

## REFLECTION PAPER

Complex Projects – AMS Mid cities studio  
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Current technological advancements are prone to change the global food industry in the coming few decades. The Netherlands is one of the frontrunners in developing new techniques that decrease the need for earthly resources and the keeping of animals. Lab grown meat and the conditioned growing of vegetables are among these developments. At the same time there is an increasing amount of criticism coming from society about these technologies, mostly based on a lack of transparency and the fact that the processes don't seem transparent to people.

The main goal of the project is to integrate and show these modern technologies to city dwellers and make them a celebration of technology, as opposed to the current anonymous boxes tucked away on industrial sites far away from people. At the same time, it investigates the typology of the modern factory as a place for public knowledge sharing and smart technologies.

### Relationship between research and design.

My interest in food production as a topic started with the fascination for new technologies and the way they are finding their place in our society. I am fascinated by how architecture can react and strengthen the role of such advancements and the changes that come with them.

The chair of Complex Projects (CP) is a graduation studio known for their freedom in design. The research-based approach aims at forming the restrictions for your project yourself, with only a location to base the first hunch on. Therefore the project is very dependent on research before actually starting to design.

I have positive experiences with this method in general, but it is the execution in this type of project that gives me double feelings. This way of working aims at research and knowing all challenges before you start designing the project; ranging from topic related research to a wider contextual story to base the design on. The research concluded with diagrams and textual explanations of the various items that should be featured in the design; concluded with a detailed program and a brief.

What I see as an addition to this type of research is a more architectural conclusion. A design based research conclusion would have given me a faster start at designing such a big project. Concluding the research with an architectural conclusion in the form of, for instance, room and windows sizes to enhance interaction, would give results that are more applicable to architecture than generic data. In the end we are trained to be architects and not researchers in generic sciences.

In the end I see research as essential for innovative contemporary architecture. Practice and academics are getting increasingly complex and require constant updating on knowledge. Researching topics in generic sense it a mere way of starting a design, as architects we can make a difference by researching the architectural consequences and give architectural solutions. So Research and design should in my opinion not be considered as serial activities, the one after the other, but as parallel activities where design is also a way of researching and not the result of research.

#### **Relationship between graduation topic, the studio topic and the master track.**

The architecture master track of the TU Delft focusses on training it's peers as designers that develop creative buildings that aim at addressing technical, social and spatial challenges in the field of architecture. The structuring in multiple studios, that range from working with the intimate interior detail to tackling large complex problems allows everyone to take their freedom to explore.

The CP graduation studio focuses on Amsterdam in 2050. Combining emerging technologies, growing cities and the architecture that comes with it, it fits the broader focus of the architecture Mastertrack. By tackling and working with current issues that occupy our current society.

Recent UN studies showed the current food industry as one of the main problems with regards to climate change and the consumption of resources. At the same time new techniques start to emerge, developed by small startups that aim at superimposing the bigger companies. The project aims at showing the possibilities of data driven, personalized food production at the moment that it becomes mature. By providing an architecture that is not only functional in producing goods, but also aims at educating and generating experiences for visitors.

#### **Research method and approach**

The fact that the studio supports a lot of design freedom is imposed by the strictness of the research method. Within the MSc3 studio the research is structured in eight week blocks each focusing on a different scale. Ranging from the scale of the city in the first week to the scale of the building detail both the location and the personal topics are investigated and researched. By working in groups, the amount of data that can be processed for the sake of the design is maximized. At the same time, I felt confident by using the group as a reflection method and discussing each others idea's.

As described earlier, in hindsight I would have wanted to elaborate my research in a more architectural method. I think the design decisions would have benefitted from having spatial and compositional conclusions from my research that go beyond a mere diagram or a textual explanation. In that way they would also benefit a wider application as a generic system as opposed to the more site specific and general conclusions.

#### **Relationship between the graduation project and the wider social context & Ethical dilemmas**

Food production in the 21<sup>st</sup> century would probably not be dominated by smaller biological farms in cities as a current trend suggest, but would see an even more industrialization of the processes. Public pressure would probably see the transparency and biological approach increasing though and therefore give the architecture of a more important role then just being an equipment shed.

Amsterdam, as the capital of one of the leading countries in food research and development can serve as the base for these types of architecture. Located in close proximity to research institutes and a hinterland that can support as a large-scale testing ground. The location near Zeeburger eiland is not only ideal because it is still to be completely developed but also because of its perfect water and landside transportation connections.

Ownership of such a project would be a biggest question. In the current era the focus for most production companies lies on specialization instead of generic knowledge. The graduation project superimposes this idea and suggests a typology that uses modern day technology to combine different specializations into one project. That typology would go beyond that traditional production company and might be financed and managed as a group of start ups.

The whole project stems from ethical issues that the global food industry have created. While this project doesn't aim at completely solving issues with this it aims at addressing them and making the public aware of the fact that it would also be possible for food to be tailor made to everyone's taste and diet needs.