

# [a blue scape of reflection]

creating a place of revival, using the solitude created by the dike, and the dynamic rhythm of the sea

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P5 Reflection  
Delta Interventions Studio

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## [reflection]

The North Sea is not only important because of the enormous amount of trade, politics and resources revolving around it. It is also a large amount of water, where we have a human connection with. In the Netherlands almost all nature is artificial. The sea is one of the few things we cannot control in life. This gives the moment you reach the edge of the land a special quality. You gaze over the water until it gradually blurs into the sky. The wind and the sound of the waves disguise every sound from the city. For a minute you are free from everything you turned your back on, your life, your responsibilities, your position in this world. There is just you and your reflection in the water.

The main idea behind the design of the graduation project is based on a combination of different research topics. My project is situated within the Delta Interventions studio, which focusses on dynamic coastal areas. The studio consists of an interdisciplinary group of students, which results in a different meaning for the topic in different scales and fields. These are the territorial scale, the city scale, the scale of the location or the plot and how the intervention interacts with all of the above. The research area of this year's studio is the coast of the North Sea. We started with an explorative way of group research by the mapping of different systems in the North Sea. Zooming in, we were divided into smaller territorial groups. Our group focussed on the Waddensea and its surrounding coast. Our group conclusion identified the problem of coastal squeeze and broadened this term towards the human system:

### **Group research conclusion**

The human and natural system are bordered by an artificial coastline, which makes it impossible for these two systems to be dynamic and beneficial for each other. These coastlines, often in the form of a barrier for water defence reasons, also disconnect the urban landscape and its people from the sea. This is keeping people separated from a place of leisure and revival, a way of benefiting from the sea. The other way around, important biodiverse areas are destroyed by the rising of the sea level, because they have no ability to move land inwards. From this point of view a scenario is desirable where there would be more interaction between the sea and the land.

### **Disconnection from the sea**

After this group conclusion, I continued on this phenomenon of disconnection from the sea. Translating this to an architectural scale, I focussed on the human scale and level of connection with the sea. People are and have been drawn towards the sea since forever. We instinctively know that it is good for us, but where does this instinct come from? In an era of still continuing re-urbanization and an ever increasing world population, life in the city will become more and more intense. This in combination with the constant stream of incentives we are receiving as a result of globalization, more and more people are burned out, because of a lack of balance in their life. This is where the sea comes in, serving as a 'therapeutic landscape'. In the last couple of years research is being done about the actual healthy qualities of being near the sea and large amounts of water in general. It has been proved that green surroundings are beneficial for the mind, so greenery and parks in the city serve as a therapeutic landscape. New studies confirm the same for water, so being at the sea is like being in a green park but then in a blue (land)scape. This explains the title of the project: a blue scape of reflection. The project has to create a moment to stand still and reflect.

### **Healthy qualities of the sea**

The healthy qualities of the sea can be divided in to three categories:

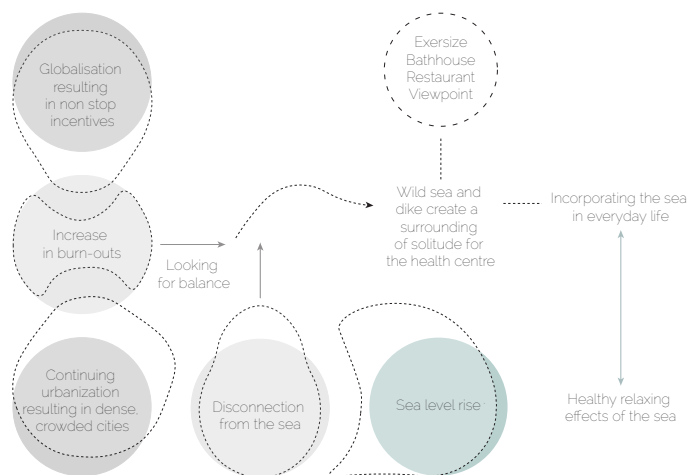
The actual healthy effects, the psychological effects and the activating effects of the sea. This can be translated into design by focussing on the five senses: seeing, hearing, touching, tasting and smelling. Smelling and breathing toxins produced by sea algae are released at the coast and actually help our bodies prevent certain diseases. Seeing, hearing and being surrounded by the water (touching) has a positive relaxing psychological effect on our brain. Being at the coast and in the water stimulates exercise, for example beach and water sport but also a walk along the coastline.

## Location

The location of the project is Den Helder, this is a location where disconnection from the sea is clearly existing, since the city is separated from the sea by an eleven meter high dike. Den Helder has a very important relationship with the North Sea, it's identity completely is completely based on its relationship with the sea and geological location..

Den Helder is the geological anchoring point of the Netherlands. If the dike in Den Helder would flood or break, a big part of the Netherlands will flood. Because of this and also because of its strategical location in relation to the old 'Zuiderzee' in history, Napoleon wanted to make (Den) Helder into an important navy harbour and location of war defence. In the last decades the importance and scale of the navy in Den Helder has been shrinking. Parts of the old harbour and defence buildings are being reused for different functions. Den Helder is looking for a new identity to become a destination for touristic purposes, but at the moment people only pass through Den Helder to access the boat to Texel or for offshore business. Den Helder should be refocussing on its origin, the sea.

The relation between the different research topics and the design is depicted in the following figure.



The research about coastal squeeze, climate change and increased urbanization of the defence systems is used as argumentation for the project. Climate change is also used as a factor which is taken into account in the design process. Then the 'healthy effects' of the sea are translated into ways the spaces in- and outside the building are

relating to the sea. Also the route towards the sea and returning to the city will focuss on these effects. Further, the city of Den Helder provided history and the site specific elements anchoring the design in its context. Then there is aspect specific research, about the coastal morphology of the estuary between Den Helder and Texel and what would happen to the streaming and the sedimentation and erosion when an intervention is placed in that area. Research has also been done about regulations of building a dike or how to treat defence systems and how to build in their proximity. Later in the project I also focussed on floating structures and how this information could help to create a type of hybrid which reflects this transitional situation and can be created on the edge between land and water.

The project relates to the master track of architecture, not by solving a problem but by using a creative process to rethink a problem or situation. I am not solving the disconnecting situation, but I create a way in which people can still benefit from the sea and become aware that change is inevitable. I do this by proposing an architecture which creates a public building for the city of Den Helder, with functions that stimulate benefiting from the sea. Within the master program the project is an integrated proposal relating urbanism, architecture, and building technology together, but with its main focus on the architecture.

## Experimentation

Like stated before, in the studio we started with doing research in an explorative way. This method of experimentation suited me, because it assisted me in narrowing down the very broad context of the subject of the North Sea. This combined with reading literature and mapping formed my research base. After the first semester I kept using experimentation in my designing but in different ways. Generally I was making versions for each decision I had to make. I would test those in sketch, model, and by informing myself over specific aspects. This cycle would repeat itself every time until tutoring, when I would get feedback from the tutors and new ideas for versions and factors to test on. Analysing references has also been very helpful, especially to try to capture the essence of what their main theme is and how this relates to their surroundings. Subsequently I would transpose

## [reflection]

these references to my own location and analyse how this theme would transform in meaning.

The project acts on a social level by trying to re-incorporate the sea as a reviving factor and (land) scape in the everyday life, balancing the tumultuous city life. It breaks through the tradition of building only behind the sea defence system and reuses the idea of building with a pier typology, to be near the water. With an increase in sea level rise, defence systems need to be enlarged, but space is scarce in the dense city. This is why we should start thinking about the multifunctional use of the defence systems. I see Den Helder as an example for a future scenario for any coastal city which has to protect itself from the sea. I think the general result of the building, not exactly the function and shape, but the way to build, to work with the water instead of hiding from it, can be transferred to similar disconnected areas.

I think my approach worked, but it also resulted in some difficulties in my process. Because I kept making versions I would not always continue and start to refine. On the other hand I could also be very stuck in one version, not willing to abandon it yet. Because I formed my project concept of a disconnected place before choosing my location, I found it hard to work with the site specific elements. As a result the building became kind of autonomous, which was also feedback I received from my tutors. It took me a while to realise that my context were different forces collapsing, the solid dike and the dynamic sea. This is quite a different context than building in a city centre.

A dilemma in the research seemed the choice of the location. The concept of a disconnected place was formulated before the location was set. Den Helder was the perfect example of a city cut off the sea, but not a city with a few million inhabitants or extremely busy. In the end this was fine, because the city of Den Helder makes the project site specific. The idea of the spa is of course about the reviving and balancing of the everyday life, but the history of Den Helder with its origin lying in the sea ties the project to the reconnection of Den Helder with the sea.

Then in the design phase, the functions had to be selected. The idea of letting go and leaving the city is also letting go of the fear, of going over this safety system and being exposed to the sea. But how far do you go with actually exposing people to the open sea? I chose to leave any long term accommodating functions out and limit it to a place to work or visit through the day and in the evening. Also I had to take into account how the materials would be degenerated by the salt water, what the effect of the building on the natural system was and for what kind of period the building should be useable.

In practice the project would be difficult to realise, because there are a lot of rules which would prohibit it. However there are some references. By using equivalence this could be solved, so by showing that the purpose which the rules stand for is still achieved. By example, the three most important factors of ensuring a dike's safety are abundance of height, stability and the prevention of piping, the running of water underneath the embankment. This is achieved by using poles for the foundation which are long enough to transfer forces on the sand layer underneath the dike.

### Conclusion

I am content with the result of my project, but of course there are enough elements which could have been different or improved. The process of the year I worked on this project was not flawless, but this made it a very informative. It feels really good to finish a project which you struggled with. Also I did not always agree with my mentors on everything and to have come to an end result which suited all of us is very nice.

Something I found difficult was that I had to learn a lot of new things about how to built in the sea, learning from ships and then translating this in a creative way to my building. This is a lot more difficult than using traditional building techniques. A last thing which I would have wanted to elaborate on is the imagining of the ageing of the project, the maturing and degradation of the structure. Will the bathhouse be disconnected and shipped to another pier, or will the pier in the end be flooded and will the bathhouse be the only thing that is left, anchored before the dike, or floating on the wild sea?

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