

Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences



Graduation Plan: All tracks

Personal information	
Name	Mark Geers
Student number	4684869

Studio	
Name / Theme	Design of the Urban Fabric
Main mentor	Claudiu Forgaci Urban design
Second mentor	Marjolein Pijpers-van Esch Environmental technology
Argumentation of choice of the studio	<p>Throughout the first year of the Urbanism Master track, I found that my main interest lies in making a meaningful impact in people's lives by improving their outside environment. Furthermore, the topics of sustainability and urban green are really important to me, mainly because I have realised that the concerns related to climate change will need a universal effort to mitigate its (future) effects – in which I want to do my part.</p> <p>I think the studio 'Design of the Urban Fabric' is a great match, as the studio uses an explorative way of conducting research where variant studies play a crucial role – something I would like to develop further. Additionally, I think the expertise of the mentors could aid me in challenging myself and gaining valuable knowledge. Lastly, both my interests and the studio are focused on an urban context.</p>

Graduation project	
Title of the graduation project	Interclusive Urban Green
Goal	
Location:	Schiedam, inner city
The posed problem,	<p>It is a known fact that the world is changing faster than ever before. Rapid technological advances and climate change have significantly altered the way humanity views and interacts with its surroundings.</p> <p>However, most contemporary cities are unable to keep up with the rapid change in demand, leading to an imbalance between human needs and available facilities. Furthermore, cities are unable to adapt fast enough for the future.</p> <p>Ultimately, if this same situation continues, this could lead to increased social isolation, a higher percentage of people living an unhealthy lifestyle, an uncomfortable microclimate, and a lack of resilience regarding environmental shocks and stresses.</p>
research question(s) and	How can the implementation of urban green in the inner city of Schiedam contribute to resolving issues related to ecological degradation, climate adaptation, social isolation, and vacancy in an integrated and inclusive way?
design assignment in which these result.	<p>The main aim of this research project is to explore the limits of urban green implementation in the context of the inner city of Schiedam. The challenges of ecological degradation, climate adaptation, social isolation, and vacancy should all be examined through the perspective of urban green, from which an integrated and inclusive urban green approach can be realised.</p> <p>In this, the goal is to develop a coherent, integral development strategy for the inner city of Schiedam, where the aforementioned challenges have been tackled by implementing various forms of urban green. Furthermore, the goal is to extract several key development concepts that can be applied in other locations.</p>

Process

Method description

Literature research:

A research method that provides a theoretical background to the leading research themes, while simultaneously preventing the redoing of existing research. Instead, this project will build upon the existing research. Mostly done on the internet.

Spatial analysis:

A method for researching the existing context. Furthermore, conclusions can be drawn by adding different 'layers of research' together. Done mostly by mapping and sketching.

Sight observation:

An analysis tool that provides a better insight into the eye-level perspective and how the area is used by residents. Combined with the spatial analysis, new connections can potentially be found. Done at the project location, which is the inner city of Schiedam, by drawing quick sketches.

Interviews:

A research method that helps to understand how potential problems are perceived by residents. This will mainly be used as a tool to confirm (or not) that suspected problems are also perceived this way. Done by conducting interviews at the project location.

Governance plan reviews:

A type of research to see how the municipality currently deals with the main project themes to determine which components are still lacking in existing policy documents. Done by doing online research.

Case studies:

A research tool used to analyse how other cities have dealt (successfully or not) with similar issues as Schiedam. Will mostly be done by mapping and online research.

Synthetic mapping:

A research tool that aims to translate previous findings into a coherent development mapping. In a way, this type of mapping tries to combine the conclusions of all previous analyses. Furthermore, this will be an iterative approach, meaning it will need time to develop. Done mostly by mapping and/or drawing diagrams, impressions, etc.

Literature and general practical preference

The consulted literature is focused on the domains of nature inclusive design and human health & well-being. Nature inclusive design is "a type of design that maintains and improves a rich and biodiverse urban ecosystem" (van Stiphout, 2019). It combines ecological principles with urban design and aims to create a harmonious urban landscape where humans, animals, and plants can all flourish.

The concept of human health & well-being on the other hand focuses on improving people's physical and mental health by the means of urban design. In this, Braubach et al. (2017) suggest that urban green is the key to success, as it provides psychological relaxation and stress alleviation.

Furthermore, a lot of additional research has been done on topics such as urban ecology, climate change, human-scale design, effects of urban green, pocket parks, historical identity, vacancy, and more. The full list of used literature can be found in the P5 report.

Reflection

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)?

My graduation project focuses on exploring the limits of urban green implications, intending to create an inclusive urban environment – both for nature and people. As such, the project focuses on creating a better living environment, which is one of the core objectives of the Urbanism Master. Furthermore, my graduation project aims to address multiple domains – social, environmental, and ecological. This is something the MSc AUBS master program also prides itself on – an integrated approach instead of only focusing on one part of the problem. Lastly, the Design of the Urban Fabric studio does not have a specific research topic.

2. What is the relevance of your graduation work in the larger social, professional and scientific framework.

Scientific relevance:

First of all, the concept of nature inclusive design is still relatively new. As van Stiphout (2019) stated, the amount of knowledge and examples are still (very) limited. The case study of Schiedam will add to this limited body of knowledge, deepening the understanding of how the concept can be translated to a real context. Furthermore, the projected design principles can add valuable practical knowledge on how other cities in the Netherlands – and potentially worldwide – can start to implement this nature-inclusive way of design.

The project also aims to explore potential synergies between the topics of nature inclusive design and human health & well-being. Currently, most scientific research focuses only on one end of the spectrum. By combining the existing bodies of

knowledge within these two fields, potential new conclusions and synergies can be found that can be further explored in the future and implemented in other locations.

Social relevance:

The concept of interclusive urban green has a strong societal influence built into it. The word interclusive is a portmanteau of the words integrated and inclusive, where the inclusivity component aims to provide equal opportunity and benefit to all the different population groups. Additionally, one of the goals is to provide sufficient social facilities for residents to create a strong sense of community. In this, the social dimension on the local scale is aimed to improve significantly.

The project also targets several relevant challenges society as a whole is currently facing. For example, the addition of urban green is aimed to combat the unhealthy lifestyle many people have nowadays by promoting an active lifestyle. Furthermore, this project will join the battle against common diseases such as obesity, cardiovascular diseases, diabetes, and mental illnesses such as depression. Ultimately, the project is centred around the experience of public space from an eye-level perspective, aimed to create the optimal conditions for people to maximise their quality of life.

Ethical considerations:

As said before, inclusivity is an important component of this project, in which the aim is to create equal opportunities for all population groups. Accessibility to a sufficient amount of high-quality urban green and social spaces should become an integral part of any development project – regardless of the social status of that area. Furthermore, the concept of the walkable city is an important ethical component, as it is a free mode of transportation that is available to all. A study by LaCroix et al. (1996) corroborates this, stating that an excellent pedestrian network improves equity.

Another important goal of the project is to create a development strategy that is adaptive to future conditions. This will contribute to the (future) safety of all residents, making the inner city of Schiedam ready for the potential effects of climate change. Additionally, future generations will be able to benefit from these developments – especially if the expected development strategy is implemented in multiple areas.