

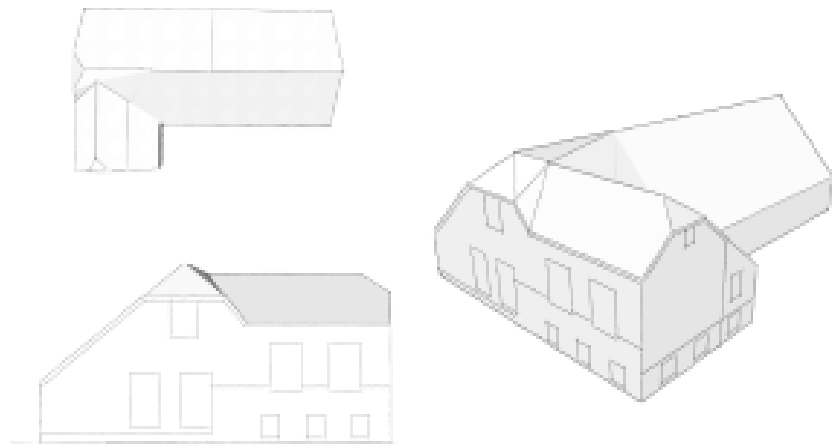
# Reflection - Research and design

## Niels de Rijke

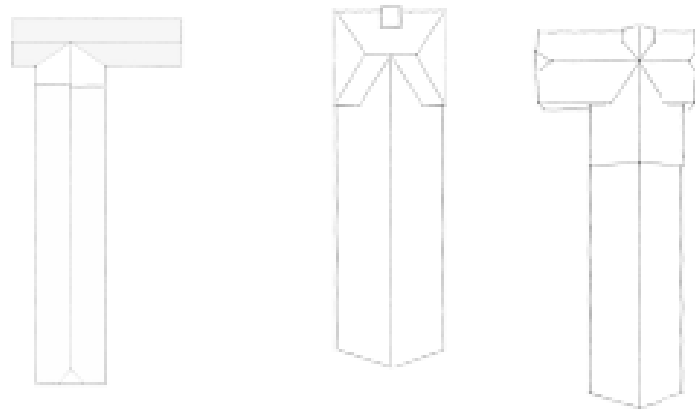
How did your research influence your design/recommendations and how did the design/recommendations influence your research?

The research influenced the design process in several ways. By first doing a preliminary study of the project site, I knew where I wanted to go with my design. I wanted to design architecture that fits into the rural context. As the site is under great pressure from changing landscape and urbanisation, its character is increasingly disappearing. Designing new interventions with features of iconic architecture from the area keeps this local connection intact. Especially when it became clear that the project site asked for a living and working settlement. By having this position from the start and not deviating from it, a strong concept has been created. Design in such an environment should draw from the iconic architecture of the immediate surroundings, necessitating the identification of specific features for implementation. A research of vernacular architecture of midden-delfland results in which characteristics contemporary architecture can implement. This research gave me a broader understanding of iconic architectural elements that I could implement in the design process. It became clear that there were three different types that were common with distinctive features. These farm typologies from the research are recognisable in the design through references of form, materials and façade elements. These farm typologies share common features, including structure, interior layouts, and floor plans. Through studying various architectural positions modernism, neo-traditionalism, and critical regionalism, I was able to select an appropriate approach for the design process. By applying a critical regionalist approach in the design process, the historical context is not merely imitated but reinterpreted in a contemporary manner. This ensures that the design is perceived as fitting within its surroundings, incorporating recognizable elements from the area's iconic architecture. This approach maintains aesthetic harmony with the landscape. As the research progressed, I found out more and more about the features of Midden-Delfland architecture. I took these characteristics into account in the design process. I was able to apply this with a critical regionalist approach to the design. Case studies of different architectural responses to context were conducted, providing valuable insights and contributing to a understanding of the architectural position.

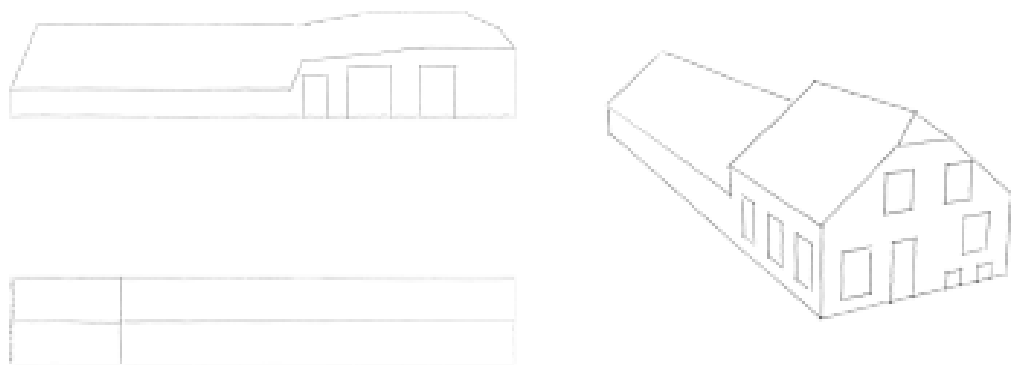
In short, as the research progressed, I was able to integrate elements from architecture of the environment into the design. The different architectural positions allowed me to establish a critical position myself so that modern interventions are referenced in traditional characteristics. The design also influenced the research. Because the design involved living and working under the same roof, I added an extra layer to the research by studying floor plans. Specifically on the separation between living and working.



Krukhuisfarm



T-house farm



Longhouse farm

## Methodology reflection

How do you assess the value of your way of working (your approach, your used methods, used methodology)?

After establishing the architectural context, vernacular architectural features were studied extensively. The initial phase involved a literature review of Uilkema's works. Uilkema, a teacher and historical farm researcher from the early 1900s, conducted significant studies on South Holland farms, including farms in Midden-Delfland. His research highlighted several characteristic features, notably the evolving construction techniques resulting from the new positioning of livestock in the stables. Following the literature review, a comprehensive understanding of Midden-Delfland farm characteristics was achieved. Subsequently, a selection of farmhouses from the South Holland National Office for Monuments list was examined. The government has identified these buildings as high cultural-historical value. By applying this method, farms identified for their cultural and historical value were examined. This creates a good overview of farms that have valuable significance and features.

I analysed several types of farmhouses from this monumental list in terms of façade, morphology, and spatial planning. This analysis facilitated the incorporation of shape features into the design process.

When I visited the site I was conducted to foster a deeper connection and awareness of the cultural-historical significance of these farms. Physical presence at these remarkable sites reinforced this understanding. Studying the morphology by drawing 3d models gave a good idea of the composition and shape.

Subsequently, I studied urban planning aspects, focusing on village structures and the positioning of buildings relative to public spaces. This examination revealed additional features relevant to urban planning. This gave me more knowledge in the field of larger scale.

The interior of the farmhouses was also studied, with particular attention to construction and spatial distribution. This created a deeper layer in the research. This study clarified the influence of supporting structures on the perception of spaces.

These features were considered in the design process. A limitation of the study was the inability to physically inspect the interiors of the farmhouses due to restricted access to private yards. Despite this, the approached methodology provides valuable insights into the integration of vernacular architectural features into contemporary design.

After studying farms, I was able to write conclusions with which architectural features could potentially be implemented in the design process. As a result, the applied methods of site visit, morphology study, archival research etc. achieved the desired result.

## Reflection of mentors

I had a positive experience with my mentors' guidance. The year started with group work. In which the project location had to choose with the topic "resources". As a group, we had two committed mentors. We got weekly feedback. After the group work, the individual process with guidance was helpful. In this, I received guidance from O. Klijn on architecture area, on building technology guidance from R. Kuijlenburg and research from A. Campos. On architecture area, I was encouraged in my design process, but also being critical. One key piece of feedback was the importance of balancing historical references with innovative design elements. Initially, my design leaned heavily on historical elements, but through discussions with my mentors, I learned to integrate contemporary features that complemented the traditional aspects, resulting in a more balanced and dynamic design.

In terms of construction engineering, I was also supported to get the best out of me by a positively stimulating mentor. By setting ambitions in terms of sustainability and circularity, I had a guideline in mind what the design had to meet. Through useful tips, I learnt a lot in terms of climate, construction and building engineering. For example, the mentor asked questions that made me think about certain topics. For example, by applying the concept of prefabricated construction, I had a vision in terms of span direction. But by asking the question why should you span it like that?, I started thinking about it and developed it further. Or a certain truss size that made the sizing of beams too large. By asking the question can't that be done differently I started thinking about it by myself without the mentor figuring it out for me. Finally, the guidance with the research was positive. I was allowed to be very flexible in what the final outcome would be, which I felt was positive. By applying an approach and method that I would like to apply in the future, such as site visits and research of landscape context, I had a preview for my future work. The easy communication and extensive feedback allowed me to develop myself into a better researcher. A weakness for me was that I sometimes left out the research a bit because I was so into the design process. But by encouraging that research also matters, this contributed positively to the design.

## Learning process

Working on a project over a long period of one year allows you to have time to make design choices. But because you have a lot of time, this has to be done properly and responsibly. By discussing design variants and pros and cons, I chose a direction in the design that had technical design challenges. By mixing small village with different types of houses in combination with storage barns, I learned a lot about mixing living and working. These can influence each other positively but also negatively. Because living and working were designed under the same roof, there were more design challenges to be solved. Such as fire safety and noise pollution. But accessibility and privacy also required important solutions to be devised. Moreover, the tutors supported me, but also took a critical look at my design. As a result, I continued to develop. I can take the experience of this project with technical design challenges into my future career.

## Unanswered questions

*What is the relation between your graduation project topic, your master track (A, U, BT, LA, MBE), and your master programme (MSc AUBS)?*

My graduation project is intrinsically linked to my master track and the overarching MSc AUBS programme, which focuses on the architectural adaptation of rising water levels in rural landscapes. The topic of my thesis addresses the imminent changes in landscape due to rising water levels and urban expansion into green polders, which are crucial aspects of my master programme. As water levels rise, rural landscapes will inevitably transform, and the extension of cities into these areas will affect the historical experience of the landscape. My project explores how new architecture can connect with the rural architectural context, maintaining a commitment to the area's history while ensuring that new buildings harmonize with the existing environment. This approach ensures that the region remains connected to its historical roots, promoting harmony between new developments and the rural context. Moreover, due to the changing landscape, farmers have to adjust their agricultural goals. My interventions encourage farmers to make a change through storage capacity for wet cultivation. Making this project strongly linked to the overarching theme of "water".

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

The value of my graduation project lies in its contribution to the field of architectural adaptation to climate change, particularly in rural landscapes. It provides a case study on how to integrate historical context with modern architectural practices to address environmental changes.

Societally, the project offers a concept for sustainable development in rural areas facing similar challenges. It emphasizes the importance of maintaining historical and cultural connections while accommodating new developments, promoting a balanced approach to urban expansion and environmental adaptation. Ethical considerations were central to the project, ensuring that the design respected the local heritage and community values while addressing contemporary environmental challenges. In addition, it is in the line of climate goals. Energy-neutral, renewable materials, changing agricultural purpose by no longer keeping livestock and stop subsidence of polders by turning them into wetlands.

*How do you assess the value of the transferability of your project results?*

The methodology of my project are transferable to other contexts facing similar challenges. The methods used, archival research, site visits, and photographic analysis can be applied to any design, but this research is still based on Midden-Delfland. So application in a different landscape context requires new research. But farmhouses from this research are often inspired from other provinces or other provinces inspired by these farmhouses. Often they have many similarities in terms of material use, construction and layout.

The principles of integrating historical context with modern design to maintain harmony and continuity are universally applicable. This approach can guide architects and urban planners in other regions, helping them to develop contextually sensitive and sustainable solutions. The project provides a framework for balancing development with preservation, which is a critical consideration in many parts of the world facing environmental and urbanization pressures.

*Critical point of view*

By designing carefully and looking at each design choice with a critical eye, there is always the chance that in practice it will be experienced differently. For example, mixing living and working can be experienced as unpleasant. On the other hand, it has been well argued that this is minimal by designing facades with regulating privacy, accessibility, etc. And that storage is meant for harvesting that will cause noise in the community in a short period of time. The study could have had more depth by studying the interiors of farms. By approaching a number of farms and attempts to do so, I did not succeed and had to do it with drawings and existing interior impressions. In contrast, a good overview was created by studying floor plans, cross-sections and interior impressions.