Redesign Waterfront Spaces Along Xi River in Yuantong Town

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Reflection

8.1 Relation between project topic, master track, and programme

My graduation project, "Redesigning Waterfront Spaces Along Xi River in Yuantong Town," aligns closely with the Landscape Architecture (LA) track within the MSc A+BE programme. The project integrates core landscape principles such as climate-adaptive design, cultural identity restoration, and spatial experience enhancement. These principles embody the programme's interdisciplinary ethos of combining historical, ecological, and social dimensions to create sustainable and meaningful landscapes. The focus on adaptive water management directly supports the programme's emphasis on addressing contemporary global challenges, such as climate change and cultural preservation.

8.2 Research and design interplay

Research and design were deeply interwoven throughout this project:

- Research's Influence on Design: Methods like landscape biography and pattern language provided historical, cultural, and ecological insights, shaping the conceptual framework. For example, understanding the traditional Dujiangyan irrigation system informed the integration of adaptive water management techniques.

- Design's Influence on Research: The iterative design process, such as reimagining festival spaces, raised new questions about how these spaces can foster a connection between community identity and environmental sustainability, refining the scope of my research.

This dynamic relationship ensured a feedback loop where theoretical insights were continuously tested and refined through practical design applications.

Fig 8.1: Seasonal rapseed field at the west bank of the Xi River in the past

Fig 8.2: Seasonal rapseed on the designed floodplain

8.3 Assessment of the approach, methods, and methodology

Evaluation of the approach

My methodology, combining Top-down Morphological Approach and Bottom-Up Pattern language Approach has largely been effective in addressing the challenges of climate change adaptation, site identity restoration, and festival space enhancement. The Top-down Morphological Approach provided a solid structural framework for climate-adaptive water management and festival infrastructure. For example, the morphological approach creates the floodplain and utilizes embankments, weirs, fish-ship hubs, and revetments to ensure the entire water system operates across different seasons. In contrast, through pattern language studies, the bottom-up approach allows for the integration of community practices and local usage patterns into the design. The "seasonal rapeseed field" pattern reflects a local practice of cultivating vacant riverside spaces (Fig 8.1). Its application enhances the floodplain's local identity and climate adaptability (Fig 8.2).

While the integration of these methods created a comprehensive design, challenges arose in balancing the two approaches.My approach revealed that design is not a linear process. While the Morphological Approach and Pattern language Approach methods provided a structured framework, in practice, these steps often overlapped and required iterative adjustments. It was challenging to adhere to a fixed sequence. In the phase of selecting patterns and conducting individual research, modifications were often necessary. Patterns that were not applicable were removed, while new patterns were added as the design evolved. For instance, when conducting detailed design at the human scale, I found a lack of local pattern language. I introduced a new pattern type called "Living with Water," which includes "Waterfront Wandering," "Waterfront Picnic," "Meditative Space," and "Viewing Space." The addition of these patterns helps achieve the design goal of strengthening people's interaction with the river.

This process highlighted that while Pattern Language provides a robust bottom-up framework, it must be constantly integrated with top-down thinking to ensure relevance and adaptability to broader goals. The interplay between these approaches made the design process inherently iterative and interdependent, with each method influencing and refining the other, rather than progressing in a linear manner.·

Incorporation of mentor feedback

The feedback from my mentors emphasized the need for stronger connections between theoretical frameworks and practical applications. Suggestions included:

1. Combining Pattern Language and Morphological Approach
One significant piece of feedback was the suggestion to combine Pattern Language with the Morphological Approach, reflecting the dual nature of my project. Festivals represent a living space, emphasizing how people interact with and use the space, while the gravel land in the river represents a distinct physical form as the festival venue. This feedback was instrumental in shaping my methodology, allowing me to explore both the spatial patterns of human behavior and the physical restoration of the festival ground.

2. Improving Diagram Legibility
Another key recommendation was to enhance the legibility of pattern language diagrams. This involved explicitly showing how people use the space, including details like specific dimensions and scales. In response, I revised the diagrams to include these elements, making them more accessible and practical.

3. Systematic Problem Solving with Pattern Hierarchy
My mentors emphasized the importance of systematically categorizing patterns into different levels. Following this feedback, I reorganized the pattern system into hierarchical layers: regional-scale patterns (e.g., Seasonal Rice-Aquaculture System), town-scale patterns (e.g., The even days market), and human-scale patterns (e.g., Street Kitchen). These patterns solve different problems on different scales. This helped clarify how patterns interact across scales and contributed to a more coherent design strategy.

4. Addressing Feasibility
My mentors advised considering specific plant species suitable for local conditions. I addressed this by selecting native species with high drought or flood resistance and ecological value. For example, choosing local deep-rooted plants such as Metasequoia glyptostroboides can stabilize the soil and maintain humidity. The integration of this feedback improved both the depth and clarity of my project. By addressing how people interact with

space and emphasizing feasibility and systematic organization, my design evolved to better reflect the site's unique identity and socio-environmental conditions. This iterative feedback process has also deepened my understanding of the living space concept and its integration with physical forms.

8.4 Academic and societal value, scope, and ethical aspects

This project contributes both academically and socially:

- Academic Value: It addresses multiple challenges, including climate change, site identity, and festival dynamics, while employing a dynamic and flexible waterfront design to meet complex demands.
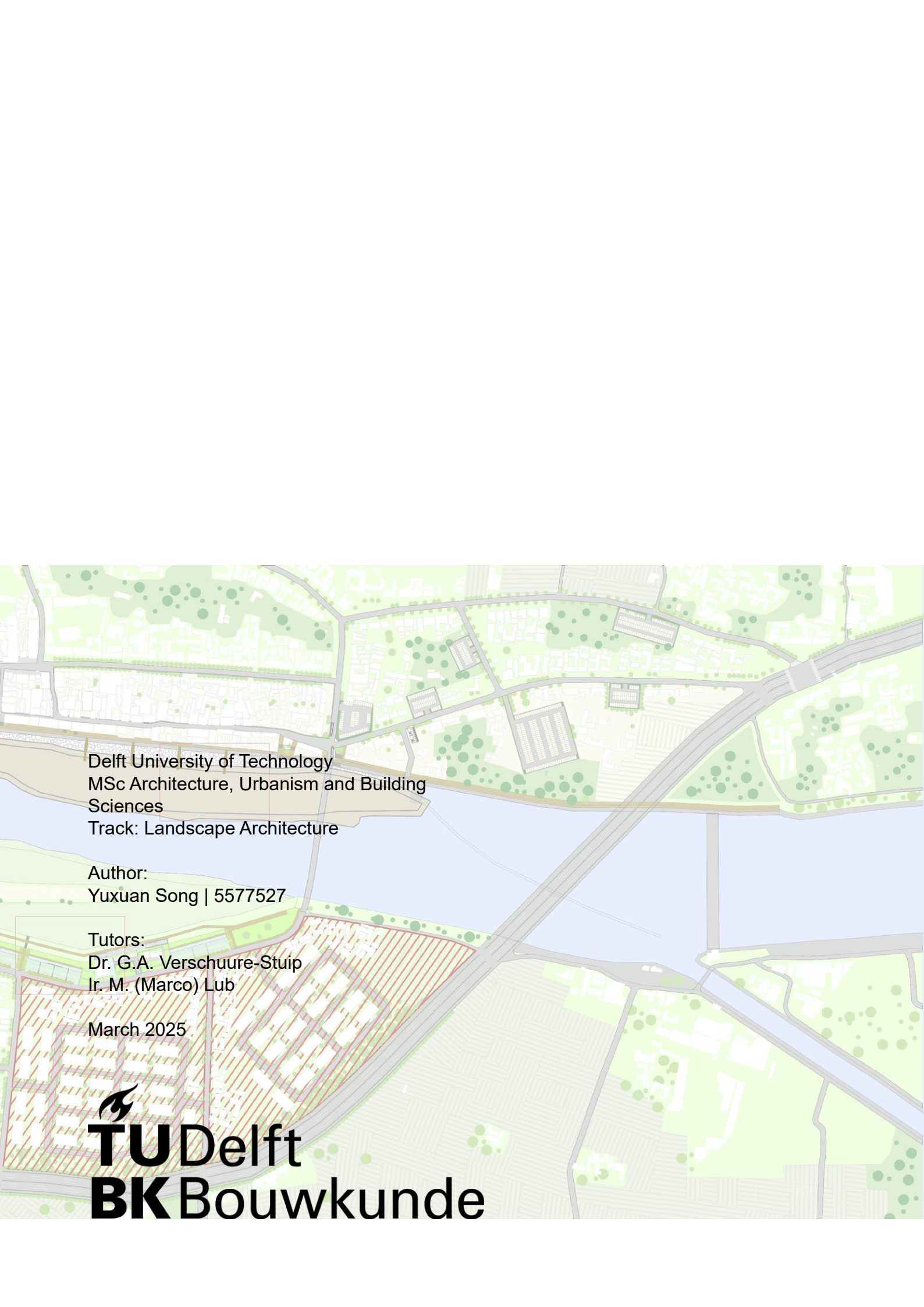
- Social Value: By responding to climate change and restoring cultural identity, the project brings tangible benefits to the Yuantong community, enhancing resilience and fostering a stronger sense of place.

- Ethical Considerations: The project integrates a morphological approach and pattern language approach, ensuring that respect for local traditions and community engagement forms the foundation of the design process. This approach guarantees that the proposed interventions reflect the values and needs of the local population.

8.5 Transferability of project results

The methodologies and insights developed in this project are highly transferable:

- Climate-Adaptive Water Management: The combination of traditional and modern techniques offers a replicable model for regions facing similar environmental challenges.

- Cultural Restoration: The emphasis on integrating cultural identity into landscape design provides a framework applicable to other heritage sites.

- Pattern Language Approach: The adaptable nature of pattern language allows it to be tailored to various social, ecological, and cultural contexts, enhancing its utility for diverse design projects.

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