

Graduation Plan

Master of Science in Architecture, Urbanism & Building Sciences

MSc Landscape Architecture 2024 - 2025

Yuhong Huang



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	Yuhong Huang
Student number	6021379

II Studio / Lab information

Name / Theme	FLOWSCAPES	
Main mentor	Steffen Nijhuis	Landscape-based urbanism, sustainable urban landscape development, design with natural processes, designed heritage landscapes & gardens, digital landscape architecture, and visual landscape research
Second mentor	Marco Lub	Spatial planning, architecture, urban design, urban ecology
Argumentation of choice of the LA graduation lab	<p>I am excited to join the Designing Landscape-Based Urbanism (D-LBU) graduation lab, as its focus on sustainable urban landscape planning aligns with my thesis on designing a regional landscape park in Gelderland. The lab's emphasis on systemic thinking, regional design, and resilience directly supports my goal of integrating urbanization with ecological and geological processes.</p> <p>Inspired by the lab's transformative projects, such as metropolitan Rotterdam, I aim to apply similar approaches while engaging with local communities in Gelderland to create inclusive and meaningful designs. The D-LBU lab offers the ideal platform to develop innovative, sustainable solutions for contemporary landscape challenges.</p>	

III Graduation project

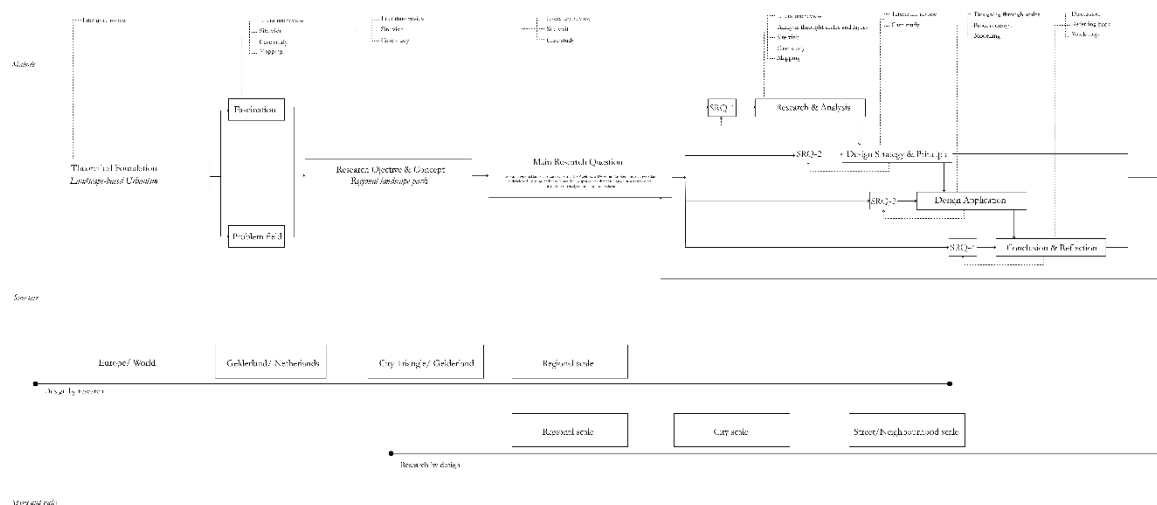
Title of the project	Towards "park-cities": Developing regional landscape park in Gelderland
Context and aim of the project	

Location (region / area / site)	Apeldoorn-Deventer-Zutphen area, Gelderland, the Netherlands
Problem statement	<p>As a landscape architect, I am inspired by the vision of cities rooted within their natural landscapes (Marot, 1999), where people and nature to coexist harmoniously. However, achieving this balance in reality is far more complex.</p> <p>In recent decades, urbanization in the Netherlands has intensified, leading to fragmented landscapes where farmland, heritage sites, and residential and industrial areas are isolated from one another. This fragmentation has caused cities to lose their identity. The fragmentation has compromised vital ecological networks, resulting in a decline in biodiversity, reduced forest cover and a decrease in the variety and amount of flora and fauna. At the same time, the rising demand for housing further pressures natural landscapes, as expanding residential areas often overlook the importance of interconnected green-blue networks that enhance urban livability. Accessibility, quality of life, and sustainable urban growth are growing concerns.</p> <p>Urban planning practices often focus on adding functional zones into the cities and parks and green spaces are commonly used as bargaining chips to compensate the impact of urban expansion (Corner, 2007). In contrast, landscape-based urbanism offers a valuable alternative (Nijhuis, 2022). This approach prioritizes natural landscapes and ecosystems as foundational elements in urban and regional planning, aiming to protect natural resources while guiding sustainable urban growth. A regional landscape park exemplifies this approach, serving as a strategy to integrate ecological preservation while guiding urban development.</p> <p>The Gelderland region—specifically, the Apeldoorn-Deventer-Zutphen area—presents an ideal opportunity to establish a regional landscape park. This project would integrate urbanization with landscape preservation, promoting biodiversity and cultural identity while offering a replicable model for sustainable development that can inspire similar regions throughout the Netherlands.</p>
Research question(s)	<p>How can a regional landscape park system in the Apeldoorn-Deventer-Zutphen area of Gelderland be developed using landscape-based design approaches to guide urban expansion while integrating ecological, cultural, and local values?</p> <p>To answer this question, the following sub-questions need to be addressed:</p>

	<ul style="list-style-type: none"> - What are the key ecological, cultural, and urban characteristics, as well as the challenges and opportunities, for developing a regional landscape park? - What design principles and strategies can be developed to incorporate ecological, cultural, and local values into a unified landscape framework for the park? - How can the design of the regional landscape park be applied at multiple scales (regional, city, and local) to address both ecological and urban development needs? - How feasible and relevant is the proposed design for a regional landscape park, and what lessons can be learned for similar projects in other regions of the Netherlands?
Design assignment	<p>A My design assignment focuses on creating a regional landscape park in the Apeldoorn-Deventer-Zutphen area of Gelderland, aiming to guide urban expansion while integrating ecological, cultural, and local values. At the regional scale, the project envisions a cohesive landscape park system that enhances connectivity and resilience across the region. At the local scale, it develops a design plan and process for specific sections, addressing the unique characteristics and needs of each area. Finally, through detailed design, the project explores tangible interventions that reflect the park's vision, demonstrating how regional strategies can translate into meaningful local outcomes.</p>

IV Graduation process

Method description



To establish a regional landscape park in the Apeldoorn-Deventer-Zutphen area, my methodology follows a structured framework guided

by one main research question and supported by sub-research questions (SRQs). Each stage incorporates specific methods to ensure a systematic and context-sensitive approach, integrating design by research and research by design across multiple spatial scales.

Theoretical Foundation

Methods: Literature review.

This stage builds the foundation by exploring theories of landscape-based urbanism, identifying the concept of a regional landscape park, and its applicability to the Apeldoorn-Deventer-Zutphen area.

Concept & Research Objective

Methods: Literature review.

This phase focuses on defining the main concept of the regional landscape park and formulating clear research objectives. It sets the direction for how the park can guide urban expansion while integrating ecological, cultural, and local values.

Main research Question

How can a regional landscape park in the Apeldoorn-Deventer-Zutphen area serve as a sustainable framework for guiding urban expansion, while integrating ecological, cultural, and local values?

Understanding & Analysis (SRQ-1):

What are the key ecological, cultural, and urban characteristics of the Apeldoorn-Deventer-Zutphen area that influence the potential for a regional landscape park?

Methods: Literature review, site visits, mapping, case studies.

This phase investigates the site's ecological, cultural, and urban characteristics while analyzing challenges and opportunities posed by urban expansion. Mapping key features and processes helps establish a comprehensive understanding of the landscape's significance and potential.

Design Strategy and Principles (SRQ-2):

What design principles and strategies can be developed to integrate ecological, cultural, and local values into a coherent landscape framework for the park?

Methods: Literature review, analysis through scales and layers, mapping, case studies.

Based on insights from the earlier phases, this step develops design principles and strategies that integrate ecological, cultural, and local values into a coherent framework for the regional landscape park.

Design Application (SRQ-3):

How can the design of the regional landscape park be applied across different scales (regional, city, and local) to address both ecological and urban development needs?

Methods: Designing through scales, process design, modeling, case studies.

The design process is applied across three scales:

Regional scale: Vision and system design for the landscape park.

City scale: Integrating urban centers with ecological and cultural networks.

Local scale: Detailed design for selected sections, addressing specific site conditions and challenges.

Reflection and Conclusion (SRQ-4):

How feasible and relevant is the proposed design for a regional landscape park, and what lessons can be drawn for similar projects in other regions of the Netherlands?

Methods: Discussion, workshops, evaluation, referring back to earlier research.

The final stage reflects on the outcomes of the design process, evaluating the feasibility and relevance of the proposed regional landscape park. It also explores how this approach could be adapted to inspire similar projects in other regions of the Netherlands.

The methodology follows a sequential structure, but the stages also overlap and inform one another throughout the project. Insights from earlier phases continuously feed into the design process, while iterative design explorations often refine strategies and principles. This dynamic workflow ensures that research and design complement each other, resulting in a cohesive and adaptive outcome for the regional landscape park.

Literature and more applied references

Literature:

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<https://www.scribd.com/document/671227676/Christoph-Giro-Four-Trace-Concepts-in-Landscape-Architecture>

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<https://research.tudelft.nl/en/publications/resilient-estate-landscapes-gelderland-past-present-future>

Saskia de Wit, & Bobbink, I. (2020). Landscape architectural perspectives as an agent for generous design. *DOAJ (DOAJ: Directory of Open Access Journals)*.
<https://doi.org/10.7480/rius.6.97>

Steffen Nijhuis. (2024). Landscape Logic. In *TU Delft Research Portal*. Jap Sam Books. <https://research.tudelft.nl/en/publications/landscape-logic>

Case study:

Boston Metropolitan Park; Escher landscape park, etc.

V Reflection on the project proposal

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

My graduation project focuses on developing a regional landscape park in Gelderland, exemplifying the approach of landscape-based urbanism which takes natural landscapes and ecosystems as foundational elements in urban and regional planning,

aiming to protect natural resources while guiding sustainable urban growth. My project represents a culmination of my studies in landscape architecture at TUD, where I have learned to translate theoretical concepts into practical design solutions. Through this project, I aim to showcase the knowledge and skills I have acquired over the past two years, demonstrating how they can be applied to real-world contexts in landscape architecture.

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

My graduation work is highly relevant in the larger social, professional, and scientific context as it applies the theory of landscape-based urbanism to create a sustainable model for regional landscape parks. Landscape architecture, as a bridge between urban planning, architecture, and ecology, can guide urban growth while prioritizing natural landscapes. By focusing on ecological preservation, the project challenges traditional urban planning, where green spaces are often afterthoughts.

The proposed regional landscape park in the Apeldoorn-Deventer-Zutphen area offers a replicable model for balancing urban expansion with ecological restoration. This approach addresses ecological fragmentation, restores biodiversity, and preserves cultural identity, while meeting urbanization demands. The project contributes to sustainable development by demonstrating how landscapes can lead urban planning and provides a framework for future urban design across the Netherlands. It offers actionable strategies for creating cities that coexist harmoniously with nature, supporting both ecological health and urban growth.