The Redevelopment of Hernesaari

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Graduate School of Architecture, Planning, and Preservation
Columbia University
Spring Studio 2009

Client: Helsingin Kaupunkisuunnitteluvirasto
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Acknowledgements

We would like to extend our sincere appreciation to the following people and organizations. Without them we could not have completed this project.

Andrea Kahn

Anna Haila, University of Helsinki

City of Helsinki Urban Facts

Helsinki University of Technology
Centre for Urban and Regional Research

Jussi Kulonpalo

Lisa Horelli

Mari Vaattovaara and Matti Kortteinen, Department of Geography University of Helsinki

Matti Kaijansinkko & the Helsinki City Planning Department

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Strategic Site Plan

- 2 Story Townhouses
- 4 Story Townhouses
- 5-6 Story Mid-rise Bldg
- Cruise Terminal
- Existing Industrial Buildings
- Parks
- Courtyards
- Programmed Social Spaces
- Public Plaza
- Boat Storage
- Tram Stop
- Heliport
- Boat Slips
Executive Summary

Our planning approach to the redevelopment of Hernesaari situates the site at a range of geographic scales.

At the Helsinki city scale, the main challenge was to reverse an unsustainable regional trend toward suburbanized decentralization by attracting families and older couples back to the central city.

At the city centre scale, Hernesaari requires connection to cultural networks and community spaces.

At the neighborhood scale, Hernesaari abuts the high-end development of Eiranranta on one edge and Jatkasaari, an old industrial district, on another, presenting the challenge of integrating contrasting urban forms.

We also considered how immigration and growing gaps between social classes are modifying the makeup of households and thus changing housing market demand.

To address these concerns, we created an “urban-maritime” form that enhances the peninsula’s identity as a neighborhood between the city and the sea.

Overall, we offer housing typologies that vary in density, unit size, affordability, and character to accommodate the needs and preferences of a range of household types.

The buildings are strategically oriented to create animated, pedestrian-friendly public spaces that encourage neighbor-to-neighbor interaction. Community facilities and social service amenities are located within and adjacent to housing complexes to further enhance social mixing.
Creating Opportunities

Source: Helsinki City Planning Department, 2008
Hernesaari is an 80-acre industrial peninsula adjacent to Helsinki's city center that is slated for residential and commercial redevelopment in 2013.

The City seeks to expand and diversify Helsinki’s urban housing stock as well as enhance its international profile as a cruise and sailing destination.

Design proposals must include housing and local retail for 4,500 residents, an expanded cruise facility, marinas, a heliport, parks, community spaces, and transportation connections. The shipyards that operate on Hernesaari will be consolidated into a new industrial port facility in northeastern Helsinki.

Consistent with the history of Hernesaaari, we chose to use land to shape the peninsula’s boundaries. Landfill expands the available space on the peninsula allowing us to site all requested program elements while harmonizing conflicting land uses.

Our proposal creates an urban-maritime form that:

- enhances the peninsula’s identity as a neighborhood between the city and the sea,
- offers both high- and medium-density housing typologies to attract and retain diverse households,
- integrates the peninsula into existing cultural, recreational, and transportation networks, and
- buffers residential areas from the cruise ship, marina, and heliport facilities.
Cruise Terminal

The cruise ship docks will be located across the former shipping channel from Helsinki’s main ferry terminal, from which several large ferries depart daily for Tallinn, Estonia and other Baltic cities. This terminal operates year-round.

This area of the peninsula is within sight and audible range of the existing marine terminal. In addition, the prevailing southwest winds are most pronounced here. Thus, we sited the cruise terminal in a location that is unappealing for residential use. Other locations on the peninsula would have blocked interaction with the sea and residential connection to the mainland.

Cruise ship berths were calculated to be consistent with the maximum expected cruise ship length of 350 meters.
Heliport

We sited the heliport to the east of the cruise terminal on the new southern arm created by landfill. This provides the required 500 meter noise buffer between a helicopter pad and any residential use.

This creates a sheltered bay, thus offering an attractive and practical place to dock small sailboats.

On this new land form, a large swath of trees functions as a wind block. It also serves as a visual barrier between residents and the heliport. Lying within the otherwise unusable heliport buffer zone, it provides a forest within the city.

500 Meter buffer around current heliport with existing landform
Marina

We located a marina with waterfront community spaces in the buffer space between the heliport and residential development. This creates more waterfront perimeter for use by residents and offsets the waterfront blocked off by the cruise ship berths. The space is large enough to accommodate 500 slips for small to medium sized boats.

To compliment the much-needed marina space, a community center is sited on the western shore of the marina bay. It will offer year-round programming for all Hernesaari residents as well as boat owners.

Placing a neighborhood facility near the southern end of the peninsula activates nearby residential areas that might otherwise have little street activity.

This facility could also be used to host international sailing competitions and offer sightseeing boat rentals to tourists arriving at the nearby cruise terminal.
Canals

The marina bay flows northward into a canal that curves through the center of the peninsula. This main canal infuses maritime identity into the eastern residential district, thus facilitating the creation of an urban-maritime spatial aesthetic. Four “finger canals” add waterfront perimeter in the heart of the neighborhood.

The central canal divides the peninsula, creating a shift in urban form as one crosses the waterway. Without this transitional space, the change from urban to maritime risks being overly abrupt. The canal is the axis which enables these distinct urban forms and communities to seamlessly merge.
Housing Diversity

Source: Sune Goldsteen, 2009
An explicit development goal for Hernesaari is the production of new urban forms that can retain and attract families and couples to the city. Car-oriented suburbs are projected to grow much more rapidly than the city center. According to the City of Helsinki Urban Facts, suburbanization has expanded the boundaries of the Helsinki Urbanized Region by 2%, while the population has only grown by 1.4%. As a result, Helsinki is vulnerable to population loss.

Dissatisfaction also exists over the fact that most proposals for new city developments merely transplant suburban forms into the city. The cultural grounding of Finnish culture in the woodlands and the countryside explains the emergence of the forest suburb, such as Tapiola, as a dominant typology of residential development. Households are attracted to the availability of single-family homes and the opportunity to live close to nature. Our task was to create a distinctly urban form that retains the connection to nature that is so appealing about the suburbs. In short, our task was to create a viable alternative.
Targets & Demographics

Our proposal offers residential options for household types that vary by socioeconomic status, size, and age composition. To counter a trend in the city toward exclusively high-end developments along the waterfront, we offer affordable housing options for middle and lower income families and couples.

Because most of the current supply of affordable housing in the central city is composed of studios and one-bedroom flats, we targeted the affordable financing mechanisms toward larger units that are suitable for families. This results in an overall housing mix with a higher share of families and couples than the Helsinki average.

Our proposed housing mix aims to attract Finnish families to the city and responds to an increasing share of foreign-born households. Since the proportion of foreign-born citizens in Helsinki is projected to increase, it is particularly important that planning for housing addresses the need for larger, affordable units.

Helsinki’s recent demographic shifts make it especially important to facilitate social integration and interaction. The preponderance of new migrants to Helsinki are people of foreign origin. Previously migrants into the city were predominantly Finnish residents from rural areas.

Targeted Breakdown of Housing Financing Models for the City of Helsinki:

- 40% Market rate
- 20% Partial ownership (HITAS Program)
- 20% Rent controlled
- 20% Social housing
Though Helsinki’s foreign resident population of 8-10% is small, the rapid influx of diverse people is a dramatic change for what has long been an extremely homogeneous city. Helsinki residents express concerns about safety in neighborhoods with larger immigrant populations even though this changing demographic has not had a perceptible effect on crime rates.

The population of senior citizens in the city is projected to rise sharply over the next few decades. The 2008 Helsinki Annual Health Report identified this group as particularly susceptible to social isolation. While new, mostly younger immigrant families and Finnish elders might seem unlikely groups to draw together, they share the same fundamental need for spaces that allow them to engage with others.

Net migration by nationality in the Helsinki Region

Source: Seppo Laakso, the Challenges of Housing in the Helsinki Region seminar, Thursday 13th March 2008
Urban

The northern and western portions of our site are the areas where the peninsula meets the urban character of the central city. The urban fabric of this part of the peninsula is punctuated by industrial silos that will be retained for adaptive reuse. Mid-rise buildings that match the scale of these silos can be sited nearby.

![Image of urban streetwall in Helsinki City Center](image1)


The urban district stretches through the western half of the peninsula to create a continuous street wall that defines the canal promenade. Local retail and social service amenities on the ground floors of mid-rise buildings will attract pedestrians to circulate along urban sidewalks.

![Image of Eiranranta Development in Helsinki](image2)


Neighborhood Characteristics:

- **Mid-rise Building Forms**
- **Continuous streetwall**
- **Mixed use**
- **Grid street pattern**
Hernesaari’s maritime district will be developed as a dense yet small-scale neighborhood. Orienting townhouses along the canals heightens the presence of the water, thereby reinforcing the maritime identity we are trying to instill.

Similar to the Dutch neighborhood of Borneo Sporenburg depicted below, Hernesaari’s maritime district derives its urban character from its compact building configuration. Its sense of enclosure emanates from the modest building heights and the continuous building facade. Our plan then intersperses sidewalks between buildings and along canals to make these spaces public rather than exclusive.

The sense of enclosure along the canals encourages residents to use exterior spaces as an extension of their homes. In addition, the physical continuity between exterior and interior blurs the distinction between private and public, and encourages all residents to be equal users of maritime space.

Borneo Sporenburg Neighborhood in Amsterdam.
Animating Communities

Source: http://blog.travelstoreusa.com
We designed buildings and street faces so that the spaces in-between produce a range of animated public spaces that encourage neighbors to interact in daily activities. Such interactions will help residents of Hernesaari to become rooted in a newly established community. This is particularly important as Helsinki’s population diversifies and moves through significant demographic changes in coming years.

We programmed community gathering places throughout the peninsula and located social services within housing to foster continual integration among people of different ages, incomes and ethnicities.

Plaza and promenade spaces reminiscent of central Helsinki, waterfront recreational facilities, and adaptive reuse of historic industrial facilities augment Hernesaari’s identity as an urban-maritime neighborhood.
Courtyards & Nurseries

Community gardens in courtyards will encourage neighbors to meet around shared activities such as planting or fruit picking.

The open courtyards provide residents with a communal space where adults can congregate and children can play in a semi-enclosed environment that complements busier and more formal public spaces.

In Finland, the government provides pre-primary nurseries and day care to all children under six years old, regardless of income status. Given our targeted breakdown of household composition, we have included several nursery facilities to accommodate expected demand for this universal social service.

The placement of these nurseries within housing complexes will facilitate interaction between immediate neighbors and among parents.

Vuosari Development in Helsinki
Public Square & Promenade

The proposed public square occupies a central location between the tram line and the boulevard. It is also situated between the canal promenade and the cultural space at the silos. There, peninsula residents converge during routine trips to work, school, grocery shopping, and other daily activities.

The square therefore becomes a spatial reference point as people circulate through it on a daily basis. Cafes, benches, and moveable tables and chairs will entice residents to pause.

The promenade along the main canal is a blue/green spine that runs the length of the peninsula. It is an outdoor living room that functions as an urban, public space. This shaded corridor is animated by pedestrians, cyclists, and people engaged in a range of activities from reading to impromptu card games.

Like the main public square, the promenade possesses a strong urban character that physically echoes Helsinki’s historic downtown Esplanade. Boats docked along the canal add another layer of activity, and further draw Hernesaari’s maritime identity into the more classic urban district to the west.

Kampi Center
Source: Jon Sparks, pro.corbis.com

Ruoholahti public square
Community Centers

In addition to casual public gathering spaces like the courtyards, public square, and promenade, our plan includes facilities for programmed recreation and events, and for social services. Spaces like these allow for more intentional community interaction that builds close, enduring social connections.

A waterfront community center will host international sailing competitions as well as local water-oriented festivals. An adjacent, outdoor amphitheater can double as a skating rink in the winter.

A community center, much like the one in the moderate income Helsinki neighborhood of Herttoniemi, provides social space for immigrant women and children. It is a multi-purpose hub that houses after-school programs, community clubs, and a kitchen for neighborhood lunches. People will hold small weddings and birthday parties here and it will serve as a communal lounge where residents read the newspapers, chat with friends, and watch movies.

Unlike the more common model of niche-targeted, separate centers for youth and seniors, the space in Hernesaari will provide a flexible space that draws in a wide range of local residents.
Silos: Cultural Facility

The existing industrial silos at the northern end of the peninsula will be reused to house an exciting new arts and cultural destination. A tram stop will make the silos easily accessible. People will be drawn by a wide range of cultural facilities that include art galleries and arts teaching spaces similar to the Cable Factory in Ruohlahti.

Inspired by the Arabiakeskus, we propose to weave together new buildings with the old industrial silos for use as an arts and cultural facility.

The Siilot Kulttuurikeskus will be a large and comprehensive complex that contains spaces for community organizations, artist studios, social services, a library, recording studios, and arts-related retail. This new addition to Helsinki’s cultural network will serve the diverse community of Hernesaari and also draw residents from other parts of the city.
Connecting to the City
Proposed networks of multi-modal transportation and diversely programmed open spaces will physically connect the neighborhood with the rest of the city.

Fundamental to our proposal, extending the tram network will avoid the common problem of isolation in new developments. In addition to the tram, residents and visitors will have a range of transportation alternatives at their disposal including bicycle paths that link to the rest of the city and accommodation for cars, tour vehicles, and taxis.

Of particular note, a waterfront park along the eastern edge of the maritime district extends the city’s expansive park network to the sea. Both Hernesaari residents and other residents of Helsinki can enjoy bicycling, skiing, and walking along the eastern shore park that meets up with nearby recreational networks.

In addition, we have provided forested park areas abutting the marina on the north and south to enhance the cultural connection to nature. These areas compliment the eastern shore park with more passive space that people will use for the calming effects of wooded vegetation.
Trams

Our proposal promotes a less car dominated lifestyle and built form, a goal that is underpinned by the Helsinki Transit Authority’s recently publicized plans to extend the number 6 tram line into Hernesaari by 2025.

In our proposal, trams stitch together the urban and the maritime. These icons of Helsinki’s urban transportation system are recast in a new physical context characterized by boats and waterways. They will run alongside the central canal in their own dedicated lanes on a car-free mall fronted by neighborhood retail. This configuration was inspired by the tram route along Alexanderinkatu in the downtown shopping district and by the pedestrianized avenue Iso Roobertinkatu.

By placing stops at each bridge into the maritime section and by locating the tram route in the approximate physical center of the peninsula, we have ensured that the tram will be no farther than 300m from any housing unit. It will therefore be easily accessible to all 4,500 residents. In order to promote accessibility for cruise ship passengers entering the city, we have placed the tram loop near the cruise facility. We further propose that Helsinki City Transport run more trams into Hernesaari during the summer cruise season, as incoming tourists may otherwise overload the trams before residents can board.

Proposed tram line extensions for Hernesaari.
Source: Helsinki City Transport, 2008
Biking & Walking

Non-motorized forms of transport are also prominent in our plan. Trams and automobiles are complemented by bike paths, boardwalks, and pedestrianized interior streets. Two bike paths, each physically separated from other modes of traffic, will circulate riders through the neighborhood. The path along the eastern shore will continue the Merisatamanranta waterfront trail from the east and is recreationally oriented. The bike paths beside the canal and the tram boulevard are integrated into its urban and maritime surroundings and extend Helsinki’s network of urban bike routes into Hernesaari.

Walking is prioritized in our plan. The wide public boardwalks and the tram street along with the bridges spanning the central canal are closed to all vehicles except in cases of emergency and for disability access. Indeed, the maritime zone will be almost entirely car-free, reinforcing its singular character within the Helsinki region’s range of residential neighborhoods.
Cars: Integration, Not Domination

Our plan reduces resident reliance on cars and minimizes the urban design and built environment impacts of a car-oriented transportation system. Surface parking lots are absent from our site plan as underground parking is standard practice in new central city developments.

Helsinki’s City Planning has specified a ratio of one parking space for every two dwelling units. Given a target of 1,800 households, Hernesaari needs to accommodate 900 cars.

A boulevard running the length of the peninsula will have two lanes in each direction. This is more than enough road capacity to absorb resident vehicles.

The road also provides access to the cruise ship docks for the buses and taxis that transport tourists to the city center and its cultural facilities.

Rather than build a parking lot holding area for these buses, we have added parking lanes along the approach to the heliport on the southern arm of the peninsula. This road is necessary to provide access to the heliport, but is not heavily used on a daily basis.
Linking Blue To Green

Helsinki’s vast network of recreational and cultural spaces is among its greatest and most defining assets. Yet it lacks strong connection to the city’s prominent seascape.

The waterfront park along the eastern shore of Hernesaari is interspersed by the finger canals and adds a blue/green dimension to Hernesaari’s maritime development.

Our plan also draws in Helsinki’s forested park network with the connection made at the northeastern point of the peninsula. This new park establishes the missing link between water and forest in Helsinki’s “park empire” through a continuous, coherent network of open spaces that embraces the redeveloped waterfront.

Our site offers Helsinki residents a rare opportunity to live near a forest that is reminiscent of rural woodland rather than manicured landscape. We have reserved space to the east of the urban-maritime canal for a free-form, forested park setting.

Kalvopuisto park, Helsinki
Source: Jesse Farb, 2009
Because of late industrialization and urbanization, the forested landscape continues to inform the Finnish cultural imagination. The corollary of this is an anti-urban sentiment that drives housing preferences toward a more dispersed development pattern.

Developers have responded to the preference with detached houses at low density. This has fueled suburbanization.

The mere transplantation of suburban housing typologies into the urban core fails to capitalize upon the desirable aspects of city living. Moreover, it fails to exploit the urbanity that is the hallmark of the city.

Thus, to attract families and couples to the city, we have folded the organic forest into the classic-urban typology.
Conclusion

Our strategic plan, first, takes advantage of the opportunities created by the need to separate incompatible land uses and, second, cultivates an innovative urban-maritime milieu.

Diverse urban and maritime housing typologies are meant to be responsive to the changing population in the Helsinki region and offer attractive, city living alternatives to the car-oriented suburbs.

To the north and west is a traditional urban district that continues central Helsinki’s grid layout and high density. This part of Hemesaari is characterized by mixed-use, mid-rise buildings, vibrant plaza spaces, and adaptive reuse of industrial facilities.

To the east lies a maritime district that, while still compact in form, is differentiated by finger-like canals, intimate residential courtyards, and an orientation toward the sea. A major canal through the center of the peninsula acts as a transitional space between the two districts. A tram line runs parallel to the canal and is within walking distance for all residents.

Outdoor living rooms animate neighborhood sidewalks and courtyards, while inclusive social and cultural programming facilitate interaction among people of various ages, socioeconomic backgrounds, and national origins.

Finally, multiple transportation and open space options add to city-wide mobility and recreation networks.

These built and social environment elements establish a distinctive new neighborhood that connects residents and visitors to the city and the sea.
Between the City and the Sea