Waterway Living: A New Urban Typology

Water is the next frontier for architects looking to provide viable solutions to increasing urbanisation. Stylus investigates innovative 'water builds'; illustrating how floating communities may be the answer to a wealth of urban conundrums.

LIVE/WORK

Courtesy of a capital city founded on waterways, and the tricky issue of a land mass situated well below sea level, it's little surprise that Dutch architects have developed an obsession with building on water that has made them global leaders in a pioneering field.

Stylus talks to Koen Olthuis, architect and founder of Waterstudio – one of the first architectural practices specialising solely in this kind of work – about the future of floating, flexible urban developments the world over.

Building Communities on Water

Proving that building on water has possibilities firmly rooted in the present, Olthuis is working on an extensive, benchmark urban planning project – New Water – located near Heenweg in southern Holland.

Designed to solve overcrowding problems on land at the same time as Holland's need for more water storage, the residential community has been built within a flooded polder – a tract of land originally reclaimed from the sea. Construction of New Water's 1200 dwellings started in 2009. Partly as a desire to dispel common assumptions that water living will be reserved for the rich includes both a luxury floating apartment block, referred to as the Citadel and blocks of social housing.

Measuring approximately 2.5km by 500m and divided into residential, recreational and ecological areas, New Water is a perfect example of the increasing scale, and potential, of floating communities.

Perhaps the most ambitious part of the project is the Citadel apartment complex – the first multi-tiered, large-scale build to be attempted on water. Consisting of 60 luxury residences with large terraces and a private pool – another first – Citadel is an ambitious, forward-thinking development. It is a poster project for the practice that confirms the possibilities of water-based architecture and, crucially, its ability to match up to its land bound counterparts.

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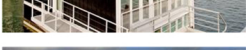
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Holland Rules the Waterways

Olthuis is not the only architectural pioneer taking on Holland's waterways. Amsterdam based agency, Architectenbureau Marlies Rohmer has also completed "water dwellings" in Uburg, a series of islands forming a new urban district near the Dutch capital. A clutch of 75 hybrid houses, connected by walkways that sit on the surface of the water, the compact residences bridge the gap between conventional homes and moored houseboats. The architects believe the design incorporates the best of both worlds – a balance between innovation and tradition that those still getting used to the idea of living on water will find especially palatable.

The houses are of varying floor plans and sizes, but akin to land houses in terms of dimensions and layout. Supported on a submerged concrete tank, which doubles as a basement level, the houses are superlight wood-framed structures. Water enhances the living experience: a pontoon-style jetty surrounds the perimeters of each home, allowing inhabitants direct contact with the soothing effects of the water.

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Working with Nature: Sustainable Structures

Moving away from the Netherlands – but on a similarly ambitious scale to the Citadel – The Greenstar in the Maldives is a star-shaped floating hotel with 800 rooms and a conference centre with a capacity of 2000 people. Also designed by Waterstudio, the island, enveloped in green foliage, is (according to Olthuis) set to become the world's number one location for climate change events when it is completed in 2014 – a purpose which ideally reconciles with the ideal of building on water.

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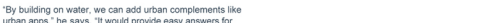### Flexible Cities: The Future Urban Saviour?

Olthuis believes that the biggest challenge facing further architectural development on water is people's perceptions of waterway living.

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It's an idea that, if noted, could significantly shape the future development of large international cities, approximately 90% of which are centred on large bodies of water, including the megacities of London, Tokyo and New York.

"Building on water also means that you can build dynamic, rather than static cities. At the moment, buildings are constructed and they can stay there for anything between tens and hundreds of years until they are demolished and then relocated. It's not a perfect solution."

The inherent flexibility of urban extension over water – the ability to tow individual buildings or entire communities from one place to another in a similar way to olrigs – is certainly appealing. Olthuis compares the possibilities with those of an iPhone, which can be customised with apps to suit the needs and interests of the individual. Similarly, he believes that city councils and governments could choose the specific elements currently missing in their areas with the potential to lease them out or sell them on to other countries or cities if there is no longer a need for them.

"By building on water, we can add urban complements like urban apps," he says. "It would provide easy answers for politicians and decision makers who could make up for the mistakes of their predecessors and react quickly to changing needs."

The Seasteading Institute – a non-profit organisation based in Sunnydale, California – certainly agrees and is planning to take this idea one step further. Founded in 2008 by Patri Friedman, grandson of US economist Milton Friedman, it believes that water cities present an exciting potential agent for social change and the catalyst for positive political experimentation. To this end, the institute is investing in research into the legal, engineering and business problems associated with this ideal, while simultaneously raising public awareness.

Although the creation of entirely new, water-bound cities may be some way off the work of this organisation provides proof that aqueous living has very real potential.

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Stylus Summary

Creating communities on water has the potential to alleviate a wealth of problems associated with high-density urban living, such as overcrowding.

By harnessing the properties of water, architects, urban planners and environmental experts may be able to create more environmentally friendly solutions to climate control.

Reaching out into the water has the potential for more flexible, dynamic architectural configurations, which could positively affect the social structure of existing international cities.

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WATERWAY LIVING
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