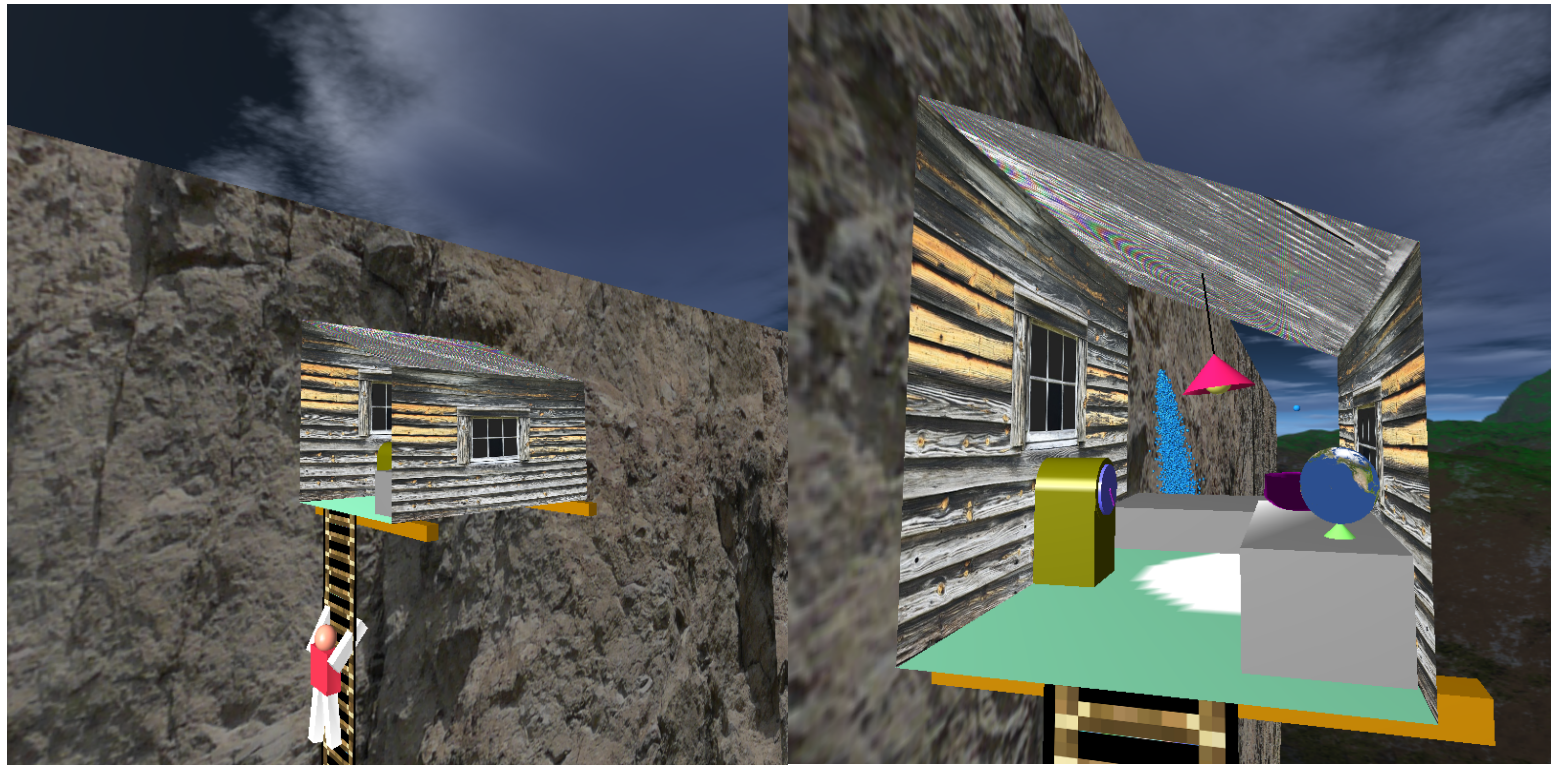


Cliff House



The scene is a house on a cliff in the wilderness, next to a small waterfall. There is a ladder to get to it, a desk, a bed, a spinning globe, a working clock, a bowl with water dripping into it, and a swinging light with a working spotlight. There is also a man climbing up and down the ladder. You can toggle to the man's point of view by pressing F1.

Design:

The design was based of a drawing that I saw:



Features:

Bowl

The bowl is purple and sitting on the desk, there is a single water drop falling into it. It was created as a surface of revolution, with the base polygon formed using an equation. The equation used to form the side curve was $y = x^2$. The water drop is simply a glutSolidSphere.

Swinging Light

The swinging light is pink and in the middle of the scene. It swings back and forth continuously. It has a spotlight attached to the light bulb.

Floor Clock

The floor clock is mustard coloured and in the middle left of the scene. It is constructed of 2 glutSolidCubes, 2 gluCylinders, and 3 gluDisks. It has a hand that continuously rotates. Specular reflection can easily be seen on the clock.

Human

The human moves up and down the ladder. His arms and legs also move in unison. He is constructed entirely of glut objects.

Globe

The globe is in the front right of the scene. It continuously rotates on its axis. This is a good example of a texture in the scene

Challenges:

- I faced a long challenge trying to debug a flickering problem. It was eventually solved by making sure there were 2 buffers.
- I struggled with getting the spotlight to show, this was fixed by changing the 4th element of its position to 1.0, and segmenting the floor.

Controls:

There are 2 viewing modes. They can be toggled between by pressing F1. The default is that the directional arrows move the camera around the scene in a walking fashion. The second is the first person view from the person climbing the stairs.

References:

UC COSC364 lectures and learning material