Project 2 - Texturing and Lighting

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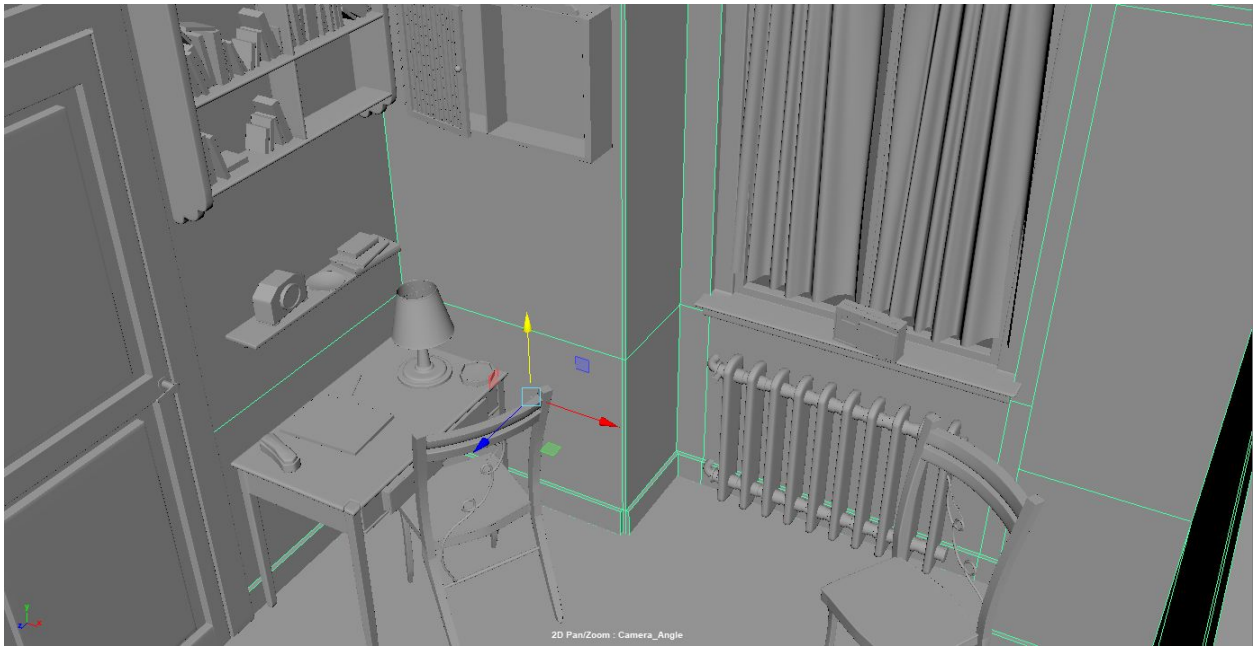
CSC 278

Report on Project 2 - Spring 2019

May 7th, 2019

Summary:

For project 2 I had to texture and light a scene. I chose to continue working on my project 1 where I modelled all the elements.



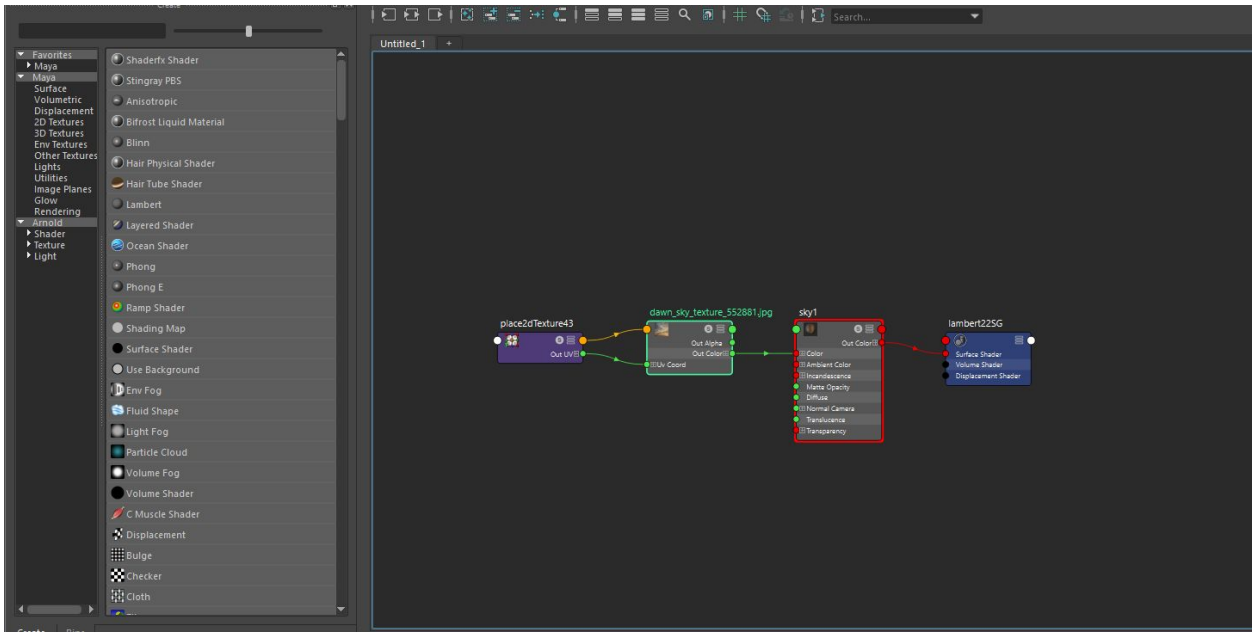
Progress until Project 1

My workflow:

Texturing:

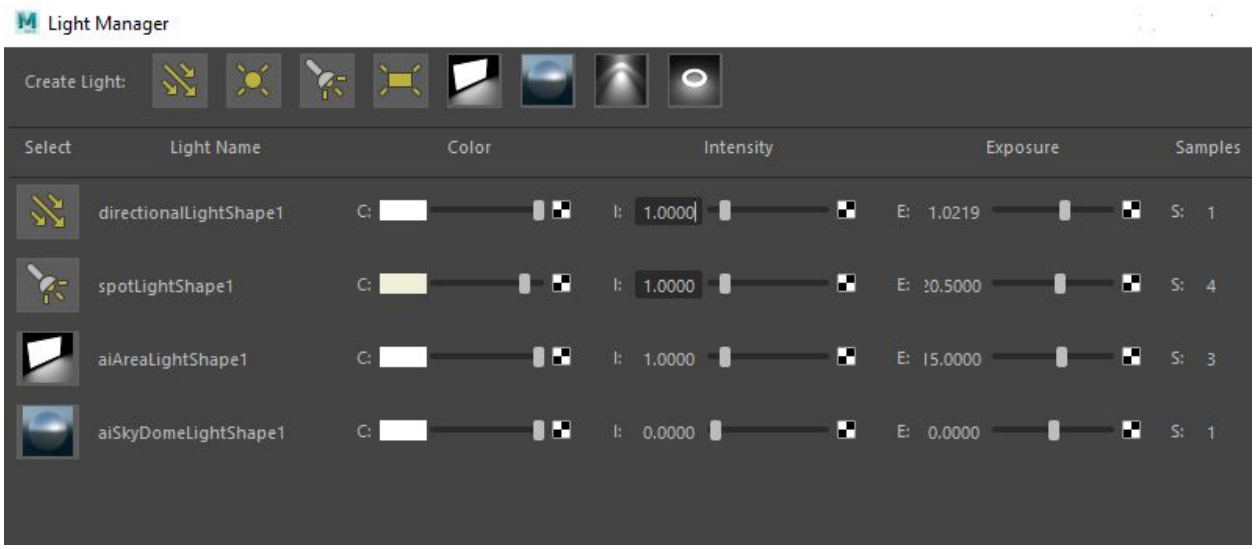
I started out with texturing the scene. First with the walls then the floor. I learned the Arnold renderer for better results and easier rendering. All the materials are Physical, attached to them a free-to-use image and a bump map. I used 4 shaders, Lambert for simple materials like the walls, shelf and everything i did not want reflective. Blinn for everything reflective, like the chairs and floor. Anisotropic for metals to give glossiness and spread. Finally, AIUtility (Arnold shader) to create the sky and make it independent of the lighting elements.

Example of the sky



All the images are stored in the folder named “ Textures ” in the project folder.

Lighting:



Above are the lights used on the scene.

(Low Quality renders for testing)

Scene with only Directional light on

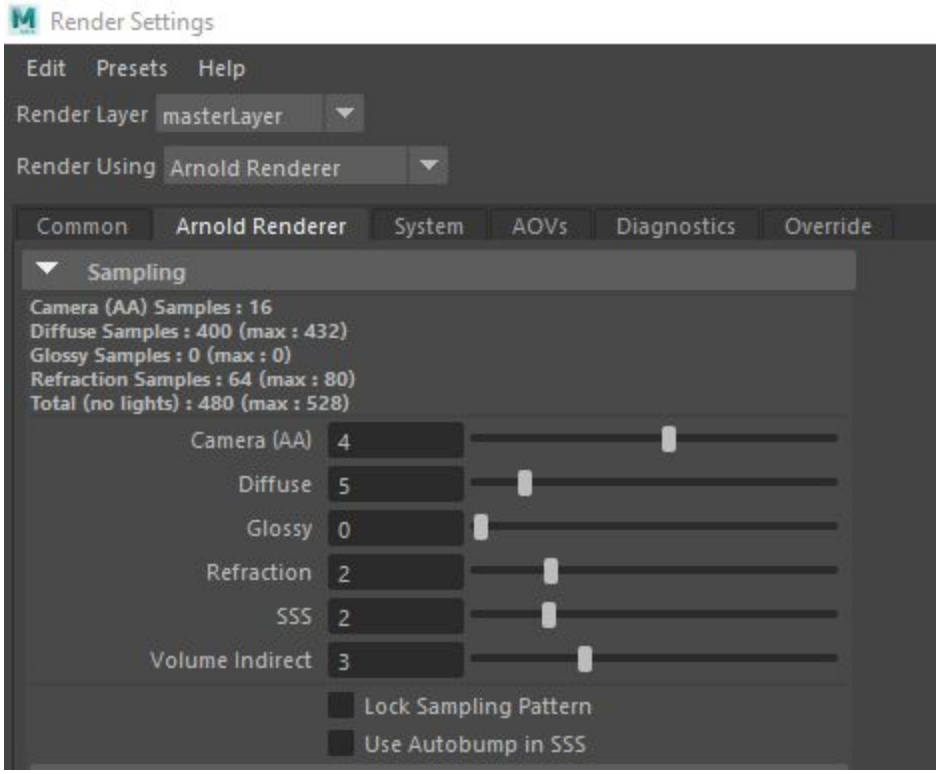
Scene with only Directional and spot on

Scene with Direction, Spot and Area

The AISkyDomeLightShape is disabled but previously tested with it. The Area light is used to illuminate the window and scatter light onto to the scene, this is the main source of light. Placed directly onto the window.
The spot is the volumetric light.

Final Output:

The volumetric light was achieved by adding in the rendering settings (Arnold -> Environment) a Volume Scatterer with a fractal texture, and bumping up the Diffuse to 0.001.



Samples (4 - 5 - 0 - 2 - 2 - 3).

I found these parameters to be the most efficient in this case. Cranking them up offered no added quality or less noise. The low noise in the penumbras are probably due to the materials used.

Not wanting to composite, I bumped up the scene exposure from 1 to 1.3.

Thoughts:

Some models needed more work to begin with.
More models should be added later on.
The door is better with a bump map.
Experiment more with the lighting parameters.

The final outputs are placed in the “ Final Renders ” folder in the project folder.