

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	Timo Christian van Oorschot
Student number	4831586

Studio		
Name / Theme	Design of the Urban Fabric	
Main mentor	Ir. Robbert Jan van der Veen	Urban Design
Second mentor	Prof. Dr. Ir. Machiel van Dorst	Urban Studies
Argumentation of choice of the studio	Design has always been the core of my education here at TU Delft, therefore I would like to use all the skills I have learned over the past four years in my graduation. I want to sharpen these skills and expand my toolbox to become a better urban designer. Design of the Urban Fabric is the most design-forward studio and therefore the best fit.	

Graduation project	
Title of the graduation project	Left alone: spatial and programmatic interventions countering urban loneliness in Linkeroever
Goal	
Location:	Linkeroever, Antwerp
The posed problem,	People are feeling more and more lonely, especially in cities. This has negative effects on mental and physical well-being as well as on the economy. Social and physical characteristics of the urban environment can facilitate or limit urban loneliness. The rise of urban loneliness is associated with other challenges of our age, situating it in a wider context. Global urbanisation results in unfamiliarity among people, the growing number of single-person households makes meeting social expectations even harder, and liveability leaves much to be desired contributing to weaker ties with our neighbours and our neighbourhoods. At the same time, our society requires more of us, the constant need to perform results in stress and less time for social interactions and activities. Add to this the growing gap between rich and poor, why fewer people can afford to

	participate in society, and we have ourselves a serious problem. Urban loneliness is a silent epidemic harming mental and physical health. To tackle the challenge of urban loneliness, designing spatial and programmatic solutions for all people, can help to counter urban loneliness.
research questions and	<p>RQ: How to improve spatial and programmatic conditions in Linkeroever that stimulate social cohesion and collective development, countering urban loneliness?</p> <p>SQ1: What is the context shaping urban loneliness Linkeroever?</p> <p>SQ2: How to design against urban loneliness?</p> <p>SQ3: How to redesign Linkeroever?</p> <p>SQ4: To what extent do spatial and programmatic conditions affect urban loneliness?</p>
design assignment in which these result.	<p>The design assignment is to come up with spatial and programmatic solutions which help counter urban loneliness. This will be done on multiple scales. On the large scale, there will be a vision, strategy, and framework. On the smaller scales, the interventions will be more concrete and detailed.</p> <p>Important topics within the design assignment include social cohesion, personal and collective development options, a legible human scale, diversity, and connective urban fabric.</p>

Process

Method description

To answer the research question and sub-questions, I will follow multiple methods all contributing to an iterative research and design process. The exact methods are visualized and elaborated below.

To answer the first sub-question: what is the context shaping urban loneliness Linkeroever?, fieldwork analysis, cartographic analysis, data analysis, and some theory and policy reading will be the most important methods used. The result will be a better understanding of the context of Linkeroever and urban loneliness. Analytical maps, statistics, and future scenarios will be products that support the outcomes of this question.

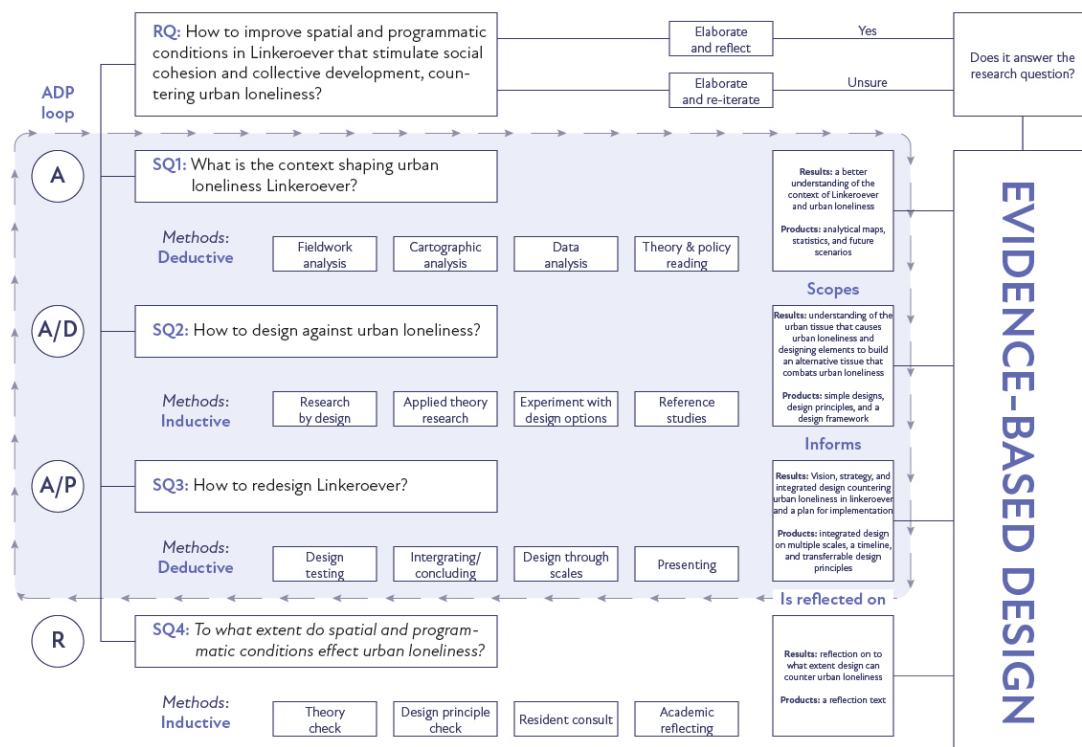
After the broader context is clear, it is time to dive deeper into urban loneliness and design by answering the second sub-question: how to design against urban loneliness? Methods to be used for this include research by design, experimenting

with design options, applied theory research, and reference studies. The results will be visualized in analytical drawings, simple designs, design principles, and a design framework. The main goal of this chapter will be to understand the urban fabric that stimulates urban loneliness and to find alternative tissue to replace it with and combat urban loneliness.

When the elements that contribute to urban loneliness and the design principles countering it are known, the challenge is to bring them together in an integral design on all scales. This will be done by answering the sub-question: How to redesign Linkeroever? Methods for this are design testing, integrating/concluding, designing through scales, and presenting. Vision, strategy, and design represented by maps, sections, perspectives, and more, are the main products of this chapter. Personas, a timeline, and transferrable design principles are other products. The products will be made through and for multiple scales creating a multiscale design.

Finally, I will reflect on the design by answering the sub-question: to what extent do spatial and programmatic conditions affect urban loneliness? This will be done by methods like a theory check, a design principal check, a resident consult, and academic reflection. This will result in a reflective text as the main product.

The first three sub-questions form an analysis-design-present loop in which the lines are a bit blurry. Afterwards, a thorough reflection will conclude this evidence-based design thesis. If all is well, the research question: How to improve spatial and programmatic conditions in Linkeroever that stimulate social cohesion and collective development, countering urban loneliness? should be answered after these four chapters are completed.



Literature and general practical preference

The following pieces of literature will form the backbone of my theory research:

Cacioppo, J. T., & Cacioppo, S. (2018). *The growing problem of loneliness*.
<https://doi.org/10.1016/S0140>

Dorst, M. J. van. (2005). Privacy Zoning. In *Spaces, Spatiality and Technology* (pp. 97–116). Springer.

Forrest, R., & Kearns, A. (2001). Social cohesion, social capital and the neighbourhood. *Urban Studies*, 38(12), 2125–2143.
<https://doi.org/10.1080/00420980120087081>

Goosen, Z., & Cilliers, E. J. (2020). Enhancing Social Sustainability Through the Planning of Third Places: A Theory-Based Framework. *Social Indicators Research*, 150(3), 835–866. <https://doi.org/10.1007/s11205-020-02350-7>

Mcleod, S. (2018). Maslow's Hierarchy of Needs. *Simply Psychology*, 1, 1–18.

Mehta, V., & Bosson, J. K. (2010). Third places and the social life of streets. *Environment and Behavior*, 42(6), 779–805.
<https://doi.org/10.1177/0013916509344677>

Montgomery, C. (2013). *Happy city: Transforming our lives through urban design*. Penguin UK.

Peters, K., Elands, B., & Buijs, A. (2010). Social interactions in urban parks: Stimulating social cohesion? *Urban Forestry and Urban Greening*, 9(2), 93–100.
<https://doi.org/10.1016/j.ufug.2009.11.003>

Sim, D. (2019). *Soft city: building density for everyday life*. Island Press.

Simões Aelbrecht, P. (2016). 'Fourth places': the contemporary public settings for informal social interaction among strangers. *Journal of Urban Design*, 21(1), 124–152. <https://doi.org/10.1080/13574809.2015.1106920>

van de Wal, H. and van D. M. and L. T. (2016). *Privacy script: De invloed van architectuur op sociale interactie in woongebouwen*. Uitgeverij Thoth.

van Tilburg, T. G. (2021). Social, Emotional, and Existential Loneliness: A Test of the Multidimensional Concept. *Gerontologist*, 61(7), E335–E344.
<https://doi.org/10.1093/geront/gnaa082>

For data there are multiple libraries I will consult and combine:

Stad Antwerpen. (n.d.). *Opendata portaal Antwerpen*. Retrieved January 18, 2023, from <https://portaal-stadantwerpen.opendata.arcgis.com/>

stadincijfers.antwerpen.be. (n.d.-a). *Hoofd dashboard - 2050 Antwerpen Linkeroever*. Retrieved October 1, 2022, from <https://stadincijfers.antwerpen.be/dashboard/hoofd-dashboard/>

stadincijfers.antwerpen.be. (n.d.-b). *Stad in Cijfers - Databank*. Retrieved November 17, 2022, from <https://stadincijfers.antwerpen.be/databank/>

Vlaamse overheid. (n.d.). *Catalogus / Geopunt Vlaanderen*. Retrieved January 18, 2023, from <https://www.geopunt.be/catalogus>

Vlaanderen.be. (2022, July 23). *Sociale contacten*. <https://www.vlaanderen.be/statistiek-vlaanderen/sociale-samenhang/sociale-contacten>

Furthermore, I will use the knowledge I have gained in the past four years at this university, insights from fieldwork, and information gained from fieldtrips and consulting local residents.

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)?
2. What is the relevance of your graduation work in the larger social, professional and scientific framework.
 1. Like the studio 'Design of the Urban Fabric' my topic deals with the dynamics and interplay between the physical and social environment. The question of the studio is, how will the future city look and work, and how will we live together? My thesis focuses on how the city will look and work and how we will live together if we shape the environment in a way that counters urban loneliness. Our way of living together and the fabric of the city must change if we want to fight loneliness in cities. I will aim to do this by design and experiment. One of the methods presented by the studio. This design thesis ties in with my master's programme (AUBS) and the track of urbanism because it will produce innovative design solutions at an urban level.
 2. There is little research done on the relationship between loneliness and practical solutions in the built environment. Therefore, this thesis aims to bridge the gap between the existing theories about loneliness and the practical applications of these in the built environment of Linkeroever. I hope that this thesis can provide tools to design neighbourhoods that help to counter urban loneliness.