In this reflection, I examine the graduation studio using the five guiding questions, supplemented by two additional questions I have developed. These questions are specifically relevant to my graduation project and the studio experience, and have been formulated to get into greater depth into the topic of my project and the studio.

1. What is the relation between your graduation project topic, your master track (Ar, Ur, BT, LA, MBE), and your master programme (MSc AUBS)?

When reflecting on the relationship between my graduation project, the Zero Waste studio, and the broader Master's program, I find that there are certain areas of overlap, while others could have been better integrated. Specifically, my research focused on the serious game and the development of a participatory design approach for religious heritage, which overlaps with knowledge in architectural heritage and geomatics, including values and attributes, as well as generic design frameworks and algorithms. However, I now realize that my research placed more emphasis on the development of the participation tool than on topics directly related to heritage. While it is valuable to conduct research that overlaps knowledge from multiple fields, I may have lost sight of the studio's focus on religious architectural heritage and circularity by placing too much emphasis on generic design.

2. How did your research influence your design/recommendations and how did the design/recommendations influence your research?

My design was directly influenced by the research, particularly through the Serious Game which determined the overall layout of the space surrounding the church. Additionally, the research indirectly influenced the design by providing insight into the dynamics between the participants. Through interviews, literature research, and the Serious Game, I was able to develop a design that balanced the desires of everyone involved..

Conversely, the design also had a direct influence on the research. As a designer, I defined certain design principles that were used as starting points for the game. Furthermore, the level of detail of the Lego model was determined by the design task, which focused on the urban scale of the project.

3. How do you assess the value of your way of working (your approach, your used methods, used methodology)?

Although my graduation project and the methods used cannot be considered ground-breaking, I believe that this is not necessarily the primary objective of a graduation project. I used the conventional research methods such as literature review, case study and interviews, but using these I developed my own methodology that incorporated a Lego model and the use of Excel and Grasshopper to analyse the proposed program and design. In my opinion, this kind of serious game that combines physical and digital elements in relation to the transformation of religious heritage represents an innovative approach. I view my methodology as an attempt at this approach, I believe that further research could be conducted and additional methodologies proposed to refine the application of serious gaming to religious heritage transformation.
Considering the design I look back on natural proces in which one element leaded into another. For example the idea of excavating to ground floor in order to create a feeling of safety which than developed into the rammed earth walls using this sand.

4. How do you assess the academic and societal value, scope and implication of your graduation project, including ethical aspects?

As previously mentioned, I do not consider my project ground-breaking but rather as a step towards the application of serious gaming in the transformation of religious heritage, in order to develop a more participatory design approach. Academically, the combination of physical and digital tools into a game is an attempt to enhance participation in the

transformation process. In my graduation project, I take a position on participatory design and what it means for me as a designer. Based on my experience with the game and research, I have concluded that the main issue with participatory design is reaching a consensus. This consensus can be defined as a state in which stakeholders are satisfied with a certain design solution that they may have rejected at an earlier stage. I believe this definition is an addition to the societal debate about participatory design, including topics related to inclusiveness and spatial justice. While participatory design is often viewed as an inclusive and good way of designing, I would argue that it is simply a tool for achieving a consensus, and sometimes there is a huge difference between reaching a consensus and what is inclusive or justice.

5. How do you assess the value of the transferability of your project results?
While the serious game and the overall graduation project may be readily applied to the specific case of the Kruispuntkerk, it remains to be seen whether the results of both design and research can be applied to really different contexts. I think the methodology developed in this project can be used for application to other cases that share key features with the Kruispuntkerk. These key features should than be the focus on a urban scale and the involvement of values related to architectural heritage. The methodology could be further adapted to handle more complex cases, such as the shift in focus from the urban scale to the architectural scale that may be necessary to deal with for example Roman Catholic churches and other pieces of build heritage. Further research is required to determine the extent to which the methodology can be applied in such cases, and to refine its practical applications in different contexts.

6. How do you assess the value of your own process during your graduation project?
During my graduation project, I did not always have a clear overview of the direction of my design and research. I know that processes are not linear, and at times, it is easy to lose sight of the bigger picture. However, reflecting on my process, I believe that I could have focused more on circularity and less on participation and serious gaming. The research has focus on urban and programmatic development rather than a focus on a certain type of circularity. If a topic closer related to circularity was chosen it would have created more synergy between the topic of the studio and my research. Despite this, I do not regret my chosen topic, as it arose from the analysis of the problems surrounding the case of the Kruispuntkerk. Thus, the chosen topic was a product of the process and leaded towards interesting findings and in the end a pleasing design. The serious game focussed on the program and urban development wherein the design proces the focus was more on circularity with the use of the sand and the rammed earth. In the end both topics needed to be addressed one in because of the studios context and the other because of the context of the church.

7. How do you assess the incorporation of circularity into your project?
Olga Ioannou gave us 4 approaches towards circularity: designing with waste, designing without waste, designing for longevity and biobased design. In relation to the studios topic designing with waste is the most relevant approach. The main question raised by the studio is about the reuse of materials and elements which have a certain value. I used this approach of designing with waste but used mainly sand as the waste product in order to create the rammed earth walls. However, I did not emphasize the reuse of the dismantled parts of the building.