

# 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	Jing Ge
Student number	6037275

Studio		
Name / Theme	Public Building / Public Condenser	
Main mentor	Henk Bultstra	Project Design
Second mentor	Florian Eckardt	Technical Building Design
Third mentor	Sien van Dam	Theory & Delineation
Argumentation of choice of the studio	<p>From my perspective, public building serves as "communicator" that bridge different "layers" of human activities, whether they are defined by geography, social background, culture, or personal identity. Public buildings are not only just physical spaces, but also social condensers, hubs of interaction, and symbols of inclusivity. Through this graduation project, I want to learn how architecture can be reshaped to foster connection and contributes to the identity and spirit of community, hence contributing to a healthy environment in various ways.</p>	

Graduation project	
Title of the graduation project	Reshape Boundaries
Goal	
Location:	Copenhagen-Sønderbro - Sundholm
The posed problem,	<p>Sundholm was first built in Amager, historically referred to as "Shitty Island," and functioned as a compulsory labor institution. It was isolated from the city by a three-meter-deep moat and fences. Today, Sundholm serves as "a sanctuary" for vulnerable groups, symbolizing the Danish state's ongoing welfare commitment to the poor. Although these old physical boundaries no longer exist, mental boundaries persist. Residents from surrounding communities avoid entering the area due to an unsafe</p>

	<p>atmosphere. Additionally, new physical boundaries, such as bushes, fences, walls, and barbed wire, reflect the tensions between different social groups.</p> <p>The creation of closed social enclaves in the city, where only one type of people resides, destroys opportunities for social groups to meet and exchange experiences. Richard Sennett describes this phenomenon as "the social death of the city." Sundholm's public spaces are currently undergoing a transformation from an institutional area to an urbanized area. However, the existing physical and mental boundaries have resulted in fragmented urban spaces and low utilization rates. Besides, the spatial needs of residents are unmet, with the area lacking spaces that support community life. Addressing these issues is critical for transforming Sundholm into an integrated and sustainable urban neighborhood that meets the diverse needs of its inhabitants.</p>
<p>research questions and</p>	<p>Main question: How to design a public condenser using boundaries as a medium?</p> <p>Sub-questions:</p> <ol style="list-style-type: none"> <li>1. What are the physical and mental boundaries in Sundholm, and what are their positive and negative impacts?</li> <li>2. How can design strategies balance the needs for safety and privacy with the goal of promoting social cohesion in shared urban spaces?</li> <li>3. How can public space design integrate natural and artificial elements to soften physical divides and promote community engagement?</li> </ol>
<p>design assignment in which these result.</p>	<p>This research will explore how to reshape boundaries to promote social cohesion, emphasizing resilience and sustainability. Through a new interpretation of boundaries, I will examine their dual nature: on the one hand, boundaries provide a sense of safety and territory; on the other hand, they serve as platforms that enable communication, interaction, and collaboration. By constructing dynamic and adaptive boundaries, this research aims to reflect contemporary social relationships, fostering integration and inclusivity.</p> <p>Boundaries act as a central theme across multiple scales and levels, encapsulating hybridity and multiplicity. At the urban level, I will investigate the continuity and resilience</p>

	<p>of spatial structures, aiming to create cohesive and sustainable urban environments. At the architectural level, I will explore space strategies, material attributes, and their potential to enhance adaptability, healthiness, and sustainability. This research will demonstrate how different functional spaces can be integrated, cooperate effectively, and contribute to a sustainable and healthy future.</p>
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## Process

### Method description

This research will focus on the typological study of boundaries and the adaptive reuse of existing buildings.

#### 1. Literature Review and Data Analysis:

The first phase involves a comprehensive literature review to understand the historical development and evolution of Sundholm. This will be supplemented with statistical data from demographic, economic, and social sources to analyze current social dynamics within the district. This foundational analysis will provide insights into existing relationships and interactions within the area.

#### 2. Mapping Physical Boundaries and Reuse Potential:

The second phase focuses on mapping Sundholm's internal and nearby physical boundaries, identifying their spatial and functional roles. A detailed analysis will assess the potential for boundary reuse and transformation. Using these findings, spatial prototypes will be proposed to facilitate interactions across boundaries, fostering hybridity and connectivity.

#### 3. Architectural Intervention and Spatial Strategy:

The third phase involves selecting a target building for redesign. Guided by principles of functionality, interaction, and health, spatial strategies will be developed to transform the building into a sustainable community center. The design will aim to integrate diverse functions, encourage community interaction, and support a healthy lifestyle, showcasing the adaptability and multiplicity of spaces.

#### 4. Dynamic and Sustainable Material Research:

The final phase explores architectural materials with a focus on creating dynamic and sustainable boundaries. The research will investigate material properties and applications that can respond to changing social and environmental needs, aligning with the project's goals of resilience and sustainability.

### Literature and general practical references

Roy, Parama. 2018. "Welcome in My Backyard'...but on My Terms: Making Sense of Homeless Exclusion from Renewed Urban Spaces in Copenhagen." *GeoJournal* 83 (April):1–16. <https://doi.org/10.1007/s10708-017-9769-8>.

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Shipyard, Joanna Mai, 2010. *City Life - Area Lift of the Sundholmsvej Quarter*. Graduation project, Urban Design Department of Architecture and Design, Aalborg University. Prepared under the guidance of Gitte Marling.

Madsen, Ole Jacob. 2014. "Governmentality." In *Encyclopedia of Critical Psychology*, edited by Thomas Teo, 814–16. New York, NY: Springer New York. [https://doi.org/10.1007/978-1-4614-5583-7\\_126](https://doi.org/10.1007/978-1-4614-5583-7_126)

Jacobs, Jane. 1961. *The Death and Life of Great American Cities*. New York, NY: Vintage Books.

## 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)?

The studio topic, "Public Condenser," focuses on creating spaces that accommodate a variety of simultaneous uses, promote inclusivity and interaction, and adapt to changing environments, all grounded in the concept of healthy and sustainable urban regeneration. This project, which addresses boundaries as pivotal elements for fostering cohesion and interaction, aligns directly with the studio's goals.

Within the Architecture track, treating boundaries as a potential spatial typology offers a unique perspective for addressing social and spatial isolation. By reimagining boundaries, this project aims to bridge societal issues with architectural design—a critical connection that I aspire to develop further in the master programme.

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

The project will focus on societal issues such as fragmentation, lack of inclusivity, and urban cohesion. By proposing dynamic boundaries and sustainable community center, it aims to foster healthier, more integrated communities, encouraging interaction and collaboration across social groups. For architectural and urban design professionals, the project provides a framework for addressing boundary-related challenges in urban spaces. It introduces adaptable spatial prototypes, strategies for building reuse, and material innovations, offering actionable design

solutions for creating multifunctional and sustainable environments. From a scientific perspective, This work enriches the academic dialogue on resilience, hybridity, and sustainability within architectural and urban studies.