CDP // MIXED REALITY
Topics Summer Semester 2020

Despite the constant increase in the use of a computer in architect offices, it is still widely unutilized in the early design stages. The biggest problem is not only the lack of appropriate Humane-Computer-Interfaces but also the limited possible use case scenarios. Furthermore, complex Software solutions and unfitting workflows restrict the creative process and hinder the design process. The goal of the Collaborative Design Platform // CDP is to bridge the gap between the established design tools utilized by architects and the digital tools.

The focus of the Mixed Reality topics is to explore the new ways of visualization that are offered through AR/VR and how their unique features can be integrated in the CDP. These solutions would allow architects to explore new design spaces and support the creative process in the early design stages.

Topics:

• **AR HMD On Table:** Although the CDP utilizes physical models the digital environment is represented through a 2D figure-ground diagram. This often leads to a misunderstanding of the scale of changes made. The goal of the topic is to use the HMD to visualize the digital environment on top of the CDP in the correct scale.

• **VR HMD Two-Ways:** The objective of the topic is to allow for communication between the CDP VR solution and the CDP project and thus enable a two-way communication between different types of users.

• **VR HMD Modelling:** The goal is to extend the existing VR solution with new interaction methods that would allow the user to enhance the buildings with more complex details.