



Drawing in virtual reality using VSpline software

ARCH 4509/6509 New Realities in Representation

- Instructor: Christopher Morse
- Time: M 10:10–12:05 p.m.
- Location: 261B East Sibley Hall
- Credits: 3

VR + AR are providing fundamentally new modes of architectural representation. In addition to drawings, renders and diagrams, we now have the technology to add interactive, immersive experiences. In this course, we will explore VR through the lens of communicating architectural concepts, seeking not to simulate space but rather to use spatial drawings to express and understand. The course will progress along two parallel tracks. One track will focus on technical details using real time rendering engines to create standalone VR applications. Using Unreal Engine, we will look at texturing geometry, defining material properties, and coding user interactions. The second track will look at the development of VR in relation to other forms of architectural representation. What happens to the drawing when it can be inhabited spatially? How do digital and physical interact? What does a VR experience provide that a static 2D deliverables do not, and how does this affect the design process? Students will take an existing well-known drawing or painting and interpret it as a virtual drawing. The intent is not accurate recreation, but rather an exploratory investigation of spatially inhabiting and interacting with a drawing. The second project will consist of an immersive/interactive architectural visualization to be experienced primarily within virtual reality. These visualizations will communicate architectural information (in the broadest sense) in a way that would not be possible in any other form of media. Weekly readings will supplement the workflow as students think both about the user experience and how the virtual experience can be documented.

Instructor permission required. Students who wish to enroll must attend the first day of class.