

## P5 REFLECTION



### **Eric Eisma**

4420675

#### **Studio Mentors**

Luc Willekens  
Pierre Jennen

#### **Board of Examiners delegate**

Clarine van Oel

#### **Delft University of Technology**

Department of Architecture  
Complex Projects Graduation Studio  
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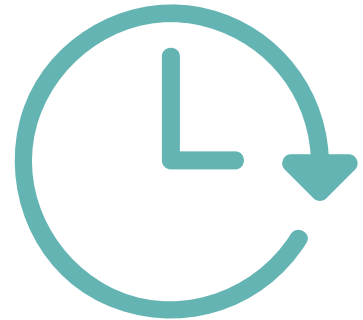
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**ENERGY**



**ECONOMY**



**FUTURE**

### **Project description**

The chosen graduation studio, Complex Projects, focuses on testing and defining the brief of smart urban interventions in Amsterdam, analyzing and re-designing a selected area. The defined studio problem statement is:

***How will the growth of inhabitants and tourists, the extra demand for new housing, infrastructure, data and energy networks, climate change management, on a time horizon up to 2025 and to 2050 will influence the public domain?***

The Complex Project studio encourages the students to look critically at their surroundings; to gather, organize, and question the complex forces that ultimately manifest themselves in the future of the built environment. The studio is divided into three groups all with their own assigned project area and associated future challenges. In a group of students we created a new future proof 2050 scenario within the Zuidoost region. The scenario is built around the green character of the area and tackles future problems such as mobility, health and energy. Every individual project fits within one of these three future themes. The projects have a strong relation with each other and form together a synergy.

The reason I choose for the Complex Projects graduation studio is its strong focus on the future of the built environment and dealing with the future challenges. These challenges will become part of our professional

career as an architect and it is interesting to be able to work on it in an academic manner without the constraints of practice. Within the studio I choose to focus on the energy theme, which consists of research topics in new sustainability forms, the energy transition, climate change and the circular economy. In my opinion these topics are important to investigate in close relation with economical systems to create long term scalable and feasible projects, that can have an impact on the well-being of people. That is why I combined these three topics of energy, economy and future into my graduation project.

In the Zuidoost area around 86,000 inhabitants live and with 146 different nationalities it is one of the most multicultural districts of the world. The Zuidoost area of Amsterdam is nationally known for its poor social-economical situation. It has the highest unemployment rate of Amsterdam and there is a big low income group. The Zuidoost region also houses the Amstel III district. An area consisting of big financial office buildings and companies in a monofunctional industrial area. Within Zuidoost functions as living and working are highly separated, which was one of the reasons the social-economical situation is very poorly. The big contrast in the region triggered me to work on this location between the Holendrecht living area and the business park of Amstel III, exactly on the spot where a train track was dividing the areas. For me a new connection between these two completely separated economies and communities



became the main motive of my project.

Within the topic of energy I found a possible solution for the social-economical problem of Zuidoost. Implementing a local circular economy out of waste flows can create new economic value in the area but also form a connection between the companies and the local people. Additional benefits of the circular economy are less waste, less CO2 emissions and less dependence on other countries. By decentralizing waste processing and implementing it in the neighbourhood, more awareness can be created around the use of waste and materials by the people. To implement the topics of energy, economy and future I have proposed to make a building called Upcycling Centre Zuidoost. This building will house a futuristic waste recycling centre from where the sorted waste can be directly transformed in new usable products by innovative waste start-ups. The program will be completed with education to teach the people from Zuidoost how to work in the start-ups, an auditorium, a market, a restaurant and a lot of public meeting space. The public program will connect the Zuidoost inhabitants with the Amstel III companies. The design question became:

***How can a mix-used building create a circular sustainable economic model and social inclusion to connect Amstel III and the citizens of Zuidoost in a smart and future proof way?***

### **The relationship between research and design**

Within the Complex Project studio a strong focus lays on the research based design approach. The studio is using different parameters, such as economic, social and political effects, in a cross-impact analysis. The results of this broad analysis is a 'complex' collection of design constraints, but also helps the students to react in a intelligent and broad way during the research and design process. The design brief of the project is the result of the research done in the first phase of the graduation process, creating a strong interrelation between research and design.

For me this form of developing an architectural project works, compared to starting with a received design brief, very well to come up with new, interesting ideas. It also gives me the opportunity to research topics of my own interest. By researching the economic and social situation in Zuidoost, mapping the different functions and researching new economic forms of sustainability, such as the circular economy, I could create the new typology of an upcycling centre as an answer for national and site specific problems. The broad research in these different themes creates an understanding and justification of the graduation projects as it is proposed. The research conclusions are translated into the mentioned design question of how a mix-used building can create a circular sustainable economic model and social inclusion. This forms the base of the developed concept of the upcycling centre, where during the design process different

sub-studies always could be tested towards the done research. For me this makes it easier to make important design decisions because the constraints and criteria are very clear from the beginning of the design process. It can be concluded that the research and design relation is strongly present within the graduation project.

### **The relationship between the graduation project, the studio theme and the MSc. Architecture programme.**

My graduation project is part of the total group vision of Zuidoost. Together these projects form a possible scenario for the region in which different aspects of mobility, health and energy are integrated. This scenario forms, together with scenarios from other groups in the city centre and Amstel area a complete insight of what the future of Amsterdam may look like. The graduation projects together will answer the studio's research question in an organized exhibition at the end of the process.

In the beginning of the research process we, as a group, researched and mapped kind of different themes of function, typology, atmosphere, economy, etc. and combined all the findings in a booklet. This booklet forms the base of everyone's individual project together with other individual researched topics. This way the projects can tackle the same site specific problems in different ways. I found this combination of individual- and group-work well thought since large amounts of research could be done while later in the research process individual interests could be merged.

The graduation topic of how to deal with waste and social inclusion in the future is translated in a building during the design process. This way future challenges can be translated into architectural frameworks. For me this is the most important thing the master architecture teaches. How can one create innovative architectural frameworks for people to create new opportunities? From my research about the site and energy the challenge is found, but during the design process the framework is created.

### **The used research method in relation to the graduation studio methodical line of inquiry.**

The Complex Project studio's used methodologies are mostly found in the direction of the cross-impact analysis filled with raw data and statistics and the mapping of all different themes of the site. This way a complex problem statement can be formed and later on answered in the design proposal. This broad research method helped me to find the social-economic problems of Zuidoost and the origins of these problems which were mostly caused by the architectural and urban set-up of the region. By mapping the mono-functionality of the areas and the divisions of functions as well as the border that the infrastructure forms the problems of the area became clear. Statistics and data about the area showed the high unemployment, the rich diversity of people and economic situation in the area.

A field trip to Vienna about smart cities showed me an

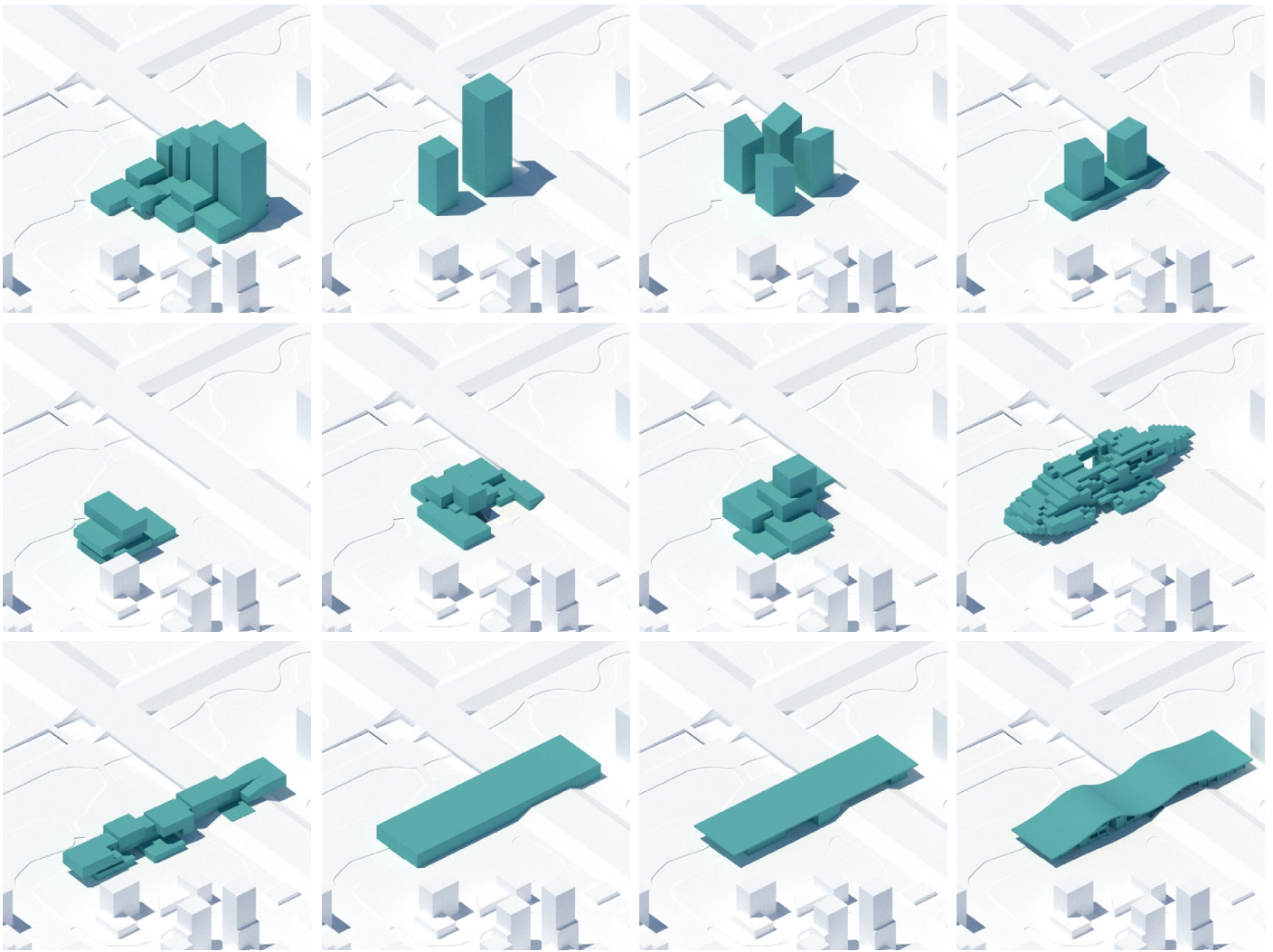
interesting project called the BurgerInnen Solarkraftwerk Wien. This project gave local people the opportunity to invest and receive an interest in sustainable energy. This way the local people become part of the energy transition and make at the same time a profit out of it. This abroad example could in my opinion be integrated in Zuidoost very well to help solving the economic problems of the area while dealing with the future challenge of becoming more sustainable. The studio field trip helped me to research new forms of sustainable economic models which at the end resulted in my project concept.

By visiting the Zuidoost region by cycling and walking around, my image of Zuidoost as a badly maintained and dangerous neighbourhood changed completely when seeing the overwhelmingly amount of greenery the very well connected bike infrastructure and all the people enjoying the public space. It became clear to me that all urban design element were already there, but that there was a strong need to emphasize them and create more mixed functions in the area. The green and the bike infrastructure became an important aspect of my project to connect the mono-functional zones and thus the site visit helped me to integrated the project in the urban situation.

### **The relationship between the graduation project and the wider social, professional and scientific framework.**

The graduation project works in different scales of social issues. The project becomes part of the transition towards a more sustainable economic model in the Netherlands and in that way helps to achieve the Paris Climate Goals, to tackle climate change. Personally I find it important that within the graduation project sustainability is fully merged with the benefits of the local people. That is the reason I choose for wood as a construction material and large public accessible green roofs, since it has positive influence on the well-being of people and their social behaviour and their CO2 storage capabilities.

In the region scale the upcycling centre will become the meeting point for people from innovative companies and local inhabitants that are looking for a job. By implementing public functions as a restaurant and a market, local people will be attracted to the building. Education possibilities and the auditorium will provide locals the chance to learn or share ideas and start working in the upcycling centre. During the design process it is researched how spaces can influence innovation as well as creating a good atmosphere for meeting new people. When deciding the location of the building I researched on which spot it will become not only a social and economic connector but also a physical connection of the mono-functional sites. By locating the building on both sides of the train track and placing the public functions on the ground floor locals and businesses are connected and the building will form a possible solution for both the disconnection of the areas as the social and economic-situation.



Researching by design, testing different building concepts

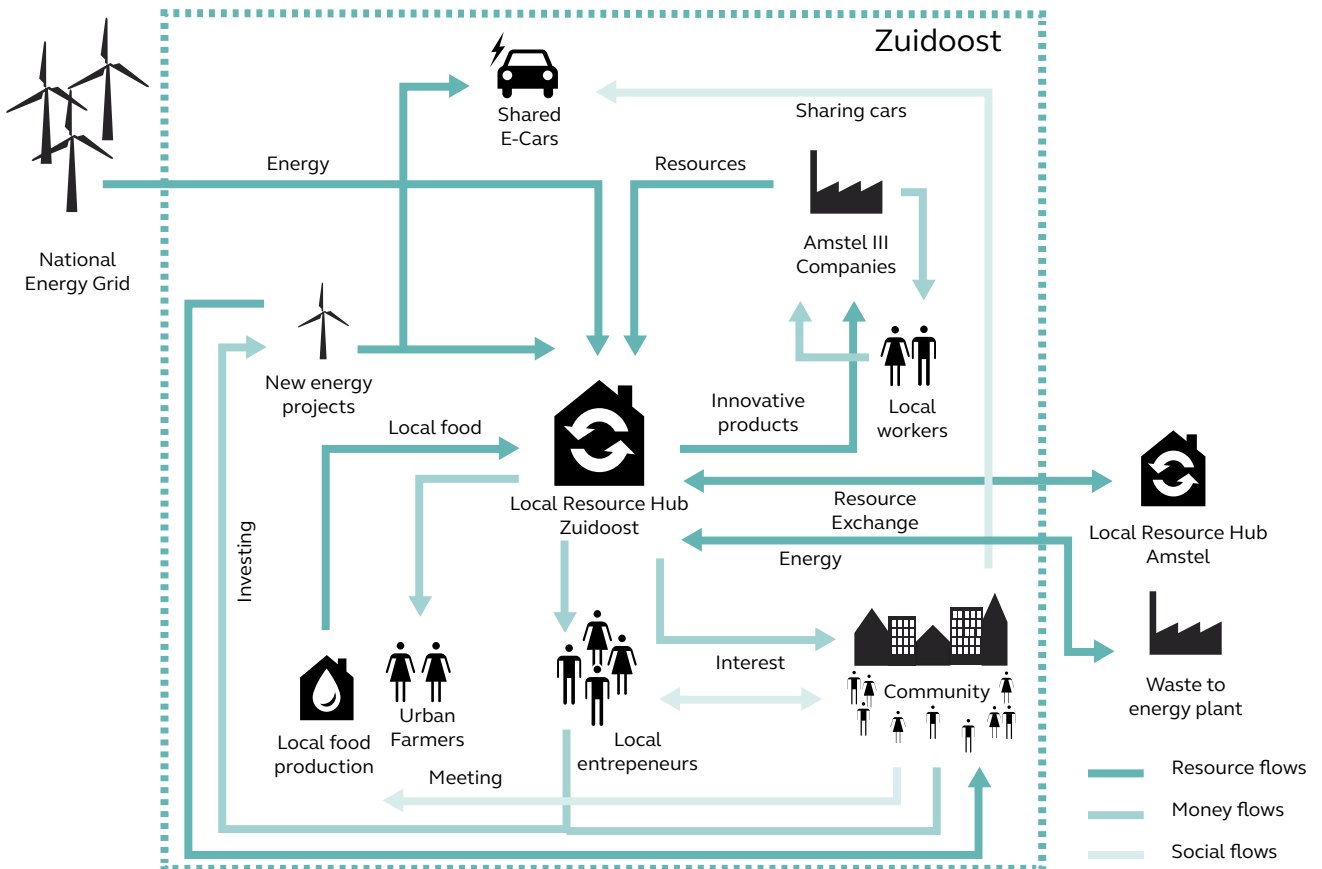


Diagram of the social inclusion of different groups



**Discuss the ethical issues and dilemmas you may have encountered.**

In my opinion, the biggest ethical dilemma in the project region of the Zuidoost / Amstel III area is the choice of who to include as future users of the area and building. The area is struggling with major social-economical issues. In a future vision the implementation of a high income group and gentrification can dispel these problems, if moving the problem is seen as a solution. During the research of the graduation project I have written a paper called '*Economic dualism in Zuidoost - Neoliberalism and social entrepreneurship*', which discusses the already ongoing trend of the implementation of neoliberalism around the Bijlmer - ArenA in the form of planned high skyscrapers. In 'neoliberal' urban planning there is a strong belief in the superiority of market mechanisms to organise land use and the inferiority of its opposite. From case studies discussed in the paper could be concluded that this way of urban planning did not solve any of the earlier stated problems. An alternative was the implementation of social entrepreneurship. The idea here is that entrepreneurship in consultation with local people ensures economic prosperity and a better social bond between different groups of people.

The conclusion of the research conclusion had a major impact on my decision of the projects program and location. I have chosen to design a building where social entrepreneurship gets all the space it needs, including program for the local multicultural people

and entrepreneurs. The building should connect in a economic, social and physical way. The last one is realised by placing the building exactly at the border of the dwelling area with the low income classes and the business area with the big multinational headquarters. By bringing these different people together I hope a synergy will form.