

Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences



Graduation Plan: All tracks

Submit your Graduation Plan to the Board of Examiners (Examencommissie-BK@tudelft.nl), Mentors and Delegate of the Board of Examiners one week before P2 at the latest.

The graduation plan consists of at least the following data/segments:

Personal information	
Name	Luuk Goossen
Student number	4431847

Studio		
Name / Theme	Explorelab 31	
Main mentor	Elise van Dooren	A
Second mentor	Hubert van der Meel	BT
Third mentor	Clarine van Oel	R
Argumentation of choice of the studio	Explorelab allows for greater control of the graduation process. My interest is in combining new technology, a multidisciplinary approach and a practice based case study. Explorelab was the only studio that allowed for this control and combination.	

Graduation project	
Title of the graduation project	Virtual Reality for improved Co-design in Architecture
Goal	
Location:	The exact location is to be decided later, but it is important that the location has strong contextual qualities that can be used as inspiration for the design.
The posed problem,	User / Client involvement in architectural projects is limited by communication between architects and clients and the inability to fully understand "design language". This results in an information-asymmetry, which can lead to unnecessary design steps or worse performing architecture.
research questions and	Can a Virtual Reality based co-design platform improve user involvement in architecture? Do the clients feel more involved and empowered afterwards? Do the clients have a better understanding of architecture and architectural values afterwards?

design assignment in which these result.

A case study in which the architect and the clients co-design a small residential building together, during which the theoretical framework is tested. The final design output is the result of this collaboration between architect and clients. The final research output is a paper that evaluates and concludes whether the process has worked.

Process

Method description

The method used is a combination and integration of the research and design part of the graduation process, in which a case study will be used to not only co-design with clients, but also observe and evaluate their behavior throughout the process. As the co-design method, a Virtual Reality platform developed by my own company will be used to allow the clients to design together with me as the architect. In the case study, the design process will be split up in five sessions, each with a specific preparation, goal and evaluation.

Literature and general practical preference

A multidisciplinary literature study into co-design and Virtual Reality has been conducted to form a theoretical framework for the experiment conducted in my research. This results in a hypothesis that Virtual Reality can be used to overcome most complications in common co-design methods, along with improving communication between architect and clients and increasing the speed with which clients will learn to understand architectural values. This theoretical framework will be combined with my 2500+ hours of experience in the field of virtual reality working for both the TU Delft and my own company, during which I have worked on over 50 projects in various disciplines and given more than 100 workshops or masterclasses, some focusing on various degrees of user involvement in the built environment domain.

Reflection

1. What is the relation between your graduation (project) topic, the studio topic (if applicable), your master track (A,U,BT,LA,MBE), and your master programme (MSc AUBS)?

Evaluation a co-design process allows me to have an in depth look into the architectural design process itself. It requires me to critically think about the architectural language and our methods of communication. Furthermore, I can learn about a crucial part of the architectural discipline that is often neglected during our education at our faculty: Working with and for clients.

2. What is the relevance of your graduation work in the larger social, professional and scientific framework.

Improving client-architect communication and overcoming some of the complications in common co-design process could result in higher user satisfaction, higher quality and therefore more sustainable architecture, and an alternative way of working as an architect. Even though the setup and scope of this research is relatively small, the method could be repeated in a larger context, learning from the conclusions and evaluation of this project. Larger scale research could give valuable new insights in the fields of co-design and Virtual Reality, whether the hypothesis returns true or false.