

REFLECTION

1. What is the relation between your graduation project topic, your master track and your master programme?

The master track of architecture encourages students to develop a creative and innovative approach to design buildings, where spatial, social and technical challenges ought to be important staples that contribute to the research and design approach. Students are expected to develop an independent and academic attitude towards the challenges they encounter in the built environment.

The advanced housing design graduation studio fits well within this broader framework as it explores how housing design can successfully address societal challenges such as social polarization, demographic change, global warming and environmental impact. The studio departs from the analysis of what 'inclusion', 'affordability', and 'housing needs' are. The provided context by the graduation studio is the vast (peat) landscape area between the cities Rotterdam and the Hague. The contextual framework has provided the students with a visionary plan for the redevelopment of this agrarian landscape into a national regenerative production park. The assignment includes the analysis of this landscape, and developing a vision on how the transformation of this landscape would affect the larger (surrounding) area and cities. A drastically changing landscape also requires a different approach when it comes to housing, therefore students were invited to develop ideas and visions on how the future of dwelling would look like during and after the transformation of this landscape; 'Midden-Delfland'. While some students developed small resilient dwellings for the new (swamp) landscape, other students developed larger settlements and in my case, I made a statement to not build in the (vulnerable) landscape but instead double down on the densification of the urban environment close by. More specifically, the densification and redevelopment of a large industrial urban area into a resilient mixed-use neighborhood that could offer spatial solutions for the agricultural transition (by developing a strong relationship with the new production landscape) and mitigate the housing crisis by designing affordable, and socially inclusive dwelling types. The topic of the graduation project is called 'productive neighborhoods', referring to the mixed-use redevelopment of the urban industrial area where new ecologies would be allowed to flourish through a collective and circular planning approach. The research behind the graduation project explores the history, cause and potential solutions for the Dutch housing crisis, and unravels the complex agrarian crisis through data, statistics and literature studies. In order to respond to the agrarian transition, a better understanding of the future of the countryside is developed. Various interviews and case studies have been conducted to develop a theoretical foundation and design strategies for the redevelopment of industrial urban areas into mixed-use neighborhoods, and how existing buildings can be transformed into housing communities, while social and spatial qualities are fostered through design. The graduation project, and research and design approach, addresses relevant topics such as societal challenges, spatial challenges, and technical challenges. The project displays an independent and academic attitude, where creative and innovative ideas are researched and developed as a case study into a well-designed and engineered proposal.

2. How did your research influence your design, and how did the design influence your research?

The research has been of fundamental importance for the design process. The research into the Dutch housing crisis and the agrarian transition, although only providing an introduction and background to the actual proposal, have been crucial in the formation of ideas and ambitions. Delving into the history of Dutch housing, looking at recent interviews, news articles and open source data, provided a deeper understanding of the underlying mechanisms that have contributed to the housing crisis in the Netherlands. By having a better understanding of the underlying cause, the symptoms were better understood and appropriate proposals could be formulated during the research and design process. The research about the housing crisis provided insights about the major influence policymaking and governance has on the built environment. It also exposed the alarming mis-match between the supply and demand of housing, which could be traced back to the reconstruction era and illustrates the mindset of developers in current times. When I understood the mismatch, I realized that we are in need of housing that provides for the largest demographic group in the Netherlands; smaller households, which also have special needs when it comes to accessibility, social aspects and spatial qualities. Understanding this, informed the research and design, and pointed me in the direction of new forms of development such as cooperative housing and co-living. Suitable case studies were analyzed to understand what it entails to design in a inclusive, affordable and sustainable way. While designing, and wanting to redevelop an industrial urban area to minimize additional infrastructural implications, I was in urgent need of good examples on how to do that. This led me to approach specialists (a developer and the municipality) whom had recently worked on a similar challenge. The interviews and case studies helped me to develop a considerate strategy for the redevelopment of the industrial urban area the 'Spaanse polder'. The ambition to transform an existing building into a mixed-use housing community, was quite a challenge; both programmatically and structurally. After developing several design options, I had to take a step back and find appropriate ways to do this. This led me to interview one of the Partners at Mei Architects and Planners, whom worked on the transformation of Fenix I. By conducting an interview, a lot of new insights were gathered that were developed into design principles. A careful and respectful approach was derived from the interviews, and this had an impact on the massing and architectural design of the (newly added part of the) building. In terms of the dwellings, studying the cooperative housing case studies, with a rich collection of co-living clusters, definitely inspired the design process. This came back in the form of circulation principles, public-collective-communal-and private spaces, and the spatial configuration of the floor plans of the dwellings. In terms of materials; the research about the production park Midden-Delfland, where local, bio-based materials could be produced, gave me the idea to design the new building from (local) bio-based materials, also to reduce emissions as much as possible. On the level of detail, the ambition was to make everything as de-mountable possible.

3. How do you assess the value of your way of working (your approach, your used methods, used methodology)?

The research consists of a problem statement that covers two issues; on the one hand the housing crisis and on the other hand the agrarian crisis. The aim of the research is to find spatial solutions for these transitions, and to develop an urban environment that is sustainable, socially inclusive, affordable to live in, and with local ecologies. The methods that were used to understand the problems, were a selection of different approaches. Not necessarily through doing theoretical research and comparing existing research papers, but rather by collecting as much information as possible about the past and present developments regarding the issues. This was supported by quantitative research methods; collecting open-source data and information on the past, present and future projections in order to understand causal relationships and recognize patterns that would explain the underlying mechanisms that contributed to the problems. A divergent expert panel was composed, where important but contrasting opinions about the problems by experts in the field were gathered. This allowed for a broader perspective on the research problems. Although the combination of these research methods did allow for the development of a broad perspective, I still feel that a theoretical support coming from existing research could have strengthened some of the findings and conclusions. While doing research and having to formulate insights and conclusions, I also had to learn to be careful not to be too subjective in the description of the findings, but rather display the information in a more objective and scientific way, as well as the conclusions. Besides the problem statement and the research aim, various interviews were conducted and existing case studies were analyzed. The interviews provided an opportunity to collect primary sources which could give unique insights for the research. The interviews were definitely very valuable for the research findings, as the interviewees shared information and details which usually wouldn't be able to be found any other way. The combination of the project descriptions of the case studies and the interviews gave a clear overview of appropriate ways to incorporate essential ambitions and allowed for the formulation of design principles which would inform the design process. The diverse collection of interviews (with the developer, the municipality and the architect of different exemplary projects) provided a broad range of insights when it comes to research, developing, urban planning and design. However, I do feel that there could have been more primary sources to inform the research, such as an expert on the housing market, a financial institution, an interview with a cooperation, and an interview with someone who lives in a communal dwelling cluster. This could have enriched the research and design process. Besides primary sources, I also think that more time dedicated to theoretical research could have challenged and also strengthened the final conclusions. One of the big challenges I faced, was that the research was very comprehensive, covering a lot of different topics, which was on the one hand informative but on the other hand restrictive. Having one simple, dedicated research topic would have allowed for a deeper and more theoretical research, however I do believe that the current research results do provide a unique value to the field of architecture and planning.

4. How do you assess the academic and societal value, scope and implication of your graduation project, including ethical aspects?

The topics that have been key to the research are the Dutch housing crisis, the agrarian crisis and transition, the redevelopment of industrial urban areas and buildings, and the development of affordable, socially inclusive housing communities. These topics cover some of the most crucial aspects that academia are faced with; sustainable transitions, the redevelopment and re-use of existing urban areas and buildings, and the re-consideration of existing forms of developing, planning, designing and living. Especially with a crisis regarding the housing of citizens, scholars should be hyper focused on detecting the underlying problems, finding potential solutions and sparking discussions regarding these topics that not only affect the built environment, but society at large. While often in-depth topical research is developed, the aim of this research report is to cover a wide range of overarching topics, which are entangled and crucial to consider side-by side, as they all influence each other and the way we plan and imagine the future. The scope of this research goes from the national level, to the urban level, it addresses the architectural level, the level of living and dwelling and even the level of details and materials. Therefore this research is not considered to be an in-depth report, but rather an overarching framework that can provide academia and society with valuable findings and strategies that can be discussed and further elaborated on. Ethical aspects of the report includes addressing governmental superstructures and revealing the major impact that governance has on society. The report also underlines the ethical responsibility to re-use and re-develop existing structures and buildings instead of continuously expanding cities into the countryside where architects and planners can freely design what they want. Instead, this report urges to operate in a restrictive domain; the urban context, and respecting history, the urban context, and utilize existing resources as much as possible. As architects and planners, we also have an ethical responsibility to re-imagine dwelling; we are responsible for how generations to come will live. Although we often work for clients that provide us with a job, it can be very refreshing to explore alternative models for developing and designing. The report gives various examples on proven case studies where the development and design of social communities took place and have proven to be a grand success. This could imply researchers, architects and planners to explore new ways of designing, where the user experience through collective use and spatial configurations could be central themes that drive design. This would be ethically responsible, as it would probably make the work of the designers more challenging while making the living environment for future generations more social and qualitative, and this would also serve a more diverse range of the populous.

5. How do you assess the value of the transferability of your project results?

The divergent research methods have resulted in a broad range of insights, conclusions and strategies. The Dutch housing crisis is a prevalent issue in our society, and will be a problem that many future architecture students and researchers will face. This research report provides readers with a deeper understanding of the underlying mechanisms that have contributed to the housing crisis. That can be an important starting point for further research. The collected data, diagrams and design principles can be used and elaborated on by other researchers and students. Because the agrarian transition is such a recent and complex phenomenon, unraveling the character of the Dutch countryside and quantifying it by the means of two opposing value systems, can also provide a better understanding of the Dutch landscape. More specifically, which areas have the potential to be re-imagined or redeveloped for a more climate adaptive and sustainable future. The various interviews with important experts also provide a lot of value and fertile breeding ground for further exploration and development. The case studies that display new ways of living, where the emphasis lies on social, qualitative spaces hopefully can be an inspiration for other students and researchers to consider during the development of their work. The research is overarching, covering many topics and highlighting various perspectives, open-source data and case studies, providing the field of architecture and research with a broad frame of references and insights. Because every chapter is concluded with findings, accompanied by design strategies, and in the discussion section various concerns and aspects for further development are discussed, I believe that the value and transferability of the research can be considered sufficient.