

A black and white photograph showing two large, industrial spiral funnels. The funnels are made of a light-colored material, possibly metal or plastic, and are arranged in a vertical stack. They are connected by a central vertical pipe. The funnels have a wide, flared top and a narrow, pointed bottom. The image is taken from a low angle, looking up at the funnels. The background is dark and indistinct. The text "REFLECTION REPORT" is overlaid on the image in a white, sans-serif font.

REFLECTION REPORT

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REFLECTION REPORT

Heritage & Architecture Lisbon Studio – Disclosing the Military

THE COEXISTENCE OF MULTIPLICITIES

Reinventing the machine

Introduction

The Heritage & Architecture Lisbon Studio started with a DOCOMOMO international workshop in Lisbon about the Manutenção Militar Complex (MMC). Groups, consisting of international students and professionals, worked on a masterplan and intervention strategy for the site. In this week we gathered a lot of information about the site, exchanged ideas about dealing with cultural heritage and learned about the Portuguese culture.

When visiting the site we familiarized ourselves with the large terrain and buildings, keeping in mind that we had to choose a building or set of buildings to work on. Sometimes there is this extreme fascination with a particular building. For this project however there was no 'love at first sight' moment for me. Therefore, and as this is my graduation, I was looking for a challenge. With this in mind I looked at all the buildings and graded them in terms of opportunities, challenges and impact for the Manutenção Militar Complex as a whole (image 1). This triggered my interest for the large buildings in the middle of the complex: the Milling and the Bakery. The direct impact on all the other buildings, a multitude of construction techniques, remaining machinery and large silos: a combination of all the challenges of the site. This immediately shows a part of myself that probably is my biggest hazard: I tend to make things too complicated, I do not want to miss out on anything and find it difficult to make decisions.

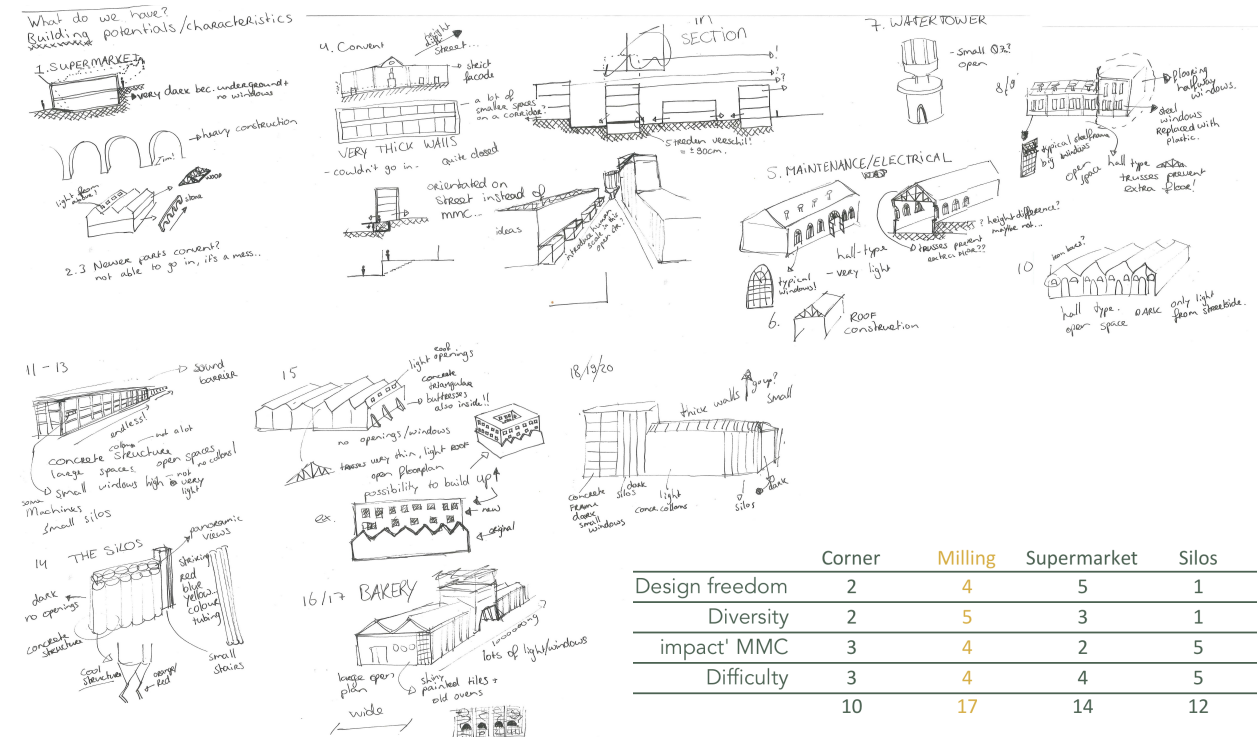


Image 1: Sketches of all the buildings showing its opportunities and peculiarities and a small multi criteria analysis of the initial building choice. (Own image)

Back at the University in Delft we started with our analyses about the buildings in groups. Luckily I chose the same buildings for my analysis and thus could start unravelling the character of these buildings. As the buildings did not immediately trigger my fascination I focused first on the demographic analysis of Lisbon and in particular our neighbourhood of Beato. The findings of this analysis were the basis of my fascination of social cohesion: bringing together people of different generations through an interesting cluster of functions.

This brings me to the title of my graduation project: the coexistence of multiplicities. This meaning coexistence of multiple generations, target groups, functions but also coexistence in the existing and new architecture like different constructions, techniques and materials.

In this reflection paper I will look back on my journey of discovering the Manutenção Militar Complex and the way of designing with heritage. I will do this through discussing four topics related to my research, method and design in combination with the graduation studio of Heritage & Architecture.

The relationship between the project and the wider social context

The topic of social cohesion and the way people live together is a current global discussion concerning population growth, a disproportion within the age groups, cultural differences, distantiation between populations, globalisation and a rising individualism. This can also be found within architecture with specific neighbourhoods or building types designed for specific target groups. Can we create a society in which people are more involved into each other's life, and life together instead of being separated, in other words; can we change the social division we see today?

With my graduation project it is my ambition to create a community, a place where people can come together and are stimulated to be a part of someone else's life. It all started when I noticed the lopsided growth between the age groups in Lisbon. The aging population in Lisbon, and especially in Beato is something that is an issue that is relevant for many countries and cities. As I looked for a solution for this problem of aging I found the 'Mehrgenerationenhaus' project in Germany. Here the case is argued that society tends to split target groups and try to give each target group what we think it needs but the value can be found in mixing functions and target groups and creating a community in which people can benefit from each others presence, skills and knowledge. I believe that creating architecture, which supports this mixing of generations and functions, can help with the problems faced by today's society.

The relationship between the theme of the graduation lab and the subject chosen by the student within this framework

The studio of Heritage & Architecture balances between cultural values, design and technology (image 2). While my subject is socially orientated the design project focuses on these three themes as well. The design is concentrated on the buildings, the heritage, which automatically points to the more difficult parts of bringing the three disciplines together. With the interventions I am proposing I am searching for a balance between the cultural values of the heritage and the architectural design. For me the technology part is there to support the embracement of the cultural values and the design. I use the heritage and what is there as a starting point for my design. The existing, the heritage is therefor the focal point of the design.

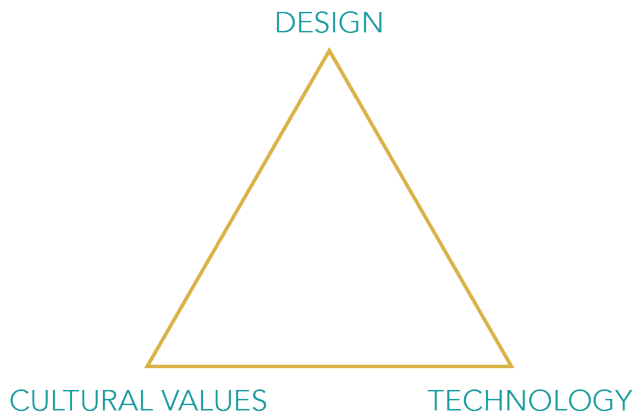


Image 2: The triangle of the principles of heritage design as described by the chair of Heritage & Architecture TU Delft. (Own image)

The relationship between the methodical line of approach of the graduation lab and the method chosen by the student in this framework

As I did previous projects with the Heritage & Architecture studio I am quite familiar with their methodical line of approach. This method starts with an analysis of the context and the buildings that eventually lead up to a values assessment that can be used as starting points for the design. This graduation studio however started experimenting with creating the so-called transformation framework that shows this methodology. So I made this transformation framework visual as I think this should be presented and which can be used as a method (see image 3).

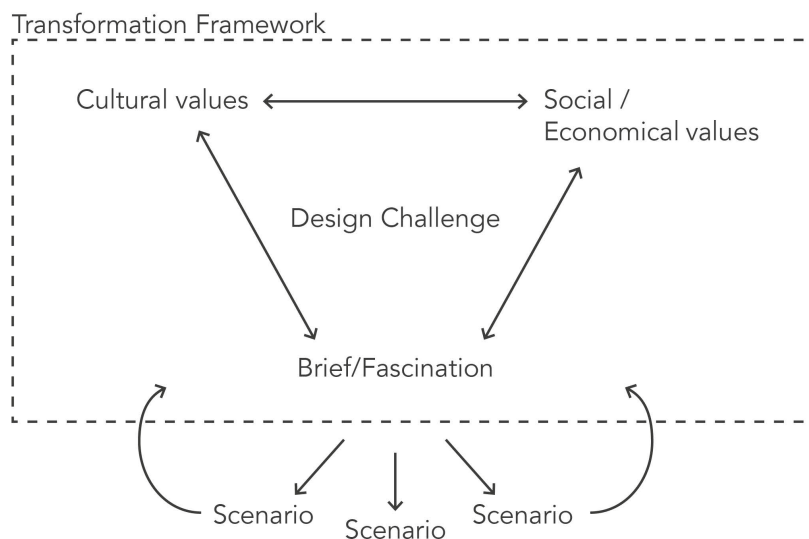


Image 3: Transformation framework. (Own image)

The Transformation Framework consists of the cultural values, the social and economical values and the design brief or fascination. First and foremost a thorough architectural, technical and demographic analysis must be conducted to unravel the different values of the building or site.

From this analysis the cultural values and social or economical values can be defined. Besides the values there is the design brief or fascination from the architect. These three will make up the starting points for the design but can also cause for dilemmas or potentials as the values may be conflicting or contradicting each other. These dilemmas are the design challenges posed in the middle of the framework. Once the framework is complete, scenario's for the design can be made. Going back to the starting points in the transformation framework can then test these scenarios: it is an iterative process. Just as the scenarios can change the values can change during the process of designing as well.

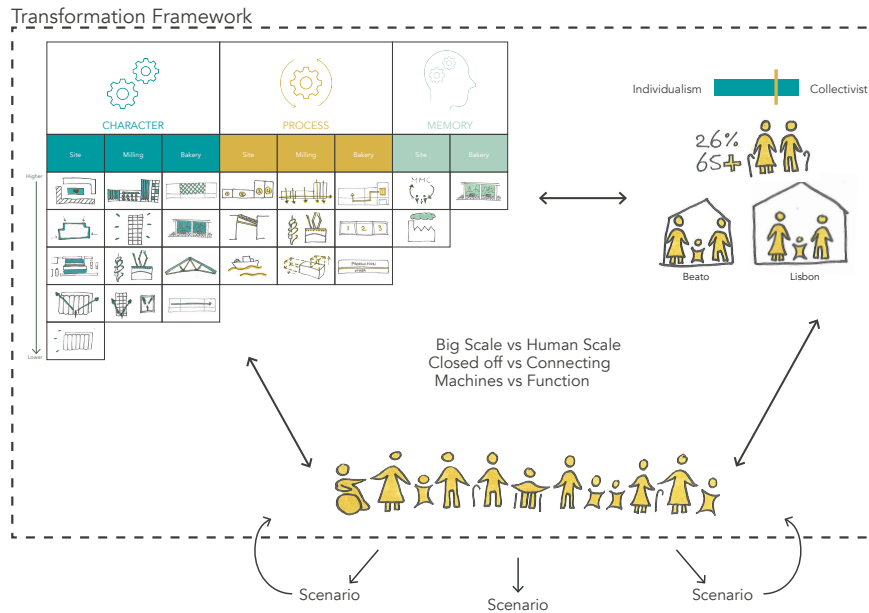


Image 4: Transformation framework filled in with the values and dilemmas for the graduation project. (Own image)

This methodological line of approach shows the importance of the integration of the cultural values when designing with heritage. Important for this methodology and also in my design process is that designing is a continuous loop in which the values, opportunities and dilemmas constantly need to be re-evaluated. It is a journey of discovering what is important and why and how to incorporate those aspects in the new design.

The relationship between research and design

The research and the design are closely linked but most important to note is that both are never ending. First the demographic research triggered me for the function I wanted to introduce to the site and which buildings I wanted to transform to be able to design something that would be realistic for this neighbourhood.

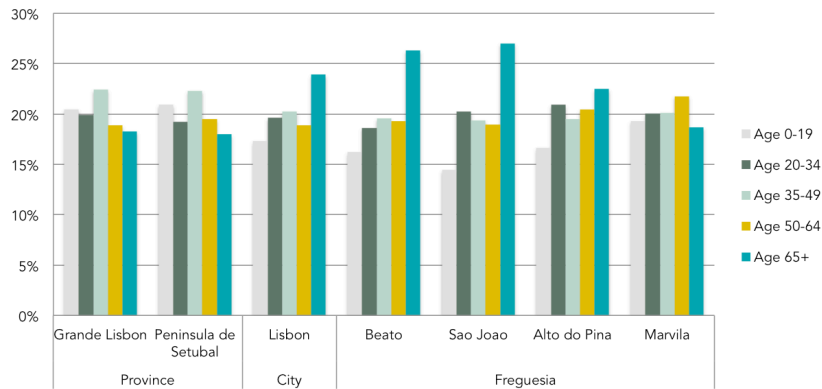


Image 5: Part of the demographic research, researching the age groups of Lisbon and the parishes. (Own image)

Data derived from: Instituto Nacional de Estatística Censos (2011) Lisbon Demographics 2011. Retrieved on 11 October 2016 from <https://www.ine.pt/xpor-tal/>

From there the architectural- and technical research led to the personal cultural values for the buildings which could be used as starting points for the design. These cultural values are the inspiration for the design and also used for design decisions. At the beginning of the design process I wanted to focus on the Milling alone but as the design progressed it became clear that the Bakery was of great importance for the whole design. Therefore I included another research about the cultural values of the Bakery. (Image 6, the 'Cultural Values report' includes a detailed explanation of the different values)

As time progressed I became more and more familiar with the buildings and their history. Correspondingly some of the cultural values changed over time or the hierarchy between the different values changed as it became apparent what was truly valuable for the MMC. This growth shows the iterative process of the design as shown in the transformation framework.

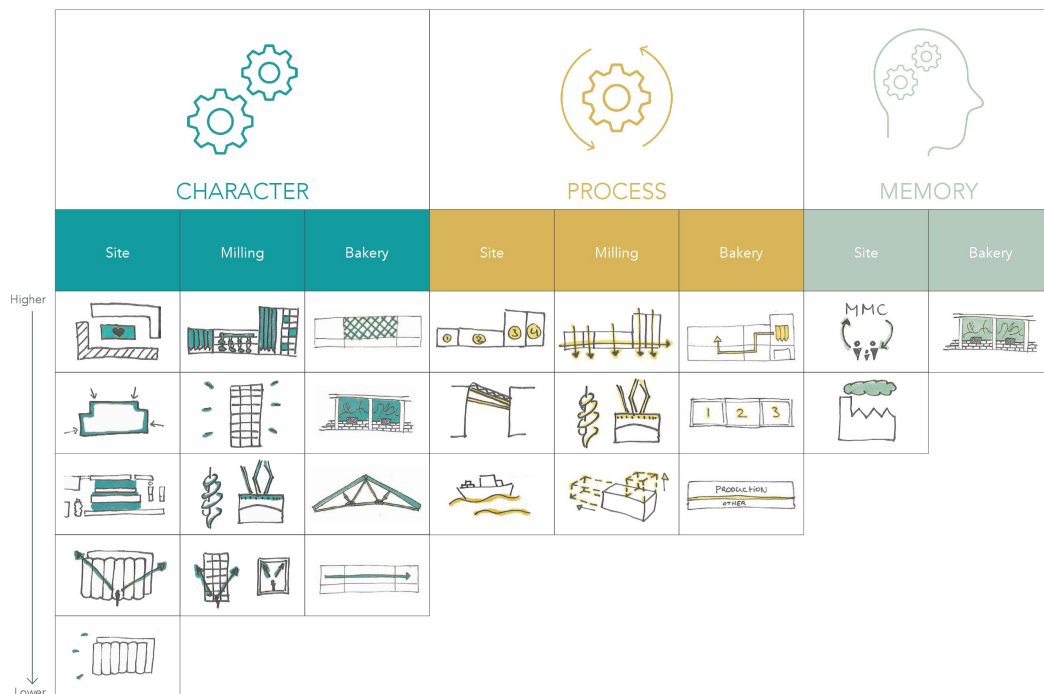


Image 6: The conclusions of the cultural values from the site, Milling and Bakery separated in three themes and shown in small icons. (Own image)

Following research during the design phase was done on the 'Mehrgenerationen' houses in Germany, designing for all ages, and more specific to the designing of daycare facilities. With this information and the cultural values in mind several interventions could be researched by design for example with use of models (image 7) or sketches.

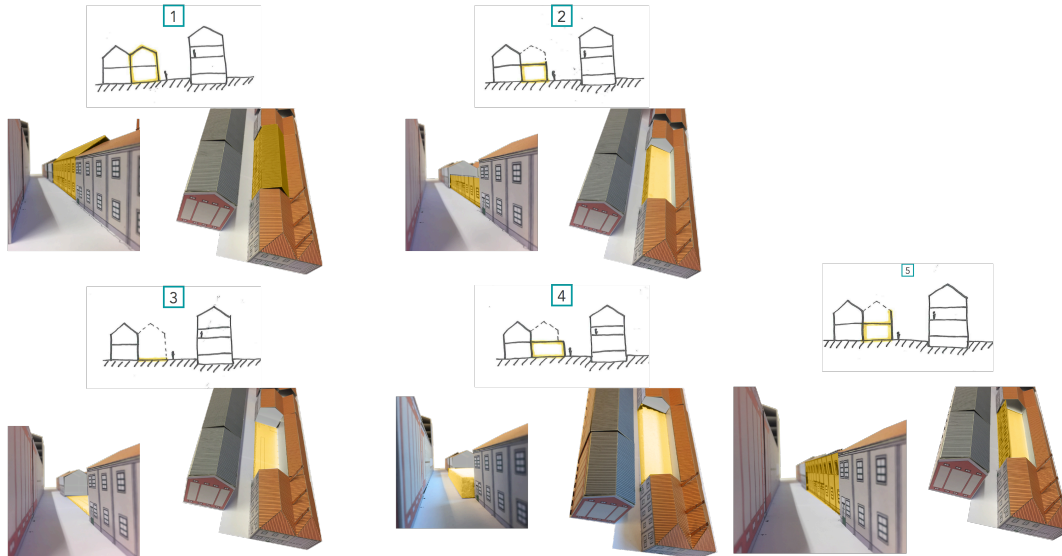
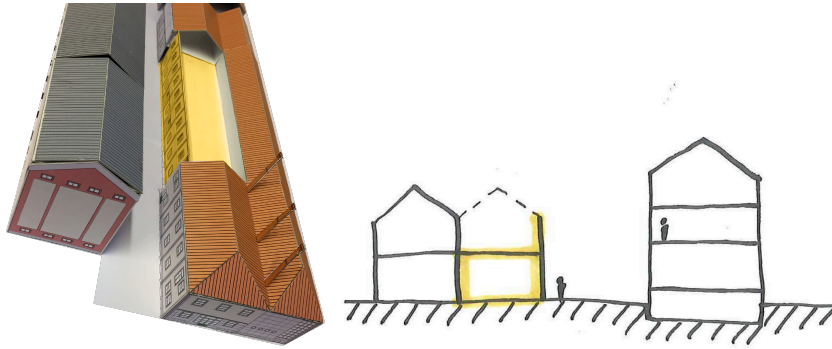


Image 7: Testing scenarios with the use of models. (Own image)

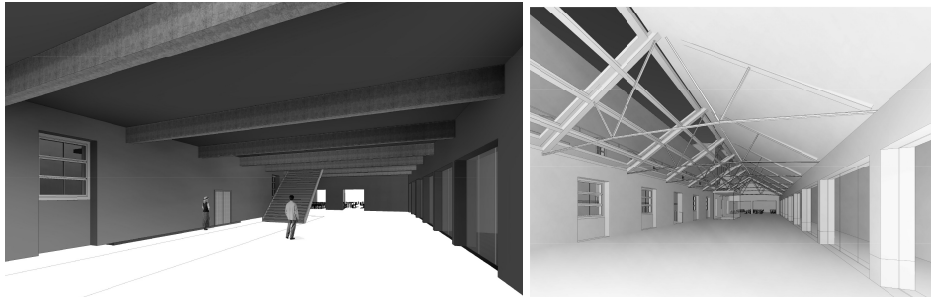
In the beginning of the design process I was a bit reluctant to make bold statements and design decisions, trying to be careful with all the 'existing fabric'. This was also due to not completely knowing what I was searching for. This journey, the discovering of the buildings and my personal design challenge, led to a gradually evolving design in which every step was very thoroughly thought of and tested with the cultural values and my personal design brief. (See image 8 for an example of the evolution of an intervention and pushing the boundaries).

Furthermore, as explained it is about a coexistence of multiplicities. The existing buildings, having changed frequently over time to comply with the new machinery and production demands, consists of different building parts, construction techniques and materials. With new demands for the MMC a new layer is added with a lot of different functions. In the beginning of the design phase I could not get a good overview of all the different elements and to rationalize the process I would work on the different parts separately. This resulted in an eclectic design in which the overall language was lost. After realizing this I went back to my research, the cultural values and realized the overall language could be found in the industrial essence of the buildings. For example: from the beginning of the project I really wanted to use cork as a façade material as it is a local sustainable product. This soft material clashes with the hard, rough industrial character of the buildings. So eventually I had to change the material for the façade, as it would not fit with the rest of the design and the values of the existing.

P2 Global idea of placing the outdoor space and keeping the façade. Quite safe, only removing a part of the roof.



P3 Entrance via stairs, very dark, outdoor space on the first floor, leave the building almost untouched. Trying to keep as much as possible with a bit more tension between indoor and outdoor.



P4 Open up the floor to create the outside space over two floors, bringing in the light and open up the facade to emphasize the intervention from the streetside while keeping the essential qualities of the space.



Image 8: Example of the evolution of an intervention, the outdoor space – P2 – P3 – P4 (Own image)

The meaning of this 'industrial essence' was still not completely clear for me when the first P4 moment arrived. The last weeks before the presentation I realised I had to stop searching and make some final drawings. Unfortunately I did not pass my P4 on the first go even though I worked very hard it was completely justified as the design was just not there yet. The search for my 'industrial essence' was not over. I needed more time to be able to work on all the aspects of my complicated design goal as well as defining my challenge. Especially the Daycare machine and the senior housing extension on top of the Milling lacked design research. The first weeks after my failed P4 I found it difficult to continue my search but gradually I picked up the pace of research by design. The senior housing situated in the extension needed further research for the possible floorplans, which shows the flexibility, and multiple options for this space (see image 9).

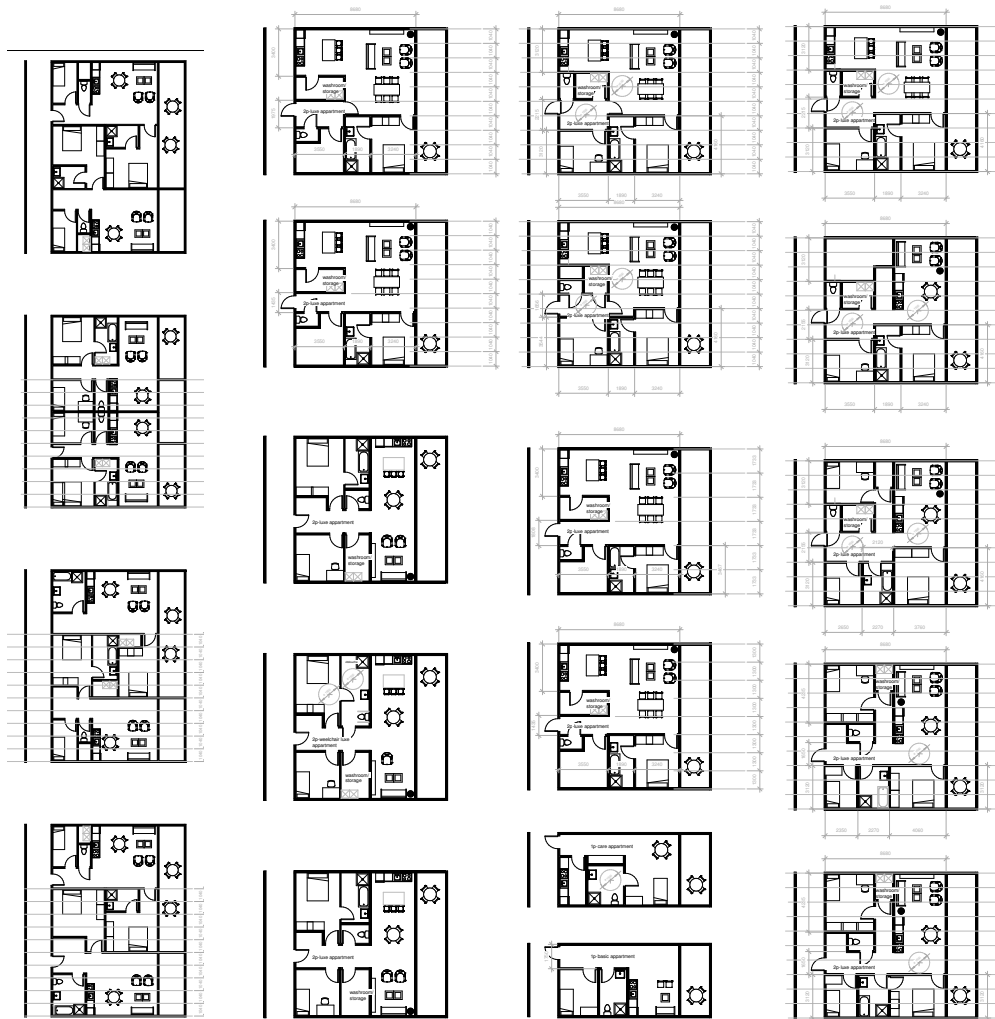


Image 9: Development of some types of the senior housing. (Own image)

Following the floorplans was a research to the exterior, look and feel of the extension (see image 10). While sketching and visualizing this space I realized what I was doing and also what I had been doing when creating an outdoor space in the Bakery. Unconsciously I was reinventing the machines. The machinery within the buildings greatly determines the space and character of the interior. So for my proposed interventions I am using the machinery, the heritage, as the main inspiration: the industrial essence is the machinery.

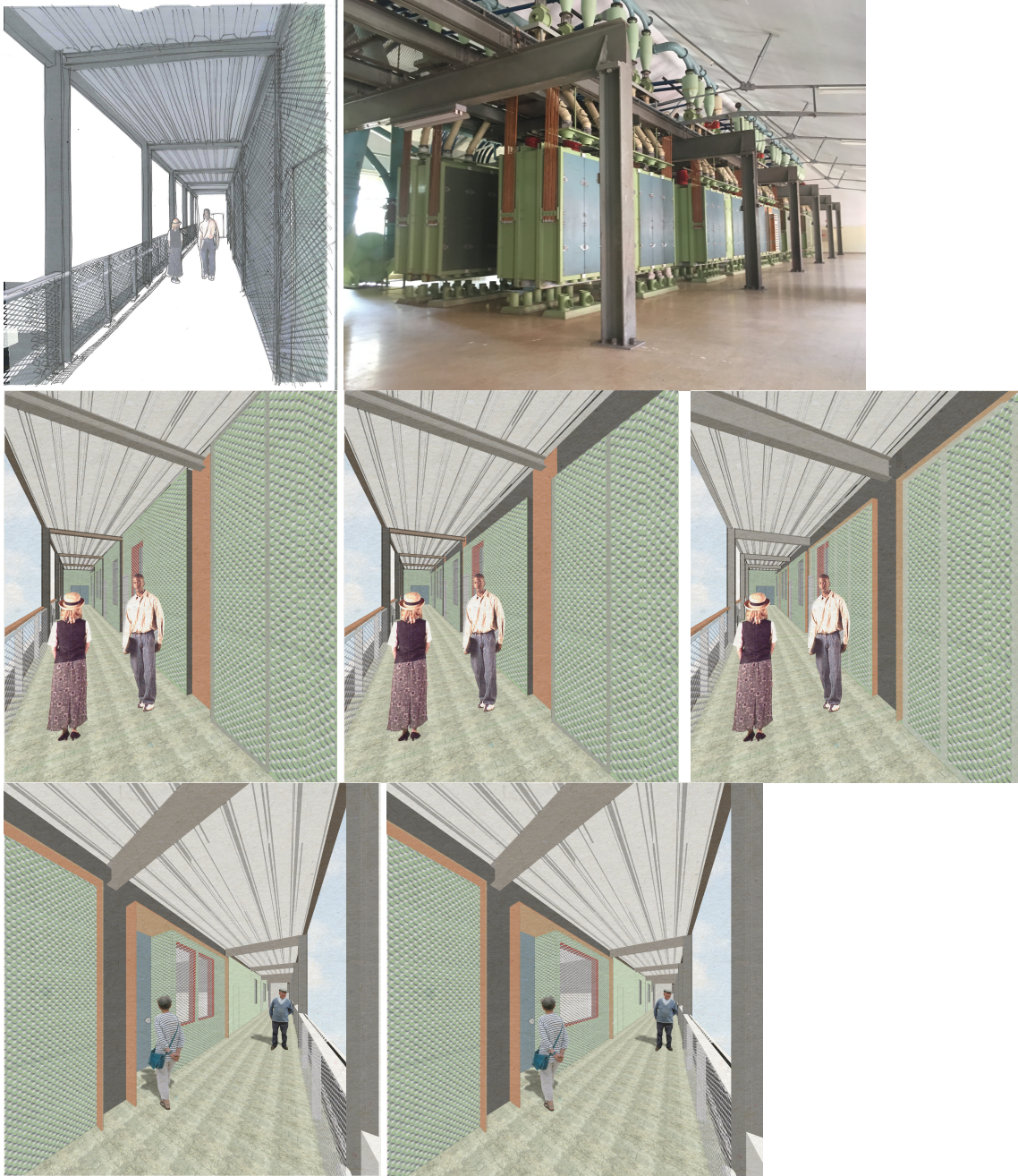


Image 10: Part of the research on the exterior of the front façade of the extension (material, height construction, colours, openings and details) inspired by the machinery on the top floor of the Milling. (Own image)

With the machinery as my main inspiration I started further development of the Daycare machine. For this I also had to be bolder in my decisions to strengthen my design. To create a more playful daycare I again partly removed the flooring to be able to have more diversity in floorheight. To be able to immediately see the impact in 3D I made a quick Sketchup model to play with heights, slides, stairs, colour and shapes. Ones having reached the desired form and vision for the daycare it was important to design how it would be build, as this would have a substantial impact on the overall atmosphere of the daycare.

Being able to better grasp the essence of the buildings, and the discovery of reinventing the machines, I was capable of making profound design decisions. And even though I am proposing to remove a substantial part of the existing fabric I believe that it is necessary to bring the MMC new life while remaining its distinctive character and keeping the essential cultural values. It is important to maintain the cultural values but it is equally important to give the heritage new life and preparing it for the demands of future use.

Conclusion

If I look back on the whole graduation project I am quite satisfied with my results even though it took me a while to discover what I actually wanted to do. I think the scope of the project was just too big which did not give me enough time to work on all the interventions making me feel I was constantly running behind and it also resulted in a chaotic design process with lots of different elements. With more time after my first P4 I could conduct more research and further and better develop my design.

Beside this I learned more about my doubting decision-making and caution with the existing heritage. Even though I think I could be more decisive and bold, especially in the beginning of the project, I also think that because I gradually came to my final design decisions I did really think it through. Gradually the road I was taking became clearer and all the pieces of the puzzle somehow seemed to fit. Nonetheless if my journey had been a bit quicker I might have been able to work out the plan in more detail.

My theme of social cohesion and the way people live is something in which I have always been interested and I am glad that I could discover more on this subject through my graduation project.

Points on which I can improve

- Take a step back and look at the bigger picture every once in a while, do not drown in small insignificant details. If I had done this more often I think it would have helped me speed up in my search of the assignment.
- Be more organised in my process. I tend to scribble on everything, which often does not make sense to anyone except myself. So state a problem, research it, document it neatly and then move to the next research.
- Draw everything that comes to mind, even when I think I know how something is supposed to look, visualizing that image gives better insight to missing elements.
- Always go one step further, do not stop at option one.
- Talk more about the project, to fellow students, friends, family, tutors. Explaining the design helped me to understand my goal and how I proposed to reach that goal.