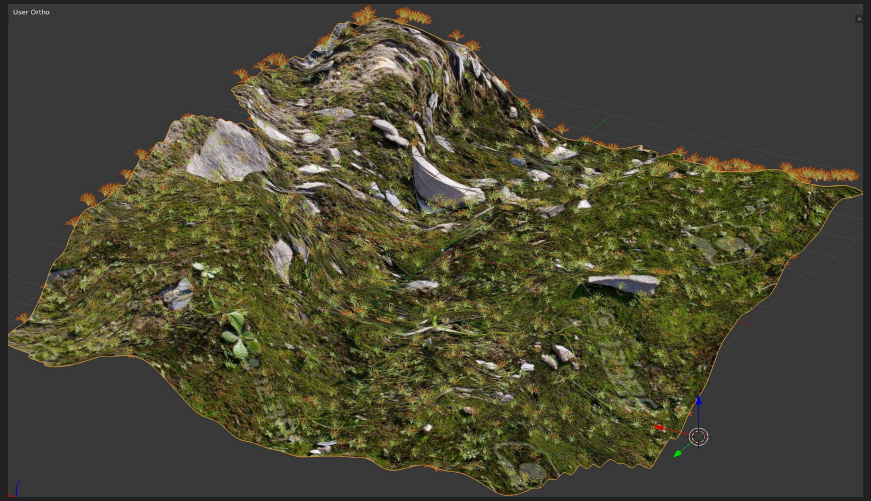
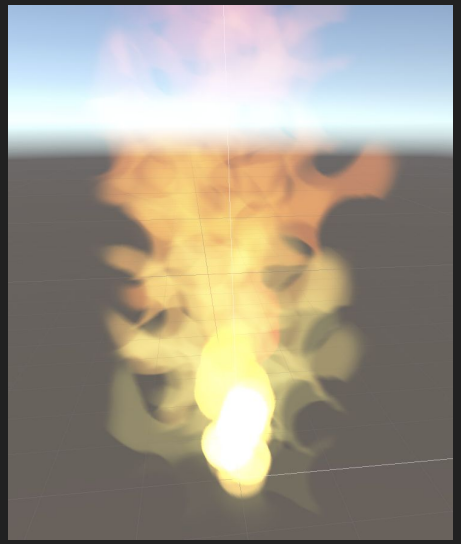
Outdoor Scene

Bob - Environment Modeling & Particle Systems

My role is to create a 3D outdoor environment by using blender. The grass objects are created on the surface by using the particle system in the software. I will be using Unity shader and particle system to create flame with even more visual effects





Jordan - Caustics

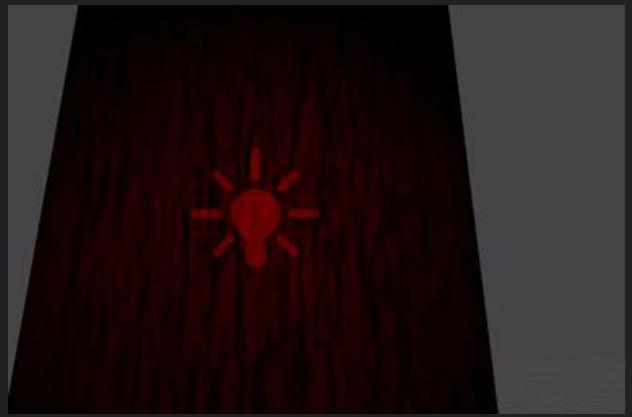
Caustics refers to the phenomenon of light rays being reflected or refracted by a curved surface or object. A simple implementation involves using a projector and animating an array of caustic textures.

Can be altered to fade when it reaches the edges.

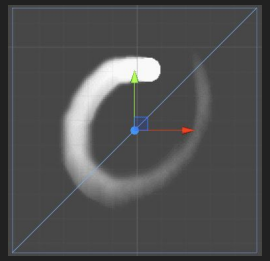
Bryan - Subsurface Scattering

Subsurface scattering is the phenomena that describes the way light is absorbed by certain materials and reemitted to create a translucent effect. In the real world, when light rays enter a material that is not fully opaque, like human skin, they bounce around internally under the surface until they emerge at a random point outside of the object.

This is hard to emulate in real-time, so we just light the back of the object which can be determined by dot(l, n) is less than 0. We can also use a depth map to specify the intensity of the effect at different areas.

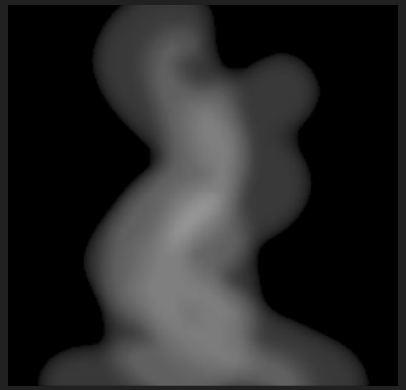


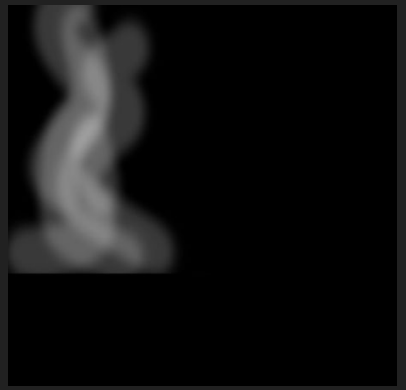
Smoke



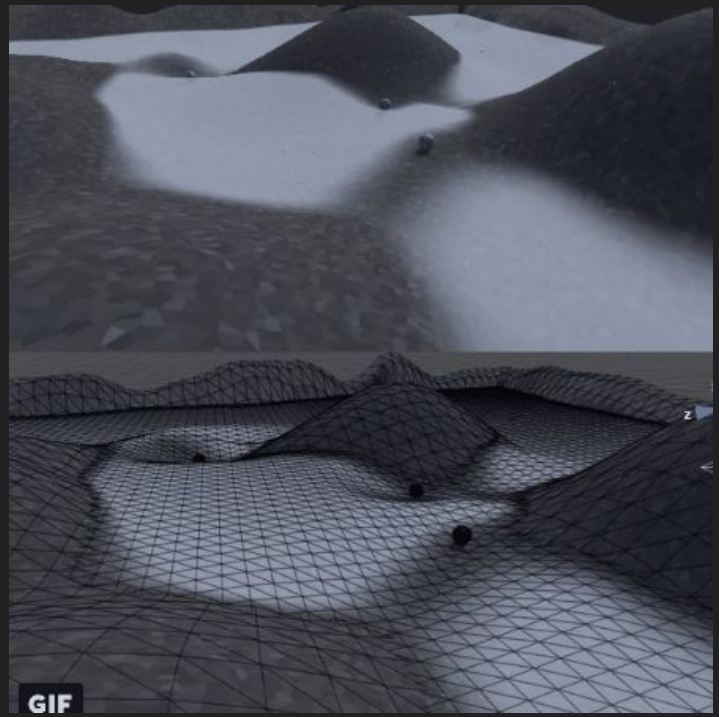
Gif/Tutorial by
Alan Zucconi

My Progress :)



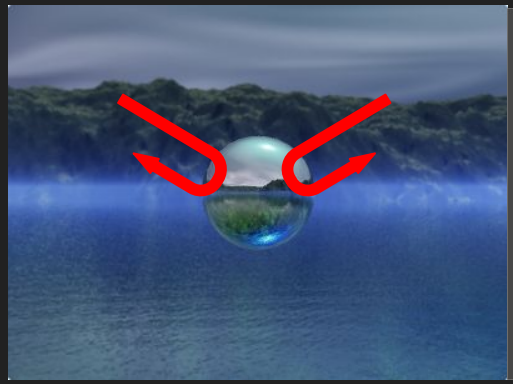


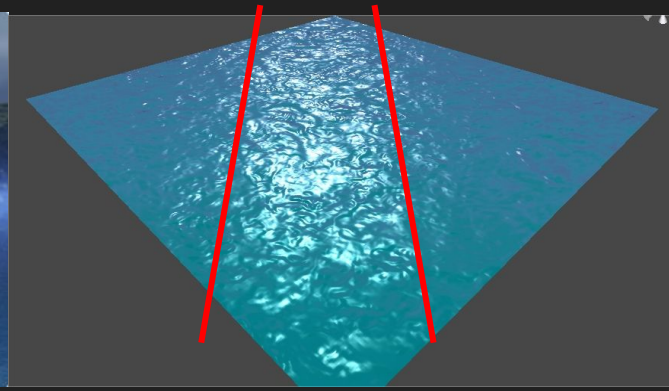
Fog

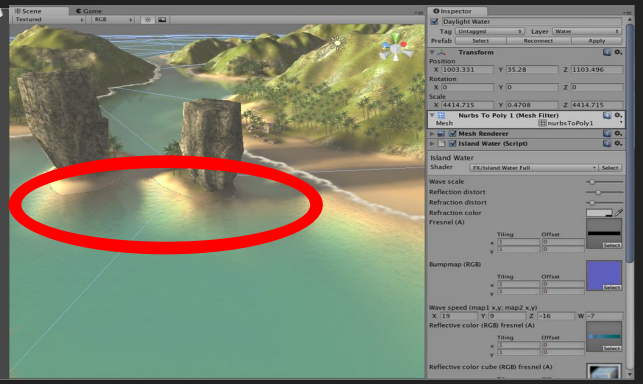


Gif/Tutorial by Roystan

Sam - Cubemapped Skybox, Reflection/Refraction







Reflection of Cubemap + Specular Highlight + Refraction

Images from tutorials

Alex B - Cloud particles and scene design

My task was creating a particle system to create a lifelike cloud. The cloud will use the particle system that projects images that will make it look like a cloud.

I will also construct out scene that highlights each our designs