

# Final Reflection

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Transitional Territories Graduation Studio

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# 1. Relationship between Research and Design

My research starts from the deterioration of the ecosystem in the North Sea, the ecological research status in the North Sea, the decommission of offshore platforms and the ecological transition process on offshore platforms.

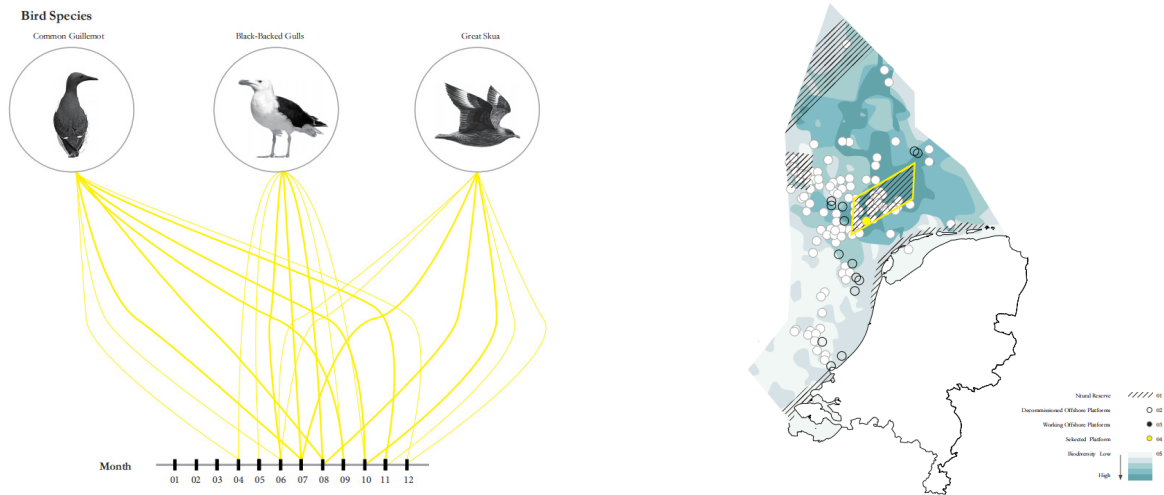
Based on all the research above, I decided to transform an offshore platform into an ecological research center. I want to make the offshore platform which used to disturb and even destroy the ecosystem become a place where people can learn from the nature and produce knowledge that would help to create better relationship between human beings and other species.

Then I started mapping the location of offshore platforms and the biodiversity. After that, I zoomed in to Frisian Front and the L10 A complex, the first offshore platform on Dutch continental shelf.

Then the research part started to focus on the L10 A complex itself and the specific climate, hydraulic, biological characteristics of the complex. The following step was to learn the process of ecological research and based on that, I decided the circulation and sequence of my project.

Because the topic is offshore platform, I did a lot of research on the technological issues like how to deal with waste, how to use small boats in the open sea, how to insulate the walls, how to be wind resistant. In this process, I involved a lot of people with different academic background (shipping, structural, ecological) in order to make my project more solid.

In my project, the design and research processes are tightly intertwined. When encountering some problems or difficulties, I will have to turn to relative research. When discovering something that is related to my design process, I will adjust my design.



## 2. Graduation Topic and Studio Brief

Under the name of Transitional Territories, our studio is focusing on the transitional issues in the cope of North Sea. With the fossil fuel age being expected to end by 2050, the decommission of the offshore platforms will become an important issue. Moreover, in order to create better environment for human beings, the restoration of ecosystem will become more and more important.

My project is rooted in the transition of energy use and the transition of ecosystem as well as people's attitude towards the ecosystem. How can the offshore platform, a machine that extract resource from the nature, become a place that would reinforce the ecosystem? How can I build a new human-nature relationship on the offshore platform?

## 3. Method

Different methods were adopted in different part of my project. When dealing with the whole North Sea, the main method for me and also for the studio is mapping. Mapping here is regarded as a tool to unlock potential. Through mapping, I got to understand how the ecosystem of the North Sea has deteriorated, and the relationship between the distribution of offshore platforms and biodiversity.

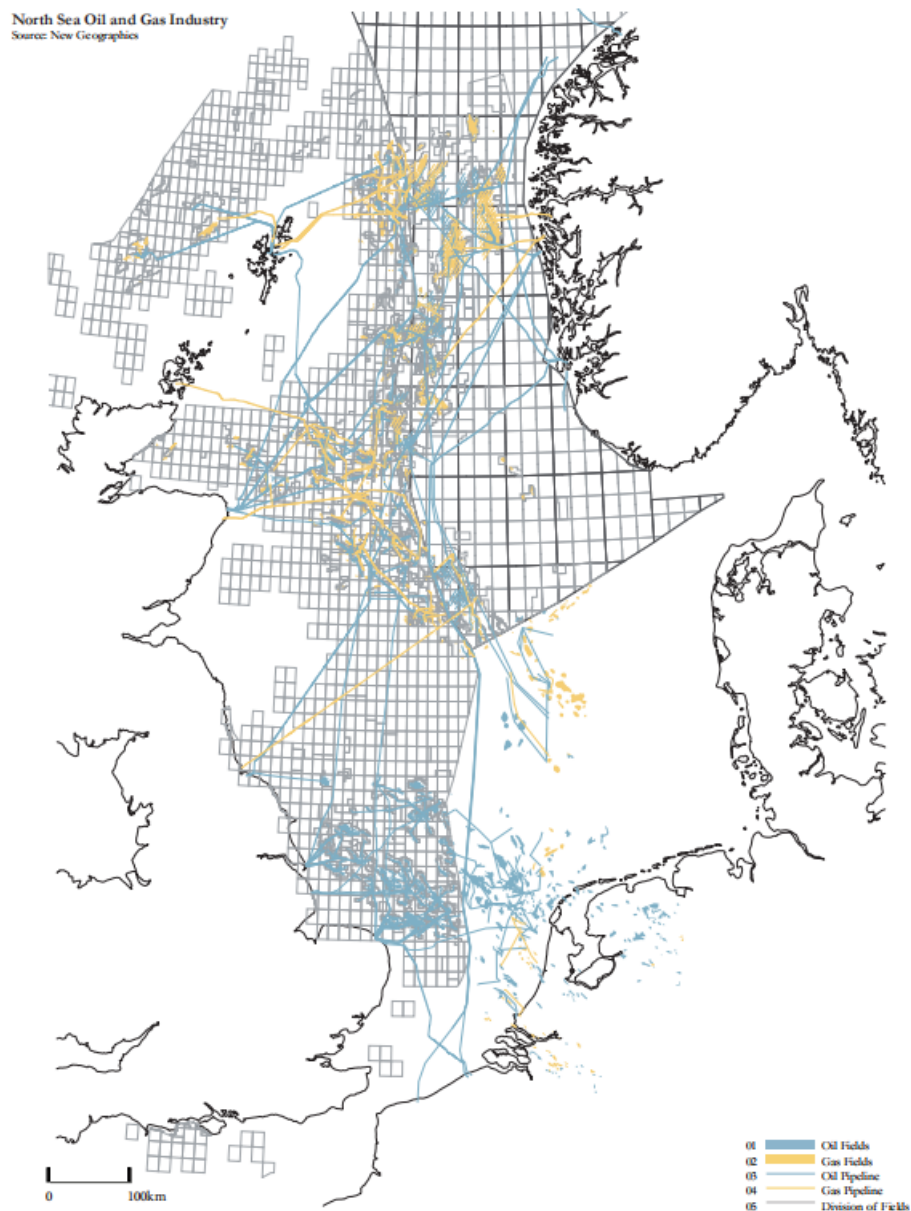
When dealing with my design project, I would say literature and case study played very important roles. My project is kind of a wishful project, however it shouldn't be unrealistic. I was reading a lot of literature and try to figure out what kind of aspects I can rely on. When designing the bird watching tower and the underwater aquarium, I also referred to a large number of precedents. Hand drawings were frequently used to explore the spatial quality I want to achieve.

Due to the fact that my project is quite technical, I also cooperated with many people from different academic background, from oil platform structural engineer to ship designer. Transdisciplinary cooperation is super important for me. During the cooperation, I got to learn many knowledge that I might never be able to learn on my own. This process also help me to make my project more solid.

#### 4. Wider Implication

I would say the decommission of offshore platform is a worldwide issue. My project would serve as an example of adaptive reuse these offshore platforms. Many problems that might occur in the process of reusing offshore platforms are tackled in my project. These solutions might be applied to future practice. In my research report, I also included some other reuse options like energy substation, carbon storage station.

Moreover, the energy use strategy also provide people an example of how to generate energy offshore without too much interference towards the ecosystem.



## 5. Ethical Issues

The ethical issue I encountered is the relationship between human beings and other species. When introducing human beings, I am creating some interference.

In order to control the interference, I decided to use power buoy as energy generator. This kind of wave turbine is quite and won't hurt fish or create hazardous substances. I use the spiderweb bird conserve glass to avoid bird collision on the offshore platforms. I designed special waste treatment systems so the black water as well as grey water in produced won't harm the ecosystem. All the solid waste would be transported to the land and disposed of.

I do believe these are some solutions that could be adopted in many offshore projects.

