

Floodscape; spatial framework as a means to deal with flood risks

The graduation plan Floodscape is part of the Landscape Architecture studio Flowscapes that focuses on landscape as a form of infrastructure.

“The studio explores infrastructure as a type of landscape and landscape as a type of infrastructure, and is focused on landscape architectonic design of transportation-, green- and water infrastructures. These landscape infrastructures are considered armatures for urban and rural development. With movement and flows at the core, these landscape infrastructures facilitate aesthetic, functional, social and ecological relationships between natural and human systems.” (Nijhuis, Jauslin, & De Vries, 2013, p. 1)

The design focuses on implementing the lessons learned from the *Room for the River* project and taking it a step further to be able to deal with flood risks now and in the future. By creating an adaptive framework through the inland delta downstream of Bratislava a solution is being sought for the flood risk now and in the future.

The relationship between the theme of the studio and the subject/case study chosen within this framework

The choice for Bratislava was derived from both a personal experience I had with the city itself having visited it a few times earlier and a professional interest in the particular unique landscape of the Bratislava region. I felt it had a significant link with the theme of the studio being located in a country that is trying to catch up with Western Europe but still has a lot of uncertainties when it comes to dealing with changes in landscape, infrastructure, ecological developments and city expansion. By using the river Danube as a driving force behind the project it positions it firmly in the core of the studio’s subject. The river is both landscape and infrastructure.

The relationship between research and design

In the beginning of the project the research mainly focused on natural processes that have the ability to create landscapes and what role a designer could have in using these processes to its advantage. How can we create a desired landscape by using the force of water for example? Later this developed to a more strategic and spatially tangible principle of the ‘casco model’ seen in *plan Ooievaar* (de Bruin et al., 1987), the initial plan that later was used to develop the *Room for the River* project. This plan, the winner of the EO Wijers competition in 1986 was a spatial vision (figure 1) on the Dutch river landscape where the natural development would be concentrated in the rivers and floodplains creating a strong spatial framework throughout the Dutch Delta. It would create a flexible system to deal with controlling the bigger discharge of both the river Rhine and the river Maas. These principles were the starting point of the final design.



Figure 1 Plan Ooievaar (de Bruin, et al., 1987, pp. 24-25)

The relationship between the methodical line of approach of the studio and the method chosen in this framework

My graduation project is focused on how the natural landscape, that is either present or lost due to human intervention can help in solving certain problems. The potential of the natural occurring landscape is often under appreciated while it can give designers clues for overcoming certain design problems and what this concept can mean on all scale levels. I think this method of approach is very much in sync with the method derived from the studio's core concept, where a multi-layered understanding of the landscape is being advocated.

The relationship between the project and the wider social context

Across the world people's environments are being threatened by the effects of climate change, and although we, and especially in Western countries are capable of fighting them in the same way we have been doing in the last 25 years there is a change in the way we think about possible solutions for these effects. The experience we gained by implementing the Dutch project "*Room for the River*" in the Dutch Delta shows us that the conventional solution in river flood protection are no longer sufficient for the rapidly changing climate. This project deals with the uncertain

de Bruin, D., Hamhuis, D., van Nieuwenhuijze, L., Overmars, W., Sijmons, D., & Vera, F. (1987). *Ooievaar; De toekomst van het rivierengebied*. Arnhem: Stichting Gelderse Milieufederatie.

Nijhuis, S., Jauslin, D., & De Vries, C. (2013). *Flowscapes; Infrastructure as landscape/Landscape as infrastructure*. Landscape Architecture. TU Delft. Delft.