, sustaining biodiversity, and reinforcing the integration of human and non-human spheres. Each ecocampus has its unique vegetation, varying from coniferous-dominated to deciduous-dominated, or a mix of both. Playgrounds and other activities within the ecocampuses reflect its vegetation type. Residents can enjoy the soothing sounds of nature and experience the joy of coexisting with wildlife within their immediate surroundings. Likewise to the rounded main streets for human use, a central fauna highway is located in the heart of this neighborhood, stretching through the forest towards the beach and beyond through open ecocampuses and their runoff water system. Seen from above, this highway surpasses all other roads in size. It is therefore evident that Paapuuri is purposefully designed for all its' potential residents, non-humans included, with human habitat placed within the boundaries of non-human habitat.

The ecocampuses contain small wooden huts, salvaged from the existing camping grounds, which will be converted into remote workstations, meditation rooms, and playhouses. A traditional, wood-burning sauna amid the coniferous forest will also be considered. The runoff water stream will set out a playful research route with information boards, allowing children and adults alike to find local flora and fauna in their new home. To maintain a harmonious coexistence between humans and non-human species, Paapuuri incorporates biophilic design principles and prioritizes biodiversity conservation. Green corridors and pocket parks on permeable, stormwater friendly pavements are intelligently scattered throughout the neighbourhood, providing habitats for native flora and fauna. By creating a network of interconnected green spaces, we establish opportunities for residents to engage with nature, fostering a sense of stewardship and environmental consciousness. Moreover, community gardens and urban farming initiatives promote sustainable food production, strengthening the connection between residents and their ecological surroundings; indeed, all townhouse yards and apartment balconies are equipped with personal gardens.

To maximize sea views and provide a connection to the waterfront, taller buildings were intentionally placed inland, with the height of the apartments gradually decreasing as they approach the shore; likewise, the number of trees in the area coincidentally decrease in an identical manner. This intentional house placement ensures that as many inhabitants as possible can enjoy the sea views, enhancing a sense of tranquility, equal accessibility, and connection to nature. In the first phase of the implementation four apartment blocks and four townhouses will be built, along with the central

esplanade. The second phase will include the building of the rest of the apartment buildings and the central townhouses towards the beach. The third phase will include the townhouses facing the shore.

To cater to diverse needs, our vision of a mixture of housing types, including apartments and townhouses, are implemented. All residential units are designed to be energy-efficient, incorporating sustainable building materials, green roofs, walls, and terraces, and solar photovoltaic glass. The integration of solar panels and rainwater harvesting systems further reduces the ecological impact while providing residents with renewable energy sources provided directly from EnergyVaasa. Through careful consideration of building orientation and design, optimal energy performance and indoor lighting and comfort for residents throughout the year are ensured. Our houses are customizable, and they come with adjustable sunshade walls on balconies and windows. The houses all include eaves, which protect from excess sunlight as well as extreme weather. In our townhouses, terraces between the masses protect from the arctic weather. Dedicated snow piling areas are found in the neighbourhood, ensuring accessibility during winter. These elements align with our vision to create pleasant living environments all year round, as we recognize the location to have a wide change in sunli



The three phases of implementation.



A vision of a townhouse-filled street.

We considered animals carefully in our building design choices. Green roofs are placed not only for stormwater retention, but also for nesting places for birds and other animals with such needs. Our housing's windows include UV-patterned glass, which is developed to reduce the number of bird collisions.

Our choice to construct apartment blocks (4-10 floors) and townhouses (2-3 floors) primarily using wood showcases the project's commitment to sustainable materials and construction practices. In addition, recycled brick is used in the construction of the apartment buildings; through it, Paapuri seamlessly merges into Vaasa's architectural aesthetics and history. In addition, we considered the materials' efficient thermal properties as an additional incentive. The inclusion of solar panels further enhances the ecological performance of these buildings, utilizing renewable energy and reducing reliance on non-renewable sources. To keep the harmony of the island, the townhouses towards the shore will remain small scale in the likeness of the older shore buildings encircling Vaskiluoto, thus creating a unified spirit.

In addition to private balconies and terraces equipped with gardening possibilities, various shared cultivation areas are scattered throughout the neighborhood. We transformed the old Coastguard area into a self-sufficiency village, with a henhouse maintained by a new local café; a guesthouse for curious tourists or visiting family members; and lastly a shared workshop where locals might find tools to fix their bike, among other things. To encourage tourism, we added a sauna world near the village.

Paapuuri's incorporated waste management system includes an underground pipe network, which uses vacuum power to streamline waste and minimizes the ecological impact of traditional waste collection methods. By eliminating the need for visible garbage bins and collection trucks, our aim is to create a clean and visually appealing environment. Furthermore, this system encourages residents to adopt responsible waste disposal practices. We placed three central waste disposal units in the neighborhood, onto which smaller waste disposals direct the waste in.

In our quest to provide diverse and sustainable transportation options for the residents of Vaskiluoto, we considered a visually pleasing and efficient cable car network to the area. This system not only serves as a means of transportation but also adds to the allure of the neighbourhood, creating an iconic landmark and tourist attraction. To uphold the commitment to sustainability, the cable cars would operate exclusively on electric power, drawing energy from EnergyVaasa. The modern design of the cable cars would capture the attention of residents and visitors alike. Moreover, the cable cars would provide panoramic views of the surrounding landscape, including the scenic beauty of Merenkurkku islands, an UNESCO world heritage site, and the neighbourhood itself. Before the implementation of the cable car network, a thorough analysis of wind patterns and speeds in Vaasa is essential. As wind can affect the stability of cable car operations, for safety measures pausing the system when wind speeds exceed 18m/s will be implemented. In case of an unprecedented increase of commuters, we propose an additional electric waterbus. This versatility caters to the varied preferences and needs of residents, reducing reliance on private cars. We envision deploying one vessel initially, ensuring efficient service and capacity while remaining adaptable to potential changes in demand.

To preserve the pristine natural environment and eliminate the need for rock drilling, we strategically integrated some of the car parks under the apartments at ground level. This design choice eliminates the need for visible parking spaces, enhancing the area's visual appeal while promoting sustainable transportation options. By reducing reliance on private cars and encouraging alternative means of transport, we prioritize pedestrian-friendly streets and a clean, pollution-free atmosphere. Likewise, the townhouses garages are part of the structure mass, hidden from plain sight. Scattered car parks are located on permeable grass pavement around the area.

Our vision for the Vaskiluoto neighbourhood offers an attractive living environment that withstands the test of time. By embracing the proximity to the sea, we create a sense of place that resonates with residents and institutes a deep appreciation for the natural living environment. Through efficient housing solutions, the integration of living spheres, and a holistic approach to sustainability, our design strives to set a new benchmark for future residential developments. By envisioning a neighbourhood that balances ecological responsibility, quality of life, and timeless aesthetics, we lay the groundwork for a vibrant and perseverant community in Vaskiluoto.