

Kabelkwartier, Alblasserdam

*Revitalising industrial heritage with a focus on human well-being and
behaviour*

Reflection

Tutors:
Anne Snijders
Thijs Bennebroek
Wido Quist

Student:
Thera Mulder
5501598

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Faculty of Architecture and the Built Environment, TU Delft
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Relation between graduation project topic, Architecture and master programme

The relationship between the research and the theme of the graduation studio is closely aligned. The research focuses on revitalizing existing industrial heritage, while the studio theme is about revitalizing maritime heritage. This can be seen as a broader concept that involves heritage related to water in some way. The project site is an old steel factory situated along the river Noord, which facilitated the transportation of materials and goods via the water. The connection with the Architecture track is evident in the revitalization of the old factory buildings. This involves not only the buildings themselves but also their relationship to the context, including surrounding buildings, structures, landscape, and water. During my master's program, I engaged in a variety of studios and courses. For instance, in MSc 1, I participated in the Urban Architecture studio, which provided valuable insights into understanding a building as an integral part of a larger urban context. In MSc 2, I selected the Heritage studio, where I developed skills in researching the values of existing structures and addressing these values in the redesign process.

Research & Design

Research to Design: The knowledge gained from environmental psychology informed the design process. During the research, six key environmental characteristics were explored: (day)light, noise/acoustic comfort, air quality, nature, wayfinding, and personal space. These factors, which are critical to human experience, are subjects where architects can have a significant impact. The research results highlighted the importance of these six topics and provided design principles that were applied throughout the design process.

Design to Research: The research started out quite broad, which made it challenging to create a focused paper. However, by connecting the research to the design project, it became easier to narrow down the scope. Using the project location as a case study allowed for a more focused analysis, helping to structure the paper and to implement the research findings directly to the design context. Furthermore, while developing the 3D model of the existing situation, new elements were discovered in the building that were not included in the initial value assessment but also hold value. This helped to enrich the research while modelling the existing situation.

Methodology

Initially, the aim of the research was not completely clear, although the focus on industrial heritage and human well-being was evident. The approach became more defined through tutoring sessions, leading to the decision to analyse a case study (the steel factory in Alblasterdam) and explore how various environmental factors influence human well-being in architecture. The design would ultimately serve as an answer of the research. I utilized Stewart Brand's concept of shearing layers, which served as a structured framework for categorizing elements associated with the building. This approach enhanced the analysis by allowing for a systematic examination of the building's characteristics and their relevance to its historical and functional context. This strategy contributed to a more nuanced understanding of the building's value, supporting the overall research objectives.

Additionally, after the research paper deadline, further investigation was required to provide concrete recommendations for the design. While a more concrete toolbox was initially expected, the broad scope of the research question and limitation of words made this unfeasible. However, through the building analysis and the insights gained from the six topics, the translation into concrete design strategies was facilitated. This allowed the development of evidence-based design decisions.

Academic & Societal value

Well-being is a crucial aspect of buildings, as people spend a significant amount of time in them each day. This becomes particularly challenging when dealing with heritage sites, which often require adjustments to meet contemporary needs. Therefore, this research is essential for exploring how existing values can be integrated with new ones in industrial heritage. It offers readers valuable insights into the significance of industrial buildings and emphasises the impact of the built environment on human well-being. By understanding this relationship, we can better appreciate the importance of preserving and adapting these structures for future use.

Transferability

The research provides a detailed analysis of the steel factory in Alblasterdam, exploring its significance within the broader context of industrial heritage. Due to the clear conceptual design of the building, which aligns with key principles of industrial architecture. It can be viewed not only as an important site in its own, but also as part of a larger architectural style. The building's design principles, such as its use of materials, colours, daylight and saving energy, are consistent with those found in other industrial and maritime heritage sites in the Waterdriehoek region. Furthermore, these elements share similarities with industrial architecture from the late 19th and early 20th centuries worldwide, highlighting its broader architectural relevance. This connection to both regional and global architectural trends ensures that the insights gained from this case study are valuable and transferable while studying other industrial buildings as well. In addition, the research provides initial insights into how the surrounding environment, both built and natural, can influence human well-being, suggesting that the integration of environmental psychology principles into industrial architecture is crucial. However, while the research has provided a solid foundation, the findings remain preliminary, and further investigation is necessary to fully understand the relationship between industrial architecture, environmental factors, and human well-being.

Feedback and translation into work

The feedback from the teachers focused on different aspects of my design process and communication. Wido emphasized the importance of taking up a position and determining principles early on. Initially, I found it difficult to make design choices and move forward. However, during the design process, I began by listing the requirements and then drawing different options. Many of these options were quickly eliminated based on the requirements, which made it easier to make decisions and feel confident in the choices I made. Anne noted that while the *what* of my design is clear, the *how* and *why* need further clarification, as these are not always immediately obvious. The awareness and preparation are key in this regard. Although my choices are well-thought-out, I am not always consciously aware of them, and sometimes I become uncertain about whether they are the "right" decisions. This uncertainty stems from my ongoing process of learning to combine intuition with a step-by-step approach. While I often quickly know what works and can visualize how it should look, I have found that making decisions step by step can lead to unexpected, creative solutions. Anne also mentioned the challenge of developing the right vocabulary to communicate my thought process. I have experienced difficulties when explaining my reasoning with words, but I have noticed that clear drawings can support me in articulating the *how* and *why*. I recognize that developing a more precise vocabulary will be something I need to continue working on even after my studies. Thijs pointed out the importance of mapping what I already know, as this is not always clear to the listener. I initially struggled to convey my ideas without drawings and found it challenging to communicate. I often overlooked the fact that I already had a lot of knowledge about the project site and buildings. By creating a drawing and adding relevant information, I was able to provide a visual and written overview that gave the listener clarity. This process relieved me, as I did not have to remember all the information, but could instead rely on the paper to hold the information. Thijs also gave advice for my P3 presentation, to focus first on the message I wanted to convey, and then on how to present it. The key point was that the illustrations or drawings should support and reinforce the message, rather than aiming for perfection. In my P3 presentation, this advice helped me immensely. At a certain point in the preparation I stopped producing drawings and instead used simple drawings and text to make the story clearer. This approach helped me reduce stress and allowed me to concentrate on telling a cohesive story, rather than worrying about perfect looking drawings.