

6.9 Final reflection

In the following chapter I will reflect on my graduation project. It is an important task to look back at previous work and the process that led to the end result. Defining and reflecting the steps which had a valuable impact on the project and analysing the problems or methods which have room for improvement are essential to grow as an architect.

Chosen for this assignment is the nationally listed coffee warehouse 'Santos' which is one of the remaining vacant historically valuable buildings in the harbour area of Rotterdam. Located on 'Katendrecht' it resides in an area on the brink of a large re-development plan led by the municipality. This creates a complex design assignment to develop a proposition to extend the warehouse's life-span within a rapidly changing environment.

During my student years I lived in Rotterdam and I know how little historic fabric is left compared to other big cities in the Netherlands. Especially rare are assignments for historical buildings that were designed in a 'classical' style. Because of this rarity and the placement in a modern metropolis I find this an interesting architectural challenge for which I would like to develop a possible solution.

Besides my architectural interest, 'Santos' appealed to my love for history and technology. These two topics tell me something about the evolution of human endeavours. These are entertaining stories but they also give our current time a context in which it can be understood better. The warehouse of Santos has a rich history and was technologically advanced during the time it was built. For this reason I find the Santos assignment not only a architectural but also a conservation challenge.

Aspect 1: The relationship between research and design.

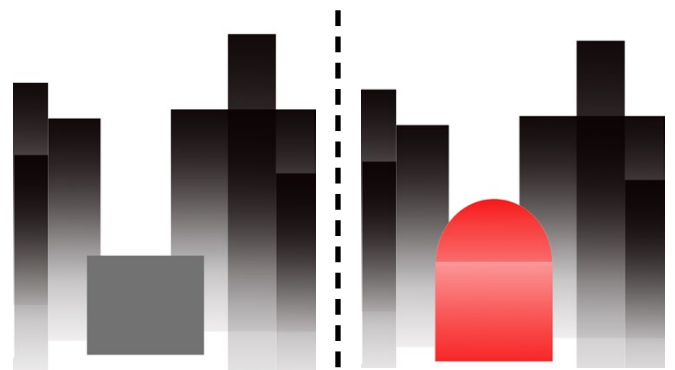
The connection between research and design is highly present in this graduation project. A part of the assignment is the use of a method called 'Design generated through research'. The performed research should bring forth answers and/or solutions about the subject matter. This obtained knowledge can be useful within the project but can also function as a catalyst for creativity.

An example of this process within the preliminary design of Santos was the development of the roof ending. During the cultural-historical research it became clear that Santos was the most dominant element in the area for a long time because of its height and central placement. Research that was done on the future development of the area showed that Santos will be surrounded by a radically changing urban fabric which will most likely diminish this historical dominant position.

Besides accepting this factual truth, I chose this aspect as a creative catalyst for the design. How can one alter the building of Santos in such a way that it remains the most dominant element of the area within its future setting? This process resulted in the barrel vault roof placed on the top of Santos that contrasts with the rectangular roof endings of the surrounding buildings (fig. 6.91 and 6.92).



6.91 Urban model of the preliminary design



6.92 Development of the roof ending within the future urban composition

Aspect 2: The relationship between your graduation (project) topic, the studio topic (if applicable), your master track (A,U,BT,LA,MBE), and your master program (MSc AUBS).

The graduation project, studio topic, master track and master program (fig. 6.93) are all connected with each other by their focus on heritage. The different courses from the master program all view the heritage subject from another angle. The subjects architecture, history, building technology, methodologies of architectural reuse and conservation technology provide tools and knowledge that are needed in architectural assignments which contain an heritage element. In addition to the core master programme, I also chose some electives from the heritage & design master track that gave additional understanding of building history and methods to assess buildings from a conservation perspective.

These subjects are all present within the graduation project. For that reason this is the most comprehensive test of my capability to combine and act upon the attained knowledge and skills.

Graduation project: Transformation of the coffee warehouse Santos
 Studio topic: Harbor heritage
 Master track: Heritage and design
 Master programme:
 AR1A060 Delft lectures on architectural design
 AR1A065 Delft lectures on architectural history
 AR1A075 Delft seminars on building technology
 AR1A010 Methodologies of architectural reuse
 AR1A080 Technology of conservation
 AR0015 Building conservation assessment (elective)
 AR0014 Building history and technology (elective)

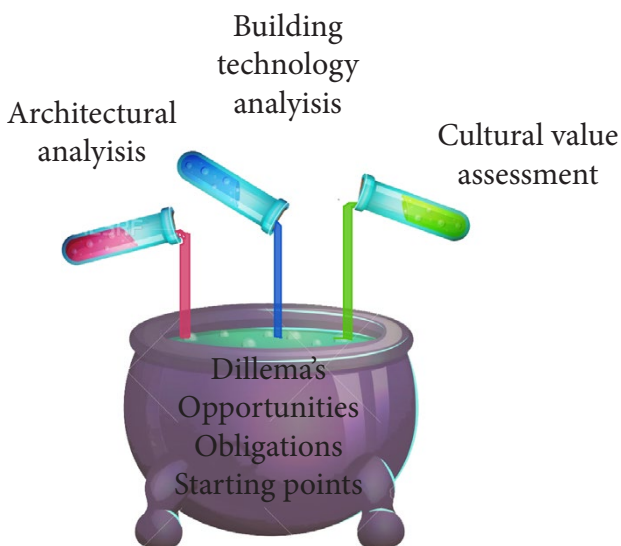
6.93 Summary of Heritage and design track project and courses

Aspect 3: Elaboration on research method and approach chosen by the student in relation to the graduation studio methodical line of inquiry, reflecting thereby upon the scientific relevance of the work.

When looking back at the used methodology in the project, multiple strategies and tools were used. My experience with the use of the ABC formula (fig.6.94) and the colored Brand/Riegl based matrix was useful to comprehend, to order and to prioritize a large flow of information. They have given the design process a scientific basis to work from.

As a design method, I slightly adjusted a consequential design development (fig. 6.95). I did additional research and design on the various fields within the preliminary design in order to see if they were compatible with each other, the cultural historical values and the general design concept. Developing and testing the different options was not always successful, but it did produce insight in the reasons to change the preliminary design.

When reflecting personally on the process I have learned that it is important to make choices about which concepts to develop further instead of trying to find the perfect concept at once. I have spent a lot of energy by not making choices in an earlier stage which resulted in endless testing and assessing concepts without achieving the amount of detail that is needed. Eventually I can conclude that my process worked but that it would have been more efficient if I had forced myself into making choices earlier in the process. This was a truly confronting learning experience for me as a student that will help me improve my process during future assignments as an architect.



6.94 Visualisation of the ABC-formula



6.95 Diagram of a Consequential design development

Aspect 4: Elaboration on the relationship between the graduation project and the wider social, professional and scientific framework, touching upon the transferability of the project results.

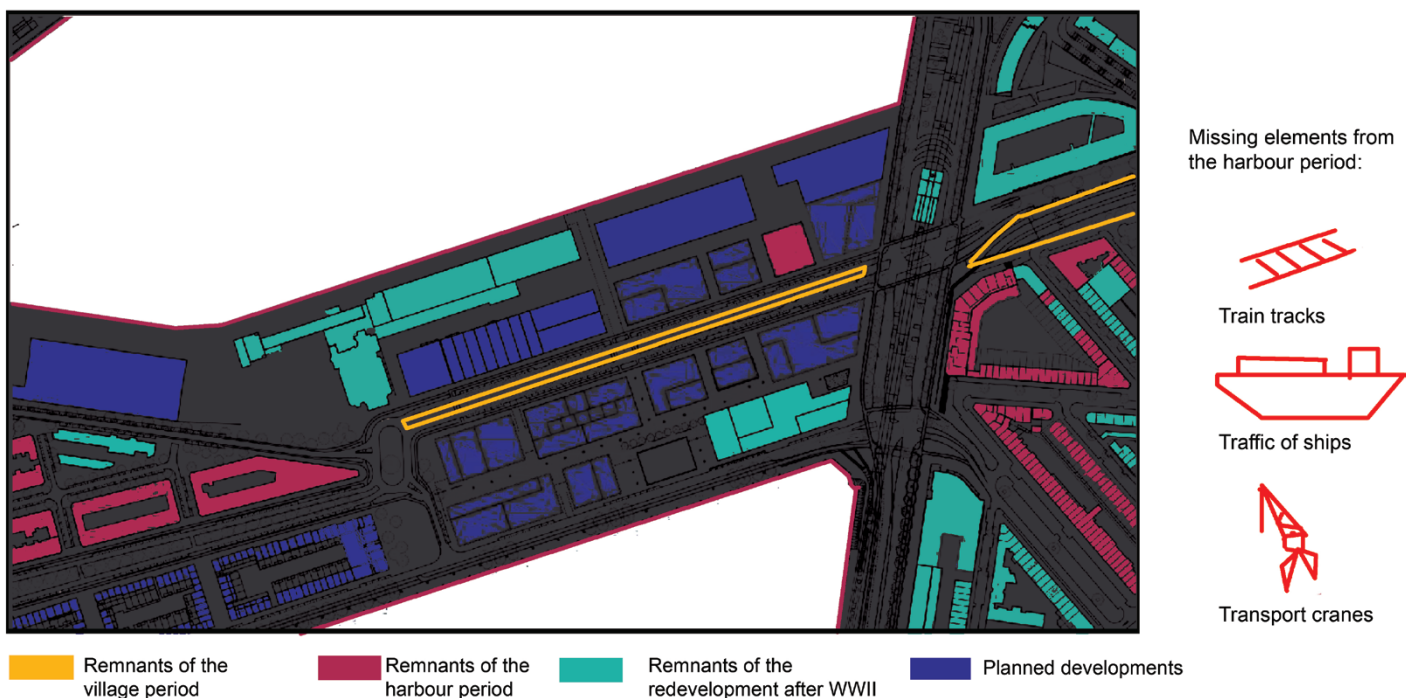
Before looking at the graduation project in a broader perspective I believe it is important to discuss the relevance of the project to the district of Katendrecht. When looking at fig. 6.96 it becomes clear that Santos is one of the few remaining elements which still expresses the harbour period in this area. Therefore a large responsibility is put on Santos to conserve this part of history and to retain some of that harbour identity. Especially this identity/period made Katendrecht famous.

In a broader sense the graduation project has relevance to all cities that cope with their harbour heritage. Every city has its own unique history which results in different connections to their harbour heritage. For example the history of Rotterdam is strongly connected to its function as a transit port where Santos is a direct result off. Even though the identity of harbour heritage can differ amongst other cities they have common elements that transcend these particular differences. All cities benefit economically and socially from their connection to water.

On a technical level this project has relevance to a broader scene of conservation of architectural heritage. The warehouse function has some general technical qualities which are important such as the load bearing capability, logistics, climate- and safety-conditions etc. Understanding and dealing with these elements can be transferred to other buildings that are part of this warehouse typology.

The chosen program of Santos, as an exhibition place for design brands of the upper segment, has relevance to the profession of retailers. Based on received feedback the program changed gradually during the graduation project. Starting with typical stores that developed into a more experimental set-up, which touches upon the changing retail environment and the effects of the digital age we find ourselves in. I believe that stores with the intent to merely function as a selling point will become less relevant in the future because most purchases will be done digitally. The future of physical retail space will mainly focus on the brands visibility and conveyed brand experience. For that reason these themes are addressed in the design of Santos to formulate a possible answer to this rapidly changing profession.

Finally, from an architectural perspective this graduation project is relevant because it continues the development of methodologies of architecture and architectural reuse. To embed the building within its future surrounding while still expressing the heritage was a tough challenge. The alteration to the North and South facade in the past by removing the winch houses is seen as a real loss of the architectural and cultural-historical heritage fig.(6.8). Therefore a restoration of the original design would be a possible correct strategy to take, but it would also destroy the history of the removal of the winch houses. With the addition of the barrel vault roof a new time layer will be added to the story of Santos. Because the North and South facade are almost identical I chose a design strategy that shows and respects all the time layers that are present. The South facade remains in its current state while the Northern facade will be restored to the original design. The addition on the roof acts as its own entity and therefore the original building and the changes made to it through time remain distinguishable and tell their story (fig 6.99).



6.96 Analysis of the effect of the future developments on the remnants of past periods in Katendrecht

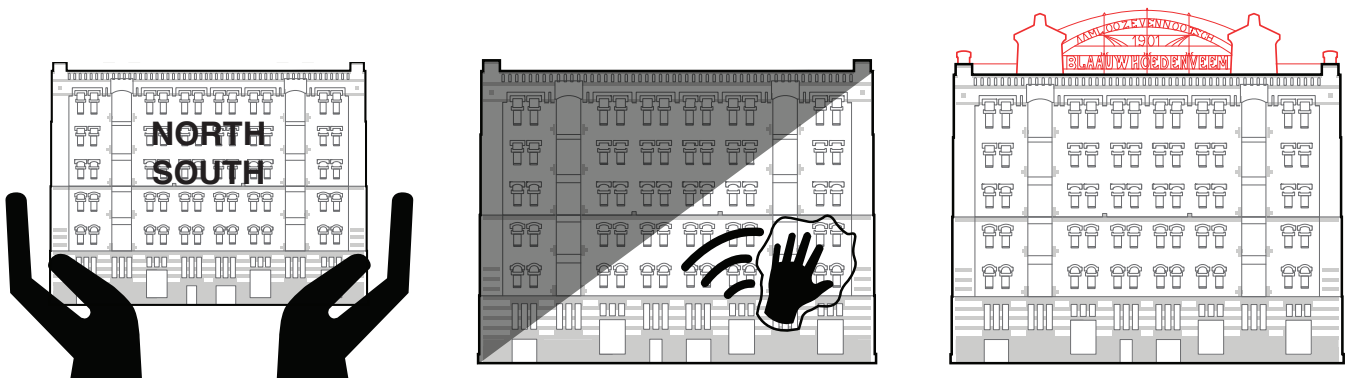
Aspect 5: Discuss the ethical issues and dilemmas you may have encountered in (i) doing the research, (ii, if applicable) elaborating the design and (iii) potential applications of the results in practice

The ethical dilemmas I encountered in this graduation project concentrate mainly around the historical and cultural value that Santos embodies. These dilemmas were in particular: How to insulate without diminishing the character of the building?, How to cope with the patina of the facade when the surrounding buildings will be brand new?, How to implement modern systems for ventilation/heating/transport and safety measures without interfering with the experience of the historic building.

The main dilemma concerned the brickwork facades (fig 6.97). They show that the warehouse was a product of the old tradition of making warehouses from brick before they were made of concrete. Santos was built precisely between these two traditions and is therefore important in this historical context. Because the interior brickwork shows the same craftsmanship a dilemma arose with insulating the building.

Because the North and South facade are highly valuable I chose to only upgrade the windows and accept the poorly insulating brickwork facades as they are. On the West and East facade the brickwork is less expressive and therefore suitable for a new layer of insulation. Furthermore it can provide hiding space for the previously noted challenge of implementing modern systems into the building. This strategy does not raise the insulation properties of the building to the highest level it could reach, but does bring a significant improvement while respecting the conclusions of the cultural value assessment. Another compromise was taken in regard to the patina on the facades that shows the age of the building. This would stand in contrast with the new function of retail space and with the newly built urban fabric that will surround Santos in the future. The age of Santos is expressed sufficiently because the architecture of the facades is of an older style. Therefore the patina can be thoroughly cleaned without diminishing the historical character of the building.

It could be said that most ethical dilemmas place the architect into a position of weighing the cultural-historical values against the necessity of a functioning building in the future.



6.97 Dilemmas of the highly valuable façade design of J.P. Stok



6.98 The original facade, the altered facade and the final design of the facades.

Planning

Looking forward toward the final p5 presentation I believe some aspects still have room for improvement. These topics might concern the detailing, materialisation, architectural experience and method of conservation. I believe the rest of the planning should mainly involve the organisation and presentation of my work to make a comprehensible and attractive summary. This will consist of finalising the graduation report and producing final presentation drawings and renders.