

Alexis Larson Substance Painter Class Final



For my final project, I decided to create specifically a contradictory display of a disturbing object, a skull, placed into a beautiful display. This was inspired by the decor from my wedding which was beautiful in its unconventional use of fabrics instead of flowers, lighting instead of multiple colors, and so on.



Because of the contradictory nature of the subject and setting, I also wanted to establish a number of contrary surface qualities that would allow me to exhibit a number of the lessons we learned throughout the semester as well: softness in the feathers, vs hardness of the skull/metal/glass; bright, reflective metallics in the metal/glass/pearls/fabric vs the dullness of the skull/feather/flowers; the clean newness of the fabric/ribbon/pearls vs the aged and worn appearance of the skull; and so on. To follow this trend of contradictions, I would also set up the models to be asymmetrically arranged, however retaining a balance of weight by use of object scaling; specifically that the feather adds a lot of weight to the model on the high left side, which I aimed to balance by adding a larger rose on the opposite side of the skull. All of the previous are examples of the contrariness I was aiming for, but I have noticed subconscious contrary features the more I delve into the making of my model.

For all the objects in my arrangement, I strove to choose warm tones that would be unified by all landing in the deep reds, desaturated oranges, golden yellows, dark browns, and pale creams. Any outlying colors in the final render, are likely a result of lighting variation, such as a cold gray light.



Base Colors

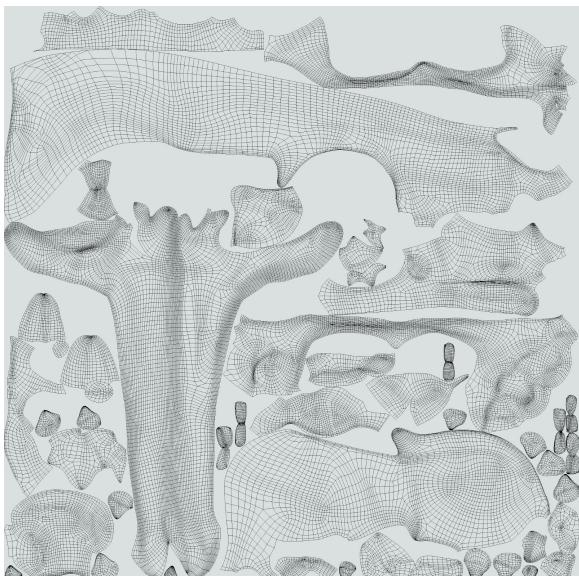
The feature model is an aged, but cleaned ringtail cat skull. This model has very subtle coloration in creams, tarnish yellowing, and dust browns. In order of those colors, they were used to add depth in crevices, scratches, and where the model is thickest. Height was lowered on the darker areas to add subtle contours that the base model was lacking. The cream had a texture of slight flaking used to give it an organic, hard surface nature of a skull.



Inspiration



Final model



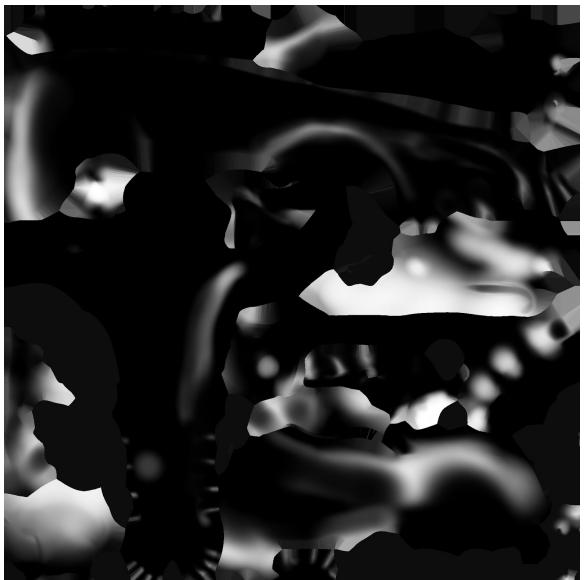
Wireframe



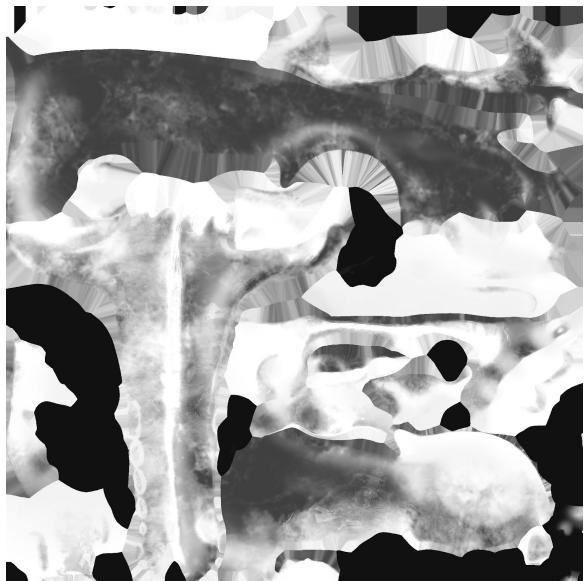
Base Color



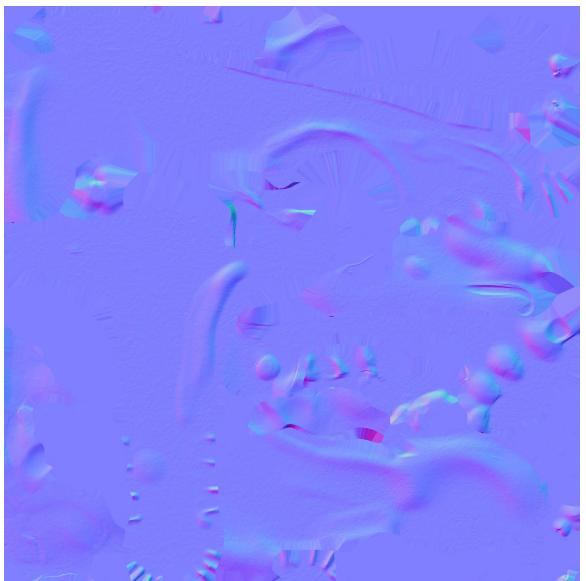
AO



Metalness

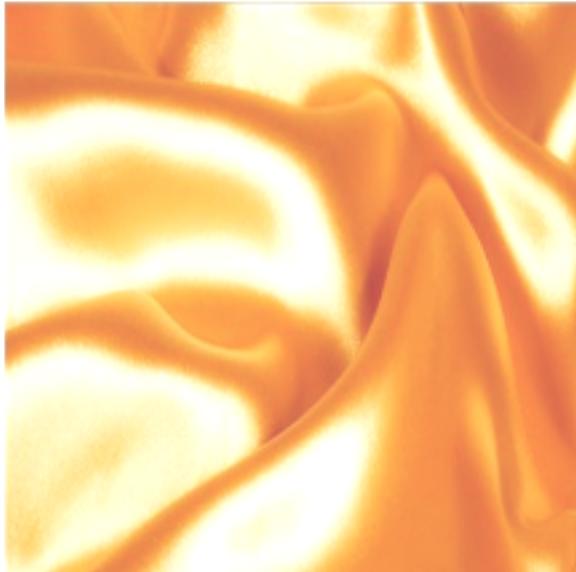


Roughness



Normal

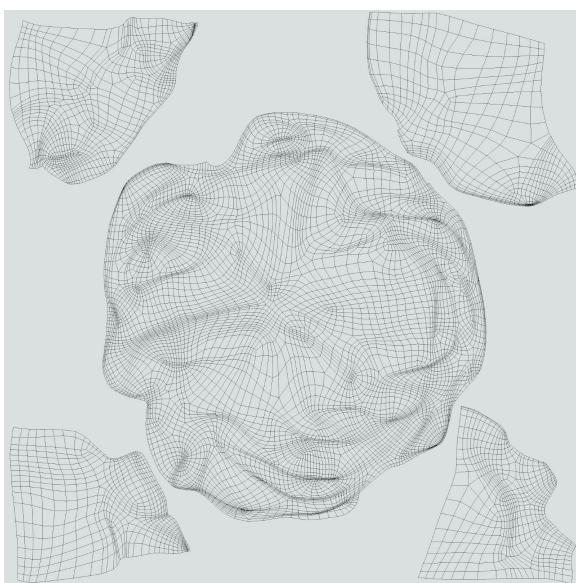
The next model I focused on was the bed of fabric on which the skull would be nested. By exploiting the curvature generator multiple times, using both edges & cavities, I was able to create faux wrinkles and details in the fabric that were otherwise missing in the model. I used a speckled normal map to capture the particle-like reflective quality of silk, combined with an extra line generator to show a hint of the threads within the fabric itself. The model does suffer from modeling, as it is not as supple as silk should be, but being as modeling was not the focus, I had to set that as a lower priority.



Inspiration



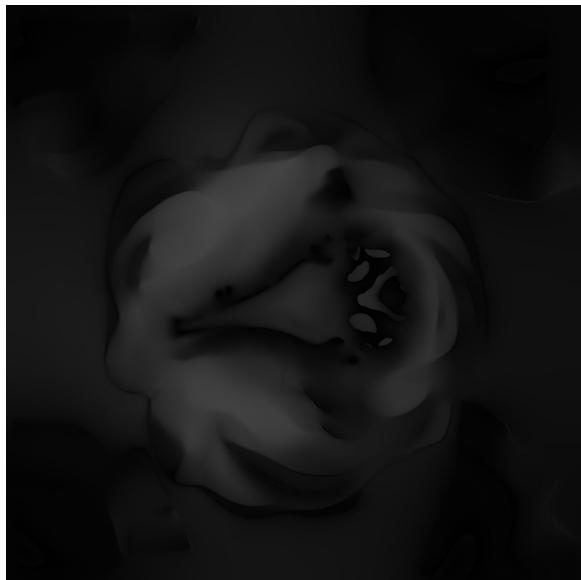
Final model



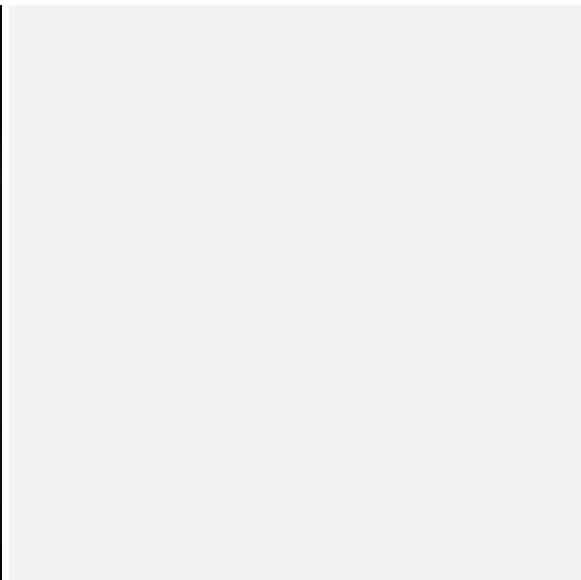
Wireframe



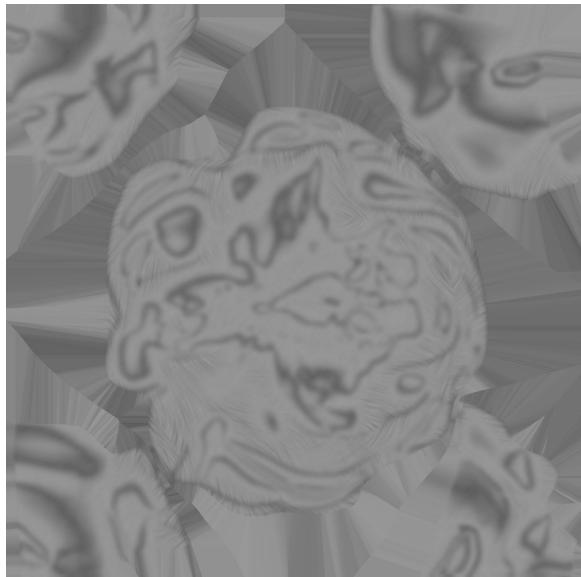
Base Color



AO



Metalness



Roughness

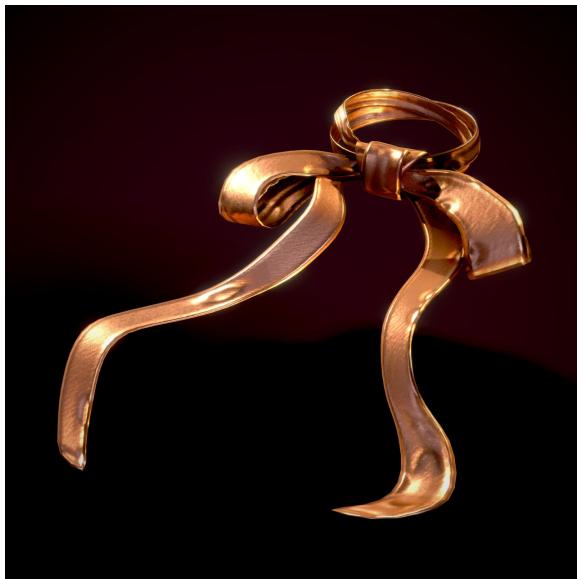


Normal

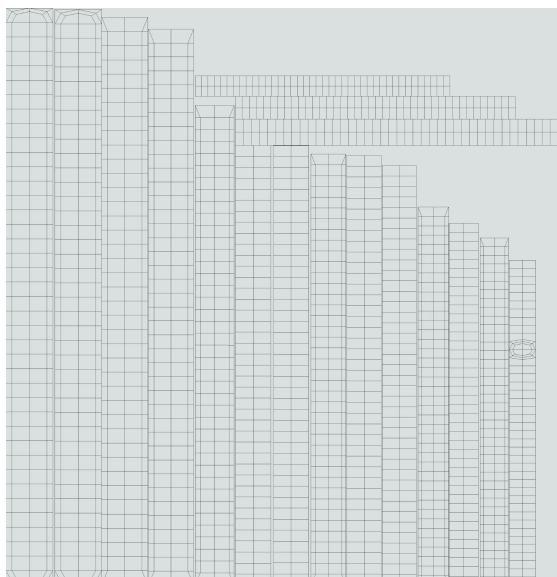
To speed up the production, I reused the same technique as the fabric nest to also create a silk wire ribbon to sit on top of the case, tied in a stiff little bow around the knob on the glass case's lid. This ribbon was used to hold the ostrich feather in place.



Inspiration



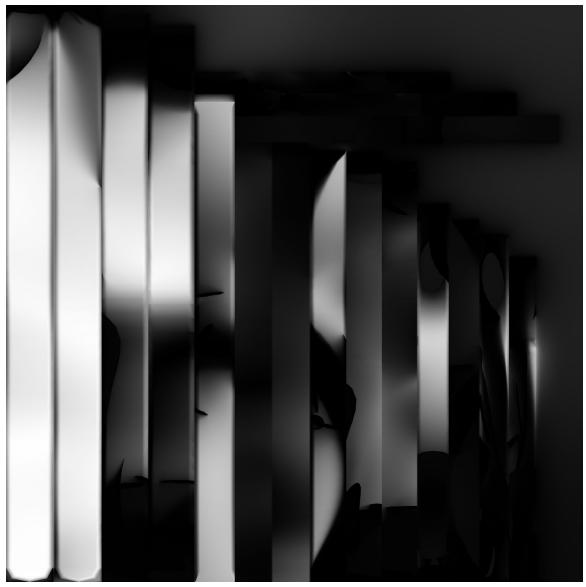
Final model



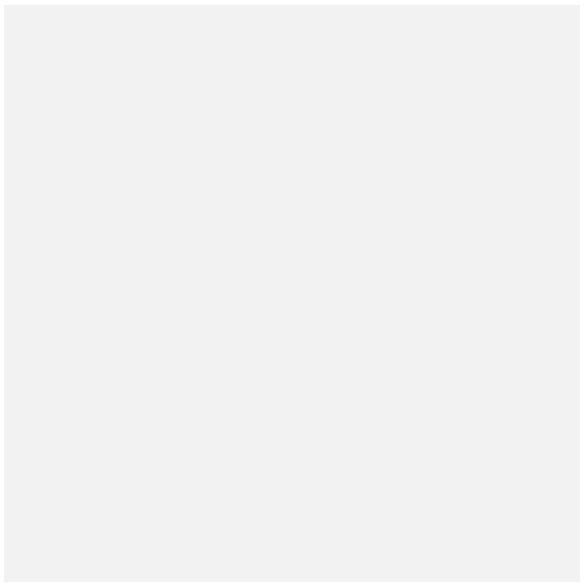
Wireframe



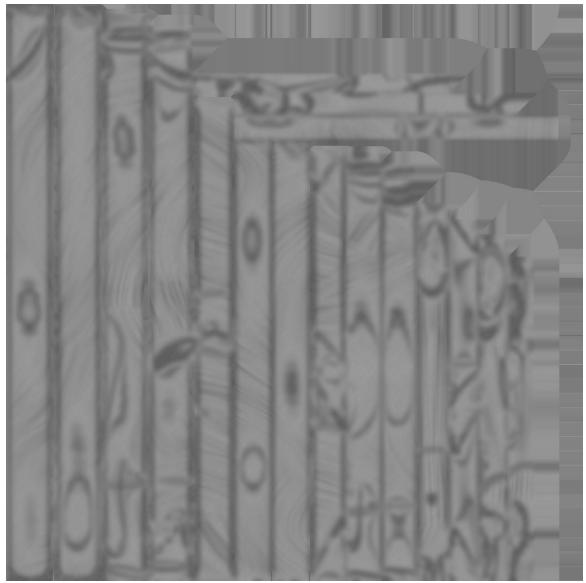
Base Color



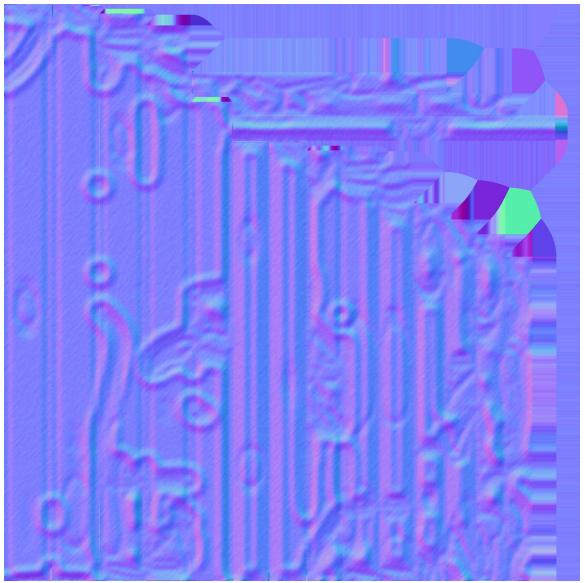
AO



Metalness



Roughness



Normal

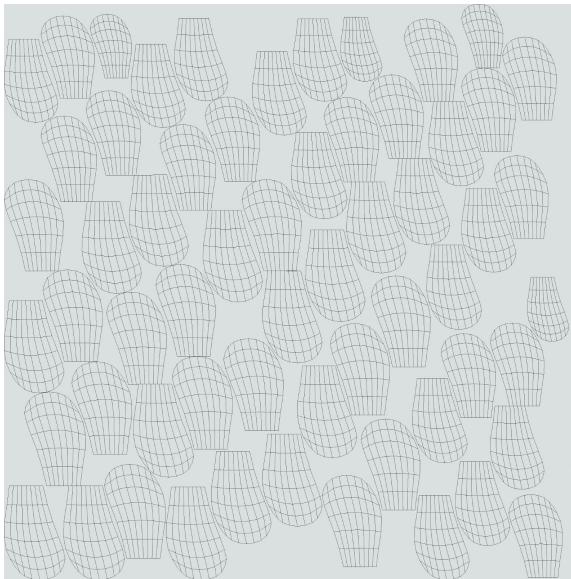
Following that, I added a feather using the hair card technique we were taught in class. I was aiming to create a fluffy/downy ostrich feather, which was a much gentler texture than the previous silk, due to its fur like appearance. I layered the feather fine planes approximately 4 times to give it some depth. I used transparency to enable myself to groom the fluff to where it would need to be. If given time, I would have added a couple stringier “hairs” coming off the feather, as well as maybe warped the faces to give the fur a wavier texture.



Inspiration



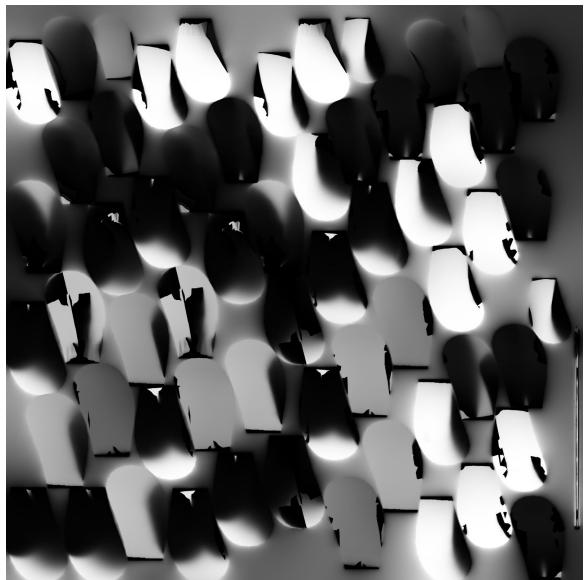
Final model



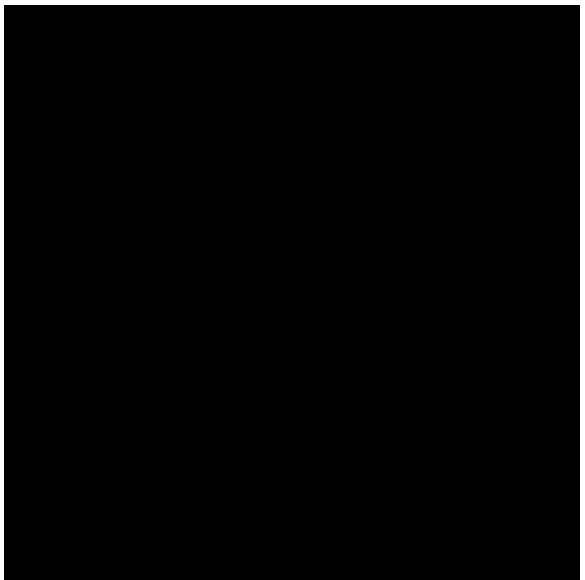
Wireframe



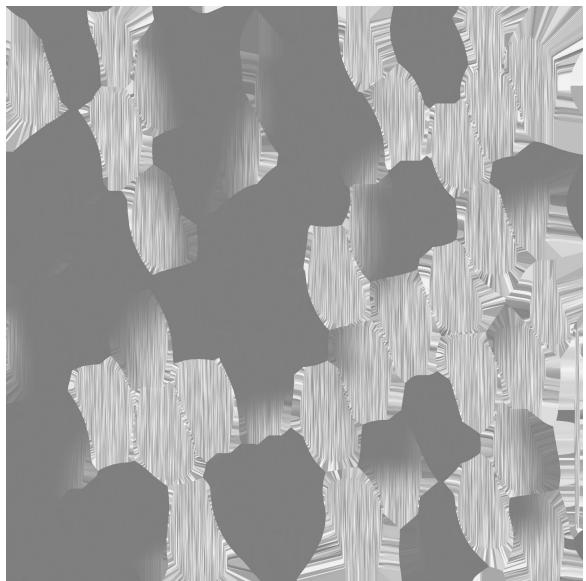
Base Color



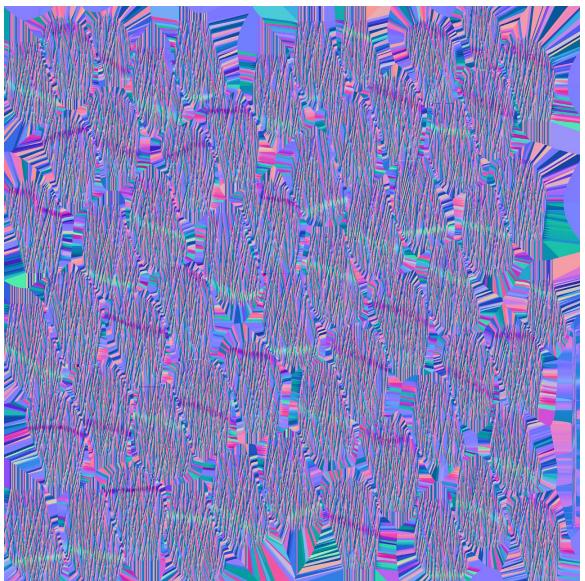
AO



Metalness



Roughness



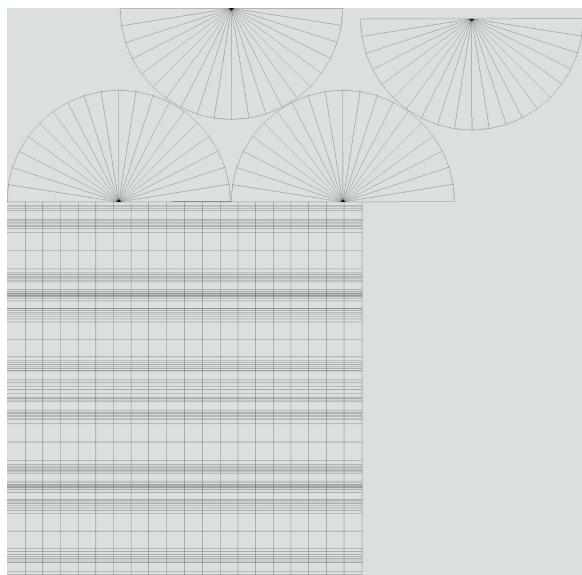
Normal

To contain all the models, I wanted to create an antique glass case, which would have warping and bubbling as old forms of glass were prone to. I used mixed normal/height to create that imperfect texturing, and a transparency map to enable a refractive quality when rotating around the model.

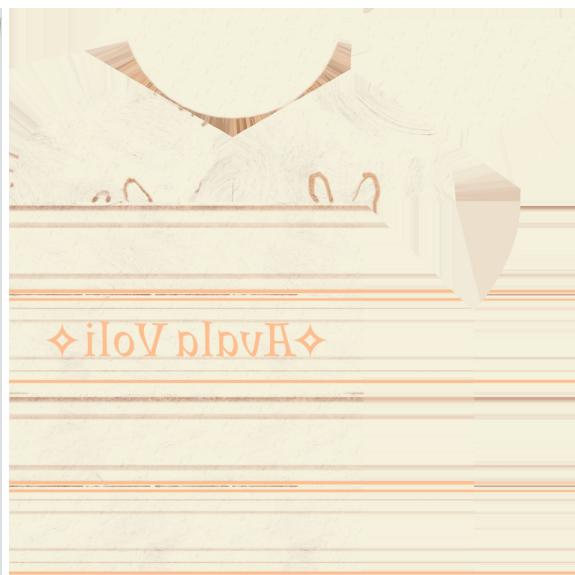


Inspiration

Final model



Bottom Wireframe



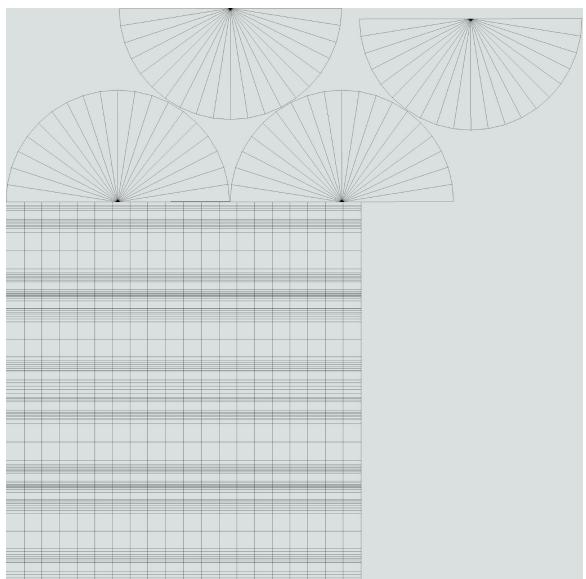
Bottom Base Color



Bottom AO



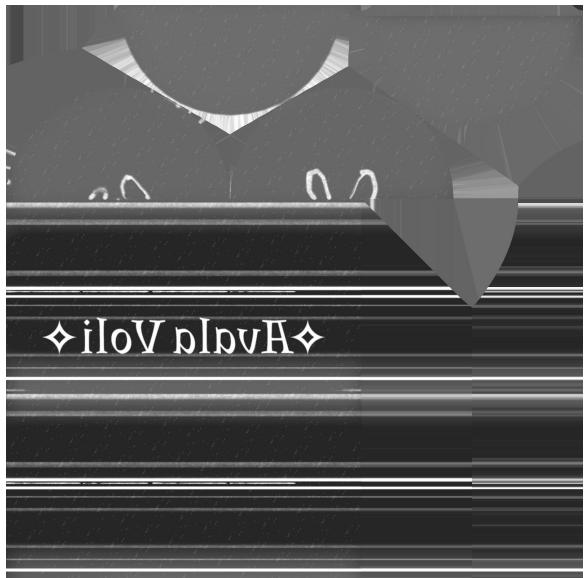
Bottom Metalness



Bottom Roughness

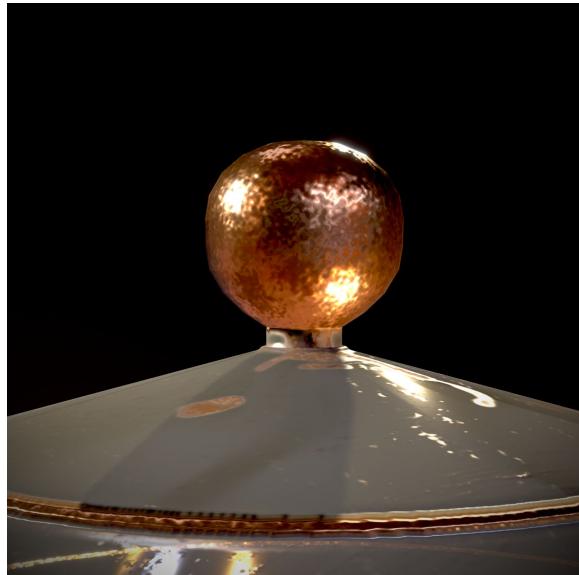


Bottom Normal



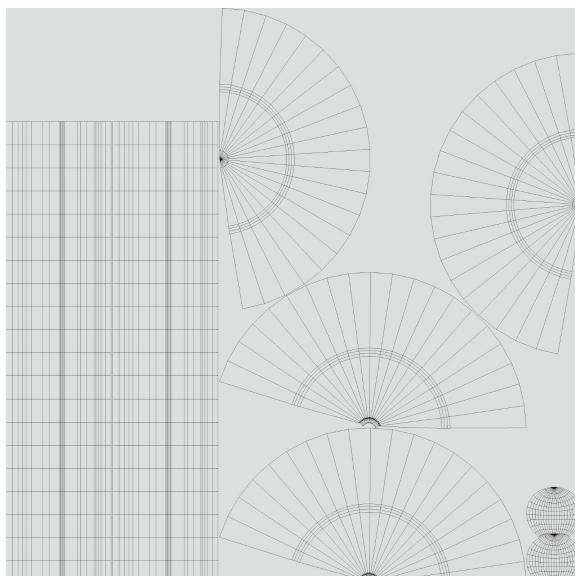
Bottom Opacity

The jar was unfortunately still very bland, so I decided to spruce up its design by incorporating a metal which would help tie its design with the metallic nature of the silk, yet showing off the metal quality as a hard surface, rather than a soft one. This opened up an opportunity for me to emulate one of my favorite textures: hammered metal. As such, the metal on the glass is meant to look distorted to provide variations, as thought the glass under the metal leaf is etched.



Inspiration

Final model



Top Wireframe



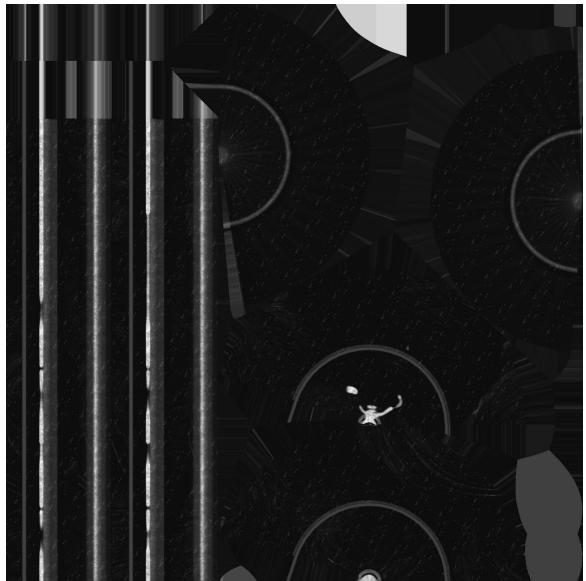
Top Base Color



Top AO



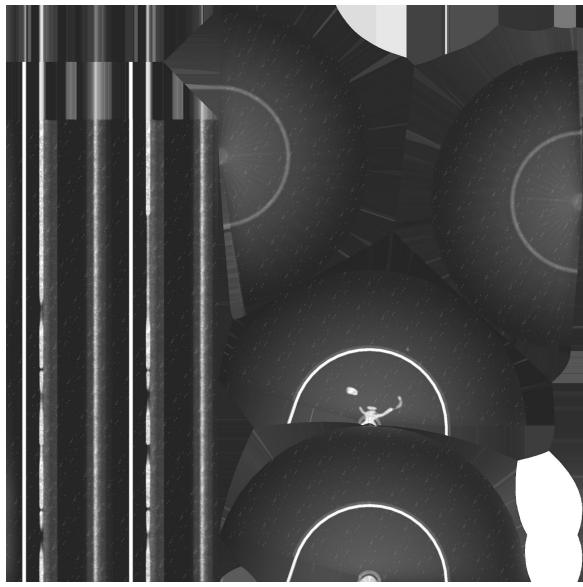
Top Metalness



Top Roughness



Top Normal



Top Opacity

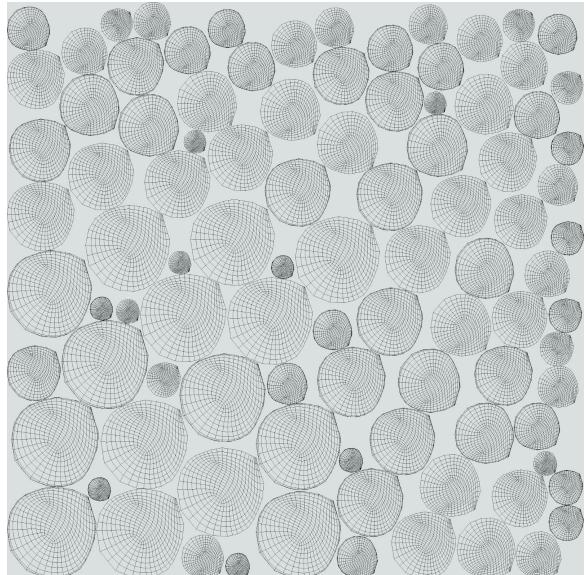
While digging in to trying to recreate velvet, I found that it was not something that I had the knowledge on how to do so. The research I did pointed me toward creating a custom shader for the particles of “hair” which comprise the material, but that was beyond the scope of the project. So, I emulated the shape of a rose made of velvet, and attempted to recreate the “velvet-adjacent” feeling that real rose petals have. This was accomplished by a normal map containing a particles splatter, and a directional noise.



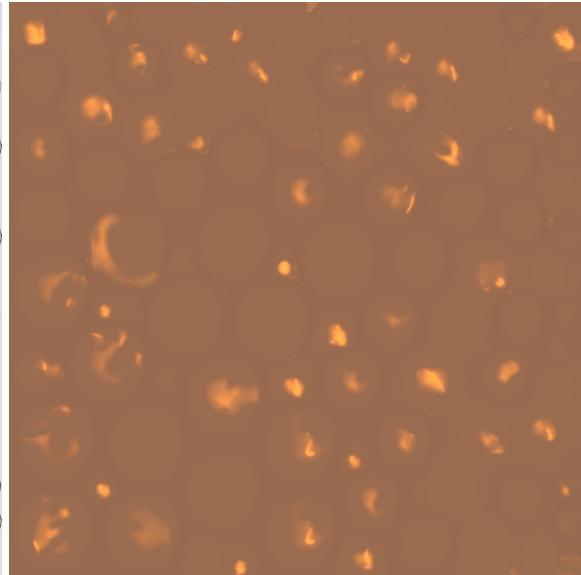
Inspiration



Final model



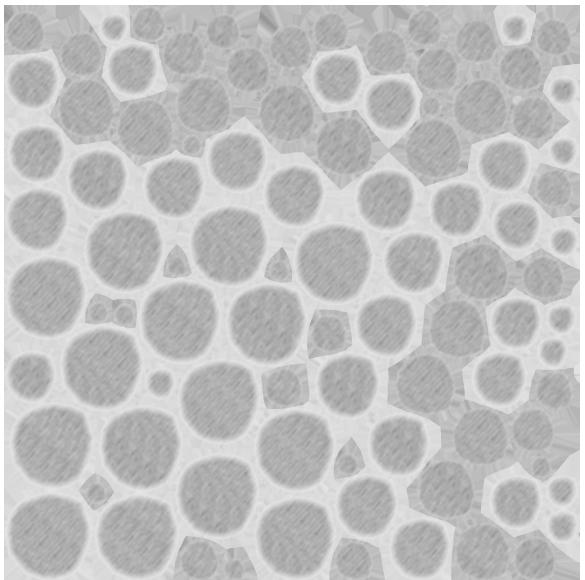
Wireframe



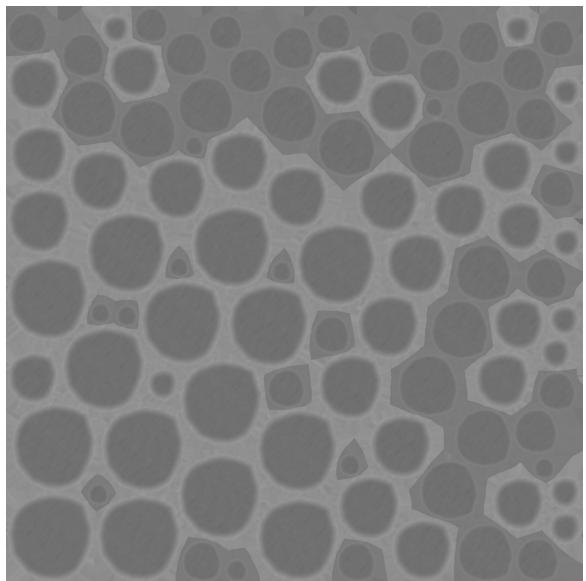
Base Color



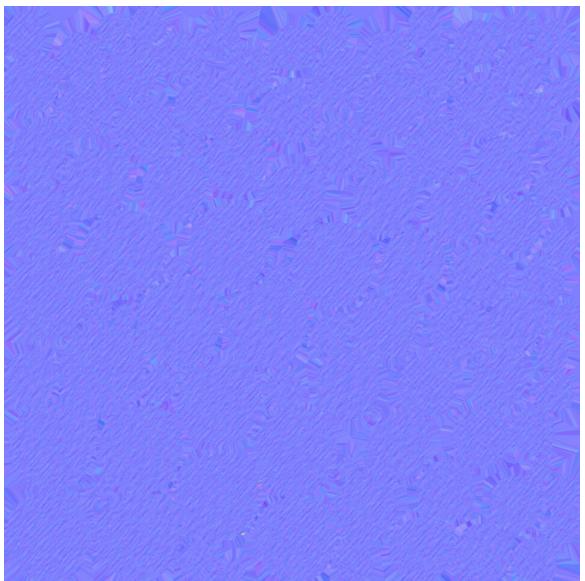
AO



Metalness



Roughness

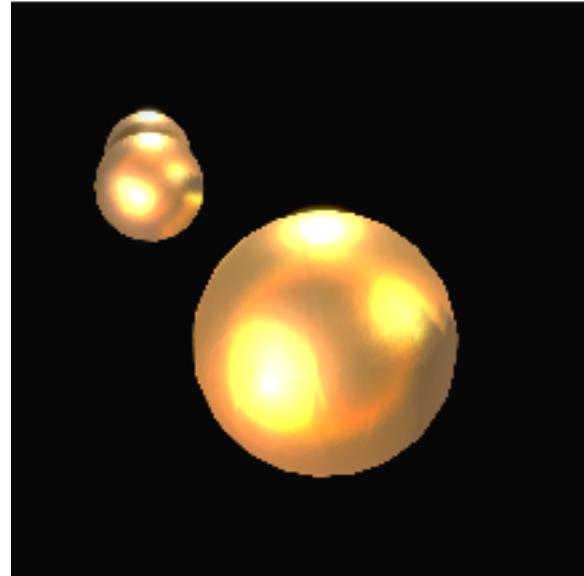


Normal

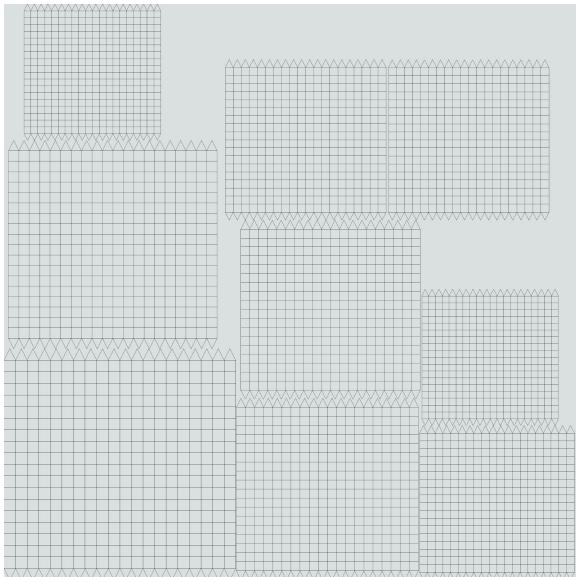
Finally, I added pearls as both feature and clutter. I wanted to place a big pearl in the mouth of the skull, but scatter some smaller ones around the display. While much of everything else would seem meticulously placed, the pearls would be a much needed disarray to the arrangement. I used a crystalline fill layer to create imperfections in the surface of the pearl, while bumping up the roughness and metallness to create the frosty reflectiveness pearls are known for.



Inspiration



Final model



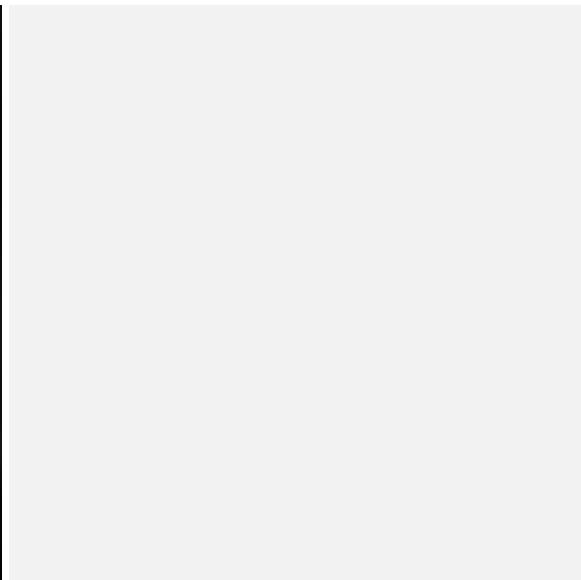
Wireframe



Base Color



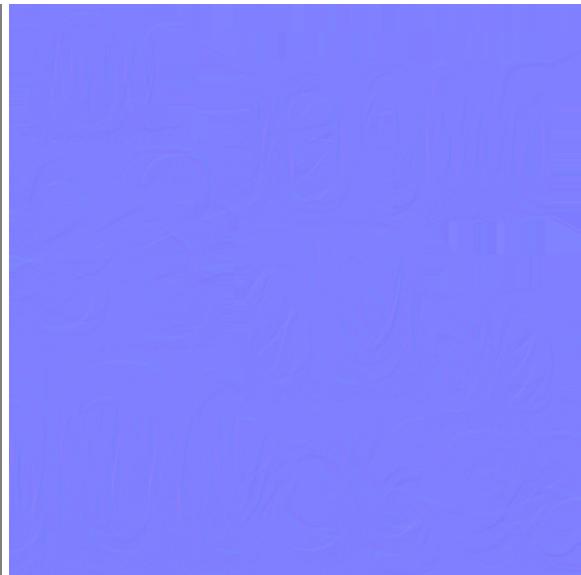
AO



Metalness



Roughness



Normal