Reflection P5
Transitional Territories 2018/2019

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The relation between research and design

The relationship between research and design is characterised by a conflicting epistemology. Research and research methods have the aim to generate knowledge, mostly based in the reality. As such research aims to understand and existing relationship or context in order to inform a decision upon this context or thing. It would seem that design is the logical follow up to actually execute the results of this research. Yet, a simple fulfilling of the requirements that have been determined by research is reductive and doesn't allow for an architectural design. This relationship is further complicated by the ambition to understand the studio's process as research by design. The melting of these two categories into one process is rooted in understanding design as the reality and thereby understand the present through a projected research. As a result, research is necessarily speculative and recursive, always oscillating between the present and a projected future. However, to reconcile the difference between the two approaches requires a lot of unlearning. It required me to no longer understand research as a rational and logical enquiry, which only and exclusively follows the traditional western philosophy. Contrastingly, it required me to understand that research can also rely upon intuition, creativity and the randomness that comes with them. Design, a process that connects all the elements of research, is necessarily random and creative, yet to understand whether knowledge can be generated from this and what the difference is between this knowledge and traditional research remains somewhat unclear.

1. What is the relation between your graduation (project) topic, the studio topic (if applicable), your master track (A,U,BT,LA,MBE), and your master programme (MSc AUBS)?

The studio Transitional Territories approaches architecture from an interdisciplinary point of view, which integrates architecture, urbanism, landscape design and water management. As such the view of the professions of the faculty of Architecture and the Built Environment is integral. The effectiveness of our work in each field is dependent on exchange and interaction with the other fields, which is fostered through the studio.
My project is concerned with the urban and architectural consequences of the evolving ICT technologies fits within this research framework. As such it begins from the territorial concern of the studio, centred around the impact of the North Sea on urban networks and then departs to specialise and specify the investigation. Large bodies of research, especially in the social sciences have already proven that communications are increasingly important for our society and will have an ever greater impact on processes of territorialisation in the North Sea.
I try to consider architecture and planning as relevant to the landscape and urban design, but also the engineering fields in general. As a student of the Architecture track I can contribute to making our cities more liveable, resilient and sustainable by integrating a variety of these disciplines. Especially the research phase of the graduation process in the Architecture track allows me to embed the project in this wider picture. In line with the studio my project tries to integrate the different disciplines and to break down the silos of thought that exist within them. As such the projects aspects always inform one another in a non-deterministic and non-hierarchical manner.

2. 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 across the different scales. When dealing with the North Sea in its entirety, mapping was my primary tool of investigation as it efficiently visualizes diverse types of information in a consistent format.
In addition, the overlaying of these maps was a useful analytical exercise, revealing information that would not have been apparent had they remained as data sets. The availability of information was initially a limiting factor in this process but due to reading literature such as James Corner's Agency of Mapping I began to understand the power of the map as not just a research tool but also as a means of design. I came to realize that maps are not infallible representations as I had imagined, and the use of an educated guess to fill in gaps in knowledge does not automatically negate the accuracy of the entire result. Already in this instance design thinking was influencing the research process.

At the scale of the architectural project, the focus shifted from mapping to a more intuitive way of working. I found that remaining within the rational and precise realm of visualizing and analyzing my research limited my ability to create something new. As a result the rational processes of research and the clarity that derives from the limits the architectural opportunities. Hence, the architectural result is less surprising than it could have been.

At the same time, the ideas that were generated in the mapping and corresponded to a territorial scale are also carried forward in the architectural design. Therefore, I was able to use logics of networks also in the architectural design, pointing toward a future network urbanism that integrates all systems according to this logic.

3. Elaboration on the relationship between the graduation project and the wider social, professional and scientific framework, touching upon the transferability of the project results.

The graduation project draws its relevance from two main factors. Firstly, the project tries to unite the ambitions of different professions and stake holders in the development of the built environment in our cities. This includes on the one hand the urbanists, architects and landscape architects within the faculty. On the other hand, my project tries to involve the engineers and businesses that are involved in the process of deploying new ICT infrastructures all over the world. Their interests can be aligned with those of the planning professions through the development of this speculative project.
Secondly, the relevance is large due to the current trends in technology. As computing and communications become more and more ubiquitous in our society their research gains relevance too. Same is true for the smart city and internet of things. As these technologies are devised mainly by engineers it is of great importance to investigate their impact on the urban and architectural environment. In order to implement them effectively and while maintaining social and political achievements. My research addresses these issues and thereby fits into a contemporary discourse.
At the same time the architectural component of the project creates and image, a scenario for the future. As such it communicates the ambitions and challenges that lie ahead.

While the results are specific to the technology and place in the Netherlands where I conducted my research, the project is to some extent transferable across typology and place. A lot of similar typologies, such as warehouses, power plants etc. all serve the urban cores

while they are placed in the countryside. At the same time such systems are increasingly subject to decentralisation. Leaning on works such as Peter Sloterdijk's "The World Interior of Capital" or the oeuvre of Bernard Stiegler these issues can also be approached from a philosophical point of view. Should we be creating a service world for our infrastructure, should we separate culture and technology to the extent that we do with unpleasing technologies. While my project challenges these conceptions for the technology of ICT and data centers similar issues come to the fore for instance with renewable energies or logistics. Equally, The Hague is only a case study and probably similar observations can be made for cities of similar density and development. Yet, the actual relationship between the place and the abstract network or technology remains specific and cannot be transferred to another location.

4. Discuss the ethical issues and dilemmas you may have encountered in (i) doing the research, (ii, if applicable) elaborating the design and (iii) potential applications of the results in practice.

Two main ethical issues have come up in my research and I have tried to position myself toward them. The first issue relates to the changes to political life and governance that is imposed by ICTs. At the moment a trend to ever larger and centralized facilities can be observed and the influence that large companies, territorial segregated from the civil society, is increasing. With my project I address this issue albeit at the cost of efficiency and with the creation of local conflicts. As a result the project is quite provocative in its architectural expression. The act of bringing such industrial programs into the city is quite daunting and can be a dilemma, especially when facing the civil society.

The other large ethical issues concerns sustainability and the challenges imposed by climate change. I try to address this issue by integrating natural systems and urban systems through the use of my buildings, allowing for the more sustainable use of resources. However, at the end to propose a building is necessarily unsustainable and harmful to our use of resources. If one does not want to fall into a nihilistic argument that forbids building altogether, the answer to this question can be found in cultural and political values. As these ideas of political and cultural meaning of technology drive the project itself they also provide a preliminary answer to the environmental challenge. While we cannot fully resolve the environmental impact of building at the moment, the cultural value that is borne by a building can, if high enough, offset some of the damage.