

Reflection P5

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At P4 and P5 a reflection must be included as a distinct part of the thesis (a separate chapter) or as a separate document. In this reflection the student uses a short substantiated explanation to account for the results of the research and design in the graduation phase (product, process, planning). The aim of the reflection is to look back and see if your approach worked, to understand the “how and why”, and subsequently to learn from this. The choice of method (how) and argumentation (why) which preceded the research was a part of your study plan – the reflection must contain an answer to the question of how and why the approach did or did not work, and to what extent.

For my research the main purpose from the beginning was to design a construction component by reusing the train windows of Virm renovated trains. I made my internship in Superuse Studios and the client of this project was NS. On the beginning, I started looking at the detailing part of it. This happened main because there was no program specified from Superuse studios and NS. Since NS was the client Superuse Studios and we were waiting of a specified building program. Some months passed and there was no answer from NS. It became obvious to me that the kind of the connection and the component had to do mainly with the use building program. Had to be sealed? Be load bearing? What about the design criteria? After discussion with mentors we decided to continue with a program of my one since the thesis had to be continued. So we opted for the design of a Pavilion in the BK city for the Circular week 2020. By that time I specified my design criteria, and I started to from bigger scale to smaller. It was the time that my approach started to work.

Aspects

Depending on the research and design, reflection on a number of the following aspects should be included (you may choose in which order). The reflection should be in the form of a text, with diagrams and sketches for purposes of illustration and clarification.

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| Aspect 1 | <i>The relationship between research and design</i> |
| Aspect 2 | <i>The relationship between the theme of the graduation your master track (A,U,BT,LA,MBE), and your master program (MSc AUBS)</i> |
| Aspect 3 | <i>The relationship between the methodical line of approach of the graduation and the method chosen by the student in this framework</i> |
| Aspect 4 | <i>The relationship between the project and the wider social context</i> |

The relationship between research and design

The research had to do mainly with the Circular character of the project. Nowadays there is a huge effort from designers, architects and engineers to establish and understand the circular economy thinking. The aspects of circular thinking are evolving in different directions that had to be specified from the beginning of the research in order to specify the design criteria

The relationship between the theme of the graduation your master track (A,U,BT,LA,MBE), and your master program

The Building Technology track from its beginning is specified in the relation between Technology, Sustainability and construction. I became aware of circular economy in construction the first my months in the master track and since then I decided that this is the field that interests me the most. For this reason my graduation theme has as its core the circular economy. Also the first four months of the master track Bucky Lab was the main studio - course. It had to do with designing of small temporary structures and detailing until 1:1 scale. Since I had never worked in 1:1 scale before Bucky Lab and I found it extremely challenging, I decided to work in the same scale for my thesis building again an 1:1 prototype.

The relationship between the methodical line of approach of the graduation and the method chosen

Generally when an architect or engineer is dealing with a new design project the approach start from references research and then design from larger to smaller scale. The same method had been used in this research. The references described in the first part of the research highlighted the gap of knowledge in the field of circularity of train windows. Then the pyramid design method -from larger to smaller scale- revealed was the most efficient method to deal with the issues of the design one by one with the minimum loss of time and effort.

The relationship between the project and the wider social context

As an architecture and building technology student, I am always expressing the opinion that as architects we all have a greater responsibility. That said, my priority as an architect will be to use synthesis as a tool to answer the disputes of our society. Environmental issues of our century should be a priority. For this reason, I strongly stand with the opinion that the circular economy in construction can contribute to the minimizing of construction waste pollution. My thesis is a way to show that waste materials that are not meant to be part of construction can actually lead to interesting architectural results after careful and conscious design.

