

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	Madelief Dekker
Student number	4697367

Studio		
Name / Theme	Flowscales: Urban Forest Places	
Main mentor	Saskia de Wit	Landscape Architecture
Second mentor	Suzana Milinovic	Urbanism
Argumentation of choice of the studio	It intrigues me that every tree has different spatial qualities and can thus create different spaces and that even every specimen can be different according to its growing conditions. I'm also interested in finding ways to bring back the landscape elements from the surrounding landscape into the city and combine their cultural value (since the ways trees are used within a landscape are part of the cultural landscape as well) with the spaces they can create. And lastly and maybe most importantly, I want to create a design that focusses on how you would experience it with all your senses and how this can influence the way you feel in the landscape.	

Graduation project	
Title of the graduation project	Title: Nature was never far away Subtitle: An exploration on how the landscape architectural design of an urban forest in the Hague can help reconnect people and nature in their daily life.
Goal	
Location:	The Hague, the Netherlands
The posed problem,	There is a mismatch between how we live and how the natural world around us works. The widespread and normalized embrace of prosperity, consumption, waste and the continuous human expansion leads to an unsustainable way of living (Pyle, 2013) since the natural world works in a different, more cyclical way and we're disturbing the natural processes with our way of living. This mismatch results in our disconnected relationship with nature. A lot of people see nature as something far away in an idealistic way, while they see the nature that's close by as

	<p>something dirty or annoying, such as dirt under their shoes and bugs in their home. If people keep seeing nature as a destination and not as something that's close by the disconnect between people and nature is maintained (Church, 2018). The notion that real nature should be untouched by humans (Turner, 1996) should become less prominent because it leads to unrealistic expectations of nature and fuels the belief that real nature is separate from daily life, which creates the feeling that caring for nature is not people's responsibility or within their power (Clayton et. al., 2017). So, a new definition of nature is needed to change how people see nature.</p> <p>The reconnection of people and nature is important to increase support to start tackling climate change issues, because human behaviour is the biggest cause of global climate change but it's also the only thing that can respond and adapt to it (Clayton et. al., 2015). This reconnection could be seen as a huge opportunity to help tackle climate problems since nature connectedness can motivate environmentally sustainable behaviour (Han & Hyun, 2016) (Zelenski et al., 2015) (Klanciecki et al., 2018), help engage with sustainability issues (Nisbet & Zelenski, 2011) and drive public concern for sustainability (de Burgh-Woodman & King, 2012). So, it's definitely worth it to look further into increasing the people nature connection.</p> <p>The disconnect with nature is also seen in urban areas such as the Hague, where most of the daily living environment consists of brick and stones and people run around all day to get to their destinations in time. The creation of urban forests in these areas could be seen as an opportunity for a landscape architectural approach to reconnect people with nature in the Hague.</p>
	<p>How can the landscape architectural design of an urban forest in the Hague help reconnect people and nature in their daily life and create conditions to increase their environmental sensitivity?</p> <p>The chosen area in the Hague that will be looked at will be determined using a narrative of a fictional character that lives in the Hague. By following one character in her daily life a clear framework can be created that describes someone's actions and how these relate to their landscape. Though the focus is on one person, the method and the findings can in the end be used in other situations as well. The narrative will give focus and guidance to the sub questions.</p>

	<p>Sub questions:</p> <ul style="list-style-type: none"> - What is an urban forest and how can it be used in the Hague? Because to be able to design with an urban forest it should first be researched what an urban forest is or how it could be used. - How can nature be defined? Because when you are integrating natural systems into the built environment to increase nature connectedness (Church, 2018) it should first be defined what is seen as nature. - How can nature be appreciated? - How can we experience nature? Because opportunities to engage with nature actively and passively (Church, 2018) will increase nature connectedness it is important to know how nature can be experienced. - What does someone's daily living environment look like in the Hague, how do they interact with it, what are its sensorial aspects and how can you alter it? This is a more general question that will first gain knowledge about how the daily living environment is defined and approached in this and other projects and secondly it will zoom in on the location in the Hague. - How can a landscape architectural design help reconnect someone to nature in the Hague? What characterizes possible relations with nature in the Hague? This is a more detailed question that zooms in into a specific spot in the Hague as a design location and builds on a fictional narrative to create a method that can be used in other locations as well. The knowledge that was gained in earlier questions will be used to create this landscape architectural design and this will fuel the research of the other questions as well which makes it a cyclical process.
design assignment in which these result.	<p>The aim is to make a design for an Urban Forest system in the Hague that will increase the environmental sensitivity of its inhabitants and visitors by creating opportunities for nature experiences in their daily life. The hypothesis is that these opportunities should exist of different aspects, such as places someone interacts with daily, the routes someone follows and the destinations someone goes to. This should result in three designs focused on different kind of activities:</p> <ol style="list-style-type: none"> 1. Everyday errands: These take place on the neighbourhood scale and will be in walking distance (800 m) from the fictional characters home 2. Routine travels: These take place in multiple districts and will be within biking distance (3,5 km) from the fictional characters home

	<p>3. Irregular outings: These take place on the city and landscape scale</p> <p>The three designs will all consist of a design intervention with a focus on the eye level experience of a route.</p> <p>To show how the designs work together as a network a schematic overview will be made.</p>
Process	
Method description	
<p>Getting more theoretic information via literature studies of the following topics:</p> <ul style="list-style-type: none"> - Nature Conservation psychology - Definitions of (urban) nature - The experience of the sublime and how it connects with wilderness and nature - Nature connectedness - The Pigeon paradox and how it could influence the way we look at urban nature - Nature experiences - The different levels of engagement that people can have with their daily living environment <p>Looking at how others have put theories into practice via precedent studies, that focus on:</p> <ul style="list-style-type: none"> - Urban forests - Nature connectedness: Butterfly kaleidoscope - Sensorial experiences: <ul style="list-style-type: none"> o Bamboo garden o Moses bridge o Wasserkrater der Aqua Magica o Zalige brug - The daily living environment: Westelijke tuinsteden <p>More precedents will follow from the literature research.</p> <p>Getting more information of the location of the research by design via a site analysis of the Hague for the following topics:</p> <ul style="list-style-type: none"> - Atlas urban forest <ul style="list-style-type: none"> o Mapping the existing urban forest of the central part of the Hague using maps of the tree canopies o Dividing the urban forest into typologies o Field work: observing and inventorizing what the senses pick up and analysing the visual aspects by drawing perspective sequences (more research must be done to determine how the things you smell, feel and hear can be analysed) to find their problems and opportunities - Research of the daily life of a fictional character <ul style="list-style-type: none"> o Mapping the area that corresponds with the three activity types o Field work: observing and inventorizing what the senses pick up and analysing the visual aspects by drawing perspective sequences (more 	

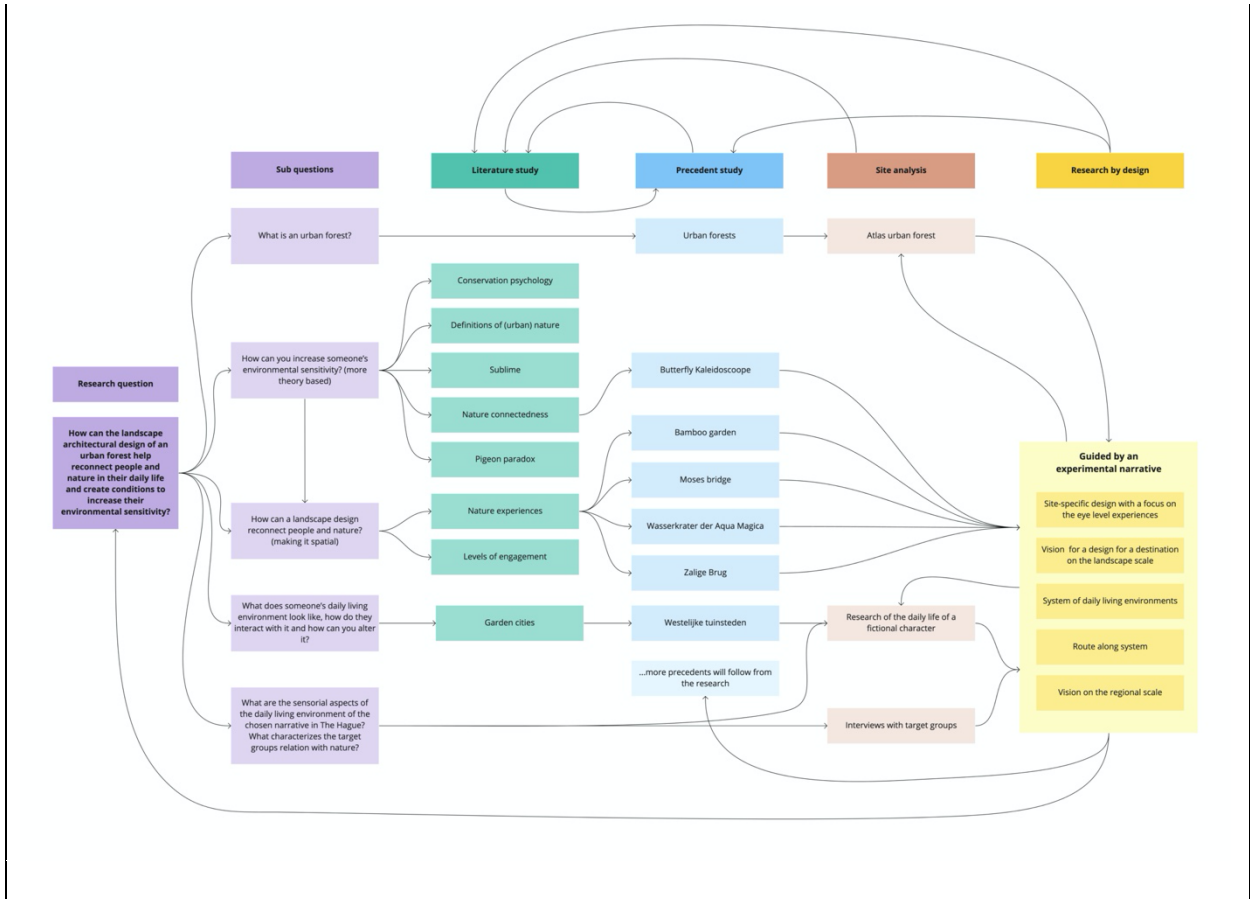
research must be done to determine how the things you smell, feel and hear can be analysed)

- Drawing conclusions to see where problems and opportunities appear in the existing situation
- Interviews with target groups
 - Open interviews to expand the view on how people see nature and how they experience nature in their daily life
 - The target group consist of people with a variety of interests in nature and sustainable living to get information on different views on the topic
 - Two options for approaching the target group: sending a digital survey and/or talking to people in the street
 - Contacting 'Duurzaam Den Haag' to see if they can help with getting in touch with the target group, the exact questions, the form and the analysis of the interview will be determined after this

The found information will be tested in research by design in the Hague. This research will be guided by the experimental narrative of the fictional character that is created to get a better understanding on how the design could work on a personal level. This will result in:

- Three designs that are focused on different kind of activities:
 - Everyday errands
 - Routine travels
 - Irregular outings
- These designs will consist of a design intervention with a focus on the eye level experience of a route
 - Methods and techniques: mapping, creating plans, sections, details, eye level perspectives, Cullen's serial visions, collages/montages, experiments with experiencing a route on paper
- To show how the designs work together as a network a schematic overview will be made
 - Methods and techniques: making diagrams/schemes

Every aspect of the research will influence each other which will not make it a linear but a cyclical process.



Literature and general practical preference

Environmental sensitivity:

1. Chawla, L. (1998). Significant Life Experiences Revisited: A Review of Research on Sources of Environmental Sensitivity. *The Journal of Environmental Education*, 29(3), 11–21. <https://doi.org/10.1080/00958969809599114>
2. Chawla, L. (1999). Life Paths Into Effective Environmental Action. *The Journal of Environmental Education*, 31(1), 15–26. <https://doi.org/10.1080/00958969909598628>

Nature connectedness:

3. Church, S. P. (2018). From street trees to natural areas: retrofitting cities for human connectedness to nature. *Journal of Environmental Planning and Management*, 61(5–6), 878–903. <https://doi.org/10.1080/09640568.2018.1428182>
4. Clayton, S., Colléony, A., Conversy, P., Maclouf, E., Martin, L., Torres, A. C., Truong, M. X., & Prévot, A. C. (2017). Transformation of Experience: Toward a New Relationship with Nature. *Conservation Letters*, 10(5), 645–651. <https://doi.org/10.1111/conl.12337>
5. de Burgh-Woodman, H., & King, D. (2012). Sustainability and the human/nature connection: a critical discourse analysis of being “symbolically” sustainable. *Consumption Markets & Culture*, 16(2), 145–168. <https://doi.org/10.1080/10253866.2012.662834>
6. Ives, C. D., Giusti, M., Fischer, J., Abson, D. J., Klaniecki, K., Dorninger, C., Laudan, J., Barthel, S., Abernethy, P., Martín-López, B., Raymond, C. M., Kendal, D., & von Wehrden, H. (2017). Human–nature connection: a multidisciplinary review. *Current Opinion in Environmental Sustainability*, 26–27, 106–113. <https://doi.org/10.1016/j.cosust.2017.05.005>
7. Klaniecki, K., Leventon, J., & Abson, D. J. (2018). Human–nature connectedness as a ‘treatment’ for pro-environmental behavior: making the case for spatial considerations. *Sustainability Science*, 13(5), 1375–1388. <https://doi.org/10.1007/s11625-018-0578-x>
8. Lumber, R., Richardson, M., & Sheffield, D. (2017). Beyond knowing nature: Contact, emotion, compassion, meaning, and beauty are pathways to nature connection. *PLOS ONE*, 12(5), e0177186. <https://doi.org/10.1371/journal.pone.0177186>
9. McEwan, K., Ferguson, F. J., Richardson, M., & Cameron, R. (2020). The good things in urban nature: A thematic framework for optimising urban planning for nature connectedness. *Landscape and Urban Planning*, 194, 103687. <https://doi.org/10.1016/j.landurbplan.2019.103687>
10. Richardson, M., Hallam, J., & Lumber, R. (2015). One Thousand Good Things in Nature: Aspects of Nearby Nature Associated with Improved Connection to Nature. *Environmental Values*, 24(5), 603–619. <https://doi.org/10.3197/096327115x14384223590131>
11. Tong, X., & Wu, Z. (2020). An IoT-based Sharing Plant Factory System for Nature Connectedness Improvement in Built Environment. *Sustainability*, 12(10), 3965. <https://doi.org/10.3390/su12103965>

Nature experiences:

12. Franco, L. S., Shanahan, D. F., & Fuller, R. A. (2017). A Review of the Benefits of Nature Experiences: More Than Meets the Eye. *International Journal of Environmental Research and Public Health*, 14(8), 864.
<https://doi.org/10.3390/ijerph14080864>

Conservation psychology:

13. Clayton, S. (2019). Psychology and climate change. *Current Biology*, 29(19), R992–R995. <https://doi.org/10.1016/j.cub.2019.07.017>
14. Clayton, S., & Brook, A. (2005). Can Psychology Help Save the World? A Model for Conservation Psychology. *Analyses of Social Issues and Public Policy*, 5(1), 87–102. <https://doi.org/10.1111/j.1530-2415.2005.00057.x>
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<https://doi.org/10.1038/nclimate2622>
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<https://doi.org/10.1080/09669582.2016.1259318>
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20. Rudman, L. A., McLean, M. C., & Bunzl, M. (2013). When Truth Is Personally Inconvenient, Attitudes Change. *Psychological Science*, 24(11), 2290–2296.
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<https://doi.org/10.1177/0963662506073088>
24. Zelenski, J. M., Dopko, R. L., & Capaldi, C. A. (2015). Cooperation is in our nature: Nature exposure may promote cooperative and environmentally

sustainable behavior. *Journal of Environmental Psychology*, 42, 24–31.
<https://doi.org/10.1016/j.jenvp.2015.01.005>

Precedents:

1. Urban forests
2. Butterfly kaleidoscope
3. Bamboo garden
4. Moses bridge
5. Wasserkrater der Aqua Magica
6. Zalige brug
7. Westelijke tuinsteden

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 graduation project relates to our studio topic of flowscapes since the relation between nature and humans can be seen as one of the flows of a landscape. It also relates to our lab topic (Urban Forest Places) because I'm going research how you can use the urban forest to reconnect people and nature. It relates to the master track of LA because the four lenses that are prominent in our master track (palimpsest, scale continuum, process and perception) will be extensively used with a focus on the one of perception. This will all relate to the master programme (Msc AUBS) because it will result in a design for the urban environment.

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

The graduation work will be relevant for the larger social framework because if we find a way to connect to nature again in our daily lives it will become much easier for people to act in a pro environmental way which will help us all in fighting the current climate problems. And since human population is shifting to urban areas, urban nature will be the most important tool to connect people to nature in their daily lives (Dunn et. al, 2003)

It is relevant for the professional framework because it could come up with practical tools to increase the opportunities for a nature human connection in urban designs which could be used in day-to-day landscape architectural practice as well. And since landscape architecture influences the daily living environment it's a big opportunity to use the discipline as a tool to reach a great audience for the people nature connection.

And lastly it's relevant for the scientific framework because even though there's a lot to be found about increasing a nature human connection in other disciplines, the association with landscape architecture is rarely made. Since there's not a lot to find about how you can make this nature connection spatial or landscape architectural, my graduation work can be a beginning of that.

