

FIT 3169 - A3 presentation: The Tower

Jules Minguet

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Reflections



Research and conceptual development

When I saw the assignment the first week I was a bit lost and had no idea what scene I could do, what the other student made last year was really impressive.

What I was sure about is that I didn't want something too realist. This is why I went for a style a bit more stylized. In same time it allowed me to more free on what I can implement in the scene. The other reason, is that I didn't feel confident enough in my skill to have something that look really nice while being highly realistic.

Since I really had to idea, I got stuck for the first 2-3 weeks. So I decide to find a start by looking at the different style we were allowed and choose which style would I like the best. I found that the Gothic style would be the one that fit the most my interest in term of film or games so I would have more inspiration. Starting with the Gothic style of course I decided to go for a cathedral. Next since I wanted to go for something more fantasy I decided that inside the cathedral their would be some magic or something different about the cathedral than standard one we can see.



Research and conceptual development

I am a big fan of the Lord of the Ring, so I wanted in this unit add a little bit of it in one of my project. This is why I wanted the inside of my cathedral to have a bit of it. I remembered the Mines of Moria and I knew I wanted to take inspiration from this.

Plus since the inside of the cathedral would be a bit magical I wanted the cathedral to be a bit lost, not somewhere that every human can reach. So I went for the cathedral in a mountain, a bit hidden in it.

For the colors I was looking for some white/blue for the outside and really cold color because it would be in the mountain and inside something darker with a tint of blue for the magical part.

Research and conceptual development

Cathedral

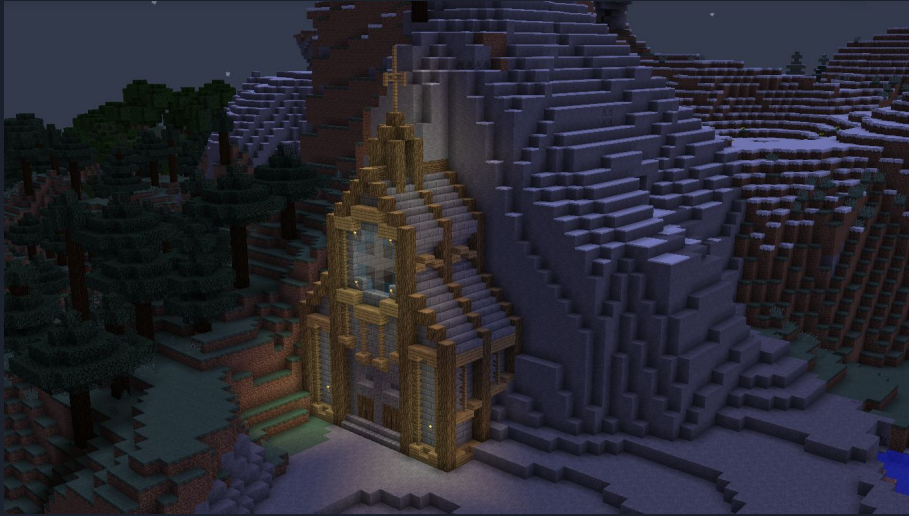


As said I really wanted to have my cathedral mixed in the mountain. At the beginning I even wanted to have all the inside of the cathedral to be the mountain and just having a facade. But finally I went for a full cathedral and mix it a bit with the mountain.

https://aminoapps.com/c/lotr/page/item/erebor/7WfN_I8Mg2g6Ex53Pz0giVLg88qg8d
(Erebor in Lord of the Ring)

Research and conceptual development

Cathedral



[https://www.reddit.com/r/Minecraft/comments/8h4pgr/
first_building_in_my_medievaldwarven_mountain/
\(Minecraft\)](https://www.reddit.com/r/Minecraft/comments/8h4pgr/first_building_in_my_medievaldwarven_mountain/)



[https://www.pinterest.fr/pin/178244097731553674/
\(Minecraft\)](https://www.pinterest.fr/pin/178244097731553674/)

Research and conceptual development

Cathedral



Photo I took in Melbourne

For the inspiration of my cathedral I went out in Melbourne and walked around and found a lot of different gothic building/cathedral.

Most of my inspiration for the cathedral and come from them. I took these photo mostly for the shape and for the windows.

When choosing the Gothic style I was a bit scared of the amount of detail I would need, these pictures helped me a lot to make those details and really showed me that most of the Gothic style come from duplication.

Research and conceptual development Cathedral



Photo I took in Melbourne



Photo I took in Melbourne

Research and conceptual development

Inside



For the inside, I really got inspired by the Mines of Moria. I really wanted you to feel this effect of height with a lot of pillars left and right to make the space even bigger.

I wanted too that you can't really see the ceiling by only lighting the bottom to even more emphasis this effect of height.

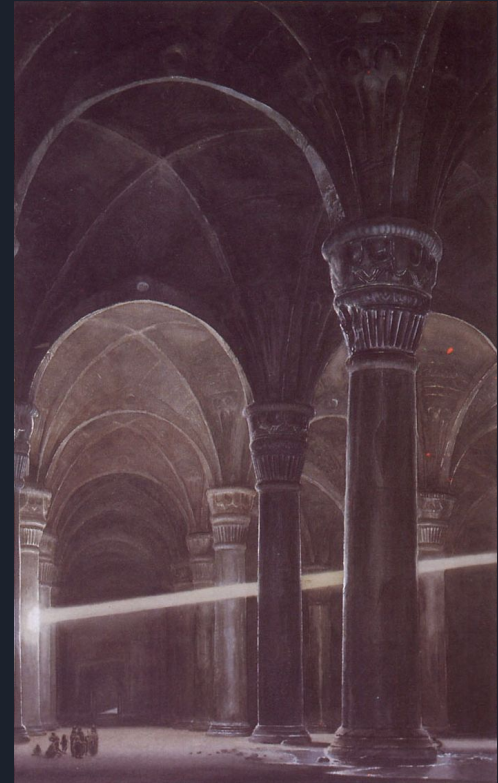
<https://www.quotev.com/story/10930833/A-Journey-for-Love-A-Legolas-Love-StoryDiscontinued-for-now/25>
(Mines of Moria in Lord of the Ring)

Research and conceptual development

Inside



<https://www.moddb.com/mods/shadow-and-flame/images/the-mines-of-moria>
(Mines of Moria in the game: Lord of the Ring: Battle for the Middle earth)

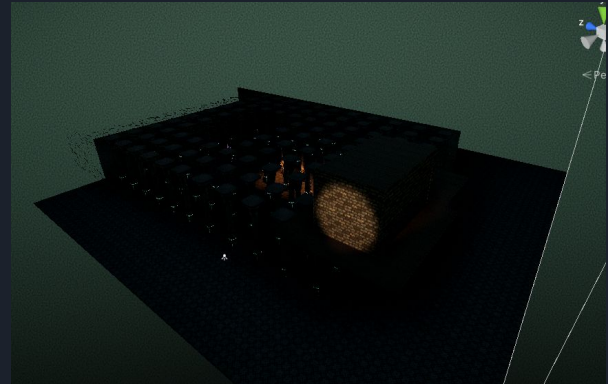


<https://tolkiengateway.net/wiki/Moria>
(Alan Lee - The Eastern Arches)

Production Process - Greyboxing

To be fair I didn't really use greyboxing for this assignment. I mainly used ethan for the scale and then just imported my models while I was making them in Unity to see how they felt. So I could see how it would be in my game and I can still change them in Maya and resend in Unity.

During this process this is where I choose to go for 2 different scene, instead of have the interior of the cathedral done, or teleporting the player somewhere in the same scene.





Production Process - Modelling

The modeling for this assignment really scared me. I chose the Gothic style and doing a cathedral looked really hard. I was scared of all the detail I had to implement.

Plus I didn't wanted to think about how the interior would be when I am modeling the exterior. For that I decided that the interior and the exterior would be 2 different scene. It allow me way more flexibility because now I can create my exterior without thinking of the interior layout or scale. Of course the interior will try to match the exterior scale, but I am not entirely blocked by the wall I model in the exterior.

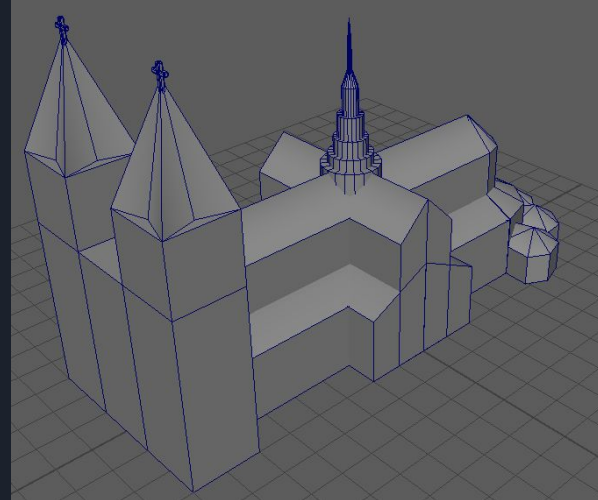
There is another part that was a bit annoying me but I saw with Anita Lin and she told me it was ok. It's that the name of the assignment in The Tower and when you think about the Gothic style, it's more massive church or cathedral, it's not necessarily high. I still tried to start the player at the bottom of the cliff as advice by Anita to enhance this effect of height.

Production Process - Modelling The Cathedral

Modeling the cathedral was clearly the most challenging part. The cathedral took me at least a full week working full time on it, by far this is what took me the most time in the assignment. I know there is a lot other thing to add in this assignment but since the main goal of the assignment was to create a building I really wanted to put all my effort into the cathedral because it would be my main piece.

I was a bit lost and didn't how to start, so I spent time looking at reference image and started building the shape. I tried to keep all the measure uniform so adding object, or snapping object can be done easily and with some math it's just easier create everything around it.

I only used basic shape and really tried to follow images without making it overly complicated.

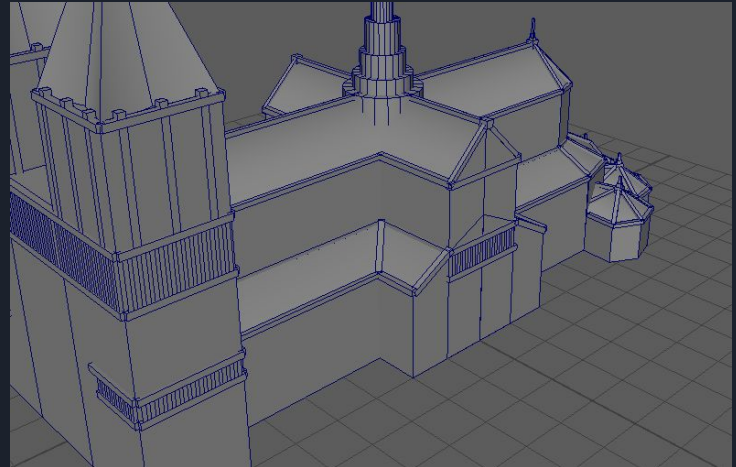


Production Process - Modelling The Cathedral

Then I felt the base was a bit too sharp, there would be no really big difference between the wall and the roof for example. I took the inspiration of beveling when we want to make an object just looks better when we model, here I would do something a bit similar.

So I started putting rectangle in nearly every single edges I could find to really enhance the shape of the building and make it more complex without a lot of work.

Just with that already the building looks way more natural and better, even if it's just rectangle duplicate everywhere.



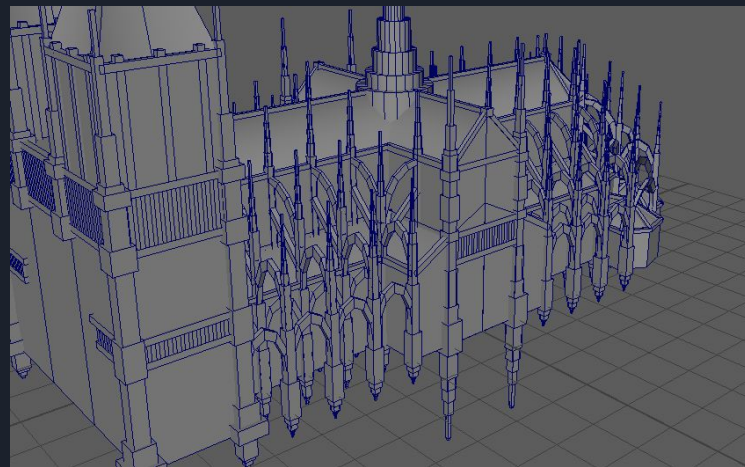
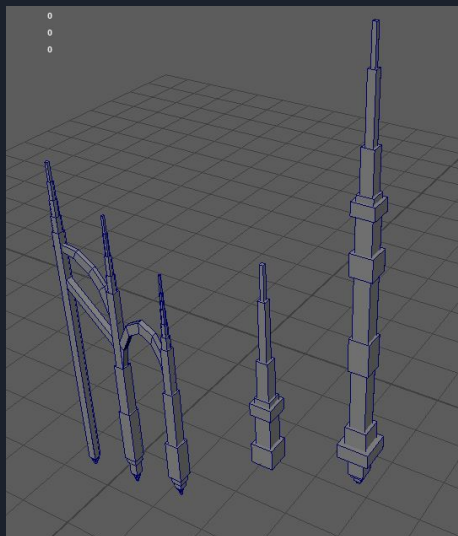
Production Process - Modelling The Cathedral

Next step was to add arches, this is the literally the symbol of the Gothic style. You need big arches. Again I didn't wanted to add to much detail and make it overly complicated. It just did 2 types of arches and literally duplicated them everywhere.

As you see the arches are extremely symple, it's just cube that I duplicated on top of each other and scaled down or up to make the details.

Alone it doesn't look really interesting but when you duplicate on the cathedral I really loved the final result.

At this state I was already so happy that I did that using only simple techniques.

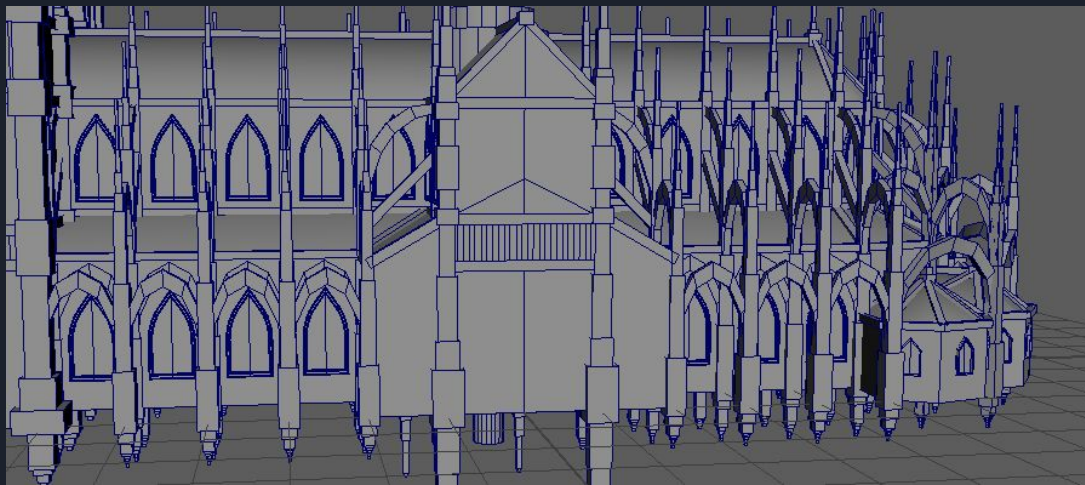


Production Process - Modelling The Cathedral

A cathedral isn't a cathedral without stained glass. So I had to add some windows, it was a good time to fill all the walls that were a bit flat.

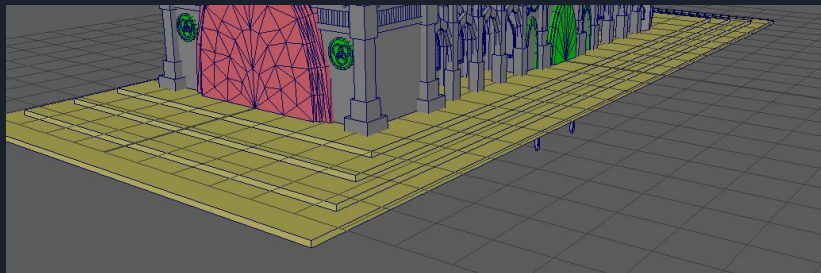
Again here the duplication was key. I made two types of window and duplicated them in every hole I could see between the arches.

I really tried to keep all my hierarchy clean because at this point I started to have a lot of objects and I was really scared for the UV unwrapping and texturing part.

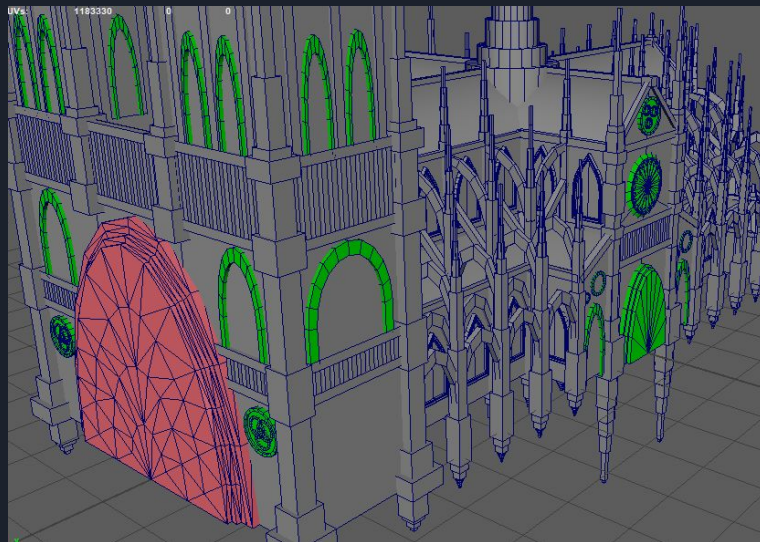


Production Process - Modelling The Cathedral

Lastly, this is something that I didn't keep in the finished model and this could be an improvement because I really liked them. They are decorations. I took them off because at this point I already spent way too much time on the cathedral and I had to start texturing all of this. If I had a bit more time I think I would reimplement them.



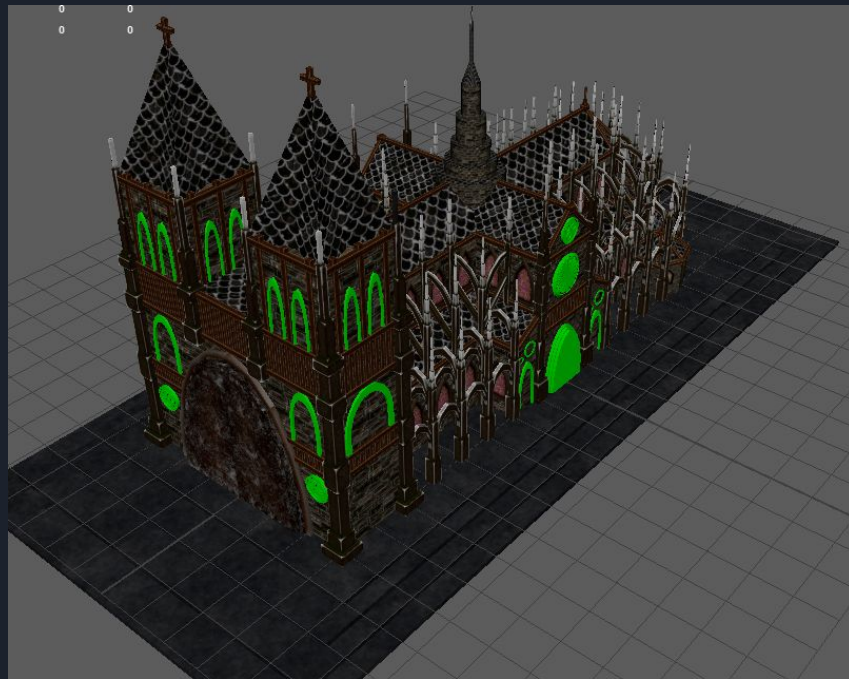
After play testing I felt that putting a slab under so it fits better in the terrain was a must.



Production Process - Modelling The Cathedral

At the end I am extremely proud of the final result. I was really scared of the Gothic style and the amount of detail I had to implement, but just by doing easy techniques of duplication the final result look really good.

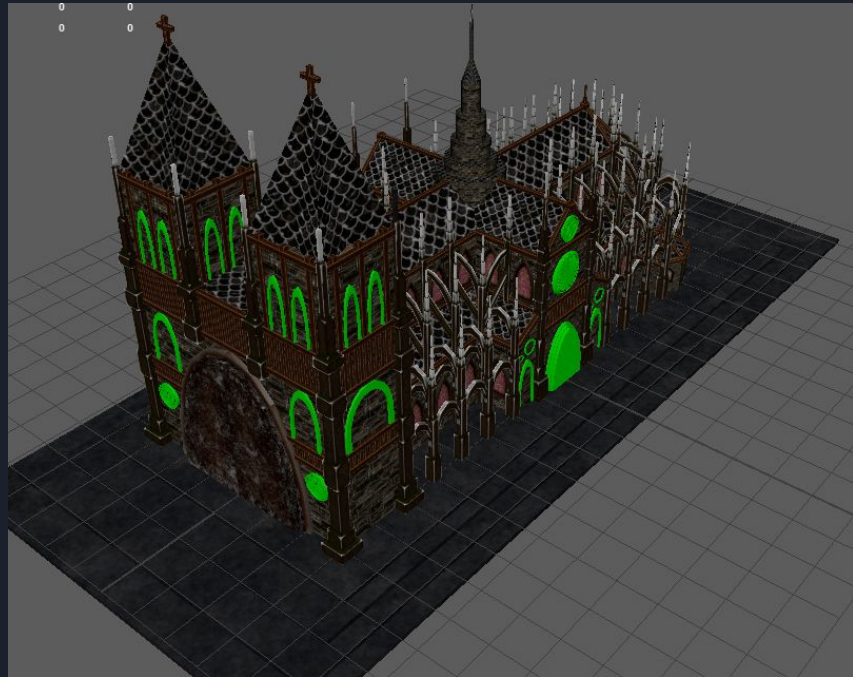
I feel the arches are really the main Gothic part and they really add so much to the building, without them it would feel so empty.



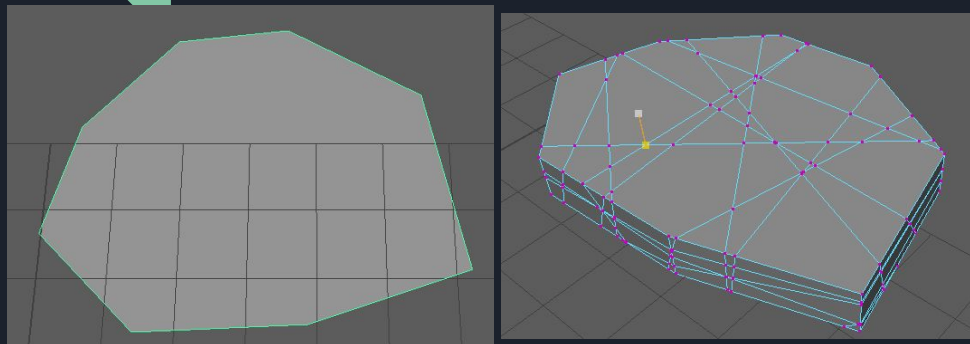
Production Process - Modelling The Cathedral

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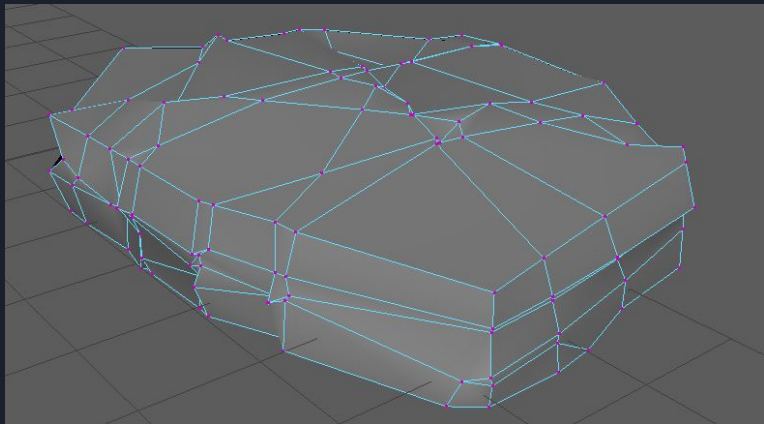
Production Process - Modelling Rocks



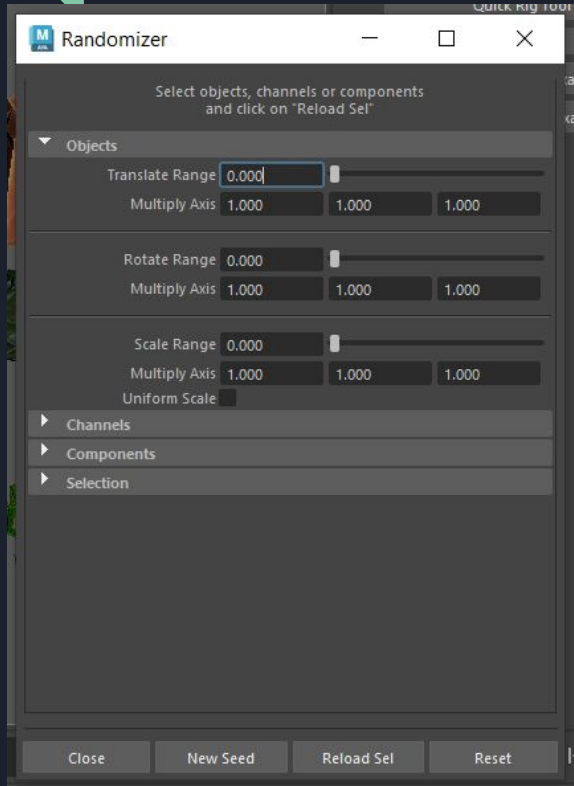
My rocks are the first props I did. Since we did assignment 2 and already made rocks, I just took the same inspiration and the same techniques to make those.

I just started by drawing shape with the polygon tool and after extruding it to the right size, I added dozen of randomly place multi cut. Then came the transformation part. And tweaked a bit the faces so it look like I wanted.

To make variations I just used the lattice deform tool.



Production Process - Modelling Rocks

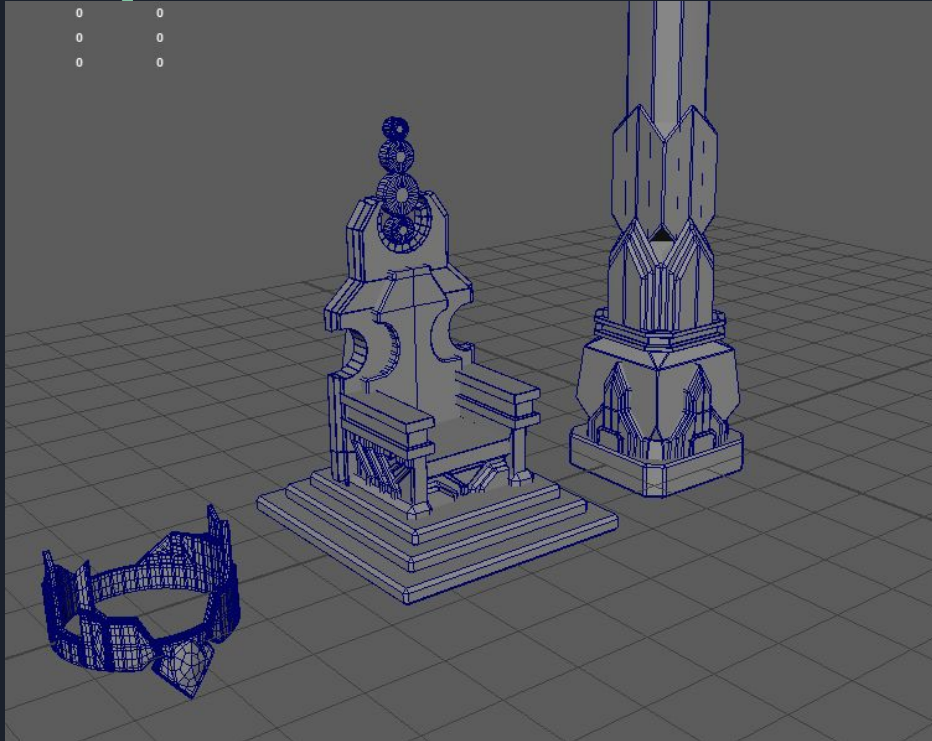


Since the rocks are natural, the opposite of the cathedral, we don't want to see too much symmetrical models or human-made objects. This is why I used randomness when creating them. I used this randomness a lot of times for my models. It's extremely useful and even if it's something human-made like the bricks of the walls, it really allows to make the models more natural.

This randomness comes from the transform component that allows you to add a random value.

And I used another tool that comes from the Maya bonus tool package made by Autodesk, Inc. themselves. This is the randomizer, it allows you to randomize a transform component from the selected object. This is extremely useful to randomize the positions of the vertices to make rocky stuff (rock, bricks, cave walls...). You can just play with it and generate a new seed until you have something that fits you and then tweak everything a bit until you are happy with it.

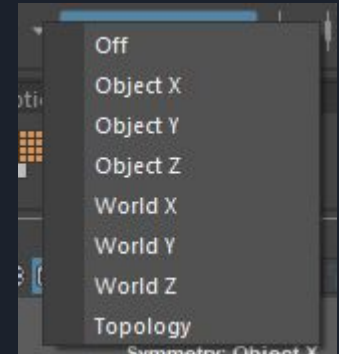
Production Process - Modelling



I won't spend too much time on the other props because it's just technique that we saw on the assignment before.

A lot of extrude and bevel to make things smoother.

Duplication and using the symmetry. The symmetry is something I used for the first time and the mirror tool was really useful.



Production Process - Modelling

I've never really used these features before too, it's importing reference image on a plane in Maya. I don't have a double screen and when trying to take inspiration of other images it was really hard.

I tried to keep the same theme (dwarf build here) when looking for reference images, so the shape, the edges and everything would stay consistent.



<https://artby3z.artstation.com/projects/BmxNwA>



<https://www.pinterest.fr/pin/363032419948601008/>



<https://www.etsy.com/fr/listing/1034073605/dwarven-throne-28mm-par-dark-realms>

Production Process - Modelling Skeleton

The skeleton is a big part of my scene and really took me a long time. Since this is a more complex body, to animate it I would need to rig him. Plus, the animations are way more complex.

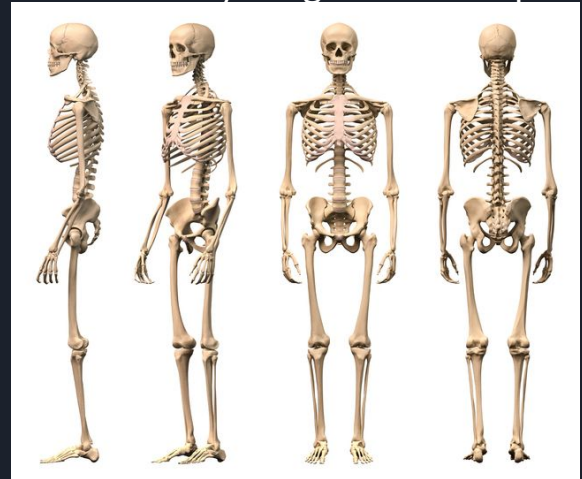
Since in this unit I have never modeled a humanoid, I really struggled to do it myself. This is clearly way harder than making props or building, since the scale of everything and the shape have to fit perfectly with a real skeleton.

This is why for this model I used a tutorial because I couldn't get what I wanted by myself.

Here is the link to the tutorial that helped to get the shape of the head and some techniques to make good bones:

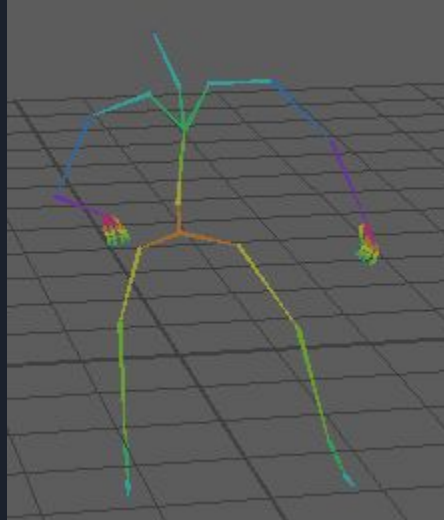
https://www.youtube.com/watch?v=-tIREJ0Tmrl&t=2s&ab_channel=TheNiceOne3D

Here using reference images to know where were the bones that were mandatory and for the dimensions too.



Production Process - Modelling Skeleton

For the rigging part too it was a challenge, because apart from really basic rigging I used for my tree in assignment 2, I have never made a real rig for humanoids.



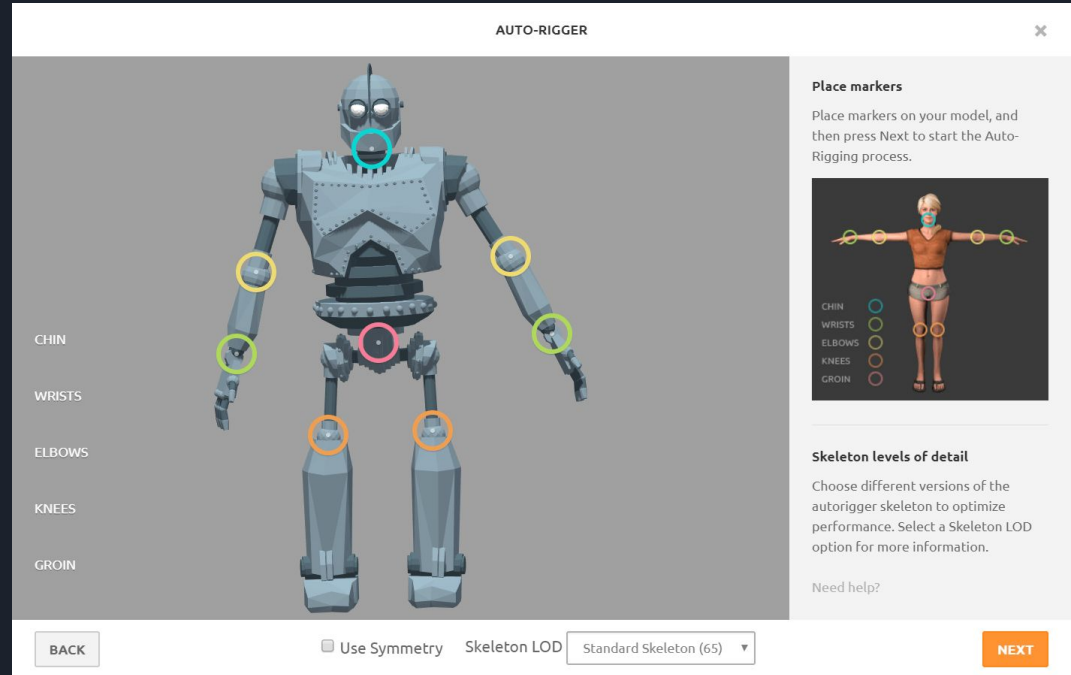
I tried to make them myself, but after painting the weights on the model vertices so it moves well, I had a lot of artefakt and it was really ugly.

So for the rigging since it's out of scope for this assignment I decided to not waste too long and it and found a online humanoid auto rigger. It's Mixamo and was really simple to use.

<https://www.mixamo.com/>

Production Process - Modelling Skeleton

The auto-rig tool from mixamo is extremely useful for humanoid. I just had to upload my model and set some points for the chin, wrists, elbows, knee and groin and it would make me a good rigged skeleton that I can import back into Maya.



Production Process - Modelling Skeleton

When I had my skeleton modeled and rigged I just had to animate it. For this I did all the animation in Maya, I felt it was a bit easier to move the rig here than in Unity. Since I wanted a complex animations and I had a lot of bones, I decided to use the blending features between keys that create Maya or Unity or any render engine.

So for my skeleton animation I just did 3 poses and the animation just blend between these poses. After tweaking a bit the curve I could get a really nice animation like I wanted.



First pose



Second pose



Third pose



Here we can see the animation is really simple. Just 3 pose with some keyframe that represent the tweak I dead to the bones, and the animation is just a blend between these frames.



Production Process - UV unwrapping

I won't spend too much time on the UV unwrapping because it's extremely similar as assignment 1 and 2 and there is nothing really different or any other techniques that I used for it.

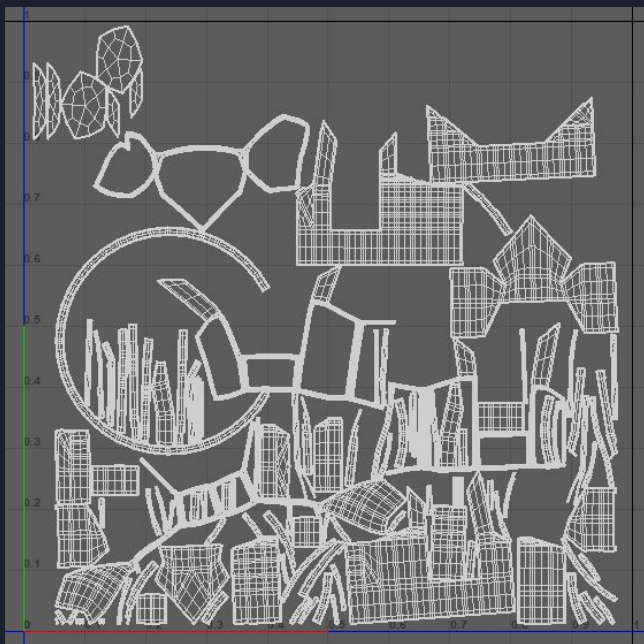
The only difference here is that I use a lot of tiling textures so for them it was even easier to unwrap the UV.

The hardest part was unwrapping the UV for the trimsheet. I feel having them fitting exactly into the trim space and having them rotating well and stuff was not easy. I barely used trimsheet mostly because of that, I prefer tiling textures.

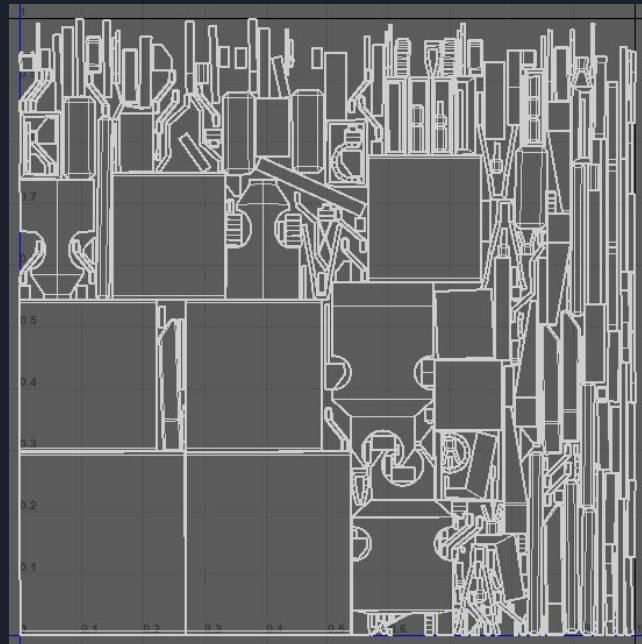
For the next slide I will just show some of my UV, that all use different type of techniques used.

Production Process - UV unwrapping

Here are some basic UV map, just some automatic UV fitting in a 0-1 space.



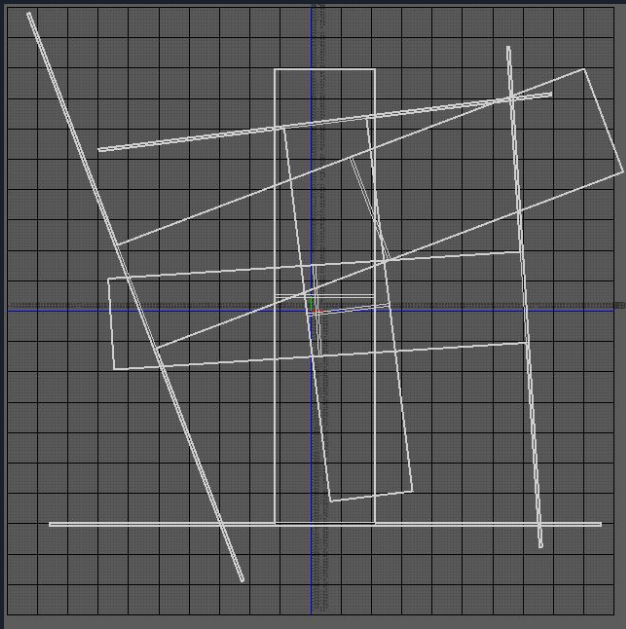
Crown UV



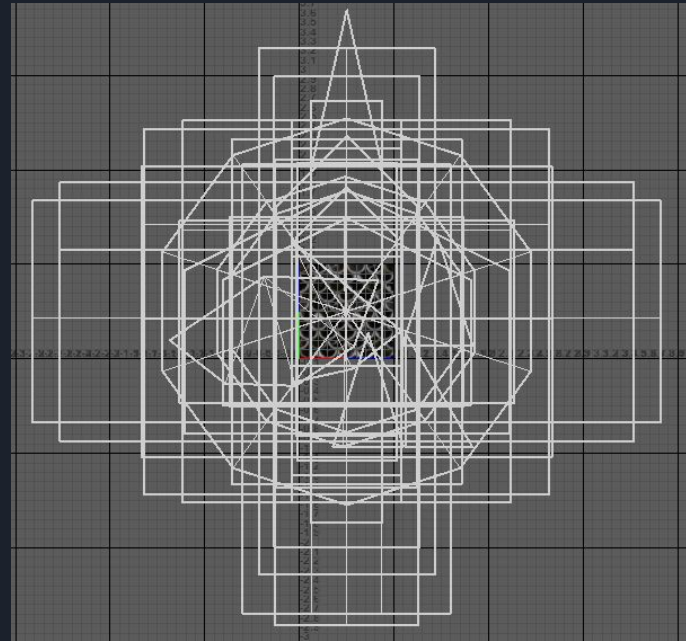
Throne UV

Production Process - UV unwrapping

Here are some UV map using tiling textures. They don't need to fit the 0-1 space and even I scale them so the texture fit better the object.



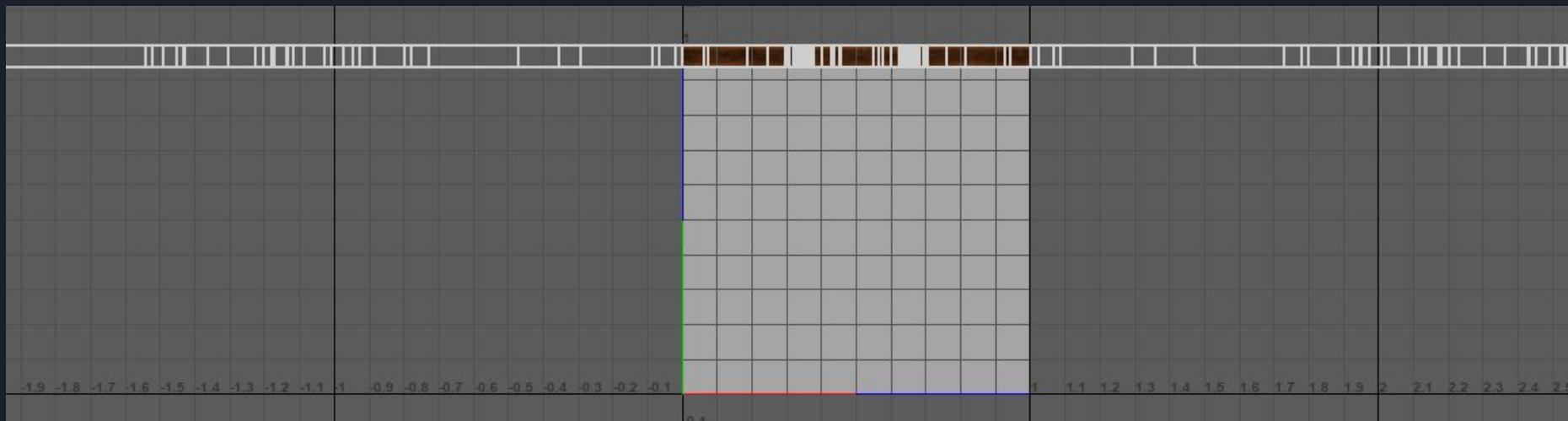
Concrete slab UV



Cathedral walls UV

Production Process - UV unwrapping

Here are some UV map using trim sheet. Fitting them into exactly the space with a good rotation was quite annoying.



Cathedral wood armature UV

Production Process - Texturing

For the texturing part there I focused on 2 main things.

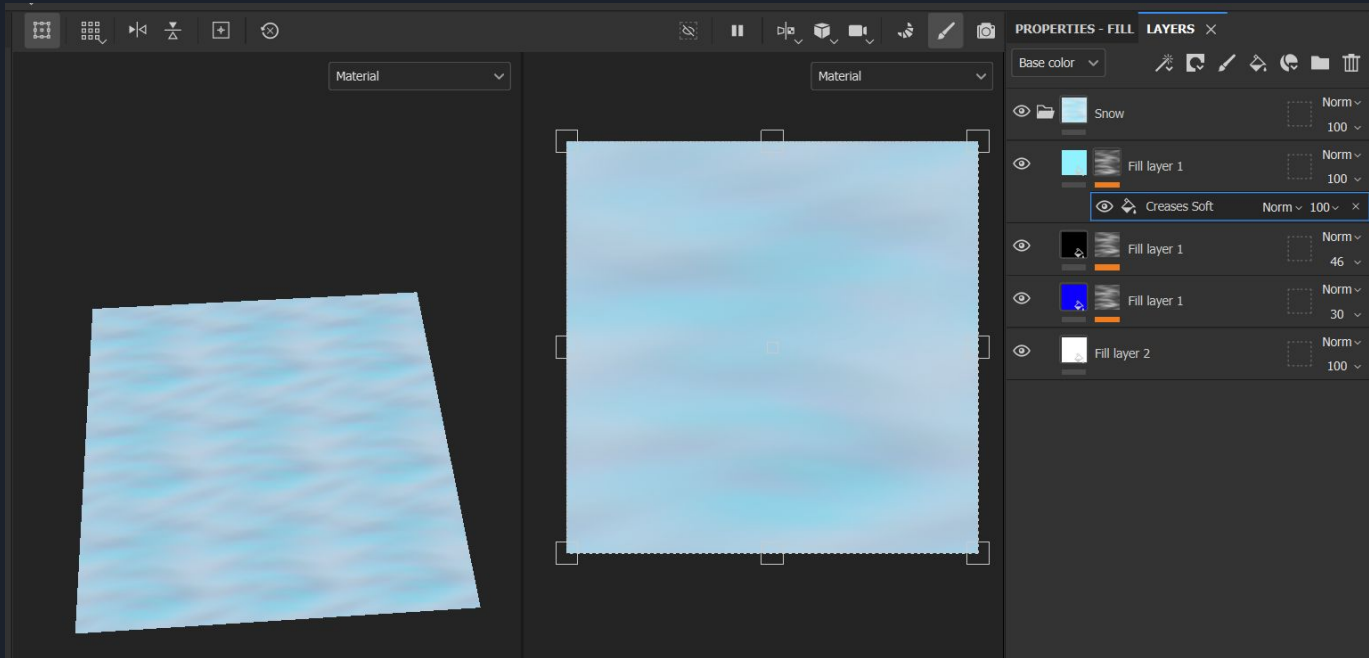
First it's stylized so I wanted to stick with few color, and really smooth texturing. If you pay attention all my models are only one color and after only variations from this color. As we saw in lectures, working on monochromatic can be very pleasing to the eye due to its cohesive look. Plus I try to stick with the feeling of the scene, each models outside have a bit of snow on them. Each object inside are more rocky and dark.

Second it's about color again, each texture is mainly only one color, but the whole scene won't be more than 2-3 colors equally spaced on the color wheel, and keeping at least one same color between outside and inside. The outside will be more light blue for the snow and brown/gray with the cathedral, and the inside will be orange for the light (fire) and brown/gray for the inside.



Production Process - Texturing

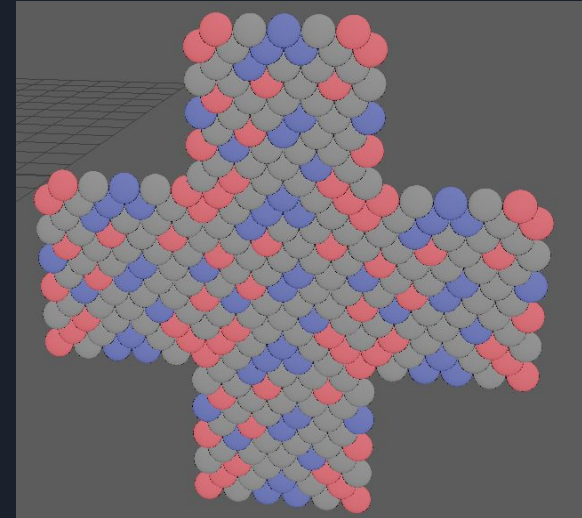
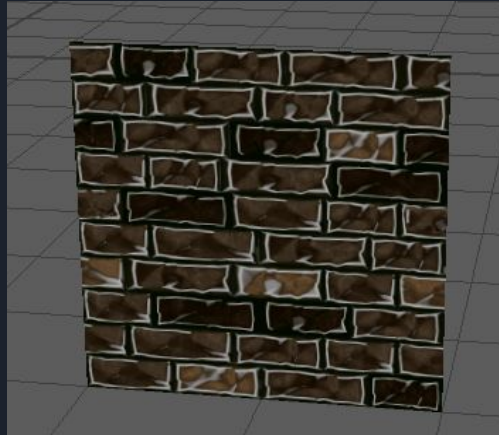
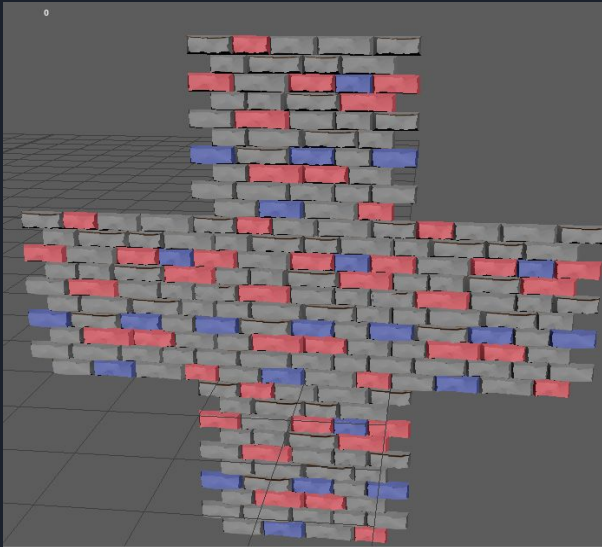
I will just start with the terrain textures, they are all done the same, just a pattern seamless so we don't see the edges with some duplication of it with some change to the color to make some shadow, effect of height, in the color.



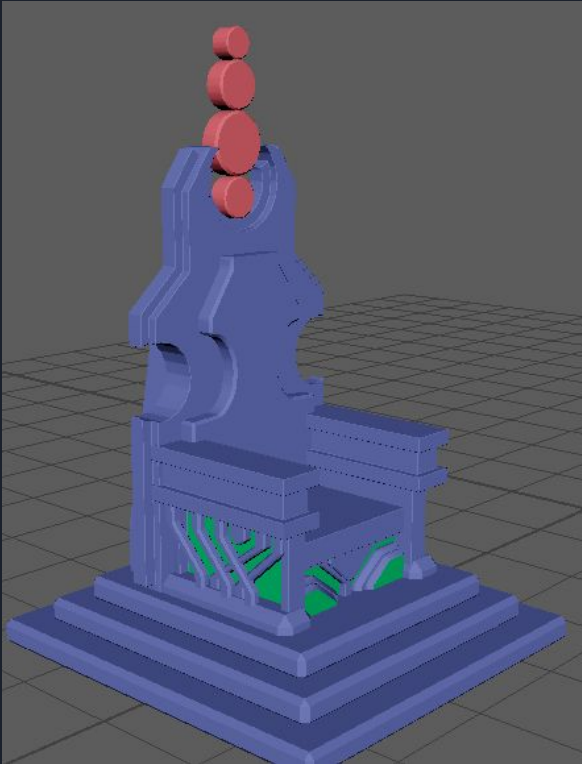
Production Process - Texturing

Something different that I used a lot for this assignment compared to the other one, is tiling texture. Added to that I used a lot of high poly mesh baked into low poly one. So I can still have a flat plane with a good texture on it.

For the high poly meshes I duplicated it on top/bottom/left/right, so the shadow calculation when baking is right.



Production Process - Texturing



Something really useful I used a lot for this assignment is color ID map. It's really useful to mask fast and easy your model to differentiate part or to make multiple materials.

For other assignment I used to only have 1 material per model.

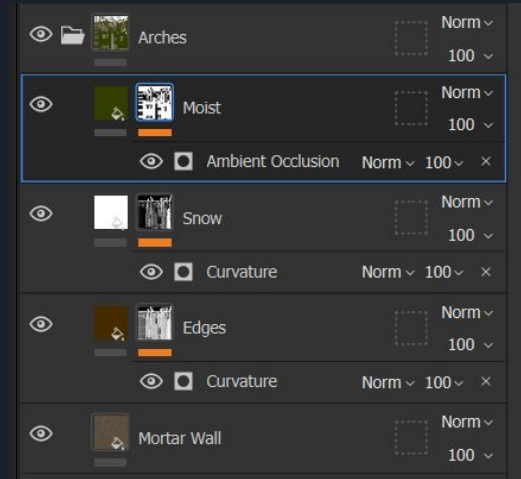
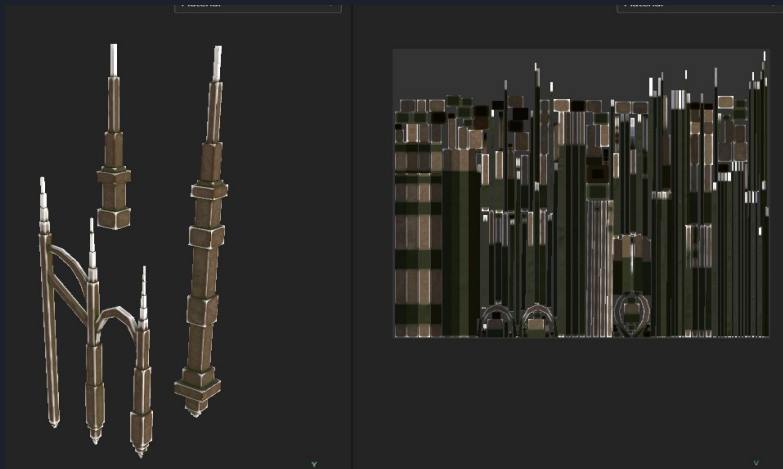
For this one I needed more material per model for everything, it give me easier workflow and it's better for interaction if I want to change a material (to make a part of an object shine for example) it's way more easier with different material.

Even when modeling in Maya having different colors make it easier to visualize the final design.

Production Process - Texturing

For all my models I used pretty much the same process. After baking the mesh map, I first use mask to separate all the different part of my model that would have different texture. If needed

Since I wanted to keep it stylized, my textures don't have more than 4-5 fill layers. They have 1 base material, then some generated layer. For example all my textures outside have a curvature layer to make the snow consistent on everything.

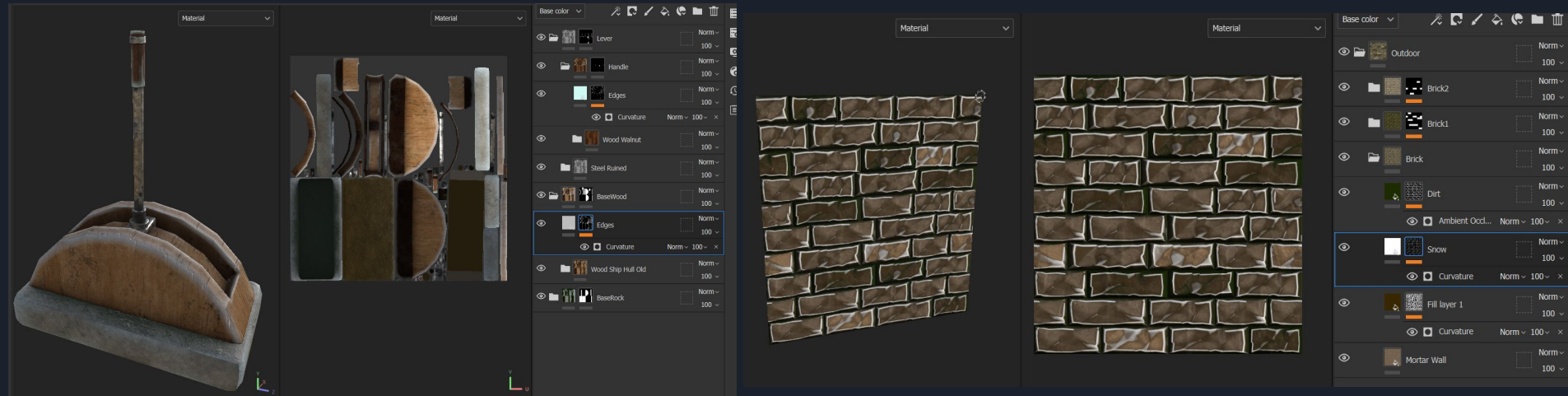


We can see it well on the arches, only one base material, then 3 colors to add some effects. Like snow, dust, rust, moist ...

Production Process - Texturing

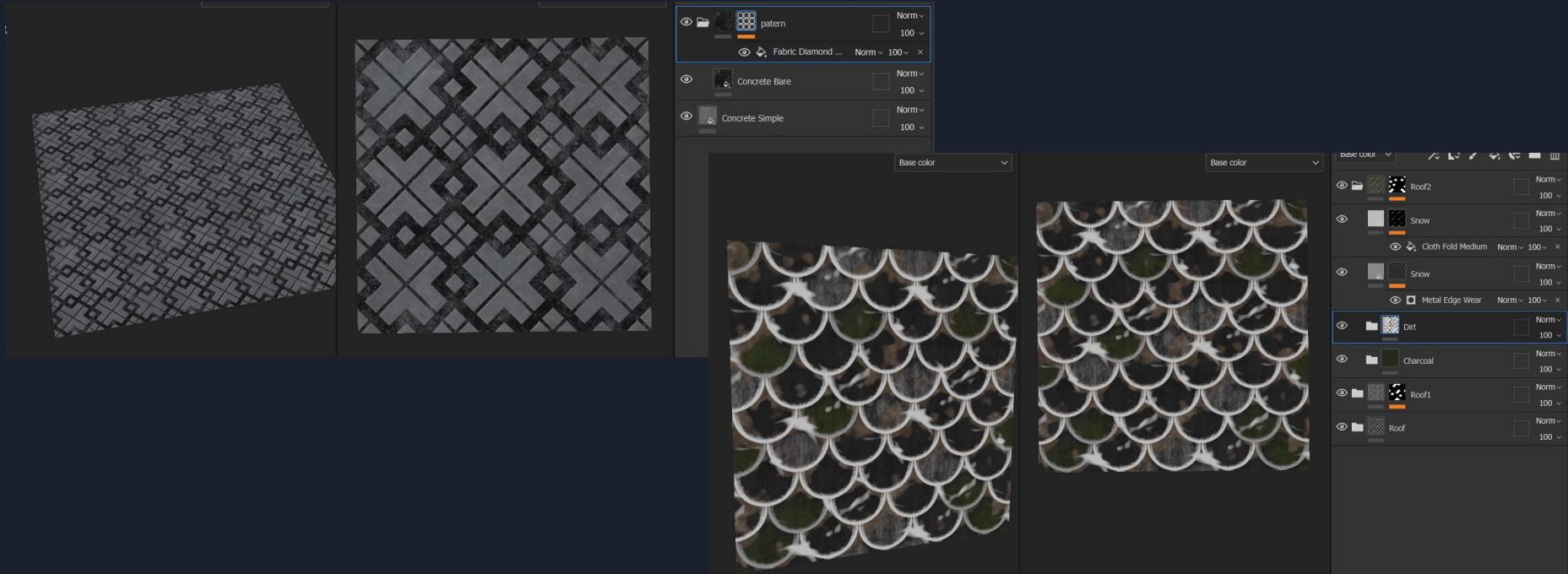
Something that I used a lot for nearly all my textures, and that really help for the stylized part, is a curvature generator and ambient occlusion generator. It really help to delimit the edges of your model, by enhancing the surface details, and creating interesting effects based on the model's curvature and edges.

I used it for every of my textures, I don't think I have a single textures that doesn't use a curvature generator.



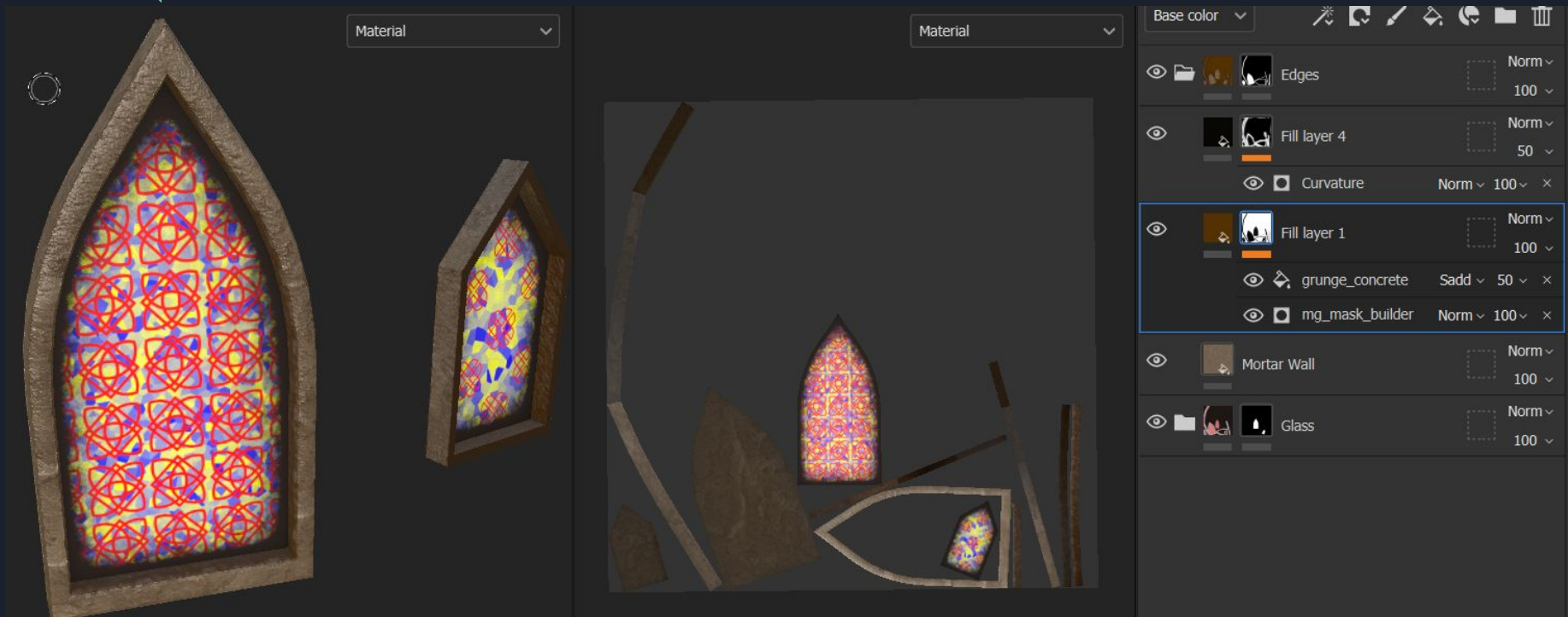
Production Process - Texturing

As I said, since we had big spaces to fill and textures, using tiling textures here was mandatory and so useful. You just have to be sure that they tile perfectly and you don't see hard edges.

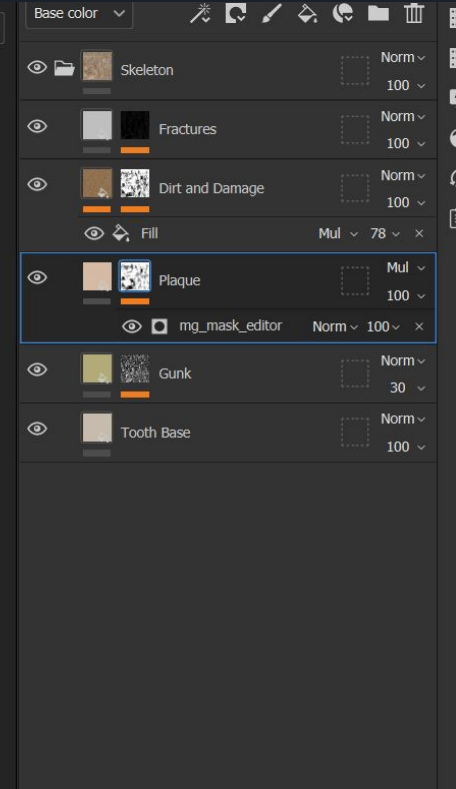
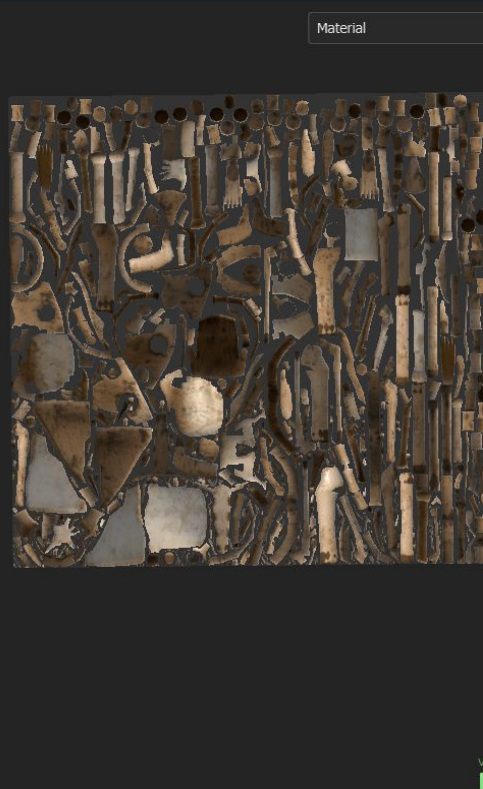


Production Process - Texturing

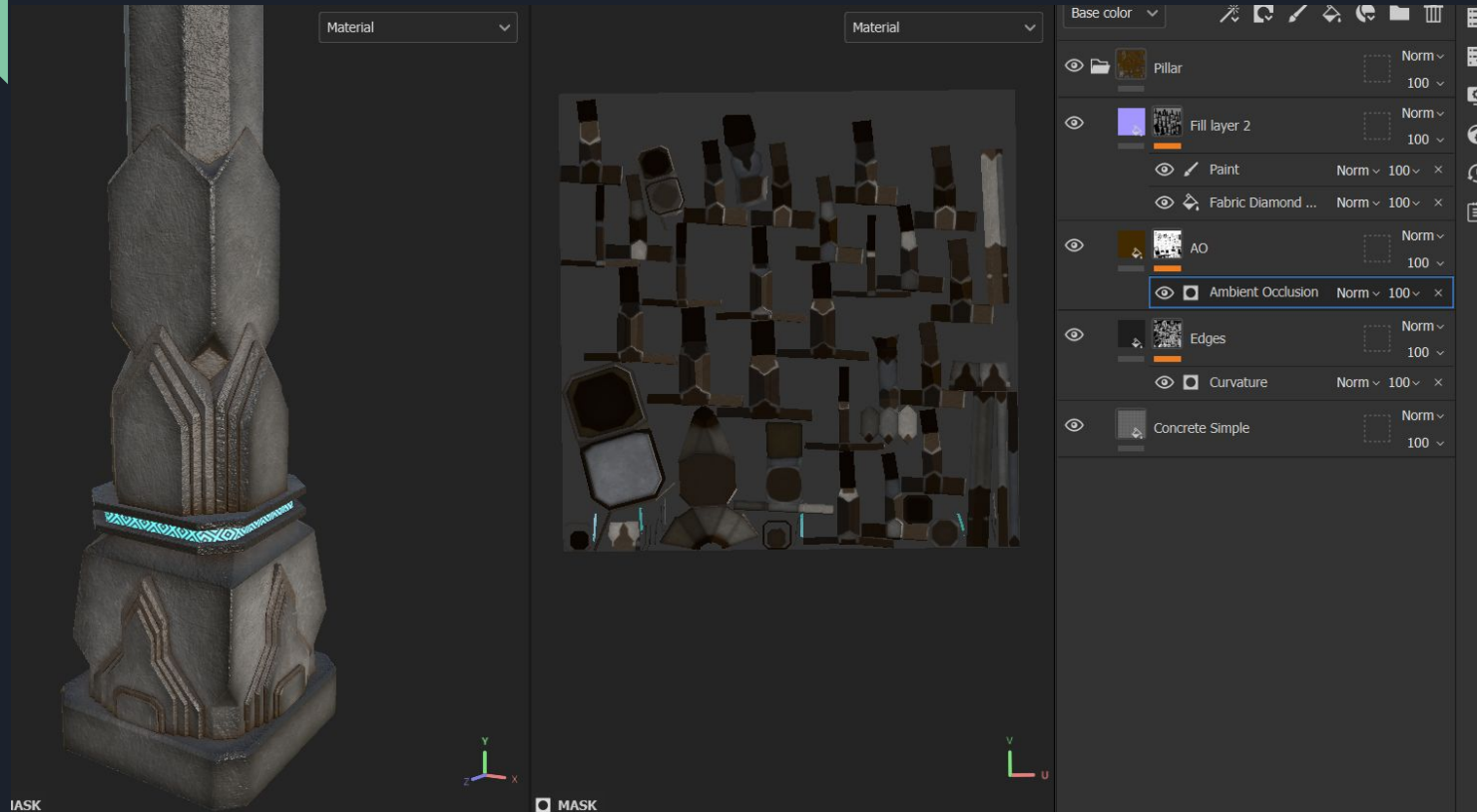
Here are some other textures so you can see the workflow.



Production Process - Texturing



Production Process - Texturing





Production Process - Interactions

This part was the part I was the less afraid off at all for this assignment. Since I am developer for now 7 years, doing those interactions even if it come from PlayMaker and now C# it was fairly simple. I had all the background about the logic and thinking process when making code that helped me a lot for making those interactions.

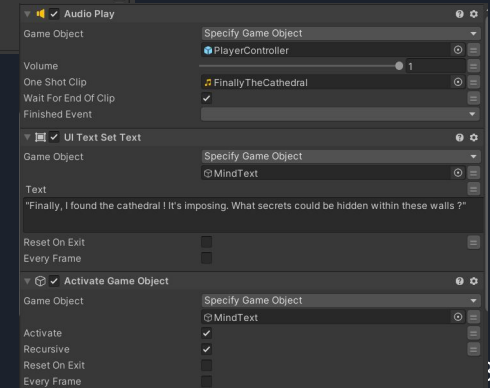
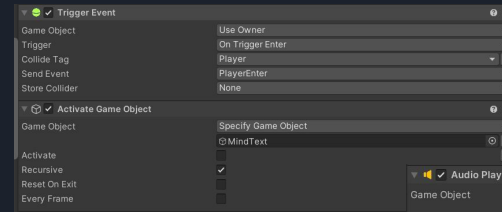
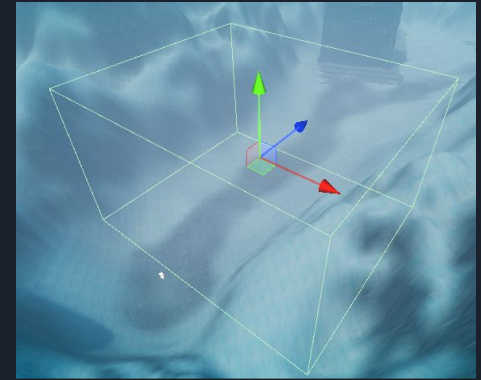
The use of variable was not a problem at all and I used it when needed when I wanted to do some more fancy interactions.

I am happy that I learned PlayMaker, but I am pretty sure that I would always use C# script if I had to code something. PlayMaker is really useful for people not into programming but I really feel it's way longer to use PlayMaker than using scripts.

Production Process - Interactions Dialog and torches

An interaction I use a lot triggering an event when entering a box collider. It's really useful to delimit area in your scene and trigger event accordingly.

I used it to trigger when my character would start the dialog, and used it too to lit the torches on when you come close enough to them. Since I have a lot of dialog and torches I did prefabs of course and duplicated them since it was always the same system.

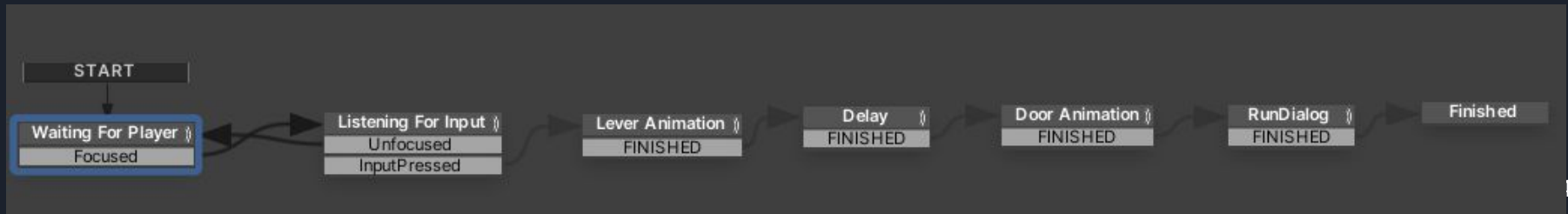
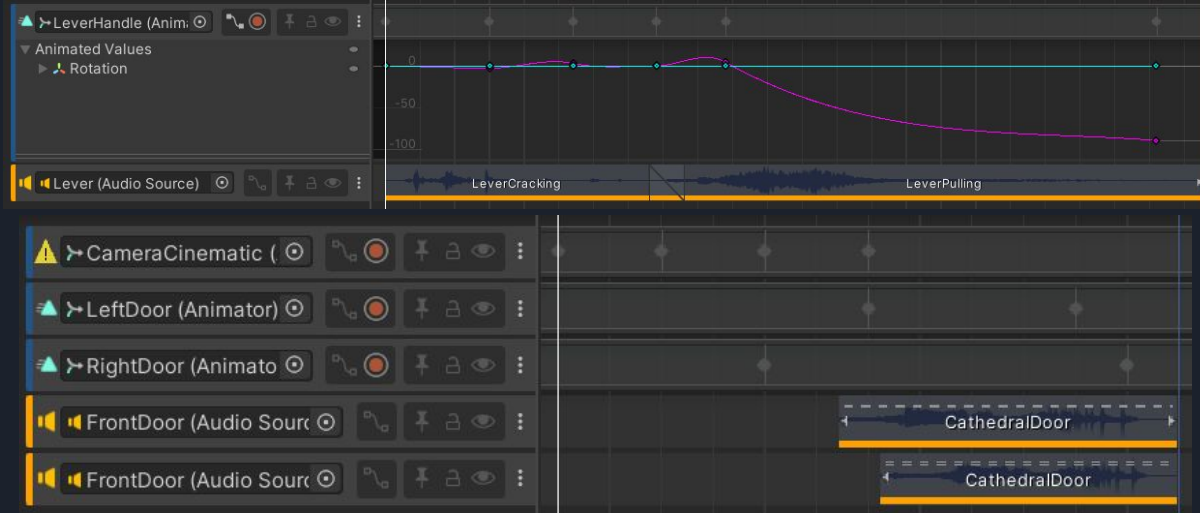
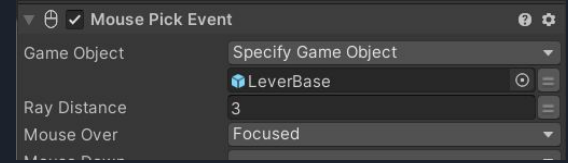


Production Process - Interactions Lever

For the lever this time I used a mouse pick and the user input to trigger the event of pulling the lever.

After that I used animations made with timeline to have the sounds, the lever pulling and the camera moving along well.

Just after pulling the lever, I added a little delay and then jumped into the door timeline.

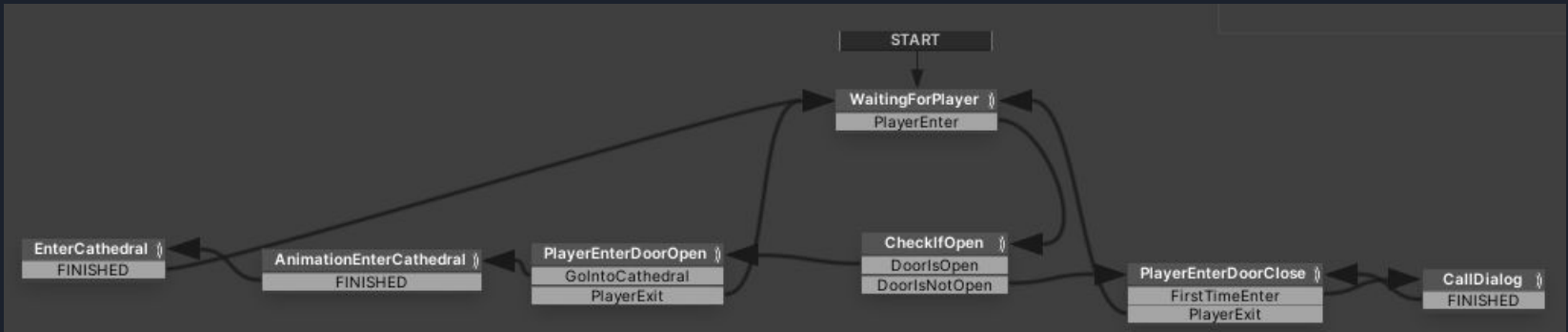
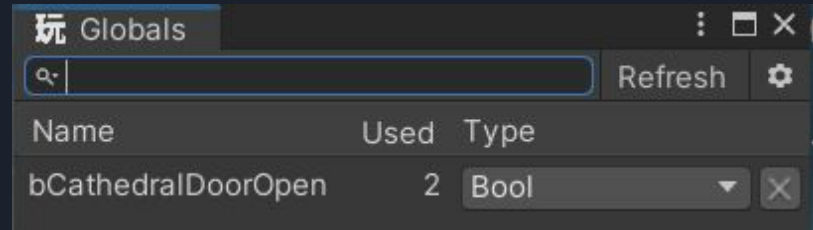


Production Process - Interactions

Cathedral door

The door was a bit more tricky. Since the door would have 2 state, open and close, I had to use variables here to differentiate these states.

If the door is close I would have to show the a text and call the character dialog (only once ! again use of variable here). If the door is open I will allow the player to go through.

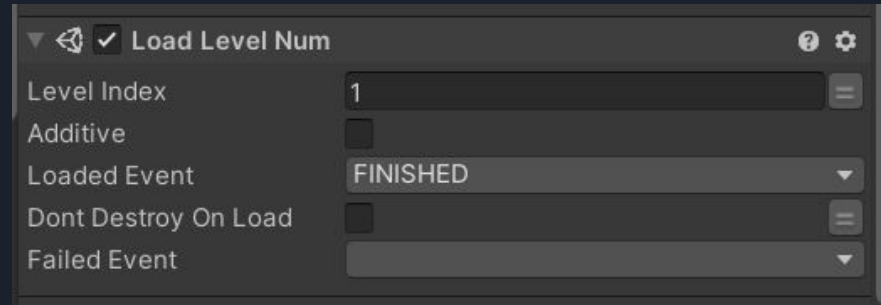
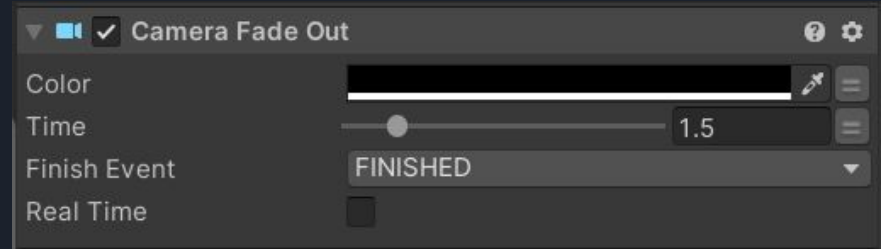


Production Process - Interactions

Cathedral door

Since I decide to go with 2 different scene instead of teleporting the player when he click to enter the door. I will fade out and when the camera is black I would load the new level. When loaded it would just change level and make me posses the new camera on the new level.

There is one big problem using different level, and I figured that too late to change everything, is that you can't come back. If I come back through the door and reload the old level, it would load it from scratch and there is no way to keep the changes you did to the level (or you need a big system of save/load which is totally out of scope for the assignment). So I couldn't make the character come back outside which I think could be an improvement.

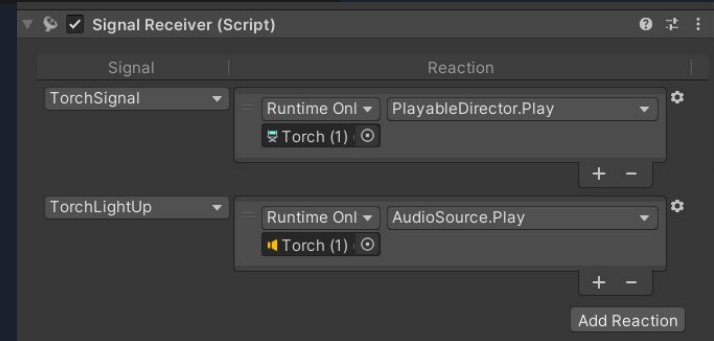
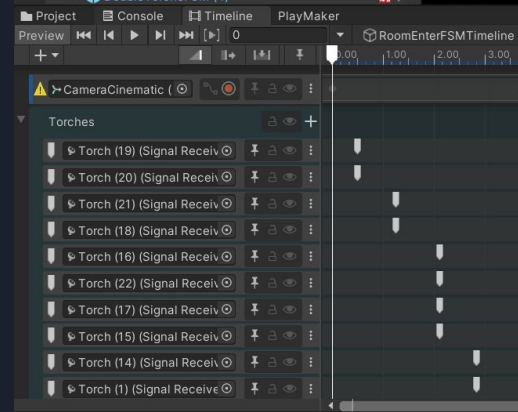


Production Process - Interactions

Main room torches signal

Something interesting I used, for the torches lighting one by in the cinematic in the main room, is signal. Instead of making everything in the timeline (it would take so long and it would be so big), I just send signal to the torches when I want them to lit on fire.

On the torch side, in the prefab, I just added a signal receiver that will make a certain action depending of the signal he is catching. Here for example when he catch the signal in the cinematic, he would run an other timeline for every torches that would lit them, with the sound and stuff going around. If I had to make everything in the main timeline, I would have for every torches 3 row, one for the particles and 2 for the sounds. It was not possible.



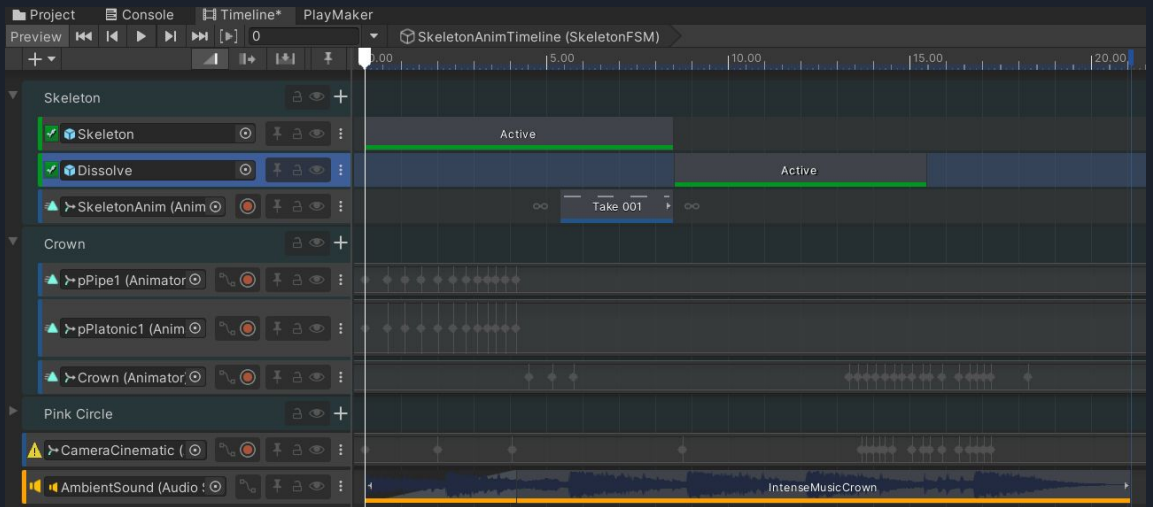
Production Process - Interactions

Skeleton cinematic

The skeleton cinematic was by far the longest and hardest cinematic to do. It use a lot of key frame and took me a lot of time to get exactly what I was looking for.

The hardest part was the end of the animation when the crown take control over you. I really had to make little spacing between frames to be sure that it was follow the path I wanted.

For this I used a lot align with view, it helped a lot to put the camera and crown exactly in the position I wanted



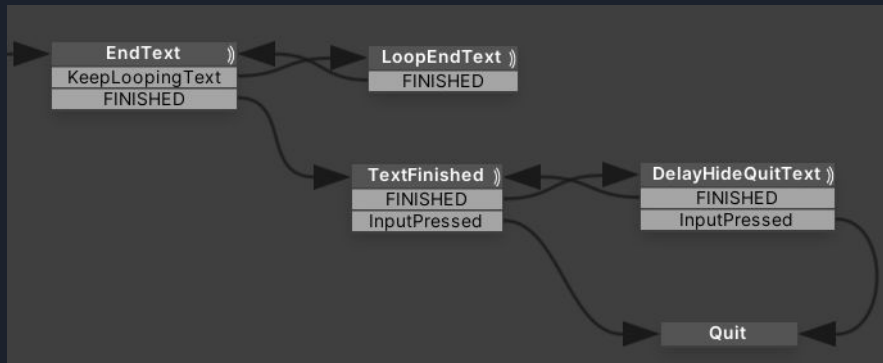
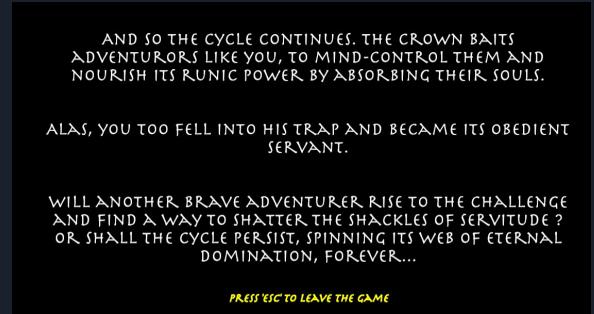
Production Process - Interactions

End Text animations

The last big interaction I did using PlayMaker was the end text appearing letter by letter. It's not really complicated but you must have knowledge of string and variables.

What I do is that I have a main string with the final text, and every 0.05 seconds I take a letter of that string and append it to another string that I will display (to keep track of the index I use an int a variable that I increment every frame)

Then when the index is equal to the final text length, it means I showed everything. If so I can leave the loop and display the text to leave the game.



Name	Used	Type
CurrentIndex	3	Int
CurrentTextToDisplay	2	String
FullTextToDisplay	3	String
StringLength	2	Int

Production Process - Scene arrangement

As I said I didn't really greyboxed my scene. I really just used Ethan and these sending to Unity and test to see if the feeling was great.

For me, the most important part was testing, and doing play test with my family. Since I am making the scene my vision can't be a bit different from the people that will play the scene, and I need them to like the scene not just me.

The only issue I got, and this is where play testing is so important, is that I used to have the cave where closer and to the right of the cathedral. So when play testing people didn't want to miss anything and they went into the cave before trying to open the door. It work but they miss some interaction and some dialog from the character. As the creator for me it was obvious that they would got to the cathedral first, but it was not. So I changed that and put the cave a bit behind, in same time it allow you to go around the cathedral and see the side, because before you would only see the facade and I feel the side is the best part of the cathedral.





Production Process - Particles

The particles gives a lot of movement to this static scene. I used some particles from the given pack of particles that I tweaked and made some.

For the outside I wanted to give this impression of snow and wind. The snow particle outside are sooooo important, without them the scene it's totally different and the feeling is just the opposite.

For the inside, of course for the fire I had to use particle. I am really proud of the final result of this one even if I only tweaked a particle system from the given pack, the result is perfect. Same for the smoke on the ground, it really add so much to the scene.

Compare to last assignment where I overwhelm the scene with particle because it was needed for what I wanted to do, this one don't need that much particles. I really feel that I added the right amount and it's not too much or too low.

I will mainly focus on the particle I did myself, because for the particles I used from the pack, I just tweaked values so it fit better the scene, the colors, the size, the speed ...

Production Process - Particles

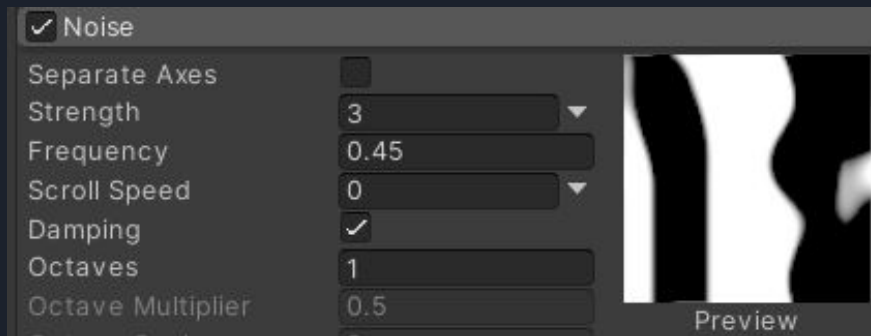
Snow

The snow is one particle system emitting 20000 thousand of particle over time, but I decide to go with only one big chunk instead of little chunk and duplicating it around the scene. Because now the snow is perfectly consistent and you can't see difference when 2 snow chunk would connect.

The system is fairly simple I just increase velocity into -Y to make them fall and in +X to make like a wind wave. To make them more alive I change Speed/Color/Size over time.



Last thing I added that's really important is noise. Without noise the snow is looking to flat and not realistic at all. With the noise you can really feel the wind pushing them.



Production Process - Particles

Torch fire



Mine

For the torch I tweaked a system from the provided ones and added some smoke. I feel the final result is looking incredible and I am really happy of it.



Provided one

Production Process - Particles

Ground fog

For the ground I didn't change a lot because he as already fine. I just scaled it more in the X direction so it's less round but more like long lines of fog



A bit more like this, really sticking to the ground

Production Process - Sound Mind Dialog

First I am going to talk about something you may have heard instantly, it's the voice talking when "mind" dialog show up in the game. I really wanted to immerse the player into the character so I wanted you to be able to hear what the character was thinking inside his mind. For this I wanted to have voice talking over when a dialog, about what the character is thinking in his mind, is popping.

For this I used AI text to speech. AI is not allowed for this unit, but I talked about it with Anita Lin and she allowed me to use it.

I used fakeyou.com that allowed me to choose a character I want (I chose Andrew Garfield because I felt he fitted well my scene) and the text I want (less than 12 second for free) and it generate me the speech.

You can check the Terms of Use if needed <https://fakeyou.com/terms>. But I messaged them by discord and they allowed me to use it for student work.

Andrew Garfield — [View Details](#) / [Download](#)

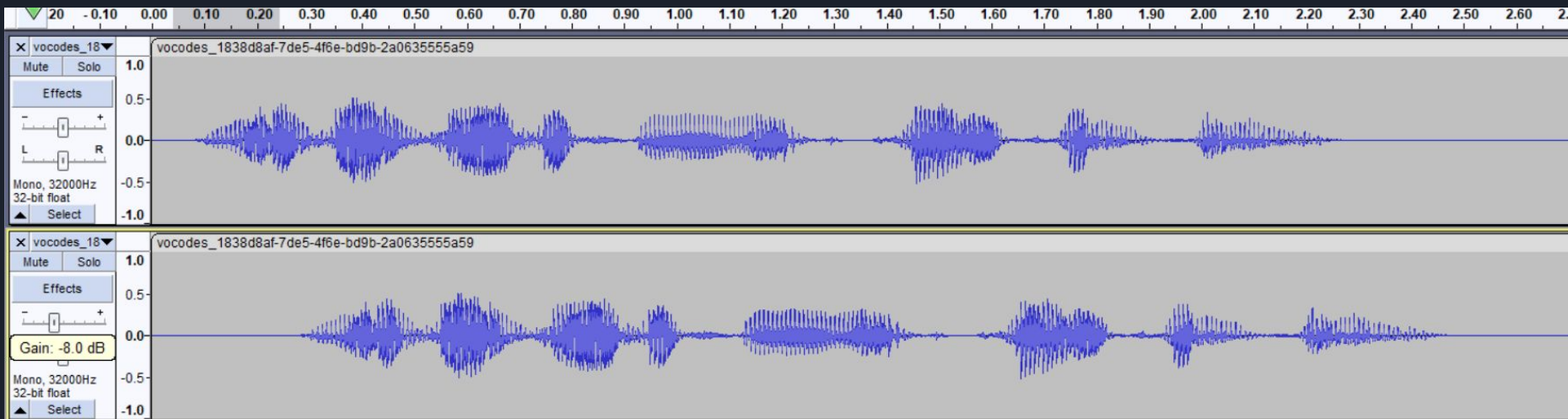
I can't open the door. I heard that the builders had hidden a mechanism in a nearby cave.



#7 · · 4.527 s · 11 days ago

Production Process - Sound Mind Dialog

To make the effect that he is thinking in his mind, I went into audacity and duplicated the main track. I delayed the second track of 0.15 seconds and reduce the gain. It add a lot to the first speech and really looks like he is thinking in his mind.





Production Process - Sound

Since I had 2 totally different environment I really needed different sound for both of them that you could distinguish.

For the outside I aimed for a windy and snowy scene so I had to emphasis this with the sound. You are lost, there is a lot of snow and wind and you really want to go inside the cathedral to protect yourself before the night.

For the inside, I wanted the opposite. This is why there is really little amount of sound, so you feel protected and secure.

Last thing, I wanted to really immerse you into the scene so of course every interaction, fire lighting, door opening, lever moving would have a specific sound. First so you know something is happening, and second so it looks realistic.

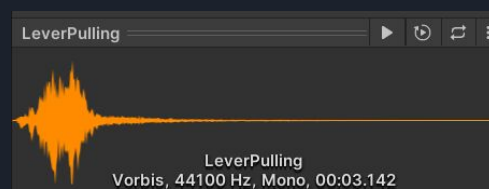
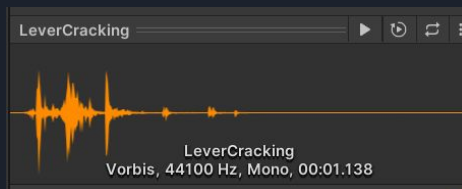
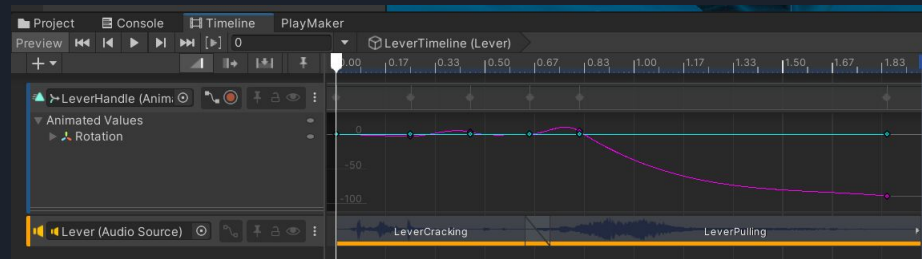
For all of my sounds I only used Audacity to amplify them or to make some of them seamless by doing the fade In, fade out trick we saw in class.

Production Process - Sound Outside

For the outside I have one main ambient sound to emphasize the wind and the snow around you.



Then I have 2 sound for the lever, the first part when he cracks then the second one when you pull it.



Production Process - Sound Outside

Finally I have a sound when my doors open. I changed it a little bit in audacity so he fit perfectly the 2 animations of the 2 doors.

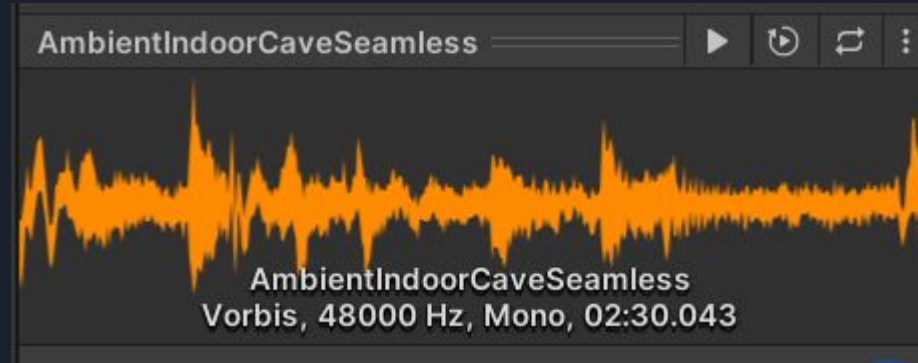


Big door creak.wav made by jemburyturner on freesound.org

Production Process - Sound Inside

As I said before for the inside I really wanted something more calm. Plus since it's dark I wanted you to feel a bit scared from what you could find here. This is why I went for an ambient sound way more slow paced and a bit creepy.

Then I really wanted a bit difference from the ambient sound when the crown goes up and take control of you. I needed something more intense, a bit epic so you feel the action going on. I tried to spend some time timing some of the animations to the sounds peak so it feel even better.



Space Atmosphere 02 Remastered.wav made by MATRIMXX on freesound.org



Intense Drum Sequence.wav made by Sami_Hiltunen on freesound.org 60

Production Process - Sound Inside

Lastly, the fire is a really important part of the inside. So having a good sound when the fire lit on and when he is burning was really important. So every of my torches have his own audio source of course (using prefabs here).



It came from the study resources given.



It came from the study resources given.



Production Process - Lighting

For the lighting I tried to go a bit more complicated than the previous assignment.

First the most important thing is that I am working with 2 scene, literally 2 different scene in unity. I did that only for the lighting, I wanted to have 2 different ambient lighting (intensity and color).

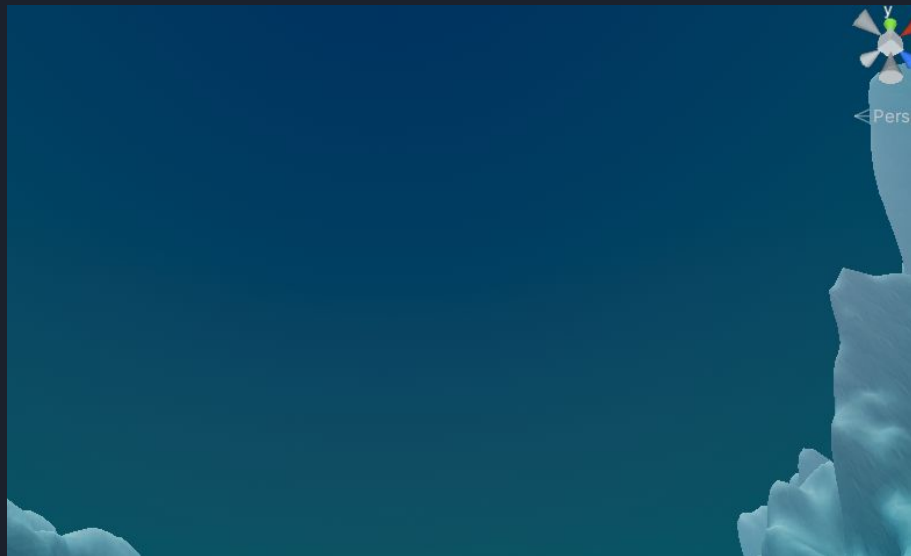
So thanks to that I can have totally different lighting outside and inside. I don't need to hide the directional light inside and stuff, I can just take it off for the 2nd scene.

Production Process - Lighting Outside

For outside the lighting is pretty basic.

First I have the directional light for the shadow and everything else. And then I used the shader provided to have a gradient sky (it fit really well for a stylized scene). The second lighting come from the ambient light of the sky.

For both lighting here they are not really intense, it would be in the evening.



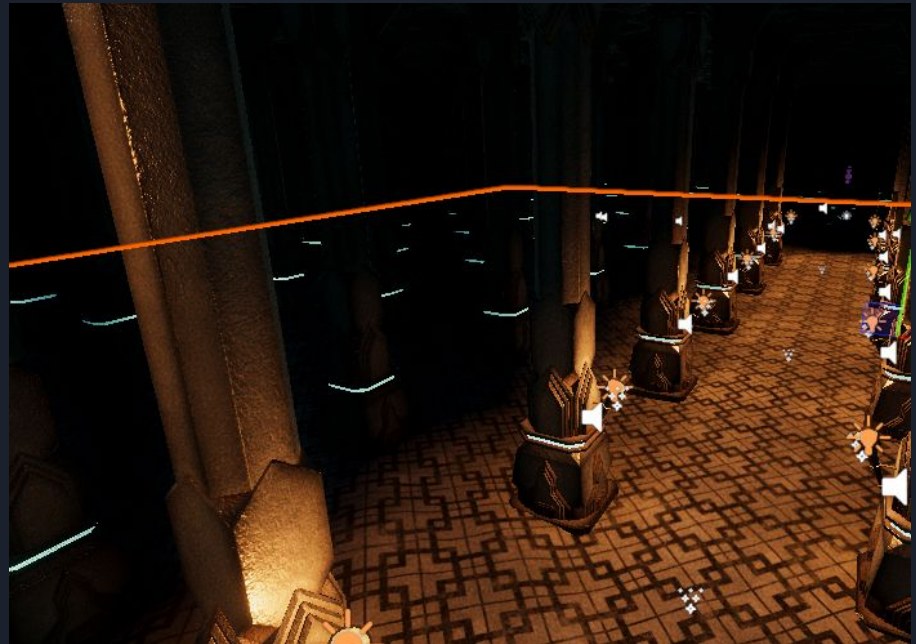
Here is my sky, that give a nice dark blue tint to the whole scene.

Production Process - Lighting Inside

For inside I wanted to play more with the lighting. First since we were inside I didn't want any directional light, no sun going in. So at first the only light would be the ambient lighting.

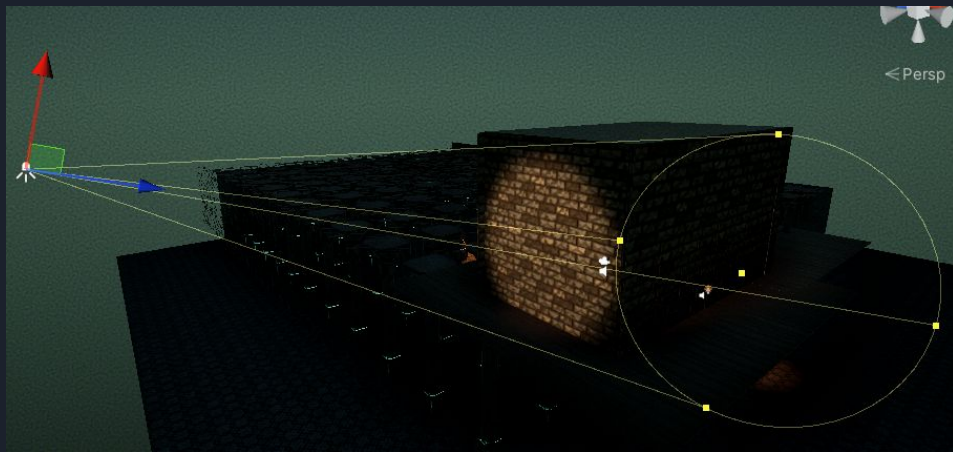
I really wanted the scene to be dark and that the only light would come from the emissive color or from the fire of the torches. The torches too allow me to direct the player toward their goal so they don't just wander in the room.

It makes the scene more realistic and enhance the effect of the emissive color on the pillar, really making them mystical and sinister.



Production Process - Lighting Inside

Lastly since you are suppose to enter from a open door, you should be able to see the light from outside going in from the frame. Since I use 2 different scenes I can't really do that, so I used a a light as a spot light to make this effect of the light going through the frame, so it's even more realistic.





Production Process - Post process

All the post process effects would be the most important to give 2 really different mood between the outside and the inside.

Since I have 2 different scene I didn't even had to use post process volume and box collider to delimit their effect. I just use 2 global post process effect different for both scene.

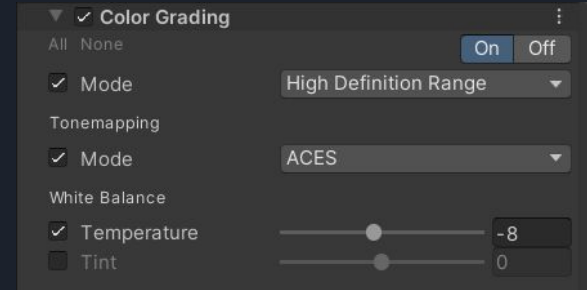
The outside have to feel really cold and that you are a bit lost, and you want to go inside.

In the other part the inside must feel more calm but in same time I want it to be really dark, mysterious and bit scary.

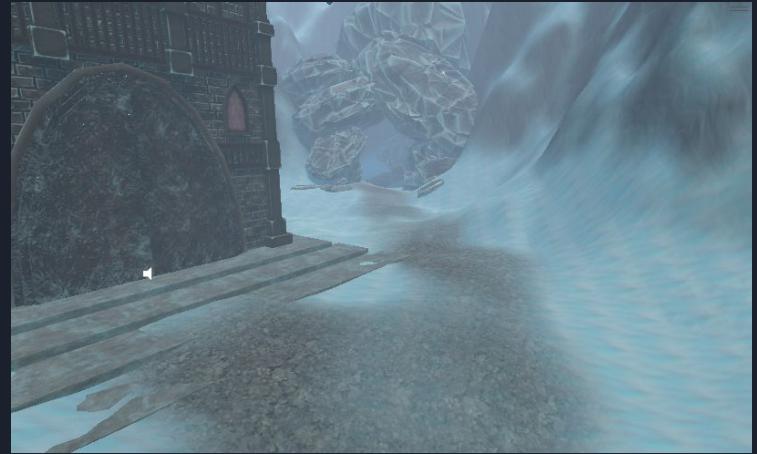
For both of them I added a bit of fog, so you don't see too far, it's just a must have for this kind of scene.

Production Process - Post process Outside

I added a color grading and tweaked mainly the temperature so the color would be way more cold and exactly like you would expect a snow mountain to be. It clean the color too.



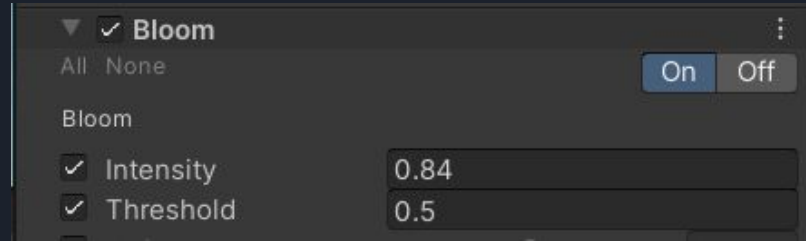
With color grading



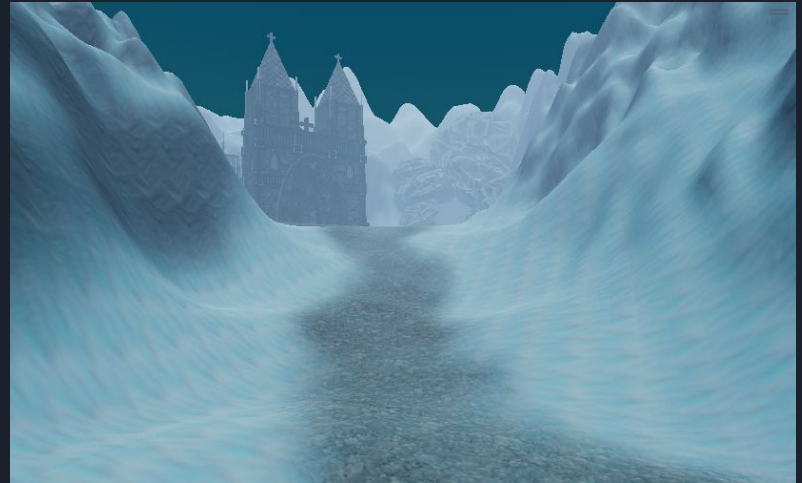
Without color grading

Production Process - Post process Outside

Even if I only had the inside of the door emissive outside I added bloom to make the snow a bit shiny like if the sun was reflecting on the snow, it's really subtil.



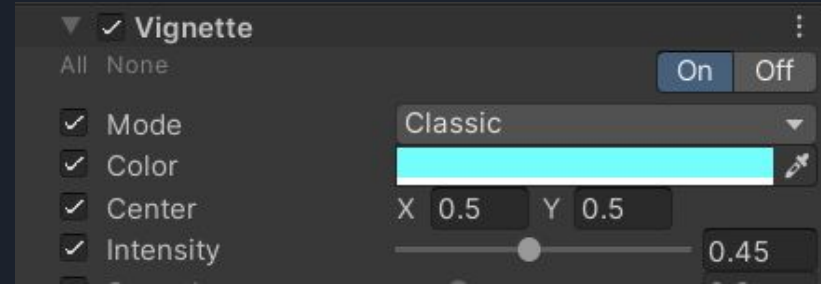
With bloom



Without bloom

Production Process - Post process Outside

Adding an light blue vignette add a lot to the cold effect I want and it make the vision more restricted so you feel a bit more lost or like if the vision was a bit frozen.



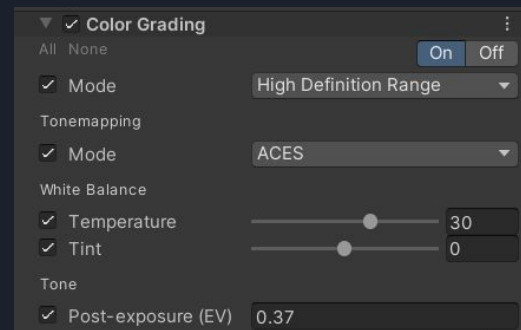
With vignette



Without vignette

Production Process - Post process Inside

Again added color grading and at the opposite of the outside I wanted the scene to look warmer and emphasis the color of the fire from the torches. They are really important since it's the only real source of light inside.



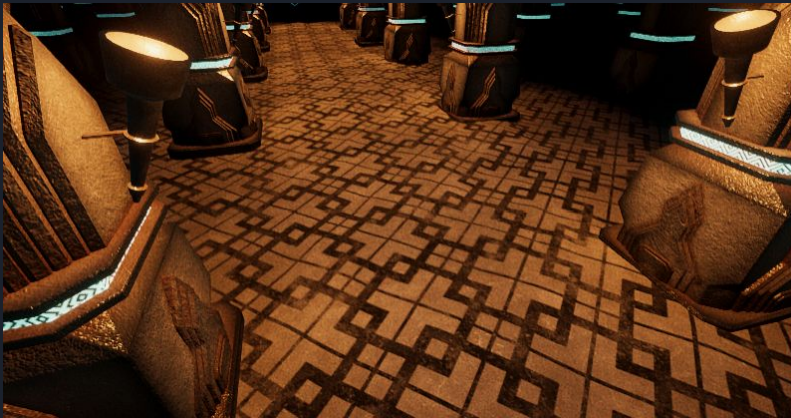
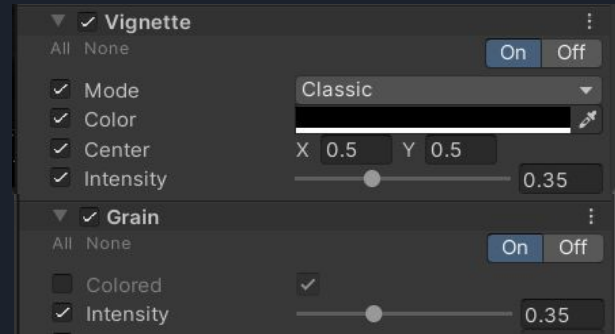
With color grading



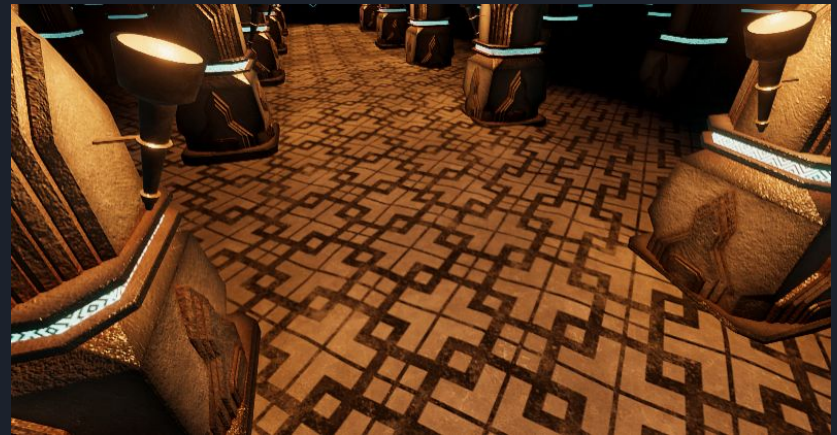
Without color grading

Production Process - Post process Inside

To make the scene more mysterious and sinister adding a black vignette and some grain was great. The effect is extremely low because I didn't wanted to blur you the vision at all, it's just really subtil and without when you play it makes a difference especially on the ground.



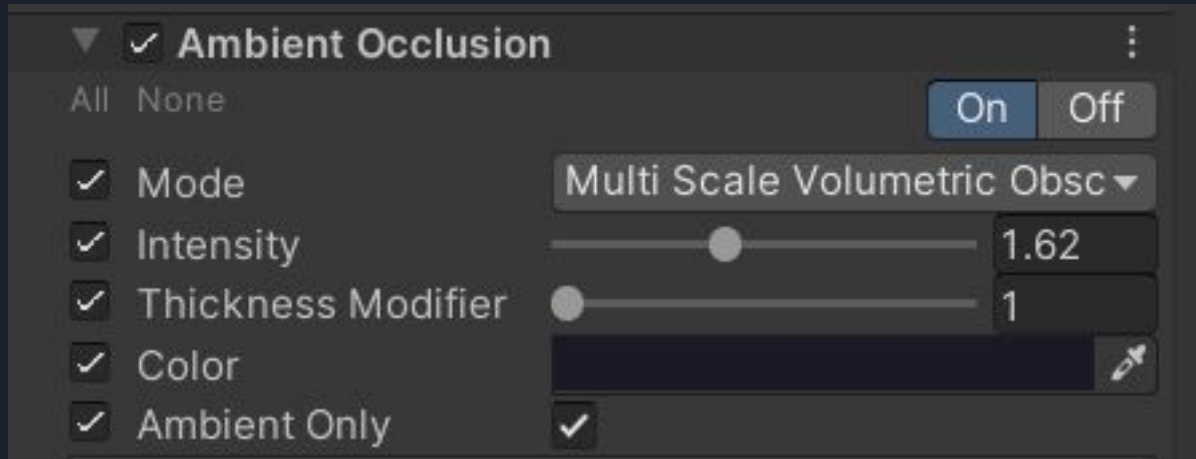
With vignette and grain



Without vignette and grain

Production Process - Post process

I added ambient occlusion for both of the environment because the shadow just look better, I don't see any reason to not put some ambient occlusion to a scene.





Reflections

- First I am really proud and happy of the result, of course there is always improvement but I really like my final scene. Compare to other assignment I got a bit of time to do some play test with my family to really be sure to improve every little part.
- As you might know, I am not an artist at all I am full game developer and I took this unit just to learn a bit of 3D modeling/texturing and being able to make some of my own asset when making games. At the end I really liked it, and really found what I was looking for. I feel confident making some homemade stylized asset that could fit in a game and doesn't look like an old game from the 90'.
- I was really scared from this assignment, the building part plus following a certain architectural style looked really hard. But at the end, I got what I wanted and I am really proud, I don't think I would change a lot to my scene if I had to go back on it.