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Studio – Explore lab

Teachers / Tutors – Roel van de Pas, Jan van de Voort, Diego Andres Sepulveda Carmona

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Argumentation of choice of the studio

During the previous years, that I have been studying at the TU Delft, I developed a fascination for the future, and everything related to it: from Utopias, technological inventions until ecological doom scenarios. Explore lab allows me to design my own project, that will show, not only who I am as an architect, but also what I stand for, what fascinates me most and without limitations.

Title of the graduation project

The anti-capsule, *prototype the future city*

Main problem statement

"What is the new kind of future habitat that can respond to the techno-social dimensions, climate change risk and circular flows, recognizing the uncertainties of the future?"

Aim project

The aim of the project is to develop a prototype for an expansion of the urban setting for the future global city. More concrete: recognizing the uncertainties of the future, the aim is to develop a new paradigm for the future urban habitat, able to adapt to and protect against – changing and high risk conditions of the future. The city-expansion should, recognize the complex systems and the dynamics of the existing city and propose a urban system, where people can interact in order to reach a sustainable lifestyle.

APPROACH

From the beginning of my project, I knew there was a challenge ahead of me. The project I have chosen to graduate on is not only big in size, but is also complex and depending on many variables, in a for me unknown context (Singapore). Nevertheless, during this year I learned to compartmentalize information and eventually got a grip on its scale and possibilities.

In order to understand and complete my project, the relationship between research and design has been (and still is) essential, since the research has given me the basic paradigms needed for the design.

The literature study consisted of two part: 1) Starting with the technological revolution, the first part revealed the changing dynamics of the socio-techno system (within the global urban context) and which consequences these changing dynamics have on our lifestyle and on a broader scope, 2) Secondly, the aim of literature study was to expose the spatial implications of this socio-techno transformation on the urban structure of the global city.

By starting from a very structured research, I managed to highlight the main 'problem' I wanted to address in my design (capsularisation). This gave the design a structural basis and a clear framework I needed in order to proceed.

During the research I decided to move to Singapore (location of the project), in order to get a better grip on the context of my project, which has been an adventure and more valuable for the project then I ever expected.

During the study-trip, I have had the opportunity to meet local residents in Singapore, have been invited to various amounts of events, presentations and meetings. By the means of Couchsurfing, I have been a guest at 18 different homes, of local people that were kind enough to let me be a part of their families for a small period of time. Every three days, I moved places, in order to learn, understand and meet various families, hear all type of stories and join people's daily routine. This gave me the possibility to be a part of Singapore and to really understand life and culture in Singapore.

Together the research and trip gave me; *a frame and a context* for the design.

A danger of this method, is that the design process starts after the research and after the trip. Due to the complexities of the project I did not manage to start an initial design process before I had finished my paper and understood the context I was working in. Since I could not go to Singapore before September/October 2018, the design process started too late to meet the first P4 moment.

However, this meant I had the opportunity to extent my project and elaborate more on its design. For this reason I would say that the method worked well for this project, but can be considered time consuming.

Regarding my design method; I have chosen to develop 'design DNA' as a method. This means that the project is not just 'one' building, but can exist in many variations. This method was chosen in order for the city to be able to 'grow' or 'shrink' over time, be reproduced or re-used. After I generated the variations, I picked one random variation to develop further in detail. For me the biggest challenge was to draw a line between 'specific for this one design' or 'general design DNA rule'. The challenge was at the same time, a really nice framework, from which decisions could be made more easily.

Within this project I managed to combine different design tools (grasshopper, programming, drawing, sketching, modelling, shaping, detailing etc.). During the master I followed the studio Extreme (architectural engineering) and the studio Hyperbody. This graduation project can for this reason, both for its content and design method be seen as a mix of these two studios, which I really appreciated and fits me as an architect (to be) very well.

FEEDBACK

The tutors I have chosen based on their different expertise and personalities. This resulted in various information and feedback, required for my project. My tutors have however not just given me information during the meetings, but have also introduced me to external experts and invited me to classes and presentations, both in Singapore and here in the Netherlands.

From my side I have tried to involve each tutor in my project as much as possible, in order to get a full understanding of the relationship between Architecture, BT and research. Most feedback I managed to integrate in my project or discussed a different approach.

LEARNED

From my research came the realisation that the problems described in my paper are not just a representation of Singapore. Instead across the world, many (dense) cities start to show signs of intense capsularisation. Together these characteristics will increasingly lead to the encapsulation of the general urban and architectural realm, whereas the future city will not just be a collectives, but rather a multiplicity of entities with their own sociality, character, and own rights.

We live in a changing world, where climate change risks, technological innovations and social challenges, are putting pressuring on our cities and its urban system. The way architects and urban planners respond, to these changes, can be of significant influence in the way we develop, mitigate disasters and prepare for the future. By revealing future conditions of the urban lifestyle and habitat, this research might provide a methodology in 'how to' design a future, sustainable, endogenous and inclusive urban system.

My project is a responds to this global problem and tries to trigger a responds to think differently. But maybe more important, I have learned that even a presumably insane project, can be narrowed down to a project that is doable and amazingly interesting to work on.