What if the map was inverted: land will be water and water will be land?

Urbanization is happening rapidly. Most developing countries experience the process of urbanization, especially once they start becoming industrialized. Cities and towns become hubs of trade and culture, and more people start moving away from the rural areas to access these social and financial benefits.

260 years ago, 85% of Swedes lived in rural areas. Today 85% lives in cities. Even though the advantages of cities were many, they also created issues.

The progress started by 2002 approximately 70% of the world’s population will live in urban areas. This is going to put huge strain on the world’s existing metropolitan areas, which will face climate change to deal with; about 10% of the world’s largest cities are flooded on the waterfront and are vulnerable to rising sea levels. The rest of the cities’ low sea levels will have zones with at least one meter, which will also be severe consequences. How will we deal with the vast extension of water? Is a contact determined by an unstable and unpredictable element that depends on parameters such as humidity, temperature, and hydrology? How will the new cities be redefined?

Sweden’s population is currently suffering from national housing shortage, this can be seen through the high housing prices that exist in almost all municipalities on the high housing prices on the housing market. Umeå is not an exception.

Currently, the queue to receive an apartment from social municipal housing company is at least six years. “Allmännyttan” means that the municipal housing company shall provide sustainable and affordable housing, available for everyone. The importance of having a strong municipal housing company is a prerequisite allowing people with lower income to have homes.

The lack of municipal housing, in combination with financial obstacles such as high loan demands, rapidly rising housing prices, high costs of production, high prices of land, and leasing markets lead to a very difficult housing market for lower income groups in society. A change is required, something that is currently owned by someone. Water on the other hand is open for everyone. What if we treated the water as an actual surface rather than just a part of the landscape?

"The river city shall be open to the world. It shall be inclusive, green and dynamic. It shall be developed so that it heals the city, connects to the water and strengthens the core of the urban context."

Hus med flyt project aims to restore the aquaducts, ripples, floods, waves, streams, and droplets of water as a manifestation of the built environment. An implementation of affordable floating dwellings dealing with the reality of climate change and the future sea level rise is a demanding new way of planning urban cities. Although the concept of floating dwellings might seem revolutionary, it is in line with industrial design and society. Most cities are situated close to water and building on water allows for the inner city areas to expand.

Dealing with the issue of growing cities and how we as architects can provide housing for everyone in the city with a new approach - treating water as a surface rather than just a part of the landscape. Floating structures leave no scars on their sites, permitting urban planners to actively meet the demands of the present. As a part of the climate change generation it is up to us as architects to respond to the world’s spatial needs with novel, sustainable proposals.

A diverse, flexible neighborhood on the water will be created - responding to the prevailing conditions of our planet.

**RESEARCH QUESTIONS**

- How can we plan and build differently on water in cities, in order to meet the demands of the future?
- How can we treat water as a surface to build on, and live on?
- How can we create affordable sustainable homes that are available to everyone?

**PROJECT CONCEPT/EXPLANATION**

Floating affordable dwellings dealing with the reality and future of the sea level rise demanding a new way of planning urban cities. Although the concept of floating dwellings might seem revolutionary, it is an obvious solution to the overcrowded metropolises. Most cities are situated close to water and building on water allows for the inner city areas to expand. Dealing with the issue of growing cities (housing shortage) and how we as architects can provide housing for everyone in the city with a new approach - treating water as a surface rather than just a part of the landscape.
The Ume-river has gone from being a very active place for market, infrastructure, transportation, and everyday life. Today, where the main use of the river is recreation, but even though the river's role in the city is taken on a new shape, its presence in the city is still of high importance. Especially considering the challenges we are facing with climate change and a growing city, the river is to be seen as a great asset. The question we are facing today is how to use and shape the development of the river and its delta in the best way. We are moving towards a city where the desires of the inhabitants are changing, locally produced products, reconnection with nature, the disconnection.

Hus med flyt will be placed on the river in the urban core of Umeå. The Ume-river is the spine of the city, even though today only functions as an element of recreation and a part of the landscape. Imagine Umeå being a city where you can plug and play floating houses and floating developments. Hus med flyt is therefore flexible in its placement on site and within the context. The floating structure allows to be moved around and create new settings at different places around the city and to be adjusted and moved depending on the needs of the presents. The chosen site is located on the very core of the city centre. Clear to the city life and everything it has to offer. Hus med flyt is providing an new way of living within the urban context.

"Imagine Umeå being a city where you can play with floating houses and developments."
A floating house can be defined as a house for living space that floats on the water with a floatation system, is moored in a permanent location, does not include a water craft intended for navigation, and has a utility services systems served through a connection to urban supply/return system between the floating building structure and a service station on land, or it has self-supporting service facilities for itself.

To build on water is just a matter of balance between the size of the foundation, the depth of the water and the height of the structure. A city/neighborhood can be magical as you can remold it and reconfigure it as the development and demands change, adjusting to the moment. Adjust to the season. Let the houses open, reconfigure, rotate, move to another part of the city, the possibilities are endless.

"A new kind of living in the city, on the water."

Floating & flexible site

Meeting the demands of climate change and the notion of the growing city. Building on the water allows for the inner city to expand in a new way. The water allows the floating dwellings to be flexible in its placement on site and context, allowing it to be moved around and create new settings at different places.

Modular & affordable housing

The idea is to build smart and cheap, also made possible by the fact that no land ownership is required. Modular housing system of apartments from 1-4 people. These can be combined in different constellations and placed on different locations on the river in the city depending on the demands of the present.

Plug in to city

A connecting node in the form of a devolopable will function as the physical connection between Hus med flyt and the urban city. There will also be an invisible connection where the dwellings will plug in to the existing network of the city life and its advantages.

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example of expansion of hus med flyte
Modular housing system of apartments for 1-4 people. These can be combined in different constellations and placed on different locations on the river in the city depending on the demands of the present.

A. One module of 15m²: One bedroom apartment with combined living area and kitchen. For one to two people.

B. Two modules, 30m²: Two bedrooms on the first floor and living area and kitchen on the ground floor. For two to three people.

C. Three modules of 45m²: Two bedrooms on the first floor, one bedroom, living area and kitchen on the ground floor. For three to four people.
Benefits of living on the water include the potential for a peaceful and comfortable atmosphere due to direct connections with nature, good relationship with neighbors, a solid social spirit of unity, and sense of security.

The dwellings are built from cross-laminated wood, a durable and sustainable material that creates a tactile atmosphere on the inside. The interior walls are simply polished and treated but otherwise left raw without any cladding. The built-in furniture is made from plywood, which is affordable but in the same time goes with the light wooden walls.

The dwellings have large windows, providing a direct connection to the surrounding landscape and water. They rest on platforms that provide stability but also create an outdoor space around the entire dwelling, giving a direct contact with the water.
**Definition of floating house.** A floating house can be defined as a house for living space that floats on the water with a floatation system in instead of a permanent location, does not include a water craft intended for navigation, and has a utility services system served through a connection to a urban supply/return system between the floating building structure and a service station on land, or it has self-supporting service facilities for itself.