

# Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences



## Graduation Plan: All tracks

Submit your Graduation Plan to the Board of Examiners ([Examencommissie-BK@tudelft.nl](mailto:Examencommissie-BK@tudelft.nl)), Mentors and Delegate of the Board of Examiners one week before P2 at the latest.

The graduation plan consists of at least the following data/segments:

| Personal information |                   |
|----------------------|-------------------|
| Name                 | Maarten Hikspoors |
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| Studio                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                               |
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| Studio                                | AR3AP100, 2024-25, Public Building Graduation Studio                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                               |
| Name / Theme                          | Public Building – Public Condenser                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                               |
| Main mentor                           | Paul Kuitenbrouwer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Architecture – Project Design |
| Second mentor                         | Elina Karanastasi                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Technical Building Design     |
| Third Mentor                          | Stefano Corbo                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Theory & Delineation          |
| Argumentation of choice of the studio | During my studies I have gained interest for how people live in cities. Where I would first be interested in housing and building typologies, I found that most of the solutions for lively, healthy and affordable dwelling environments lay in the surroundings of these dwellings and what the neighbourhood has to offer. The public building, can play an important role in increasing the liveability of a place and since it reaches more people than a single housing block, researching the challenges and benefits of these buildings got my interest. |                               |

| Graduation project              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| Title of the graduation project | <b>The Depolarizer</b><br>A public condenser to fight the issue of polarization                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Goal                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Location:                       | Bispebjerg, Copenhagen                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| The posed problem,              | All around the globe political polarization is on the rise. We see increasing polarization, established according to religious, ethnic, social-economic status and political preference or because of actual societal issues like climate change, covid vaccinations or armed conflicts, and it brings up concerns about its destructive effects on our societies. Polarization disrupts social cohesion, it increases we versus them thinking and it threatens citizens' willingness to compromise. It harms our democracies by deepening political divides, and diminishing trust in institutions. It intensifies emotional biases, reinforces segregated identities, skews perceptions, modifies social behaviors and as a result it leaves our societies paralyzed and unable to deal with their issues. |

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|                                          | <p>In Bispebjerg, a neighborhood in Denmark's capital Copenhagen and also our design location, we see multiple indicators that show that this phenomena exists right now and will most likely increase in the future. Statistical studies show the increase of polarization in Denmark. Specifically, the issue of immigration has shown to become an important polarizing issue. The result of polarization in Denmark is an increasing amount of hate crimes against minority groups, radicalization in schools, and an increasing amount of political violence, from which the attack this summer on the Danish Prime Minister Mette Frederiksen in Copenhagen Square, is an illustrative example. In the neighborhood of Bispebjerg, we see several tendencies that could lead to polarization. The neighborhood has a high percentage of immigrants which make the national issue a local one; it is an upcoming neighborhood which risks gentrification and therefore hostilities between groups, and lastly it is a very segregated neighborhood, through physical boundaries and user groups that do not interact.</p> <p>Besides the risk of polarization being seen through visible signs, the development of polarization, could emerge exponentially from a phase that is barely noticeable to a phase that consists of escalation and public incidents.</p> <p>In order to create lively, healthy and attractive neighborhoods, the risk of increasing polarization has to be mitigated through its architecture. The public realm affects the way people meet, interact and perceive each other and thus can play a role in mitigating the issue.</p> |
| research questions and                   | <p><b>Main Question:</b><br/>How can architecture contribute to the depolarization of society?</p> <p><b>Sub Questions:</b></p> <ul style="list-style-type: none"> <li>- What role can a public condenser play in fighting the polarization of a Danish neighborhood?</li> <li>- How does polarization characterize itself within individuals and within the collective?</li> <li>- How does space foster positive interaction between groups of people</li> <li>- How could architecture create a common identity, but at the same time celebrate the differences within this common identity?</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| design assignment in which these result. | <p>Most importantly missing in the debate is a sufficient presence of architectural case studies that address this issue. Therefore this research will produce a prototype of a public condenser that can decrease polarization. Aiming for a prototype means, that the research is going to search for universal concepts, that can be replicated and applied to the design of public condensers in different contexts, with only minor modifications. In this project, research should first create a prototype, a framework of design implementations that could be used in universal designs for</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

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| <b>Process</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                             |
| <b>Method description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                             |
| <p>In order to develop a prototype for a depolarizer, the following methods will be used in the process.</p> <p>The first part of the process was about understanding the fundamentals of the phenomena, existing approaches, possible interventions and difficulties which together result in a design proposal. Since the topic is quite undiscovered within architecture, this research has made use of mostly qualitative research methods and has looked at different disciplines (social studies, urbanism, industrial design) that do discuss or study the topic of (de)polarization. I have analyzed theories on decreasing polarization, to explore potentially useful concepts from reports that help municipalities, governments, or other institutions fight polarization; I have analyzed case studies to explore useful design solutions from design examples that aim on fighting polarization, within architecture or in other disciplines; I have interviewed an expert on polarization, with open ended questions, to create more understanding of the issue and come up with possible solutions together. This part has resulted in a first proposal for the prototype as an universal concept. Simultaneously during this first part I have conducted a site analysis, to understand the site specifics parameters, city fabric, existing program, presence of polarization and site specific needs, opportunities, challenges and issues regarding this phenomenon.</p> <p>Once there was a proposal for the prototype and the research had conducted enough knowledge about the site, I would test the proposal of the prototype in Bispebjerg and develop it further into a complete design. This part was more based on the research by design approach. By going back and forth, design ideas where tested by academic debate.</p> <p>The coming part of the design process will be about elaborating the prototype of the Depolarizer and simultaneously testing its complete design in Bispebjerg and adjusting it to the site. Holding on to the research by design approach, in depth research will be conducted on more practical matters like, construction in wood, how to choose for low embodied carbon materials, which elements of the space benefit positive encounter, how space can be shared while maintaining its practical qualities. This second part of the design process will make use of both qualitative as quantitative research methods like case studies and literature review.</p> |                                                                                                                                             |

## Literature and general practical references

Until now, the research part of the project has mainly been about the phenomena of polarization; the possible role of architecture in mitigating this issue and simultaneously site analysis. Interchanging this research with design has led to clear concepts behind the design of the prototype, and there is a good understanding of how this prototype can be tested in the site of Bispebjerg. In the next phase of the project, I aim towards using research for more practical aspects of the design.

Important elements that need further research on are:

How space benefits positive encounter. Academic literature review will be conducted to understand how elements of the space influence encounter. Simultaneously I intend to analyze case studies like the "Stairs of encounter" (Bloomberg office Honkong) by Neri&HU.

How to design an open, demountable construction with wood. If the construction will be in wood, what are the possibilities and how can the structure allow for enough openness to maintain the concept of the prototype. For this I will look at existing case studies, but also at studies, pushing the limits of constructive wood.

## 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)?

As a student from the Architecture, Urbanism and Building sciences programme, I see the overall task to design for societal needs, to come up with designs that benefit society or against issues that harm society. Within the architecture track, we focus on buildings and how the building could fulfil the needs of society. Specific for our studio topic "The Public Condenser" I see an opportunity to deal with a complex phenomenon that influences our societies; which is my graduation topic "Polarization". Designing a public building that combines multiple programs and serves a whole community, has a large reach to increase social cohesion and mitigate polarizing causes in a neighbourhood.

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

The relevance of my graduation work mainly lies in starting up the conversation about how architecture can play a role in mitigating the growing phenomena of polarization and testing if architecture can actually play a role. By presenting a prototype for a depolarizer, I intend to offer a starting point, a reference for future designers to continue working on. This thesis questions the role of architecture in complex issues like polarization, does the public realm influence such phenomena?