PREAMBLE:

The goal of this last assignment is to understand and experience the concept of “presence” through a virtual reality design project. What makes this possible is the convergence of many digital technologies, most of which have been improving at exponential growth rates. These include processing power, bandwidth, display resolution, and digital photography to name a few. Now that VR devices can be economically provided, virtual reality will become commonplace with many applications ranging from design simulations to journalism to perhaps a more comprehensive means of communication.

Within this course, you have been introduced to many of the topics necessary to make virtual reality a reality. These include perspective imaging, color science, rendering and display algorithms, geometry capture, the human visual perception system, and so on. Thus in one sense, this final project is comprehensive in that it combines much of what has been presented.

Explore! Be creative! Understand space and the sense of scale! And above all, have fun! Good luck!
PROJECT DESCRIPTION:

You are to design a relatively simple exhibit space at the center of the Arts Quadrangle. The pavilion is accessible at ground level and should be an enclosed or covered structure with some windows or glass facades. Creativity is important! Please look at the example pavilion images and concept sketches from previous projects for some inspiration.

Your exhibit space will need to house and display the four photographically-derived Remake models from Assignment #3. Additional content such as furniture, etc., from online repositories like sketchfab.com or 3dwarehouse.sketchup.com. You may also use other 3d designs that you might have already created.

REQUIREMENTS:

We will provide you with a template file (demo). Your designs are limited to this volume. From a technical point of view, with the exception of the grass at ground level, all of the relevant environment is significantly distant from the pavilion, so that the “back-drop” need not be modeled. We will provide you with a template site in Unreal that has the Arts Quadrangle environment map pre-loaded. You will have to design in a modeling system and later import your files into the Unreal engine. You can also add models, textures, and/or lights in Unreal if you prefer. We will be holding labs on November 15, 16 and 17 to go over this part. Please have one or two people from your group at one of the labs with some design explorations ready. We won’t be able to help you otherwise.

Your model must be created in sufficient detail that it can be used for virtual reality scenes, such as those demonstrated in the laboratory. This means that in addition to the geometry, we will require texturing on all of the visible surfaces.

The most important aspect of this problem is to simulate the virtual reality experience in a novel and creative environment.

SUBMISSION:

To simplify the tasks, we will take your Unreal files and prepare them for use in our virtual reality environment. In order to do this we will need a Unreal project file from each team that includes all the necessary geometry, textures, and lights. Please see the attached sheet “How to Turn in the Assignment.” These details on how to submit your project will be presented shortly. THIS IS VERY IMPORTANT. If you fail to submit properly, we will NOT be able to get your model ready for virtual reality.

DEADLINE:

This project is due on Thursday, December 1st by 11:59PM. On Monday, December 5th, the first day of study period, we expect to have a pizza luncheon for the entire class while everyone will have the opportunity to walk through the virtual environments generated by the class.
2015 VR Submissions for Visual Imaging Course

EXAMPLE PAVILIONS