



Georgescu Maria - Environments



Project 1

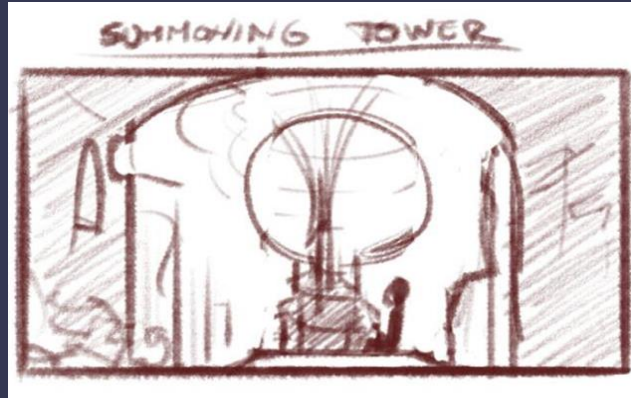
Eternity gateway

IDEA EXPLORATION

I started by exploring the theme and from the start, multiple ideas came into my mind. I wanted to go for something that showcases an explosion of light and colour as well as the purity and power of a star. After analysing my options, project scale and time available, I decided to go for the fourth idea.



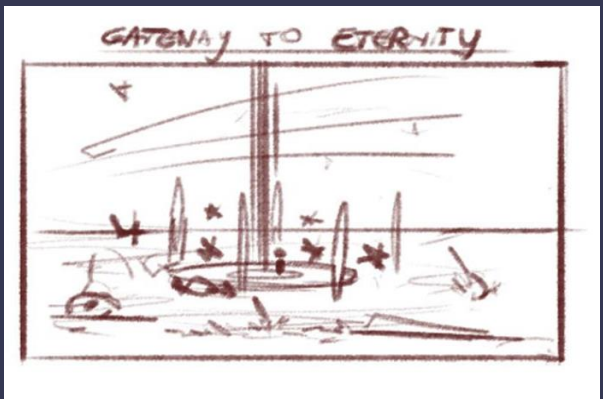
1. Cozy winter landscape. The people of the village are collecting the stars that fall on a special occasion once every few years. Their houses are surrounded by huge bubbles that protect them from the star storm.



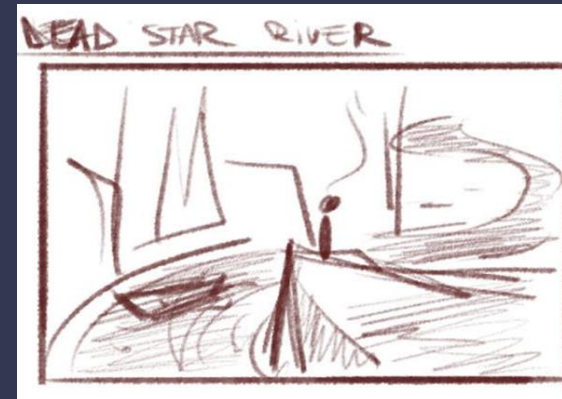
2. Lonely princess of an alien race looks out from the ruins of her former home towards the imposing summoning tower. This structure drains the energy and life force from it's surrounding in order to power itself. The invaders of her home built the tower in the aftermath of their victory.



3. In the depths of the earth, the people are harvesting the power of a fallen star to provide energy for the world above. The secrets of the core are only known by very few and select people, usually master and apprentice, destined to protect and maintenance it for life.



4. A place between reality and imagination, this place is the gateway towards ascension for those who want to separate their eternal soul from their mortal body and live in a state of existence that exists outside of mortal perception of time and space.



5. A grim sight for those who venture into these parts of the primordial valley. An eternal place of rest, a graveyard for the fallen stars.

IDEA CONCEPT

While thinking about the theme chosen and how I could represent it, I researched a lot about these topics, myths, legends and other creators that have interpreted similar concepts before. Here are some of the sources that I got most inspired from:

-**The Grey Heavens**, part of Tolkien's masterfully crafted world. A place representing the origins and mysteries of life, where those who would venture on those lands would have the opportunity of meeting with their ancestors, a metaphor of paradise. Tolkien made use of many myths and symbols in his work, some of which I want to mention being the symbol of the ocean, a symbol present in many cultures representing both the beginning and the end of life; the two silver and gold trees, Telperion and Laurelin that brought light to the realm.

-Transcendence, present in multiple cultures around the globe:

The aspect of existence that is completely independent of the material universe, beyond all known physical laws.

I imagined an ethereal world, a misty dream realm, surrounded by an endless ocean, the sky bursting into a sea of stars and galaxies. In the middle of it all, the gateway to eternity, a symbol of ascension, beginning of a new life.

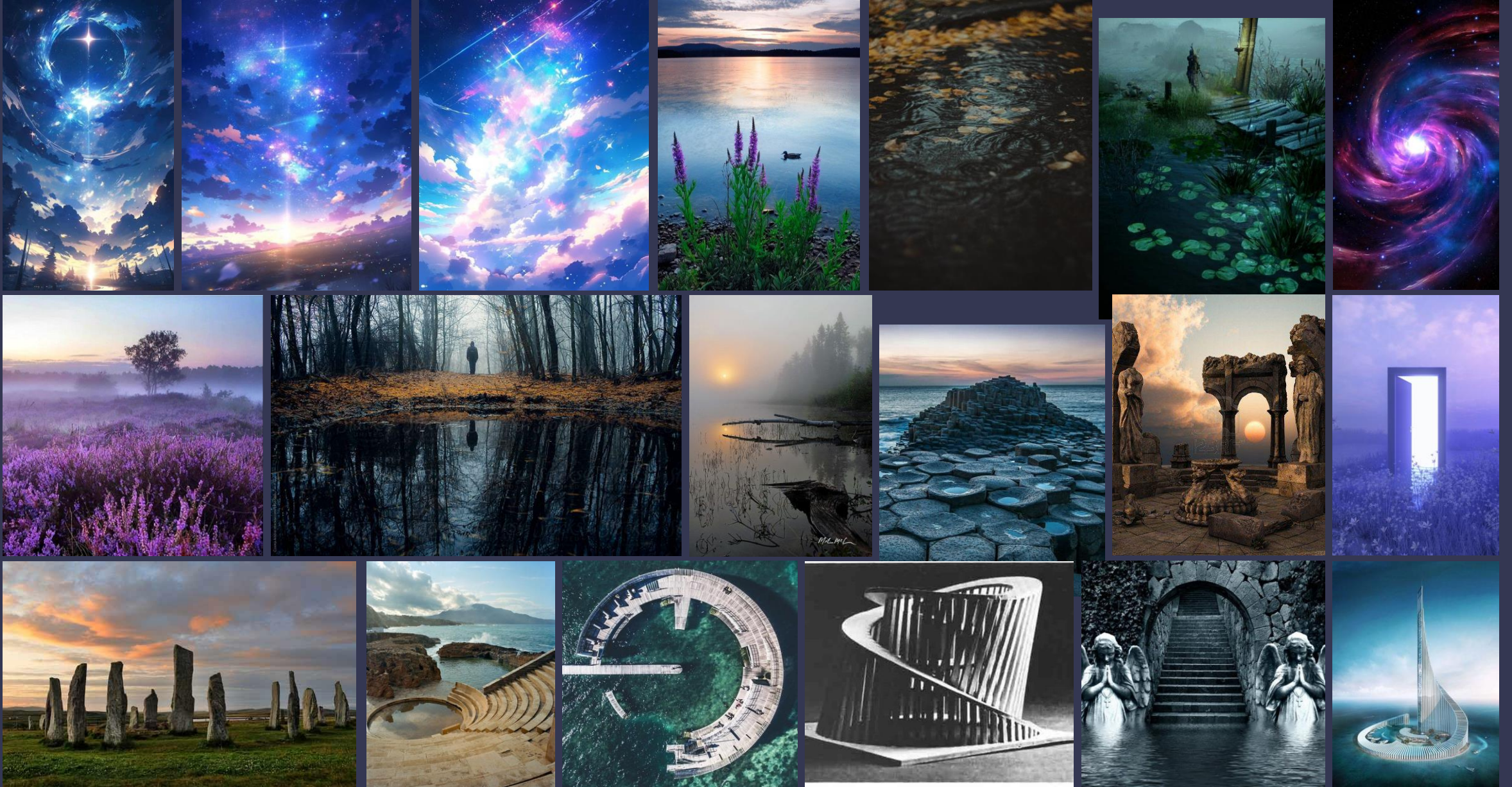


Mini story concept:

Reaching the end of their journey, two friends are rushing towards the gates of eternity, but instead of wonder and admiration, their expressions are darkened by desperation. One of them is gravely injured and it is clear he doesn't have much longer before he succumbs to his wounds. In this dimension, they were safe from the storm of blood and violence from the outside world. His friend was desperately trying to drag his heavy body along the path, but she was feeling her strength leaving her body with every step she took. The atmosphere was overwhelming. The closer they got to the sacred pool, the harder it was to keep their conscience awake.

Eventually, they reached the edge of the portal. Powerful energy from within was pulling them in. There was no more time left. In a desperate attempt to save her friend, she pushed them both through the vortex in an attempt to preserve and ascend their souls into eternity. A beam of light shot from within, a million of stars across the sky surrounded their ascending souls. They were saved.

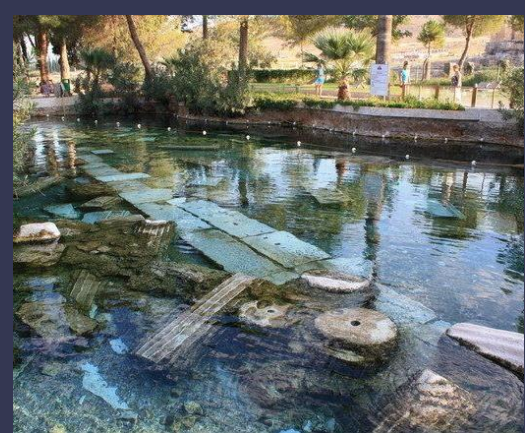
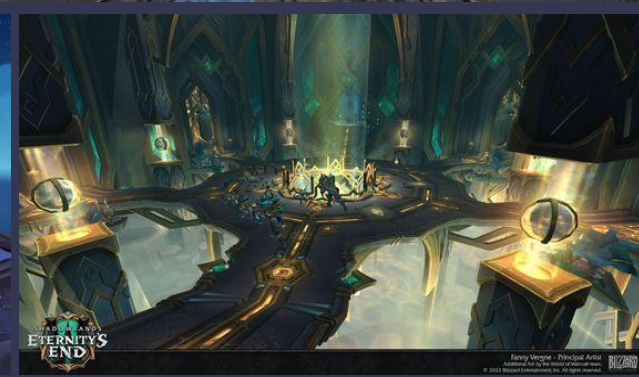
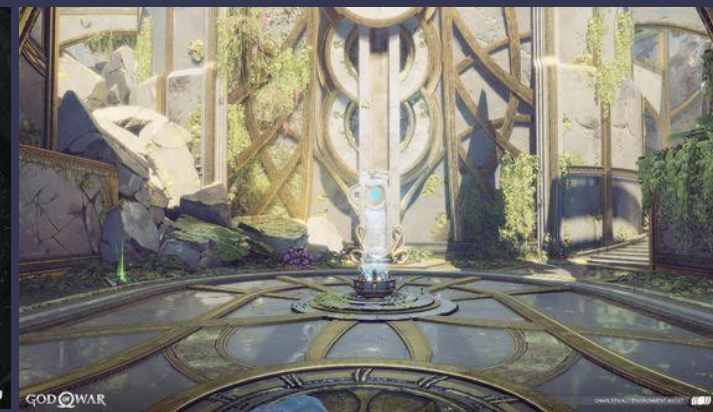
INSPIRATION BOARD: Atmosphere



SFAS entry(2023): It's full of stars

- Eternity Gateway -

INSPIRATION BOARD: Architecture



SFAS entry(2023): It's full of stars

- Eternity Gateway -

STYLE



-For this project, I wanted to experiment with a stylized, painterly style.

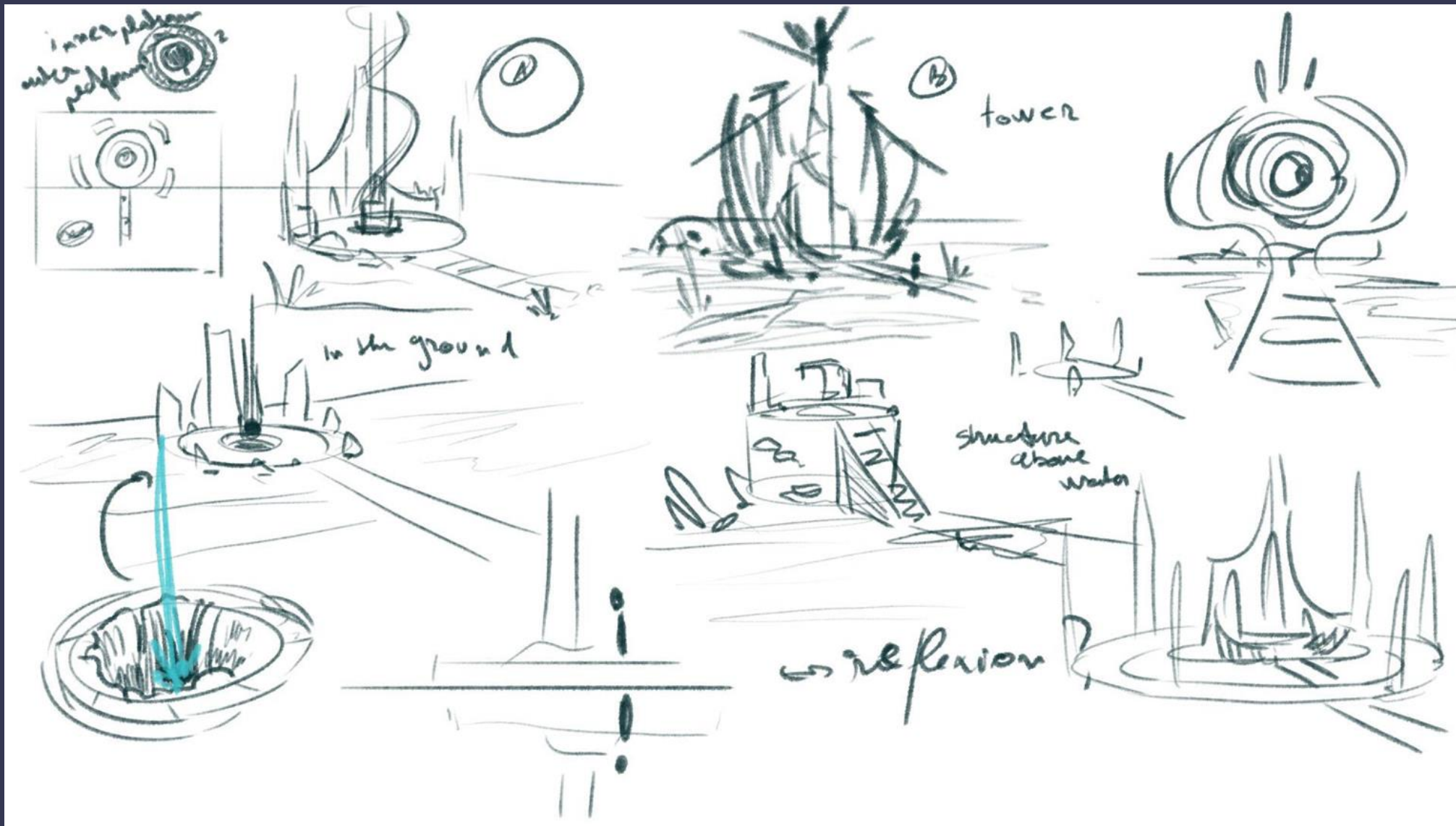
-When thinking about scenes from games, I was mainly inspired by *The Witcher 3's* expansion, Iris' painted world dimension and *Elden Ring's* Astel, Naturalborn of The Void Boss fight.



Artist styles I like

Game environments

LAYOUT EXPERIMENTATION

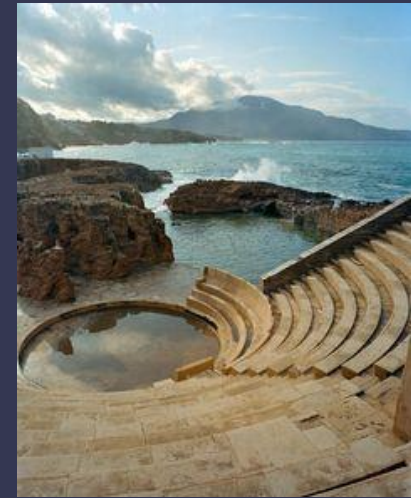
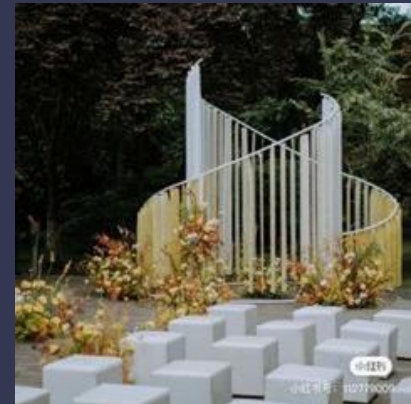


I knew I wanted my design to be influenced and dominated by circular shapes to represent eternity, infinity.

The structure is surrounded by an endless water surface that seems to blend in with the sky, blurring the lines between the physical and divinity.

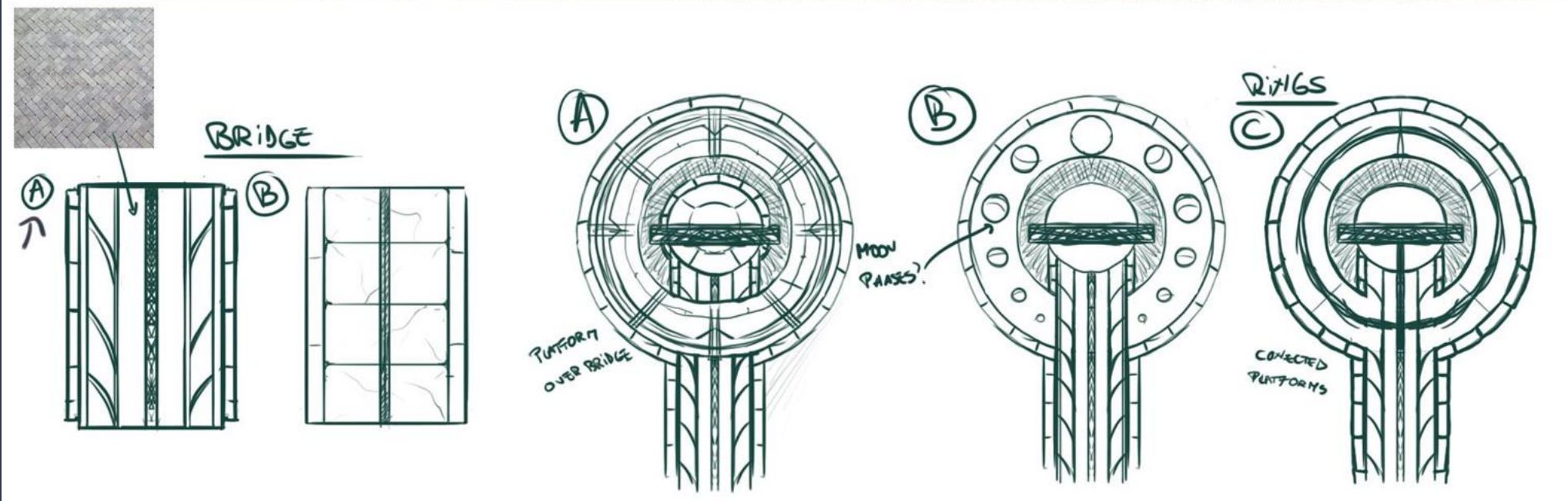
I explored different layouts and shape combinations of the gateway and decided to go for variant A, modified as in the far bottom right corner.

LAYOUT EXPERIMENTATION



Starting to develop the concept, I looked at a lot of pictures of stone formations and architecture styles to figure out exactly how the gateway is going to look like. I kept extending the space in my designs, but had to cut some of it due to time constraints and space limitations.

ARCHITECTURE DEVELOPMENT

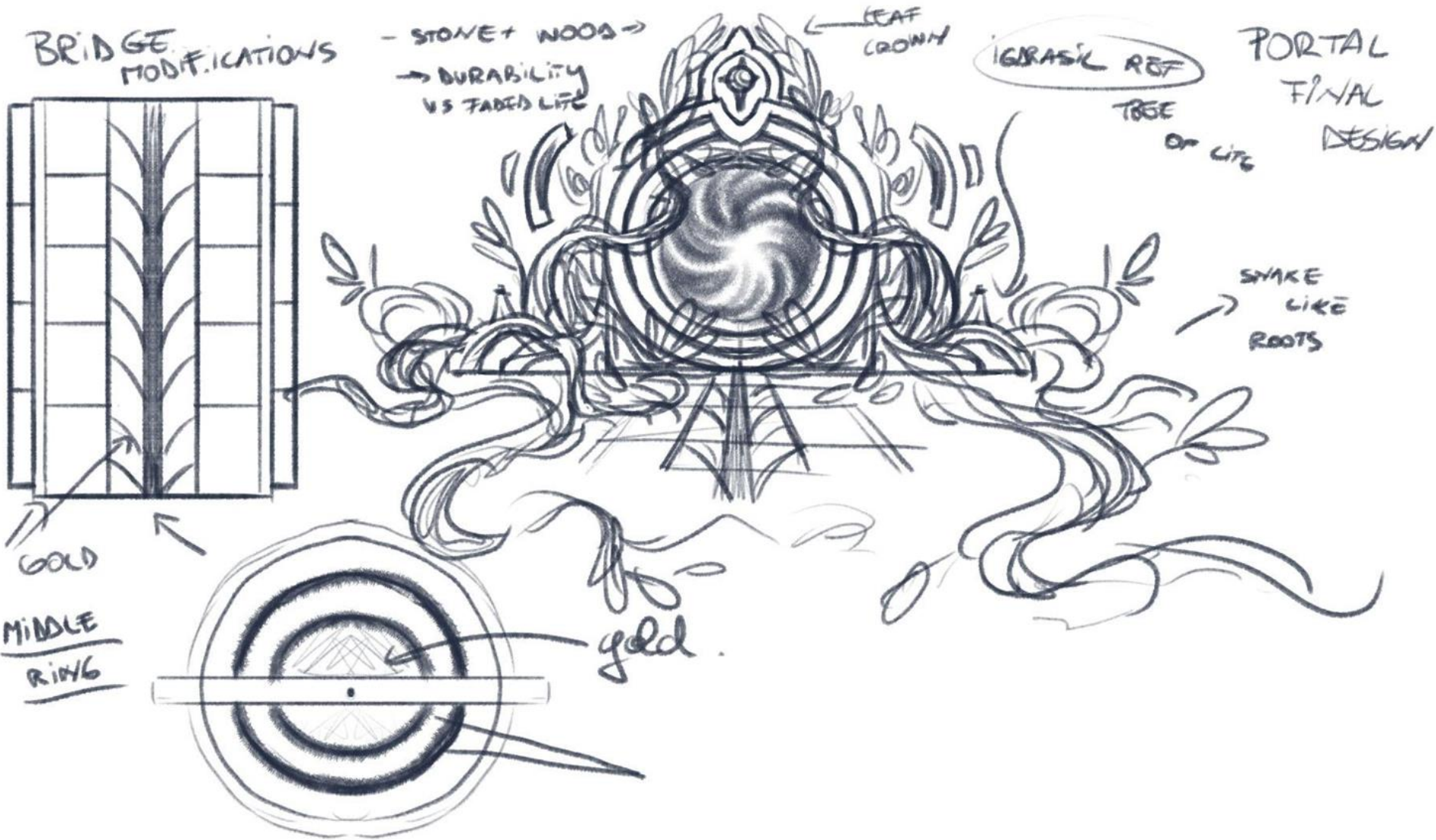


While developing the look of the bridge and rings of the structure, I wasn't sure if I should go for a natural, old stone look or if the place should look well kept, also making use of materials such as gold accents in the stone or marble.

I decided to go for something in between, keeping mostly stone materials with occasional golden accents.

As for the gateway itself, initially I intended for it to be a pool with a beam of light shooting from inside the depths. Ultimately, I decided to change it into a portal/vortex

ARCHITECTURE DEVELOPMENT: Portal final design



A big inspiration for the final look of the portal was Yggdrasil, the tree of life of the Norse myths. Around its branches, the nine realms begin their existence. The tree itself connects dimensions.

As many ancient civilisations believed, trees were also believed to connect the mortal world to the realm of the gods, a ladder to ascend the heavens.

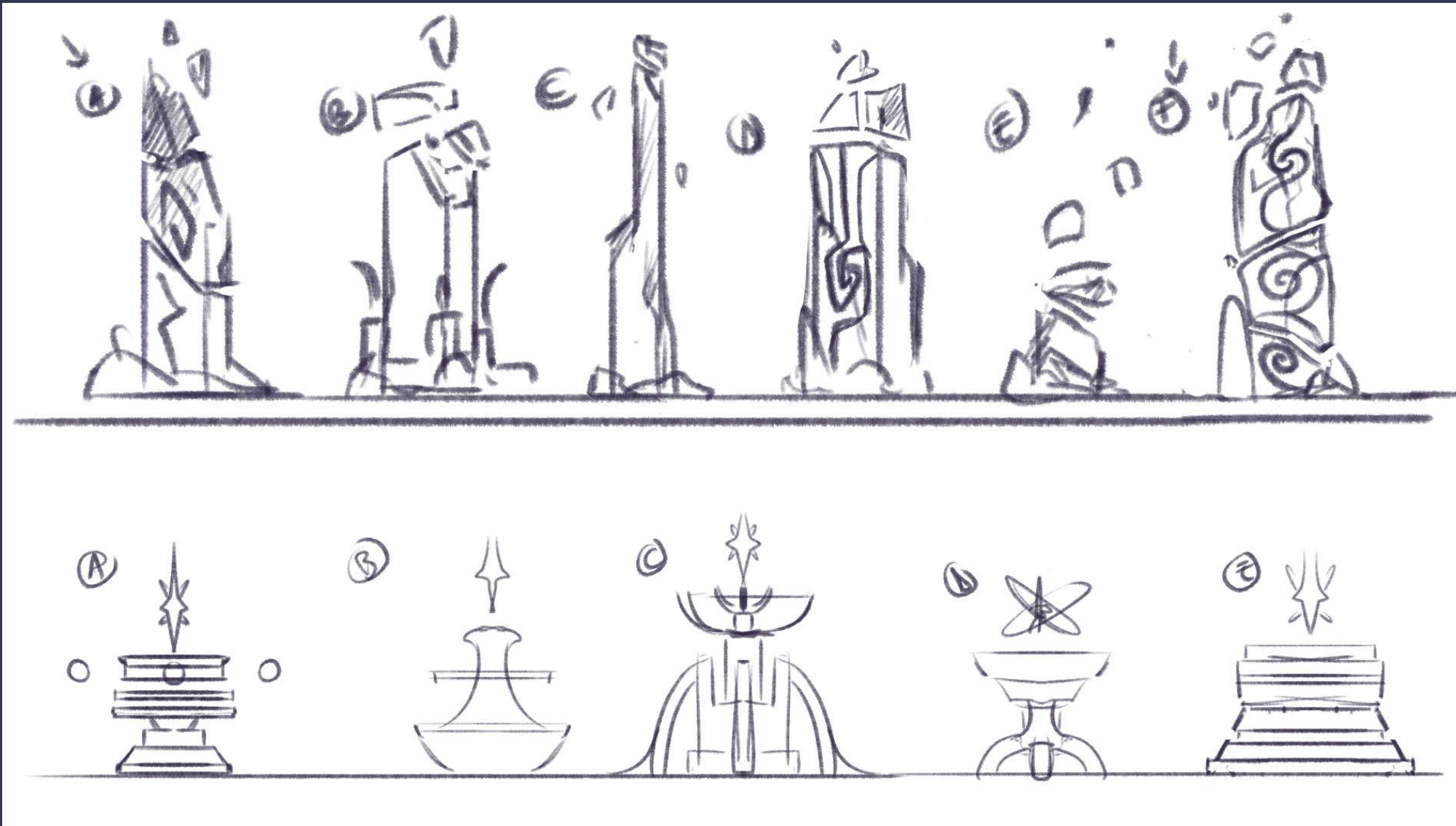
In the middle of the portal I decided to place a star, a source of energy and power for the portal and everything around it, referencing the pole star and how some associated it with the World of Light or heaven.

I kept the circular shapes in the design of the portal itself. The branches surrounding the portal are twisting and turning, trying to emulate the shapes of a snake.

In ancient Greek and Egyptian cultures, the snake Ouroboros represented with its tail in its mouth is emblematic for representing eternity, unity of all things material and spiritual, continually devouring itself. A perpetual transformation, death and rebirth.

Those who enter the portal must give up their physical self before being reborn into infinity.

ARCHITECTURE DEVELOPMENT



The Stone pillars surrounding the portal went through some changes. At one point I wanted tall, slim shapes like in the image below. I ultimately decided to go with the initial reference images reminding of Stonehenge, a place believed to be full of spiritual energy and mystique.



Initially, I planned to create a "star holder" stone support. The idea behind it was that the portal is harnessing the power of the stars to realise the process of transcendence.

I decided to scrap the idea later in production since it didn't fit quite well with the environment.

COLOUR EXPERIMENTATION



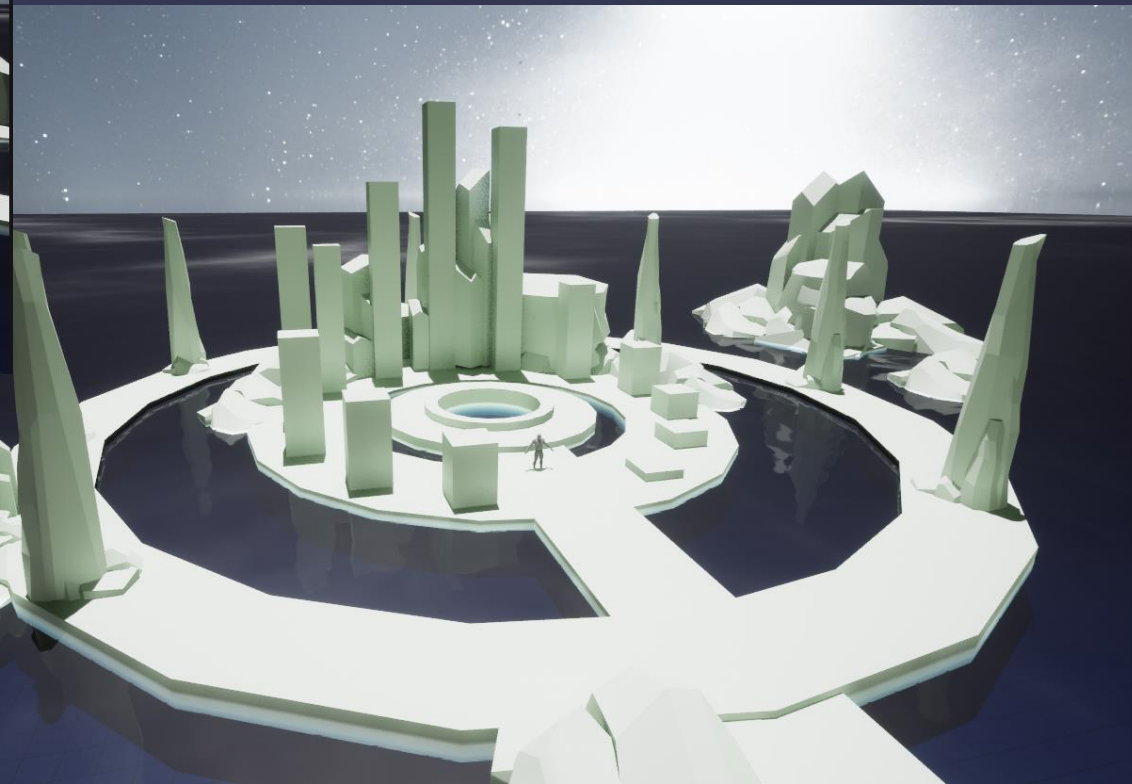
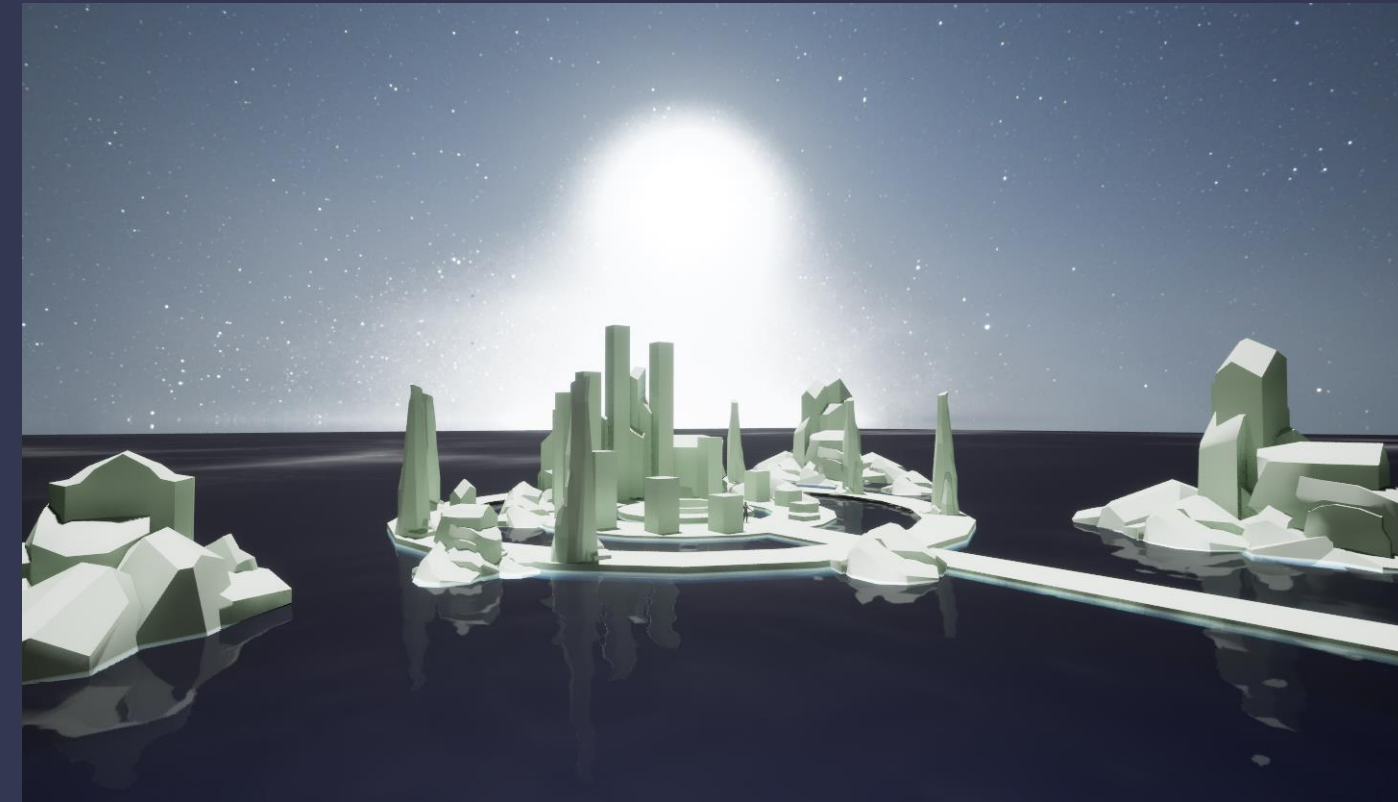
I experimented with shades of blues pinks and purples as they evoke a sense of mystique and fantasy. I decided to go for the first version as I like the contrast between the dark water and light stone more and it better presents the mysterious atmosphere I was going for.

As I mentioned before, I will go for a painterly stylized style for this project and I tried to capture in these sketches the final look of the scene and the colors that I can use.

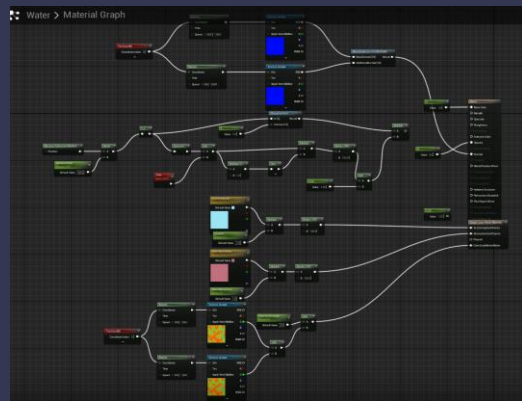
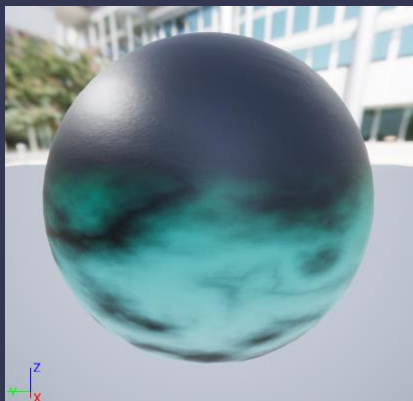
BLOCKOUT TEST

After this initial test, I changed the light to a blue-purple tint and also the angle of the camera from the left to the right, as this current angle is too far to showcase the detail, only the shape of the overall scene.

The focus of the scene will be within the rings of the platform, any other props and effects used just to enhance the atmosphere.

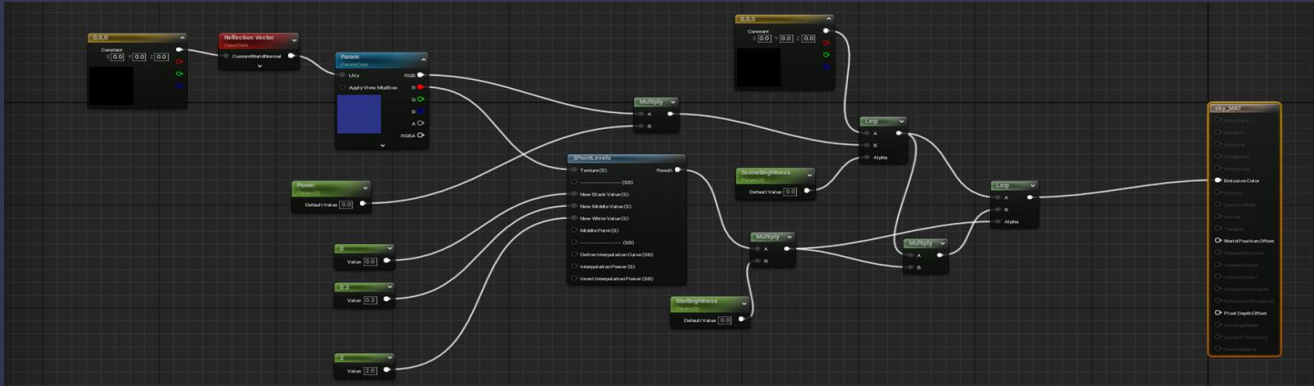


Water Material



SKYBOX

Test texture

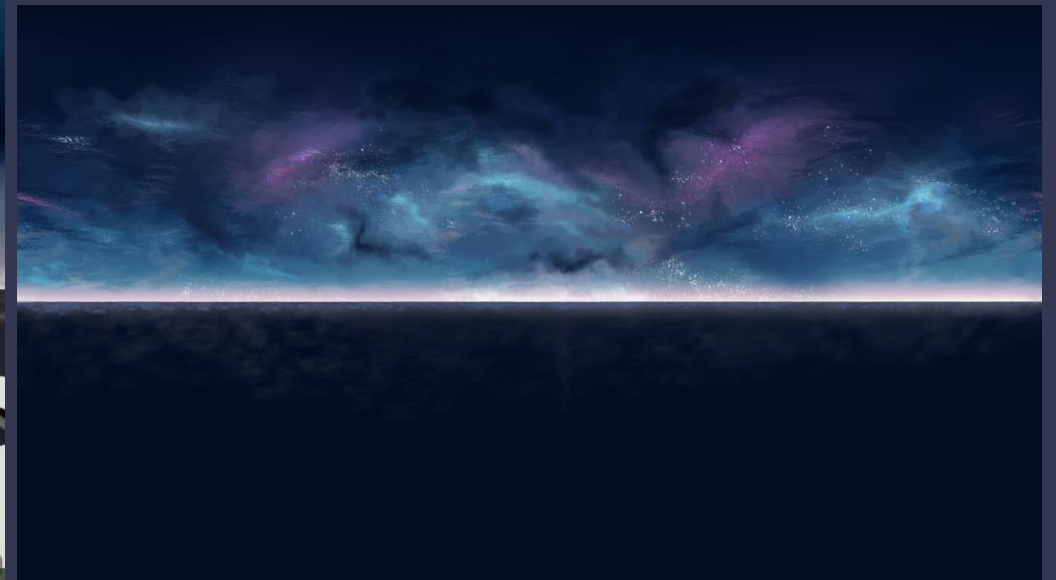
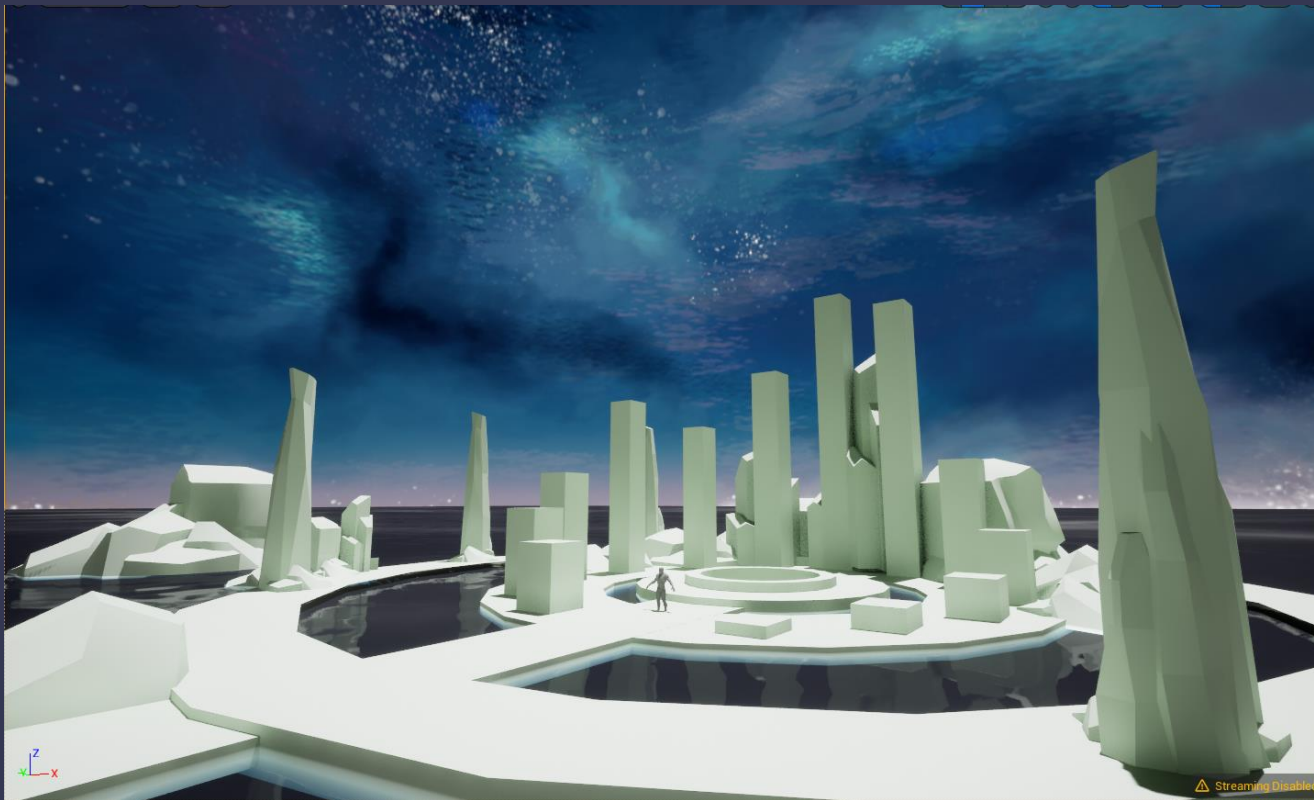
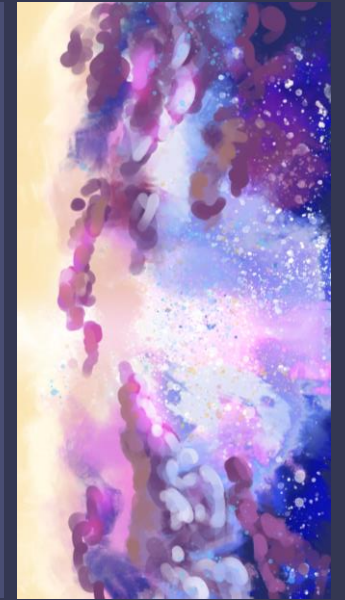


Experimented with skybox textures. The texture in the blockout is downloaded, but it didn't fit with what I wanted it to be so I started researching ways to create my own.

-I created a quick drawing in Photoshop to test how it would wrap around the sphere, but the seams were very visible.

-I followed this tutorial on YouTube to create a seamless sky texture, making use of Photoshop's 3D features to visualise the texture as a sphere and make the changes needed.

(<https://www.youtube.com/watch?v=XZmr-XYRw3w>)



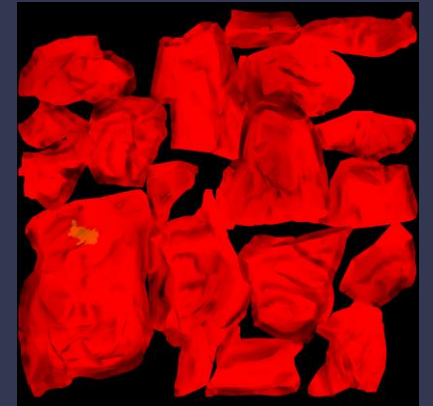
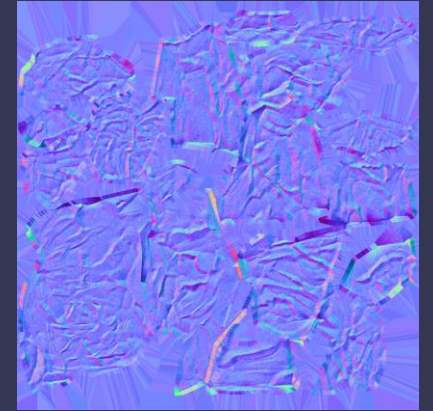
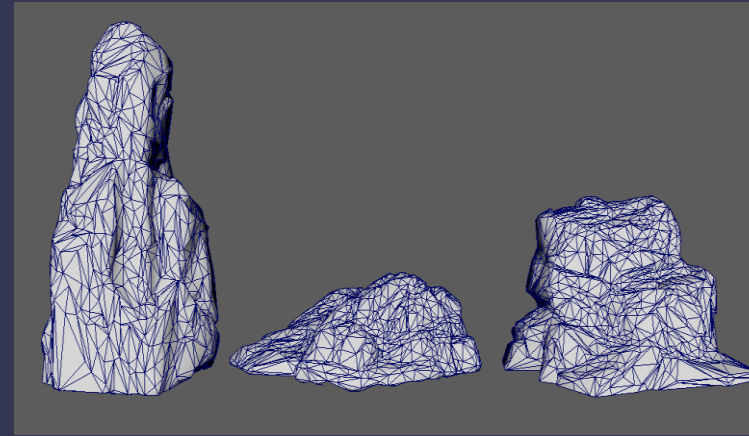
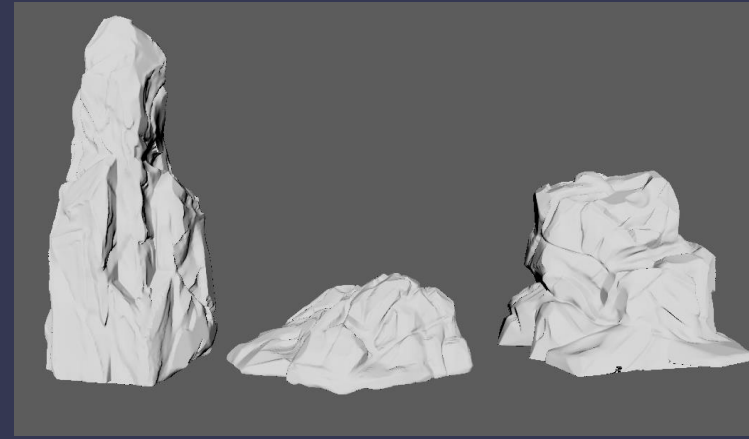
ROCKS



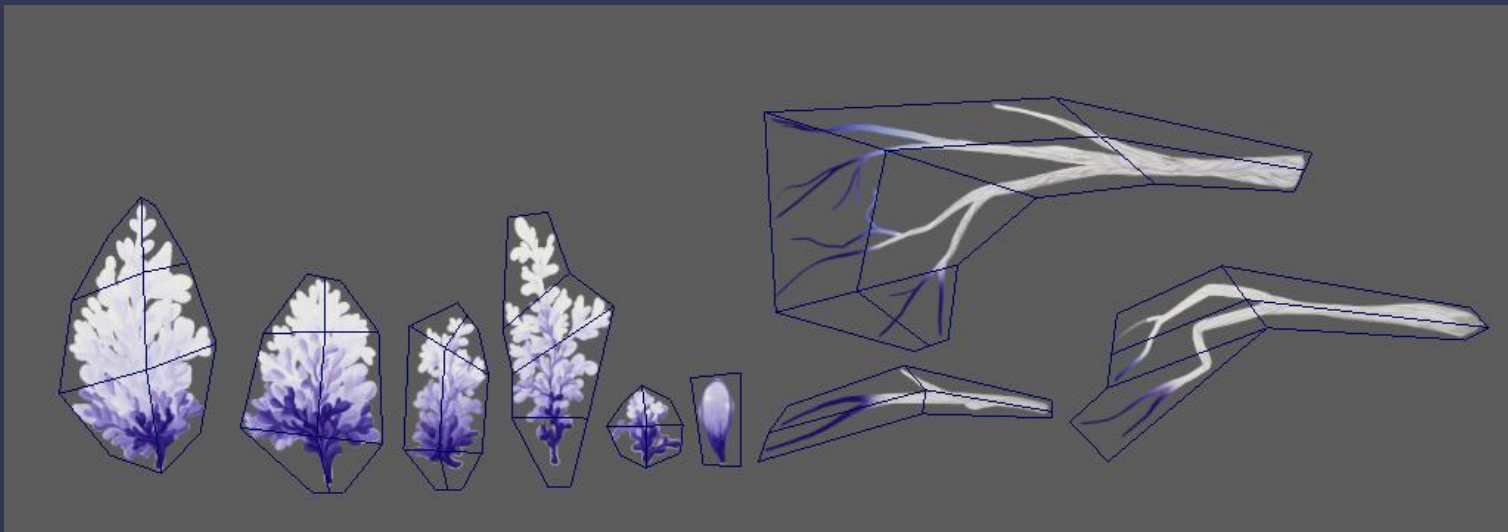
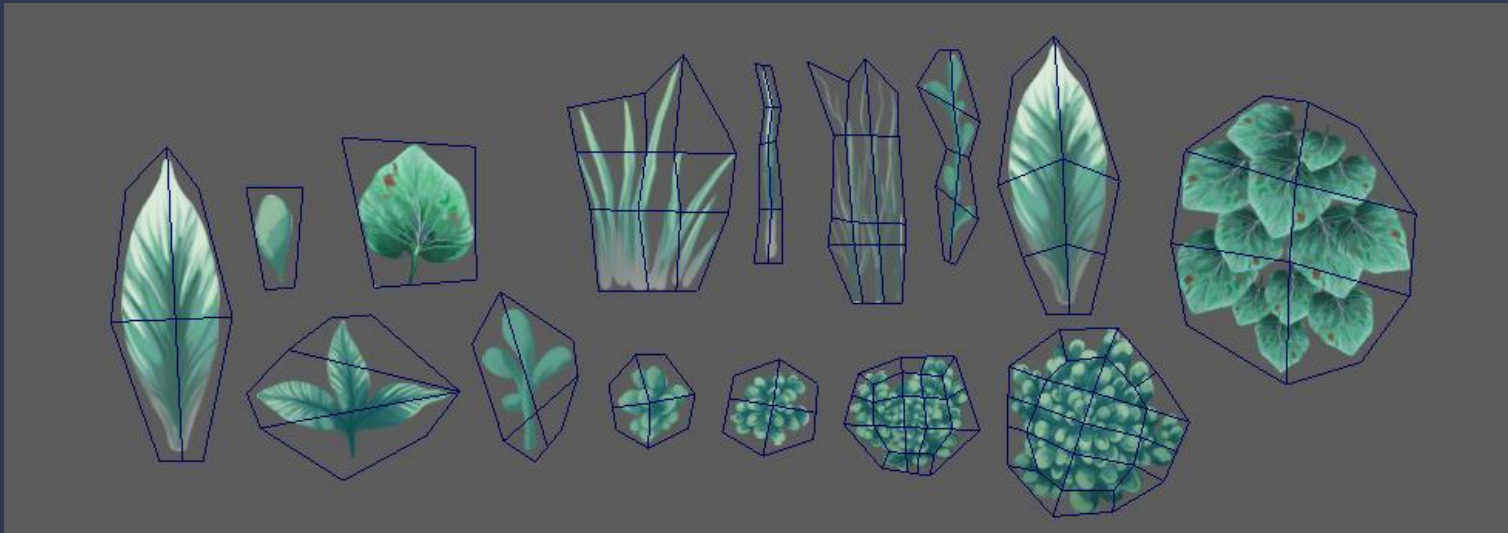
To get the painterly effect, I combined both hand-painted techniques and filters in Substance Painter.

I created 3 different base rock sculpts which I then stretched and twisted around the scene to get other combinations and shapes.

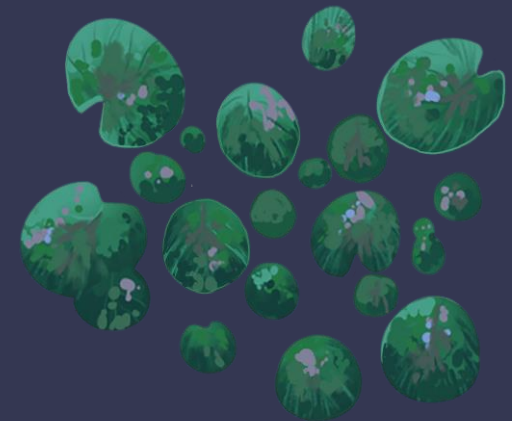
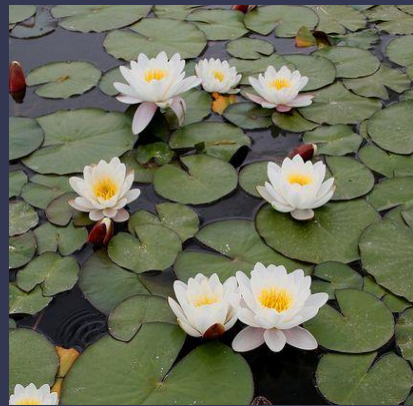
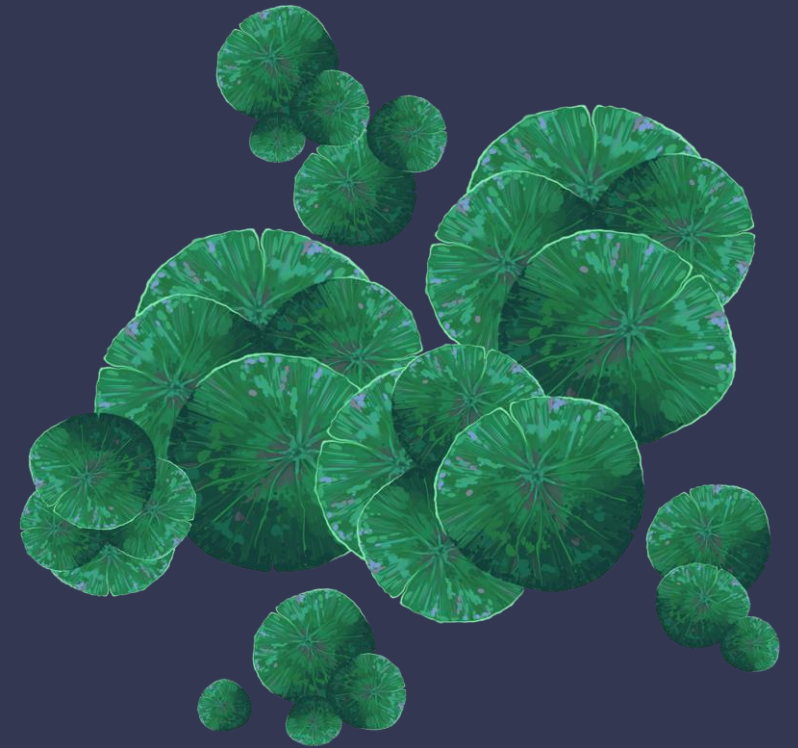
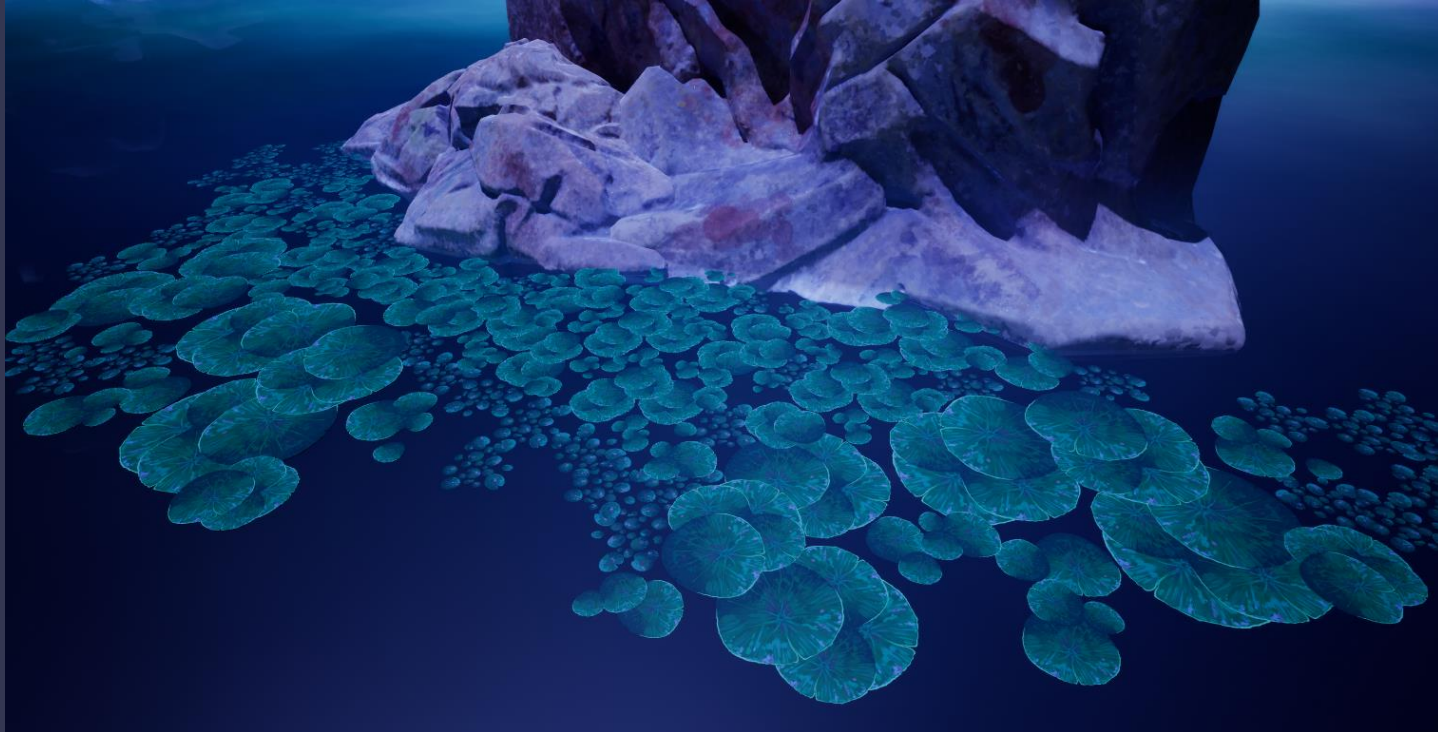
Here are some references that I used for sculpting:



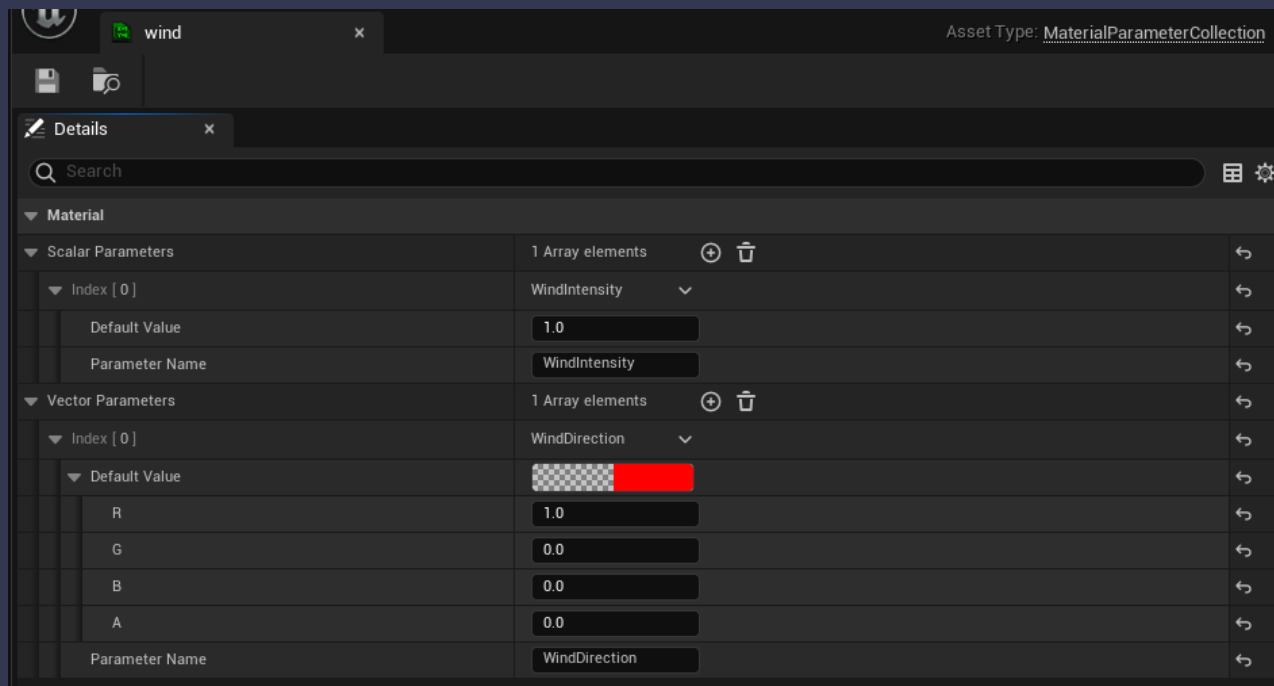
FOLIAGE TRIMS



FOLIAGE: Lilly Pads

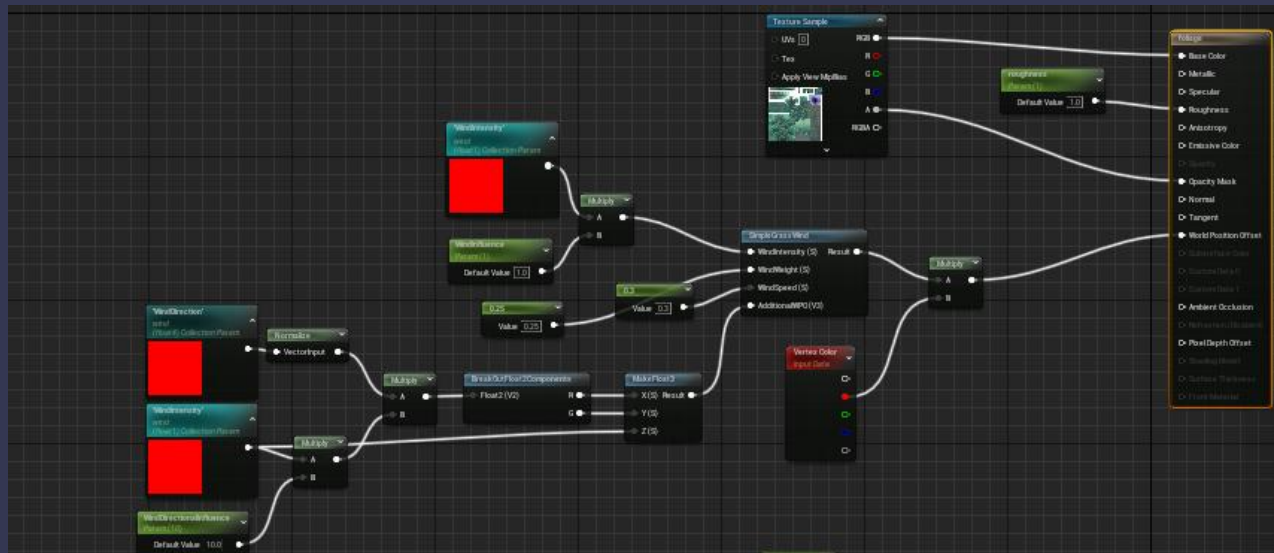


FOLIAGE: Wind



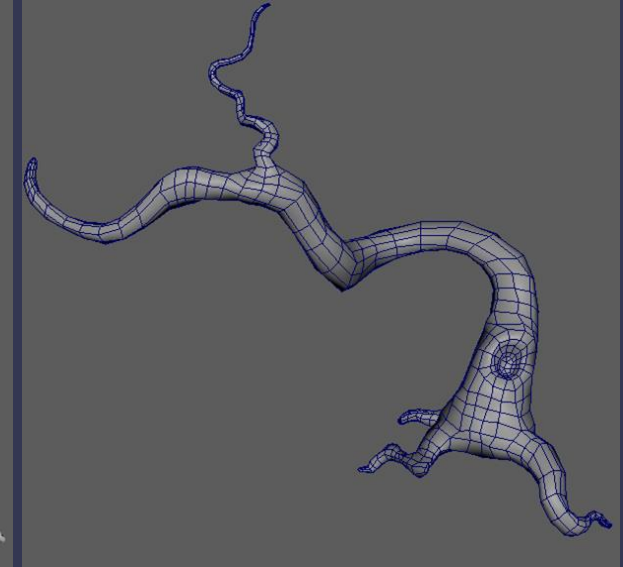
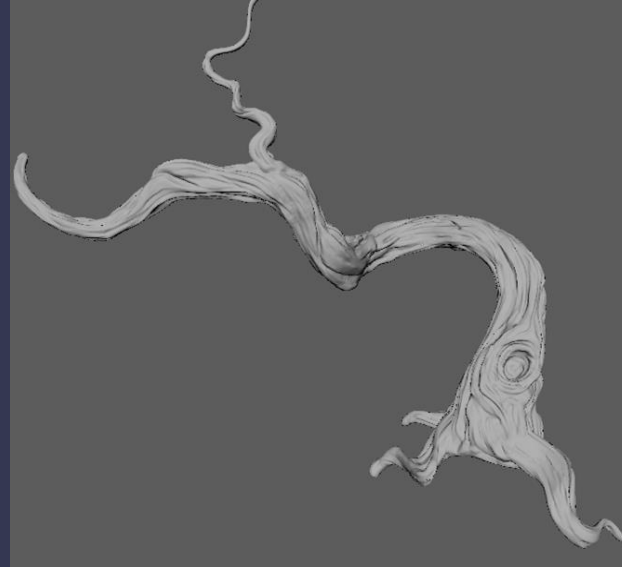
I wanted to add some movement to the foliage so I created a wind effect to create motion with the help of this tutorial:

<https://www.youtube.com/watch?v=27Gr2RRhtNM&t=661s>



I first needed to create a material parameter collection which I later used to create the parameters that go into the “simple grass wind” node.

FOLIAGE: Trees and Branches



Something I struggled with while making the trees were the flowers and combining the planes in a way that doesn't look flat or empty.

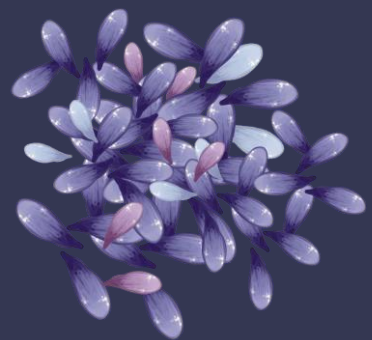
As the trees have many flowers, I created a fallen petal texture to spread across the environment around the trees.

The branches surrounding the portal are infused with great energy. To illustrate this fact, I have created an emission map to make them glow from within the bark's cracks.

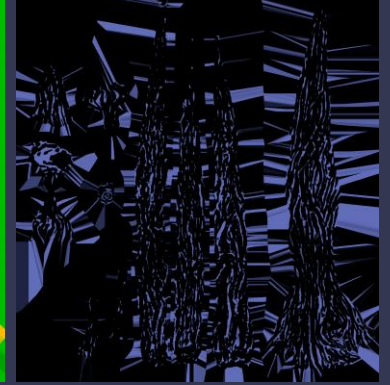
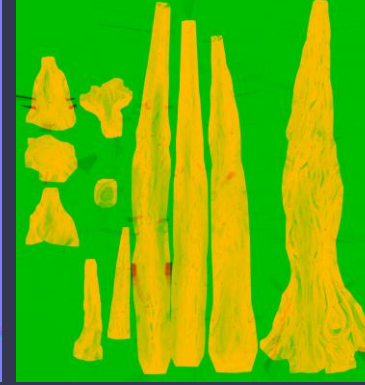
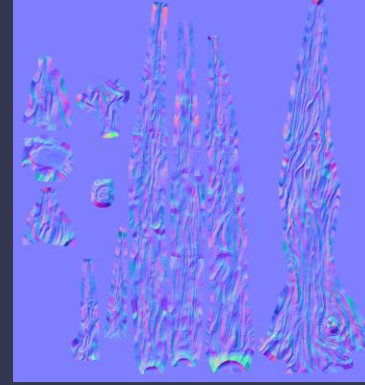
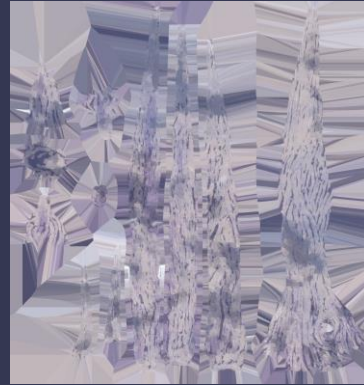
Tutorial for making the planes turn invisible from certain angles:

<https://www.youtube.com/watch?v=U7Tg7uleSeQ>

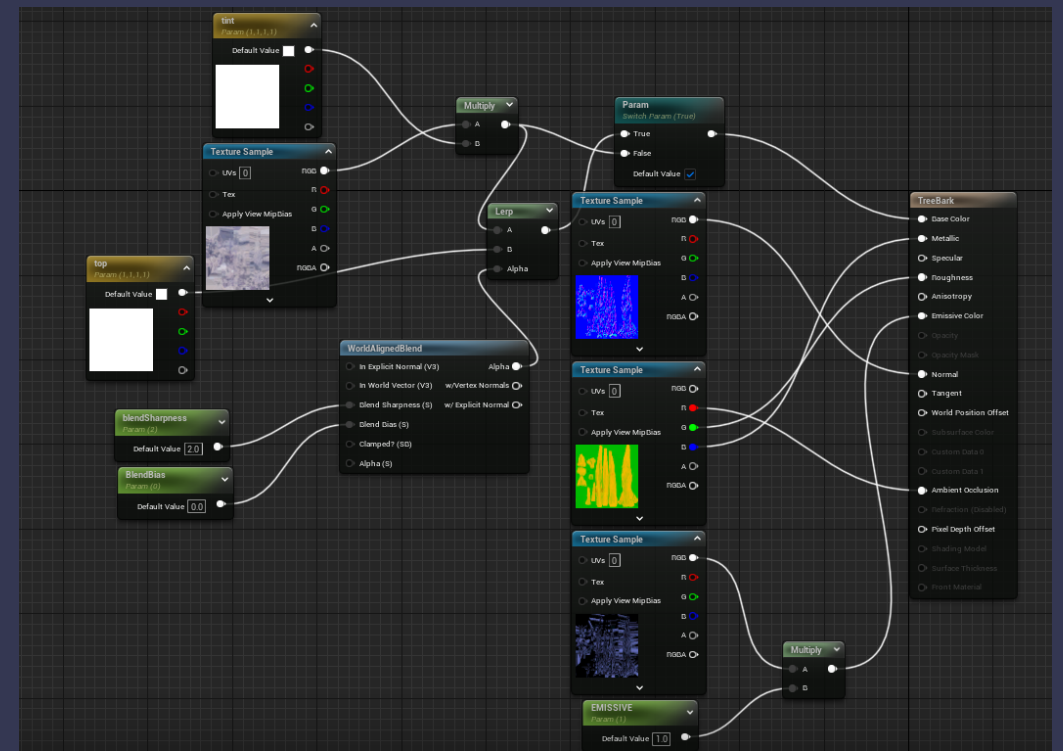
Moss tutorial: <https://www.youtube.com/watch?v=yvKWDkKSWnQ>



FOLIAGE: Trees and Branches



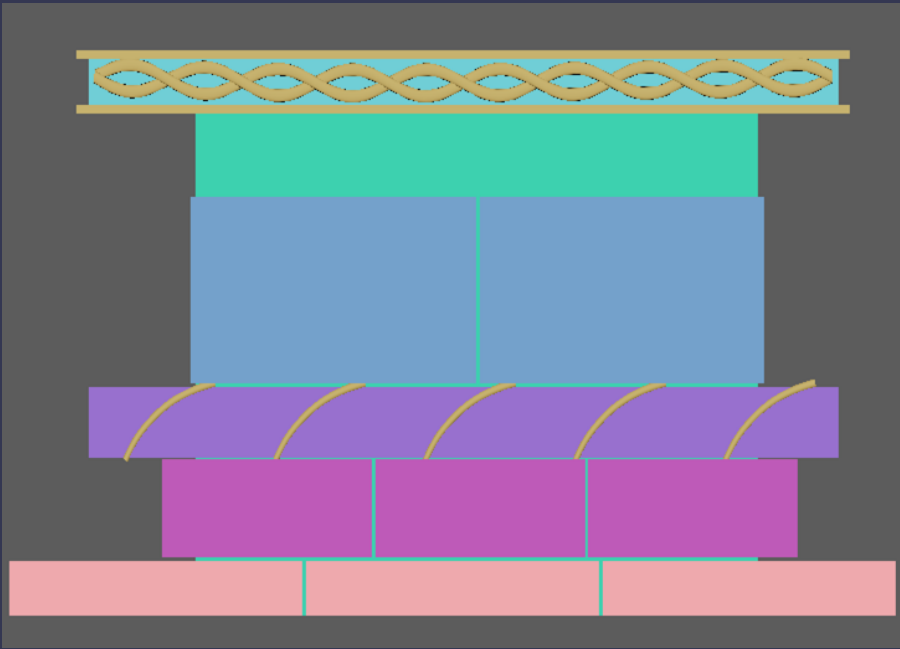
Bark and Moss Material



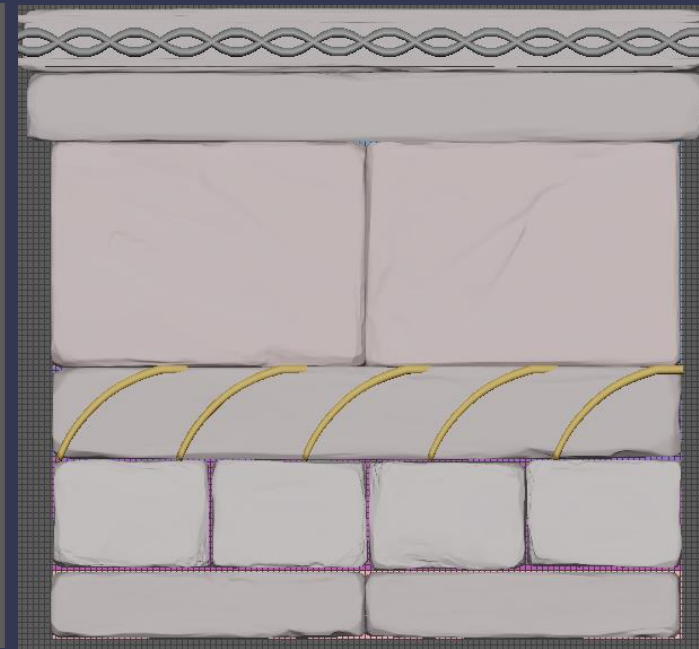
TRIM-SHEET PLANNING



Sketch



Albedo

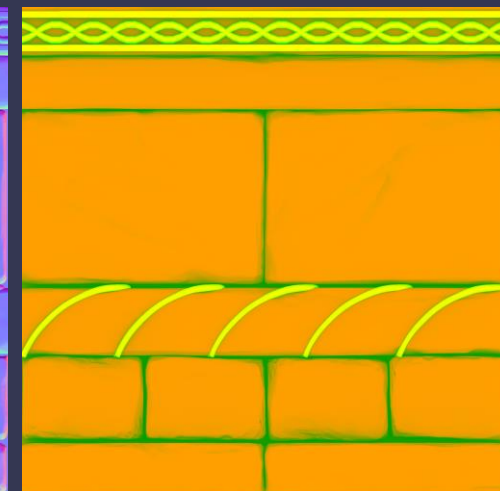
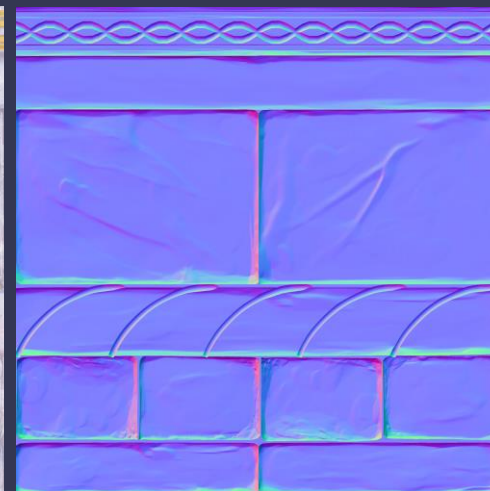
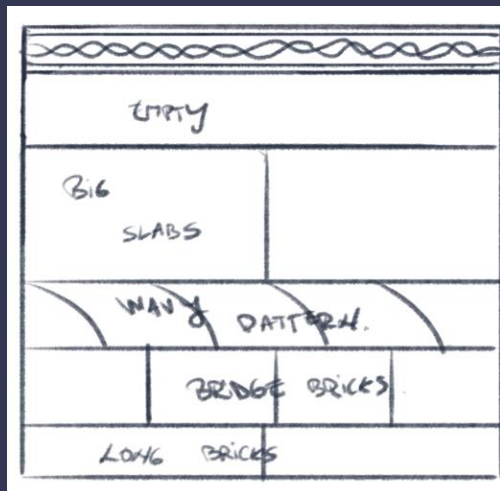


Normal

Occlusion/Roughness/Metallic

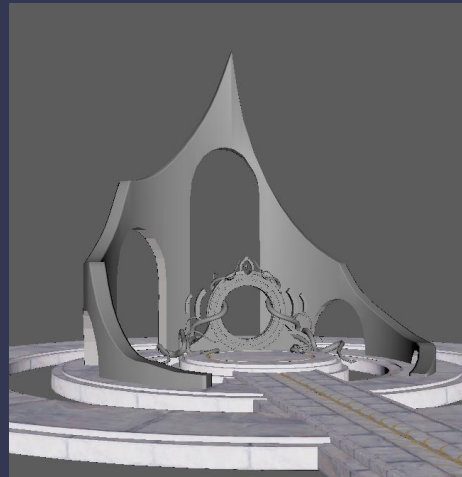
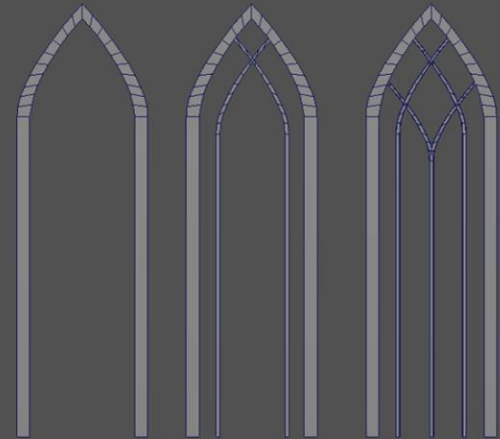
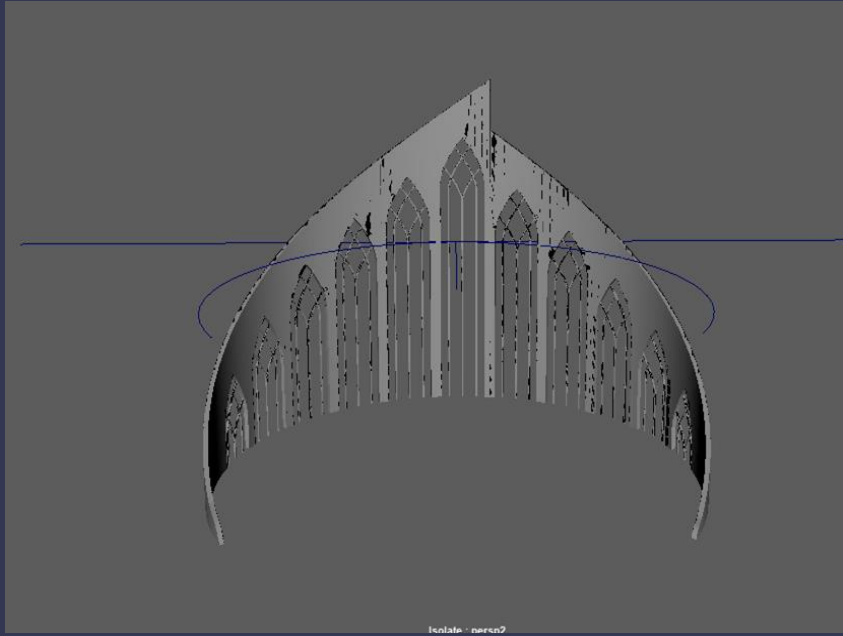
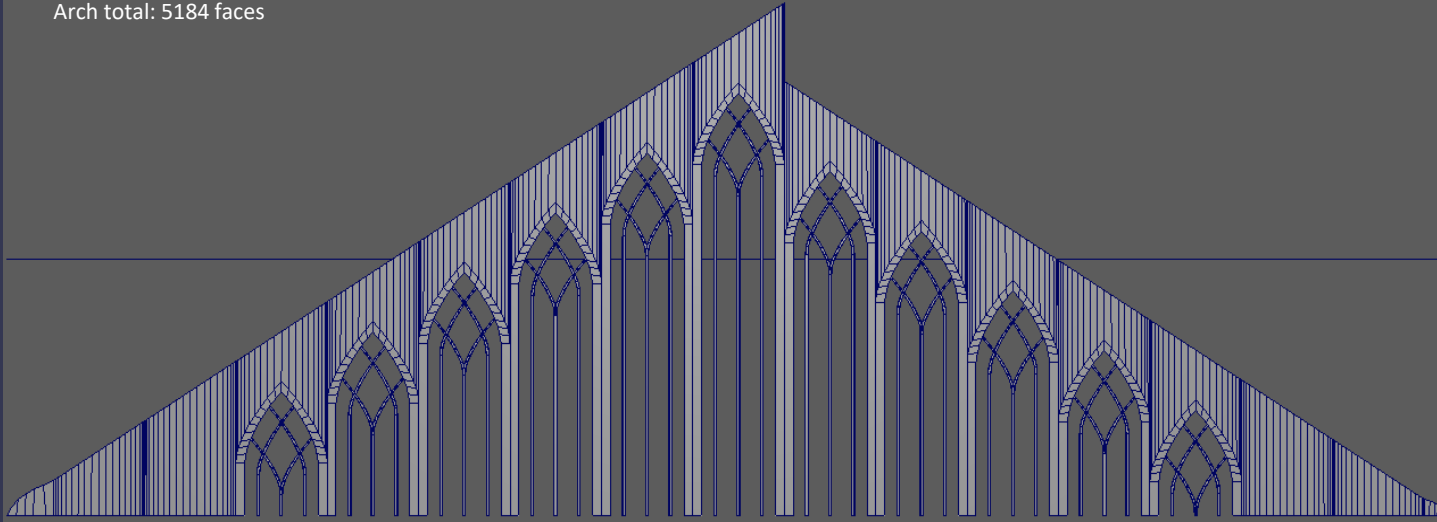
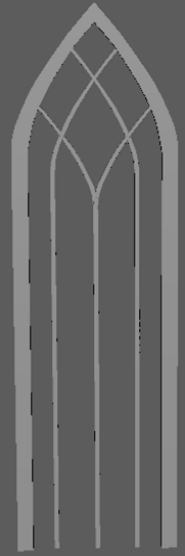
I created a simple stone trim sheet which I will use to texture most of the scene.

After I planned the details in Photoshop, I sculpted the high poly bricks in zBrush, then assembled everything in Maya.



ARCHITECTURE: Arcade

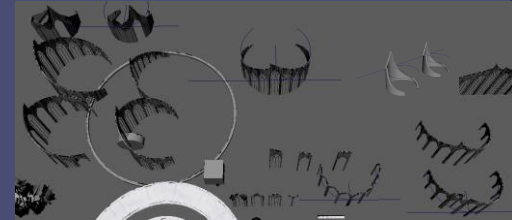
Arch total: 5184 faces



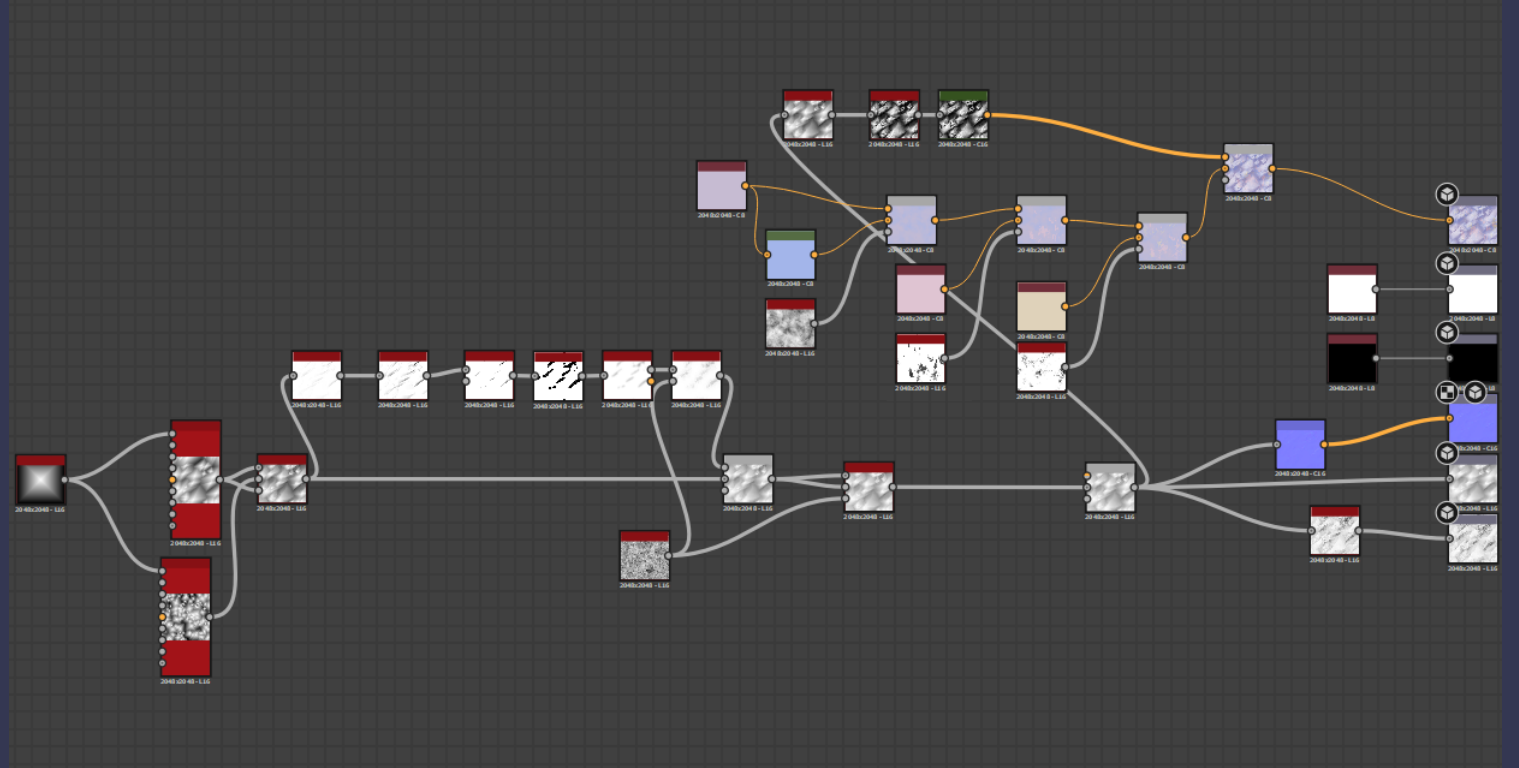
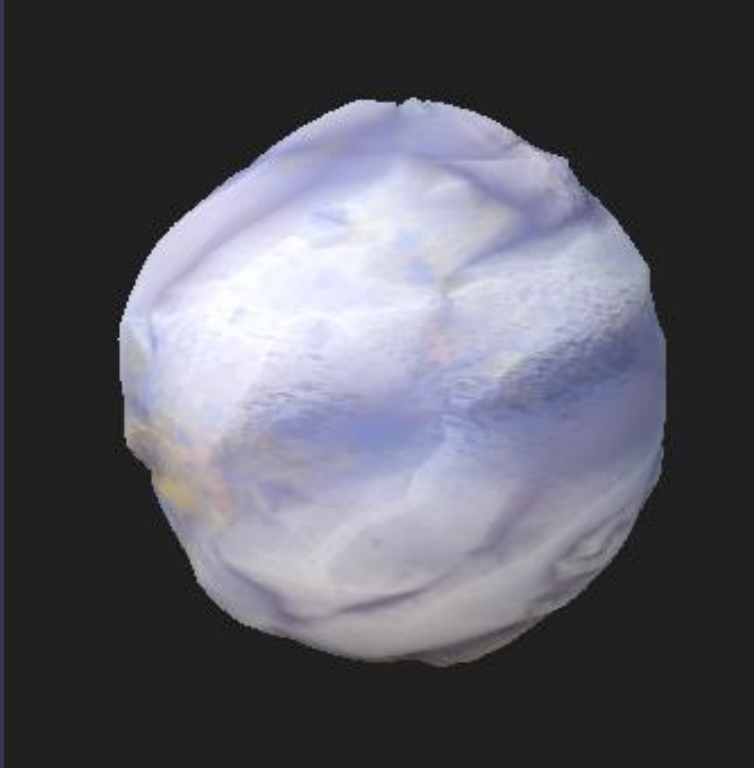
I had the most trouble designing and creating the arch as the initial shapes were quite chaotic and uneven I didn't like how it looked so I started experimenting with different shapes, columns and arches in Maya.

Eventually, I decided to go for multiple arches that progress linearly.

The arch graveyard



ARCHITECTURE: Stone

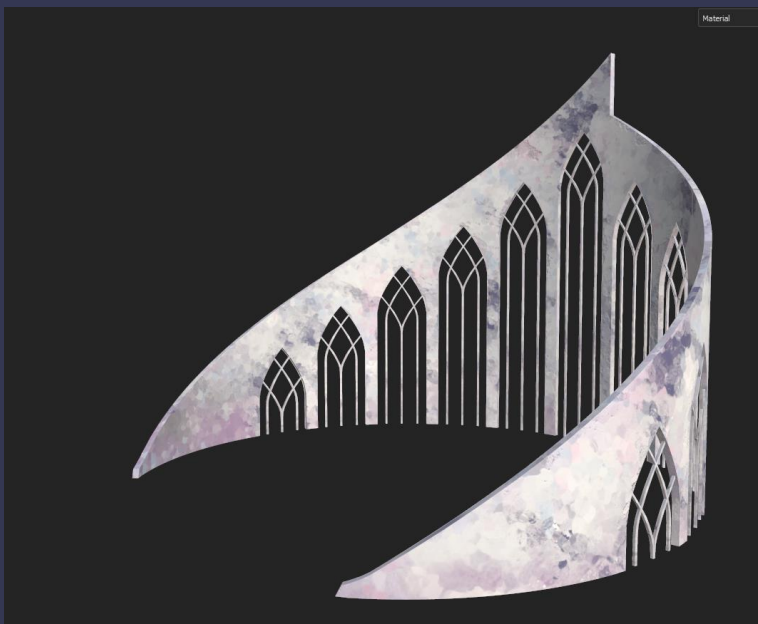
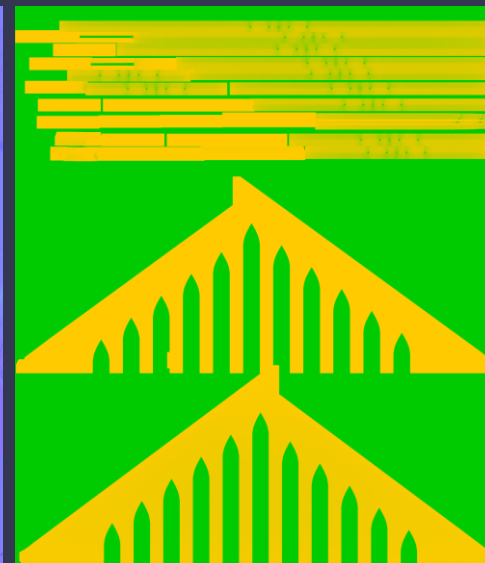


I created the stone material with the help of this tutorial: [I https://www.youtube.com/watch?v=PBkFaeKzhGE](https://www.youtube.com/watch?v=PBkFaeKzhGE)

It was the first project I created in Substance Designer, so it was a nice learning experience.

However, when testing it out on the mesh in Unreal, it didn't look quite good so I decided to scrap it and texture it in Substance Painter instead. Although I didn't use the Substance Designer material, it was an opportunity to get familiar with the software.

ARCHITECTURE: Stone

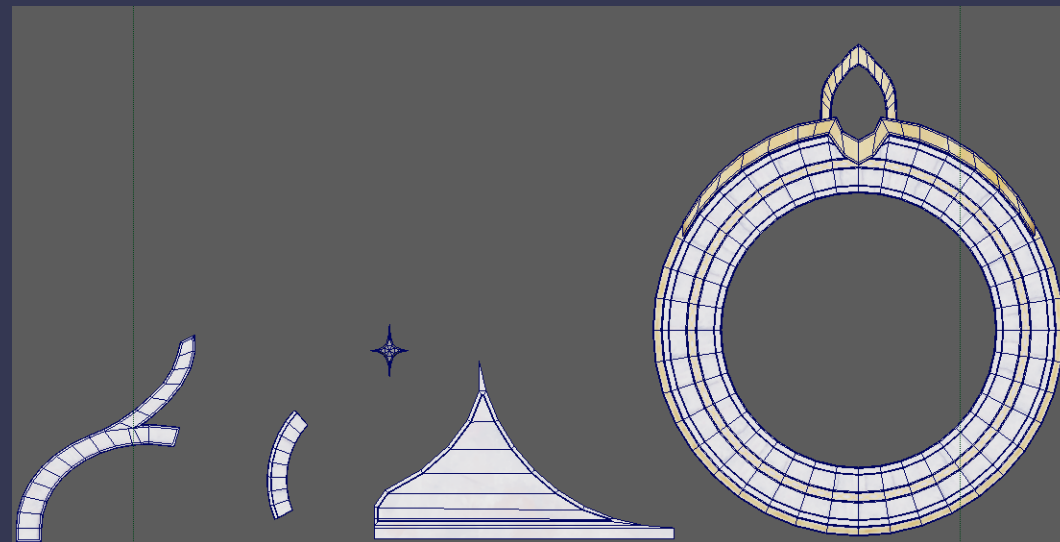
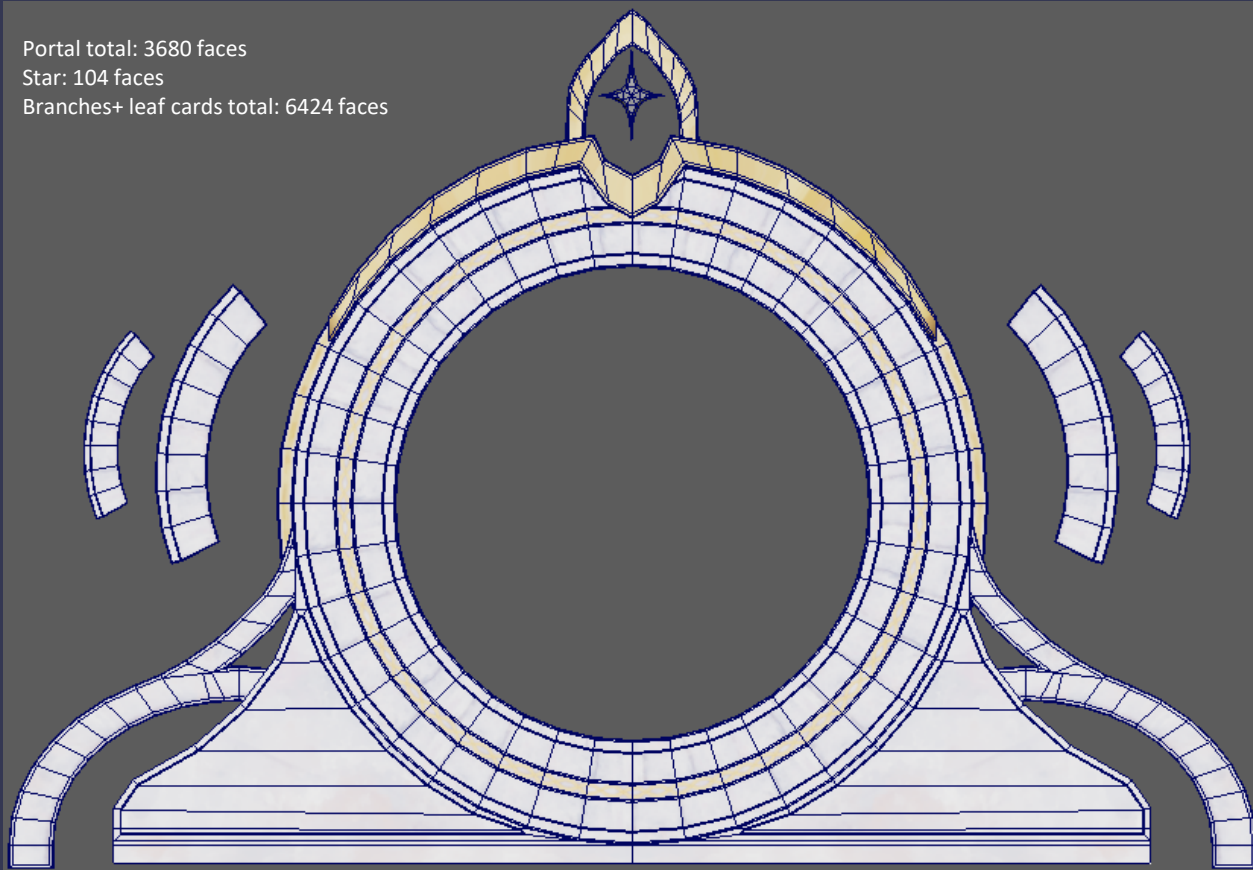


After playing around some more with effects and height map, I managed to get something that I liked and decided to go for this version.

The height of the details was tricky to figure out as pushing the values too high breaks away from the style I was going for. However, if the values are too low, the arch ends up looking flat and unrefined.

ARCHITECTURE: Portal

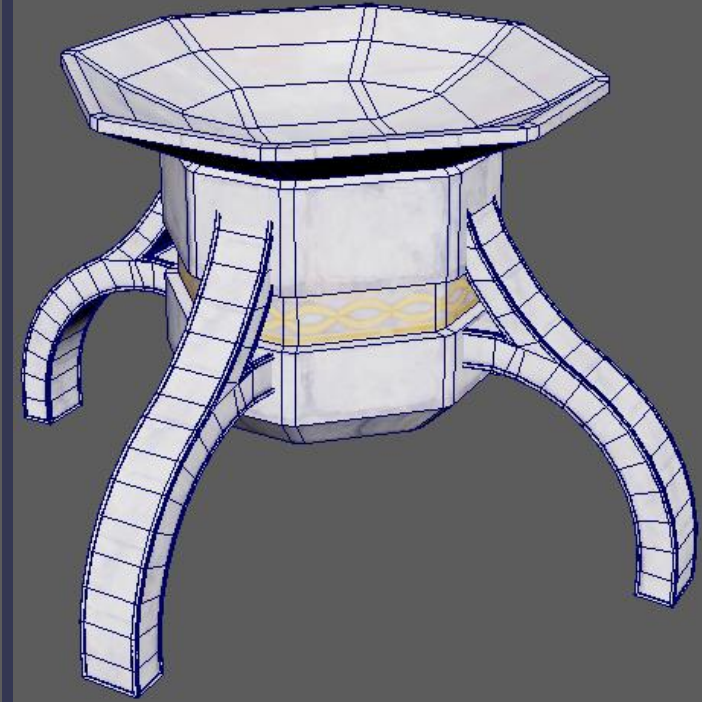
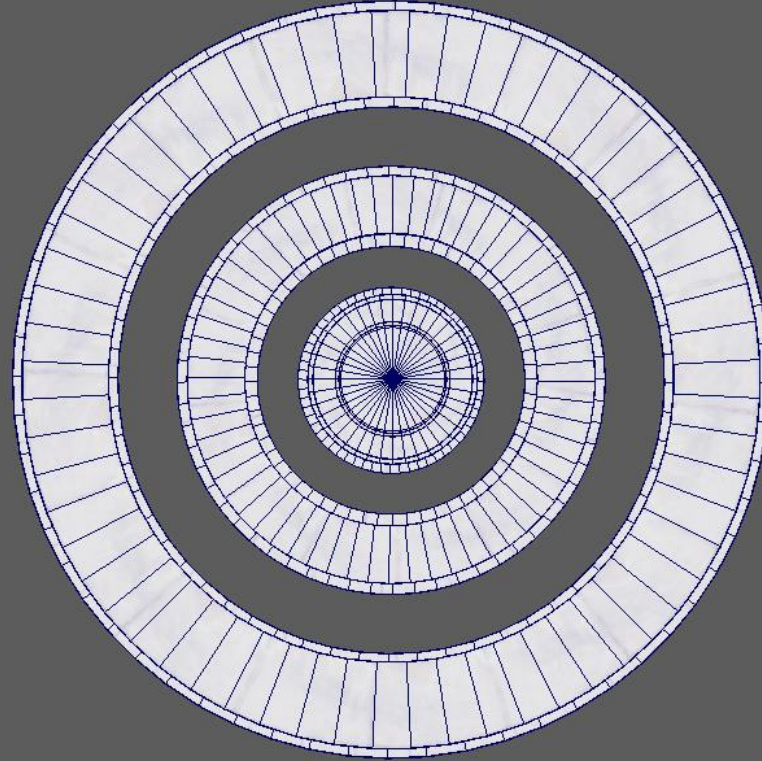
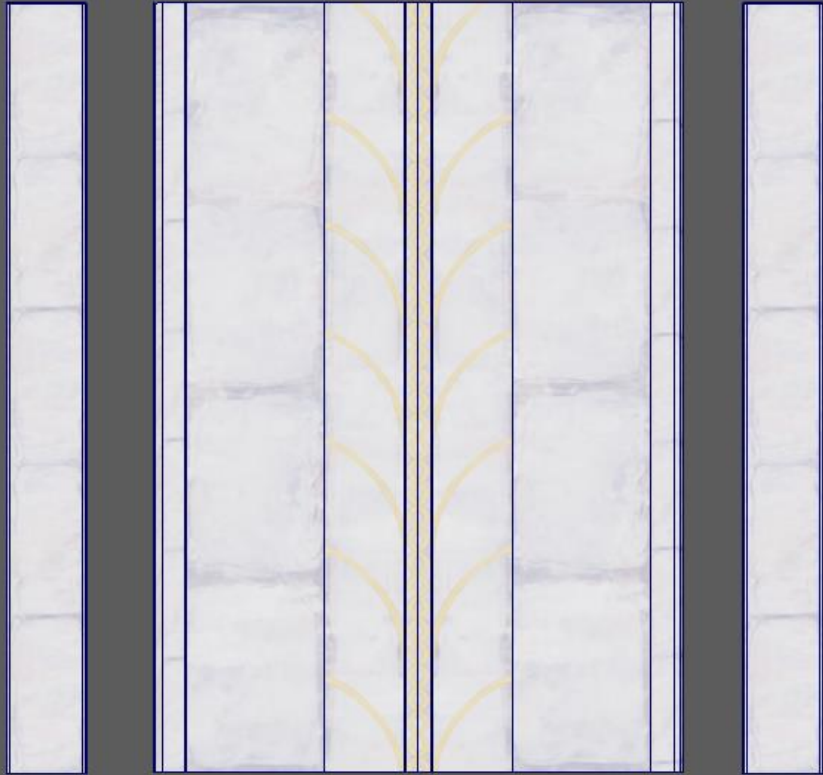
Portal total: 3680 faces
Star: 104 faces
Branches+ leaf cards total: 6424 faces



The portal was fairly easy to create as it was mostly extrusions from a cylinder. I created the branches around it by using curves and then extruding a cylinder faces with enough subdivisions to create a smooth shape. I had 3 different types of branches which I sculpted in zBrush and then duplicated and modified to create shape variation. The final look was completed by the tree trim sheet that added volume through the leaves and smaller branches.



ARCHITECTURE: Platforms and Props



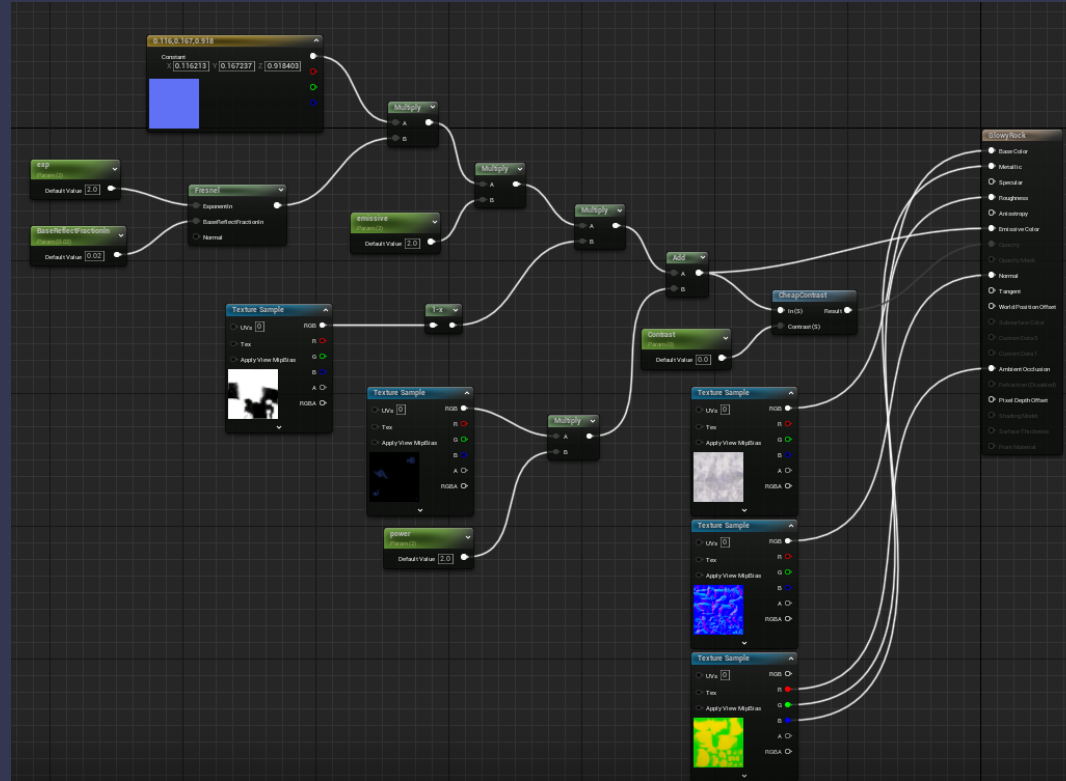
The borders of the platforms and the bridge are separate pieces which were textured with the stone trim.

I used a separate brick piece to create asymmetry and break the perfect tiling.

In the top right corner, there is the star holder prop that I decided to not use.



ARCHITECTURE



The stones surrounding the portal channel great divine energy that empowers the ascension space. To illustrate that, I wanted them to appear like they belong to both worlds, physical and spiritual, and so I wanted them to have a glowing, ghost-like gradient coming from the top. Although fractured, it is tightly held together by the energy, parts of it levitating through the air.

I created a black and white texture in Substance Painter to mask out the parts that I wanted to glow, to be part of the spirit realm.

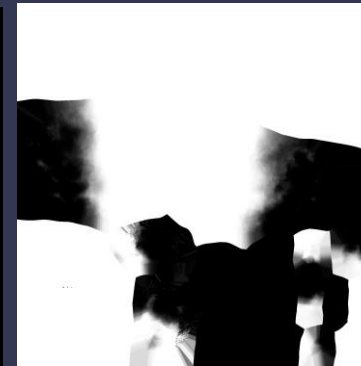
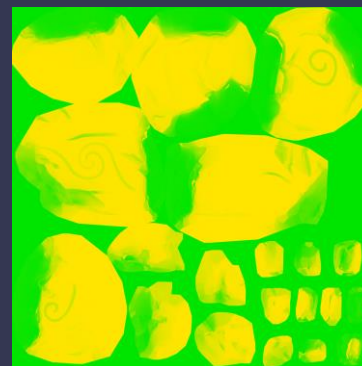
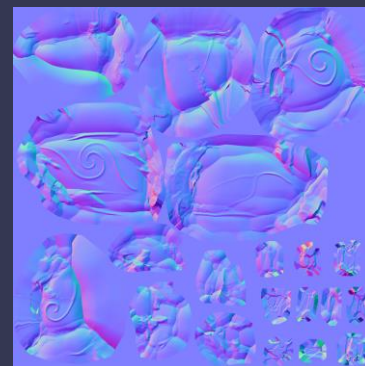
Albedo

Normal

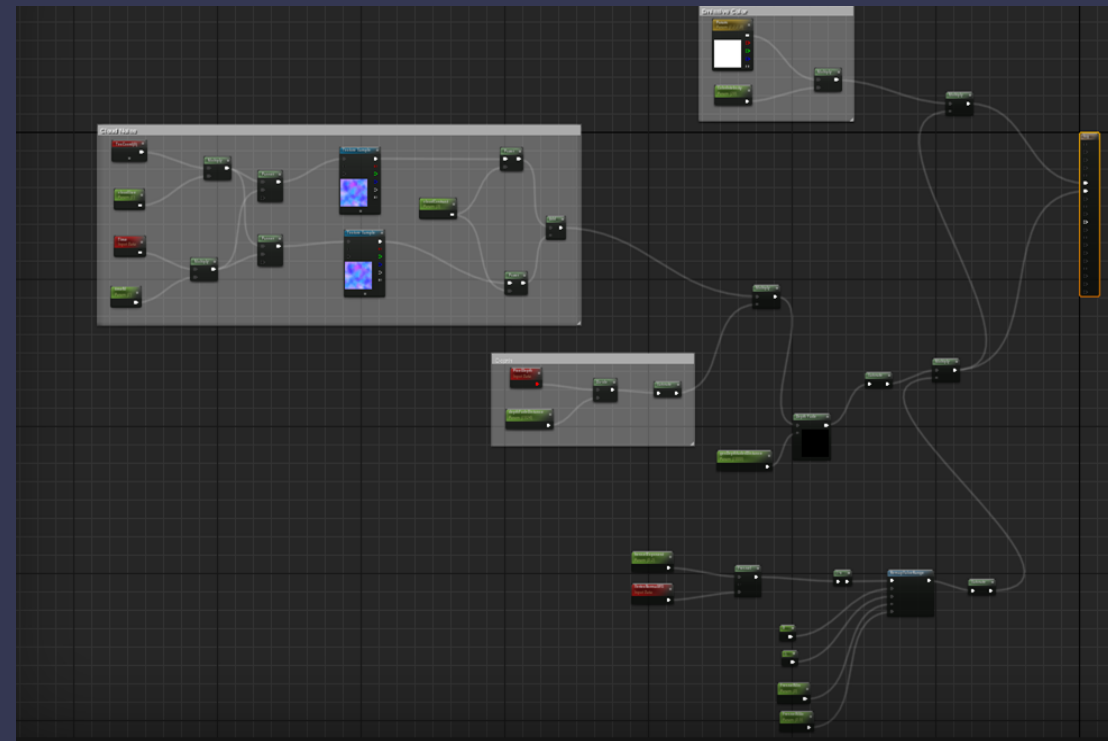
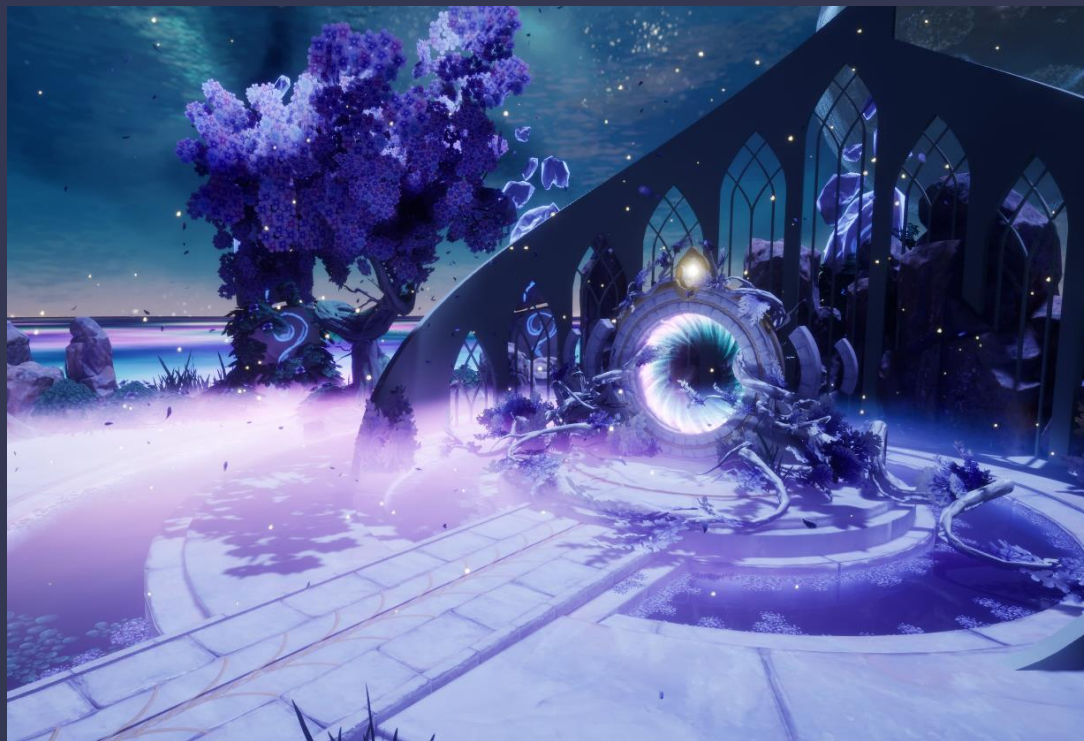
Occlusion/Roughness/Metallic

Emission

Mask



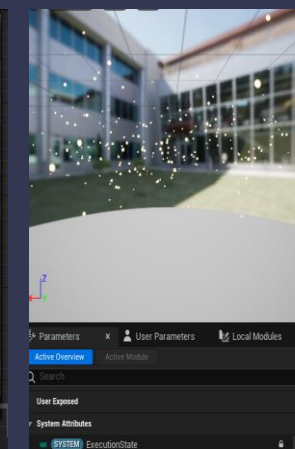
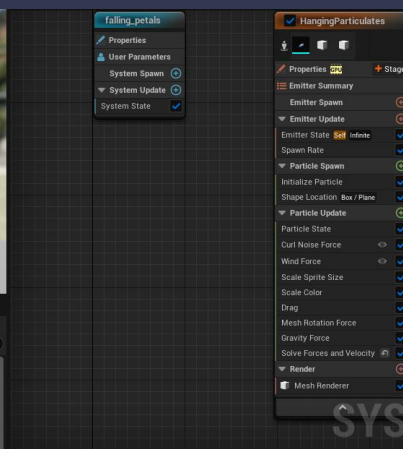
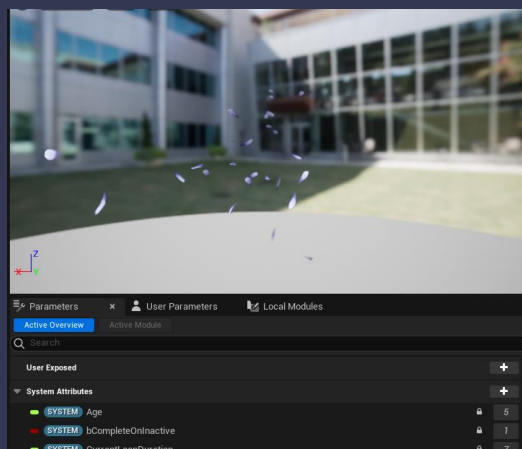
EFFECTS: FOG AND FIREFLIES AND FALLING PETALS



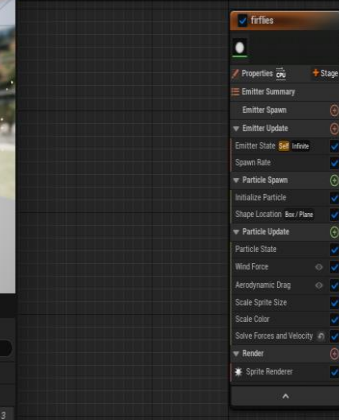
A goal for this project was to get more familiar with the Niagara particle systems and create simple effects.

I created the fireflies and falling petal effect by playing around with different particle systems and changing the settings.

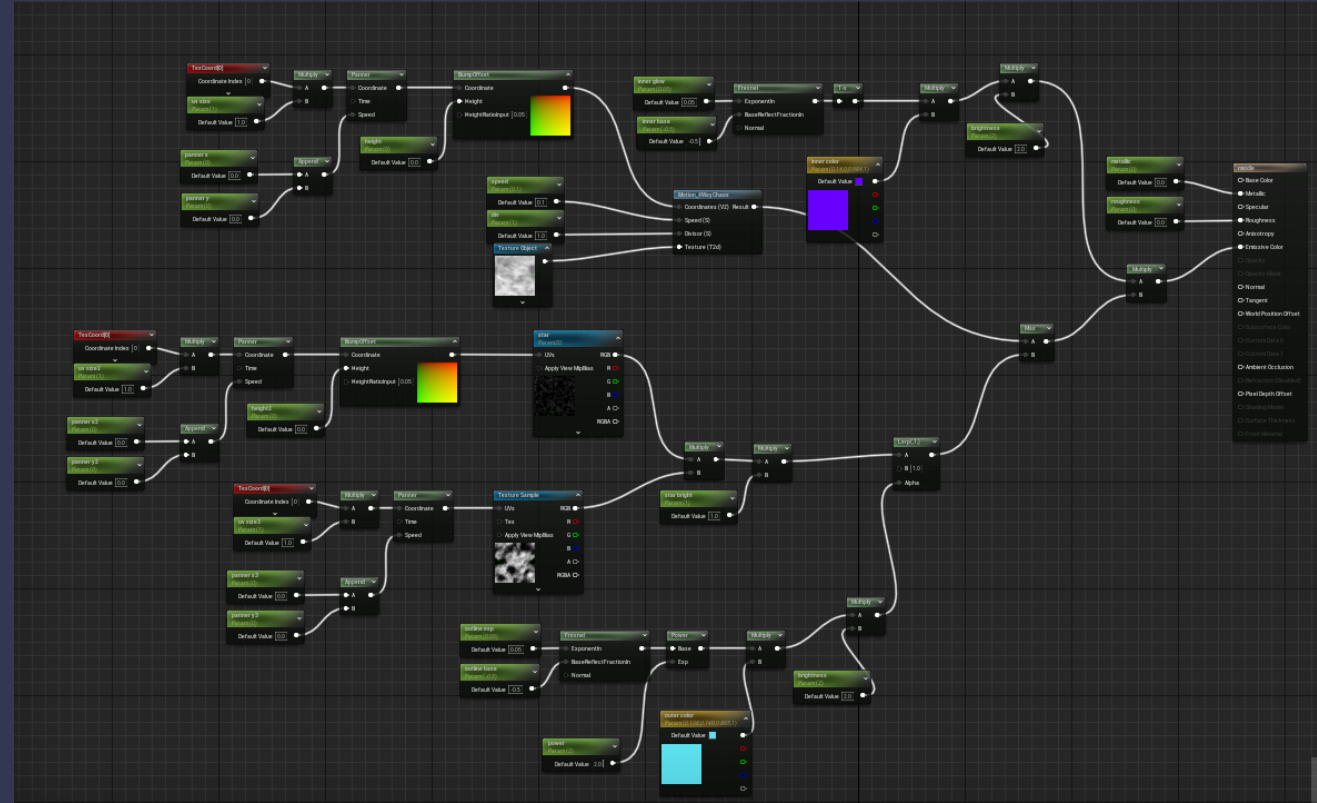
I replaced the base particle with petal texture from the foliage trims.



Note: editing this emitter will affect 2 dependent assets

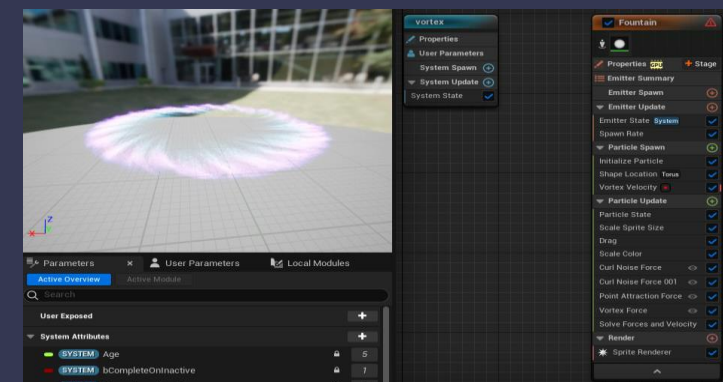


Effects: Portal



Vortex particle effect: <https://www.youtube.com/watch?v=4m5xny9iQMY>
Space texture: <https://www.youtube.com/watch?v=OE0IcWipo0M>

For the space texture from within the portal, I used textures that are part of the engine's content.

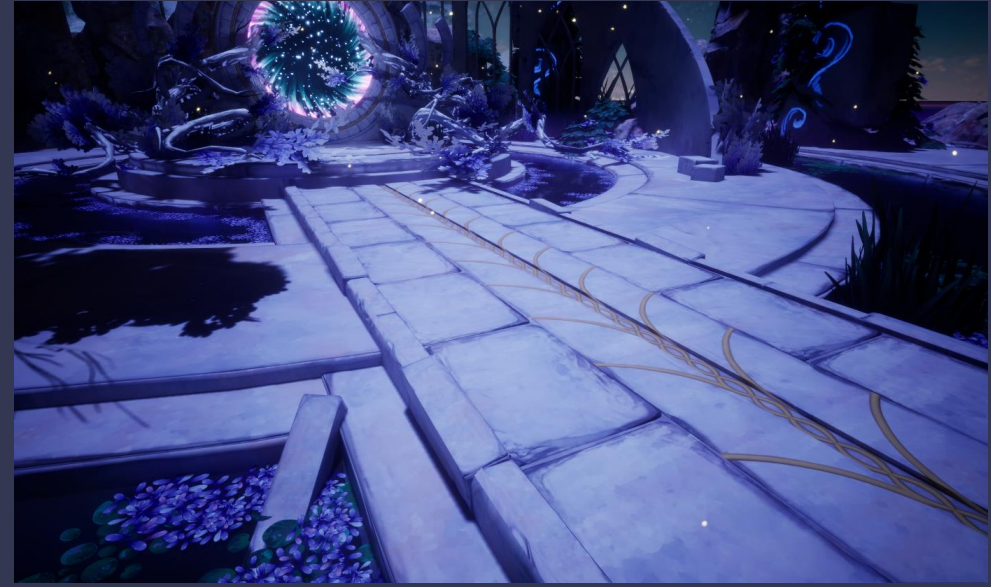


FINISHING TOUCHES

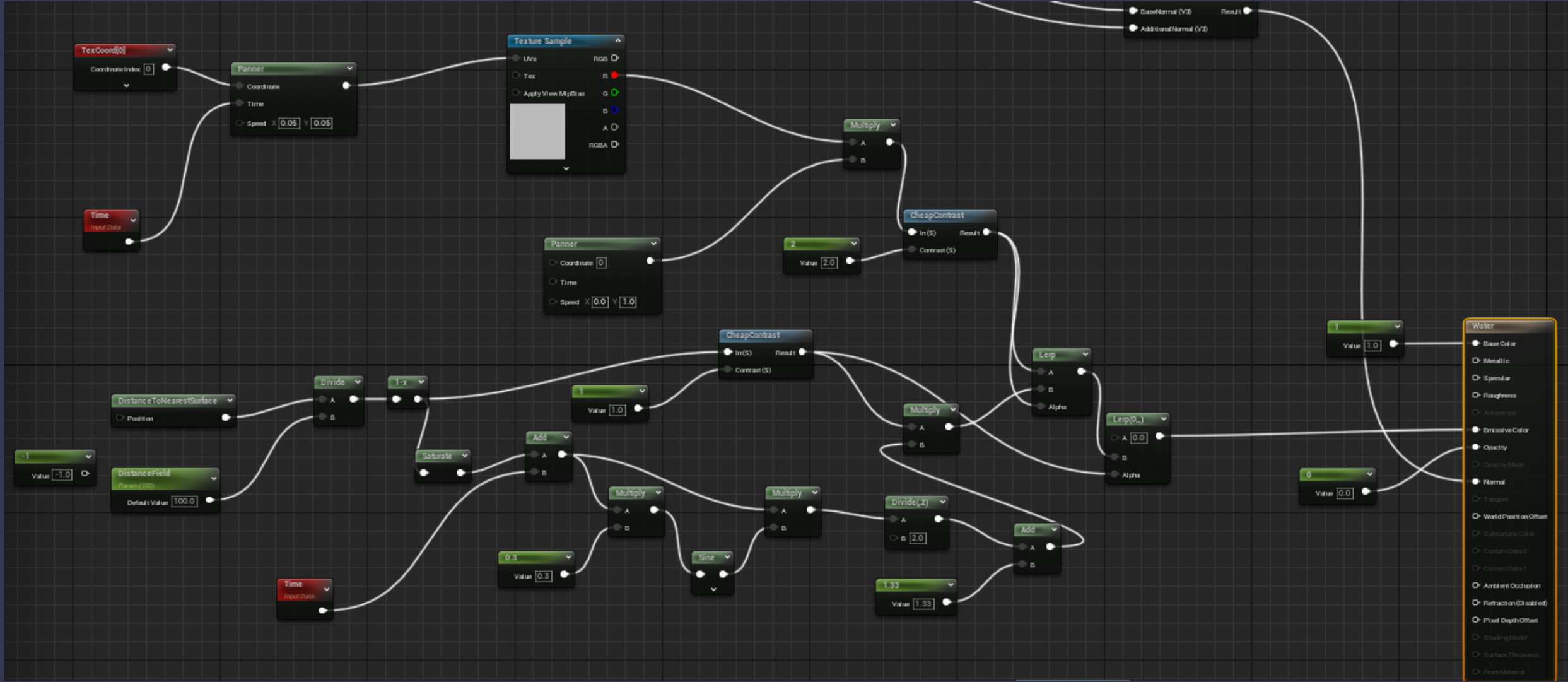
To finish up the scene, I added some displaced bricks and crack decals to break up the symmetry and tidiness of the place.

To further enhance the star's glow, I added another light on top of the emission of the material itself.

The water sparkles were quite challenging to create and required a lot of trial and error and some help from my tutors to create. I used the distance to shore nodes and panned some textures on top to break up the texture's surface and create sparkle waves near the shores.



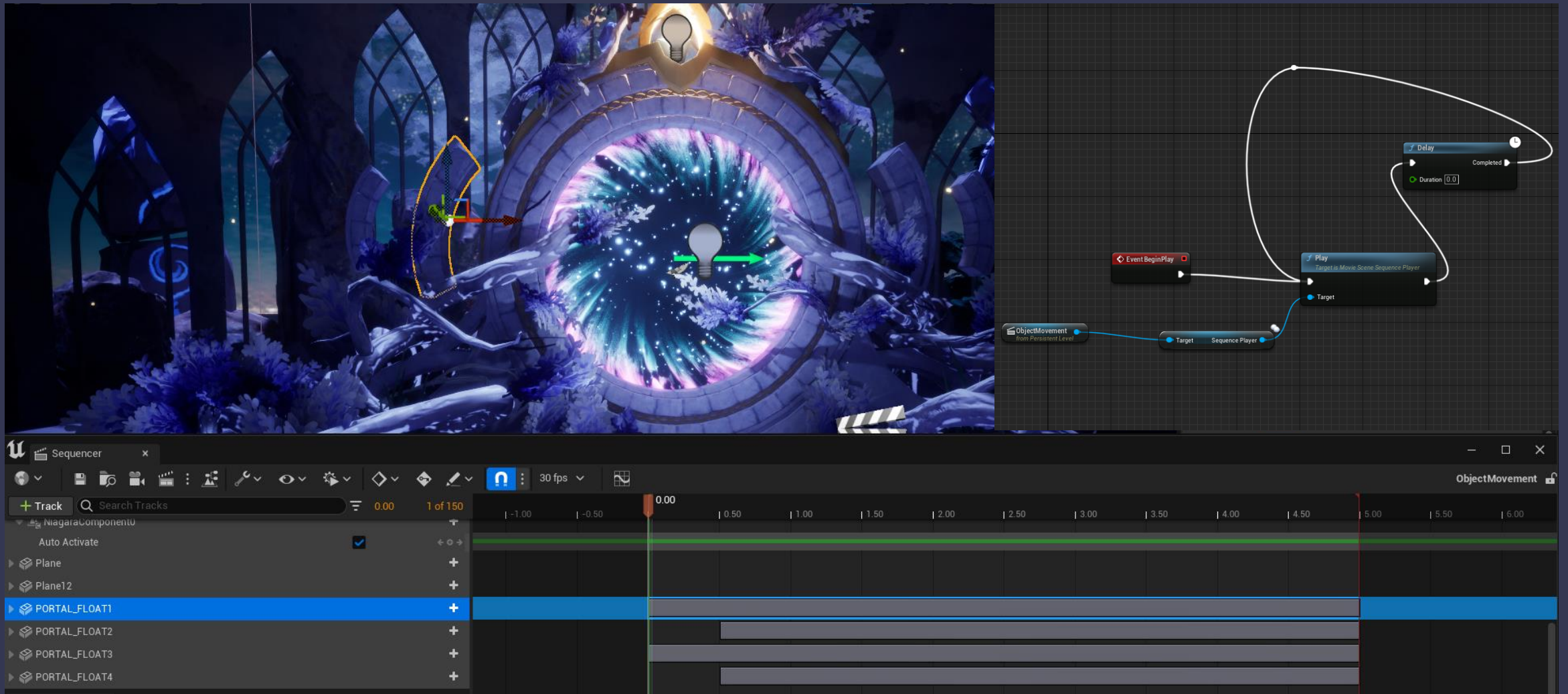
FINISHING TOUCHES: Sparkle nodes



FINISHING TOUCHES: Animation

To finish up the project, I animated the floating parts of the portal by key-framing the object's position and rotation in a sequencer.

I created a quick blueprint to make the animation loop when in play mode.



RENDERS: Final Outcome



RENDERS: Centrepiece



RENDERS: Structural Piece



RENDERS: Supporting Prop



RENDERS: Decorative Piece



Maps: Base Color



Maps: Normals



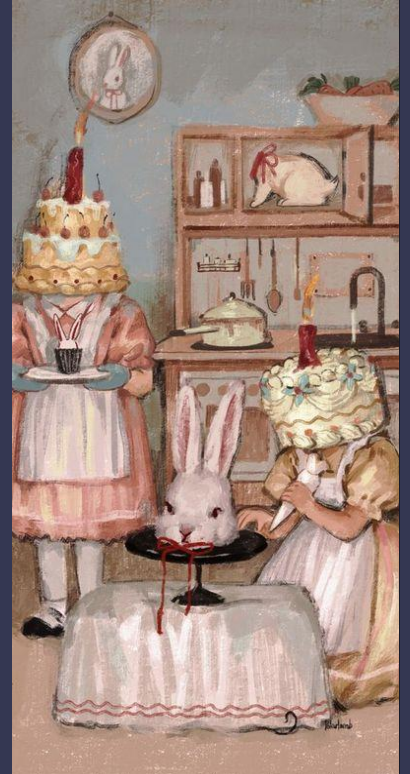


Project 2

Secret Garden Tea House

Image collection

Cute but creepy doll cafe



Inspiration from media

Coraline



Alice in Wonderland



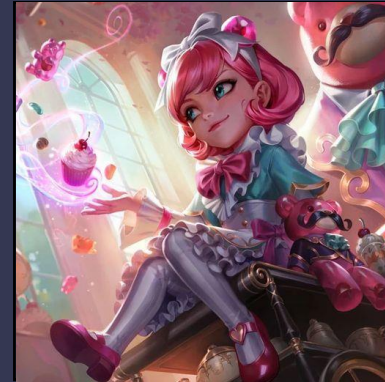
Junko- Danganronpa



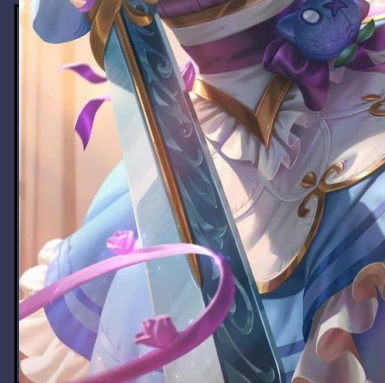
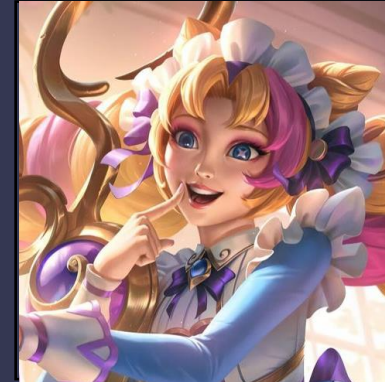
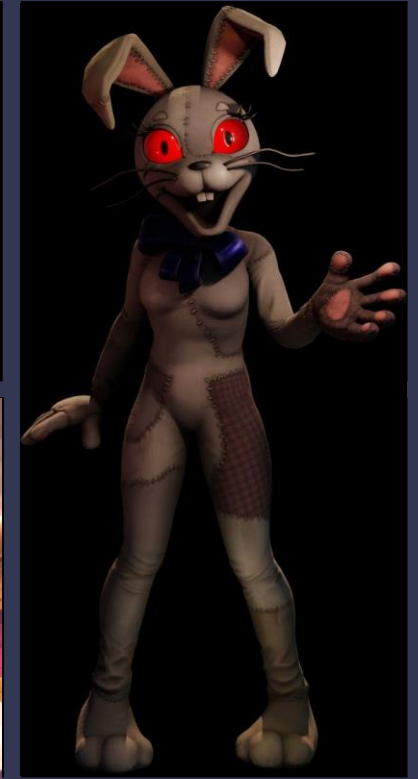
You're next movie



Café cuties skinline



Vanny- Security breach



Inspiration from other sources

Japanese Maid cafe



Old Dolls



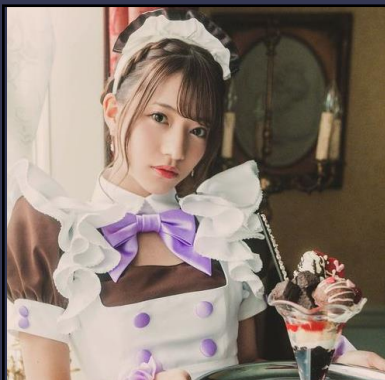
Lolita fashion



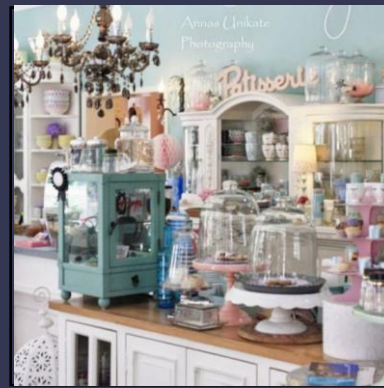
Old Plushies



Children tea parties



Café references



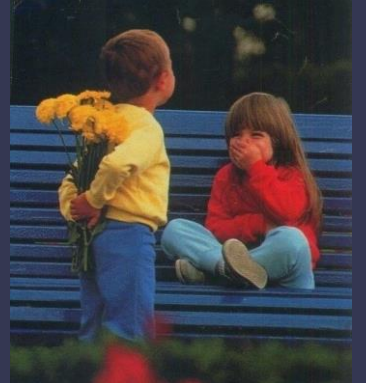
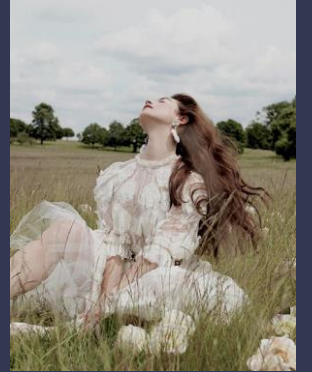
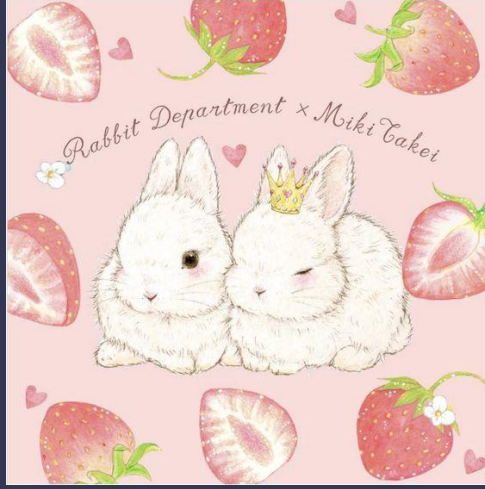
Creepy/cure aesthetic references



Moodboard

Keywords:

- memory
- vintage
- muted
- cute
- sinister
- off putting
- film
- princess



Style research



Atmosphere game examples

Duck season _ VR game



The atmosphere is normal at first as the player takes the role of a young boy who spends a seemingly ordinary day playing a VR game called "Duck Season."

As the game progresses, players begin to notice unsettling and surreal events occurring in the living room. The atmosphere becomes increasingly eerie and ominous, blurring the lines between virtual reality and reality. The story takes a dark turn as players uncover a sinister secret within the game, and the game's narrative becomes more psychological and horror-driven.

In one of the endings, the dog mascot becomes reality and comes for the player randomly from the dark. The player is kept at the edge of their seat and must shoot the dog with the VR gun in order to survive the encounter.

DokiDoki Literature club



The game starts with the player character joining a high school literature club, where they meet and interact with four female characters. As the player, you engage in conversations, compose poetry, and ultimately choose which girl to pursue romantically.

However, "Doki Doki Literature Club!" takes a dark and unexpected turn as the narrative unfolds. The game delves into themes of mental health, self-awareness, and the consequences of manipulation, all while breaking the fourth wall. The tone shifts dramatically, and the game transforms from a seemingly lighthearted dating sim into a psychological horror experience.

Developing the narrative

Why did the bunny murder her friends?

Twin sisters that loved to play together and their plushies. They each had their own favourite plushie they would play with, a bunny and a bear. When one of them died, the other plunged into despair. Nothing was the same ever again. She couldn't even bear to look at herself in the mirror as all she could see was her sister's face.

As time went by and she became an adult, she slowly lost all contact with, friends, family, anyone dear to her

The sister now recreates the same tea party scene from childhood with the guests she traps in the cafe, only this time, the game ends much more brutally compared to the old days. She is stuck in the past, at that age, replaying in her mind that fond memory over and over again.

She is wearing a bunny mask, reminiscent of the one her sister used to wear so many years ago.

Motive:

1. The player looks like the sister, her mind plays tricks on her. She wants to finish the scene she has been working on for a while, but she needs someone to represent her sister to be complete. (not twin sisters anymore)
2. Wants the player to join her on the madness killing spree? (Like Far Cry, where the villain gives the MC the option to join them.)

Secret back room where the madness happens?

Resident evil Biohazard Lucas persona?

Crazy stereotypes, Jinx, Junko, Lucas, Mad Hatter, Harley Queen

Developing the narrative

I further refined the backstory of the establishment and Joy, the antagonist. By doing this I had a much clearer view on what elements I needed to translate the story of the environment into the design. I made use of the software “Obsidian” to organize and link my thoughts and ideas naturally.

Murder motive

She is trapped in the past, in her childhood. The memory of her sister haunts her every day of her life. Every time she looks in the mirror, she sees her sister's reflection.

She hopes that by recreating that specific memory where they were playing pretend with plushies and organizing tea parties, she can please her sister's soul in the afterlife.

She was very close with her sister and she believes that her soul is still with her and wants to play forever for eternity.

Maybe she gets tortured by her memory? She has visions of her sister that torment her and push her to accomplish a vision that is not her really own, but started to feel like it.

Murder room backstory

The entrance of the secret murder room should be positioned behind the stage. Nobody knows of the existence of this room except for [Joy](#), which discovered it accidentally one day she was preparing for a show. Ever since then she has made multiple efforts to better conceal the scene and make it impossible for others to find it again.

The room was initially designed as a bunker/safety room. The old building was refurbished and repurposed and the entrance to the underground was sealed. ^{^6e9876}

Joy

Who is she?

Works and is the star of a themed café/restaurant(Japanese maid/hostess café inspiration)
The café has multiple waitresses, performers that tend to the customers.

She is a wonderful performer. She sings, dances and entertains the customers on the cafe's stage every day.

“Joy” is her stage name. She wants to spread joy and smiles to those who enter her magical world.

She is the most popular and most sought after by customers out of all the girls in the café.

Cute, bubbly personality, sweet talker, connects with customers on a deeper level.

How is she committing crimes?

She is a master manipulator. Joy tricks the people that get most attached/charmed by her during the working hours and invites them to stay with her for longer, have a secret date together.

Targets lonely, vulnerable people. They are the most likely to fall for her charms and trust her.

Customers get tricked by her allure and decide to stay with her after hours in the café.
She then poisons/drugs them with the tea and sweets she prepares only for them, a symbol of her affection.

She is very pretty and approachable, this is why she can get away with murder easily. Nobody wants to doubt or believe a pretty and innocent girl like her is capable of murder.
Even when she is suspected, many others would jump to defend and testify for her. They trust her, they love her.



Environment dark details planning

Must relate to the [Murder motive](#)

The environment must not look too messy/deranged since it's supposed to be a functional establishment where customers come in every day.

The time of the scene can be placed after hours after Joy has just drugged and dragged away a customer. There can be signs of struggling and suffocation at one of the tables. Crumbled pastries, broken teacup pieces spread across the floor, accompanied by tea splatters on both the table and floor.

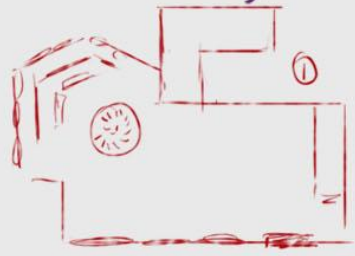
Other subtle details:

- the head of a plush on the stage can be missing
 - creepy bunny faces randomly placed in some parts of the scene.
 - strange unusual bottle on the sweets counter
 - empty animal head mask on one of the tables
- [Murder room backstory](#)

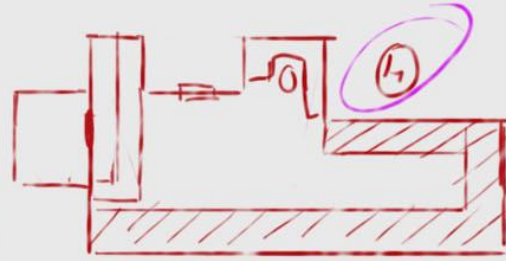
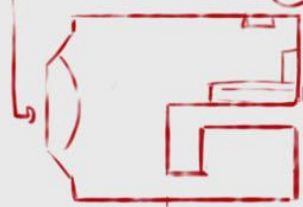
[Inspiration from media for the murder scene](#)

Café layout planning

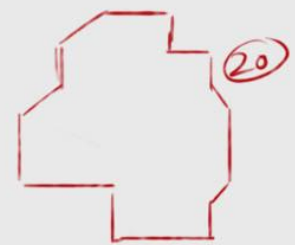
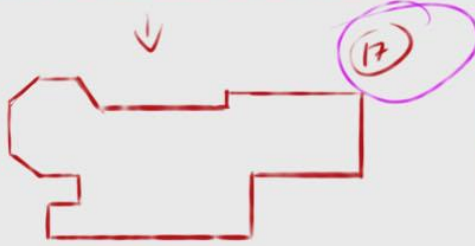
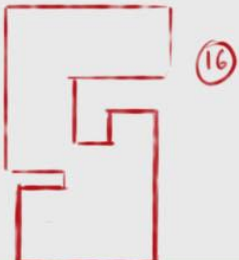
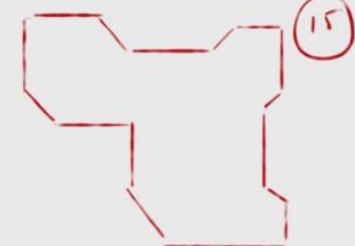
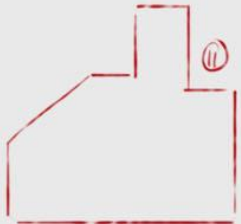
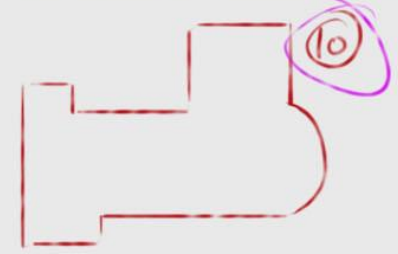
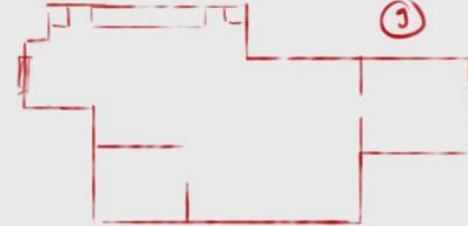
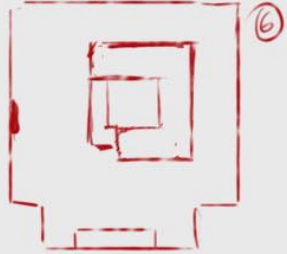
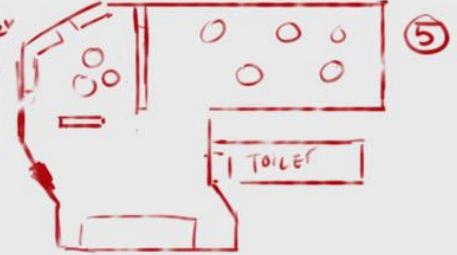
Crazy Cafe Map Layouts



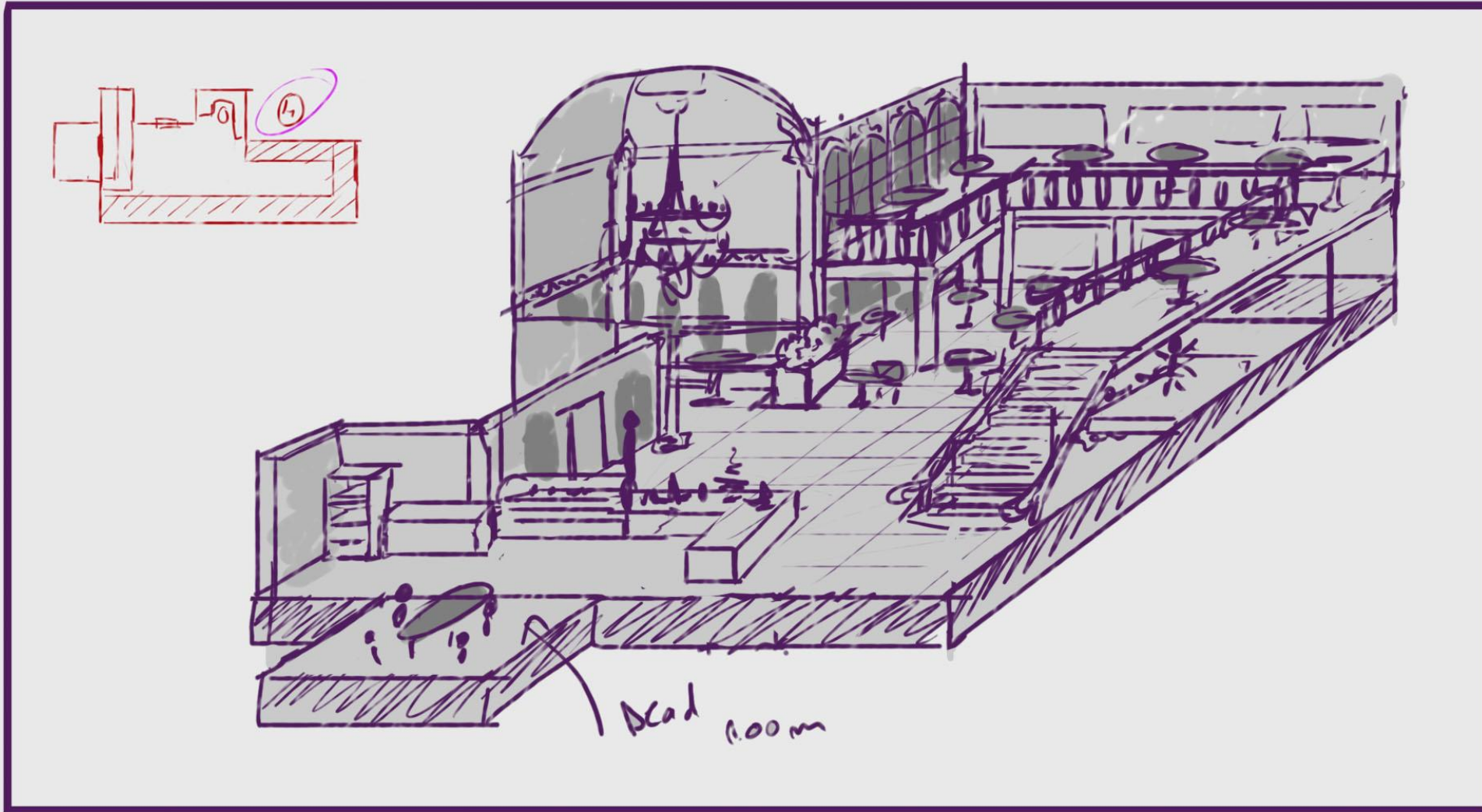
space for performers?



plush corner



Café layout planning

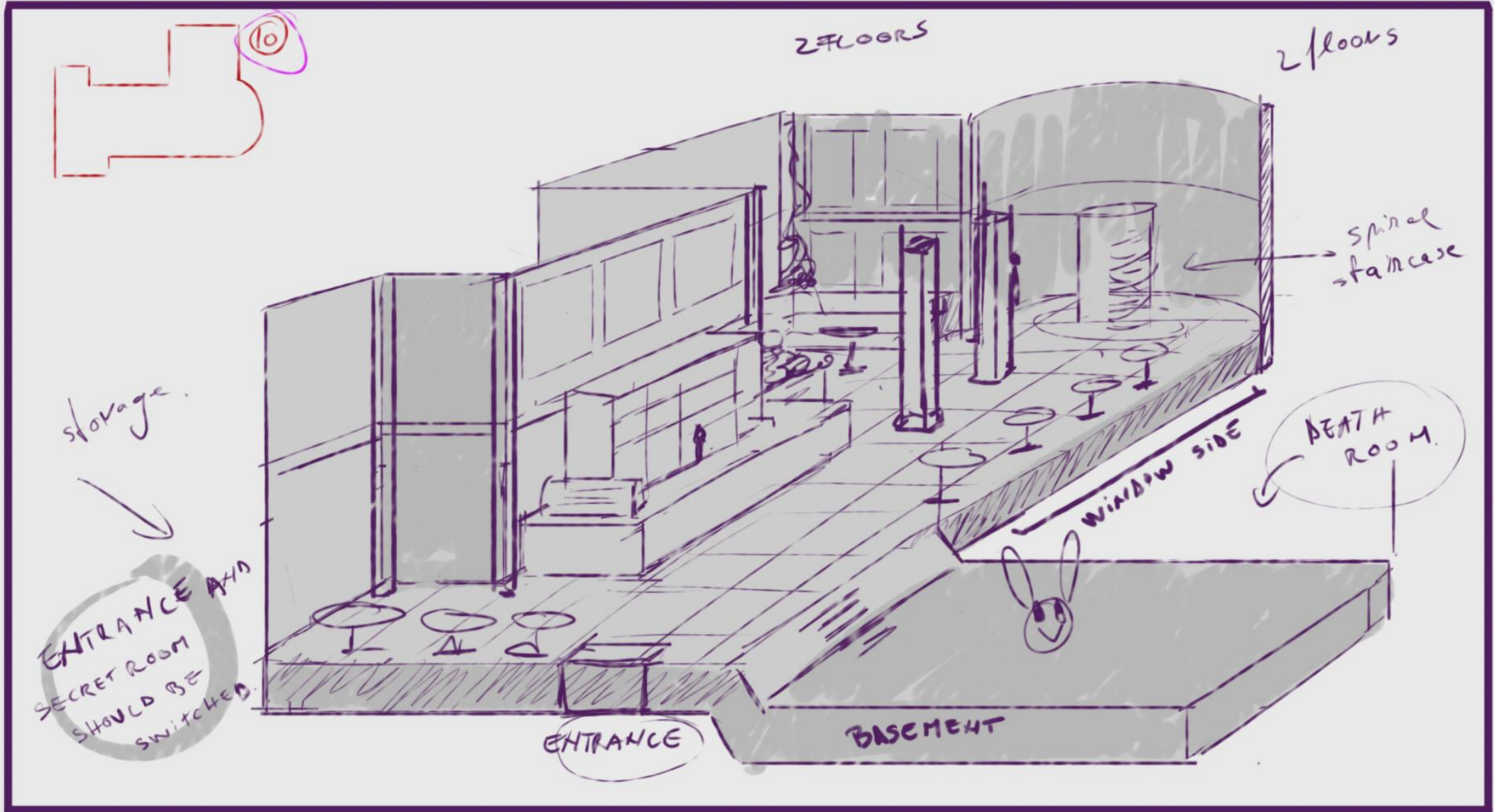


I really like this layout. It is simplistic but also adds layers that would be beneficial from a game-design standpoint as all the clues will be spread around multiple areas as opposed to being in the same place

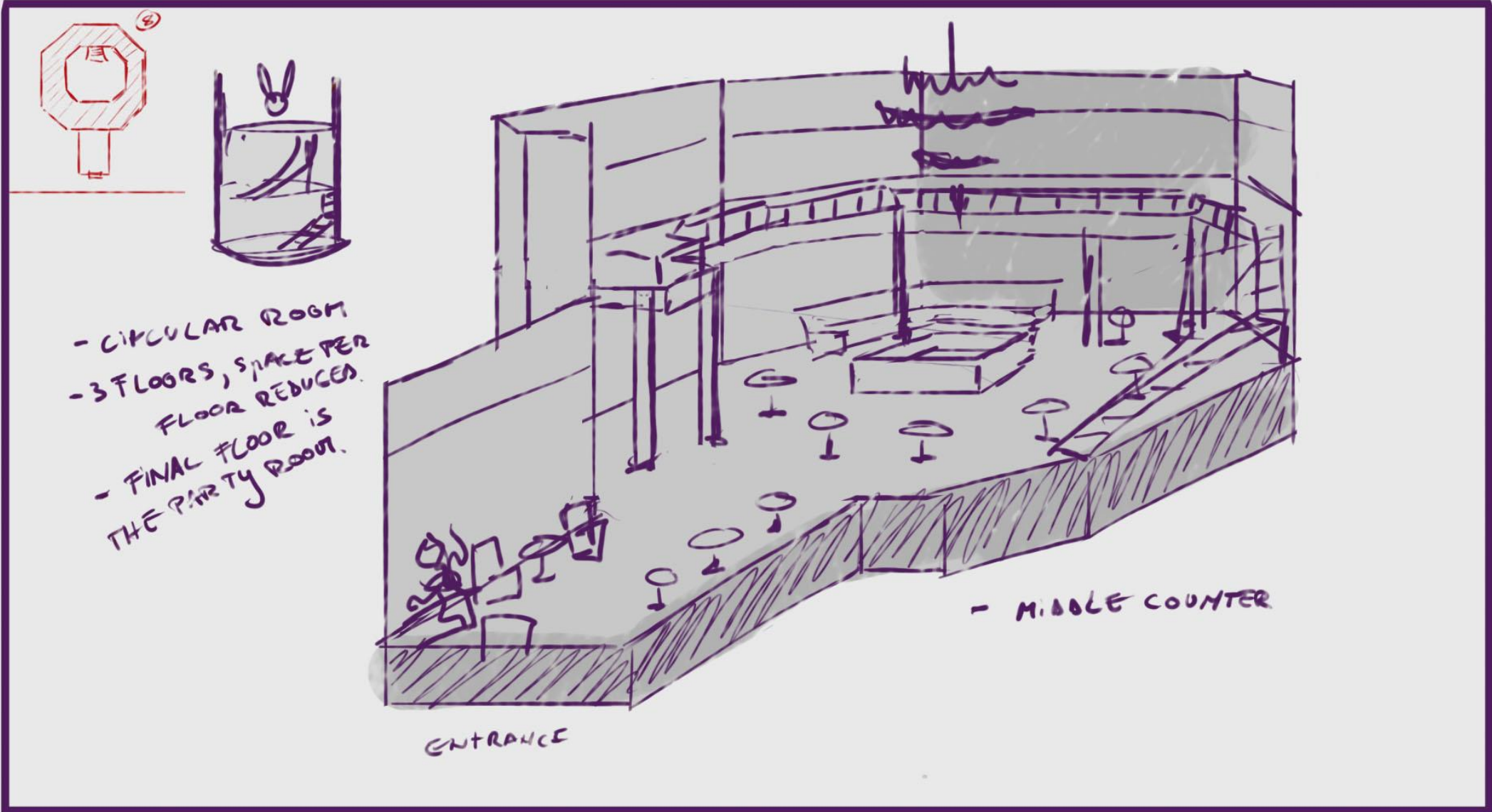
I will make changes to the overall shape design, as it feels too rectangular, maybe replacing the sharp corners of the couch area with a rounded version.

I will also experiment with moving the Party Room behind the stage area, further concealing and detaching it from the main building, maintaining the “secret” aspect of it.

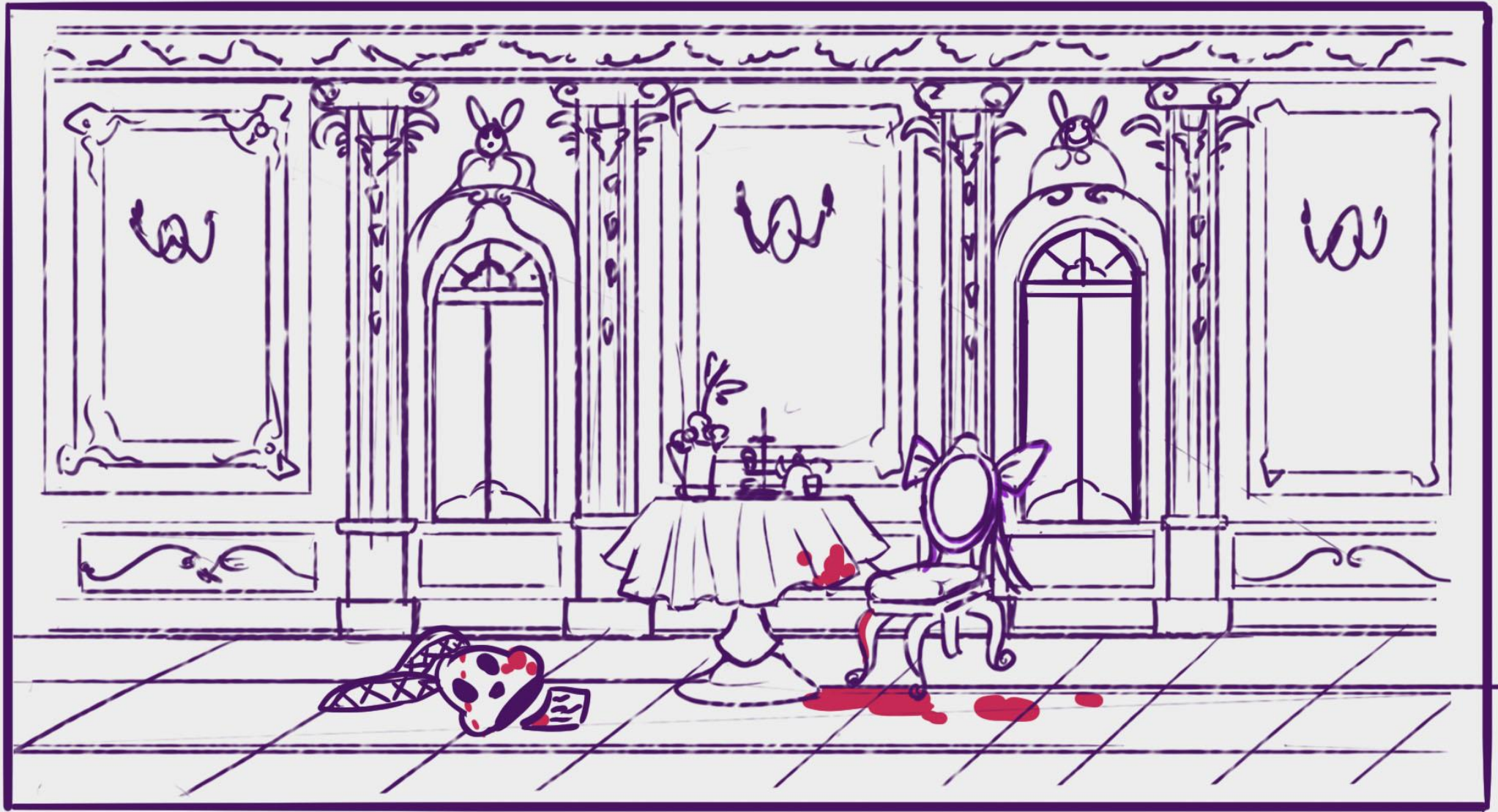
Café layout planning



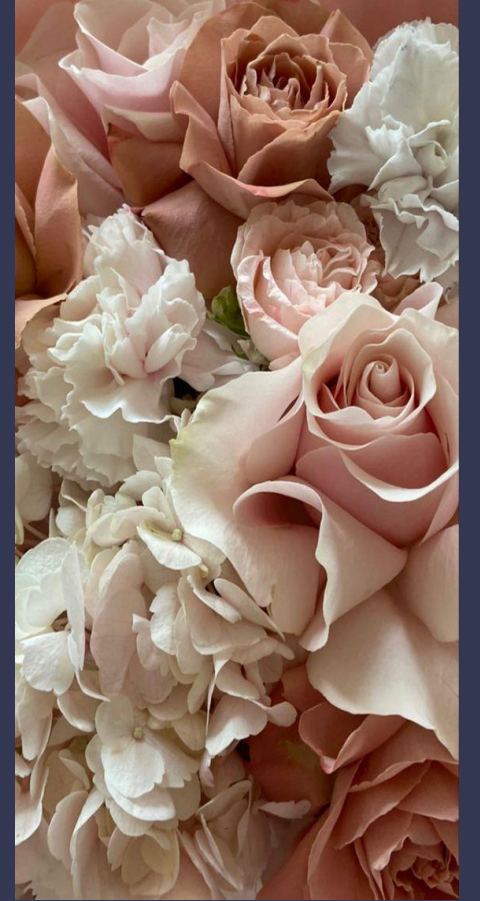
Café layout planning



Café interior experimentation



Colour tests - extractions



#EECSF7

#FEB7B0

#FFB1C9

#D1C2FC

#FCE9E1

#9C41E3

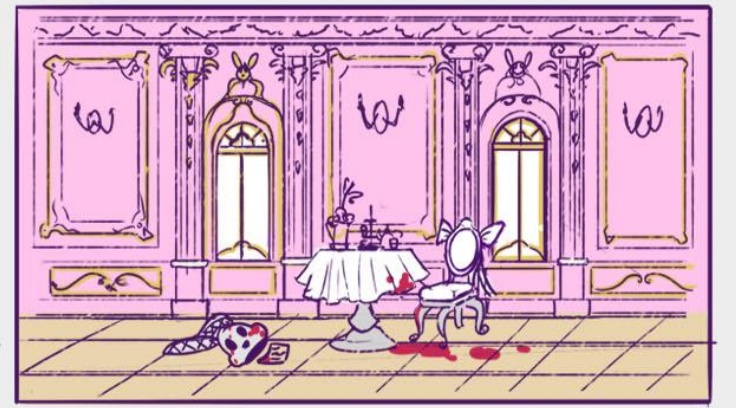
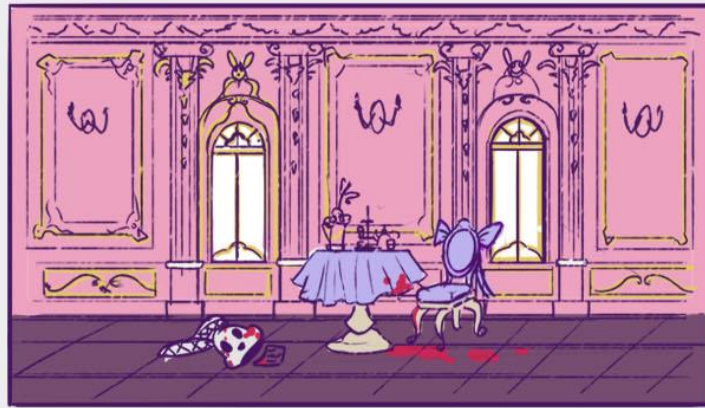
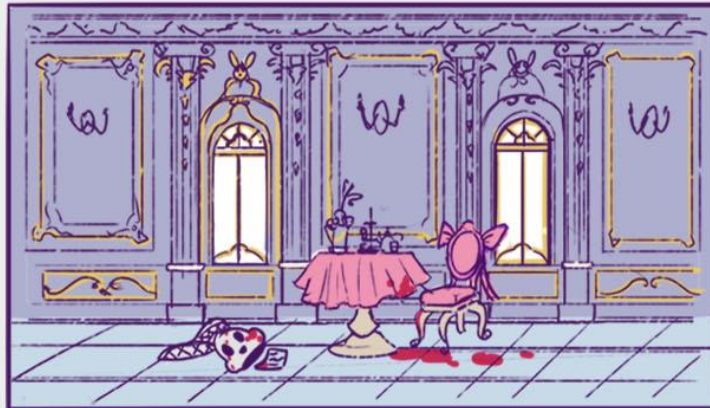
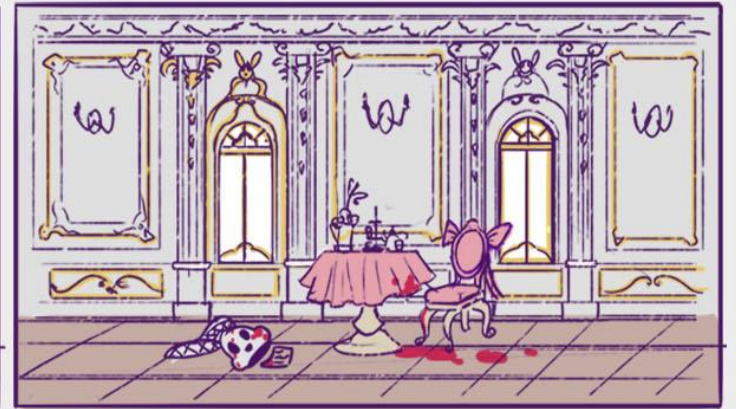
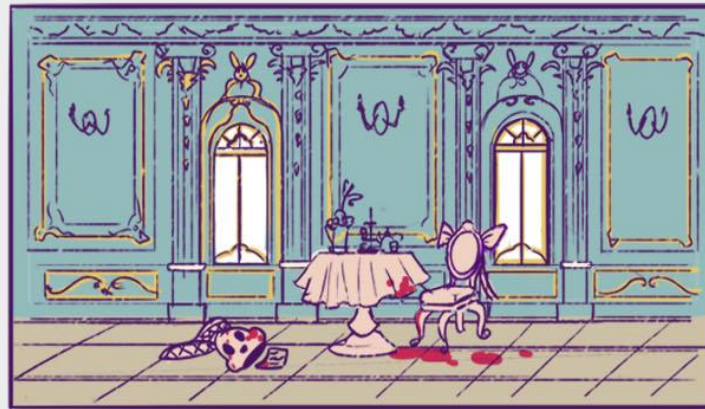
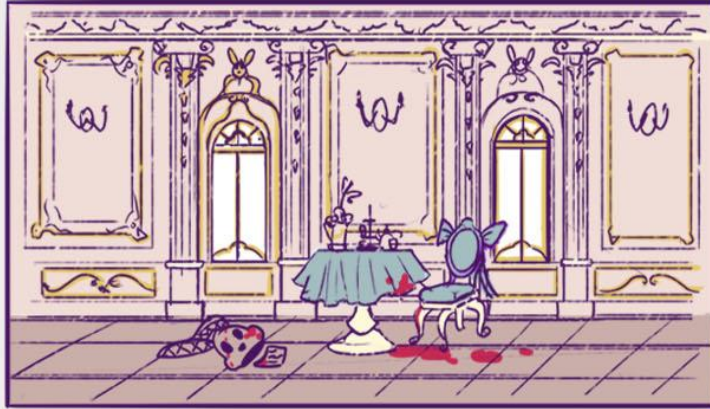
#E60083

#83B0E2

#A0C453

#E6B880

Café color experimentation



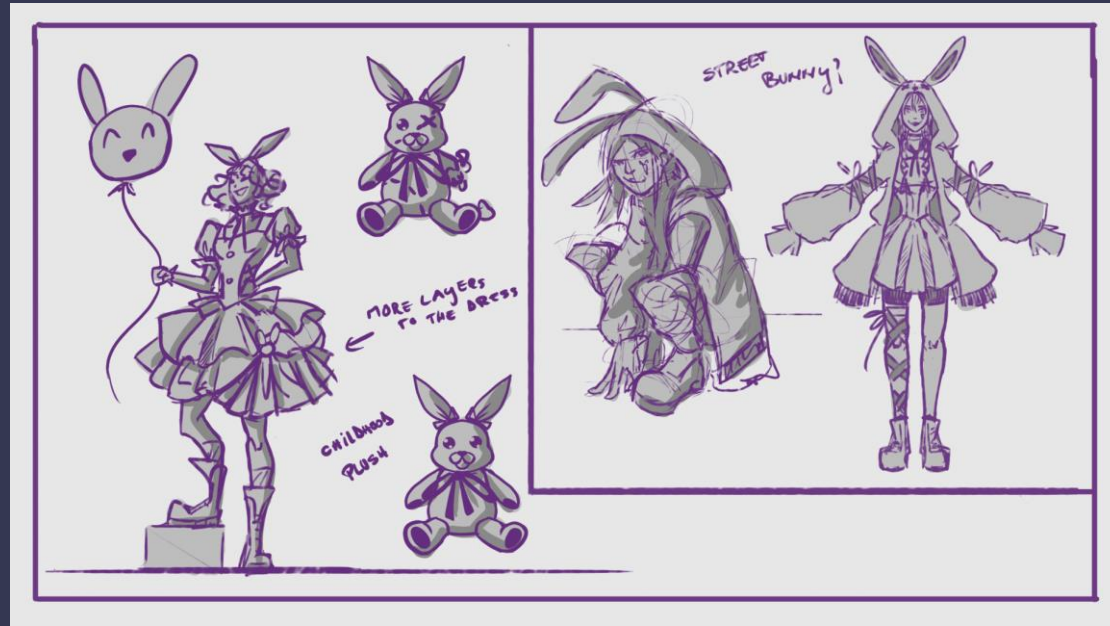
Café character experimentation

Crazy Cafe Character Ideas



Because the entire narrative of the environment revolves around the “bunny girl”, I have decided to do some quick sketches exploring her design, with the intention of then incorporating some of the elements into the design of the place itself.

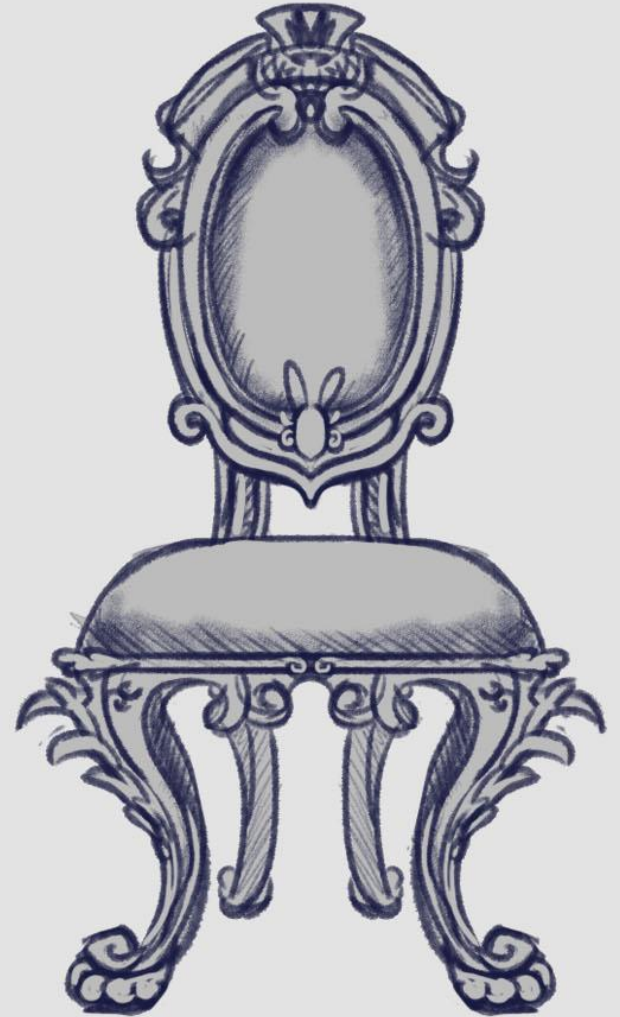
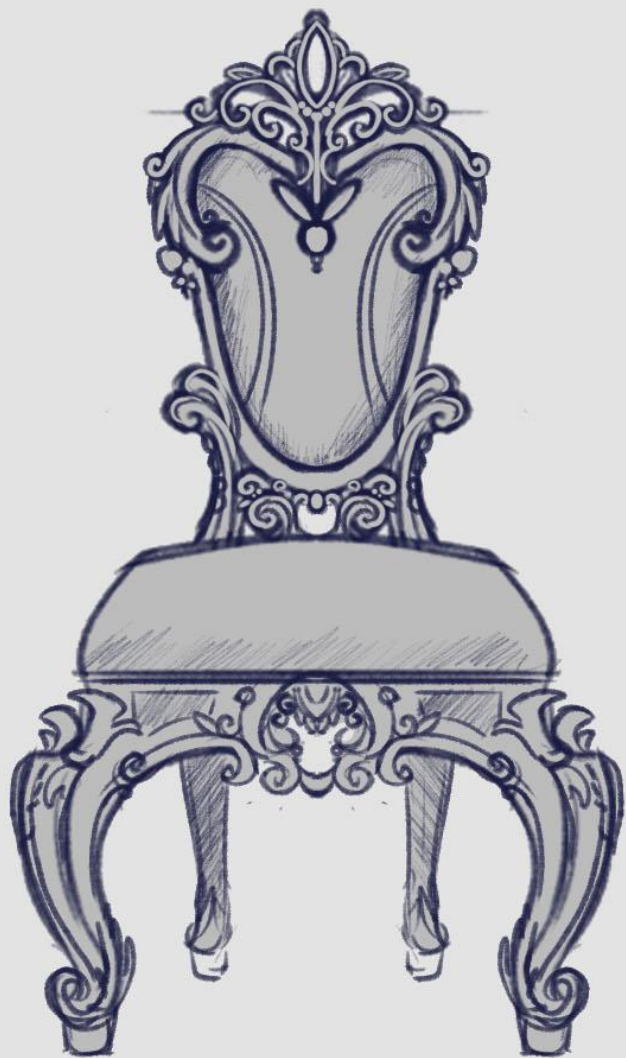
Café character sketches



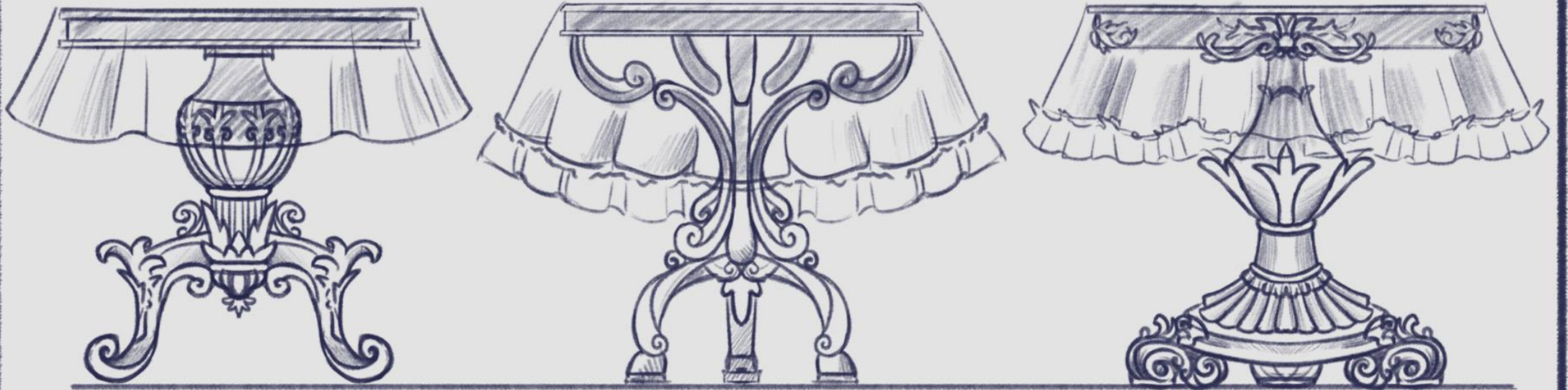
Character exploration sketches 🐰



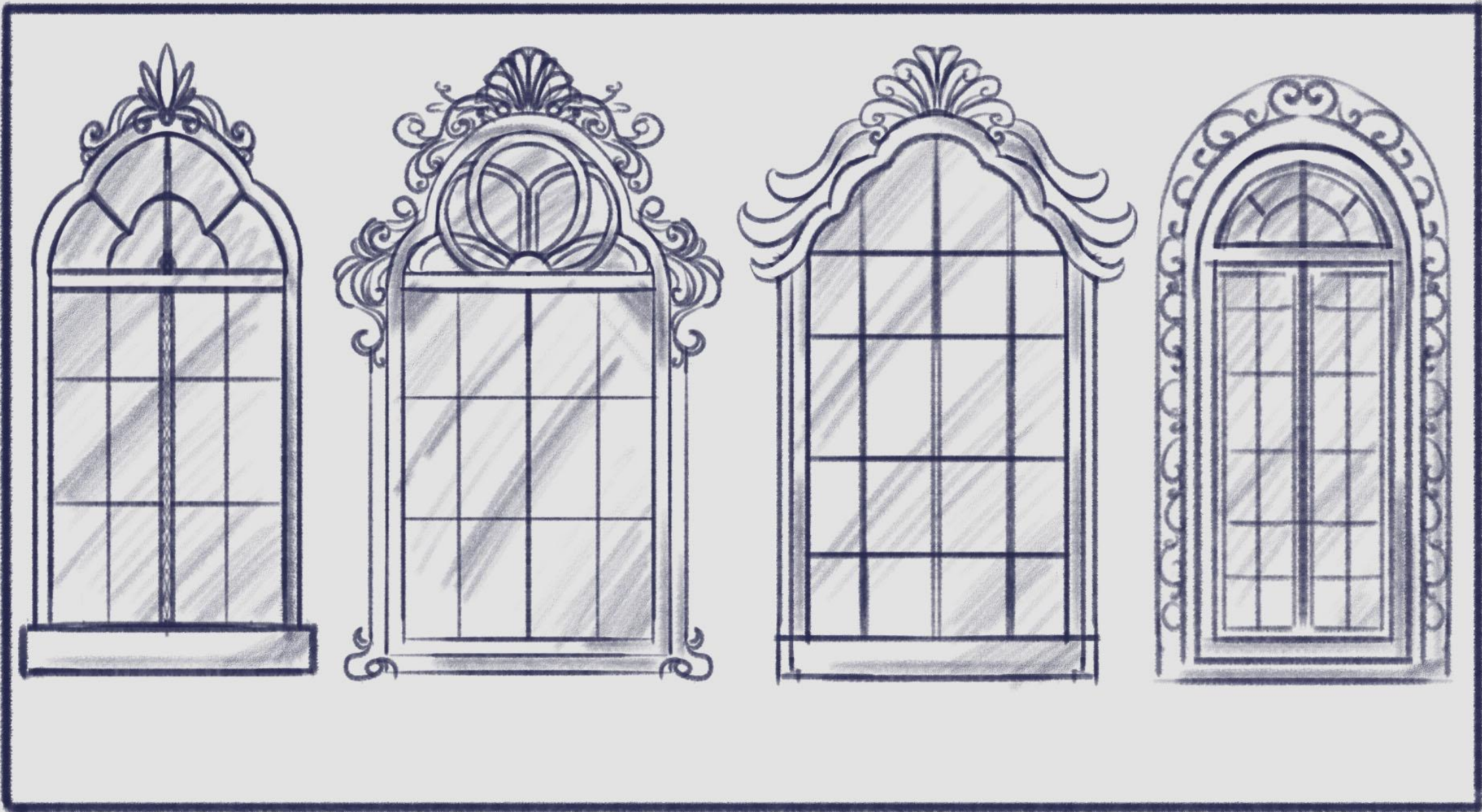
Café prop design - chairs



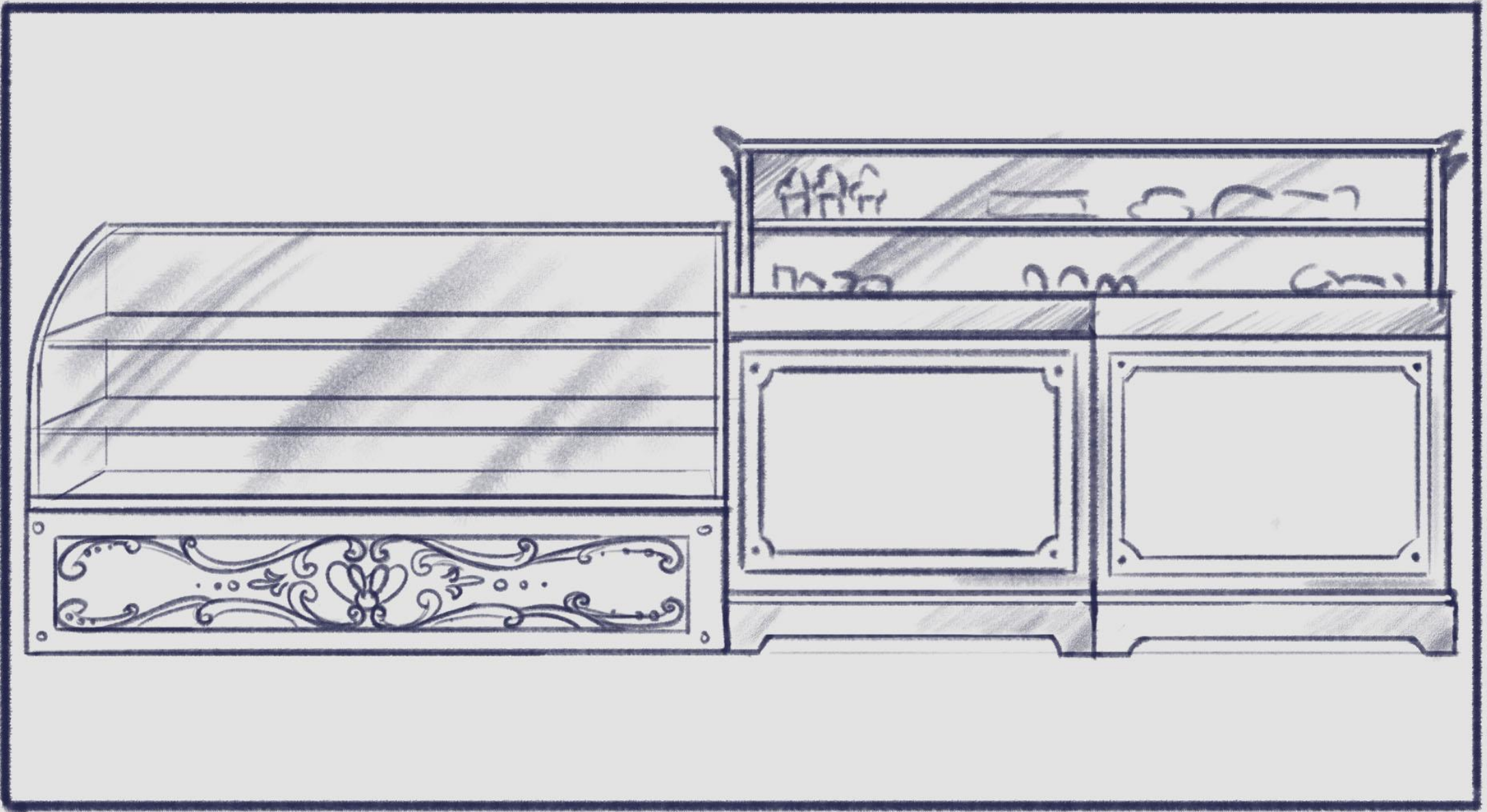
Café prop design - tables



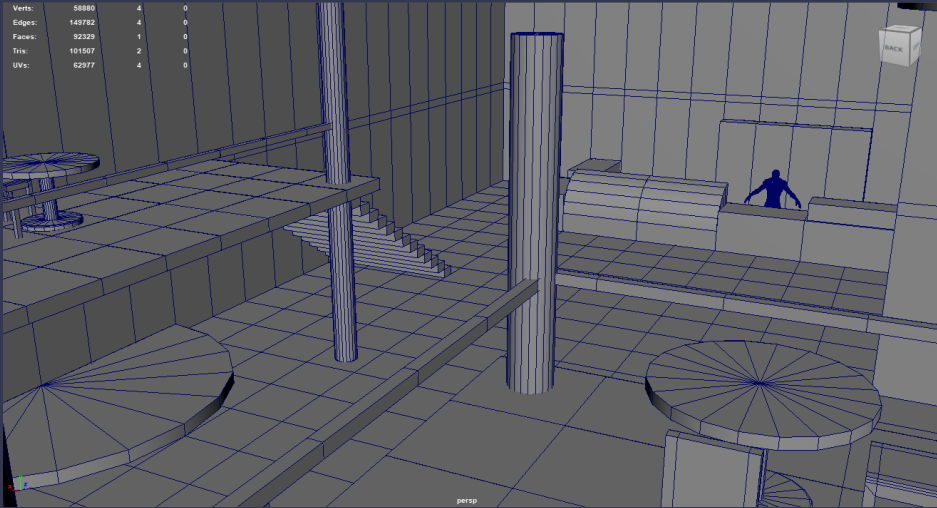
Café prop design - tables



Café prop design – counter/fridge

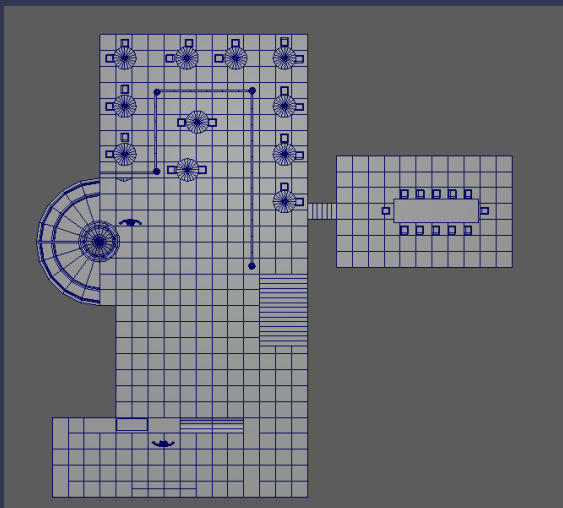
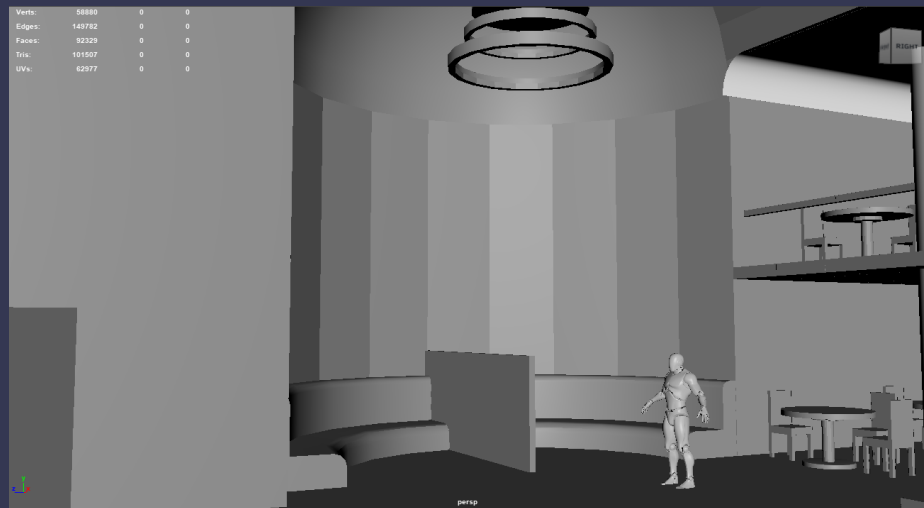
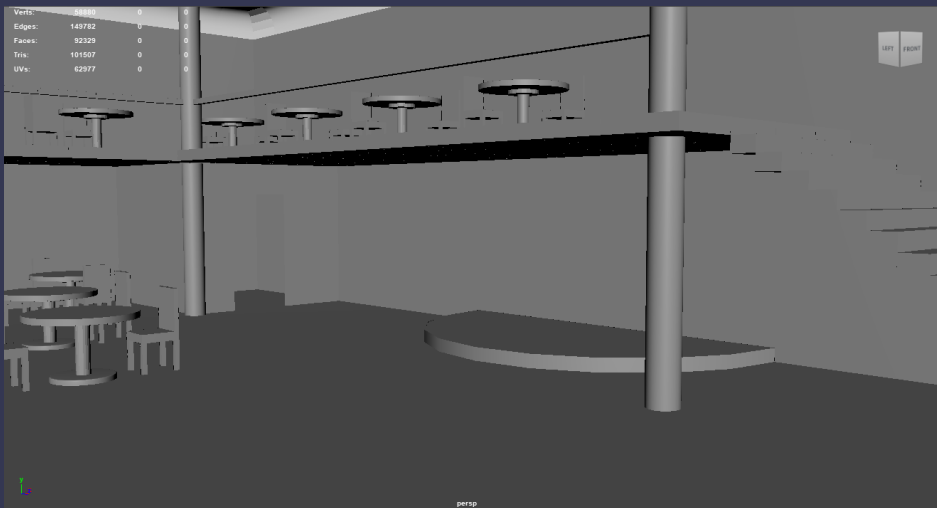


First Blockout

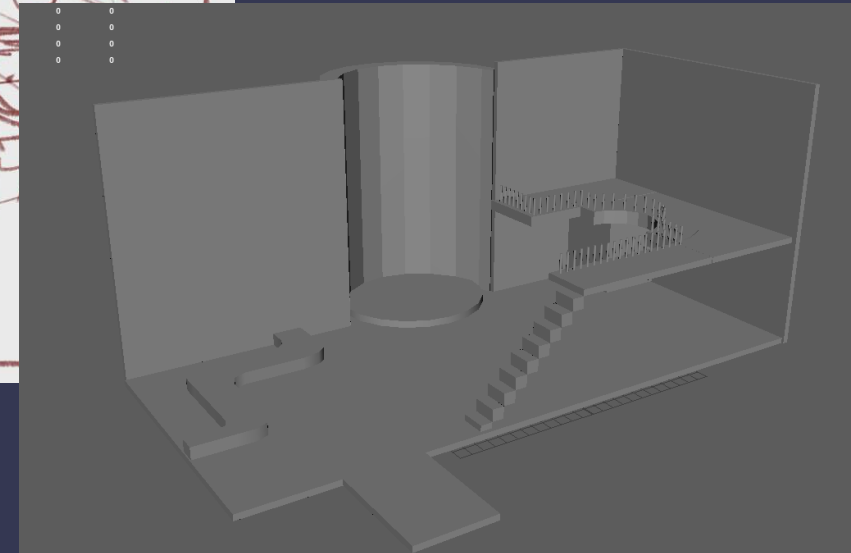
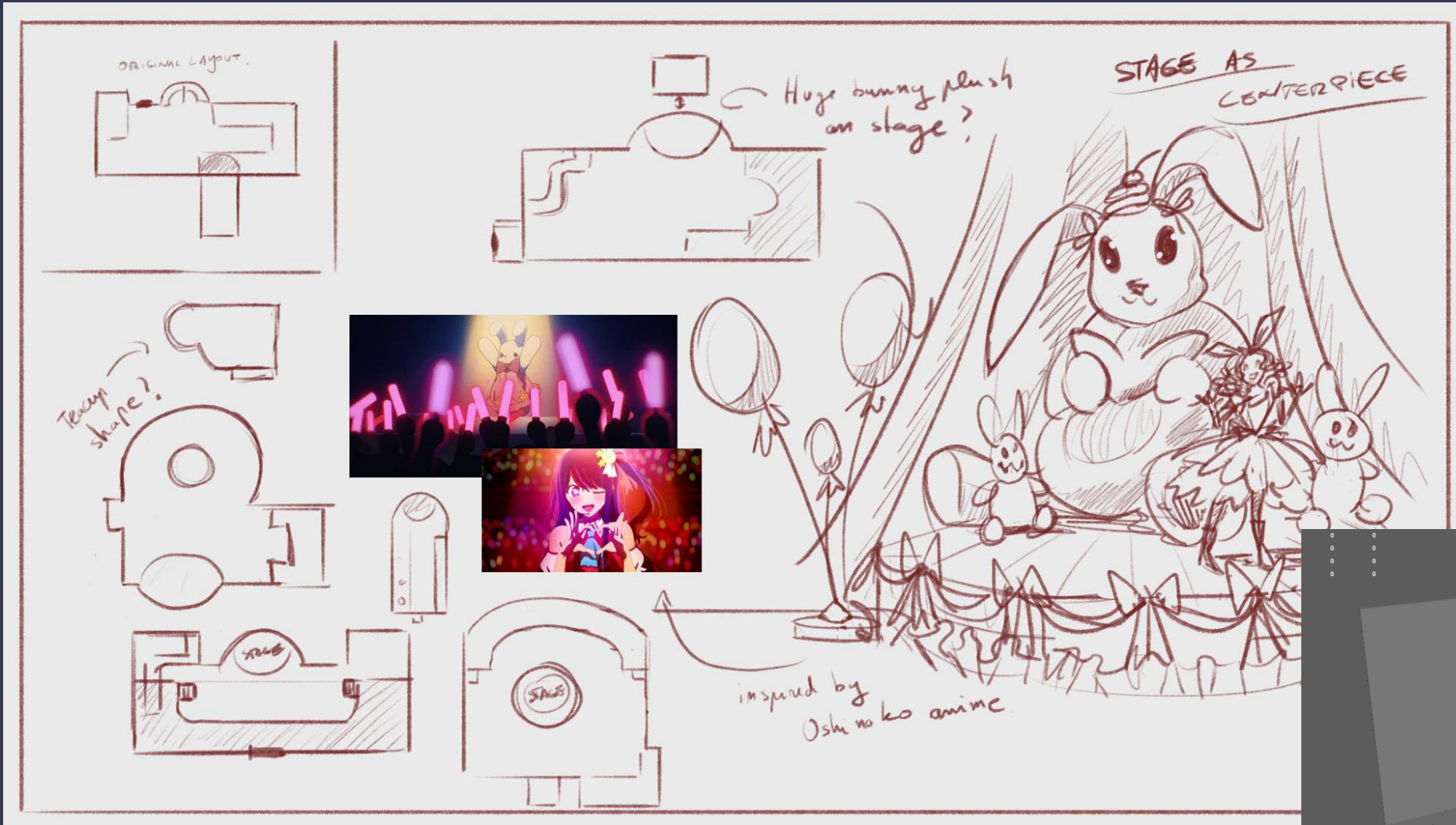


I have researched the dimensions of real-life buildings and objects to measure and plan out the modular pieces of the area.

I have gone ahead and chosen the first layout from my sketches to base my blockout on, with some minor changes.

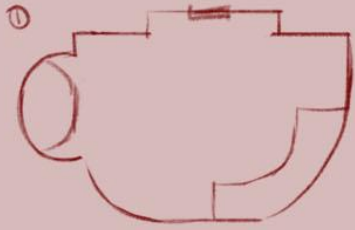


Café layout replanning



Café layout replanning

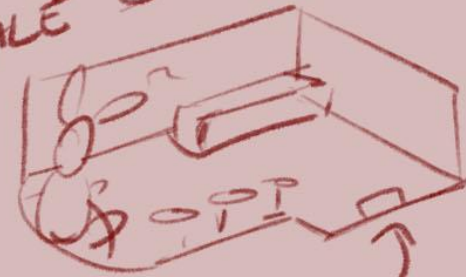
TEACUP LAYOUT ?



BIG SCALE
RESTAURANT/CAFE

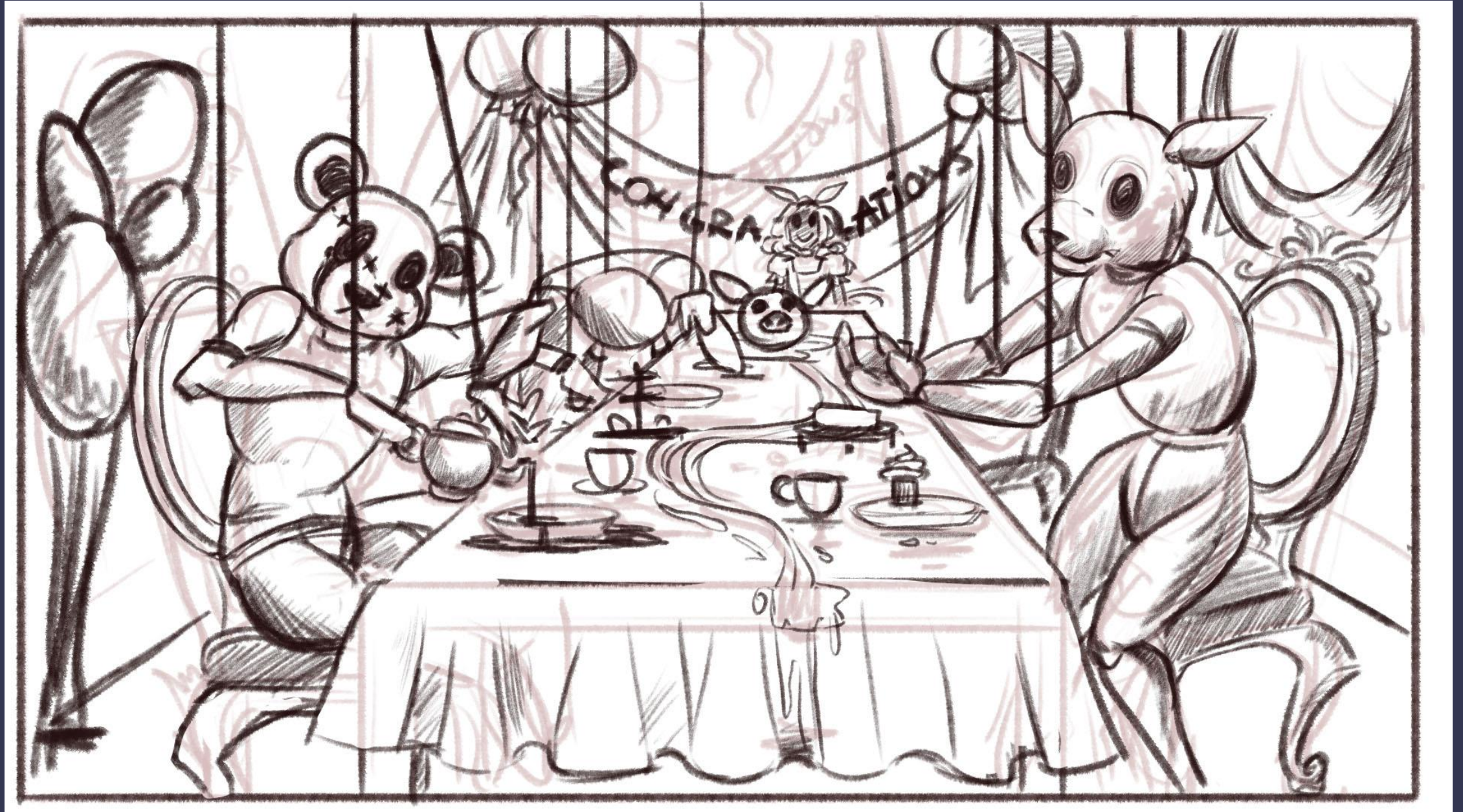


SMALLER
SCALE ENV

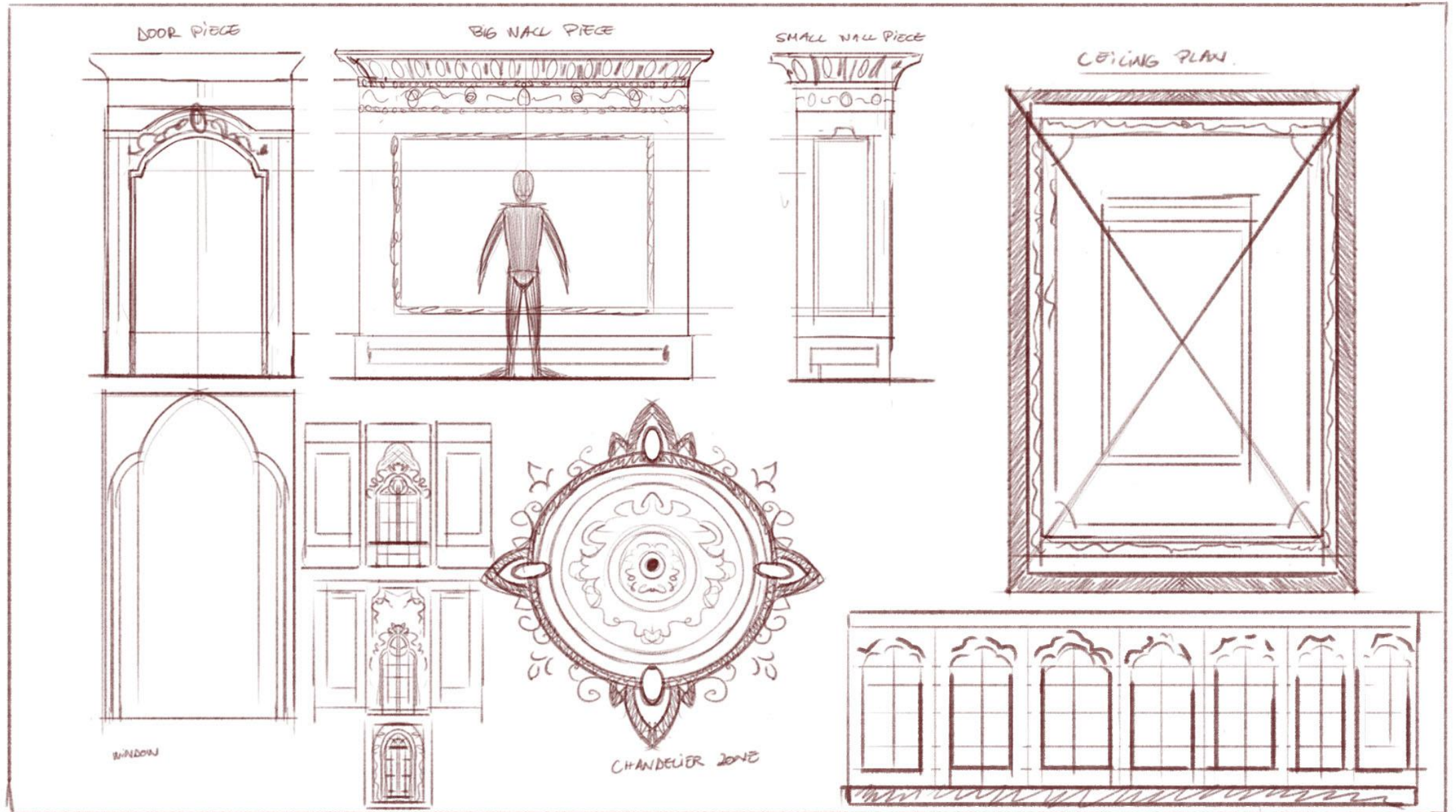


NO
2nd FLOOR.

Secret tea party room design sketches



Planning modular parts



Trim planning

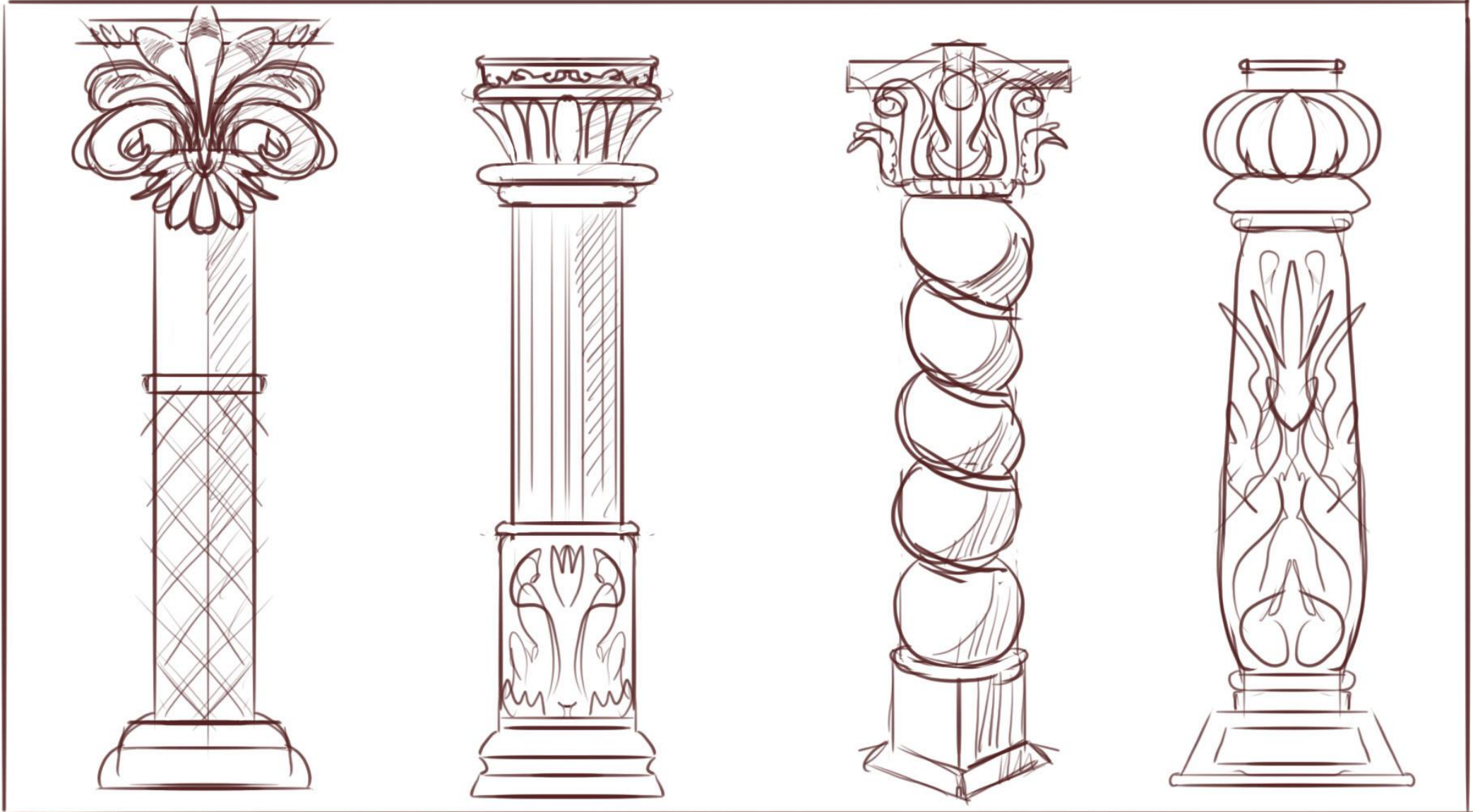
The image is a collage of decorative trim samples and a rough sketch. On the left, there are five horizontal strips of different trim designs: a gold leaf scrollwork, a silver leaf and floral pattern, a gold leaf scrollwork on a dark background, a gold leaf fan pattern on a dark background, and a gold leaf scrollwork on a white background. In the center, there are three wooden trim pieces with different carvings. To the right, there is a rough sketch of a wall and ceiling area with various trim patterns. A handwritten note lists: - MARBLE MAT, - CERAMIC MAT, - FLOOR TEXTURE. Another handwritten note lists: WALLS, CEILING, OBJECTS, STAIRS. A small sketch of a door with a decorative top is also visible.

- MARBLE MAT
- CERAMIC MAT
- FLOOR TEXTURE

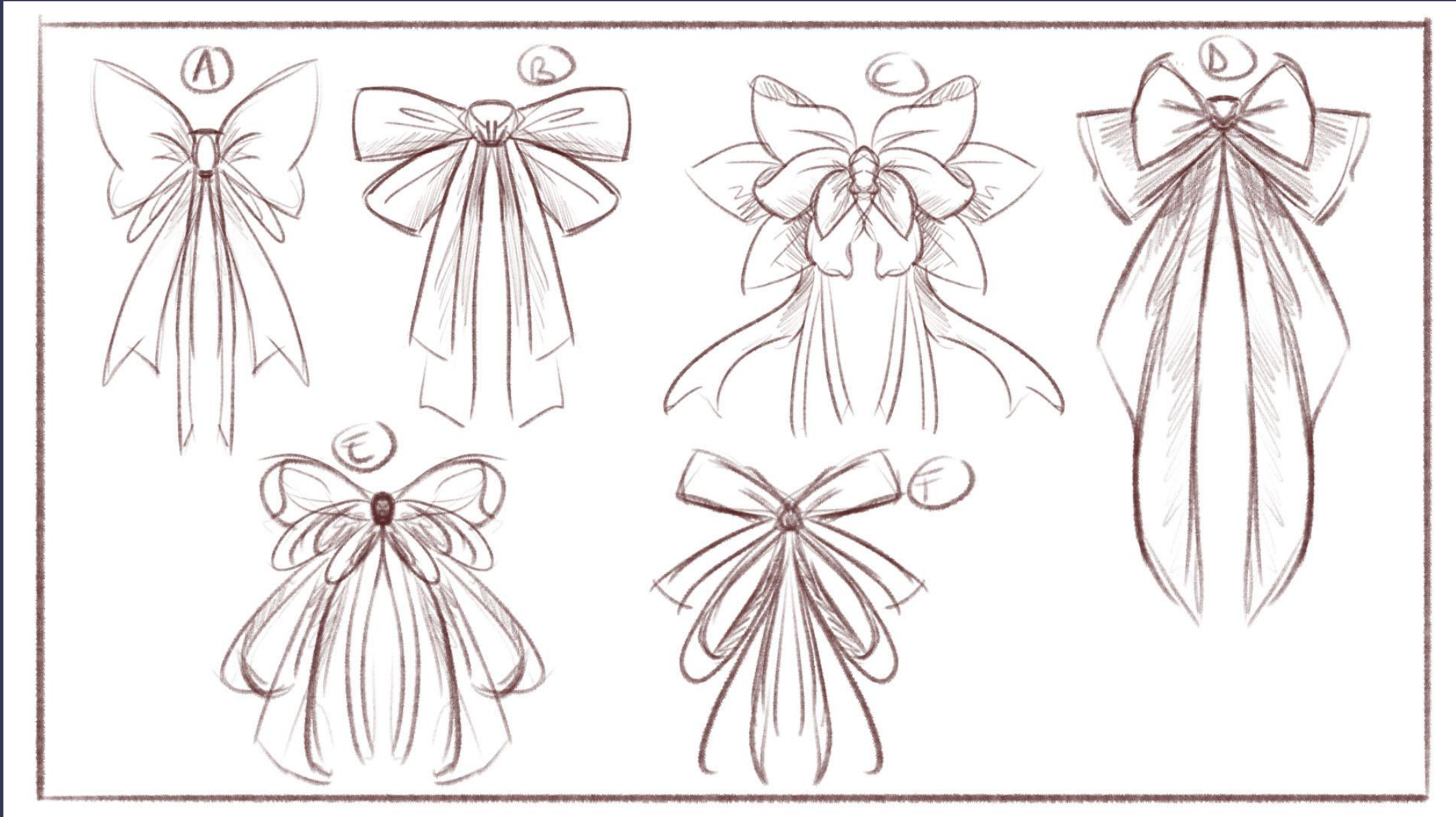
ROUGH TRIM SKETCH

WALLS
CEILING
OBJECTS
STAIRS

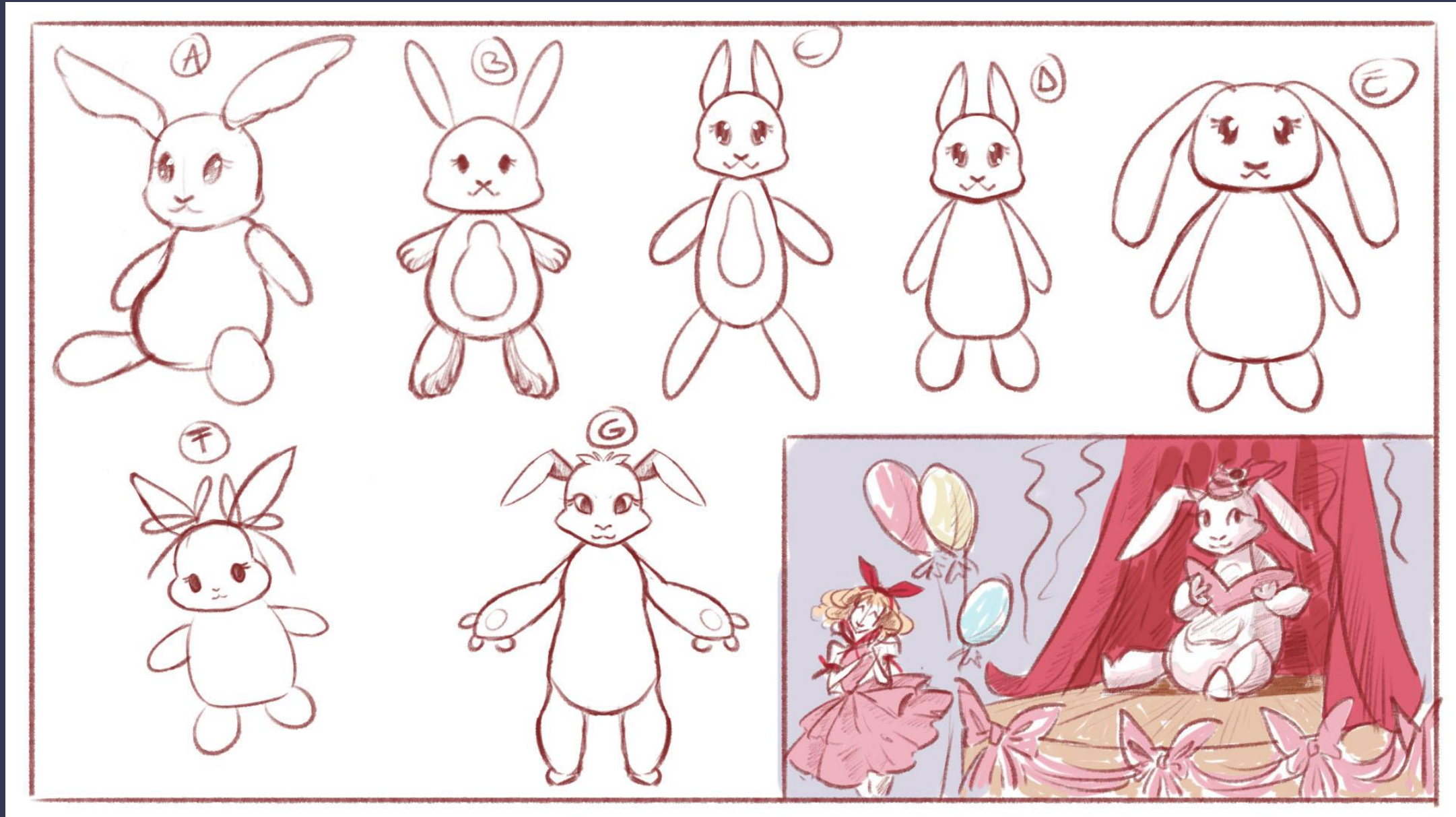
Café prop design - pillars



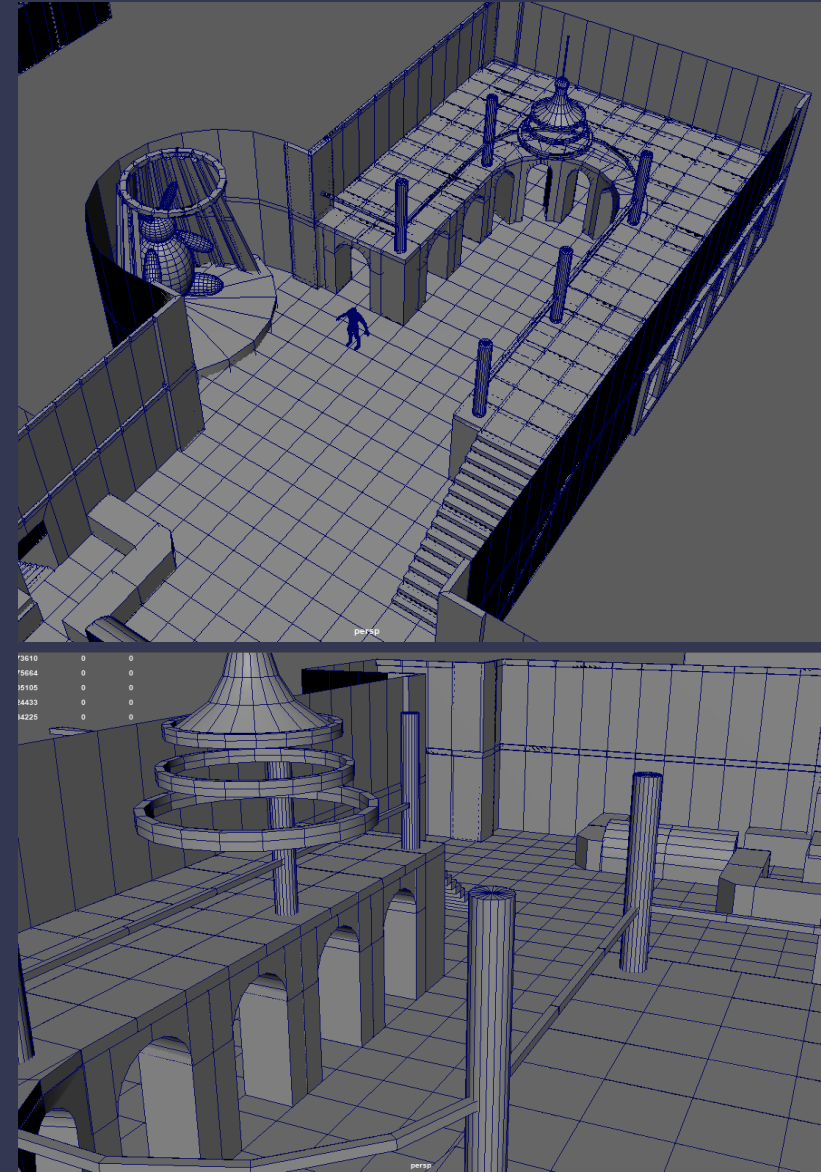
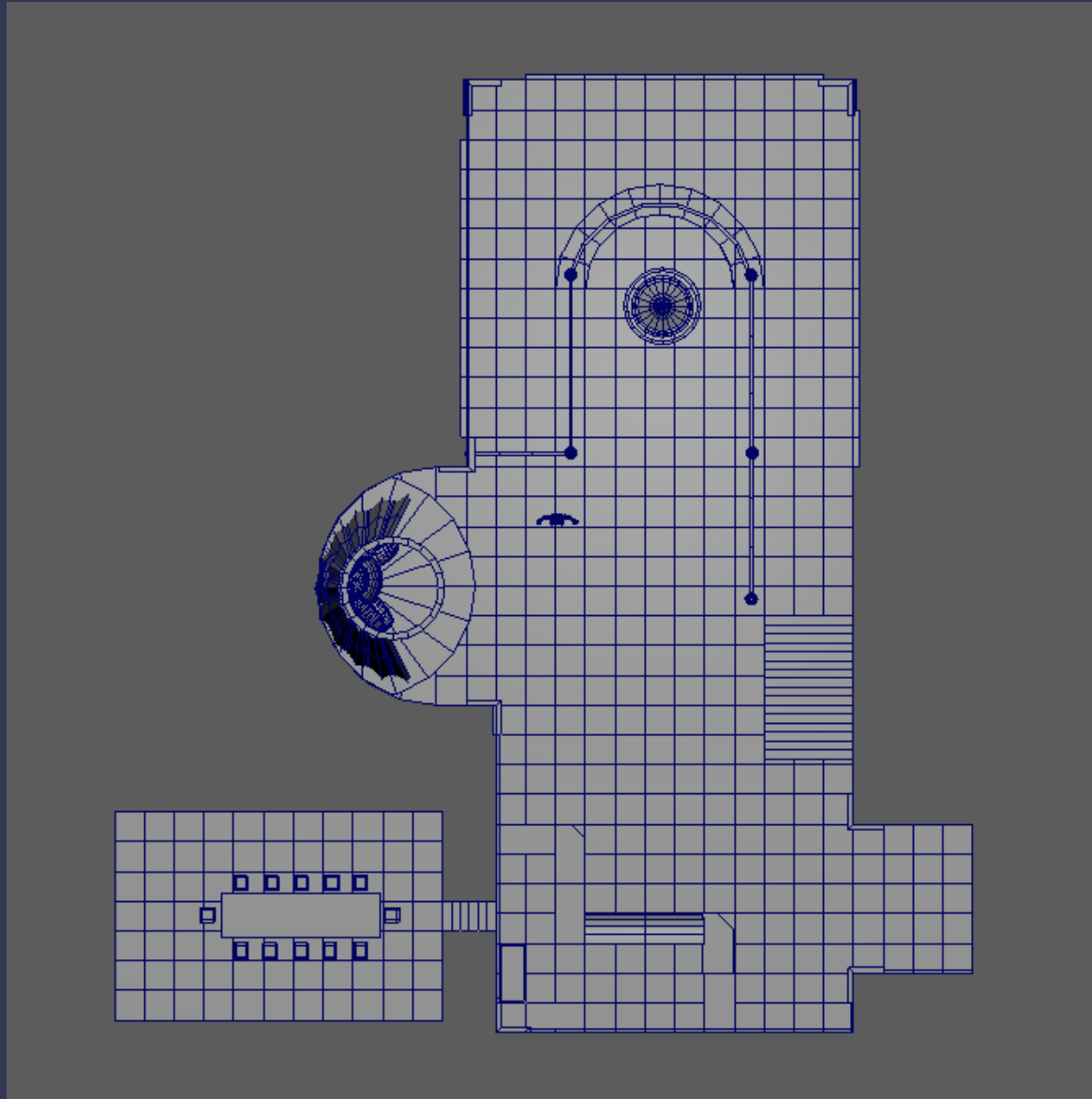
Café prop design - bows



Café prop design – bunny plush



Café layout redesign



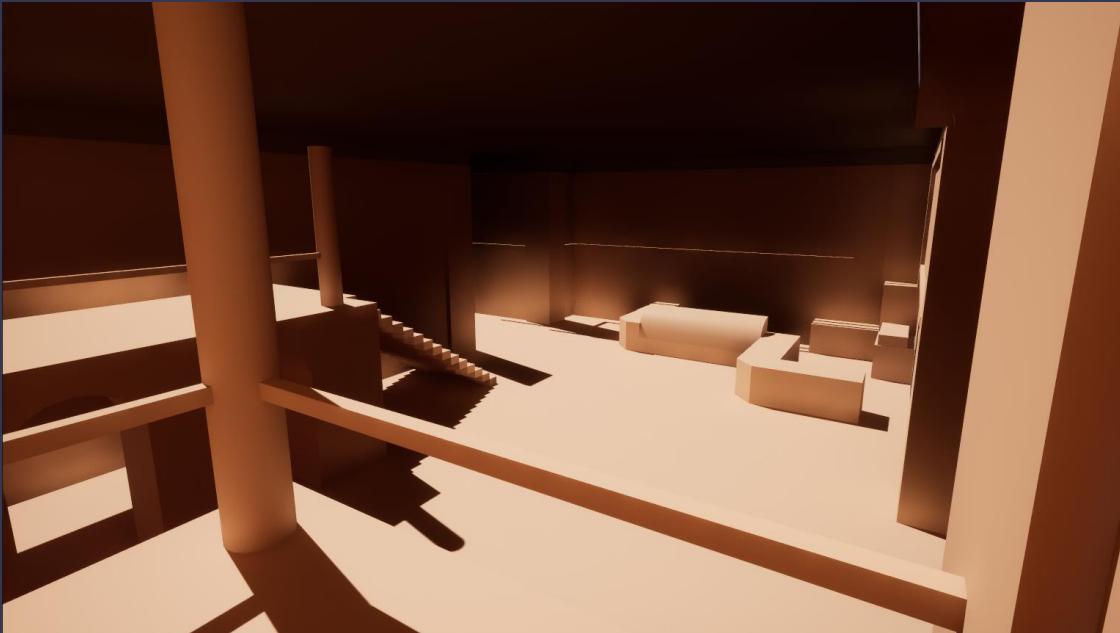
Changed some elements of the final layout.

Integrated more rounded semi-circled elements.

Pushed the stage area as the centrepiece of the scene.

Moved secret room in the bar area.

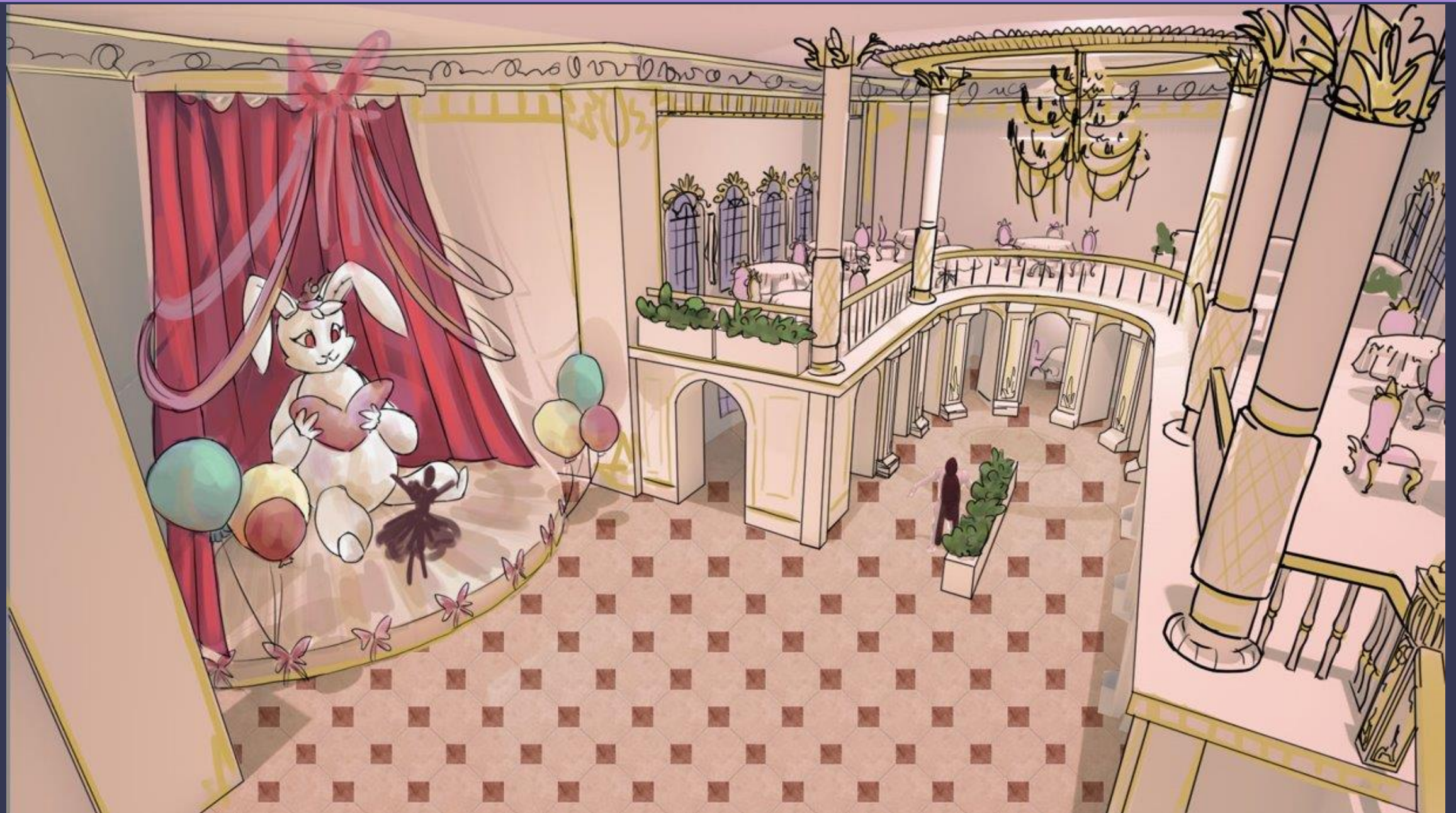
Blockout 2



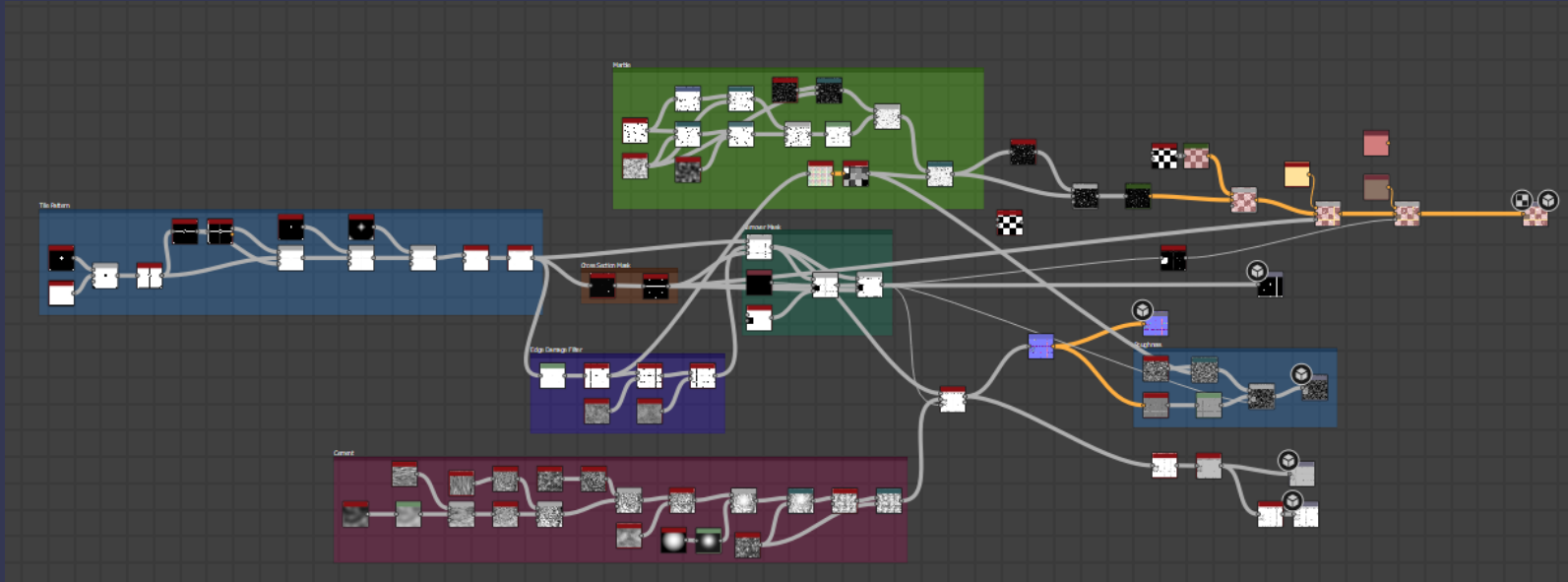
Blockout 2 refinement



Draw over



Technical experimentation- Substance Designer



I began learning Substance Designer and followed a tutorial to create floor tiles.

It was initially confusing, but I made modifications to suit my project.

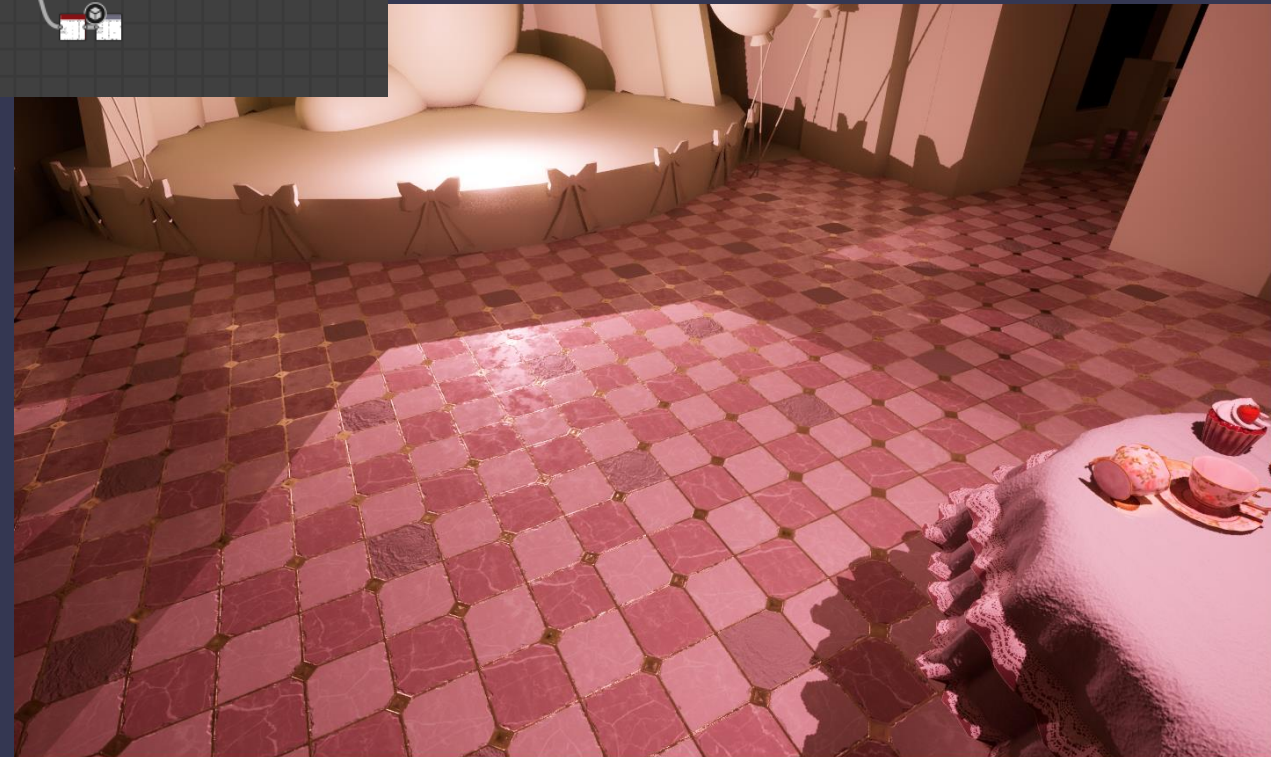
My changed colour version



Tutorial version

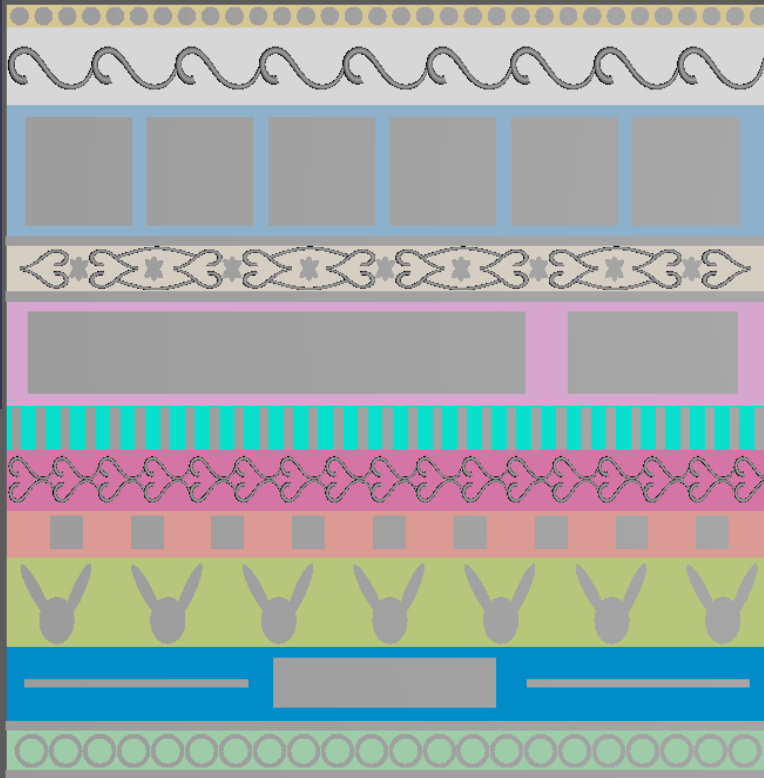


<https://www.youtube.com/watch?v=ov2jSf4fKR4&t=2512s>



Re-planning the modular pieces, trims and seamless mats

Trim blocking



Trim sketch



I spent the remaining time this week revising all the pre-production work I have done in term 1 and making sure I have all the elements I need to ensure a smooth production phase.

For this purpose, I rearranged all the modular parts of the environment, materials and trims and colour coded them.

Stair rail

Wall borders



Wall pieces

Door and Window

Wall Connector

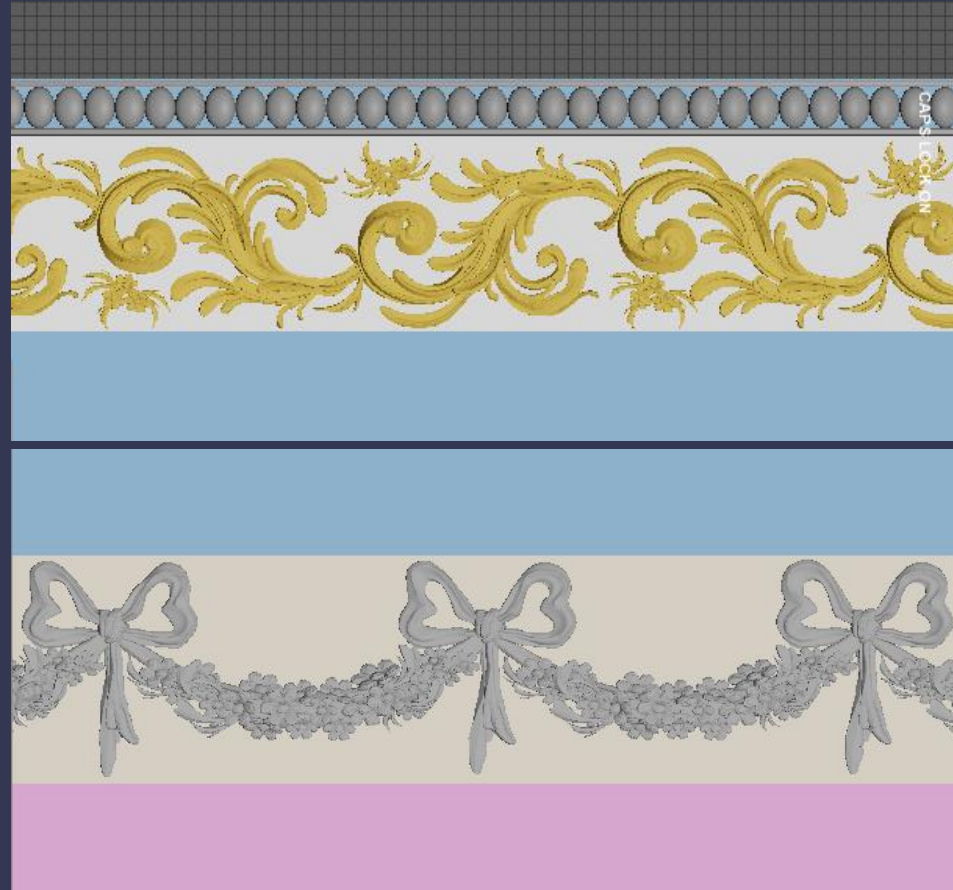
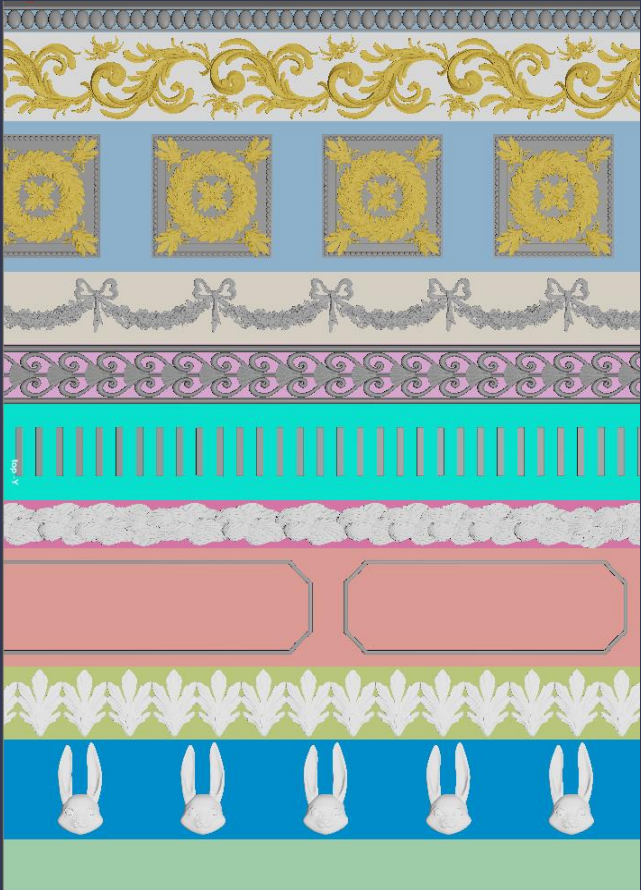
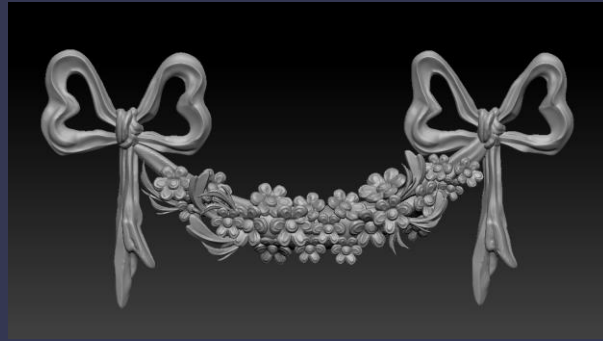
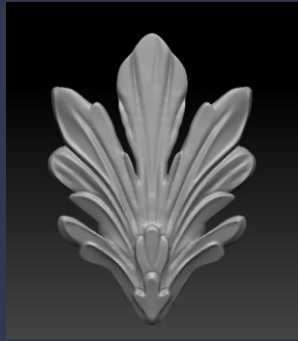
Arches

Pillar

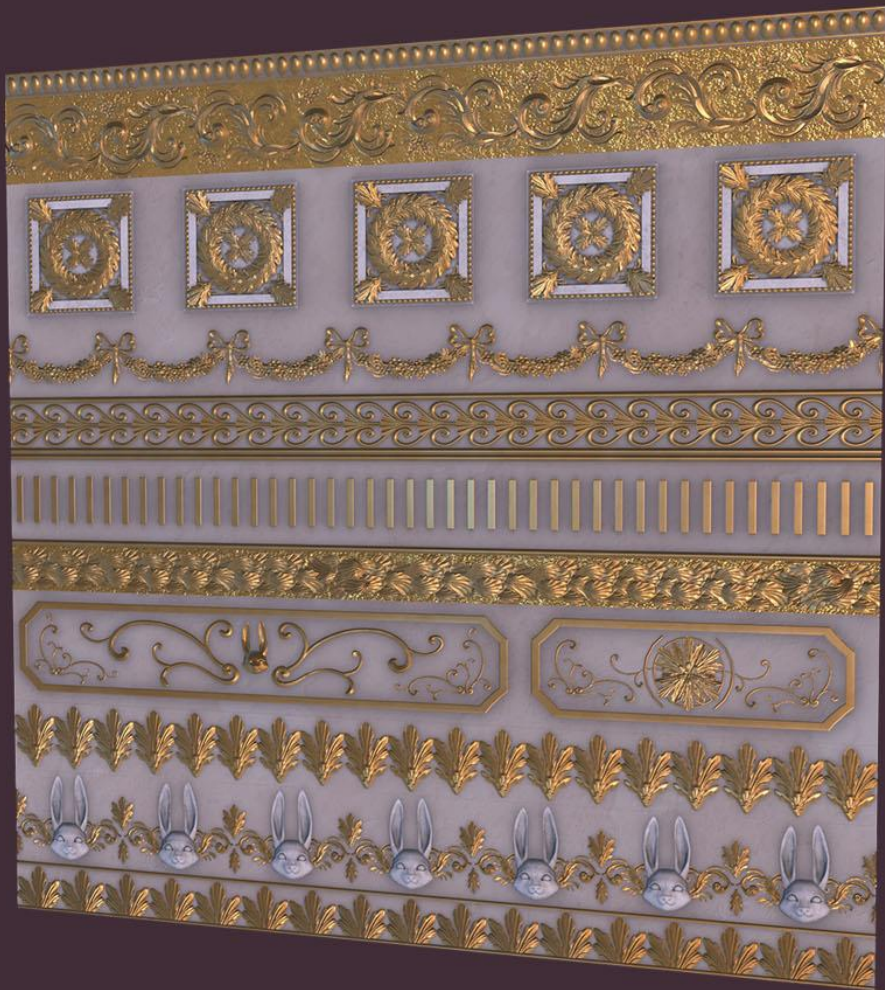
Corners



Trim sheet creation



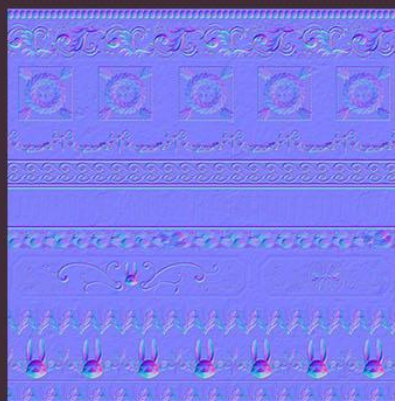
Trim sheet creation



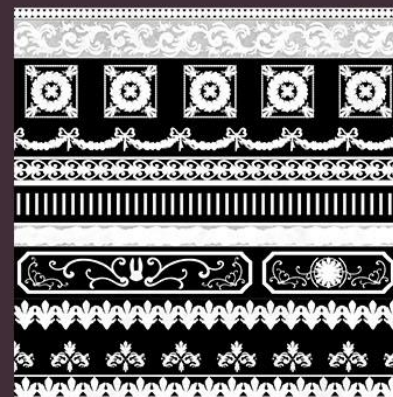
BASE COLOR



ROUGHNESS



NORMAL MAP



METALLIC

Wall pieces experimentation



-played around with the wall shapes and dimensions to get the look right.

-thinking about taking out a second floor?

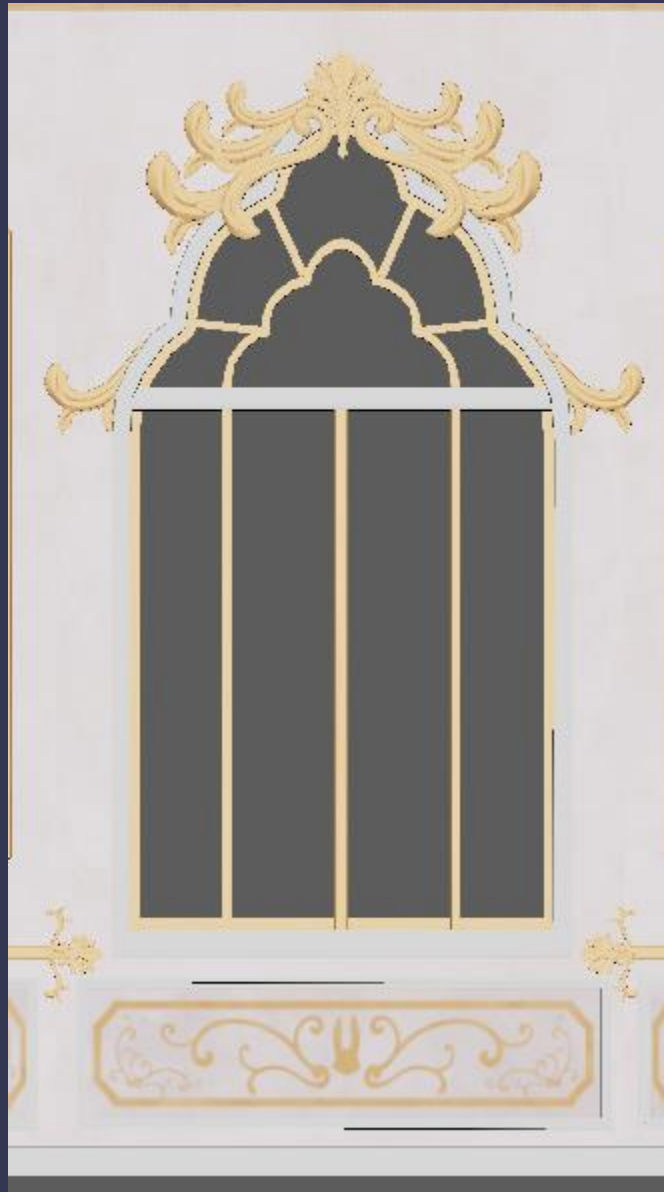
-unreal engine test impression (gold too shiny, wall material too bumped) However, from afar it is not visible.

-need a polished wood material for the borders

-sculpted decorations for the walls

-wall ornaments that will be baked separately

Wall pieces experimentation



Second floor wall part

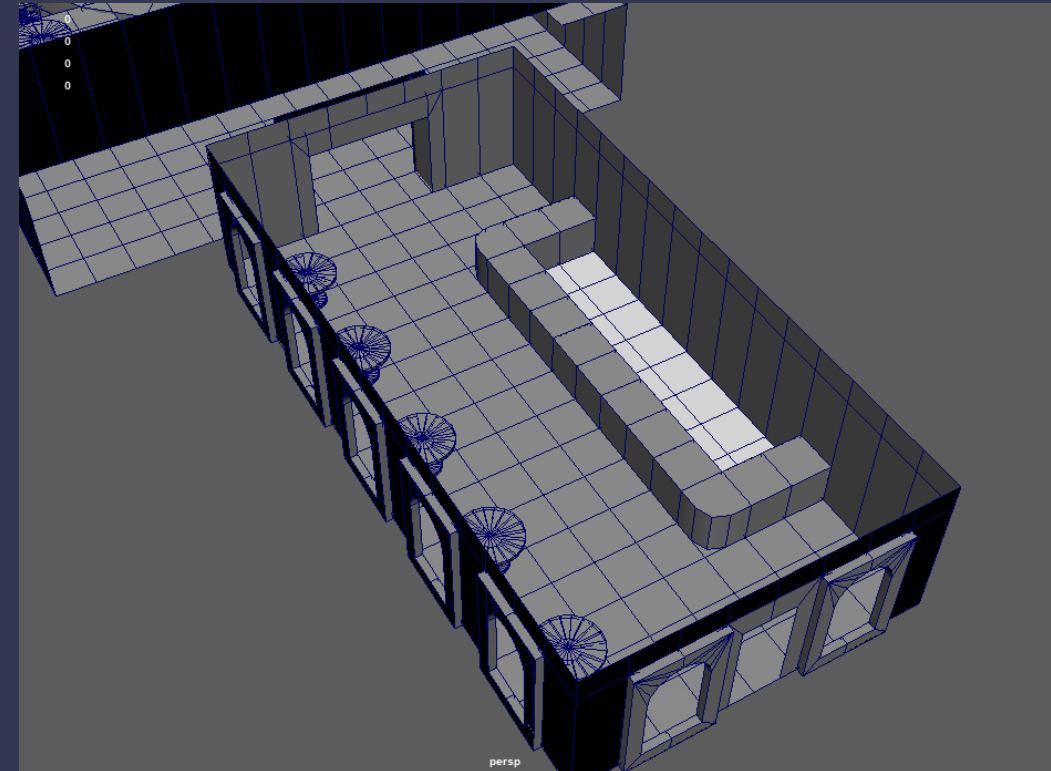
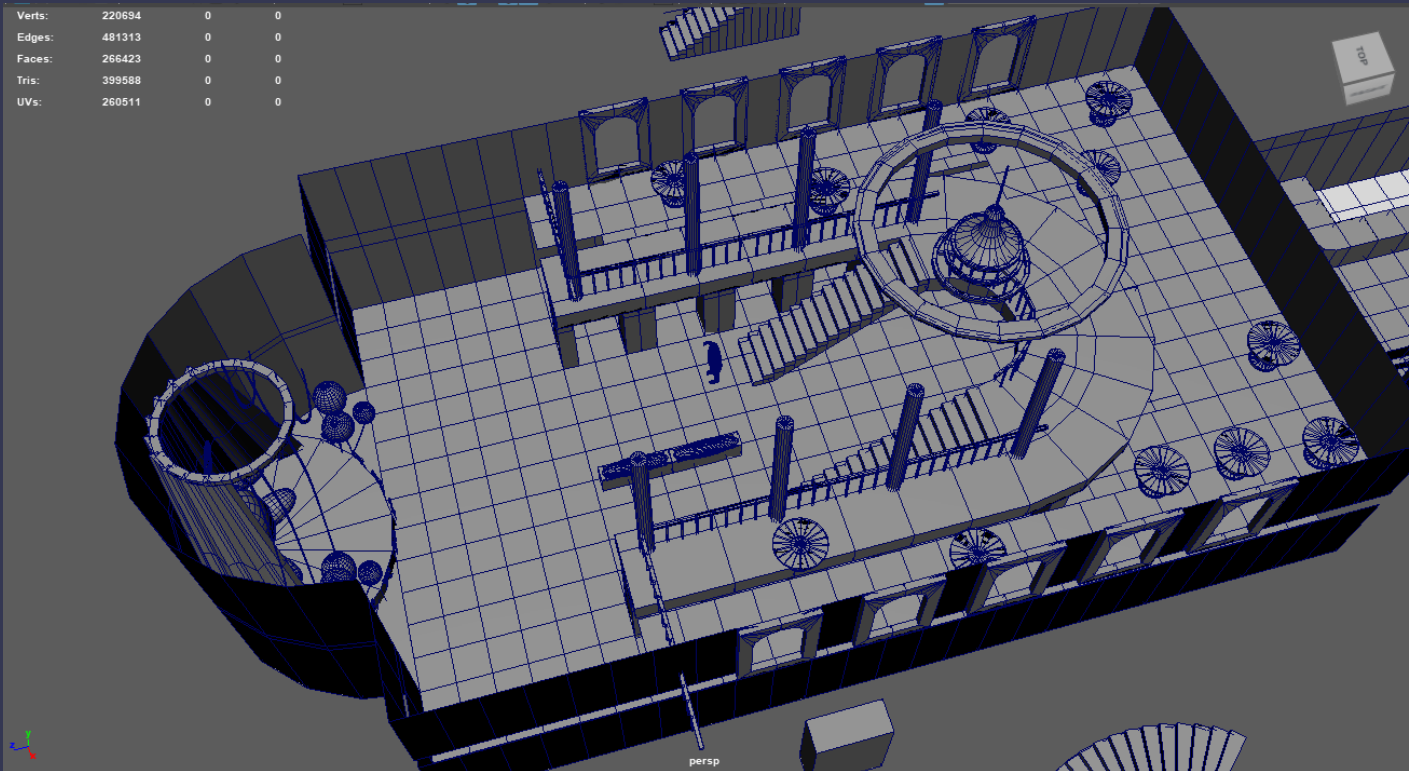


High window experimentation
(not used)



Big wall piece remake?

Blockout 3



Replanned the entire layout because the previous one was just not working out. I tried to make the second-floor idea work but it still did not look quite right. Changes made: the stage was not visible in the previous one so I moved it in front of the audience. The reception part with the sweets sale was not looking right in the same room as everything else. I wanted to have windows in front of the display glass so the people who pass by can see what the inside is about. I added a double staircase instead of a singular one and positioned it in the middle of the balcony so it takes less space at the end and the stage can be closer.

However, even after all these changes, I felt that it was still not working out and was not what I envisioned for this project. The scale of the environment is too big for a cosy café and it doesn't reflect the atmosphere or look I was going for. Going forward I will try to scale down the environment and replan the layout.

Blockout 4: Unreal wall test and light experimentation

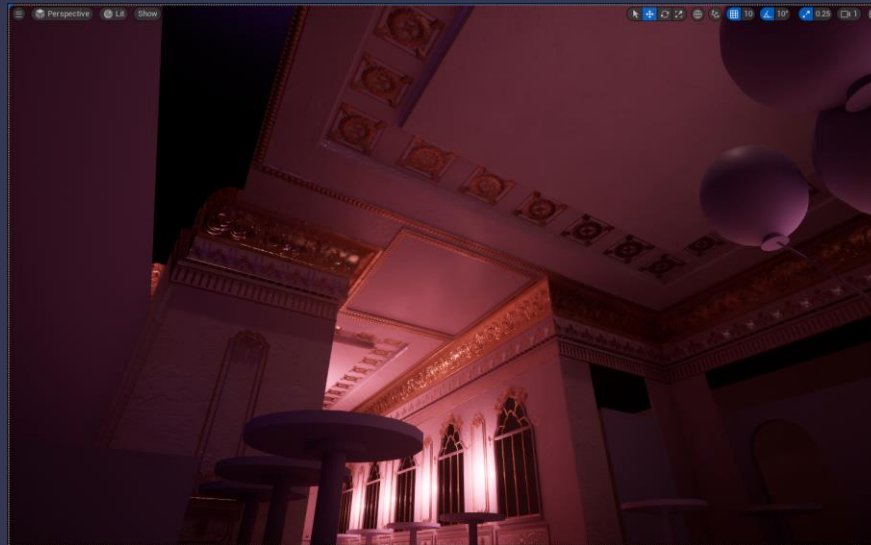
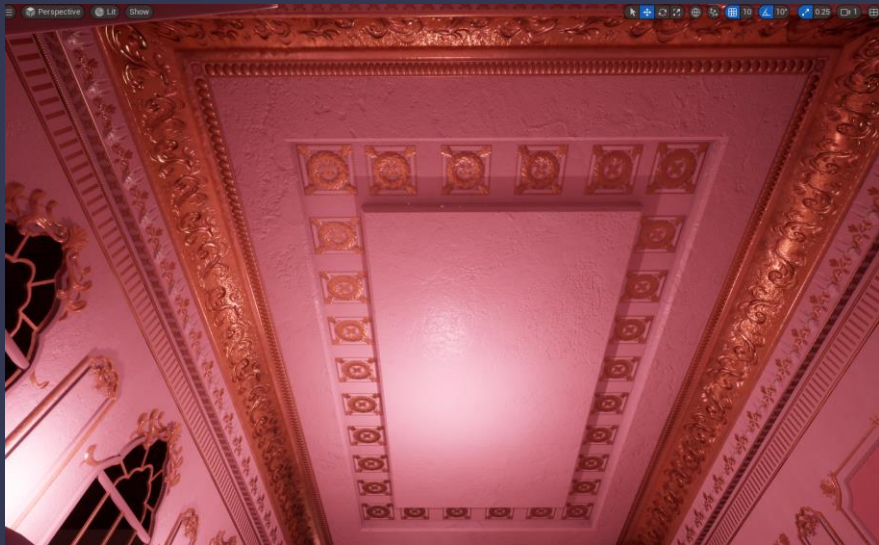
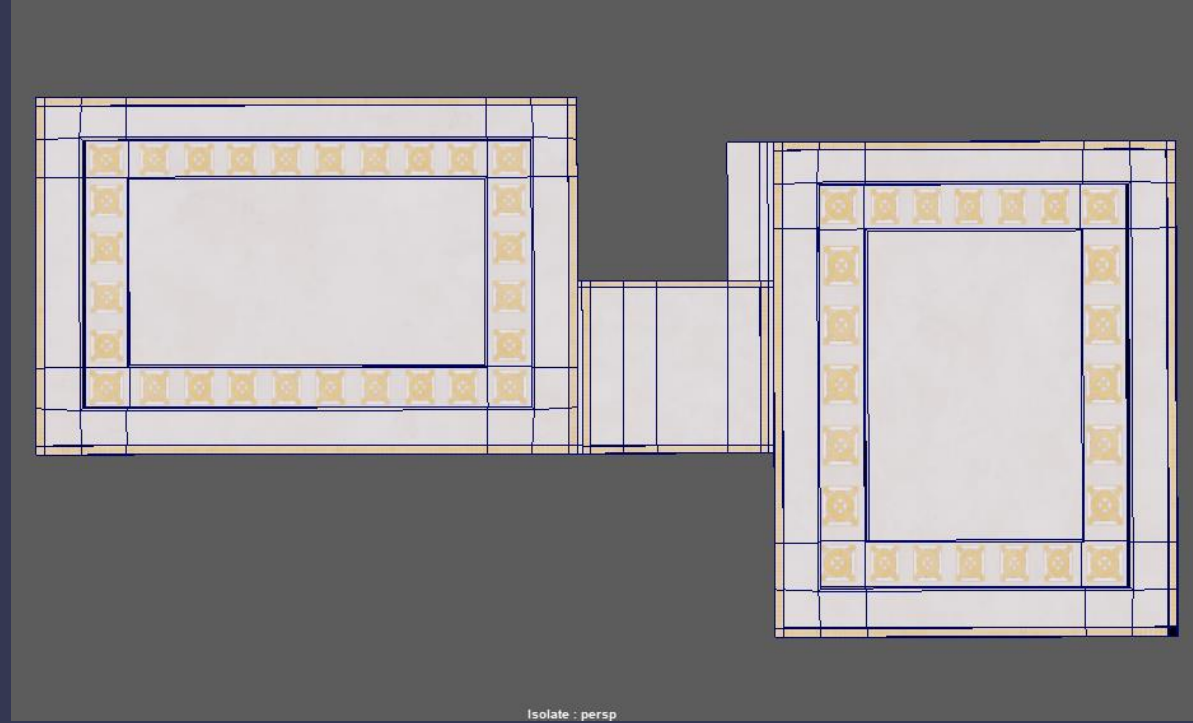


After remaking the layout yet again, I imported all the wall assets I have created up until now and tested them.

Some measurements were off, so I tweaked them in Maya and made them tile nicely in the environment.

I created new corner pieces to tie everything together but I still need to work on some decorations to put on them since they look quite plain.

Ceiling



-shape language too simplistic, not interesting

-all details and forms are big and exaggerated so they get neutralised and everything seems small.

-feeling lost on what to do next

Blockout 3 re-exploration



-tried out the big layout remake I previously made.

-decided to let go of the small café elements and fully go into a grand maid café like entertainment venue where people can also enjoy beverages and sweets on the side if they wish too.

-I don't have a clear camera view in this scene. Although I want the stage to be the focal point, I couldn't find an angle that satisfies this wish and also showcase the architectural elements of the other half of the room since they are in opposite directions.

-In the meantime I asked for advice on a 3D environment art discord server and hope to get some feedback on this issue from there as well.

Prop sculpting: Chandelier high poly sculpt



zBrush Sculpt



Final high poly

After I sculpted the model in zBrush, I made some adjustments in Maya to the number of arms and also added a candle support and hanging crystals.

Props development: Wall Lamp

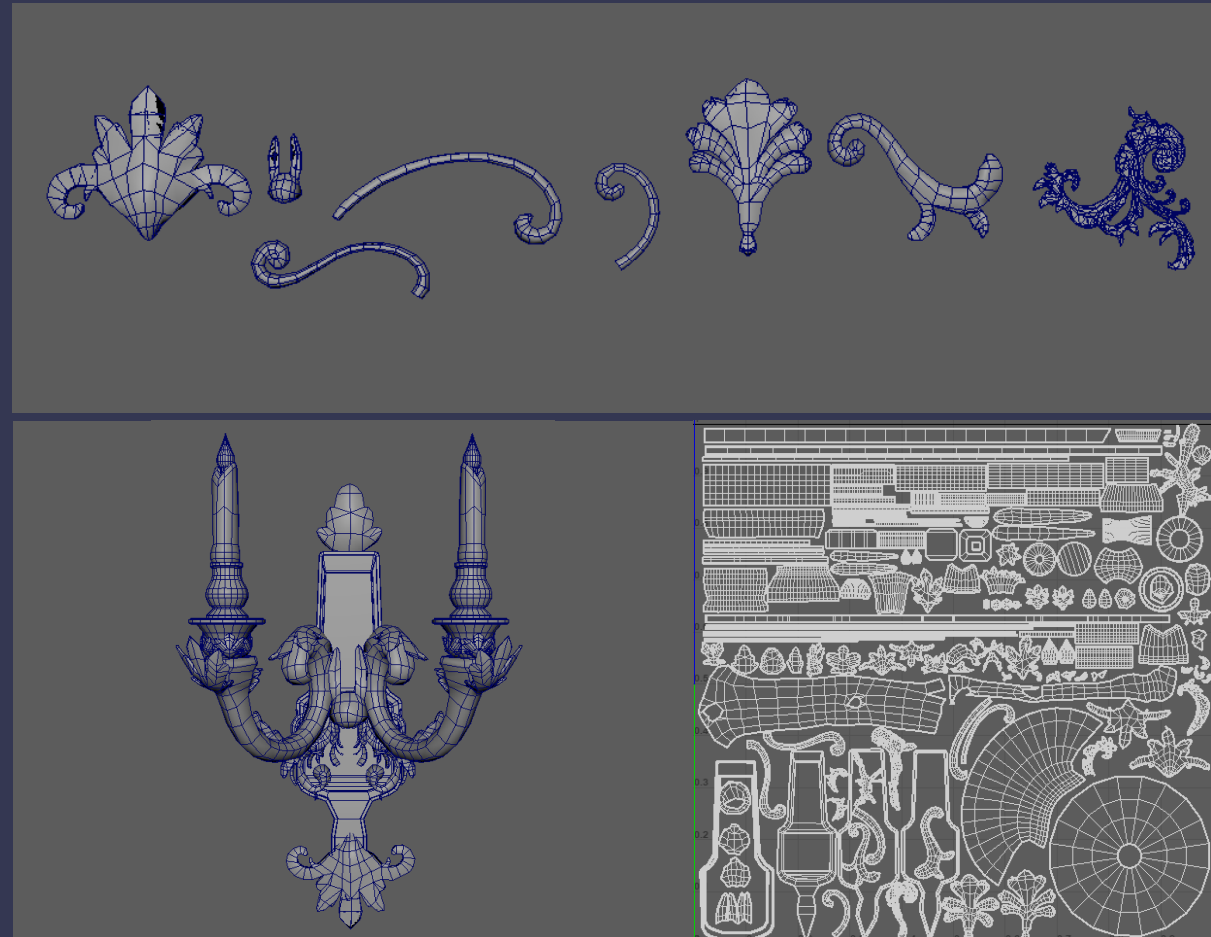
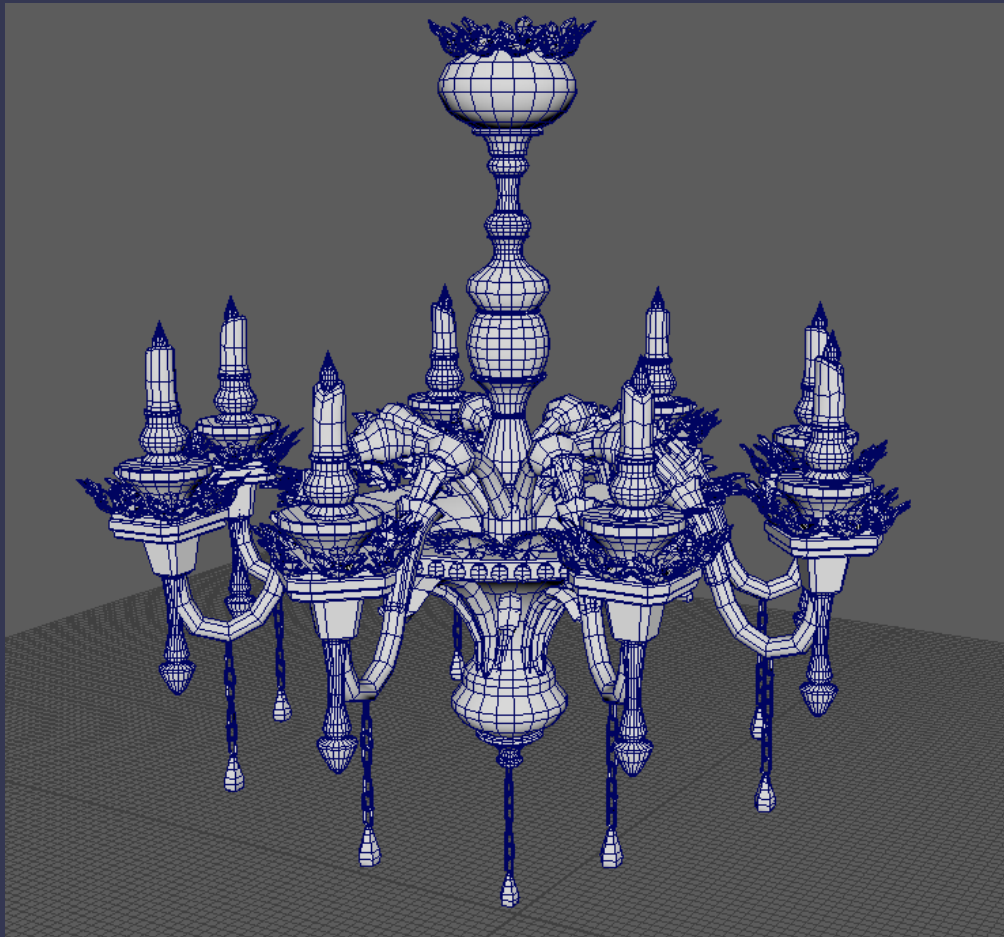


zBrush Sculpt



Final high poly

Props development: Tables and chairs



Besides sculpting the chairs and tables, I have also retopologised and UV unwrapped the chandelier and lamp which took more time than expected. They share the same UV sheet as well as the ornaments and will be textured together.

Props development: Chandelier finished



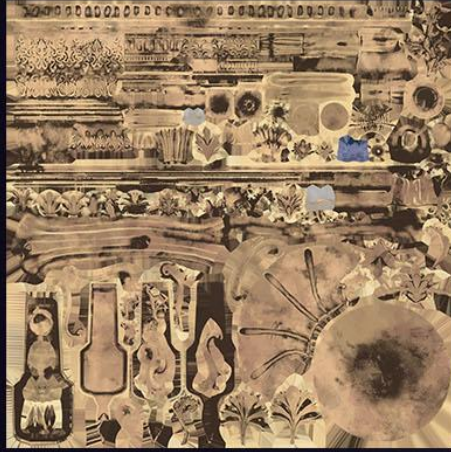
CHANDELIER TOP VIEW

Props development: Chandelier finished

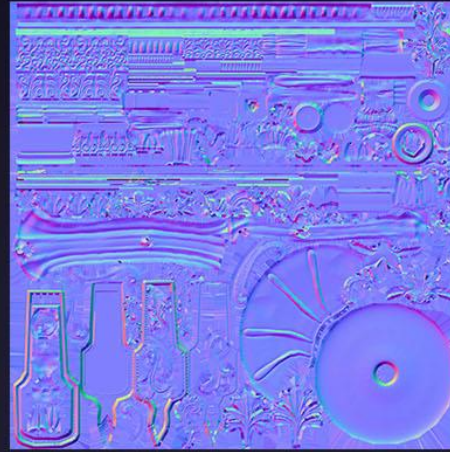


CHANDELIER BOTTOM VIEW

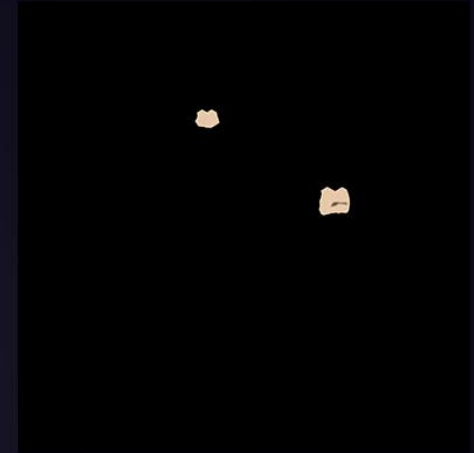
Props development: Chandelier finished



BASE COLOR



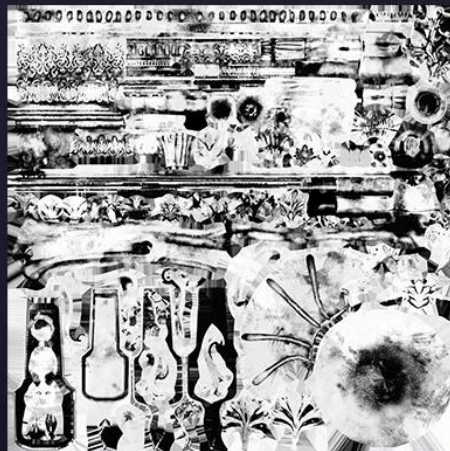
NORMAL MAP



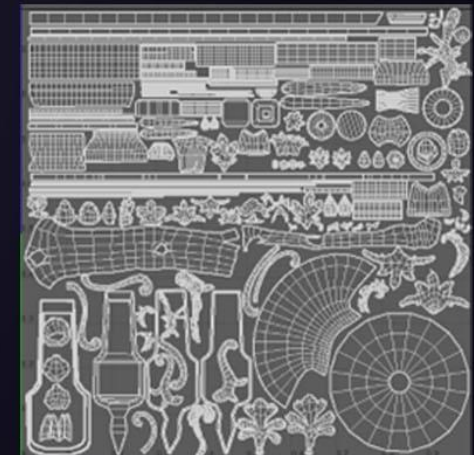
EMISSION



ROUGHNESS



METALLIC



UV

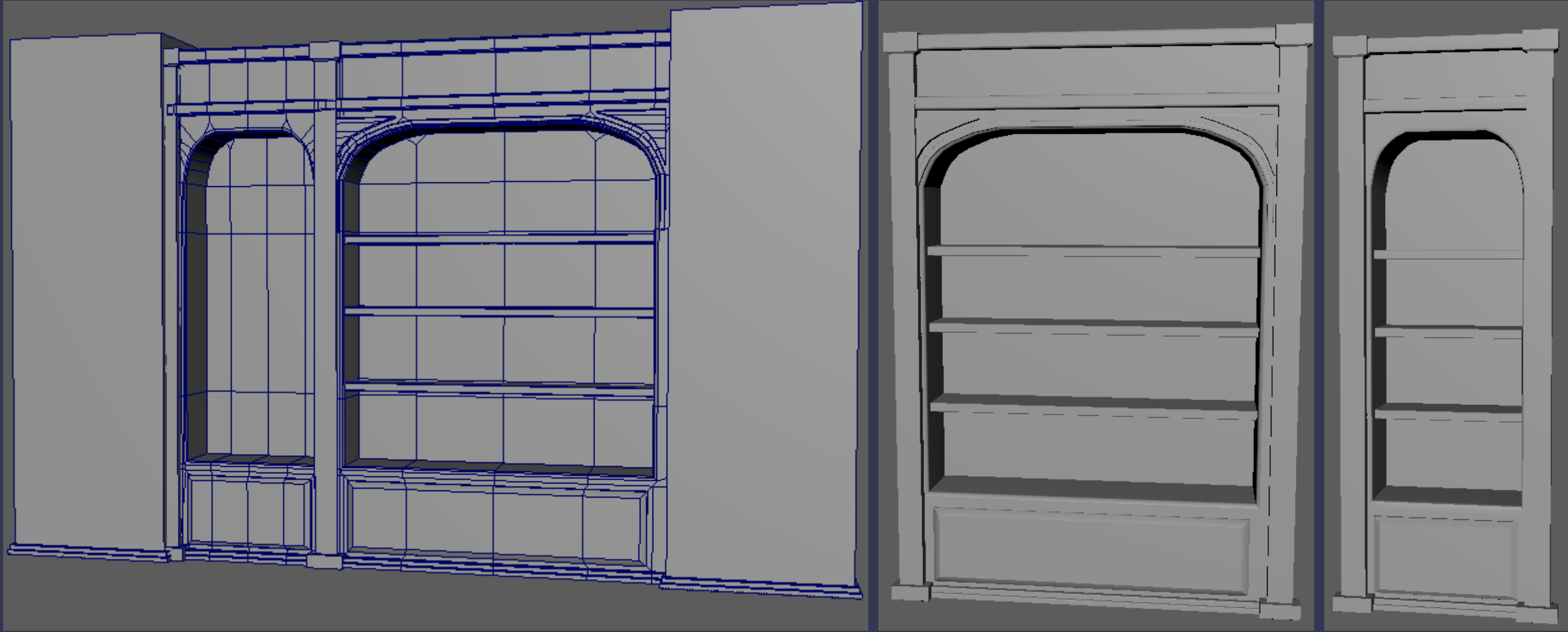
CHANDELIER MAPS

TOTAL TRIS: 68 252

Props development: Ornament modular set

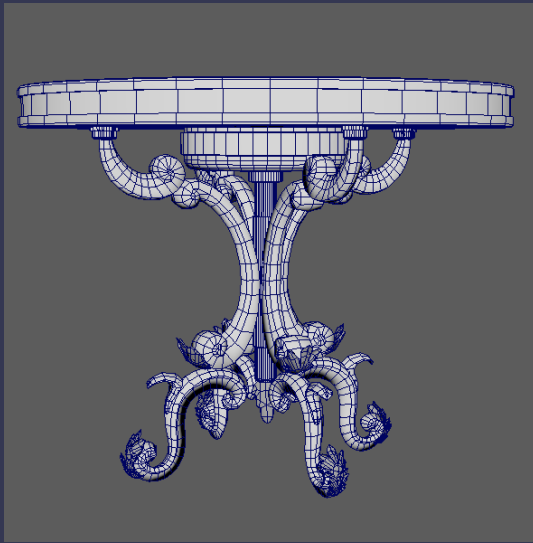
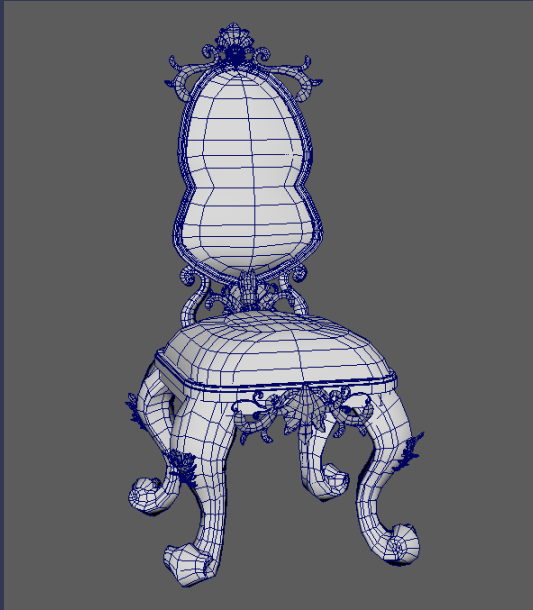
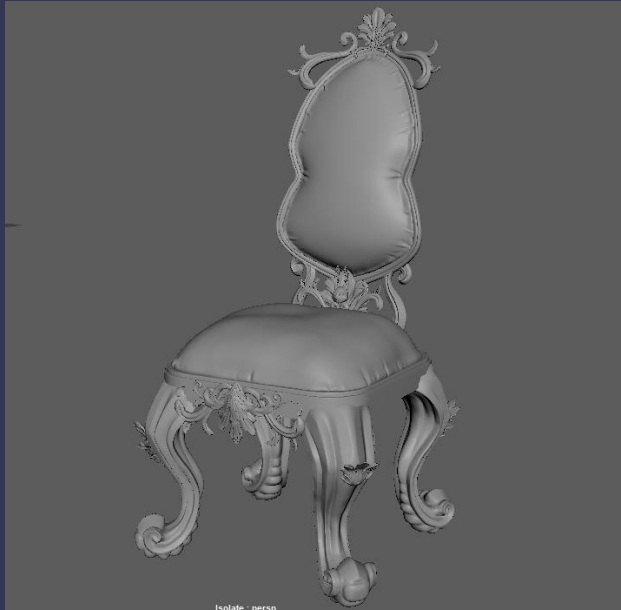


Props development: Shelves

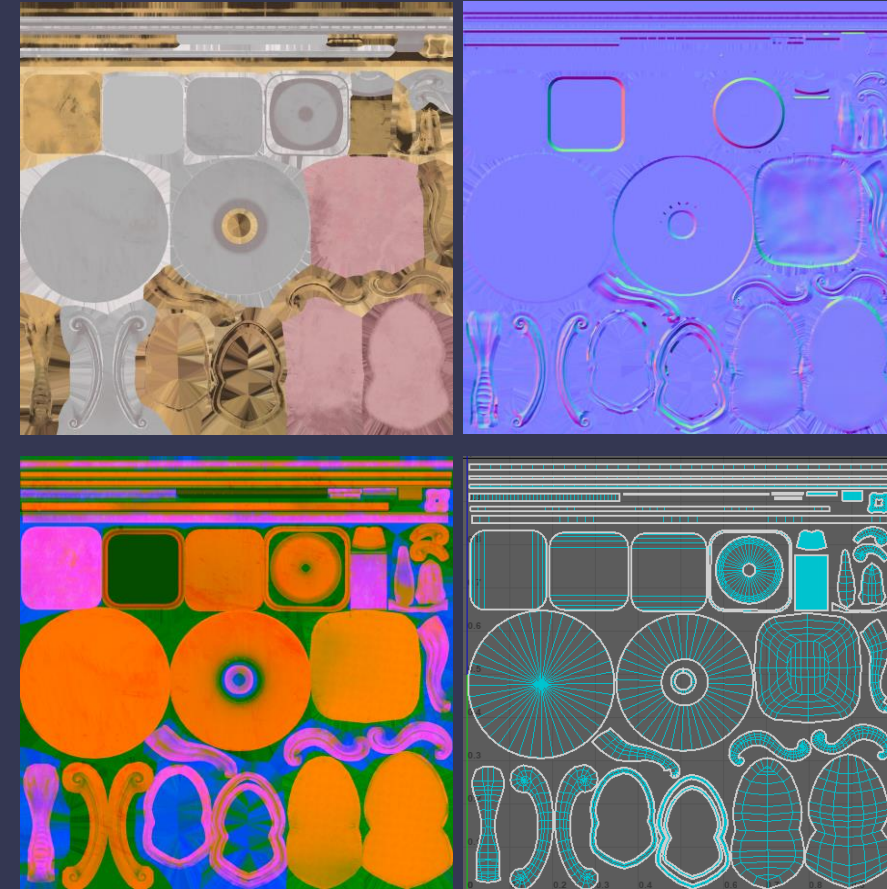


-I will need to prepare a wood trim sheet for all the shelf details and borders. I am thinking of creating another version of my previous trim, where the wall background is replaced by a wooden texture so I can reuse it on the other props.

Props development: Tables and chairs finished



For all sculpts I reused a lot of ornaments and elements that I have previously used. Both chair and table have parts put together from ornaments previously baked with the chandelier. This way I can speed up the process while getting detailed sculpts.



Further in development I refined the look of the textures and color corrected the gold and wood materials

Props development: Scene development



I focused on fixing the proportions of the layout of the scene. I raised the second floor a bit higher and expanded the space in the middle so it's not claustrophobic. I added more elements to the blockout and started working on the pillars and fabrics like ribbons and curtains.

Stage Development



After a couple of tries, I managed to get a shape that I was happy with.

There are still a lot of elements that need to be added to the design of the stage, but for now this is the new block-out.

Curtains

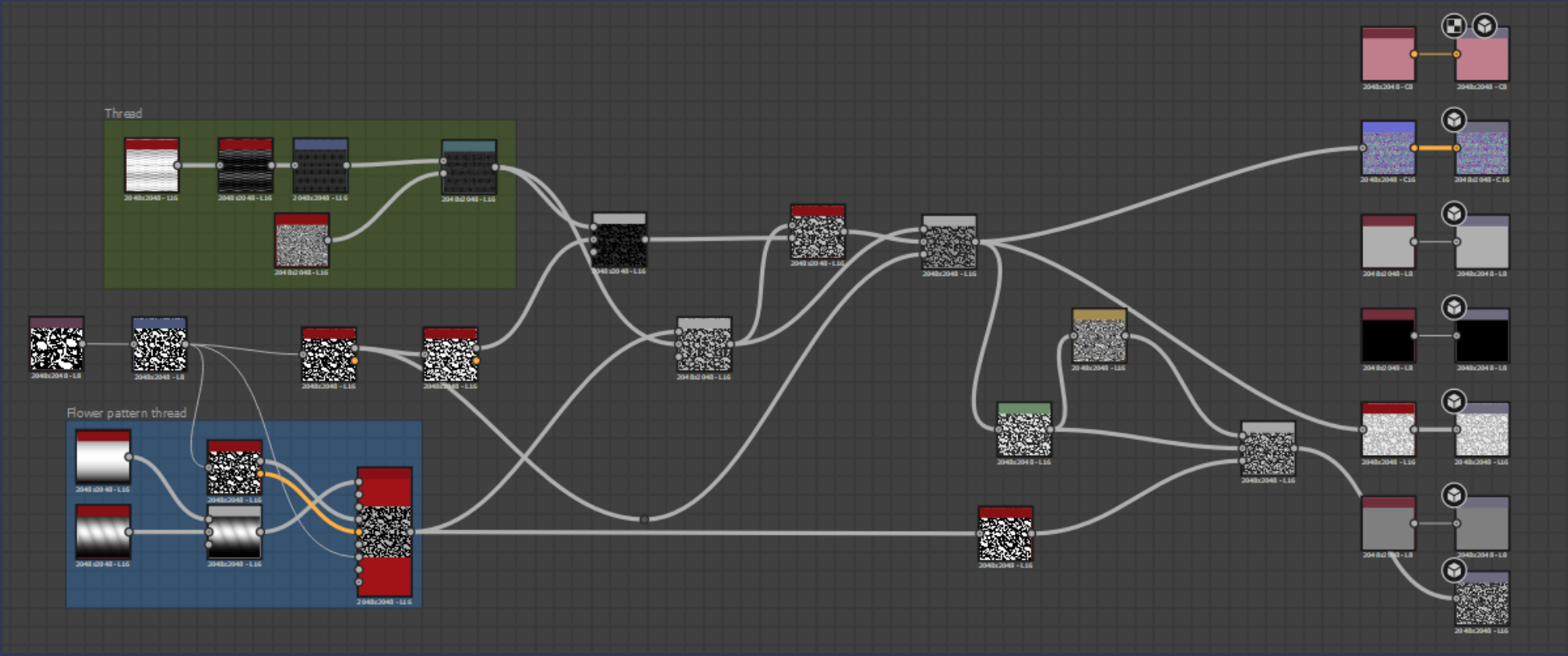


It was tricky to get the shape of the curtains and fabrics hanging right, but eventually I got something that I think works.

I used the Maya Cloth sim and played around with the settings to get the shape right.

I created a lace material in Substance Designer to texture the meshes.

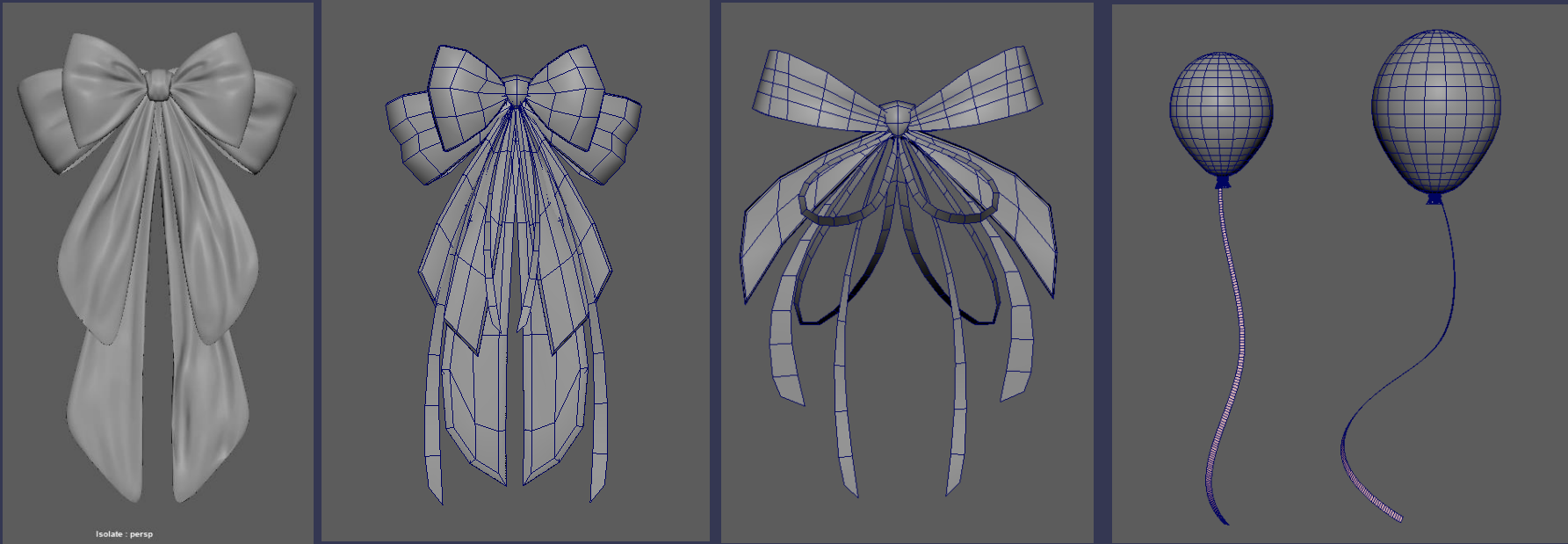
Curtains Material



Picked up substance designer again to try and create a lace material for the curtains.

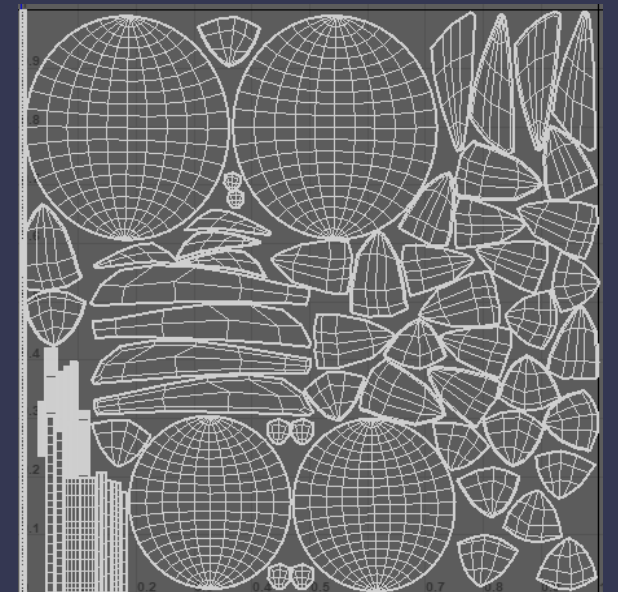
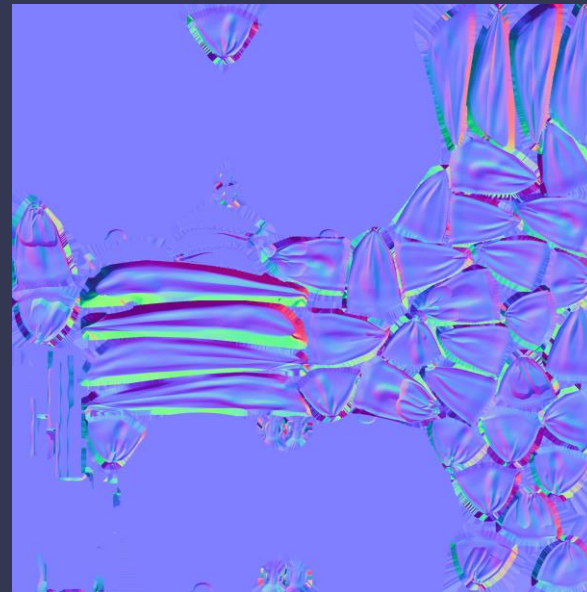
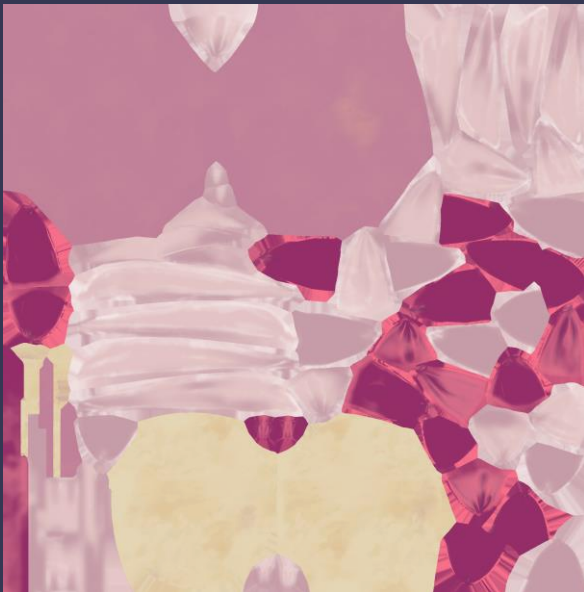
For the flower pattern, I created a black and white mask separately in photoshop and used in to mask the thread.

Prop development: Ribbons

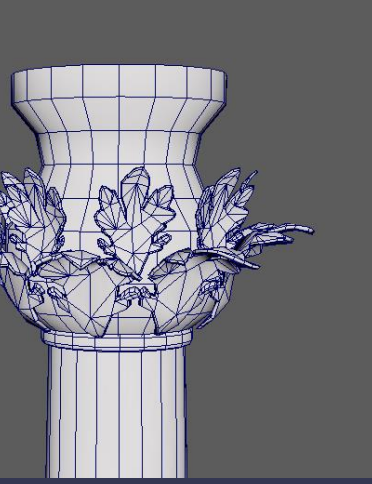
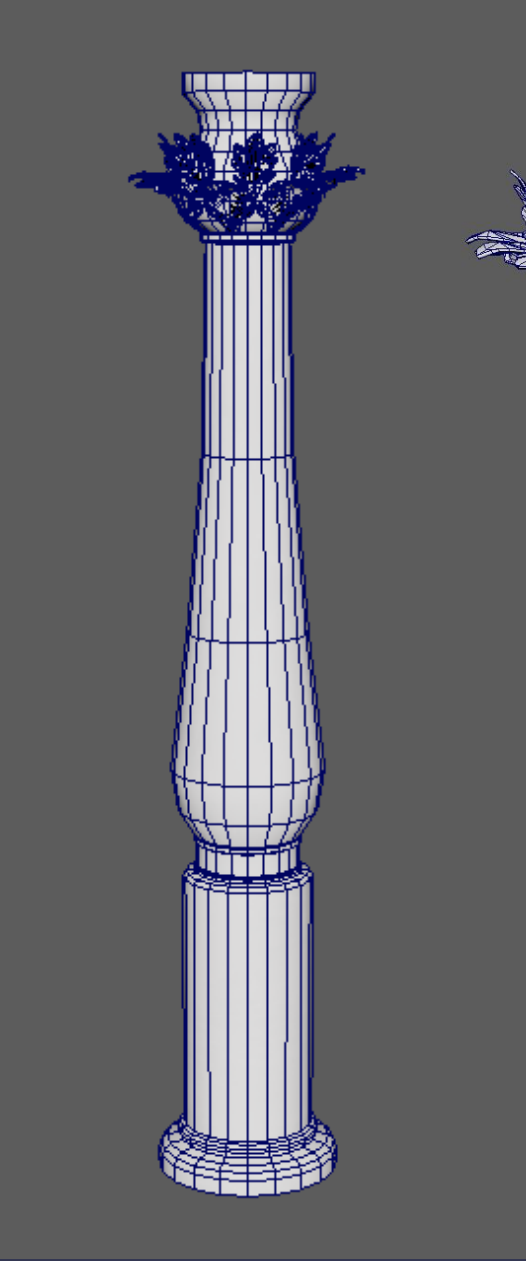


The ribbons and balloons are very important for the décor and style of the scene.

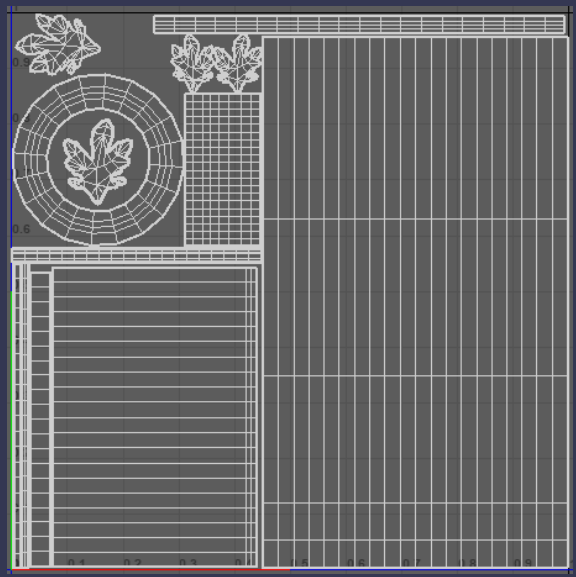
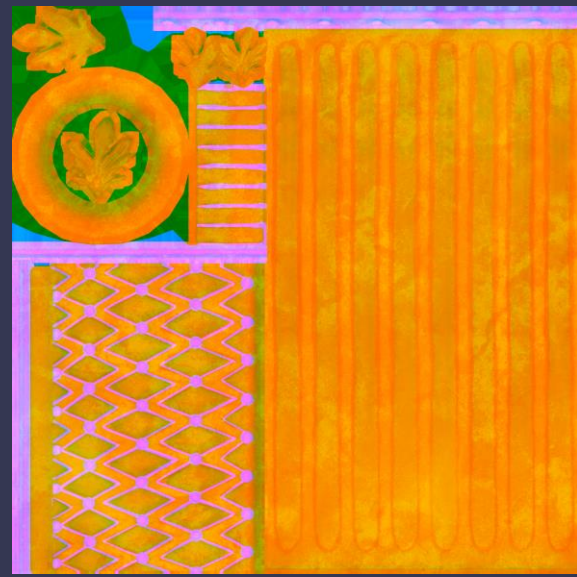
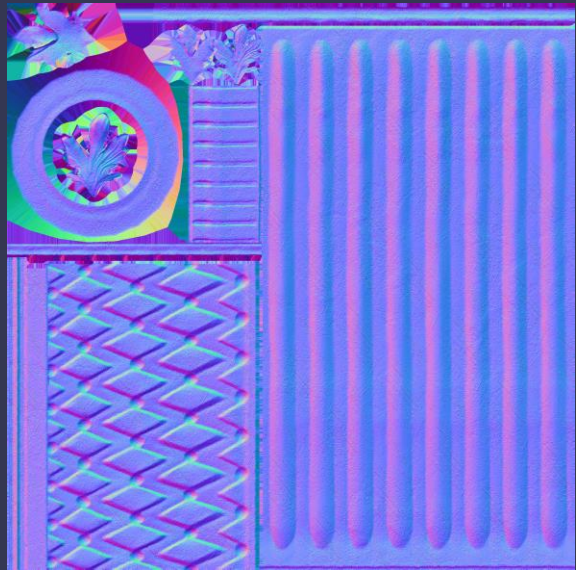
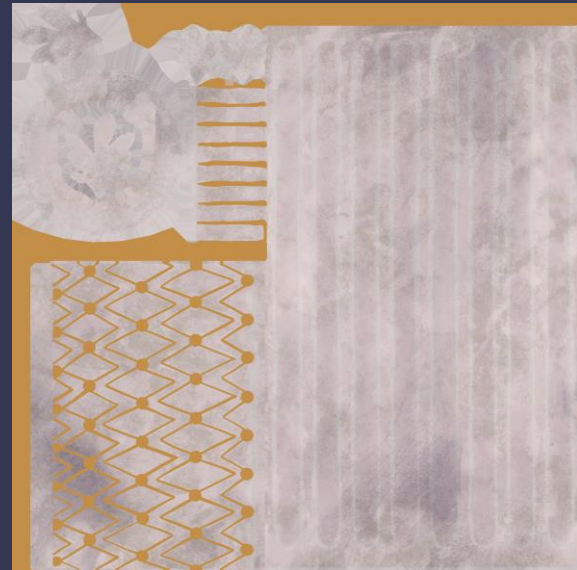
I created 2 main versions based on the concept art created that I can change and create variation to use in different parts of the scene.



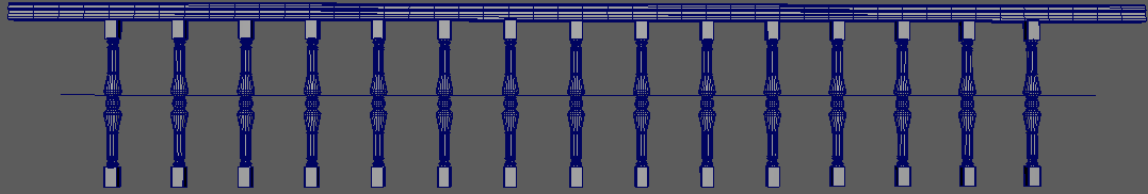
Prop development: Pillars Models



The pillars also use some parts from the modular ornament kit to decorate the top part. However they had to be retextured to match the material.

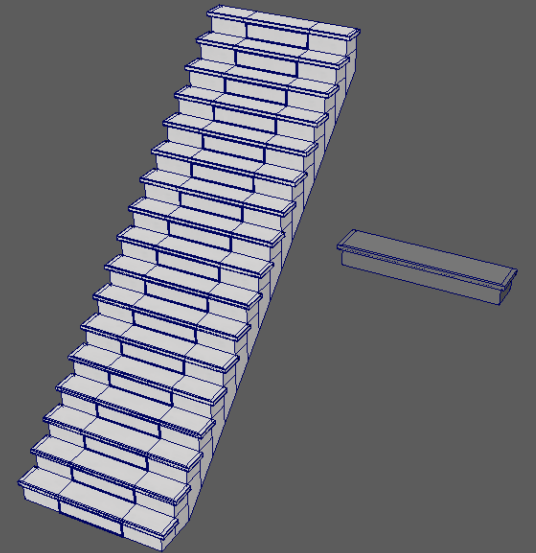
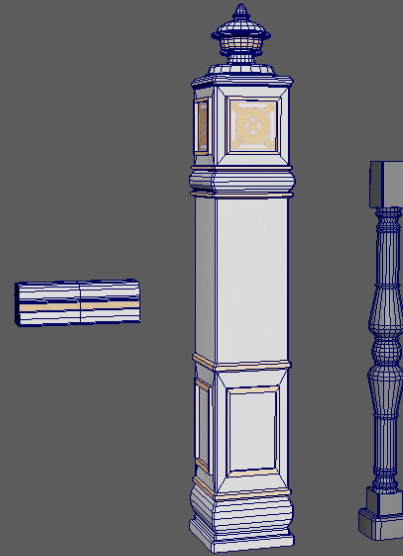
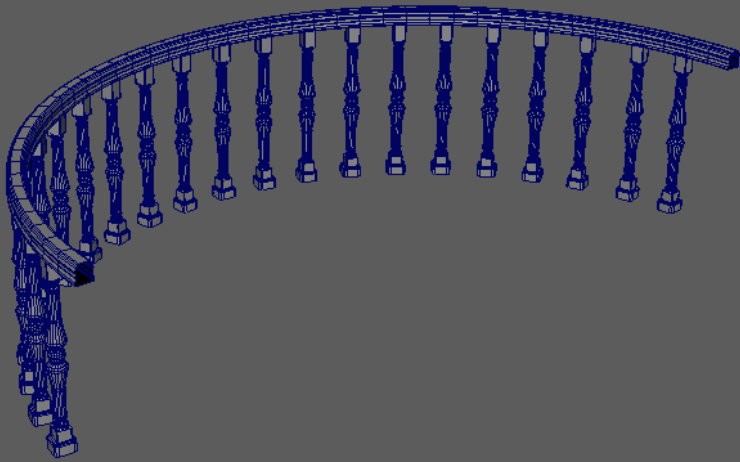


Prop development: Pillars and Stairs



Created modular pieces for the steps, railings and pillars

The assets are textured with tileable materials and trims

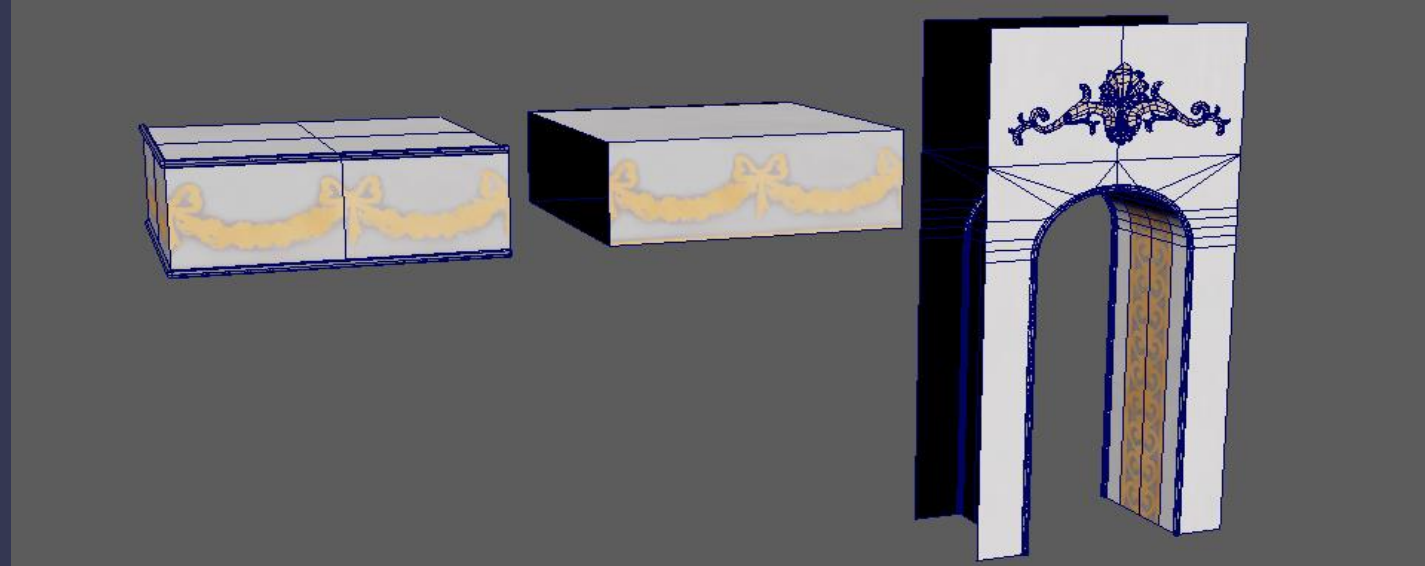


Prop development: Pillars (wall and stairs) Final Look

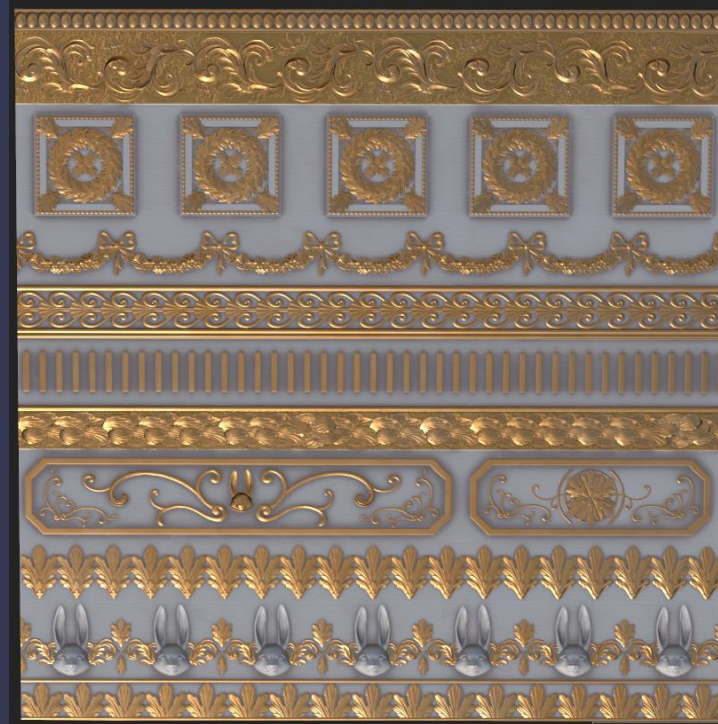


- used ornaments from the modular set
- stair step is modular and adjusted to fit the scene height

Prop development: Arches



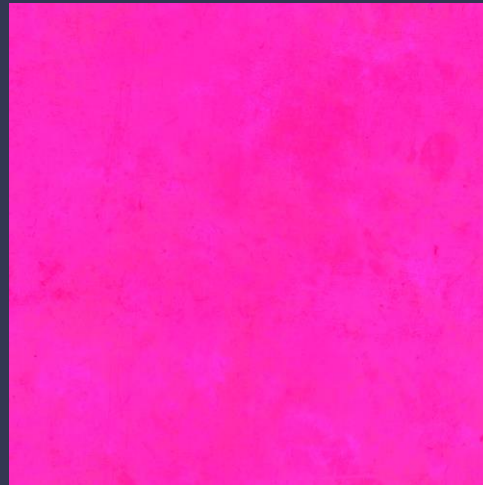
Changes to existing textures



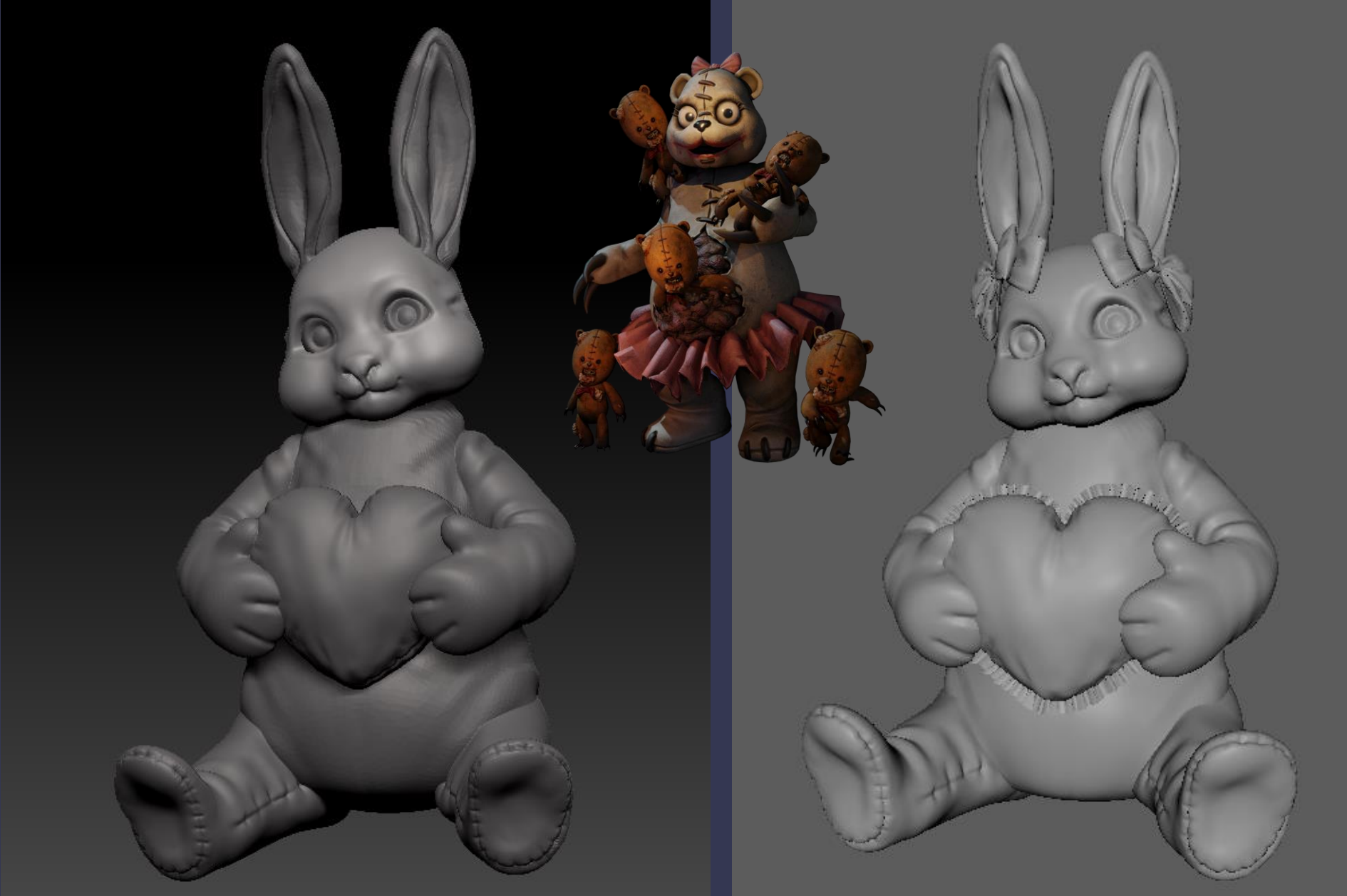
-Reused the wall trim sheet to create a wooden one to texture some assets

-remade the gold tillable material to match the gold in the scene better

-touched up the tables and chair texture to fix areas that looked off.



Props development: Big Bunny Plushie



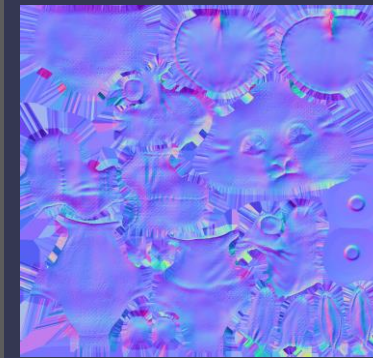
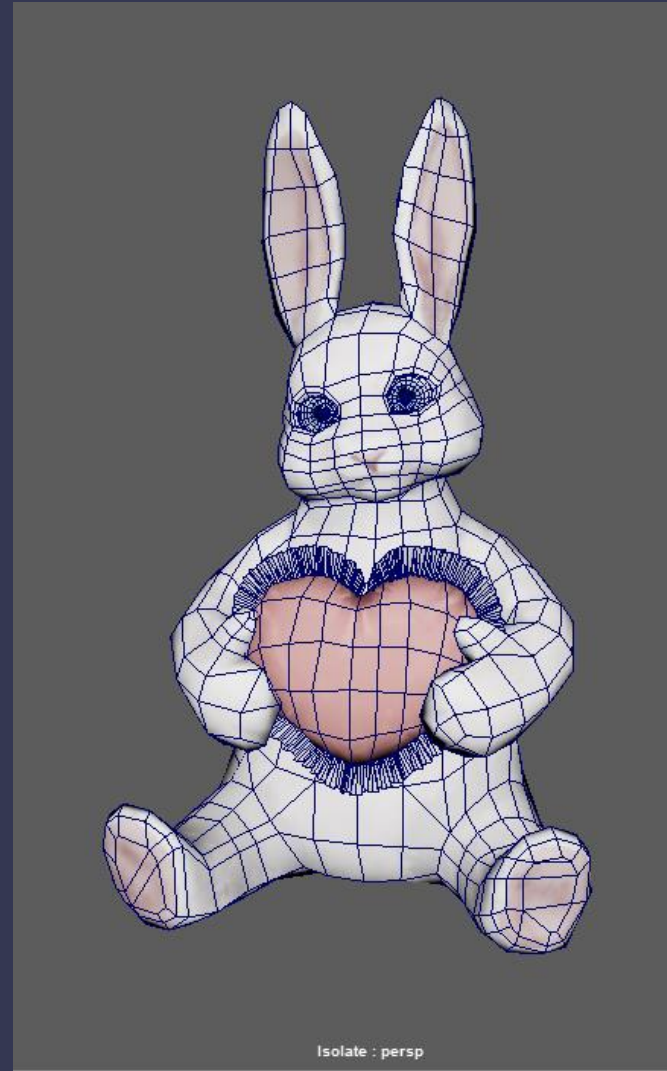
I made some changes from the original design to make it look a bit creepier and more like a plushie.

I heavily referenced some previous mentioned characters from the games "Duck season" and "Dark Deception" and old bunny toys.

I added the ribbons and ruffles in Maya.



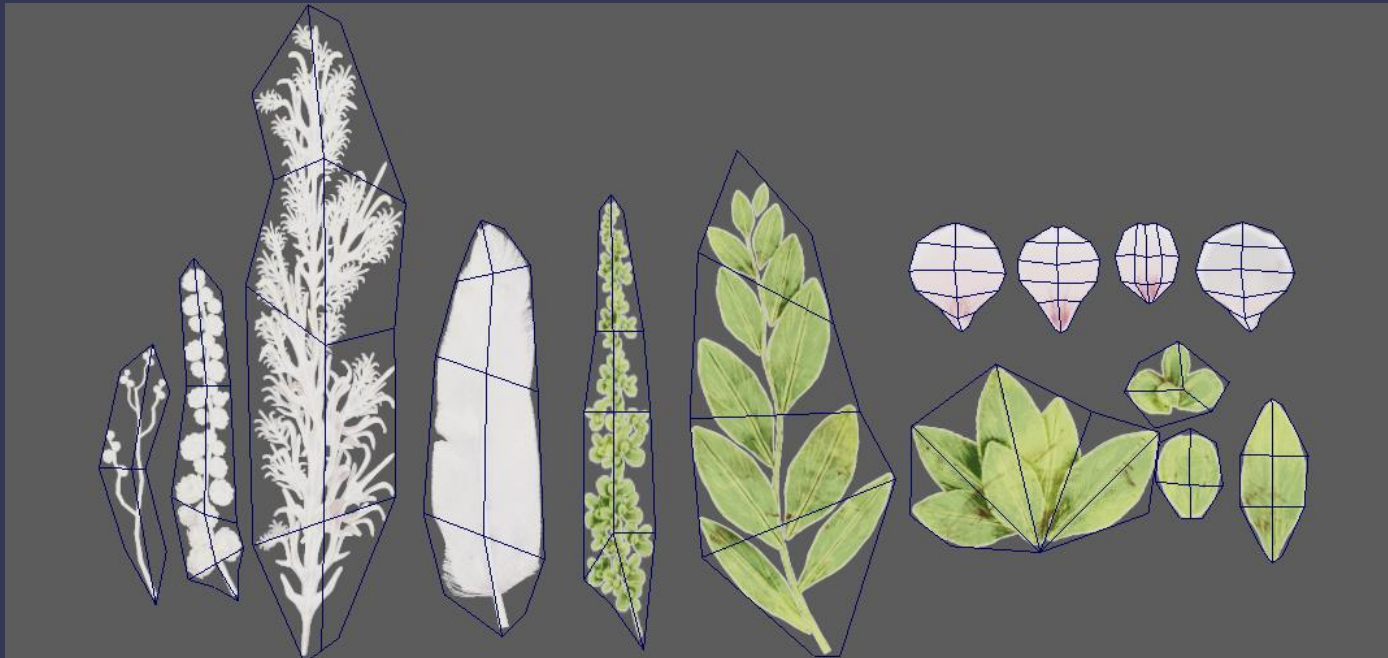
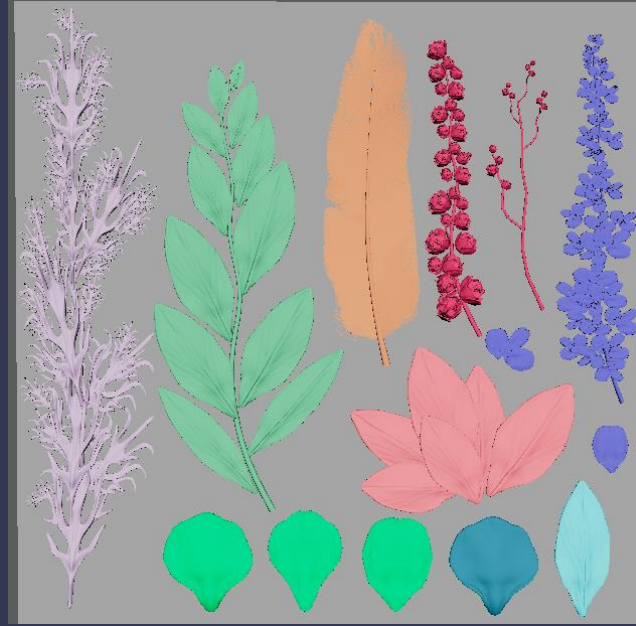
Props development: Big Bunny Plushie



Texturing the big plushie was interesting since I wanted to create a short fur effect without actually using xGen particles.

After a couple of tries, I managed to get a look I was happy with in Substance Painter.

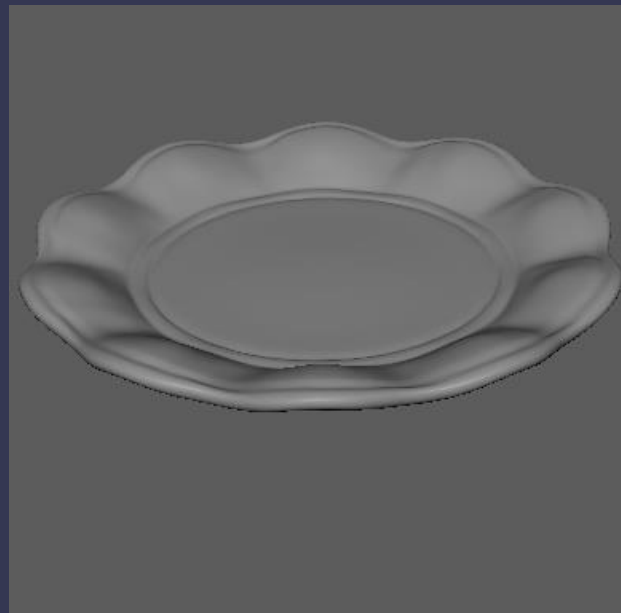
Changes made in Spring Break



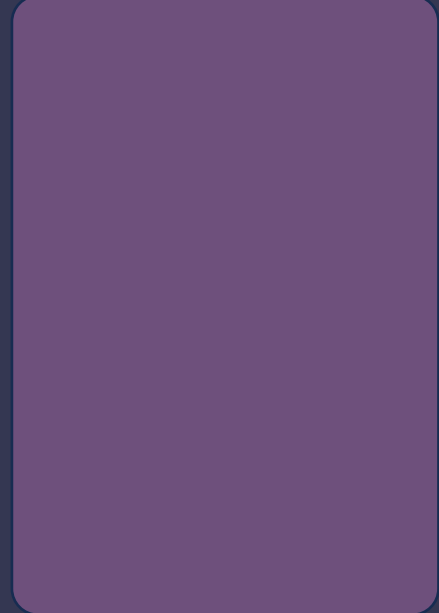
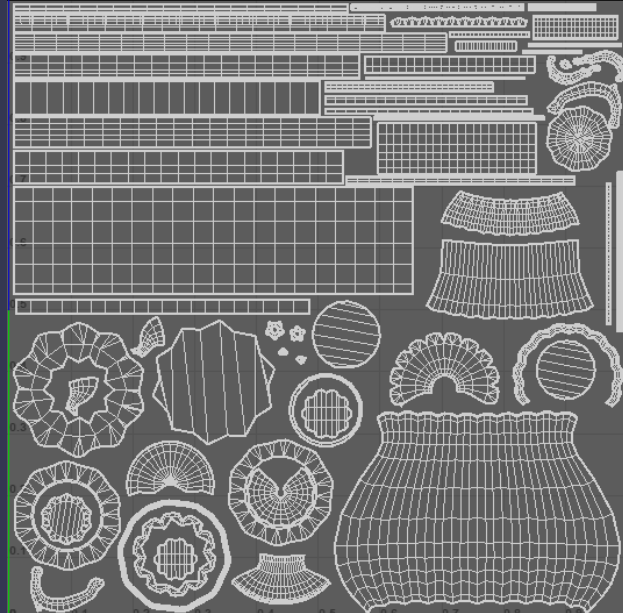
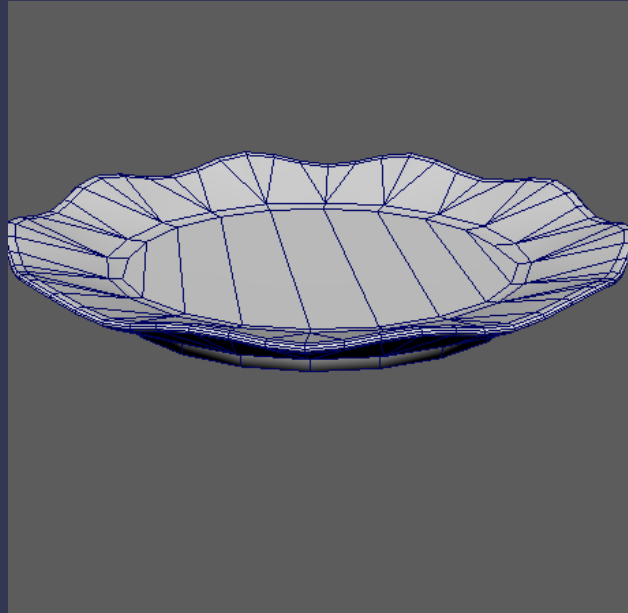
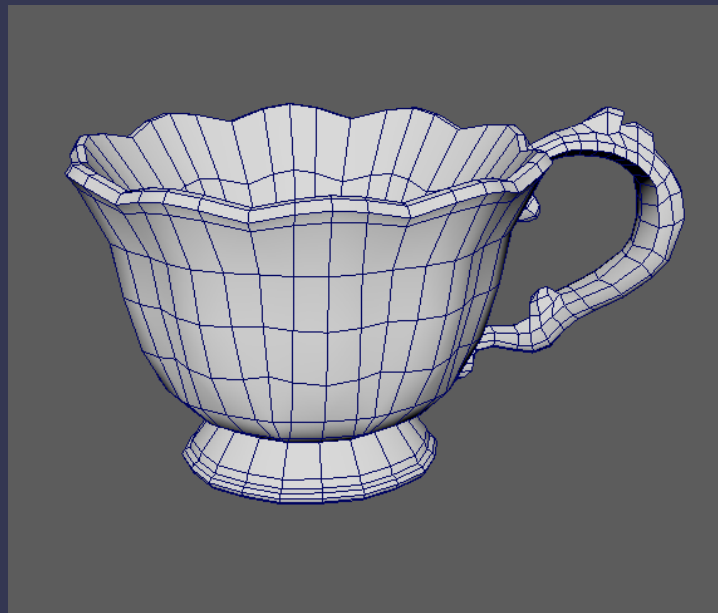
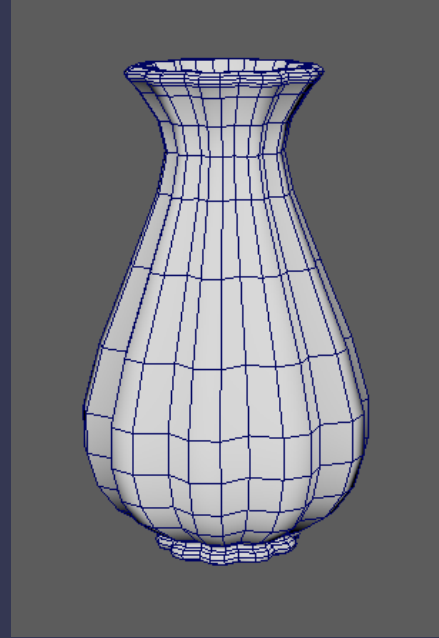
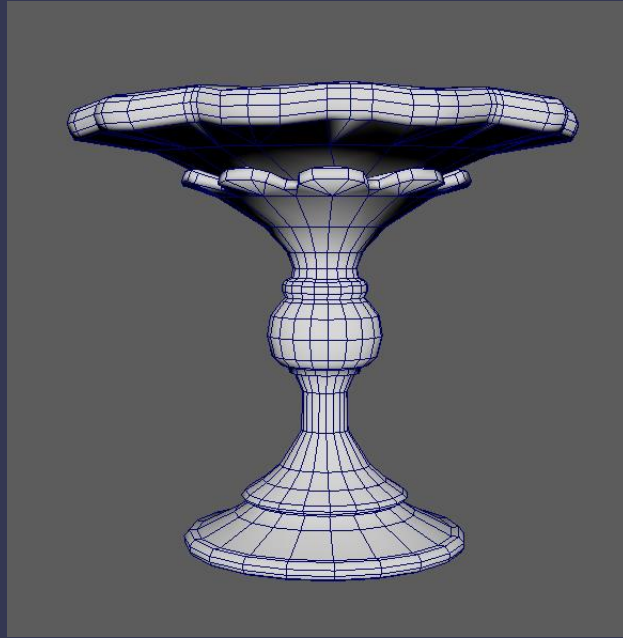
In many reference pictures that I have gathered, flowers and small decorations were used to bring fullness and tie everything together nicely. Since the design style I am going for is very full of details, I decided to sculpt a foliage trim to create flower bouquets and arrangements to fill up the empty spaces of the scene.

In doing so, I also experimented with hair in xGen to create the feather.

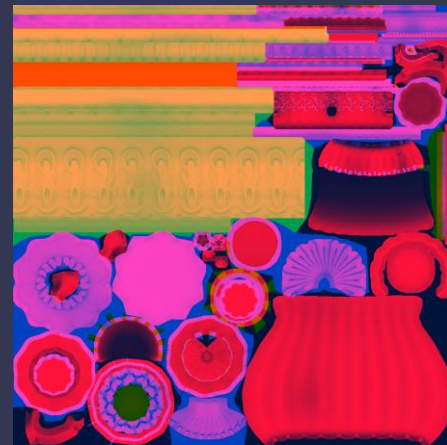
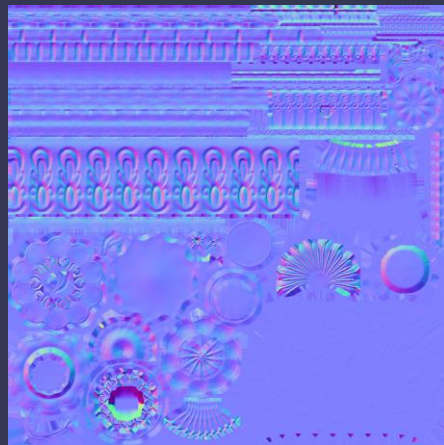
Tea Set: High Poly Models



Tea Set: Low Poly Models



Tea Set: Final Look



It took me a while to get the feel of the material right, but in the end I created something I was happy with. I studied a lot of references from real-life ceramics and porcelain to understand the surface detail and colour blends of the material.



Stage arrangement (flowers, Balloons, Ribbons)



This area of the scene is still a work in progress. At the moment it feels a bit crowded and chaotic, but once I bring in all the main assets for the stage I am hoping to come up with a better arrangement.

However all the textures for the flowers, ribbons and balloons are done.

Café entrance



- Bar zone split in 2 parts: Drinks and sweets.
- Front Door
- Shelves and Counters

-Textured using only the tileable materials created: wood, wall, gold

Further ahead in development I decided to replace the patterned walls with plain ones as it didn't look right and push the door into a small hallway to create depth.



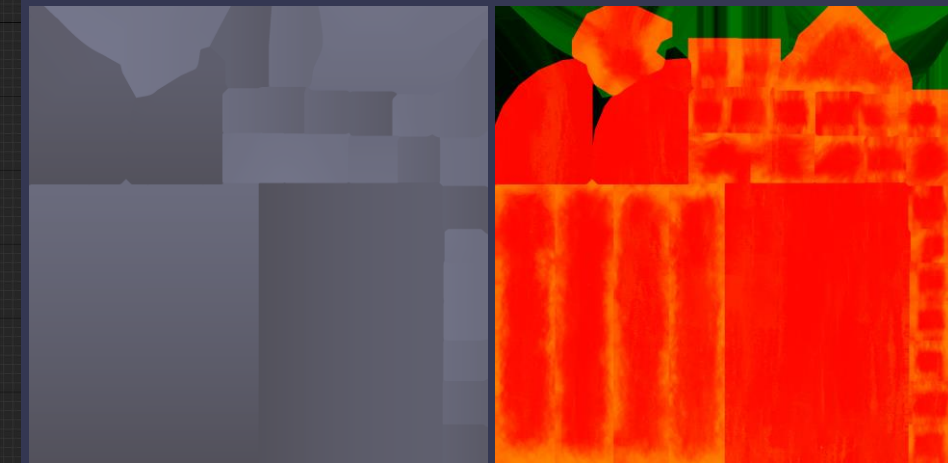
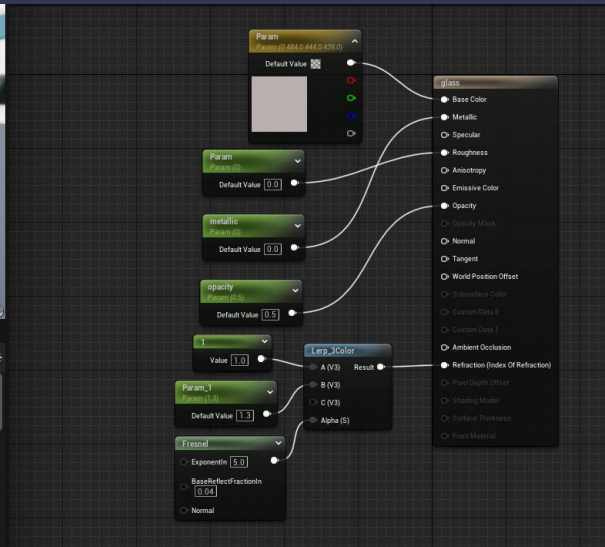
Glass material



Creating a realistic glass material was a challenge as the engine doesn't handle translucency-opacity well.

I created two glass materials for different purposes. For the doors and windows, I textured the glass in substance painter. It is opaque, but this way, I was able to retain roughness patches that bring it more depth. The roughness values were lost while having the opacity channels on as well.

As the display glass need to be see-through for the pastries to be seen, I created a second glass material in engine that is purely transparent and reflective.



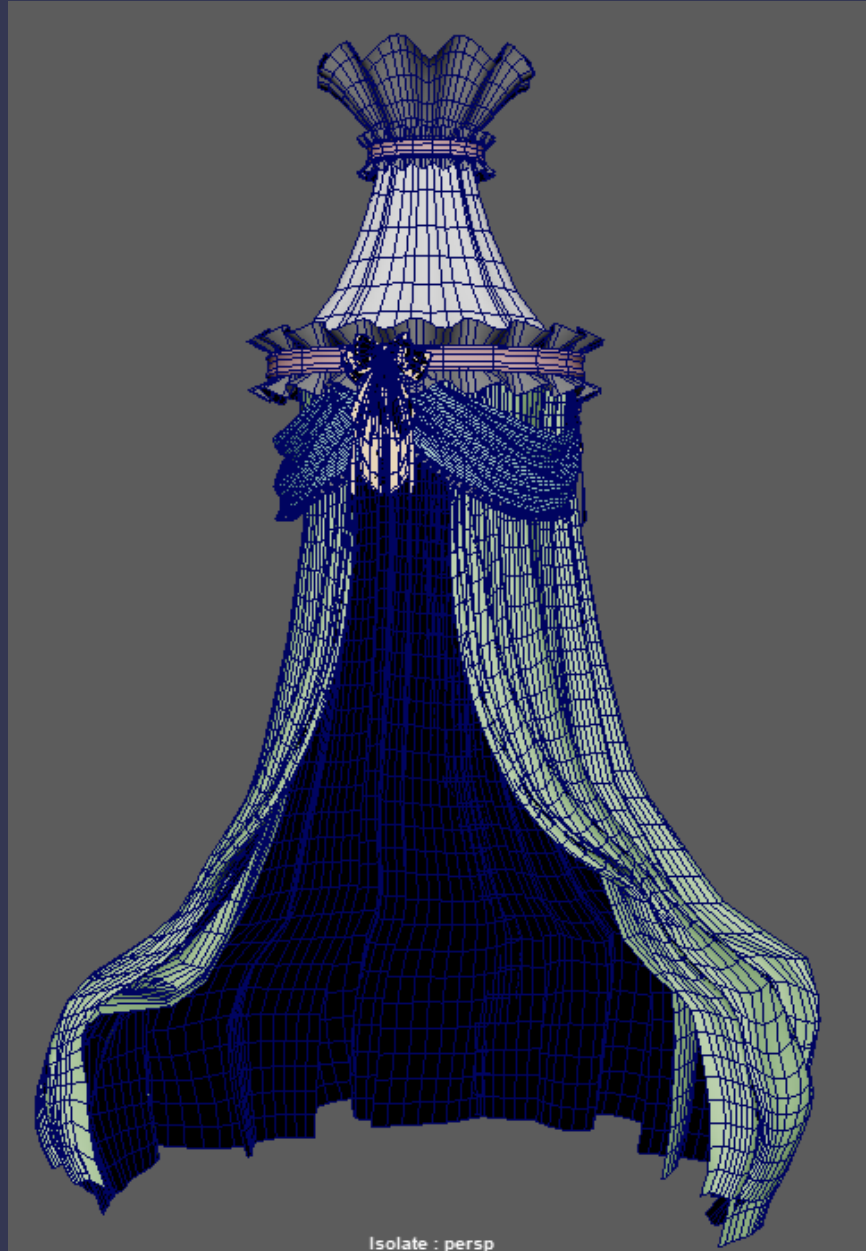
Scene Flower arrangements



Using the cards from the foliage atlas, I began combining and creating different flower arrangements, to put in some places in the scene: stage, around the dome, entrance, corners

I also pushed the entrance door a bit backwards into a hallway as to not have everything on the same level.

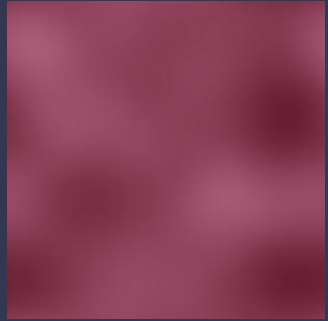
Stage Refinements



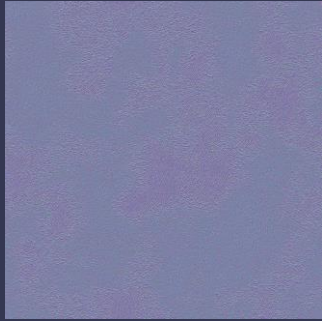
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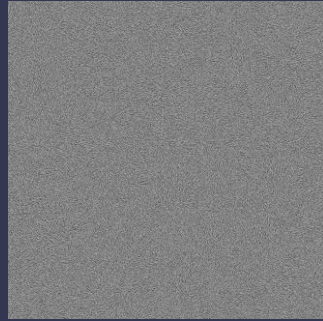
Fabric materials



Albedo



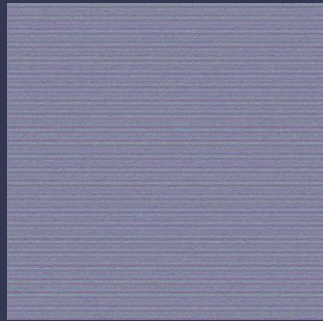
Normal



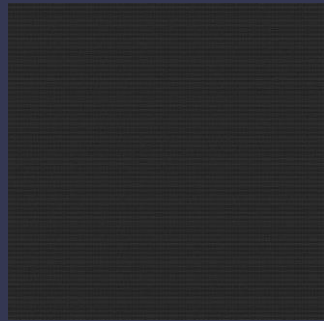
AO



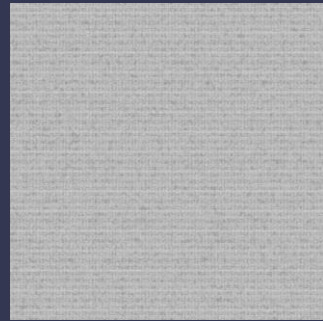
Roughness



Normal



Opacity



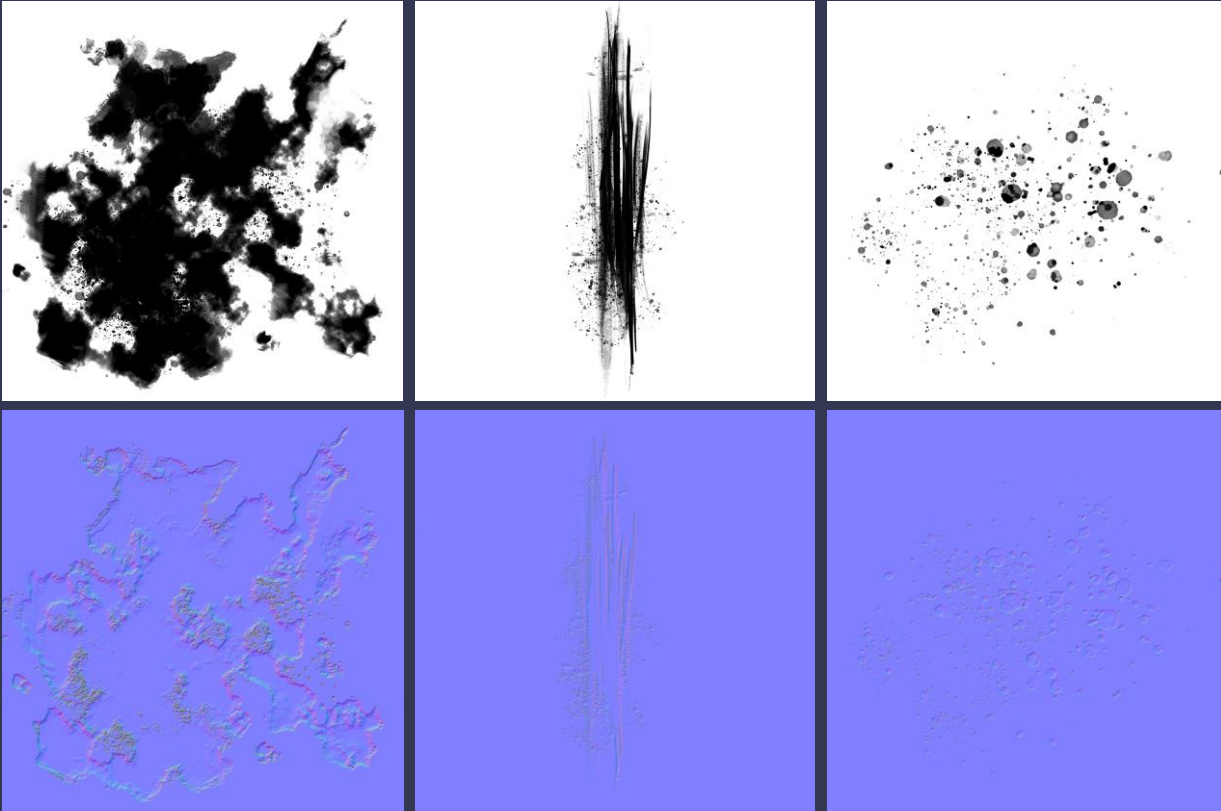
AO



I downloaded a velvet material to texture the curtains behind the stage

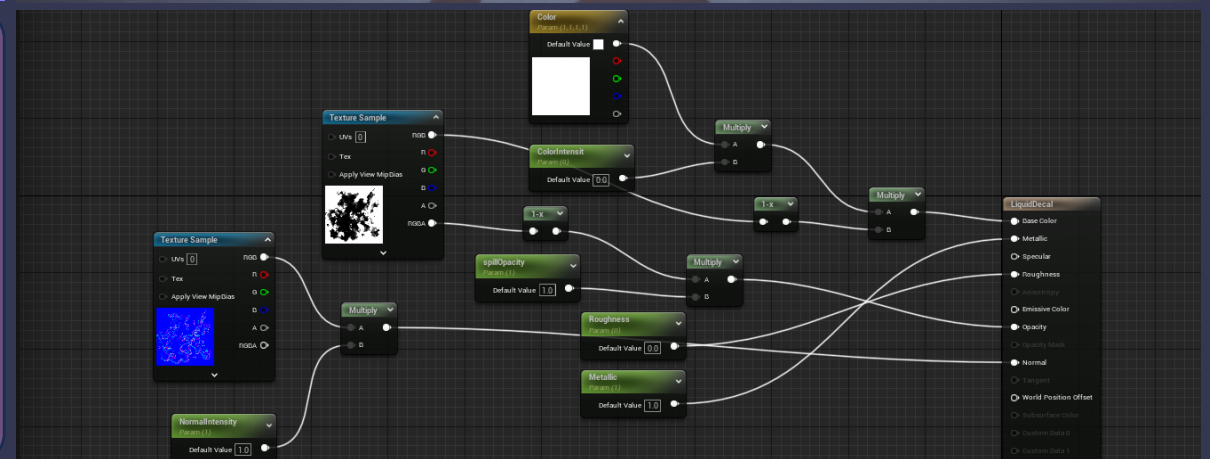
I made a variation from the lace material I previously created for the curtains, taking out the flower pattern and leaving only the see-through fabric. I use a unreal parameter to control the base color of the fabric

Decals

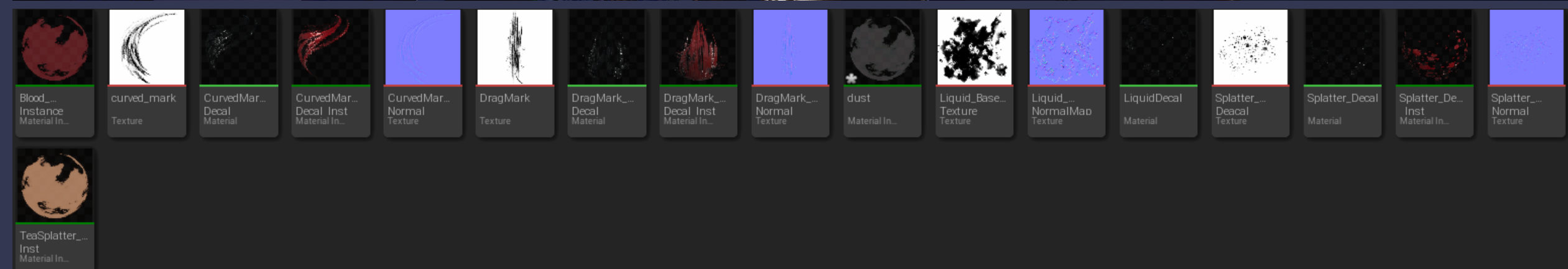


I created the decal masks myself in Photoshop, then set up a simple material in Unreal Engine through which I can control the opacity, roughness, color of the splatters to create variations.

Using an online normal map converter, I was able to create normal maps from the values of the drawings.



Decals



From the masks created, I was able to create many variations with material instances used for different purposes: Tea splatters, Blood spills, puddles and drag marks, some colour and roughness spots on the floor and walls to bring more life to the environment.

Chaos



In the night scene, I needed to add the chaos signs necessary to show the struggle of the victims while trying to fight off the maid and poison effects.

The trail of chaos eventually leads to the main stage, where the secret murder room lies behind the curtains.

I managed to create the broken cup pieces in Unreal using the fracture feature. I created a Geometry collection that included all the cup pieces then split them into chunks using the Unreal modelling feature.



Light research



I decided to reexplore lighting options and test out a couple of setups that can potentially work with the scene.

I wanted to have 2 setups: day and night. One beautiful and cute, and one macabre and dark.

Light tests



Light Setup1: Night time setup: I wanted to emphasise the horror elements of the scene. However, most of the details are lost in the dark.

Light tests



Light Setup 2: Daytime setup; I really tried to make this work but it just looks bad. At this point I am really stuck at lighting and making this scene work.

Light tests



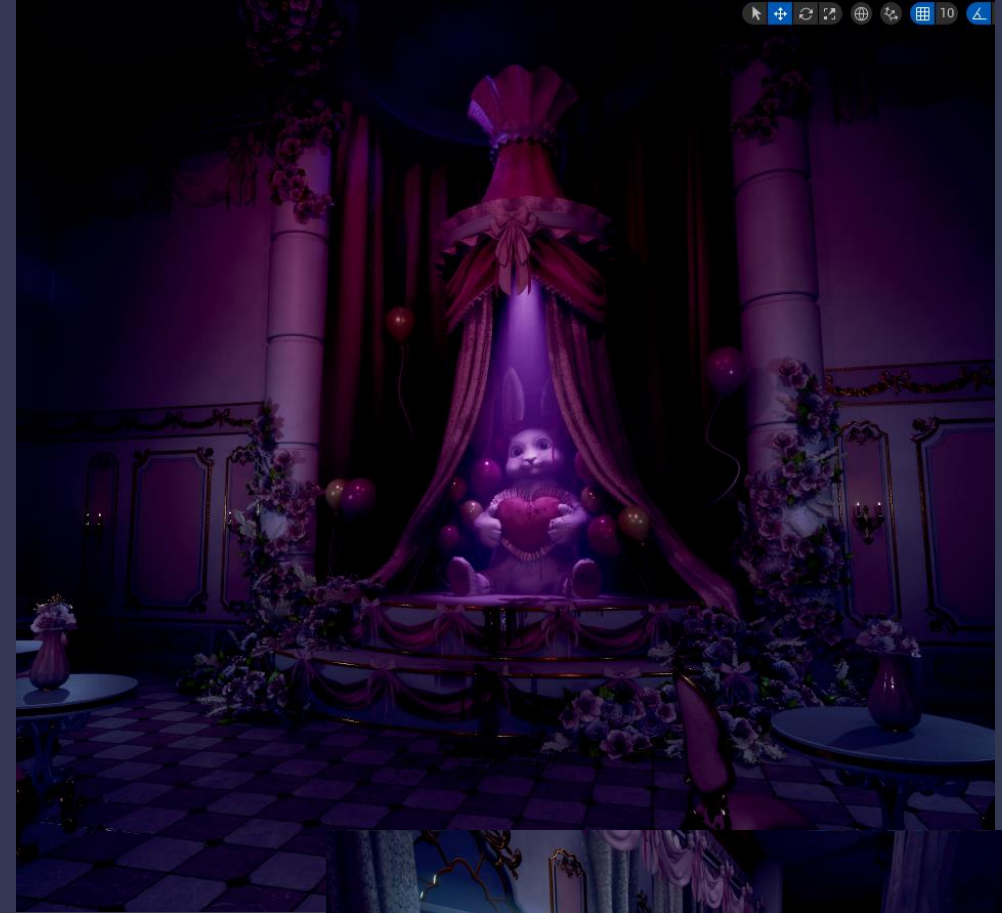
Light Setup 3: Desaturated look? More contrast for a day look?

Light tests



Light Setup 4: Reverse lighting: Pink in front, blue in the back. Could potentially work

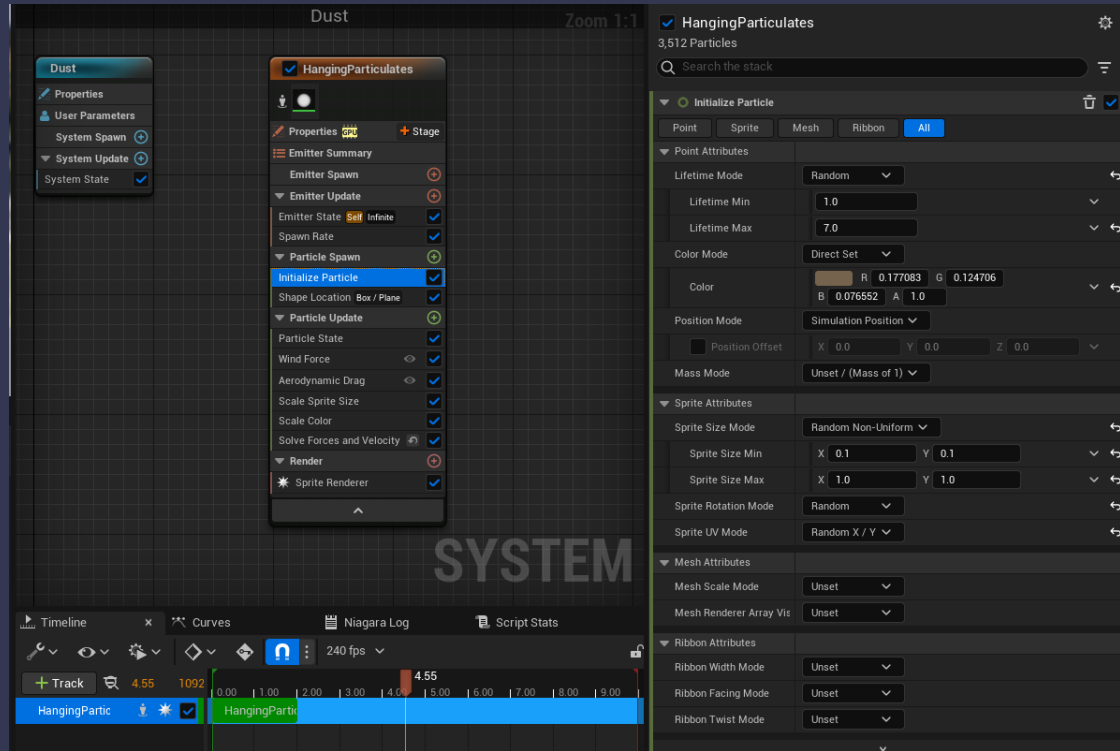
Light tests



Light Setup 5: Going back to setup 1 but adding more atmosphere with volumetric fog. A bit washed out? Too dark?



Effects: Dust Particles



To make the scene look more alive in the final video, I decided to add some dust particles around the room. There are 2 variations of the particles: one general one spread throughout the entire room and one for the window zone, where the moon light passes through. There the particles are more dense and obvious.



Effects: Volumetric fog



ExponentialHeightFog

Search

Exponential Height Fog Component

Fog Density	0.05	↩
Fog Height Falloff	0.2	
Fog Inscattering Color		
Start Distance	0.0	
Fog Cutoff Distance	0.0	

Directional Inscattering

Directional Inscatteri...	4.0	
Directional Inscatteri...		

Volumetric Fog

Volumetric Fog	<input checked="" type="checkbox"/>	↩
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Light Color

Source Angle: 5.0

Source Soft Angle: 4.92

Use Temperature:

Temperature: 6726.399902

Affects World:

Cast Shadows:

Indirect Lighting Intensity: 30.0

Volumetric Scattering Intensity: 300.0

After all the tests done on lighting, I decided I wanted to go for the blue pink combo for the night scene, however, something was missing. I wanted moonlight rays to come through the windows visibly.

After playing around with the directional lighting settings and adding a volumetric fog volume, I managed to get a look I was happy with.

I also used the fog to enhance the spotlight that frames the rabbit plush on stage.

Maps: Base Colour



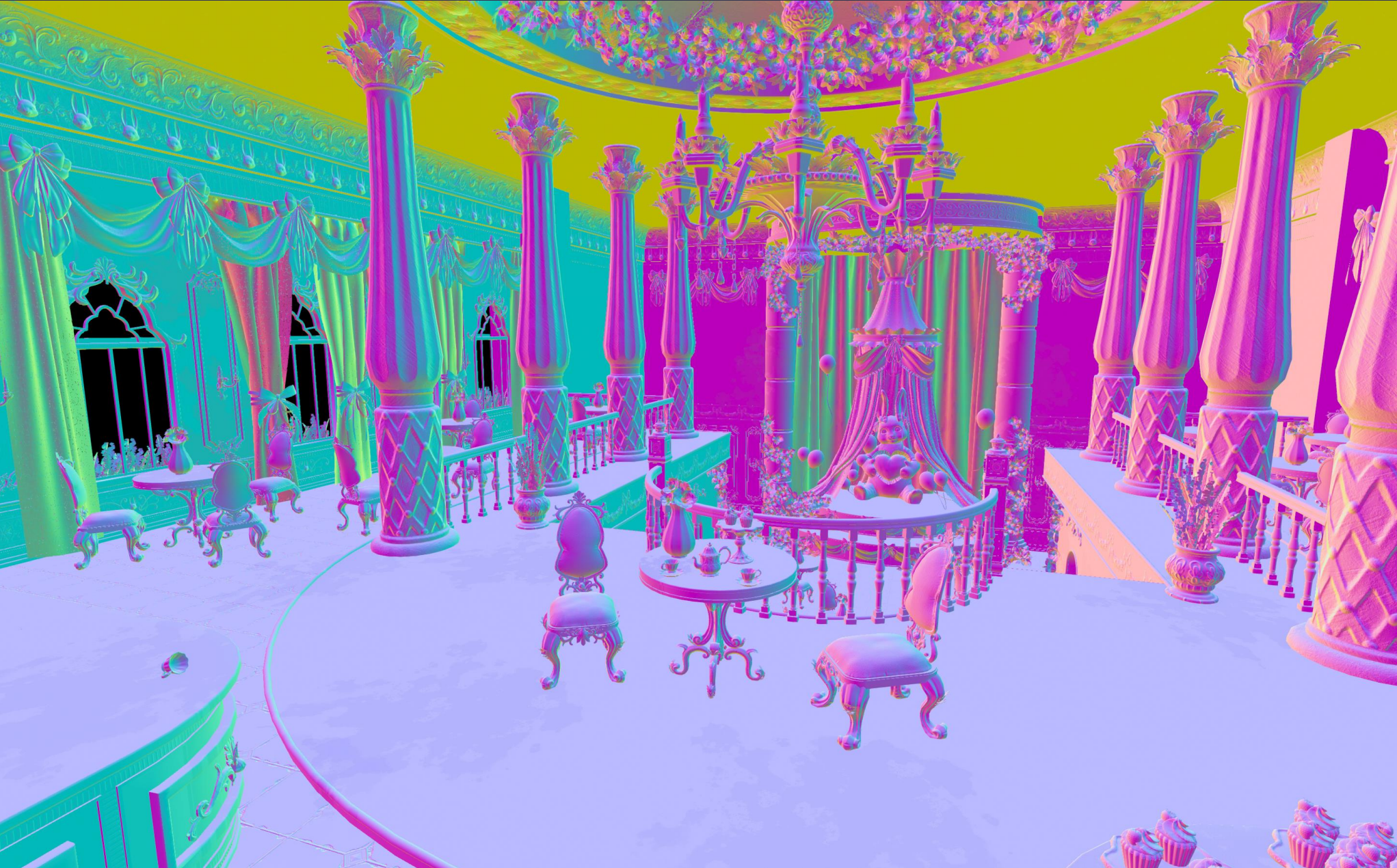
Maps: Detail Lighting



Maps: Detail Lighting



Maps: Normals



Maps: Roughness



Final Outcome





































