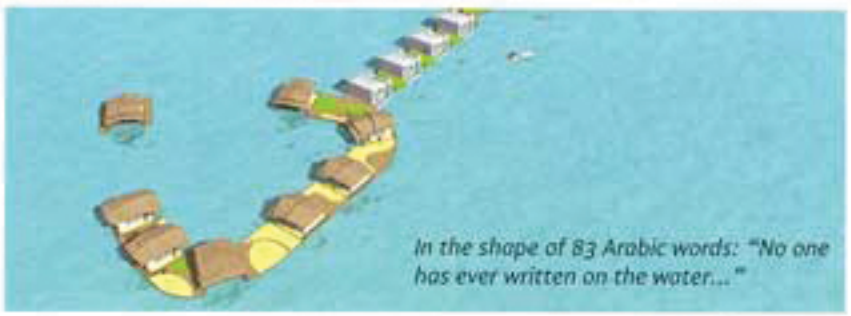
Floating towns

"The future is wet, the future is great !"

A house on the water is the latest trend. No, not a houseboat, but an actual house that's designed to float. The genuine appeal of living on the water is slowly giving rise to floating towns.

By Karin Hakkenberg van Gaasbeek

For centuries the Netherlands has fought against the water. The Dutch drained land and built dikes and flood barriers to keep the water at bay. The prestigious Delta Plan set a worldwide example and every year countless engineers arrive in the Netherlands to see how the Dutch do things. Recently, however, the Netherlands has begun to look a little differently at the water. The Dutch have come to realise that they have to keep the water out while giving it more space at the same time. That realisation has resulted in a variation on the familiar Dutch houseboat: the floating house. A further factor is that land is at a premium in the Netherlands, so building on water offers exciting new prospects.



In the shape of 83 Arabic words: "No one has ever written on the water..."

There are several companies specialising in building floating houses, but Waterstudio.NL is the only one that focuses exclusively on amphibious architecture, urban planning and innovation.

Entire floating neighbourhoods

Waterstudio.NL has designed a number of contemporary floating homes, for example villas with a garage and mooring for a boat. Waterstudio.NL's Koen Olthuis (water architecture) and Rolf Peters (conceptual design) have already completed plans for entire floating neighbourhoods in watery or marshy areas.

How do you get a house to float?

An amphibious house can have one of two different foundations, based on two different technologies. The Dutch technology consists of a floating concrete container that can be used as a lower level or cellar. The Canadian technology consists of a square container turned upside down and filled with polystyrene, an unsinkable structure. The disadvantage of the Canadian system is that it is relatively unstable. Because the Dutch tend to build elongated amphibious houses that therefore require greater stability, the Dutch technique is used more frequently.

Dubai is a floating, rotating, 100-metre tall hotel tower. How do you stabilise such a structure? "We work with engineering firms like Haskoning and DHV," says Peters. "DHV Rotterdam calculated that just a draught of only a few metres would be enough to stabilise a 10,000-square metre platform. It's a prestige project for which we've submitted a tender."

Resilience of between 1 and 10 metres

Deltas will always need polders and dikes. That makes it necessary to use different amphibious concepts, since the water must always be given a certain amount of free rein. In other words, the houses must be made resilient. "A floating house will rise and fall with the water level, sliding up and down a set of mooring poles or cables," explains Olthuis. "Its resilience can be as much as ten metres. If the house is on a rise, giving it a resilience of several metres, it stands above the water level on poles, mounds or dikes. With waterproof types of housing, the water is allowed to enter the home but doesn't cause any damage because it can simply flow beneath the living quarters,