

# 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](mailto: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	Huiying Liu
Student number	4944771
Telephone number	
Private e-mail address	

Studio		
Name / Theme	Garden of Gelderland	
Main mentor	Steffen Nijhuis	Landscape Architecture
Second mentor	Hielkje Zijlstra	Architecture Heritage & Design
Argumentation of choice of the studio	The subject of heritage landscape has great appeal to me, and there's an interesting relationship between estate landscape and surrounding rural/city life.	

Graduation project	
Title of the graduation project	<b>Integrated 'Buttons' Network</b> -- Nodal Landscape Reconnecting Baakse Beek Brook Eco-system & Recreational Landscape System
Goal	
Location:	Baakse Beek region, Gelderland, Netherlands
The posed problem,	<ol style="list-style-type: none"> <li>1. Unhealthy brook eco-system: Seasonal water issues, pollution (Eutrophication)...</li> <li>2. Poor recreational quality: Poor Interaction with some of the Heritage, inaccessibility to the Estate Landscape, landscape Space Levelling out...</li> <li>3. Blocked spatial transformation: Space separation or even fragmentation caused by climate change, private ownership of estate region landscape...</li> </ol>
research questions and	<ol style="list-style-type: none"> <li>1. How to use estate landscape as a link to restore the complex connective relationship between brook eco-system and recreational system?</li> <li>2. What are brook eco-system, recreational system and estate landscape like exactly?</li> <li>3. What are the spatial principles to combine the three systems?</li> <li>4. How can the strategies &amp; principles be applied in the Baakse Beek region?</li> </ol>
design assignment in	<ol style="list-style-type: none"> <li>1. Prevent surrounding from Flooding &amp; Drought</li> <li>2. Purify the Water and Balance the Nutrient for creature around living</li> </ol>

which these result.	<ol style="list-style-type: none"> <li>3. Strengthen Engagement between human and heritage</li> <li>4. Make up New Connection among Heritage</li> <li>5. Enhance Spatial Diversity</li> <li>6. Integrate spatial relation coherent</li> <li>7. Identify strategies for ecological development, and create regional and local plans, principles, dialogues and sections</li> <li>8. Explore principles for recreational enhancement, and come up with local plan and perspectives</li> <li>9. Test spatial design principles for systems combination, and produce local and detailed plans, sections and perspectives</li> </ol>
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<b>Process</b>
<b>Method description</b>
<ol style="list-style-type: none"> <li>1. Look Estate Landscape as a system: a) Decomposing it in layers; b) Address them on different levels/scales; c) Look into time period</li> <li>2. Regard Brook System &amp; Estate Landscape as two related units that support each other: Interacting them on different layers (Commons, connections, opposites, conflicts...)</li> <li>3. Consider human beings as continuously working elements, with dynamically changing activity routes: Guiding them in order to interact or keep distance with estate and landscape</li> <li>4. Use Indicative Landscape as an integrated functional system: Make it as connection and coherence among different elements with diverse characteristics</li> <li>5. 'Research to design' and 'design to research': a) Summary principles according to research analysis and apply strategies and principles to specific spatial region; b) Conclude reflection of design; c) Go back to first analysis to see if the whole design could fit in the physical area, what have been changed and how practical the design could be</li> </ol>
<b>Literature and general practical preference</b>
<p>Massop, HTL (2019). Historical data and hydrology of the Baakse Beek. <i>Currents: professional journal for hydrologists</i> , 33 (1), 61-74.</p> <p>P.C. Jansen, H.Th.L. Massop, G.J. van den Houten, W.A.J. Klutman en W. Bak (2013) <i>Basisafvoer van de Baakse beek</i>. Alterra Wageningen UR</p> <p>W.C. Knol, H. Kramer, H. Gijsbertse (2004) <i>Historische Grondgebruik Nederland: een landelijke reconstructie van het grondgebruik rond 1900</i>. Alterra-rapport 573</p> <p>Astrid J. A. Van Teeffelen, Claire C. Vos, Rene Jochem, Johannes M. Baveco, Henk Meeuwssen, Jelle P. Hilbers (2015) <i>Is green infrastructure an effective climate adaptation strategy for conserving biodiversity? A case study with the great crested newt</i>. <i>Landscape Ecology</i>, 30(5), 937-954</p> <p><a href="http://www.land-id.nl">www.land-id.nl</a></p> <p><a href="http://gelderland.maps.arcgis.com/apps/webappviewer/index.html?id=2cc6fb09cfc24a8d8a923867ecf57d7c">http://gelderland.maps.arcgis.com/apps/webappviewer/index.html?id=2cc6fb09cfc24a8d8a923867ecf57d7c</a></p> <p><a href="https://www.pdok.nl/viewer/">https://www.pdok.nl/viewer/</a></p> <p><a href="http://www.wrij.nl">www.wrij.nl</a></p>
<b>Reflection</b>
<ol style="list-style-type: none"> <li>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)?</li> </ol>

First of all, my graduation project aims to improve the quality of the ecosystem and entertainment system and restore the relationship between them through estate landscape, which is closely related to the theme of the studio, 'Designing Resilient Heritage Landscapes'. Because in the project, estates will give full play to its historical value, which is an important part of cultural landscape design. At the same time, the studio advocates resilient landscape design, which is an indispensable design trend in my project to solve the problems of flooding and drought.

Then the Heritage Lab, as one graduation studio of LA track, combines different scales and spatial relationships, focusing on solving various problems in the landscape field, including space, ecology, culture and so on. My graduation design is also constantly discussing how to solve the consensus problems of landscape architecture.

In the whole design, in addition to relatively large-scale planning, I also need to consider small scale such as garden design, and even some structural transformation and innovation. This is related to the branch of the master programme.

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

At a larger level, my project explores whether nature can be more resilient to the changing rhythms of human life. From the perspective of social framework, the diversity of human activities is influenced by ecological quality, which could also contribute to the relationship between human beings.

In addition, the 'Heritage' Lab is a part of KaDEr Research Project, which has last for 5 years and would continue 2 years more. The whole project was set up for Gelderland Province and what I'm working on would be directly related to the nature and culture in that region.