

P4 Reflection Paper

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The P4 presentation principally focuses at showing the development of a spatial intervention as the concluding element of the yearlong research path. It is also a moment to reflect on the process to led up to the final design.

01.

*The relationship between research and design.*

The research aspect of my project began with a broad investigation into the North Sea's past, identifying its historical position as being perceived as "the edge of the world". It was a time when the sea and its cold northern waters was seen as an evil in itself, as a physical and a mental border, difficult to pass and coexist with. Following this analysis, the scientific research was brought to the present, analysing the current conditions we (man) are being confronted by nature. Based on the research, I was able to conclude that throughout history the relationship of human with water has been constantly linked with the fear of the hidden, natural power of water. In the past, the North Sea was difficult to navigate. Today, we are facing the issue of climate change and rising sea levels. This shows the phenomenon of nature's power is once again taking control over human. The subject of the project is focused on the strategy of overcoming this fear but once again harnessing it power as an opportunity for humans.

In the past, people faced the challenge of passing the fearful water by improving sailing boats, discovering navigation techniques and studying its natural movements, currents and tides. This process helped us to familiarize ourselves with the initially unknown and to learn how to coexist with nature. Today, we are confronted with the increasing power of water, which we have fortified ourselves against from it by building high advanced dams, walls and floodgates. We are using physical, monstrous engineering interventions to protect ourselves from the water rather than embracing its power – like we did in the past.

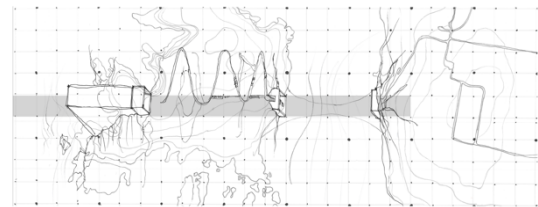
The design in itself aims to tackle the current issue of water level rise in a more traditional way, to open up to nature, to understand its behaviour and draw on our experience and knowledge.

As such, I mapped the North Sea's historical conditions, which was a method to test and identify a possible site for my architectural intervention. The project has been set on the Shetland Islands, to serve as a metaphorical connection of the fear of water in the past and the present. From the conducted research, the Isles were the location of the first settlers, the Vikings. Historically they embraced the fear of the waters mystical power and sailed through the unknown sea. As a link to the present, the geographical location of the Shetlands' dictates that their coastal line will be one of the first to be impacted by the rising sea. Moreover, the island is by definition a transitional territory, the link between the Norwegian Sea and the North Sea.



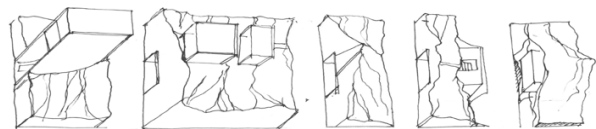
*Fig.1. Past -Present – Future of the North Sea*

The relationship between the power of water and the site was further explored in the architectural proposal. It was important to develop a cohesive narrative in the design, to bridge the past and present perception of water's power with the site (fig. 1). Here, I tied together tangential threads of the investigation and spatialized it in the design. This specifically related to the introduction of using renewable water energy as the main component in my project's program. This addressed my research questions in both a literal and metaphorical way. During the research process, I have been analysing interviews, photography and personally investigating the local issues of the site. Alongside, researching current knowledge of using water's power as way combine the site issues with the advanced technologies into one coherent solution. By following this, I had to consider how far I can use the aforementioned natural power to not to damage the rough beauty of the site as well as the rough beauty of the natural power of water. This led to the introduction of the three architectural elements of my design (fig. 2) – the harbour, the tidal power plant and the experiential path which links these two - the traditional way of using water (the harbour) with the advanced one (tidal power plant).



*Fig.2 Three architectural elements stretched along the site*

As the design developed further, certain aspects such as the process of energy production had to be revisited and further strengthened with more information. Given the poetical nature of my project, the three interventions act as one line of experience, the deconstruction and analysis of building the tension (fig. 3) and reflection of the story around the natural power of water, was an important procedure of translating the narrative into an invented design. What was particularly challenging for me was a striking balance between being poetical with the metaphor of intervention and making it realistically useful for the local residents.



*Fig.3 Deconstruction and analysis of the building integrated with the landscape*

This is why the experiential path along one of the Shetland's coasts brings the visitors closer to water, encouraging them to fully experience its sounds, smell and movements, while also showing that waters power is still present but can utilised in a more productive means for humans rather than against them. For example, the potential renewable energy which can be produced. Widening my research allowed me to uncover other examples of how the relationship between human and nature can coexist as an architectural program.

02.

*The relationship between your graduation project topic, the studio topic, your master track and your master program.*

The Transitional Territories Studio this year focused on the North Sea territory and its altered states as an outcome of an increased environmental degradation, urbanization and by the consequences of extreme weather. The sea as a territory remains as the last borderline, with much of it still unknown, unoccupied and unmapped, our efforts largely thwarted by its impermanence and constant movement.

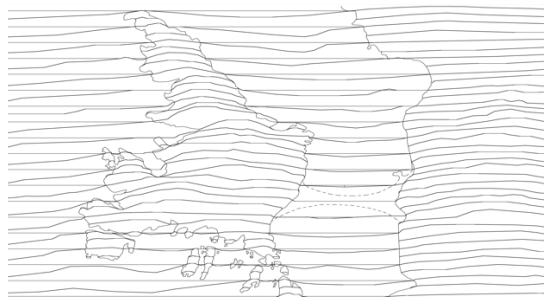
My research investigates the phenomenon of the historical and current relationship between the sea and the human. It highlights the issue of people deflecting from water because of its unpredictable behaviour, extreme climate changes and depletion of its natural resources. The project serves as a medium familiarizing this rough natural power and linking it with humans once again.

Furthermore, the project in itself has a strong emphasis on the translation of the research output into the design concept. It illustrates how the research and specifically determined conclusions might be potentially solved by an architectural intervention, this highlights the aim of the master program, focused on using architecture as a scientific tool tackling global issues.

03.

*Elaboration on research method and approach chosen by the student in relation to the graduation studio methodical line of inquiry, reflecting thereby upon the scientific relevance of the work.*

A number of research methods were employed during the course of my graduation project, varying to the scales being undertaken. When dealing with the North Sea in its entirety, mapping was my main tool of investigation as it capably visualizes different forms of information in a coherent format. In addition, the overlaying of these maps was a useful analytical exercise, revealing information that would not have been apparent in remained as data sets (fig. 4). The overload of information was initially a limiting factor in this process but due to reading literature such as Mohsen Mostafavi's Cartographic Grounds I understood that the power of the map as not just a research tool but also as a tool for design.



*Fig. 4 Combination of site plan mapping with its section*

The site research helped to grasp the vast differences in the landscape along the islands' coastline and indicated the dynamics of water shaping, influencing and characterizing the site. Moreover, personal investigation, interviews with locals and photography helped to precise the local issues of the site.

At the scale of the theoretical research, the attention was focused on historical and qualitative research strategies. Within the historical design, I conducted extensive archive research of the mythology in marinescape (fig. 5), detailed stylistic analysis of all the practices of Vikings and their habits, and an artefactual inventory of the archaeological findings – including Vikings ships. Focusing on the historical research, I identified with the poststructuralist school of thought, which sees material products of culture and history as parts of a larger immanent discourse, especially socio-cultural. By trying to understand the historical phenomenon of translating the power of nature into demons and the personification of gods, we could consider this historical period as a web of discourses which have contributed to our modern, transcultural reality.



*Fig. 5 A.W. Brogger and H. Shetelig, The Viking Ships- Their Ancestry and Evolution, (Oslo: Dreyers Forlag, 1951).*

Through simultaneously interweaving qualitative research design within my thesis, I gave an overview of the changing relationship between a man with the power of nature in this area of the North Sea. The research revealed the transition, and this is illustrated in the architectural intervention. Phenomenological studies seek to focus on existential studies, to make up of essences of the experience that transcends individual subjectivity, this brought my research from a pure data analysis about the current conditions within this area to a deeper examination of socio-cultural aspect, in the vision of rising seawater and its connection to the historical aspect of the sea as the edge of the world. Moreover, the tidal power plants and harbour serve as the basis for the typological research of structures gaining energy from the water. By interpreting the power of the plants and harbour, a better sense of what these structures are as a whole, their components, their function, their stories, is achieved and provided an insight into what the architectural intervention of the project will become.

At the scale of the architectural project, the focus shifted from mapping, theoretical research and analysing into a more intuitive way of working. I found that remaining within the rational and precise realm of analysing and visualizing cannot create anything new, therefore I experimented with a series of imagined hand-drawn impressions, plans and sections. Though not yet architectural, my sketches and paintings led to more experiential design method that I was more satisfied with. Crucial in this process was the exposure to multiple reference artworks, sculptures and music which inspired me visually and helped me to realize the extent of what my design could be, such as drawings by Hans Dieter Schaal, Nancy Holt or Richard Serra.

The idea of an experiential path, formed the essential part of my intuitive research, it also helped me to design at the architectural scale. The two major functions of my project consisted of a harbour which would allow the local residents to reach the 'new island' and a tidal power plant which provided electricity for a third of the residents of the Shetlands. Finding a way to link these two totally different functions by a simple path, required testing out in sketch plans as there was a need to balance the design objective with experiential aspect. Breaking down the program into this path divided into stages allowing me to develop a design which combined the metaphorical past with the future unknown. By separating major functions to the ends of the path, the circulation between them emphasizes as a mean of ritualizing the process – creating a moment of stability amidst the unpredictability of the powerful nature – water.

04.

*Elaboration on research method and approach chosen by the student in relation to the graduation studio methodological line of inquiry, reflecting thereby upon the scientific relevance of the work.*

Within the context of the circular economy, clean energy production and new development logic, the major instability is driven by climate change which is one of the main subjects of the global discussion. As seawater levels rise, coastal cities, in particular, will have an increasing obligation to develop strategies to deal with coexistence with water. From active strategies of protection to more passive strategies that allow for controlled flooding, there are many other opportunities for a man to use the power of water in case of transport, dwelling or energy production.

To possibly best address, the issues posed by climate change, water management, urbanism, architecture etc. come all together to create a complete approach in constructing solutions. In this thesis, multiple aspects of designing with water to enhance urban living are employed to create a unique environment where man's safe environment stretches into the waterscape.

By examining potential strategies of operating with the seascape, this project provides theoretical, alternative schemes and architectural approaches for solidification of human coexistence with water, particularly in the northern part of the North Sea territory. The dynamic nature of the North Sea landscape challenges conventional design and answers by the definition of human development reaching into the future. Furthermore, building in the neighbourhood of the seascape provides a number of logistical and technical solutions; while developing the approach of the feasibility of using water as a location for potential urban development globally.

05.

*Discuss the ethical issues and dilemmas you may have encountered doing the research, elaborating the design and potential applications of the results in practice.*

Ethical issues I have encountered in the process of research have related to the status of water level rise. One aim of the studio as a whole was to investigate the relationship between humans and the environmental changes within the North Sea. The water level rise has

the potential to jeopardize the future of low-lying land in some countries of the North Sea. These countries are constantly trying to block the sea and its waters by investing in dams and dykes. These highly advanced technological solutions sever the link between humans with water, this becomes the main argument of my thesis. The project faces the problem in the opposite way, it tries to open up to nature, it understands its behaviour and benefits from it what is not so simple to introduce in the southern countries in the North Sea. The thesis argues with the concept of hiding from the water behind the tall walls - which in the future will be more and more insufficient – is not a viable solution. Nevertheless, it is the only solution we have developed, for now.

The second ethical issue, which has been found on the way of my thesis was the dilemma how far we can intervene with the power of nature to keep its original, natural roughness. In the times of a number of global climate change protests, each possible solution has to be precisely analysed if it is a strategy rescuing our climate or another anthropocentric investigation.