

Graduation Plan

Master of Science in Architecture, Urbanism & Building Sciences

MSc Landscape Architecture 2023 - 2024

Stef de Horde



Graduation Plan

Submit your Graduation Plan to the Board of Examiners (Examencommissie-BK@tudelft.nl), your mentors and delegate of the Board of Examiners one week before the P2 date at the latest.

| I Personal information | |
|------------------------|---------------|
| Full name | Stef de Horde |
| Student number | 4855833 |

| II Studio / Lab information | | |
|--|---|------------------------|
| Name / Theme | FLOWSCAPES | |
| Main mentor | Nico Tillie | Landscape Architecture |
| Second mentor | Remon Rooij | Urbanism |
| Argumentation of choice of the LA graduation lab | Ecology has fascinated me for some time now so I would like to apply ecological principles to the field of landscape architecture during my graduation. | |

| III Graduation project | |
|---|--|
| Title of the project | Designing for Synergy: A Citizen-Centric Approach to Nature Inclusivity in Pre-War Dutch Working-Class Neighborhoods |
| Context and aim of the project | |
| Location (region / area / site) | Lombok, Utrecht |
| Problem statement | |
| Research question(s) | |
| Design assignment | |
| <p>Problem statement</p> <p>Pre-War working-class neighborhoods (volksbuurten) are a common occurrence in Dutch cities with an industrial history. These neighborhoods are characterized by their cost-effective housing for workers, high density and consequently often lack of urban green. In the face of climate change, this poses challenges to the overall livability of these neighborhoods, underscoring the urgency for a transition towards nature inclusivity.</p> <p>Bottom-up action is essential to facilitate this transition, as citizens possess a deep understanding of their community's needs and directly benefit from the shift towards sustainability. However, living environments with limited access to nature have a negative impact on residents' appreciation for nature, reducing the likelihood of them initiating efforts to enhance nature inclusivity.</p> <p>This highlights the necessity for a transition strategy and vision that can be used to facilitate the transition towards nature inclusivity in pre-war working-class neighborhoods while catalyzing citizen engagement.</p> <p>Research Question</p> <p>The research question therefore is articulated as follows: "What is a potential transition strategy and vision that can be used to facilitate the transformation of public space in Lombok towards nature inclusivity through citizen engagement design?"</p> <p>This project aims to produce a transition strategy and vision for Dutch pre-war working-class neighborhoods with Lombok as a design case through the following subquestions:</p> <ul style="list-style-type: none">• [SQ 1. Research for Design]: How did Lombok evolve throughout the years and what is the current demographic and ecological state of the neighborhood?• [SQ 2. Research about Design]: What design principles can be utilized to ensure ecological quality and catalyze citizen participation in the public space of Lombok?• [SQ 3. Design as Research]: How can these design principles be applied in the specific context of Lombok? | |

Design assignment

Improving and assuring the current and future livability of pre-war working-class neighborhoods by catalyzing the synergy between nature inclusivity and citizen engagement.

IV Graduation process

Method description

Theoretical framework

To explore how to catalyze the synergy between nature inclusivity and citizen engagement in pre-war working class neighborhoods, a theoretical framework is used consisting of the following literature:

Problem statement:

- *Designing radical transitions: a plea for a new governance culture to empower deep transformative change* (Loorbach, 2022)

Theoretical framework for ecological

- *The 3-30-300 Rule for Urban Forestry and Greener Cities* (Konijnendijk, 2021)
- *Urban Ecosystems and Island Biogeography* (Davis & Glick, 2009)

Theoretical framework for citizen engagement

- *How to turn a place around : A Handbook for Creating Successful Public Spaces* (2000)
- *Burgers voor natuur : Hoe burgers bijdragen aan een transitie naar een natuurinclusieve samenleving* (Buijs, 2019)

Methods

Mapping

- Ecological state of the city Utrecht and Lombok
- Demographic and spatial characteristics pre-war working-class neighborhoods in Utrecht

Data collection

- Historic development of Lombok
- Current demographics of Lombok
- Resident surveys about satisfaction of public space in Utrecht
- Sightings of animal species in and around Lombok

Observational techniques

- Assessing the current state of the public space in Lombok
- Stakeholder analysis

Literature review

- Ecological design principles
- Citizen engagement design principles
- Landscape architecture theory
- Other related literature

Design as research

- Ecological and citizen engagement design principles
- Regional and local design vision
- Zoom-in designs

Literature and more applied references

- Admiraal, J., Van Den Born, R., Beringer, A., Bonaiuto, F., Cicero, L., Hiedanpää, J., Knights, P., Knippenberg, L., Molinaro, E., Musters, K., Naukkarinen, O., Polajnar, K., Popa, F., Smrekar, A., Soininen, T., Porras-Gomez, C., Soethe, N., Pol, J. L. V., & De Groot, W. (2017). Motivations for committed nature conservation action in Europe. *Environmental Conservation*, 44(2), 148–157. <https://doi.org/10.1017/s037689291700008x>
- Aalbers, C., & Sehested, K. (2018). Critical Upscaling. How citizens' initiatives can contribute to a transition in governance and quality of urban greenspace. *Urban Forestry & Urban Greening*, 29, 261–275. <https://doi.org/10.1016/j.ufug.2017.12.005>
- Boer, T., & Langers, F. (2017). *Maatschappelijk draagvlak voor natuurbeleid en betrokkenheid bij natuur in 2017*. <https://doi.org/10.18174/428780>
- Buijs, A. (2019b). Burgers voor natuur : Hoe burgers bijdragen aan een transitie naar een natuurinclusieve samenleving. <https://library.wur.nl/WebQuery/wurpubs/558211>
- Buijs, A., Hansen, R., Van Der Jagt, A. P., Ambrose-Oji, B., Elands, B., Rall, E. L., Mattijssen, T., Pauleit, S., Runhaar, H., Olafsson, A. S., & Møller, M. S. (2019). Mosaic Governance for Urban Green Infrastructure: Upscaling active citizenship from a local government perspective. *Urban Forestry & Urban Greening*, 40, 53–62. <https://doi.org/10.1016/j.ufug.2018.06.011>
- Dam, R. (2016). Bonding by doing : The dynamics of self-organizing groups of citizens taking charge of their living environment. <https://doi.org/10.18174/388005>
- Davis, A. M. J., & Glick, T. F. (1978). Urban Ecosystems and island biogeography. *Environmental Conservation*, 5(4), 299–304. <https://doi.org/10.1017/s037689290000638x>
- Development of an urban Green space Indicator and the public health rationale on JSTOR. (z.d.-b). www.jstor.org. https://www.jstor.org/stable/48512637?seq=1#metadata_info_tab_contents
- Ecology, R. I. (2019, 12 april). Is the equilibrium theory of island biogeography still useful in conservation today? 3Rs of Ecology. <https://biol420eres525.wordpress.com/2019/04/12/is-the-equilibrium-theory-of-island-biogeography-still-useful-in-conservation-today/#:~:text=Although%20not%20all%20the%20principles,implications%20for%20conservation%20work%20today.>
- Geels, F. W., & Schot, J. J. (2007). Typology of sociotechnical transition pathways. *Research Policy*, 36(3), 399–417. <https://doi.org/10.1016/j.respol.2007.01.003>
- Gómez-Baggethun, E., Gren, Å., Barton, D. N., Langemeyer, J., McPhearson, T., O'Farrell, P. J., Andersson, E., Hamstead, Z. A., & Kremer, P. (2013). Urban Ecosystem Services. In Springer eBooks (pp. 175–251). https://doi.org/10.1007/978-94-007-7088-1_11
- Loorbach, D. (2022). Designing Radical Transitions: a plea for a new governance culture to empower deep transformative change. *City, Territory and Architecture*, 9(1). <https://doi.org/10.1186/s40410-022-00176-z>
- Mattijssen, T., Buijs, A., Elands, B., & Arts, B. (2017). The 'green' and 'self' in Green Self-governance – A study of 264 green space initiatives by citizens. *Journal of Environmental Policy & Planning*, 20(1), 96–113. <https://doi.org/10.1080/1523908x.2017.1322945>
- Ministerie van Algemene Zaken. (2019, 13 november). Vertrouwen in burgers. Rapport | WRR. <https://www.wrr.nl/publicaties/rapporten/2012/05/22/vertrouwen-in-burgers>
- Остром, Э. (2009). A General Framework for Analyzing Sustainability of Social-Ecological Systems. *Science*, 325(5939), 419–422. <https://doi.org/10.1126/science.1172133>
- Soga, M., & Gaston, K. J. (2016). Extinction of experience: the loss of human–nature interactions. *Frontiers in Ecology and the Environment*, 14(2), 94–101. <https://doi.org/10.1002/fee.1225>
- Spaces, P. F. P. (2000). How to turn a place around: A Handbook for Creating Successful Public Spaces. Project for Public Spaces (PPS).
- Vrieling, M. O. (2011). Ondersteuning in Vieren: zichtlijnen in het faciliteren van burgerinitiatieven in de buurt. University of Twente Research Information. <https://research.utwente.nl/en/publications/ondersteuning-in-vieren-zichtlijnen-in-het-faciliteren-van-burger>

Vullings, L., Buijs, A., Donders, J., Kamphorst, D., Kramer, H., & De Vries, S. (2018). Monitoring van groene burgerinitiatieven : analyse van de resultaten van een pilot en nulmeting in vier gemeenten. <https://doi.org/10.18174/460755>

Wimmer, C. A., & Swaffield, S. (2003). Theory in Landscape Architecture: A Reader. *Garden History; Journal of the Garden History Society*, 31(1), 117. <https://doi.org/10.2307/1587416>

V Reflection on the project proposal

1. What is the relation between your graduation topic, the lab topic, and your master track?

My thesis revolves around the concept of Urban Ecology, specifically examining the shift towards nature-inclusive cities and the ecological principles underpinning this inclusivity. The project delves into site-specific spatial designs, emphasizing a comprehensive understanding and integration of all landscape layers. Ultimately, the research aims to serve as a guide for bottom-up development of pre-war neighbourhoods, aligning it with the objectives of the master's program.

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

In the Dutch urban environment, there is an urgent need to transition towards nature inclusive cities with the support of inhabitants, especially in the many pre-war working-class neighborhoods (volksbuurten). Because of this, and the rapidly increasing body of research on climate change, ecology and citizen engagement, there is value in bringing these fields together in one graduation work.