

CS 148 Final Project

May-Ann (Gray) Wong - mayannw



The new additional content for Animal Crossing: New Horizons (which many of my friends had been avidly playing) made me very nostalgic for the past and made me miss the old towns and cities that I created as a kid. This scene is a sort of tribute to my old town that I made as a kid in Animal Crossing. Specifically, Olivia (the cat) is one of my favorite villagers, the apples and pear represent the fruit I had in my town, and the coffee is meant as a stand-in for another Animal Crossing character, Brewster. I tried to use warmer and dimmer lighting along with dappled sunlight to evoke a feeling of nostalgia for times long past (I accidentally deleted my Animal Crossing game...).

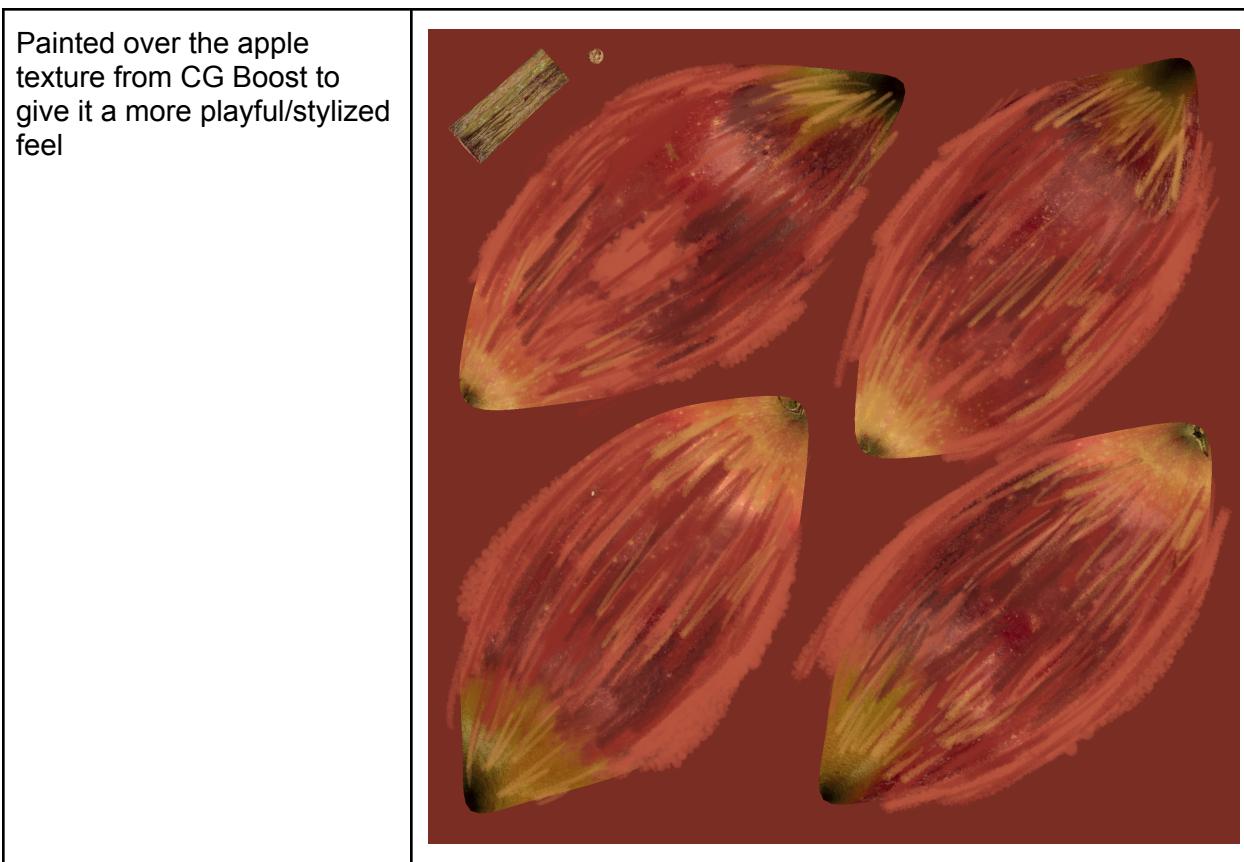
Because I worked alone, all parts of the project were done by me.

Assets from online

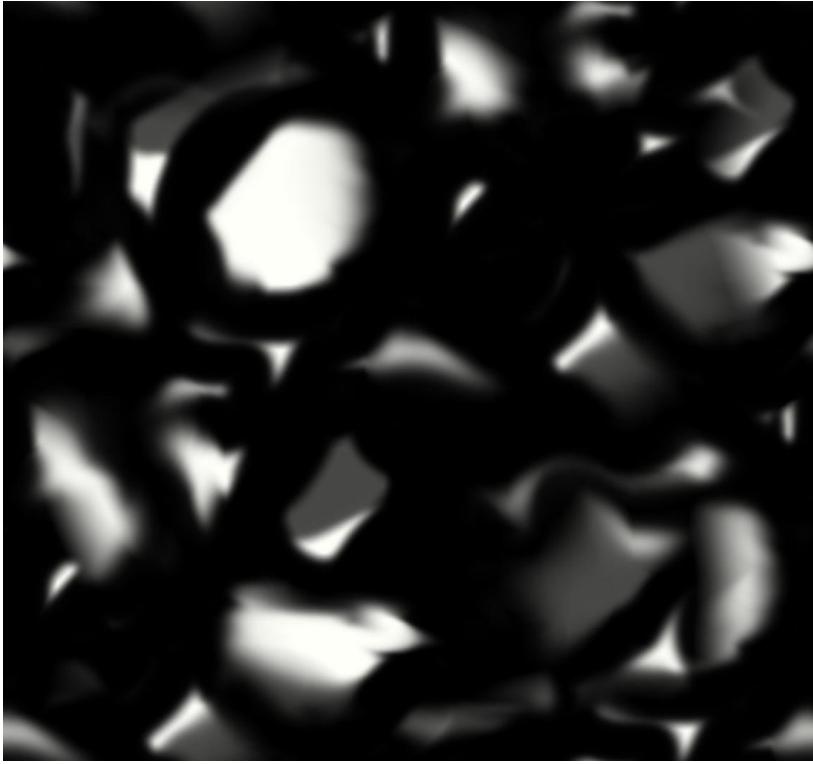
- Pear model
 - <https://www.turbosquid.com/3d-models/3d-model-pear-fruit-food-1474666>
- Pear texture
 - <https://www.turbosquid.com/3d-models/free-pears-normal-3d-model/729927>
 - (I cannot open RAR files, so I used this pear texture for the pear model above.)
- Apple and wood plank textures

- <https://academy.cgboost.com/p/resources/>
 - Under Blender Beginners Course & Hotkey PDF
- Grass texture
 - <https://www.pinterest.com/pin/526569381435065914/>
- Grass normal map
 - <https://www.filterforge.com/filters/9114-normal.html>
- Animal Crossing cat character reference image
 - https://www.vhv.rs/viewpic/hbwJJJJ_download-zip-archive-animal-crossing-style-cat-hd/
- Tree leaves
 - https://www.youtube.com/watch?v=Fy4kQr82MaE&ab_channel=Shapify

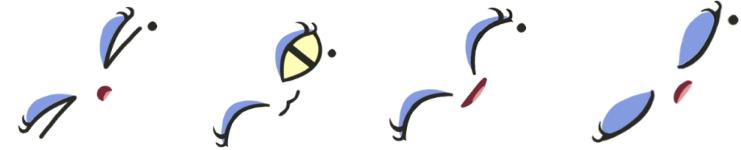
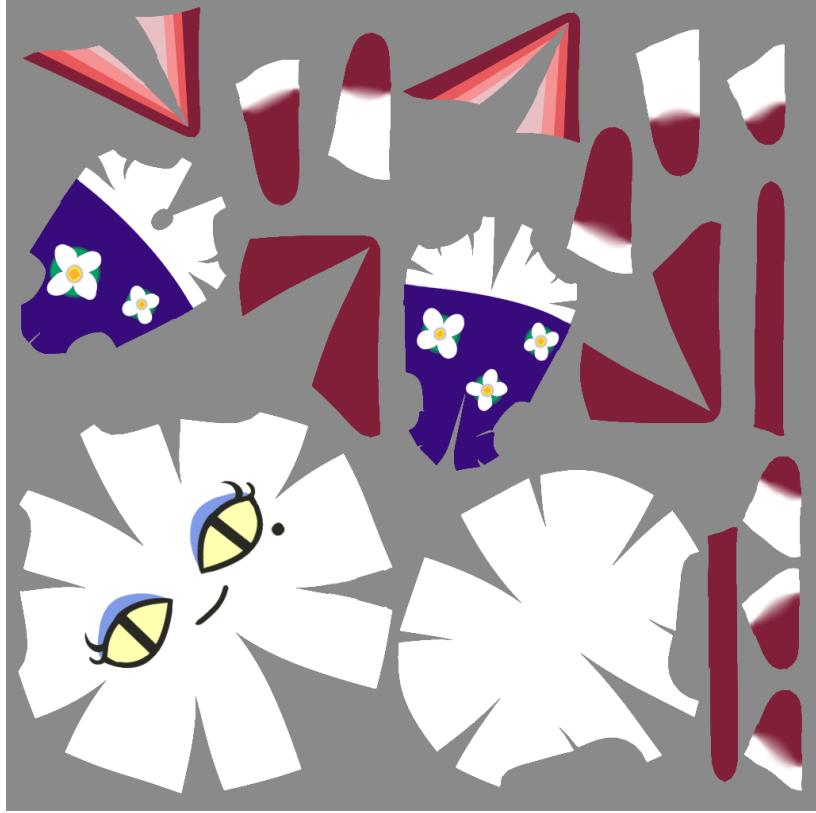
Assets created



Dappled light texture
(Used
<https://www.imgonline.com.ua/eng/check-texture-tiling.php> to make the image tiled)



Animal Crossing character
(Olivia) textures



(Alternate faces)

Project requirements

Images have been brightened for clarity.

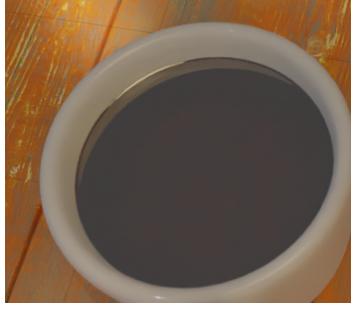
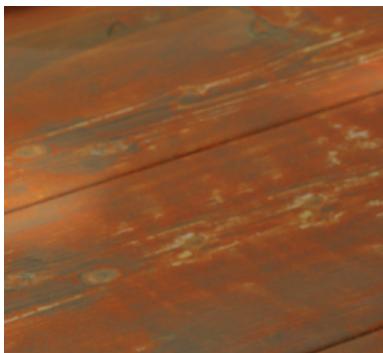
Color-coded key:

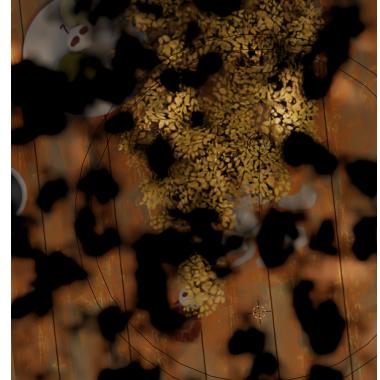
Main Geometry from scratch

UV mapping and Texturing from scratch

Create a custom/procedural material

<p>Apple half and whole</p> <ul style="list-style-type: none"> ● Geometry from scratch ● UV unwrapped, modified pre-existing texture by hand-painting on top ● Custom/procedural material: Image Texture, ColorRamp, and Bump nodes 	
<p>Pear</p> <ul style="list-style-type: none"> ● Model from online ● UV unwrapped 	
<p>Olivia (Animal Crossing character)</p> <ul style="list-style-type: none"> ● Geometry from scratch ● UV unwrapped and hand-painted textures from scratch ● Custom/procedural material: Image Texture 	
<p>Cup & broken cup</p> <ul style="list-style-type: none"> ● Geometry from scratch (cup broken through) ● Custom/procedural material: ceramic procedurally generated texture (Diffuse BDSF, Glossy BDSF, Mix Shader, and Material Output) 	

<p>Liquid inside cup</p> <ul style="list-style-type: none"> • Geometry from scratch (liquid simulation) 	
<p>Spilled liquid</p> <ul style="list-style-type: none"> • Geometry from scratch (liquid simulation) 	
<p>Wood planks</p> <ul style="list-style-type: none"> • Geometry from scratch • UV unwrapped • Custom/procedural material: Texture Coordinate, Mapping, Image Texture, Hue Saturation Value, ColorRamp, and Bump nodes 	
<p>Tree (leaves)</p> <ul style="list-style-type: none"> • Geometry from scratch (particle system) • Custom/procedural material: Texture Coordinate, Mapping, Image Texture, Gradient Texture, and ColorRamp nodes 	

<p>Dappled light gobo</p> <ul style="list-style-type: none"> Custom/procedural material: Texture Coordinate, Mapping, Noise Texture, ColorRamp, Transparent BDSF, and Material Output nodes 	
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Blender/Cycles feature

- Depth of field - set to one of the broken pieces of the cup with an F-Stop of 1.1 so that the foreground elements (some leaves and the Olivia in the bottom right) become blurry.
- Color management - set to Medium Low Contrast and Exposure to 1.0 to make the image a tad bit brighter while still retaining a nice saturation to the rendered image.

Videos referenced

- Modeling and texturing the tree/leaves
 - https://www.youtube.com/watch?v=Fy4kQr82MaE&ab_channel=Shapify
- Modeling the cup:
 - https://www.youtube.com/watch?v=fWrLoVtUhAU&ab_channel=Ibrahim
- Breaking the cup:
 - https://www.youtube.com/watch?v=Y4SRwOP0CcQ&ab_channel=Welcometocreativeworld
- Simulating the spill and liquid in cup
 - <https://www.youtube.com/watch?v=6B0QM4Cft5c> and
 - https://www.youtube.com/watch?v=eVOx9pMhB5E&ab_channel=JonathanKron
 - Spilled liquid was turned into mesh
- Texturing the liquid:
 - https://www.youtube.com/watch?v=fdWUjEMzDhg&ab_channel=BlenderGuru
- Modeling and texturing the apples and wood “table”
 - https://www.youtube.com/playlist?list=PL3UWN2F2M2C8-zUjbFlbgtWPQa0NXBs_p0
- Loosely referenced for help in modeling the Animal Crossing character
 - Modeling
 - https://www.youtube.com/watch?v=AIPPYkZg9D4&t=19s&ab_channel=EvieSculpts
 - Rigging

- https://www.youtube.com/watch?v=MyKVMxmSsOI&ab_channel=TeamMiracles

Technical contributions

None

Final render before Photoshop edits

Variant A



Top-down view of the scene.

Variant B



Textures removed from the scene.