

Reflection P5

Reflection on the results of the research and design in the graduation project

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Introduction

The purpose of this paper is to reflect upon the initial results of the research and design conducted during the graduation project. This is an opportunity to retrospectively evaluate the design product, process and planning, but also to position the graduation work within a larger academic scope. Additionally, in this paper the transferability of the project results and/or the possibility for practical application in the future will be considered.

The relationship between research and design

How? and Why? – Reflection on the approach

In my graduation plan, written at the beginning of the design phase during the P2 period, I explained that I intend to use several research methods in order to make informed design choices. One of the research methods I wanted to rely on was the precedent research. By looking at projects that share an aspect of their design with that of my own, it is easier to imagine the implications of using a similar design solution. This precedents research was focused on various aspects that I intend to incorporate in my own design. For example: buildings that have a similar heritage-status and/or a similar program to the one I intend to introduce, or buildings that used technical solutions that would answer some of the building-technical issues I encountered. I have looked at several projects, but the projects that inspired many aspects of my own design are the NSDM-wharf in Amsterdam, the Keilewerf in Rotterdam and the LX factory in Lisbon. I have not been able to visit all three projects, but my visit to LX factory in Lisbon for example has allowed me to experience its atmosphere, the program and its scale.

On the one hand, an existing implementation of a certain design solution enhances the credibility/viability of my own design. However, on the other hand one must always consider the context in which these design solutions have been found to function well. Especially answering the question: “why?” (Why implement this in my design? Why will it work in my design as well?) is not always very straightforward, as this is often based on functional or esthetical deliberations. I am convinced that as architects, and especially when working within an existing context in the form of heritage, we should aim to enhance the qualities of the original design while creating new possibilities for the future of the building. This means that whenever precedent research shows that a certain design solution has worked in another example, the question remains whether it will truly work well within the building I am working on. Especially when reasons are more esthetical than functional, it becomes more difficult to voice the objective reasons to implement a similar solution in my own design.

As with any design project within architecture, this particular aspect of the graduation project (i.e. ‘having the right reasons for design choices’), presents itself as a challenge to me. This challenge becomes apparent when reviewing another design method I used, ‘research by design’. Research by design can be seen as the iterative process of trying certain design solutions and learning from the findings and mistakes made, characterized by the exploration of many possibilities that would work within the same framework, by using sketching or 3D modelling. At the end of the P2 period, I presented a design proposal with certain elements in place that had surfaced during the P2 research phase. After this initial design proposal, it would have been beneficial to take a step back to reconsider certain choices I had made for this design concept. Instead, I continued to elaborate certain aspects (for example, the box-in-a-box floating ateliers) without taking into account any of the other possibilities I had intended to explore as well. The main reason for this was the thought

that this initial design concept was already based on mainly functional but also esthetical deliberations and deriving from that design concept would eliminate the research already done for this P2 design concept. Since I had already found the right reasons for designing in a certain way, I did not change the concept anymore. At the same time, I was also aiming to work efficiently and remain results-oriented towards the next presentation of the project. I realize now that I prevented myself from maintaining a more open-minded perspective regarding the possibilities of the building and the opportunity to come up with out-of-the-box solutions.

This observation is also connected to the discussion on the obligations and the freedoms of an architect. As an architect-in-training I notice that I encounter certain difficulties when striving for balance between these two. Although I realize that it is impossible to solve all problems posed within the scope of the graduation project, it is still my ambition to address as many as I can. While trying to address many aspects within a limited amount of time and without enough research of the possibilities, I notice in hindsight that it seriously impacts the creativity of the solutions proposed.

In retrospect, I think my overall design approach did not exactly work the way I had intended it to. Designing is an iterative process marked by ups, downs and dead ends, but also potentially brilliant insights. Unfortunately, my design process was affected after making certain choices permanent too quickly, resulting in the feeling of being stuck.

Feeling stuck was mainly a result of continuing to try and find 'the right answer' for is flexibility in relation with temporality and permanence of design solutions. In my design, the idea was to be able first attract the desired type of users (creatives) to the neighbourhood in the short term, enabling the transition of the whole district, while at the same time keeping the ability to adapt to the changing needs of the evolving neighbourhood in the long-term perspective. While searching for the right way to incorporate elements that would work for both time scales at once, I stumbled upon the same dilemma over and over again: Is this permanent, or temporary? What is the function and what can it change into if need be? One of these solutions was a construction that would allow for the installation of moveable floor and wall panels without altering the existing construction, in order to still allow for future changes. Instead of keeping the same initial design idea and searching for a way to solve the growing list of problems I encountered, it would have been better to take a step back and reconsider the bigger picture at this point. In fact, I had been designing a building that as partially temporal and partially permanent, making it difficult to solve for example the climate design.

In the end, I took this step back from my preliminary design idea (together with my tutors) and saw what the origin of the problems I encountered was. Now, reflecting upon the design process, I think I should have taken a step back much sooner, as many of the design solutions I had studied in the meantime are not incorporated in the design anymore.

This, in fact, is the essence of the design process: certain design solutions are explored and then incorporated (or not), re-evaluated and might later on still be discarded if they don't 'work' anymore. But especially when being on a time schedule in this graduation process, it is easy to make the mistake of not exploring all the options enough and become fixed on one idea that, in my case, in the end creates more problems than solutions. Accepting that it might be necessary to start over is also part of the learning process in this: If I could start over with this project I would probably do it differently.

The following figure shows the design process schematically, in red marked the steps I think I should have taken more often, rather than implementing certain ideas into the design without enough consideration.

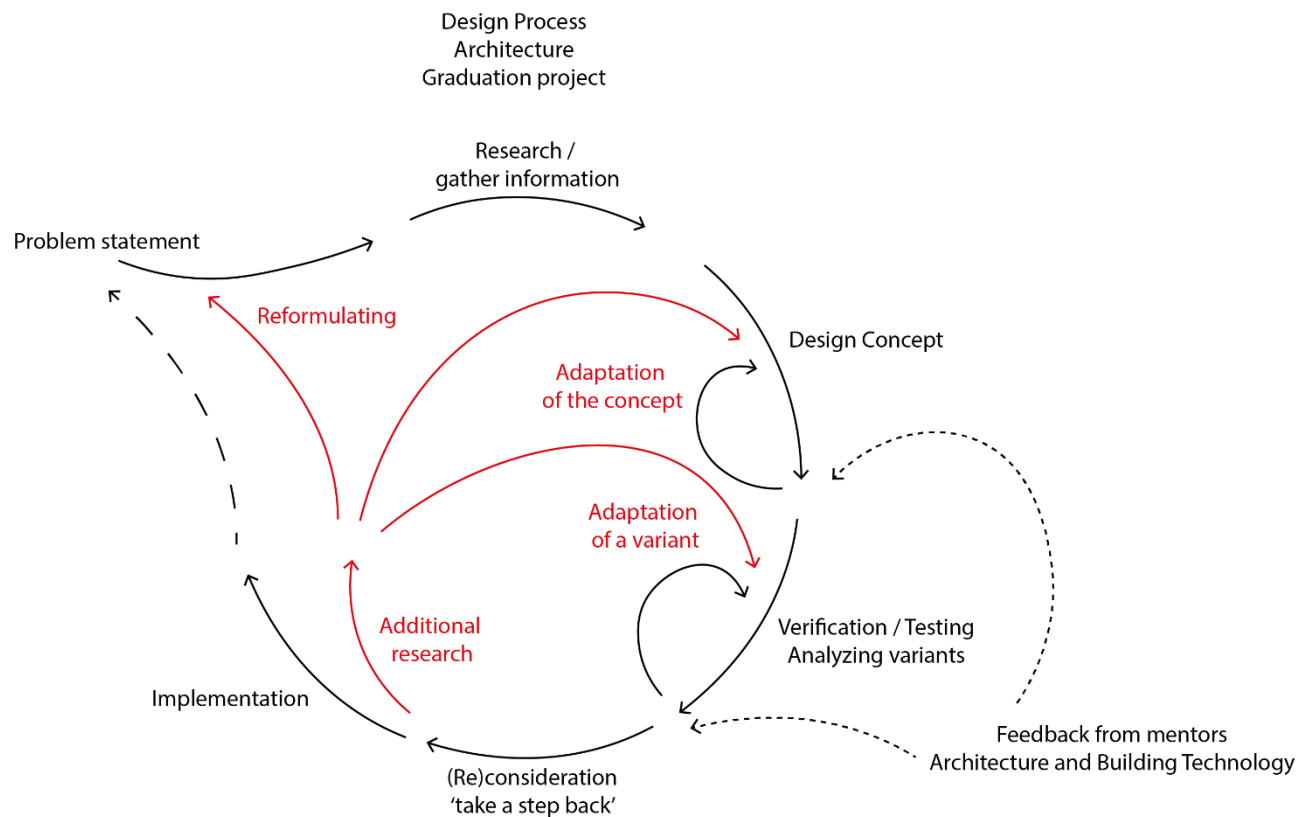


Figure 1 – The design process in an architectural graduation project based on my own observations, own image.

Reflection on the feedback by mentors and translation into design process

During the design process, my mentors frequently asked me to visualize my ideas more elaborately, even if the drawings or 3D models were not accurate enough. Being unable to completely understand my (insufficiently visualized) ideas made it difficult for my mentors to react to certain mistakes I may have made along the way. I also received feedback to give myself more freedom to explore options that were less realistic.

I have worked on this aspect of my design process and have attempted to make more sketches and visualizations of my ideas. Personally, I like to explore my design in a 3d model on a computer, which is where most of my designing takes place and certain 'design steps' are easily lost here if not documented or saved along the way. Now, more often consciously opting for sketching instead of 3d modelling, I understand that sketching allows you to take a different perspective as it asks you to draw from your own imagination, which more often results in finding valuable new insights. It makes it easier to consider out-of-the-box solutions.

I realize that I may still not have sketched or visualized enough during this project, but I plan on doing this more in my future work, accepting that it is ok if my sketches are not perfect most of the time.

Learning points

- Allow for more moments of reflection and reconsideration during the design process.
- Visualize ideas to record them and to make them discussable (feedback + new ideas)
- Explore less obvious, less realistic or even absurd options in order to be more open-minded.

- Making mistakes in the design process is inevitable: ideas might still be discarded even if they seemed to be very good (at first). Letting go of certain ideas is part of the process and should be seen as a learning point.

During the last phase of the graduation project I also received feedback concerning 'making choices'. Sometimes dilemmas are difficult to solve, especially if it concerns major interventions in the building, or choices that will affect the design on a large scale. In order to further enhance the design it is better to take the risk and make a conscious choice accepting it might be a bad one, rather than endlessly doubt about the consequences in order to make the best choice possible (trial & error). As a result, I have strived to make design choices differently, but consciously (for example concerning the construction method), while remaining aware of the aspects that affect the suitability of the particular design solution.

Comparison between chosen research method and approach and the methodical line of inquiry within the graduation studio Heritage and Architecture - the scientific relevance

Within the Heritage & Architecture graduation studio one of the most important aspects is the presence of a historical context that the architect has to react to when designing a new function for an existing building¹. All design choices have an impact on the historical layers of the building. Each step of the design process is evaluated through the lens of the cultural value: what implications will this design choice have on the legibility of the historical narrative? How will existing values be affected? What is the tolerance for change? This is an added layer of complexity compared to the regular architectural assignment, wherein the existing and historic context also have to be taken into account, but with more freedom in the choice whether to react to this context or not, as there is no existing structure that has to be dealt with.

When considering the lenses that the architect has to look through in a heritage project, they can be presented as the past-present-future lenses, all of which have an area of overlap (see fig. 2). Within heritage projects, the architecture is positioned in the middle of these three lenses. Every choice made is connected to these three layers. The complexity consists in finding the right balance between the changing of the existing/tangible context, influencing the legibility of the historical narrative and ensuring the viability of the intervention.

Within this Heritage and Architecture graduation studio, the importance of the existing context and its values is thoroughly explored by an in-depth analysis of the building in question during the P1 phase of the project, including a value assessment. The design framework is influenced by the value assessment. During the design phase, students are often asked to explain their design choices from the cultural value point of view. In the end, the design proposal embodies the answers to these considerations on all scale levels, through the different lenses as seen in fig. 2.

In my design process I have frequently reflected on the impact of my design choices on the legibility of the historical context. By studying precedent projects within the field of heritage-based design and frequently reflecting upon the consequences of proposed design interventions I am convinced have kept in line with the methodical line of inquiry of the Heritage and Architecture.

¹ Kuijpers, M., & De Jonge, W. (2017). *Designing from Heritage – Strategies for Conservation and Conversion*. Delft: TU Delft - Heritage & Architecture.

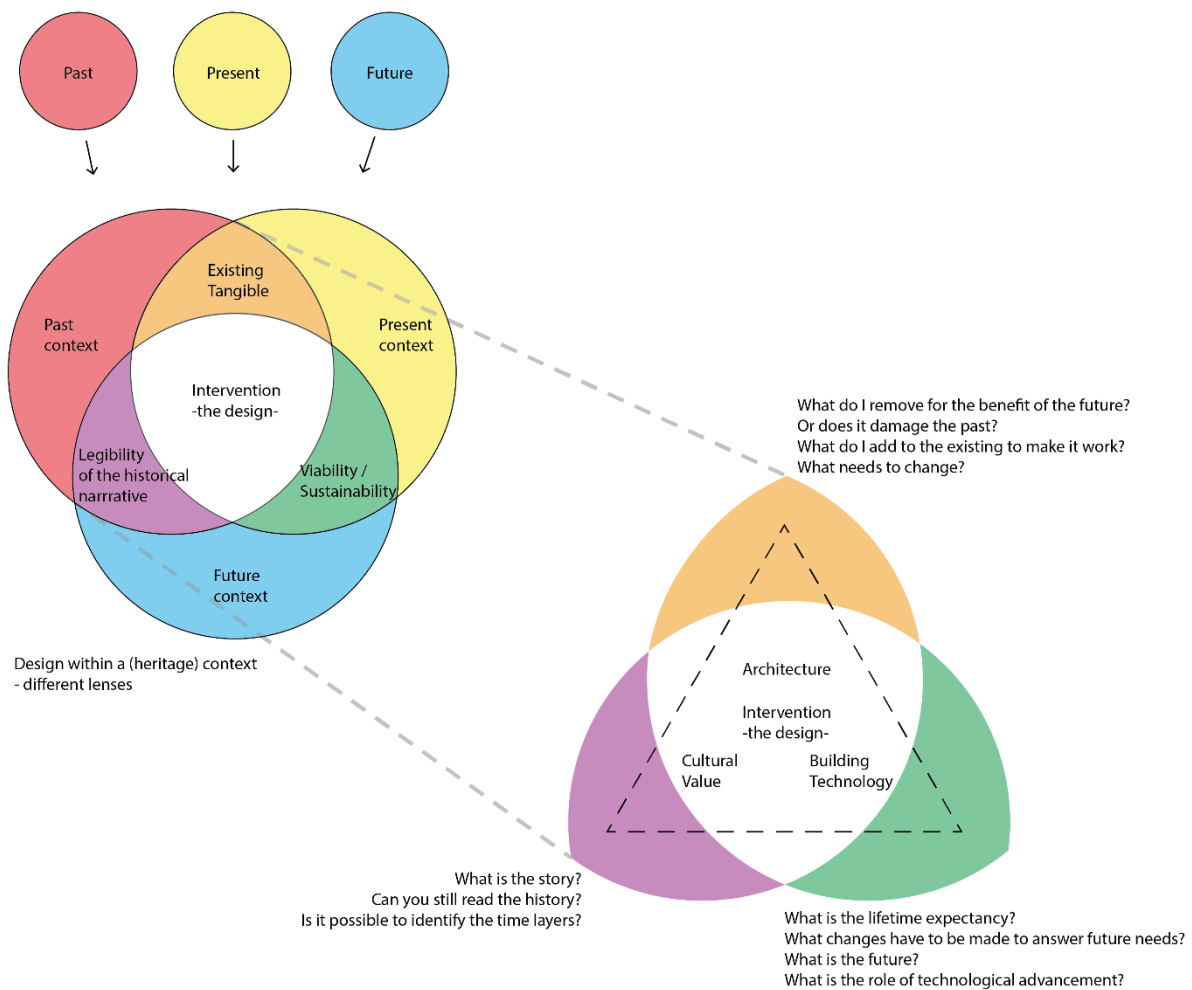


Figure 2 - Design within a heritage context and the different 'lenses', own image based on own interpretation of the H&A triangle, as presented in Meurs, P. (2016). *Heritage-based Design*. Delft: TU Delft - Heritage & Architecture, p.8

The relationship between the graduation project, the studio topic, the master track and the master program

The design created during the graduation project is an architectural proposal based on the interpretation of the answers to a main research question. This question is essentially a sub-question, derived from the graduation studio problem statement. The students within the H&A graduation studio each explore a different research question, thereby together exploring a yet unexamined aspect of heritage field of the built environment.

Within the larger context of the master track architecture, the research conducted within this graduation studio is an exploration of architectural possibilities within a context that has strong culture-historical values and existing structures embodying those values. Compared to other graduation studios within the master track Architecture, the H&A graduation studio differs as students assume an existing building and the values it represents as a starting point for the design.

Within the master programme of architecture, urbanism and building sciences, the graduation project contributes to the knowledge base consisting of research on issues and dilemmas within the built environment, with an architectural interpretation as the answer.

The relationship with the wider social, professional and scientific framework – transferability of project results

In my design proposal I considered how an architectural project could be a trigger for change in an urban context and how it could later adapt to this changing context, different user groups and their altering needs. Major interventions are already planned in the district surrounding the building. In this sense, the project could be part of the area redevelopment.

Existing projects like Strijp-S in Eindhoven are in some ways similar to my own design proposal: a trigger is introduced to attract a desired target group to the area (placemaking) to enable future development and viability of area transformation. My design is an interpretation of a similar long term process on a smaller scale (as it considers just one building and not a whole district). Some similarities can also be observed with the redevelopment of the Sphinx quarter in Maastricht. Especially the transformation of the Eiffel building into a student hotel is interesting to consider here. In this transformation project, the architects battled issues like a poor building technical state, accessibility and attractiveness, as well as enabling flexibility for future use. These issues are present at the Katoenveem site as well, and have been answered in a different way within my design proposal.

Therefore, on a larger social, professional and scientific scale, my graduation work is a contribution to the knowledge base about heritage-based designs that consider adaptive reuse as part of area redevelopment. This can offer valuable insights for fellow architects and other professionals.

Since research and design process within architecture is transdisciplinary, this graduation work is still relevant outside of the field of architecture itself. Related disciplines are for example sociology and psychology. My design could be evaluated when for example exploring the impact of placemaking and adaptive reuse on a psychological level and/or in a social context.

Ethical issues and dilemmas encountered during the research, while elaborating the design and potential applications of the results in practice

Are we allowed to change existing structures? What to demolish and what not?

One of the dilemmas when dealing with an existing context in an architectural design is the question about the extent to which we as designers are allowed to make changes. My group may have conducted a thorough analysis of the Katoenveem building and the values it represents, but the choice of which values to keep intact and which not necessarily is still a subjective one. Every design choice had to be carefully balanced between the benefit to the legibility of the historical narrative, but change is inevitable if certain alterations have to be made to comply with building regulations and needs of the new users of the building. In my opinion change needs to be possible, otherwise the situation does not change. Sometimes drastic measures are needed, but these can be risky. In the end, sacrifices will be made whether this means loss of historic material or spatial setup, or to compromise on functionality and comfort for example. Each project is unique in this sense, and the best we can do to avoid altering/demolishing too much is to learn from our predecessors.

Are the elements that we value nowadays still considered valuable in the future?

As architects or building historians judge buildings by a contemporary mindset, it is possible that ideas about value might change in the future. It is not possible to predict the future, but it is possible to ensure that actions taken nowadays are reversible in the future. Something can be preserved for as long as needed, but as soon as it is demolished or drastically altered, it is not really possible to bring back the original situation. Therefore, I am convinced that within the heritage project reversibility should be ensured whenever possible, and alterations made where inevitable. Although some interventions that are considered necessary nowadays can be condemned by future generations, we work with the knowledge we have now, built on the experiences of past generations. The future generations will learn from our choices and mistakes, which means we need to make those choices and mistakes to enable these future generations to make better ones.