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To be conti · **NEW** · ed

Balancing heritage and innovation in
the Dutch polder dwelling architecture

REFLECTION



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introduction

This reflection will start with where it all began, my personal frustration. The research was initiated from that personal frustration, one that I have observed within the field of architecture, particularly in development areas in the Netherlands where polder landscapes play a prominent role. Increasingly, architectural character is disappearing; residential designs are becoming more anonymous, allowing them to be placed anywhere, while the knowledge of historical detailing is gradually being lost. When focusing specifically on polder regions, there is a clear decline in housing diversity—current developments are often dominated by expensive, detached homes.

In my view, this reflects a lack of sensitivity in the design approach.

This is precisely the type of sensitivity I, as a future architect, am actively seeking to explore. I do not advocate for simply copying historical styles or exclusively building social housing. Rather, I strongly believe that residential architecture must be more contextually embedded—designs in which history, the present, and the future are meaningfully integrated, offering a balanced spectrum of housing typologies, including exclusivity, within a coherent and inclusive whole.

To provide a clear understanding of the process, the working methodology, and the outcome of this graduation project, this reflection will walk through each of these elements in detail. To give an initial impression of the direction and goals of the process, the abstract of the research is presented first.

abstract

This research investigates how contemporary design can integrate modernization and efficiency while preserving the historical value, cultural identity, and unique essence of traditional Dutch polder landscapes and their dwellings. Grounded in a qualitative methodology [Creswell, 2009; Denzin & Lincoln, 2017], the study employs a multifaceted research strategy including exploratory, descriptive, correlational, comparative, historical, and case study methods [Groat & Wang, 2013]. These approaches facilitated a layered understanding of spatial, architectural, and cultural dynamics in the polder landscape, with Midden-Delfland serving as the principal case study.

The study explores how design principles derived from historical research [Tosh, 2015] and grounded theory [Charmaz, 2014] can guide the creation of architecture that respects tradition while meeting modern needs. Through comparative analysis [Esser & Vliegenhart, 2017] and narrative interpretation [Drake-Clark, 2009], vernacular forms and typologies were examined and reimagined to develop a unified set of contemporary design principles.

The findings culminate in a three-part design framework: [1] urban planning strategies that align future-oriented development with polder logic and environmental systems; [2] architectural massing techniques that reinterpret vernacular typologies using durable, symbolic forms; and [3] detailing approaches that combine traditional craftsmanship with digital innovation to enhance experiential and cultural value. This triadic approach offers a resilient and context-sensitive blueprint for modern architecture in heritage landscapes.

Ultimately, the research proposes that the preservation of the Dutch polder's architectural character lies not in replication but in reinterpretation—through craftsmanship that bridges past and future, tradition and innovation. This vision champions an architecture that is both deeply rooted and forward-thinking, ensuring the continued evolution and recognizability of the polder landscape.

1.

What is the relation between my graduation project topic, your master track [A, U, BT, LA, MBE], and your master programme [MSc AUBS]?

The goal of my master's at TU Delft, in short, is to become a good architect. Specifically, as explained in my choice of studio, with a focus on villa architecture. This began for me in MSc 1, when I followed the 'Fundamentals of Housing Design' studio. I learned a great deal about reinterpreting housing designs in the city. However, what I felt was missing there was the space and freedom that designing within villa architecture offers.

This studio provides that space and opportunity within its setting. Midden-Delfland is the perfect place for this. The theme of the studio, designing with a changing climate, is an indispensable aspect of villa architecture design. In the professional field, I see many requirements, desires, and possibilities that can only be expanded upon and better utilized.

When I look at the subject of my own project within the studio, 'villa architecture that balances history and future', it aligns seamlessly with the expectations I had at the start of the master's. Designing a complex set of dwellings in an open environment, while fitting within an existing complex contextual 'foundation.' The connection with history, the present, and the future, I feel, adds a deeper layer and meaning to the design. And that is precisely what I have tried to explore and develop in the past period of this studio.

A project that not only aligns with this studio but for me is part of a whole with the goal: 'A strong foundation in knowledge to build upon in the professional field.'

2.

How did my research influence your design/recommendations and how did the design/recommendations influence your research?

The entire process in this graduation studio was a continuous back-and-forth between design and research. At the beginning of the studio, I had no clear idea of what I wanted to investigate, where the core issue lay within the assignment, or how to effectively incorporate theory into the project.

Interestingly, this led me to take the opposite approach. I began by analyzing the context and identifying the location where I wanted to develop the project. Through this analysis, the underlying issue naturally emerged: How can one design respectfully in a historically and contextually rich environment without losing sight of modern requirements? This initial phase, which mainly involved urban analysis, provided a grounded basis for the research.

The research that followed enabled a deeper reflection on and interpretation of how to design within such a complex environment. Studying theories from both historical and contemporary architects led to a set of design principles that served as a bridge between past and present. These insights formed the foundation of the architectural process.

This process revolved around three main aspects: site design, volume design, and façade architecture. The initial research informed all three. What first seemed like a straightforward design process, “we have a foundation, now let’s move toward detailing”, eventually turned into a cycle where emerging issues continuously pushed me back toward research.

For example, the site design required a deeper layer of meaning. Re-analyzing the surroundings, refining the design principles, and understanding the historical ideas behind them helped ground the design in a clear vision.

Volume design also strongly relied on the initial research. However, historical volumes alone didn’t meet the functional and spatial needs of the project. This prompted new research: What defines these traditional volumes, and how can they be adapted to suit contemporary demands?

This further research led to a fitting base form, which brought the architectural detailing into focus. Initially, I attempted to modernize historical architectural styles in a generic way, without a deep theoretical foundation.

Around the P3 milestone, I realized this lacked depth and academic rigor. This triggered a renewed research phase: What defines Dutch polder architecture, and how can it be thoughtfully modernized?

This led to research into housing typologies and construction detailing, which revealed the crucial role of craftsmanship in architecture, the element that gives homes character and allows them to blend meaningfully into their context. With this new insight, I totally re-evaluated the architectural design entirely, leading to the final proposal.

The foundation laid throughout this process, from the initial principles to the analysis of craftsmanship, ensured that the final design, even down to 1:5 detailing, is saturated with decisions rooted in theory and supported by the research conducted throughout the studio.

3.

How do I assess the value of your way of working [your approach, your used methods, used methodology]?

What I find interesting is that my approach evolved significantly throughout the process. This change stems from the fact that I've already been working in the architecture field for a few years. As a result, a pragmatic mindset is deeply embedded in how I usually work. At the beginning of this process, this actually became a barrier, it made me less open to integrating new insights from theory, research, and reinterpreting information in a fresh academic way.

This tension, between pragmatic habits and academic openness, became one of the central themes of my process. I had to continually challenge myself to step away from the methods I had grown used to, both through my professional experience and my prior education at the applied sciences [HBO] level in architectural engineering.

Looking back at [almost] the end of this process, I've come to value the interaction between my pragmatic work experience and the more academic mindset I've developed. The research approach I used, mostly qualitative and theory-driven, repeatedly laid a strong foundation that my pragmatic design responses could build upon.

I find it difficult to say whether this was the most efficient academic process for graduating. I noticed that I followed a different path than many of my peers, who typically started with theory and worked outward from there. In my case, academic research and practical development blended more fluidly, with my project not starting from a research-driven point.

However, by the P4 phase, I can confidently say that the outcome of this process strongly demonstrates the success of my chosen approach. Although at times chaotic and not always effective, as seen, for example, in not passing P2 on the first attempt, the insights I've gained throughout have significantly deepened my understanding of the academic side of the design process. It's knowledge that I'm eager to carry forward into my professional work.

4.

How do I assess the academic and societal value, scope, and implication of your graduation project, including ethical aspects?

ACADEMIC VALUE:

My graduation project goes beyond simply analyzing or reproducing existing knowledge. The research involved collecting and comparing perspectives from both historical and contemporary architecture, followed by in-depth analysis and interpretation. This process led to the formation of new design principles that offer an innovative approach to working within contextually sensitive environments. By combining this theoretical foundation with knowledge on craftsmanship and its application in modern architecture, the project offers valuable insights for students, researchers, and practicing architects. It encourages a more sensitive, reflective approach to architectural design that is academically grounded and practically relevant. These ideas are not limited to Dutch polder landscapes, but have broader relevance across the architectural discipline.

SOCIETAL VALUE:

On a societal level, the project contributes to a greater awareness of the importance of preserving – and even restoring – cultural identity in the built environment. Much of the character and cultural expression in architecture was lost in the post-war decades of the 1950s through 1970s. This project presents a framework for reintroducing those values, showing that we can design not just for function, but also for narrative and meaning. It emphasizes the need for future-proof environments, which aligns with sustainability goals: to build not for the short term, but in a meaningful, environmentally conscious, and enduring way.

SCOPE AND IMPLICATIONS:

Although the research was rooted in the context of the Dutch polder regions, its scope extends far beyond the project site in Midden-Delfland. While the final design is location-specific, the design principles – such as the integration of historical and modern architectural values and the role of craftsmanship – can be applied in many other regions. The implications are relevant not only for designers but also for municipalities, heritage organizations, and especially for residents. After all, architecture should resonate with and

support those who live in it. By applying this approach, the built environment can become more meaningful, even in a time of rapid construction and increasing pressure to prioritize efficiency and cost. This project demonstrates how history and identity can be meaningfully embedded into design without sacrificing practicality.

ETHICAL ASPECTS:

Ethically, my focus was primarily on the preservation of history and cultural heritage – maintaining identity and passing it on to future generations. The urban strategy also promotes diversity and inclusion. In contrast to the dominant focus on exclusive villa developments in polder landscapes, this project proposes a more inclusive housing strategy. It integrates more affordable housing types, including row houses and apartments, and actively considers space for vulnerable groups such as the elderly, social housing tenants, and first-time buyers. The plan goes beyond designing for wealth and instead addresses a broader and more equitable societal need.

5.

How do I assess the value of the transferability of my project results?

The transferable value of my project lies primarily in the research component, particularly in the development of what I call the “unified design principles.” These principles serve as a broadly applicable framework that can contribute to:

a.

Designing with historical context in contemporary architectural challenges

b.

Preserving and reintroducing heritage in the built environment

c.

Integrating traditional craftsmanship into modern architecture

d.

Creating urban design that is sensitive to its contextual layers

These principles functioned as a methodical foundation in my own graduation project, guiding further analysis and design decisions. Importantly, this method is not location-specific. Although the final design is rooted in the context of Midden-Delfland, the underlying approach offers a generic and reusable starting point for working with historically and culturally layered sites anywhere.

My project demonstrates that when these principles are used as a base, they can lead to a well-reasoned and contextually rich outcome. It is essential to clarify, however, that while the end result is very site-specific, the principles and methodology themselves are transferable. The final product should be seen as a possible answer to these principles within a specific context—not as the only answer.

Each project will lead to a different spatial and architectural solution, depending on its location, history, and societal needs. But the foundational approach—combining contextual analysis, heritage sensitivity, and modern craftsmanship—remains the same. In that sense, this project offers a replicable and meaningful method that can be applied to many future challenges in architecture and urbanism.

6.

How has my personal perspective on the role of the architect evolved throughout this graduation process?

At the beginning of this process, I regarded the role of the architect as relatively self-evident: a fixed profession with clearly defined tasks and responsibilities. However, throughout this graduation project, I have come to realize that the role of the architect is far more dynamic and constantly evolving—shaped by societal shifts, technological advancements, and the prevailing beliefs of each era.

This evolution also implies a continuous redefinition of the architect's responsibilities and influence. While today's architect often risks being pushed to the margins of the development process, my research has led me to the opposite conclusion: architects should reclaim a more central, leading role. By embracing digital knowledge and reengaging with the possibilities offered by materials and craftsmanship, we can regain agency, not only in how we work, but also in the architectural outcomes we produce and the future of the built environment we help shape.

In that sense, my view of the architect has shifted from that of a practitioner operating within a predetermined framework to that of a proactive agent of change, bridging past, present, and future in both design and responsibility.

7.

In what ways did the context of Midden-Delfland challenge or reinforce your architectural assumptions, and how might this influence your approach to future design contexts?

The context of Midden-Delfland both challenged and reinforced my architectural assumptions in meaningful ways. Initially, I approached the site with the assumption that strong historical and cultural narratives could serve as a rich foundation for contemporary design, and this was largely affirmed. The landscape, layered with centuries of polder logic, craftsmanship, and rural identity, revealed a depth of meaning that proved crucial to shaping an architectural response grounded in place.

At the same time, the context challenged my assumptions about how flexible design can or should be. I had underestimated how significantly the subtleties of spatial rhythm, material tradition, and even architectural detailing could constrain or direct the design process. Working in Midden-Delfland made clear that sensitivity to such conditions is not a limiting factor, but rather a source of design potential. The challenge was not to replicate the past, but to translate its essence into a form that resonates with both present needs and future aspirations.

This experience has taught me to begin every project not with a preconceived design language, but with a deep reading of place, both tangible and intangible. It has reinforced the idea that context is not merely a backdrop, but an active participant in the design process.

Vision for the final phase [post-P4 till P5]

In the final weeks leading up to P5, my focus will shift from exploration to consolidation. With the critical P4 presentation and evaluation behind me, the emphasis now lies in refining and completing the graduation project based on the feedback received. This includes targeted improvements in the research, architectural design, and technical development to ensure all components are aligned, coherent, and academically sound.

The coming weeks will be dedicated to finalizing the architectural output, developing a 3D presentation model and completing the project A5 booklet that encapsulates the full process, from research to design and its execution. All previously produced material [texts, drawings, and diagrams] will be critically reviewed in light of both P4 feedback and self-reflection to identify and resolve any last gaps or inconsistencies.

No new content will be introduced during this phase. Instead, the focus is on clarity, quality, and completion. The goal is to deliver a comprehensive, well-documented, and visually compelling graduation project that clearly communicates for P5 the architectural vision, design reasoning, and relevance of the work within a broader societal and academic context.

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