Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences

Graduation Plan: landscape architecture

Submit your Graduation Plan to the Board of, Mentors and Delegate of the Board of Examinersone week before P2 at the latest.

The graduation plan consists of at least the following data/segments:

Personal information	
Name	Floris van Calmthout
Student number	4607635

Studio		
Name / Theme	Urban Forest Places / Urban forestry	
Main mentor	Saskia de Wit	Garden design, place theory, site-specificity, phenomenology, narrative design, motion
Second mentor	Machiel van Dorst	Environmental psychology
Argumentation of choice of the studio	Interest in the atmospherical, non-technical, location specific, reflected in themes as sensorial experience, narratives, and site-scale design. Besides, the context of the urban realm and focus on the spatiality of the urban forest are themes of interest. Furthermore, there seems to be space to deepen your knowledge on environmental psychology.	

Graduation project	
Title of the graduation project	**Restorative Ruins:** How can the landscape architectural components of the brownfield-urban forest bring forward restorative qualities for human nature?
Goal	
Location:	'Concrete Forest', Binckhorst, The Hague.
The posed problem/opportunity,	Brownfields: Brownfields could bring forward unique benefits to the urban environment: e.g., offer unique atmospheric experiences, be identity shaping, be humbling, stimulate new ways of thinking e.g., through time (Bower, 1995; Cerutti; 2011; Coeterier, 1995; Driessen, 2011; Hermans, 2012; Minkjan, 2019). However, brownfields are hard to define/value because the passage of time plays an important role in whether they are seen as valuable or not (Thompson, 1979: *Rubbish Theory*). Furthermore, they

donot offer a direct infrastructural/financial value (Minkjan, 2019). Therefore, their position in urban (re)development could be undervalued.

Binckhorst:

Binckhorst possesses a brownfield area that connects to this definition: the 'Concrete Forest'. The 'forest' is formed by the abandoned asphalt-plant and soon to be relocated concrete-plant. Characterized by industrial cranes, a rich composition of concrete walls, towering steel structures and connected through the harborside. Although this structure is unique in the context of the Hague, it could be seen as rubbish/dirty (Thompson, 1979), because its original function caused quite some nuisance and (perceived) pollution, till less than a year ago. Groups as 'De HaagseStadspartij'are against its demolition, however, plans for new developments have been confirmed.

Urbanization, Urban Forestry:

A trend is captured: in the Netherlands, human-nature is migrating to cities (CBS, 2022; WUR, n.d.). Talking about nature, flora/fauna does not prefer the open/monotonous agricultural lands of the Netherlands, but rather chooses the rich environment of the city. Wageningen University (n.d.) notes urban forestry as a vital component of why biodiversity is higher in cities. Similairly, these urban forests attract humans living/working in the city. Urban forests provide restorative qualities, by stimulating effortless (voluntary) attention (Kaplan & Kaplan, 1989): a change in climate, escaping the heat of the city, a shade pattern, the sound of leaves moving in the wind: conditions that can contribute to a state of reflection and therefore the recharge of our cognitive batteries (Kaplan & Kaplan, 1989).Cities, however, are often not built with restorativity in mind (Roe &McCay, 2021), rather led by financial or infrastructural thinking (Minkjan, 2019).Urban environments can be filled with hard fascinations/voluntary attention: tasks that require direct attention (Kaplan & Kaplan, 1989): crossing a busy street: certain danger of getting hit, crowds we need to navigate through, noise. They drain our attention battery. You may

	ask, why is direct attention that important? Well, when fatigued it can lead to a disfunctioning of cognitive functions asselection, thinking, feeling etc., which are at the core of human functioning (Kaplan, 1995). Binckhorst: The Hague is the most densely populated city of the Netherlands with 6700 residents per km2 (CBS, 2022). In the Binckhorst, this trend of urbanization is reflected in the plans of PosadMaxwan (n.d), showing how industry is making place for 5000+ new dwellings and 5000 new workplaces. Besides, as of right now there is hardly urban forestry in the Binckhorst. Furthermore, the plans of PosadMaxwan (n.d.) do not reflect clear decisions on urban forestry. Questions: - How could brownfields be valued to their potential? - With space becoming scarcer and more and more 'species' living in the same environment, could there be an enhanced type of urban forestry (in the realm of restorative environments)?
research questions and	How can the landscape architectural components of the brownfield-urban forest bring forward restorative qualities for human nature? 0. Evolutionary, which (natural) environments appeal to humans? 1. How could the landscape architectural components of urban forests bring forward restorative qualities for humans? 2. How could the landscape architectural components of brownfield-urban forests bring forward restorative qualities for humans? 3. How could the landscape architectural components of urban forests bring forward restorative qualities for nature?

	4. How could the landscape architectural components of <u>brownfield-urban forests</u> bring forward restorative qualities for <u>nature?</u> 5. How could the landscape architectural components of <u>brownfield-urban forests</u> bring forward restorative qualities for <u>human-nature?</u> 6. How could the landscape architectural components of <u>the 'Concrete Forest'</u> bring forward restorative qualities for <u>human-nature in the context of The Hague?</u>
design assignment in which these result.	The aim of the design is to: - Bring forward a *design-guide*, containing landscape architectural elements that bring forward restorative qualities for human-nature in het context of brownfield-urban forests. - Bring forward a specific site design, using this guide, in the context of the 'Concrete Forest' in the Binckhorst, The Hague. Ellobariting how this plot could bring forward restorative qualities for the citizens of The Hague: human-nature. Who are specified by the area they live/work in (4 scales); perceived space, block, neighborhood, city.

Process

Method description

The methodology which is used positions site specificity at is core. At first, precedents are analyzed on their restorative qualities. To examine which landscape architectural elements, bring forward restorative qualities for humans, the subject theory: Attention Restoration Theory (ART) of Kaplan & Kaplan (1989) is positioned in the context of Paley Park & J.P. Thijssepark (urban forest) and Landschaftspark Duisburg-Nord (brownfield-urban forest) by using specific literature, landscape architectural analysis and site visits (if possible). In this way, landscape architectural elements are conducted, and differentiation can be made between the restorative qualities of the 'normal' urban forest and the brownfield-urban forest.

Similarly, to examine which landscape architectural elements bring forward restorative qualities for nature, J.P. Thijssepark and Landschaftspark Duisburg-Nord are examined. However, because nature (ecology) is such a vast term, the framework will be formed

through the results of the precedent analysis, which will analyzed through specific literature, landscape architectural analysis and site visits. In this way, landscape architectural elements are conducted, and differentiation can be made between the restorative qualities of the 'normal' urban forest and the brownfield-urban forest.

Reflecting on these finding, the results will be merged in a design-guide for restorative qualities, combining the needs of humans and nature. Containing a 'general' characteristic definition, further specified into 3 themes/perspectives: *water, brownfield & urban forests.* Framed in the landscape architectural framework, defined by the 4 scales (perceived space, block, neighborhoud and city), the compositional perspective and sensorial perspective.

This guide will be used to analyze and design in the 'Concrete Forest' in the Binckhorst. The methodology is an ongoing loop, in which the results of the analysis and design will be used to further develop the design-guide. For example, by here analyzing *brownfield*as an isolated theme (no forest yet). But also in the wider context than this thesis: it could be used by others and reshaped as a consequence of new/deviating findings.

However, the methodology/process is not as linear as described above. A methodology is used which could be described as the 'turning tables-method' as created by UF-lab mentor Rene van der Velde, inspired by Van Dooren (2013). It consists of 5 different tables; Analysis, Guiding theme (literature review, theory), Precedents, Experiments and Landscape architectural-design, of which at least 2should be 'spinning' at the same time. Moreover, looking at it from a slightly different perspective: to keep them all spinning, these different perspectives should not be segregated but each element should be touched multiple times throughout the thesis project, to prevent the static approach of finishing analysis to start the design and/or stagnation.

For example, in the process of precedent analysis, experiments will be executed. For example, the theory of *Beauty Redeemed* by Braae (2015) will be used to experiment with the act of transforming brownfields to a new function, by making physical models. This will also inform the site understanding (smaller scale), as physically visiting the site in this time is not yet possible.

Literature and general practical preference

- Ackerman, 2018. https://positivepsychology.com/attention-restoration-theory/
- Appleton, R. (1975) – 'Prospect-Refugee'
- Arkesteijn, 2022
- BAM (2020) - https://www.bam.com/nl/pers/persberichten/2020/11/bam-beeindigt-asfaltproductie-op-binckhorst-voor-woningbouwplannen
- Beck, T. (2012), Principles of Ecological Landscape Design.
- Benedito, S. (2020) – AtmosphereAnatomies
- Bobbink, De Wit; 4 perspectives of LA.
- CBS, 2022 - https://www.cbs.nl/nl-nl/dossier/dossier-verstedelijking/wat-is-verstedelijking-
- Cerutti, V. (2011) - Creatieve fabrieken, Waardecreatie met herbestemming van in-dustrieel erfgoed
- Coeterier, J. (1995) - De beleving van cultuurhistorische objecten
- Braae, E. (2015) - Beauty Redeemned
- De Sousa, C.A. (2003) -Turning brownfields into green space in the City of Toronto
- De Wit, S. (2018) – Hidden Landscapes
- Driessen, V. (2011) - Karakteristieken van een lege huls
- Fischer (2008) – Ontology/Hauntology
- Gibson (..) – Sensorial analysis.
- (Groenjournalistiek, 2015)
- Hartig, T. (2004) - Restorative environments
- Hermans, A. (2012) - Tijdelijkheid voor de eeuwigheid
- Historic Environment Scotland, n.d.) https://www.historicenvironment.scot/archives-and-research/online-exhibitions/the-photography-of-erskine-beveridge/ruins/
- Hofmann 2010 – (ecology; electives)
- Hunter (2014), Brown is the new green.
- Iqbal, 2022 https://www.mdpi.com/2071-1050/14/10/5797/htm
- Kaplan, R.& Kaplan, S. (1989) – The Experience of Nature https://psycnet.apa.org/record/1989-98477-000
- Kaplan, S. (1995) - The restorative benefits of nature: Toward an integrative framework
- Keil (2019), Industrial nature and species diversity in the Landscape Park Duis-burg-Nord.
- Latz+Partner (n.d), Landschaftspark Duisburg-Nord
- Lederbogen (2018)
- Lister, N.M. (2007), Sustainable Large Parks, Ecological Design or Designedly Ecol-ogy

- Minkjan, (2019), https://failedarchitecture.com/maybe-modern-ruins-are-just-the-kind-of-failure-we-need/
- Morin, 2014 https://link.springer.com/referenceworkentry/10.1007/978-1-4419-0465-2_1919#author-information
- (Municipality of Amstelveen, n.d.)
- Nassauer, 1995 – Cues to Care.
- Omroep West (2020) https://www.youtube.com/watch?v=0xtKalDs2JU
- Oskam, P. (2018) – Landscape Interventions for Embracing New Wilderness.
- Posadmaxwan, (n.d) https://posadmaxwan.nl/projects/binckhorst/#project-5/Binckhorst,-The-Hague
- Pötz (2016), Landschaftspark Duisburg-Nord
- Roe, J.&McCay, L. (2021) - Restorative Cities
- Rosenberg (2009), Gardens, Landscape, Nature: Duisburg-Nord, Germany.
- Rybczysnki (2011)
https://www.bol.com/nl/nl/p/biography-of-a-building/1001004011313354/
- SER(2004)https://www.ser-rrc.org/resource/the-ser-international-primer-on/
- Schubert (2018), TweedeNatuur.
- Stoetzer (2018), Ruderal Ecologies: Rethinking Nature, Migration, and the Urban Landscape in Berlin
- Stricker (2020), Industrial Decay: Environmental Value of Industrial Heritage Sites.
- Sui (n.d), The Impact of Contamination on Redeveloping Brownfield into Urban Open Space
- Tabak, n.d - Thijssepark
- Thompson (1979) – Rubbish Theory
- Tuan, Y. (1990) – Topophilia
- TU Delft, 2020 – Binckhorst palimpsest.
- Urban Forest Fellowship (2021)? – spatial configurations
- US EPA (1997): definition brownfields
- Van Dale, 1980
- Van der Velde, R. (2018) -Transformation in Composition
- Whyte, (1980) , social life of small urban spaces.
- Wöhrle&Wöhrle (2008), Designing with plants
- Wright & Stickley, 2013
- WUR, n.d.(a)https://edepot.wur.nl/460542
- WUR, n.d.(b) (electives ecology)