

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), 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	Blaise Fouarge
Student number	5944597

Studio		
Name / Theme	AR3AP100 Public Building Graduation Studio "Public Condenser, Copenhagen"	
Main mentor	dr. Antonio Cantero	Architecture - Project Design
Second mentor	ir. Ger Warries	Technical Building Design
Third mentor	dr. Sang Lee	Research - Theory & Delineation
Argumentation of choice of the studio	<p>Public buildings and public places define the identity of a city, acting as a neutral ground and a common foundation. Public buildings, squares, parks or other important shared infrastructures are often the places where life takes place, the public realm. The need for gathering and social interaction is deeply woven into human history and culture and not only creates a greater sense of community but also leads to better physical and mental conditions.</p> <p>The theme of 'public condenser' is not only about bringing together functions within a building, but also the broader meaning of combining different solutions to challenges in public and personal life. The theme pertains to the freedom to decide which aspects of public life and architecture are important to you or the target group.</p>	

Graduation project	
Title of the graduation project	Social infrastructure : physical and social connectivity in Haraldsgade district
Goal	
Location:	North – ydre nørrebro Haraldsgadekvarteret, København Haraldsgade district, Copenhagen
The posed problem,	
The Haraldsgade district is classified as a <u>parallel society</u> , identified by a vulnerable group of people who face problems related to low incomes, unemployment, lack of education and high crime rates. The parallel society exemplifies the experience of	

living alongside each other, not understanding each other, or insufficient opportunities for low threshold interaction between residents of the district and those in neighbouring areas. The Haraldsgade district reveals a place that is socially and physically disintegrating.

In the social aspect, research shows the lowest average incomes in Copenhagen within the Haraldsgade district (Riveiro & Nowak, 2022, p.10). According to the Statistics Bank of Copenhagen, the average disposable income in Haraldsgade district is about 18.7% lower than the city's overall average (Københavns Kommune, 2022). The area contrast sharply with surrounding district causing an unintended sense of isolation. The economic inequality is compounded by the living conditions of Haraldsgade residents, who often live in larger families with less space per household. This situation makes the community more dependent on local public services and infrastructure. However, these essential facilities and services are notably lacking in the neighbourhood, leaving residents with few opportunities to meet other community members or to foster reintegration through interaction with residents from surrounding areas.

Residents of different backgrounds live largely alongside each other, without a common space for low-threshold interaction or functions that allow interaction between them and surrounding neighbourhoods. Physically, large, closed building blocks and wide infrastructure create a fragmented spatial structure, leading to an uninviting and impersonal living environment. This isolation may cause people to experience division, ultimately leading to societal problems. There is a lack of a multifunctional social space where residents can meet informally, without specific goals or obligations. Such a place would encourage spontaneous interaction without necessarily incurring costs. It would allow residents to connect with their neighbourhood or community, meet people from other districts, participate in various activities, or receive support for different needs. In the current situation, there is little incentive for residents of surrounding neighbourhoods to visit the district, which limits opportunities for integration or growth. The existing (public) infrastructure is unattractive. There is little attention to cyclists and pedestrians, an absence of pleasant routes, public squares and public buildings create poor appeal. Green spaces in the area are also limited. Research shows that Nørrebro has only 7 m² of green space per inhabitant, while the average in Copenhagen is 32 m² per inhabitant (Visionplan Vingelodden/Rovsinggade, 2023). Social tensions, crime, and insecurity are results of isolated societies, not only affecting the area but all residents. The inaccessibility in urban spaces creates barriers that might prevent people from participating in public life, these include mobility challenges, absence of squares and green and economic limitations.

Research questions

The question centres on how a new design could help unify and enhance the area, both at the city and neighbourhood level. There is need for a design that goes beyond being just a cultural hub. It should help integrate into a larger network, connecting with its surroundings in terms of location, infrastructure, and its role in fulfilling social needs. Approaching infrastructure as a foundation for natural social interaction, to goal is to make the area more lively and

	attractive creating a reason for circulation, resulting in spontaneous meeting.
<p><i>Main question: How might we design social infrastructure to blur physical and social boundaries for Haraldsgade residents and adjacent neighbourhoods, in order to improve integration and unification in a parallel society?</i></p> <p>The question focuses on creating an incentive that can relieve the identified problems in the area by developing a multifunctional social infrastructure that promotes the physical and social integration of Haraldsgade in the urban context. It approaches infrastructure as a foundation for natural interaction, by making the area more lively and attractive through circulation and movement. By focusing on the building as infrastructure, public circulation is used as an opportunity for people to interact with the building. This avoids making the use solely dependent on functions that do not guarantee activity, therefore it focuses on low-threshold encounters. By creating a sense of shared ownership the infrastructure has the potential of strengthening community resilience.</p> <p><i>Sub question: How can the building be part of a connective public infrastructure that increases accessibility and adds value in the neighbourhood?</i></p> <p>This question is about designing a thoughtful relationship between public infrastructure and building. It focuses on a connective space creating a multifunctional environment that fosters integration and interaction for different communities. It involves examining poor connections that result in physical and psychological barriers, leading to inaccessibility. It also focuses on how infrastructure, such as footpaths, cycling routes, car traffic and public transport, can increase the social value, promote connectivity and informal interaction. It also looks at how plazas and public green spaces make the environment less hostile and more attractive, creating a more seamless transition between different residential areas, public spaces and buildings.</p> <p><i>Sub question: What kind of design that combines building and infrastructure can attract diverse target groups?</i></p> <p>The question focuses on understanding the needs of various resident groups within different communities, with the aim of understanding what might motivate them to visit a space or building. It also explores how these needs can be integrated in a multifunctional way to encourage social interaction and engagement, considering convergence of building and infrastructure.</p>	
Design assignment in which these result.	
<p>The design reimagines infrastructure as more than just a functional necessity, recognizing it has an intrinsic value in shaping environments and communities. By improving the overall quality of life, the project's urban approach becomes a catalyst for new opportunities. By combining the social and infrastructure aspect, the design aims to create a strong integration with urban space, benefiting both the neighbourhood and city residents. The project's strong focus on social interaction and</p>	

gathering through multifunctionality is central, with the building taking advantage of its unique location and making use of outdoor spaces.

Process

Method description

The methods will focus on developing ideas and concepts, informed by research, literature and case studies, to alleviate the issue of parallel societies in the area seek integration with the city. These relate to approaches to meeting programmatic needs for neighbourhood and city residents, variations in spatial layout and concepts of how the building engages mobility or pedestrians, ultimately developing ideas of multifunctionality that can guide the form, circulation and functions of the building taking into account the use for the neighbourhood and the city.

One method is to use literature to further explore links between public space, spontaneous interaction and enhanced social cohesion across diverse groups, looking for relations to multi-purpose in programming and layout or the consideration of the pedestrian landscape. This transcends façades or buildings. Literature like 'The Social Life of Small Urban Spaces' by William H. Whyte, and 'The Death and Life of Great American Cities' by Jane Jacobs will contribute to develop a vision on the use of public green space, plaza and infrastructure and its potential in physically and socially connecting environments and communities. Within this theme, the aim is to connect the concepts of 'social' and 'infrastructure', with the aim of creating a healthy and inspiring living environment. Roe and McCay's book 'Restorative Cities' is very much in line with these ideas and the studio's theme, and can therefore help gain insights on designing for better health and stronger communities.

The exploration also focuses on how to make the building accessible and a connecting factor in the area by analysing existing infrastructure and opportunities to transform barriers into connective nodes. This includes the mapping existing networks or larger networks of slow traffic routes, public transport, greenery and other important infrastructure in the scale of adjacent districts or Copenhagen. Sketch and design variants will be used to explore connection opportunities in the area.

Case studies of buildings which incorporate human-oriented infrastructure like bicycle and pedestrian traffic will be analysed to identify knowledge and opportunity. Projects like New High Speed Station by Estudio Herreros, The Block by is-architects or Ewha Womans University are interesting as social infrastructures that engage public circulation with programmatic need. In addition to this, Case studies will be used to analyse successful projects that have bridged socio-economic devices or projects that have utilized multifunctionality to strengthen social cohesion. The method will focus on programmatic elements that are common through different classes, or events and occasions that could bring different communities together. For this, books can be used that evaluate or analyse a collection of such buildings, like 'This is hybrid' and '50 Hybrid Buildings' by A+T research group or 'Community By Design' by Porterfield.

Individual projects in different contexts will also be analysed like Multifunctional Center Doelum, NDSM Werf and Genossenschaft Kalkbreite, Forssa Multipurpose Centre Akvarelli and Rebel Kop Zuidas to examine how physical layouts, programmatic combinations and architectural features can facilitate connections between people.

Literature and general practical references

- a+t research group. (2014). This is hybrid: an analysis of mixed-use buildings. a+t architecture publishers.
- a+t research group. (2020). 50 Hybrid Buildings. Catalogue on the art of mixing uses. Primeira Edição.
- Cusveller, S., De Jong, A., De Jong, A., & Schipper, K. (2002). Ruimte voor openbaarheid: Ontwerponderzoek naar het alledaagse openbare gebouw. THOTH.
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<https://doi.org/10.3390/buildings13082081> (Accessed November 27, 2024)
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- Porterfield, G. A., & Hall, K. B. (2001). Community By Design: New Urbanism for Suburbs and Small Communities. McGraw-Hill Professional.
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<https://www.thelocal.dk/20190709/denmarkshousing-minister-wants-to-scrap-ghetto-label-for-underprivileged-areas> (Accessed November 27, 2024)
- Visionplan Vingelodden/Rovsinggade. (2023). In Nørrebro Lokaludvalg & Spektrum Arkitekter, *Noerrebrolokaludvalg*.

<https://noerrebrolokaludvalg.kk.dk/wp-content/uploads/2023/03/Vingelodden-Visionsplan.pdf> (Accessed December 22, 2024).

- Whyte, W. H. (1980). The social life of small urban spaces. New York. <http://ci.nii.ac.jp/ncid/BA00601503> (Accessed October 5, 2024)

Case studies:

- Ewha Womans University by Dominique Perrault Architecture
- Forssa Multipurpose Centre Akvarelli by Olla Architecture
- Genossenschaft Kalkbreite by Müller Sigrist Architekten
- MAT building, University of Berlin by Candilis, Josic, Woods and Scheidhelm
- Multifunctional Center Doelum by NOAHH and Studio Nuy Van Noort
- NDSM Werf
- New High Speed Station by Estudio Herreros
- Rebel (Kop Zuidas) by rebel studio ninedots
- Tårnkvarteret by Haptic Architects
- The Block by is-architects
- The High Line, New York

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 project focuses on designing social infrastructure as a means of blurring physical and social boundaries in the Haraldsgade district. This ties in with the studio topic Public Condenser, which focuses on buildings that are not only functional, but also act as catalysts for social interaction and urban connection. The concept of a Public Condenser emphasises multifunctionality and interaction between different user groups, which fits well with my goal of designing a building that serves as a meeting place and connecting element within an isolated area and for a vulnerable community.

Within the Architecture MSc master's track, the focus is on integrating architecture with broader social and urban issues. My project explores how architecture not only shapes physical structures, but can also play a vital role in creating a sense of community and promoting social cohesion. By using strategies such as multifunctional spaces and improving accessibility.

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

My graduation work is relevant in the larger professional framework because it contributes to addressing urban segregation and social exclusion, which are globally problematic issues in many urban areas. Professionally, the project provides insights for architects and urban planners working on social infrastructure and urban renewal, with an emphasis on promoting healthy urban environment, community building and integration. Academically, it contributes to the existing literature on the relation between 'social' and 'infrastructure' by exploring new design methods that can bridge physical and social barriers in vulnerable neighbourhoods and fragmented areas.

