Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences

MSc Landscape Architecture 2024-2025

Kanako Inai

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	Kanako Inai
Student number	5971535

Studio		
Name / Theme	FLOWSCAPES - Circular Water Stories lab	
Main mentor	Inge Bobbink	Landscape Architecture
Second mentor	Marie-Therese van Thoor	Architecture
Argumentation of choice of the studio	I learned about the Dutch polder landscape through the Q2 project at TU Delft. I discovered how ingenious techniques, such as the boezem system, have shaped the Netherlands' unique landscapes. On the other hand, in my country, Japan, there are also lowlands with similar geographical conditions, but I thought Japan had not managed water as skillfully as the Netherlands. The Circular Water Stories Lab aims to explore traditional water systems and use the insights gained to propose landscape designs suitable for modern contexts. Over the course of this year, I would like to study water management systems tailored to specific regions, while also understanding their cultural and historical contexts. Therefore, I decided to join this lab.	

Graduation project	
Title of the graduation project	**Reviving the Heritage Water Network** A sustainable, adaptive blue-green network for Saga, Japan
Goal	
Location:	Saga, Japan
The posed problem,	The water network system in Saga, once intimately linked with human life, has now been disconnected due to modernization. However, the need for human maintenance in this system remains. With depopulation, involving

	people in maintaining the entire landscape is becoming increasingly challenging. This underscores the urgent need to reconsider the balance between humans and nature, particularly in light of the intensifying flooding issues.
research questions	How can the Saga water heritage be revalued by transforming it into a climate-adaptive and ecologically responsive environment, fostering public interaction and a sense of attachment to water? The sub-questions address the individual dimensions: -How can the existing water network system from the past contribute to mitigating flooding in Saga city? -How can the proposed water network be integrated with the green network to enhance the area's ecological value while transforming and incorporating vacant lots into the system? -How can design enable communities to shape the local landscape in ways that preserve cultural heritage and promote sustainable tourism?
design assignment	The project aims to reinterpret Saga's historical canal network—once central to daily life and ecological balance—as a living landscape framework that addresses the challenges of depopulation, flooding, and ecological degradation. Through the theory of Landscape Biographies, the project seeks to transform this forgotten water heritage from a static relic into an adaptive blue-green infrastructure that restores the

	relationship between people, water, and nature. By integrating the historical water system with vacant urban spaces and community life, the project envisions a gradual, process-oriented transformation toward a resilient and inclusive urban landscape that links Saga's past wisdom with its future sustainability.

Process

Method description

The research and design methodology combined historical analysis, spatial investigation, and design experimentation to reinterpret Saga's historical canal network as an adaptive blue-green infrastructure.

The process began with a historical and cartographic study of Saga's urban formation, examining archival maps, literature, and landscape layers to trace how the relationship between people and water evolved over time. Through this analysis, the theory of *Landscape Biographies* was used to understand the canal system as a living record of human–nature interactions rather than as a fixed heritage object.

Building on this understanding, field surveys and spatial mapping were conducted to document the current conditions of the canal network, including sediment accumulation, vegetation growth, and patterns of vacant and underused lots. This mapping revealed how physical traces of the water system remain embedded within the urban fabric, even as social and ecological functions have been lost.

These findings were then synthesized into multi-scalar design explorations across four scales—regional, sub-regional, urban, and community.

- At the regional scale, the focus was on reestablishing the hydrological logic by proposing a network that connects upstream sediment management with downstream flood control.
- At the urban scale, the canal network was reorganized as a continuous blue-green structure that integrates ecological flow with public accessibility.
- At the community scale, design strategies emphasized everyday interaction, transforming hidden canals and urban voids into shared public spaces that encourage social participation and awareness of water.

Literature and general practical references

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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)?

The Circular Water Stories lab's framework directly relates to the graduation topic. Traditional Water System research was the crucial first step. Throughout the cultural research, the CWS lab's coloring method helped understand the local landscape characters and human life. The landscape-based approach, explored in the master track of landscape architecture, contributed to finding several factors of the problem. This guides the design principles, which help to structure the plan.

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

The relevance of my graduation work lies in demonstrating how historical landscapes can evolve into living systems that respond to contemporary challenges.

In the case of Saga, the forgotten canal network reflects both the environmental and social transformations that many rural cities in Japan have undergone. By reinterpreting this heritage as blue-green infrastructure, the project proposes a novel approach to linking ecological restoration, cultural memory, and everyday life. It shows that heritage can be more than preservation—it can become an active framework for adaptation, reconnecting people with their environment while improving resilience and quality of life.

Through this approach, the project contributes to the broader discourse on how design can mediate between the past and the future, transforming local history into a foundation for sustainable urban living.