

## Reflection – Dylan Besten 4717317

The topic of this thesis concerned the current implementation of circular economy strategies in the adaptive reuse of heritage buildings, the barriers that come along with that, and potential ways to mitigate the barriers. This research was performed in the graduation lab: "Circular-Adaptable Real Estate Reuse to React to Societal Changes". The thesis fits in this lab quite well since it researches circular economy strategy implementation in adaptive reuse. As far as the master track management in the built environment the relations lie most in the stakeholder management. Both the thesis subject and the master track aim to direct different stakeholders toward high-quality and feasible development. The master's programme in architecture urbanism and buildings sciences hold relation the to thesis in the fact that both combine scientific and social sciences to create more sustainable development.

### Relevance

Regarding its social relevance, the CESAR model holds significant value as it offers a practical tool for practitioners to implement circular economy strategies in their projects. To aid them in this regard, I have delivered presentations to various organizations, explaining how the model functions and how it can be applied to their business cases. This has provided me with valuable feedback, enabling me to refine the model's functionality. The CESAR model represents the most effective means of transferring the knowledge acquired from this research to practise, where it can be put into effect by businesses.

In terms of scientific relevance, this research has predominantly explained the translation of theoretical research into practise, while also identifying the steps that must be taken in the future. This translation is regarded as the research's most significant strength. By conducting interviews with stakeholders from diverse companies, filling various roles, and obtaining multiple perspectives, a comprehensive understanding of the matter has been achieved. However, the research's weak point may be the limited number of case studies and interviews examined. With more case study projects and interviews, the research could have potentially yielded more reliable findings.

### Methodology

A variety of research methods were employed for this study. From the outset, it was evident that conducting interviews with professionals from the construction sector would be advantageous, as they possess valuable experience in the area of this thesis and could provide insights into their respective roles and the industry as a whole. One of my supervisors suggested that validation of the interview and case study findings could be achieved through a focus group. In this forum, participants could not only affirm the results of the case studies but also address other research inquiries.

Despite the online format of the focus group sessions, which is not an optimal medium for conducting discussions, they proved to be exceptionally valuable. Participants not only engaged in conversations with me, the researcher but also with one another. The dialogue was natural, and everyone offered comments and responses. By enabling participants to converse with one another in addition to speaking with me, the focus group format facilitated a comprehensive understanding of "why and how" participants undertake and perceive various aspects of their work.

During the data collection process of this research, several challenges were encountered. Some interviewees cancelled their appointments at the last minute or were

unresponsive for an extended period, causing delays in the research process. However, with careful management, most interviews were conducted within the given timeframe. In cases where an interviewee declined or was unable to participate, an alternative interviewee was identified, such as another project leader or a representative from the same company.

In the context of ethical considerations and dilemmas, the research encountered few instances. To safeguard the confidentiality of the data obtained from the case study interviews, all the information was anonymised in the report and during the presentations. Furthermore, during the data collection process, no sensitive information was collected. The same holds for the outcomes of the potential implementations of the research findings in practise. It is noteworthy that the CESAR model is an independently created tool that is not aimed at promoting any particular company or product.

### **Personal reflection**

Up until p2 most of the research was done through a literature review, this could be a challenge at some times. Since I am not the best reader, sometimes scientific writing is fairly complicated. With reading more this did get better and I started understanding more of the papers I read, also because I knew more about the topic. What also really helped is writing down phrases in my own words to better understand what was meant by the researcher. This approach is also something that was of benefit during the feedback moments with my supervisors. Whenever they would suggest something that I did not quite understand I would rephrase it and repeat it in my own words to make sure I understood them right. By doing so the feedback moments were very useful and my supervisors both at the university and at the company helped me in shaping my research proposal.

What my supervisors also helped me with was understanding that case study research takes quite some time and selecting case studies and contacting all the interviewees to plan the interviews can take quite some work. This is why I tried to select all the case study projects before the P2 and even before my graduation internship started at the company. This was in hindsight a really good decision since I could start the case studies straight away after my P2 presentation.

At the beginning of the case study interviews, I had a hard time balancing the interview protocol and making sure that the conversation went smoothly and that we also had room to explore other directions. This could either lead to really stiff interviews because I strictly followed the protocol or interviews where I forgot to ask certain question because we drifted off too much. I tried to mitigate this by doing the first interviews within Nico de Bont with people I already knew so that I felt at ease and when I forgot some questions during the interview, I could easily ask them afterwards. After a couple of interviews, I got better at balancing the protocol and the conversation and I feel like I got better at conducting interviews. I might even have gotten the most interesting results from the parts that were not in the protocol but were discussed anyway because the conversation allowed us to. This made the interviews fun and that made me and the interviewees very enthusiastic.

The peak for me was the focus group sessions. All the interviewees from the case studies would gladly participate in the focus group and were very enthusiastic. The session was incredibly useful and the participants provides me with so much information. They did not only discuss the problems with me but also with each other which was nice to see. They discussed ways I could help them with my research but also how they could help each other.

Analysing all the data was quite difficult sometimes. Working with Atlas.ti for the first time and coding interview transcripts was new to me. At the start, it was quite difficult to make sure that all the relevant information was coded and that all the important parts were taken into account. This did also get better after working more and more with the program and the transcripts.

Writing the report was the next challenge. The interviews contained a lot of energy and enthusiasm, and I wanted to transfer this to the report. This was however quite difficult in combination with writing a report that was written in proper formal English. I tried to deal with this by including many quotes from the interviews and focus group sessions, to give a feeling of how they were. The quotes had to be translated into proper English, while also being somewhat formal, but without losing their essence. This was quite challenging but I feel like it came out quite well.

In the end, I am very happy with the result. I really enjoyed my time at the company and the people I got to meet and work with. I am proud of the results and everybody who helped me with it.