Design to Visualization: How to make Virtual Reality a Reality at your Design Firm

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Job Captain
Class Summary

In this class we will be looking at high level visualization processes and tools focusing on Virtual Reality. We will touch on what the possibilities are based on current technology, what questions you need to ask yourself to help determine the direction you will need to take as well as some software solutions and how they fit into the design and documentation process. We will also look at the design process and how we can augment this with these technologies to help improve workflows and help the adoption of Virtual Reality. By the end of the class I aim for you to be able to leave with a better understanding on what you can do to successfully implement VR at your practice.
Chris Kelusak

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Taylor Design

At Taylor Design, we collaborate with our clients to learn together and develop user-based solutions, places, and services that drive value and are effective, valid, and delightful.

We are a multidisciplinary design firm focusing on Architectural Design, Interior Design and Design Strategy.

Twitter @TaylorTalk
Virtual Reality
Learning Objectives
Learning Objectives

- Create a plan for implementing emerging technologies into their practices.
- Identify the direction of visualization best suited for their needs and the technology requirements that go along with it.
- Identify aspects of good model management and how it leads to a better, faster and more efficient virtual environment.
Where it all starts
The possibilities

And more!!
Choosing a Direction

- Photoreal vs Abstract
- Mobile vs Tethered
- Deliverable vs Workflow (Offline vs Real-Time)
- Low vs High budget
- Internal vs Take away
Questions to ask yourself

- Identifying your user(s), their software and their workflows
  - How many users?
  - Dedicated workstation or multiple?
  - What Authoring software do you currently use?
  - What Visualization software do you currently use?
- Do you have infrastructure to support VR development?
- Do you plan on using VR for Design? Presentations? Marketing?
Let’s talk Software
What we think the process looks like
What it Actually looks like

- Project Startup
- Design Collaboration
- Pre-Visualization
- Design Approval
- Documentation
- Visualization
- Sign Off
- Construction
What it could look like
Software Questions

- What is your current authoring software?
- Do you plan on hiring specifically for Virtual Reality?
- What is the desired end product?
Fuzor

- Interoperability with Revit
- Bi-Directional data
- Large Projects
- Initial Concepts through Construction Documents
- Expands beyond into 4D and more
Autodesk Live / 3DS MAX INTERACTIVE

- Single Click Export
- Free viewer
- Game Engine – allows customization and interaction
- Downloaded file is essentially a .zip file that you can modify its contents as your design continues to develop

Revit Live Editor View
Model Management Overview

- Assets
- Linked Models
- Worksets
- Poly Count
- Textures
- Lighting
Model Management – Asset

- Asset Management is critical when looking at sharing general content let alone Virtual Reality content that may have countless hours in modifying to have specific attributes for VR.
Model Management – Poly Count

- Keeping an eye on your poly count is important for both documentation and Virtual Reality.

- Keeping your geometry to only the needed poly count for your use is critical to maintain file size, render time and overall performance.
Model Management – Worksets / Linked Models

- Using Worksets to manage data
  - One Linked Model per Workset
  - VR Assets on closed worksets not visible in all views
Market Share

Market Share approximation as of Fall 2017
Experience your model
Q&A

THANK YOU!

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