# 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	Anne Sophie Kortman
Student number	4274997
Telephone number	
Private e-mail address	

Studio		
Name / Theme	Explore Lab	
Main mentor	Elise van Dooren	Architectural Engineering + Technology
Second mentor	Sjap Holst	Building Technology
Third mentor	Cor Wagenaar	Architectural History & Complexity
Argumentation of choice of the studio	Graduation project touches the Architecture and Urbanism field, derived from my own fascination of space use in the built environment.	

<b>Graduation</b>	Graduation project				
Title of the grad project		The active green city; a walk through the post-war neighborhood			
Goal	Goal				
Location:	Paddepoel	(Groningen)			
The posed problem,	Physical inactivity is increasing worldwide. Also in the Netherlands people are not physically active enough, which increase the level of risk of getting a heart disease, obesity type 2 and breast/colon cancer, according to the World Health Organization. Many believe (including the World Health Organization and de European Commission) that physical activity can be increased again by adapting the urban fabric. Moreover, according to de Vries (2015) physical inactivity rates are in "problem" neighborhoods higher than in other neighborhoods in the Netherlands. Many of these "problem" neighborhoods are from the post-war period, addressed by Ella Vogelaar (2017).				
research questions and	How can we adapt the urban fabric, existing of a network of streets, buildings and open spaces, in the of post-war neighborhood (1960-70), so that the spatial quality of the neighborhood is improved and residents are invited to be physically active in the neighborhood?  Sub questions are divided into 2 chapters:				

	1. How can we adapt the <b>street network</b> within the of post-war neighborhood?  - What does that mean quantitatively? (density, length and connectivity of the network)  - What does that mean qualitatively? (width, design, capacity, use)
	2. How can we adapt the <b>built fabric</b> within the of post-war neighborhood?  - What does that mean quantitatively? (density, length and distances)  - What does that mean qualitatively? (social diversity, functional layers, proximity, enclosure)
	The answer of these questions are translated in the research as ambitions and tools. These tools and ambitions can help people from multiple disciplines to find the right design strategy for their location.
design assignment in which these result.	The results of the research will give the starting point of the design. Using parts of the toolbox, the design assignment will show how the built environment of Paddepoel can transform, increasing the wellbeing of the residents in the neighborhood. This I will do by creating a new interpretation of the "portiekflat", which will be transformed.

#### **Process**

### **Method description**

The method of the research is based on literature research, seen the necessity of bringing scientific research closer to urban design strategies.

To explain the literature on the post-war neighborhood we use the neighborhood Paddepoel as a reference to reflect the research upon. The most important literature that is used is from Hillier (2009), Gehl (2011; 2013), Koohsari et al. (2019) and multiple publications from the World Health Organization.

The research document has two sections which have the same structure: introduction, ambitions, literature research and tools (conclusions). The reason why we investigate both topics is because they influence each other. It is the dynamics of the three layers that makes "a place", and is key towards creating Healthy Cities. The result is a toolbox where tools can be used individually or together in the same project, depending on the location and problem of the location.

## Literature and general practical preference

- Alexander, C., Ishikawa, S., & Silverstein, M. (1977). A Pattern Language: towns, buildings, construction. New York: Oxford University Press.
- Barton, H., & Tsourou, C. (2000). Healthy Urban Planning. Spon Press.
- Beckhoven, E., Bolt, G., & van Kempen, R. (2005). Theories of neighborhood change and neighborhood decline: Their significance for post-WWII large housing estates. https://doi.org/10.1057/9780230274723
- Bijlsma, L., Bergenhenegouwen, G., Schluchter, S., & Zaaijer, L. (2008). Transformatie van woonwijken met behoud van stedenbouw - kundige identiteit. 59. Retrieved from http://www.rivm.nl/bibliotheek/digitaaldepot/Transformatie van woonwijken.pdf
- Breda, J. (2018). Transforming public spaces to promote physical activity a key contributor to achieving the Sustainable Development Goals in Europe. European Journal of Public Health, 28(suppl 4). https://doi.org/10.1093/eurpub/cky213.599
- Conway, F., & Alexander, C. (1968). Notes on the Synthesis of Form. In The Mathematical Gazette (Fourth edi, Vol. 52). https://doi.org/10.2307/3611916
- Cullen, G. (1961). Townscape. London: Architectural Press.
- de Bont, A., & Urhahn Urban Design. (2017). The active city. https://doi.org/9789082745122 9082745127
- **European Commission**. (2004). Directorate-General for the Environment Reclaiming city streets for people Chaos or quality of life? Retrieved from http://ec.europa.eu/environment/pubs/pdf/streets people.pdf
- Gehl, J. (2011). Life Between Buildings: Using Public Space. https://doi.org/10.3368/lj.8.1.54
- Gehl, J., & Svarre, B. (2013). How to study public life. Washington DC: Island Press.
- Giles-Corti, B., Gunn, L., Hooper, P., Boulange, C., Zapata Diomedi, B., Pettit, C., & Foster, S. (2019). Built Environment and Physical Activity. In M. Nieuwenhuijsen & H. Khreis (Eds.), Integrating Human Health into Urban and Transport Planning: A Framework (pp. 347–381). Springer.
- Harbers, A. (2009). De stedenbouwkundige kwaliteiten van de Nederlandse probleemwijken. Ruimte En Maatschappij, 1(1), 68-74.
- Hereijgers, A., & van Velzen, E. (2001). De naoorlogse stad: een hedendaagse ontwerpopgave. Rotterdam: Nai.
- Hillier, B. (2012). Studying cities to learn about minds: Some possible implications of space syntax for spatial cognition. Environment and Planning B: Planning and Design, 39(1), 12-32. https://doi.org/10.1068/b34047t
- Jansen, B., & ArEA, B. (2001). Wijkbeschrijving De Paddepoel (1960-1967) (J. Alberts, ed.). Groningen: Gemeente
- Komeily, A., & Srinivasan, R. S. (2015). A need for balanced approach to neighborhood sustainability assessments: A critical review and analysis. Sustainable Cities and Society, 18(18), 32-43. https://doi.org/10.1016/j.scs.2015.05.004
- Koohsari, M. J., Oka, K., Owen, N., & Sugiyama, T. (2019). Natural movement: A space syntax theory linking urban form and function with walking for transport. Health and Place, 58(July 2018), 102072. https://doi.org/10.1016/j.healthplace.2019.01.002

- **Kropf**, K. (2009). Aspects of urban form. *Urban Morphology*, *13*(2), 105–120. https://doi.org/10.1002/9781118747711.ch3
- Kuiper Compagnons. (1993). et beeldkwaliteitplan: instrument voor kwaliteitsbeleid. Zoetemeer: VROM.
- Melia, S., Parkhurst, G., & Barton, H. (2011). The paradox of intensification. *Transport Policy*, 18(1), 46–52. https://doi.org/10.1016/j.tranpol.2010.05.007
- Meta Berghauser Pont, & Per Haupt. (2005). The Spacemate: 55-68.
- **Meta Berghauser Pont**, Stavroulaki, G., Bobkova, E., Gil, J., Marcus, L., Olsson, J., ... Legeby, A. (2019). The spatial distribution and frequency of street, plot and building types across five European cities. *Environment and Planning B: Urban Analytics and City Science*, *46*(7), 1226–1242. https://doi.org/10.1177/2399808319857450
- **Meyer**, H., de Jong, J., Hoekstra, M. J., Harteveld, M., & Cosijn, B. (2006). *Het ontwerp van de openbare ruimte*. Amsterdam: SUN.
- **Nio**, I., Reijndorp, A., & Veldhuis, W. (2008). *Atlas westelijke tuinsteden Amsterdam : de geplande en de geleefde stad*. Haarlem: Trancity.
- **Stevenson**, M., & Gleeson, B. (2019). Complex Urban Systems: Compact Cities, Transport and Health. In M. Nieuwenhuijsen & H. Khreis (Eds.), *Integrating Human Health into Urban and Transport Planning: A Framework* (pp. 267–285). Springer.
- **Talen**, E. (2017). Social science and the planned neighbourhood. *Town Planning Review*, 88(3), 349–372. https://doi.org/10.3828/tpr.2017.22
- van der Heijden, H. (2008). Architectuur in de kapotte stad. Bussum: Thoth.
- **Vries**, S. De, Bakker, I., Overbeek, K. Van, Boer, N. B., & Hopman-Rock, M. (2005). *Kinderen in prioriteitswijken: lichamelijke (in) activiteit en overgewicht*. Leiden: TNO Kwaliteit van Leven.
- Wagenaar, C. (2011). Town planning in the Netherlands since 1800. Rotterdam: Uitgeverij 010.
- **Wee**, B. van. (2019). Land Use Policy, Travel Behavior, and Health. In M. Nieuwenhuijsen & H. Khreis (Eds.), *Integrating Human Health into Urban and Transport Planning: A Framework* (pp. 253–269). Springer.
- **World Health Organization**. (2018). COP24 Special report: Health and Climate Change. In *Who*. Retrieved from https://www.who.int/globalchange/publications/COP24-report-health-climate-change/en/