



Circular Codes Thesis

**PRACTICE-OBJECT-ORIENTED
COMPUTATIONAL DESIGN**

Methodology for Collaborative Domestic

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Reflections

The graduation thesis “circular codes”, as a programming methodology for circular practice oriented design is positioned between the field of computational design and circularity. The research definition process was long and dynamic in search for meaningful work. The topic was abstract on different scales and so also the intensity of the work. After the repetitive redefinition of the research questions and thesis scope and objectives, the literature research was further specified with increasing clarity, and so the essence of the research was achieved. The result is not as expected. Looking back, I clearly overestimated my capabilities in relation to the time and master program frame. In order to solve complexities of the world, different perspectives are important, therefore the methodology was exploratory from abstract to concrete.

This research approach allowed interlinking of different views over design practice and scale from an abstract theoretical background. Overall, this process was very enriching and insightful in different ways, especially in relation to computational design. The fields potential to parameterize and create environments is exciting to reach out and replicate global sustainable solutions in form of network systems, However, there is also a feeling of computational saturation. This workflow needs to further complemented physically and manual work. The tool result is far from being applicable to real practice. However, prototype tests and experiments of circular systems and component designs can already be explored in practice, while the computational tools are in development and upgrade. The idea to create an actual inventory of objects, as representation of someone and his lifestyle, where things are part of service systems, seems however also mistrustful. In theory the idea is I think technically possible with a step by step systematic approach and clear milestone definitions.

The innovation in this thesis is the particular methodology, result of

connectivity between theories and frameworks with programming. There is more to it, than I can understand, therefore a clear reliable assessment is still difficult, due to my recent start with programming. In this sense, the current program is too strict, not allowing for a more professional self discovery and free type of study journey to produce more impactful results. The problem statement targets unsustainable practices, in consideration of circularity, the PPP framework including the social within technical development. That is fundamental. However, I don't think this thesis will actually not have much meaning or impact for that development. The impact was more personal, the way and process itself, not the result. The project can contribute for a more open and wide process of architecture design and construction, so that the field grows to match current global challenges. Both circularity and computation set the conceptions of architects and designers of the built environment in question of its actual practice in relation to user practices. In this sense, the disruption will probably continue with increasing technological and environmental developments.