

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	Yu-Ching Huang
Student number	5321190

Studio		
Name / Theme	Cross Domain City of the Future MSc3 Graduation Lab	
Main mentor	Roberto Cavallo	Architecture, Architectural Design Crossovers, Infrastructure & Mobility, Hybrid Buildings, Design Driven Research
Second mentor	Mauro Parravicini	Architectural Engineering and Technology
Third mentor	Maurice Hartevelde	Public Space, Urban Design
Argumentation of choice of the studio	My project aims to explore the relationship between loneliness and architecture related to belongingness in Amsterdam. Loneliness is a psychological issue that could be affected by spatial reasons from the urban to the architectural object scale. It not only hits individuals but also enlarges its influence on the whole world, directly linking future city development in relation to social health and living satisfaction. Furthermore, as the world population living in urban areas is expected to grow to 68% in 2050, not only the functioning of the urban systems matters but also the well-being and mental health of the inhabitants are important. The Cross Domain City of the Future MSc3 Graduation Lab gives us the freedom to choose our scope within the city of the future framework and provides a multi-disciplinary approach, helping develop our projects.	

Graduation project	
Title of the graduation project	City Loneliness: A Healing Practice in Amsterdam
Goal	
Location:	Bijlmermeer, Amsterdam-southeast, Netherlands
The posed problem,	The contradictory fact of Amsterdam is that it is seen as the most healthy and well-being city for living, but at the same time, it has one of the highest percentages of people that feel lonely.

	<p>Thus, the posed problem in Amsterdam is that the city provides a good function that attracts people to work and live, but in the mental aspect, people do not feel the connection and belonging to the city.</p>
research questions and	<p>Therefore, the main research question is:</p> <p><i>How can architecture create a belongingness environment to alleviate and heal the feeling of loneliness in Amsterdam?</i></p> <p>To answer the main research question, there are sub-questions to be investigated.</p> <ol style="list-style-type: none"> <i>1. Why do people feel lonely in the notion of psychology?</i> <i>2. What is it about the contemporary city that creates loneliness?</i> <i>3. How do people create belongingness in the city?</i> <i>4. How do city spaces in Amsterdam have an impact on being unrooted and unconnected, making people feel lonely?</i>
design assignment in which these result.	<p>After gaining the knowledge of loneliness and belongingness from psychological studies, some principles can apply in architectural design. Furthermore, the Amsterdam southeast and Bijlmermeer area analysis provides opportunities for future development concerning loneliness and belongingness.</p> <p>Due to the characters in the Bijlmermeer area, the design concept is to rethink those large-scale green open spaces and propose that "public venue as a cultural exchange field." The design will focus on the public and collective spaces on a proper scale to provide a daily life experience and frequent encounters for residents, creating a lonely healing place.</p>
<p>[This should be formulated in such a way that the graduation project can answer these questions. The definition of the problem has to be significant to a clearly defined area of research and design.]</p>	

Process

Method description

Research:

The research on loneliness begins with theoretical understanding in psychological and philosophical aspects. Then, the investigation on what it is about in the contemporary city that makes people feel lonely takes a role in examining the loneliness problem, which relates to city environments. The preliminary research explores loneliness in self-experience and experience aspects, providing hints of creating a sense of belonging and reducing loneliness. Also, the research on loneliness and belongingness in architecture gives the specific principles to reduce loneliness in spatial strategies.

From theory to practice, the analysis in Amsterdam acts as a bridge, and it helps to know how city spaces in Amsterdam impact loneliness. Moreover, the analysis in different scales, from the whole city of Amsterdam to the southeast part of Amsterdam to the Bijlmermeer area, plays a role in looking for given problems and development opportunities on-site, inspiring the design concept.

Design process:

As the design concept: public venue as a cultural exchange field, the design aims to provide several architectural objects or structures on a community scale assigned in the Bijlmermeer area. The first step of design is defining what it means about cultural exchange, what kind of programs can be applied, and how to create the connection between existing housing buildings, open spaces, and these adding activities. A master plan (on a scale of 1:500) will work on these questions. After that, plans and sections (on a scale of 1:200 to 1:100) of each design will be used to study the relationship between the design object and its surroundings. At the same time, some reference projects will be introduced as case studies to see how others create similar relationships. Besides, the sustainable implementation of the design will also be applied during the design process. Then, the design detailing and engineering (on a scale of 1:50 to 1:20) will be done with the drawing study on different interventions in the existing building. Sketches, plans, and sections are the primary tools that will be used throughout the whole design process.

Literature and general practical preference

Loneliness:

- Cacioppo, J. T., & Patrick, W. (2009). *Loneliness: Human nature and the need for social connection*. W.W. Norton & Company.
- Cacioppo, J. T., Cacioppo, S., Cole, S. W., Capitanio, J. P., Goossens, L., & Boomsma, D. I. (2015). Loneliness across phylogeny and a call for comparative studies and Animal Models. *Perspectives on Psychological Science*, 10(2), 202–212. <https://doi.org/10.1177/1745691614564876>
- Hertz, N. (2020). *The Lonely Century coming together in a world that's pulling apart*. Sceptre.
- Lim, M. H., Rodebaugh, T. L., Zyphur, M. J., & Gleeson, J. F. (2016). Loneliness over time: The crucial role of social anxiety. *Journal of Abnormal Psychology*, 125(5), 620–630. <https://doi.org/10.1037/abn0000162>
- Perlman, D., & Peplau, L. A. (1981). Toward a Social Psychology of Loneliness. In R. Gilmour, & S. Duck (Eds.), *Personal Relationships: 3. Relationships in Disorder* (pp. 31-56). London: Academic Press.

Belongingness:

- Allen, K.-A., & Furlong, M. (2021). Leveraging belonging in response to Global Loneliness. *Australian Journal of Psychology*, 73(1), 1–3. <https://doi.org/10.1080/00049530.2021.1875532>
- Allen, K.-A., Kern, M. L., Rozek, C. S., McInerney, D. M., & Slavich, G. M. (2021). Belonging: A review of Conceptual Issues, an integrative framework, and directions for future research. *Australian Journal of Psychology*, 73(1), 87–102. <https://doi.org/10.1080/00049530.2021.1883409>
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117(3), 497–529. <https://doi.org/10.1037/0033-2909.117.3.497>
- Certeau, M. de. (1984). *The practice of Everyday Life*. University of California Press.
- Erozkhan, A. (2011). The attachment styles bases of loneliness and depression. *International Journal of Psychology and Counselling*, 3(9). <https://doi.org/10.5897/ijpc11.032>
- Fenster, T. (2005). Gender and the city: The different formations of belonging. *A Companion to Feminist Geography*, 242–256. <https://doi.org/10.1002/9780470996898.ch17>
- Franklin, A., & Tranter, B. (2021). Loneliness and the cultural, spatial, temporal and generational bases of belonging. *Australian Journal of Psychology*, 73(1), 57–69. <https://doi.org/10.1080/00049530.2020.1837007>
- McLeod, S. A. (2020, March 20). *Maslow's hierarchy of needs*. Simply Psychology. <https://www.simplypsychology.org/maslow.html>
- Merleau-Ponty, M., & Landes, D. A. (2012). *Phenomenology of perception*. Routledge.
- Mellor, D., Stokes, M., Firth, L., Hayashi, Y., & Cummins, R. (2008). Need for belonging, Relationship Satisfaction, loneliness, and life satisfaction. *Personality and Individual Differences*, 45(3), 213–218. <https://doi.org/10.1016/j.paid.2008.03.020>
- Prieto-Flores, M.E., et al., *Residential satisfaction, sense of belonging and loneliness among older adults living in the community and in care facilities*. Health & Place (2011), doi:10.1016/j.healthplace.2011.08.012
- Scannell, L. & Gifford, R. (2014). *The psychology of place attachment*. In *Environmental Psychology: Principles and Practice* (5th ed., pp. 272-300). Optimal Books.
- Seamon, D. (2018). *Life takes place: Phenomenology, Lifeworlds, and place making*. Routledge is an imprint of the Taylor & Francis Group, an Informa Business.
- Tuan, Y.F. (1990). *Topophilia: A study of environmental perception, attitudes, and values*. Columbia University Press.
- Oldenburg, R. (1989). *The Great Good Place: Cafés, coffee shops, bookstores, bars, hair salons, and other hangouts at the heart of a Community*. Da Capo Press.
- White, Rebekah (July–August 2018). "A third place". *New Zealand Geographic* (152): 6, from <https://www.nzgeo.com/stories/a-third-place/>

Loneliness in Amsterdam:

- Leefbaarometer. (n.d.). *Leefbaarometer Kaart*. Leefbaarometer Home. Retrieved January 12, 2022, from <https://www.leefbaarometer.nl/kaart/>
- *Loneliness in Amsterdam*. (2018). from https://www.amsterdamsnetwerkenzaamheid.nl/media/filer_public/ce/85/ce851428-500b-4d4d-9bdd-4c7b2290120b/ois_factsheet_eenzaamheid_in_amsterdam.pdf

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)?

What is my position of being an architect? In my past experience of architectural studies and practices, the training always focused on designing a well-functioning space. However, for me, architecture is not just a functional machine but a place that provides happiness, comfort, and even emotional attachment. Besides, the realization of architecture not only needs to be considered in humanity, cultural, and social aspects but also needs sustainable thinking, which applies to architecture itself, urban environment, and building engineering. To implement my thought of what architecture should preach for, I introduce loneliness in my graduation project, aiming to explore the relationship between loneliness and architecture and achieving architectural projects in multi-disciplinary construct. The loneliness topic also fits in the theme of Cross Domain City of the Future MSc3 Graduation Lab, which considers future city development. So, my graduation project topic not only helps me clear my position but also proposes a pressing issue in relation to social health and living satisfaction of the future city.

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

Loneliness is undoubtedly a global issue and becomes more and more important for creating a future well-being city. My graduation work carries on the loneliness research and fills in the limited study in city space and loneliness through belongingness. It provides the ways of how architecture strategies address loneliness problems, and can further apply in this pressing issue in many cities. Furthermore, as a well-known happy city, Amsterdam also faces loneliness. My research focuses on spatial reasons and looks for a proposal to combat loneliness in Amsterdam-southeast, the district that meets the most significant loneliness. It turns out that the loneliness reasons act as opportunities for improvement and offer possibilities for the residents to have a different experience in public venues. My graduation project is also relevant in relation to arguing the existing relationship between housing buildings and open public spaces in the Bijlmermeer, and proposing a different thinking of public venues. Finally, the design objects will reflect on building science, which considers the material, sustainability, and construction.