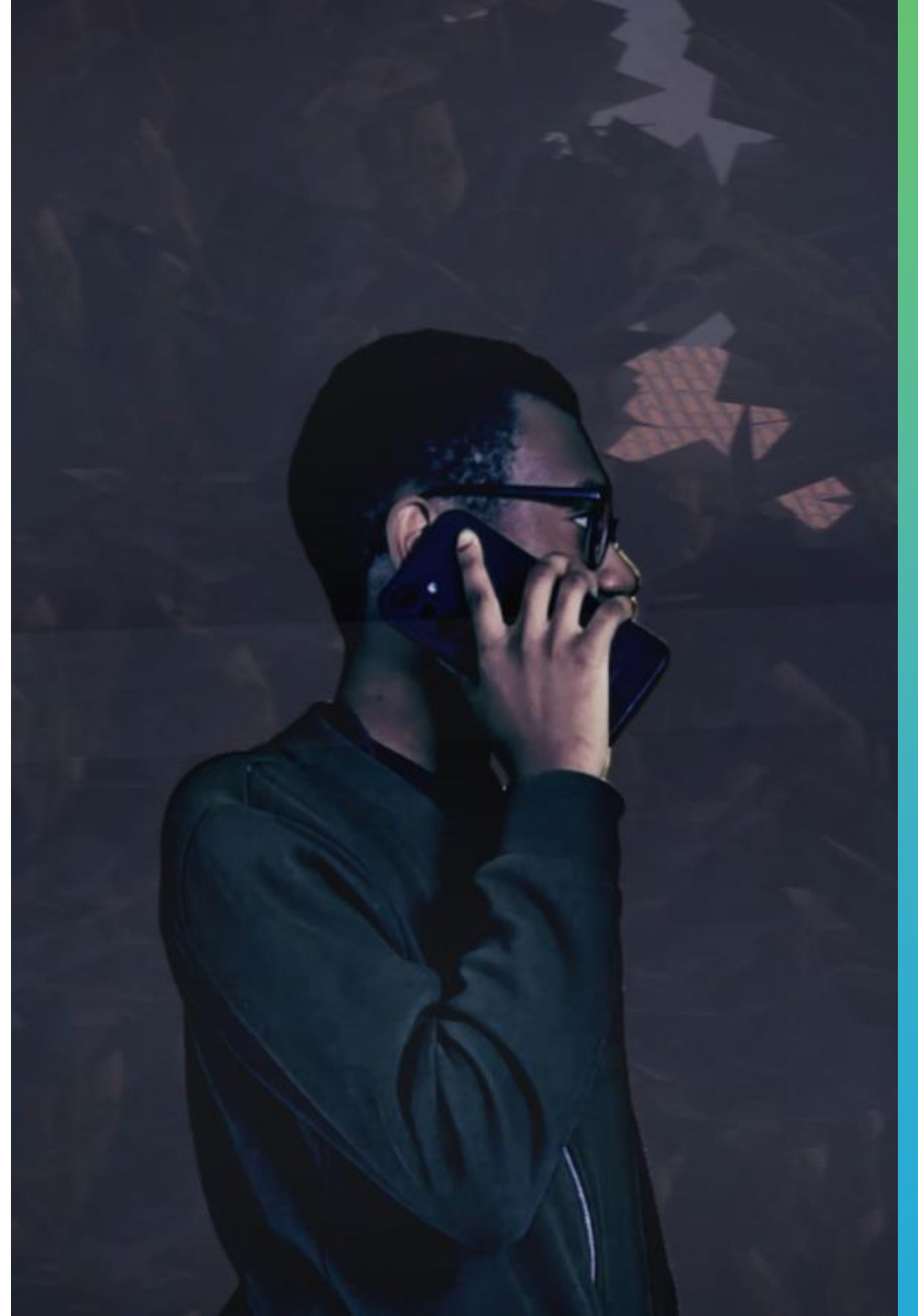


Virtual Production Design (ACCA5042)

Monica Winn Sanchez

Arif Khamis

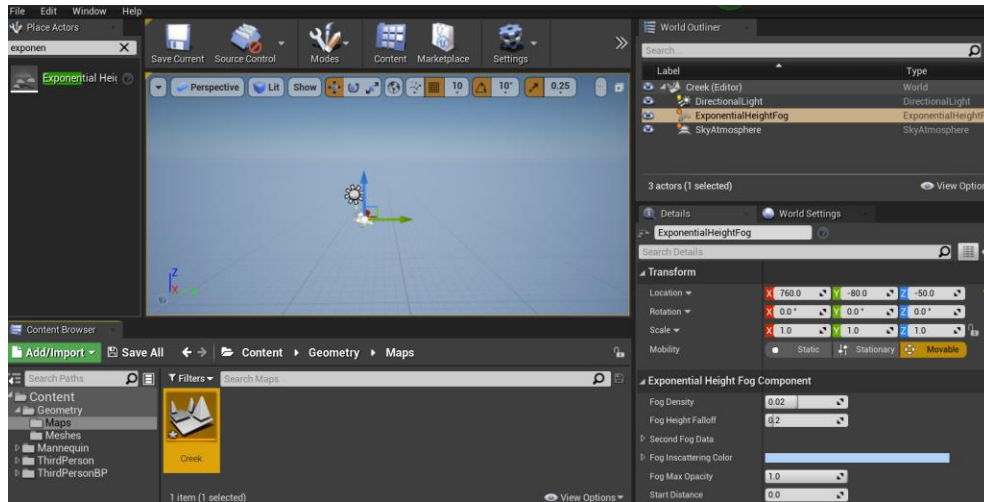
Serena Bunting



MONICA WINN SANCHEZ

Unreal World Creation
Colour Correction

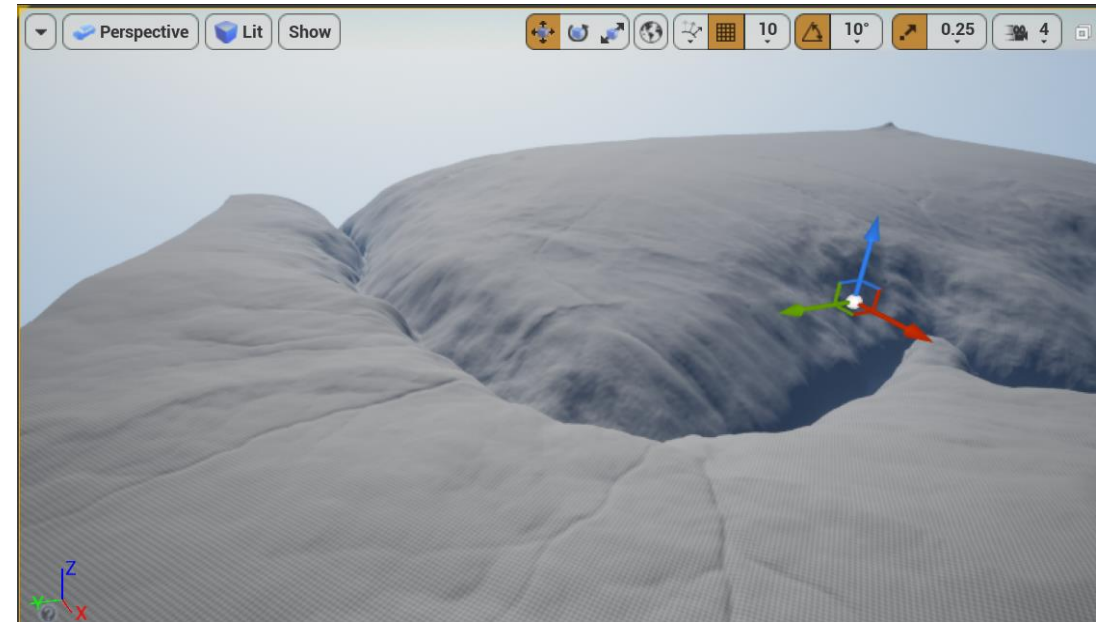
Setting up the scene:



Next, I imported assets and added a skylight to improve the realism of the shadows. This made the lightning softer and more believable, specially in shaded areas.

First, I started by setting up the basic environment lighting. I added a sky system, a directional light, atmospheric lighting and exponential height fog.

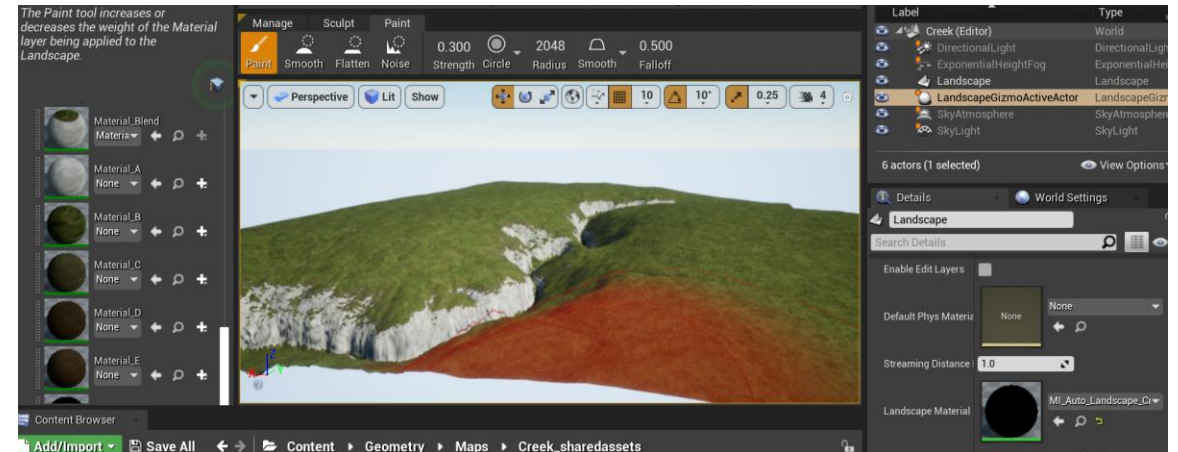
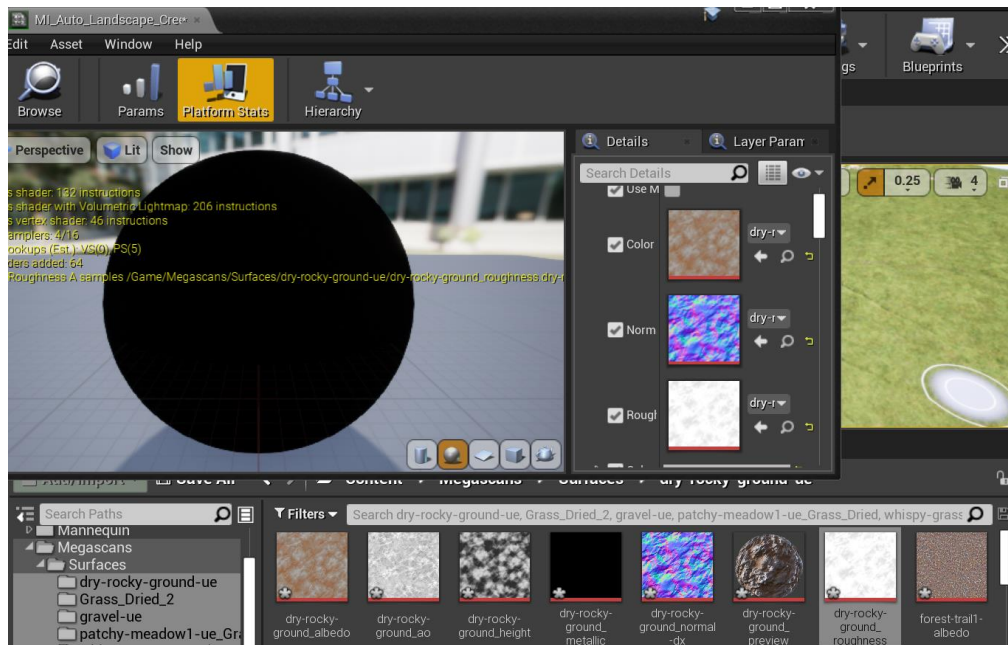
These elements helped me create a natural outdoor lighting setup and gave depth and atmosphere to the scene.



Creating the landscape & applying materials:

After that, I scaled the landscape to a larger size to give more space to work with.

Then, I used the landscape Mode Tools, specially the Paint and Material Blend options, to start shaping the terrain.



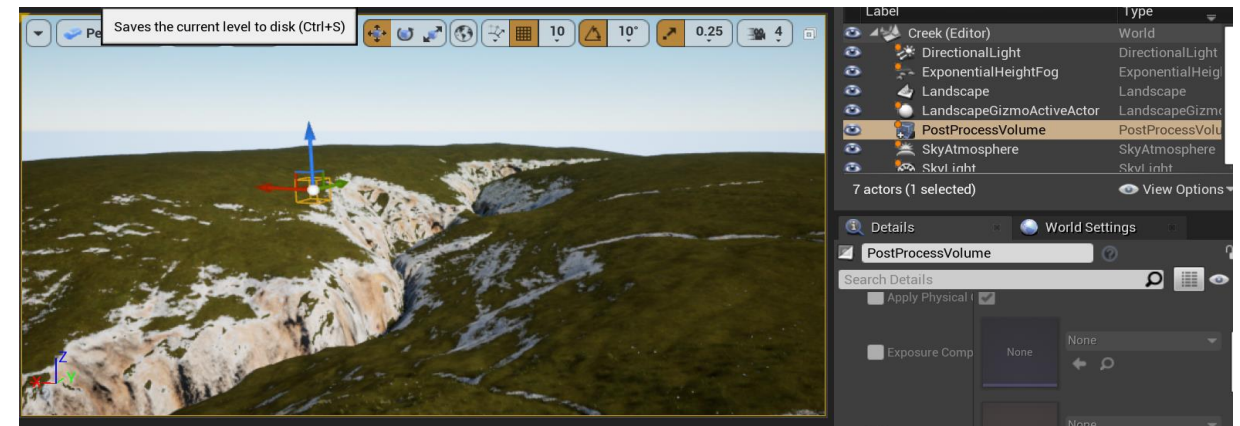
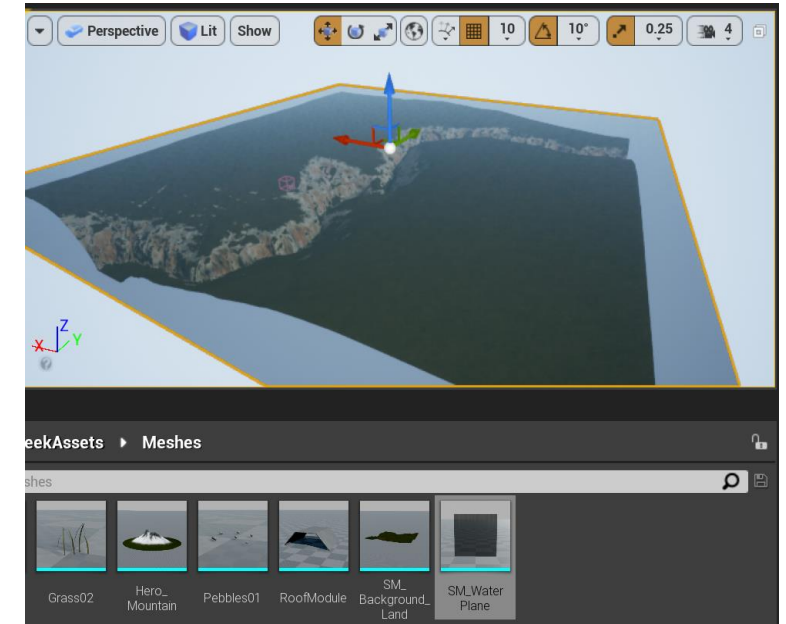
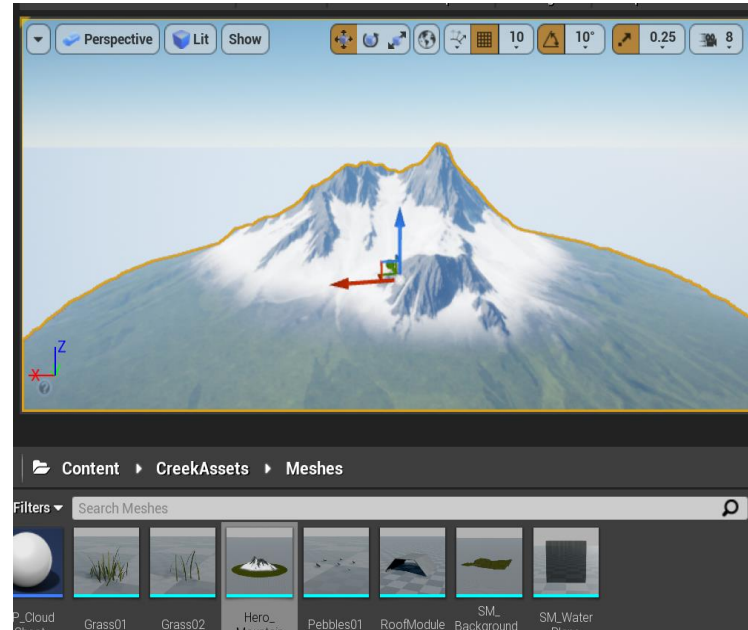
I applied different software materials to make the environment more detailed. Each material included Albedo, Normal and Roughness maps to improve visual realism.

Lightning effects, water & environment expansion:

I added a Post Process Volume and set the minimum and maximum brightness (Serena improved the lightning to better match the overall theme of the scene).

Then, I added water to the environment. I rotated, scaled, and positioned it to fit naturally into the landscape. I also adjusted the landscape painting so that grass would not appear in water surfaces.

I expanded the scene by increasing the landscape size and adding mountains. I created a more complex environment by placing multiple mountains and adjusting their rotation and scale.



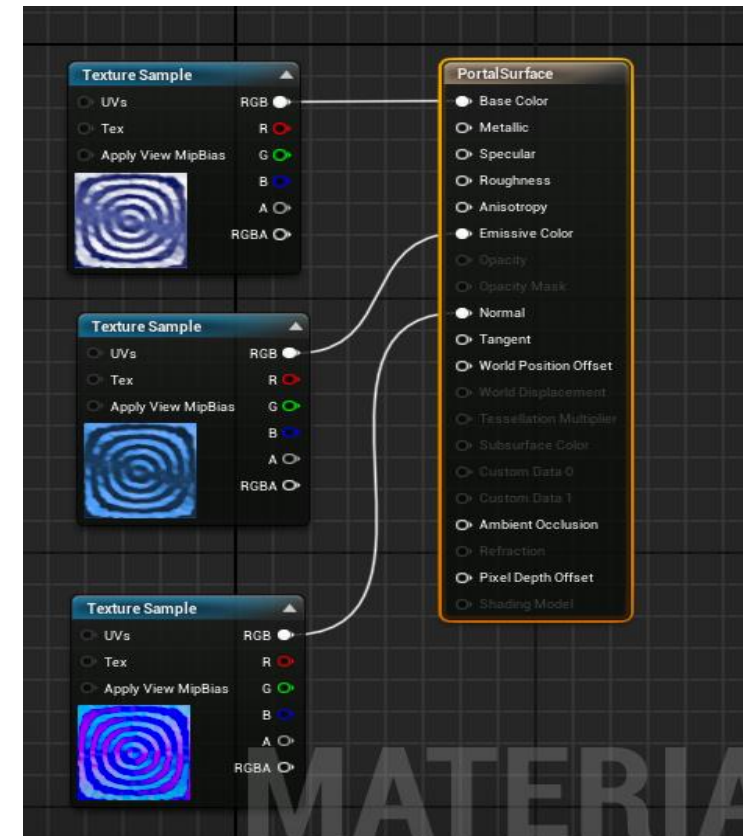
Reflection and Details – Adding Assets:



I added a Sphere Reflection Capture and built the reflections to improve how light interacts with surfaces, specially the water.

Finally, I changed the terrain to snow textures and added several objects to bring the scene to life: a house with textures, a bridge, flowers, trees and a magical portal. All of these elements were positioned, rotated, and scaled to fit naturally into the environment.

This project helped me understand the basics of environment creation, including lighting, materials, and landscape design.

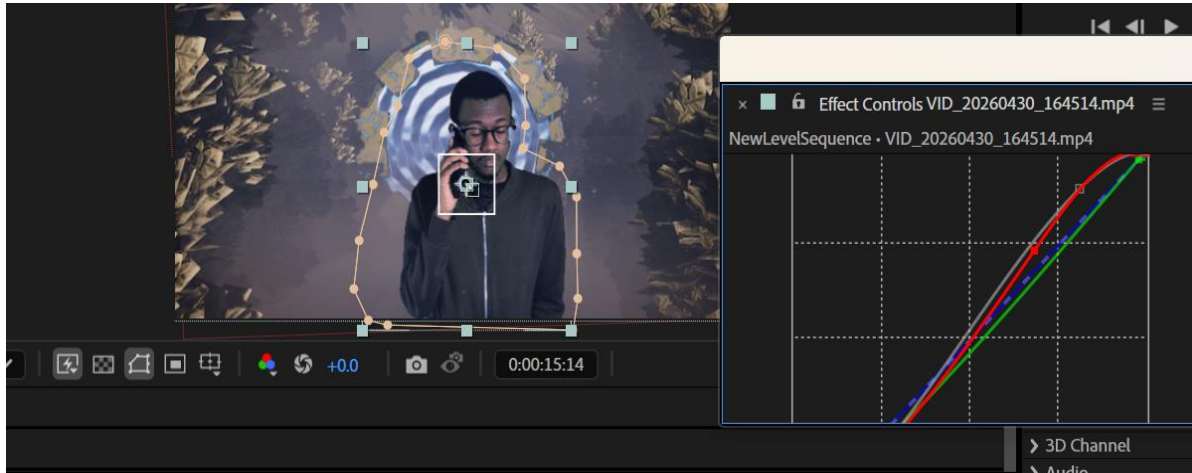




Behind the Scenes



Color Correction:



I used colour correction in After Effects to match the character with the dark forest background. I adjusted brightness, contrast and colour tones, cooled the image using Lumetri Color, reduced saturation, and added a bit of fog and grain to create a more cinematic and realistic atmosphere.



ARIF KHAMIS

Scheduling and Organizing

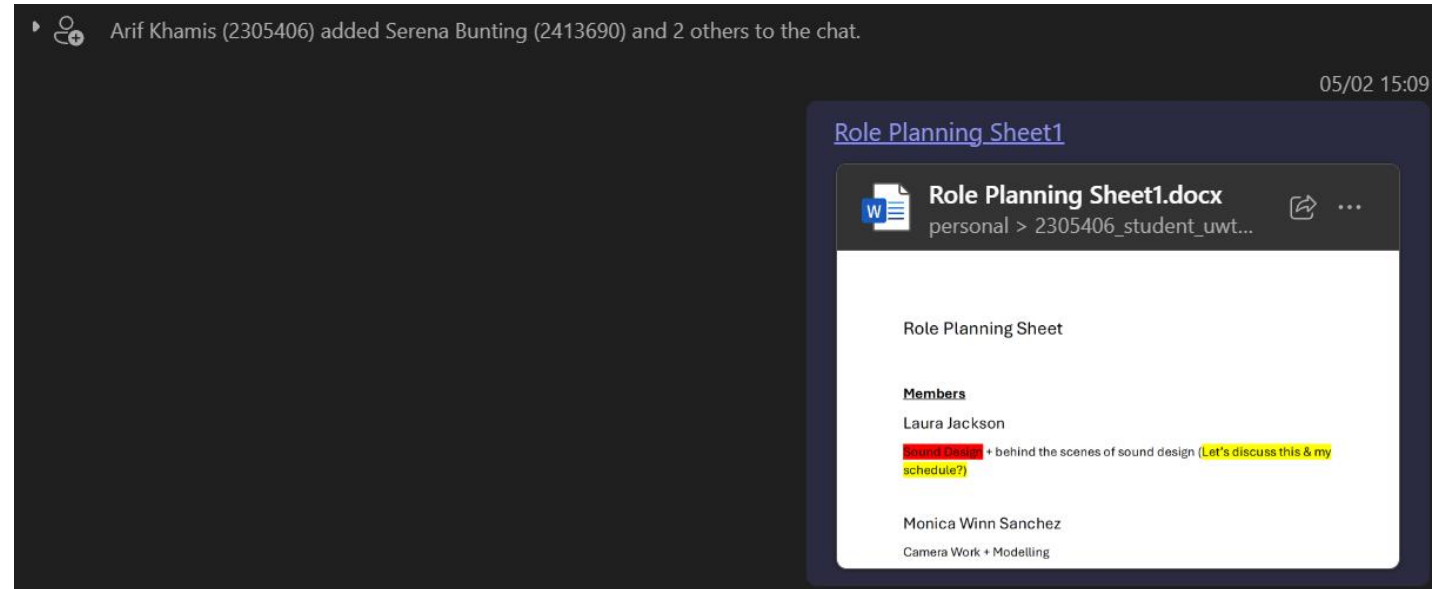
Acting

3D Animation and Rendering

Effects for 3D

Beginning of Planning

At the very start of the assignment, I made sure to create a Teams chat Where we could discuss and divide roles and decide what we were going to do.



Beginning of Planning

These were the original roles, before we had to find our feet with a slightly different background workflow instead.

At this point in time, we decided I'd act, and made sure to add dates to any role change suggestions.

Role Planning Sheet

Members

Laura Jackson

Sound Design + behind the scenes of sound design (Let's discuss this & my schedule?)

Monica Winn Sanchez

Camera Work + Modelling

Serena Bunting

Storyboard + Modelling

(12/3/2026 - Plans to add fog and lighting / skybox)

Arif Khamis

Schedule and Resource Allocation + Acting + Animation for Media Plate

Deciding on Concept

We produced a list of ideas and weighed out pros, cons, interests and limitations.

IDEAS

Atmospheric Horror

1. [Slowly walking through unsettling environment]
2. Something in the distance (eyes within a vent) (in both parts of environment)
3. A lot of implied detail in the models (news articles)
4. An open space (Forest)
5. In snow (cut the legs?/ zoom into just upper body)
6. Holding a lantern
7. Walking towards a river or lake where someone jumped in and died (implied more than said)
8. Lake or river space is a separate shot from character
9. Ends with seeing creature in the far distance
10. Lights goes out
11. Color correction: Blue tones

Time Travel Comedy

1. Bored character visits bathroom – is surprised by a mildly condescending time travel UI
2. Goes back in time to collect something they lost, ends up pretty much arriving in the same situation at the end. However many times this happens depends on resources/time

Flying (What if?)

1. Skyscrapers
2. A city
3. Falling after hovering?
4. (Laying on platform with a green screen to float)
5. (Tricky)

Drawing things and they appear IRL

1. Tablet sketching
2. They suddenly come to life
3. (Animating the objects that appear)

Deciding on Concept

The creative goals were finalized here.

Creative goals:

- Make an idea compatible with the single screen and live action nature of virtual production.
- Make something fun and creative, that can incorporate an atmospheric feel and
- An idea with plenty of sound editing opportunities available.

Final Idea & Amendments

Walking in a forest a guy is scared, looking around for any potential danger. Walks up to as river and stops to take a deep breath. A pair of eyes appears behind him and an unholy ghastly sound plays. Cuts to a black screen.

What was removed:

- The lantern and light effects from it.
- Maybe they'll have a phone in their hands instead
- Talking to 999 operator

Acting

The footage of me was recorded as I acted out what was on the scripted storyboard created by Serena.



CHARACTER WALKS THROUGH DARK FOREST

- LIT BY LANTERN
- QUIET, OMINOUS NOISES
- COLD COLOURS, CONTRASTED BY LIGHTING



SIDE SHOT OF CHARACTER WALKING

- LEAVES CRUNCHING BENEATH FEET



NOSE ABRUPTLY STOPS CHARACTER

- CHARACTER & NOSES STILL

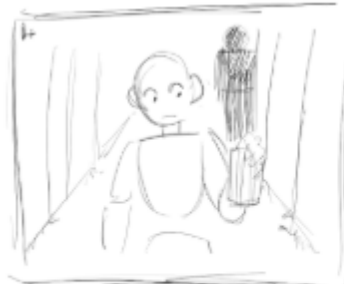


FIGURE APPEARS AS LANTERN FLICKERS OUT

Acting

The tracking points were added above me as I took direction while acting.

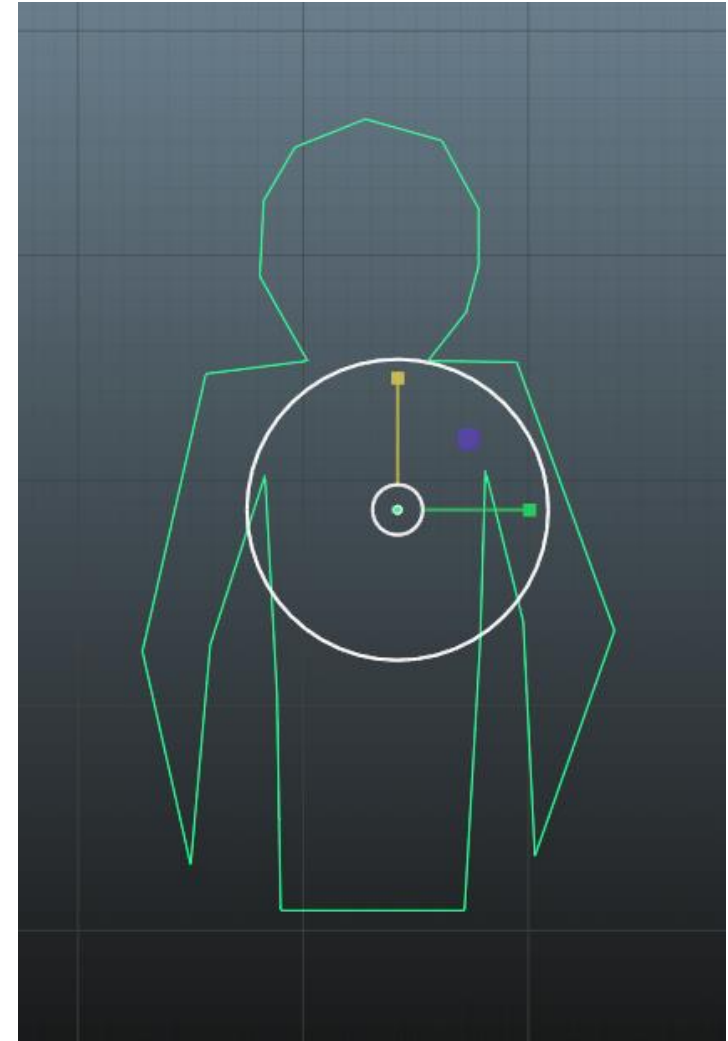
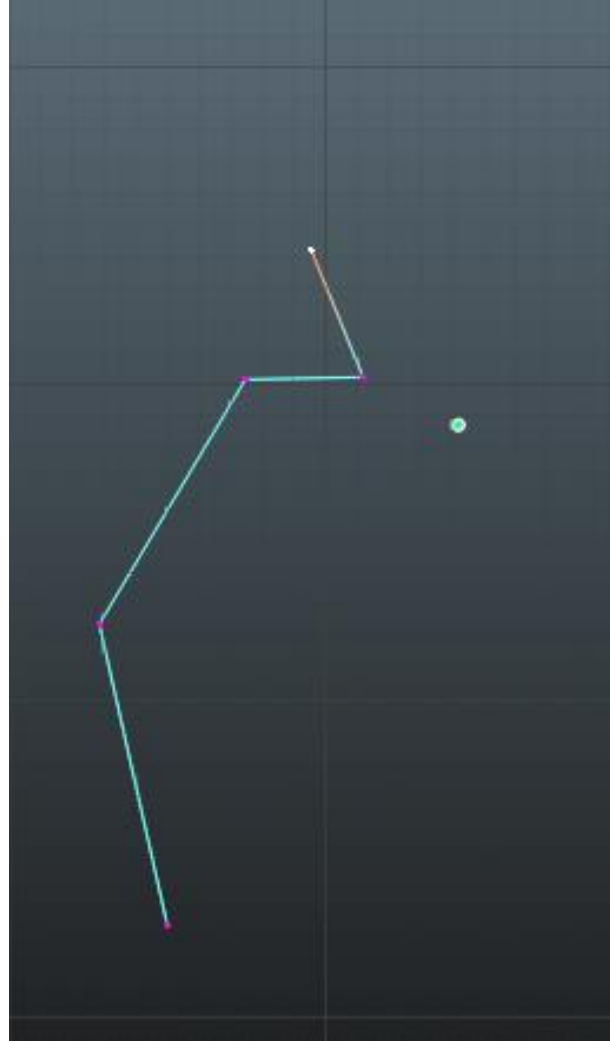
The device we used to record with was a Xiaomi MIX Flip Smartphone.

The lights were added to remove shadows from the green screen to make keying easier.

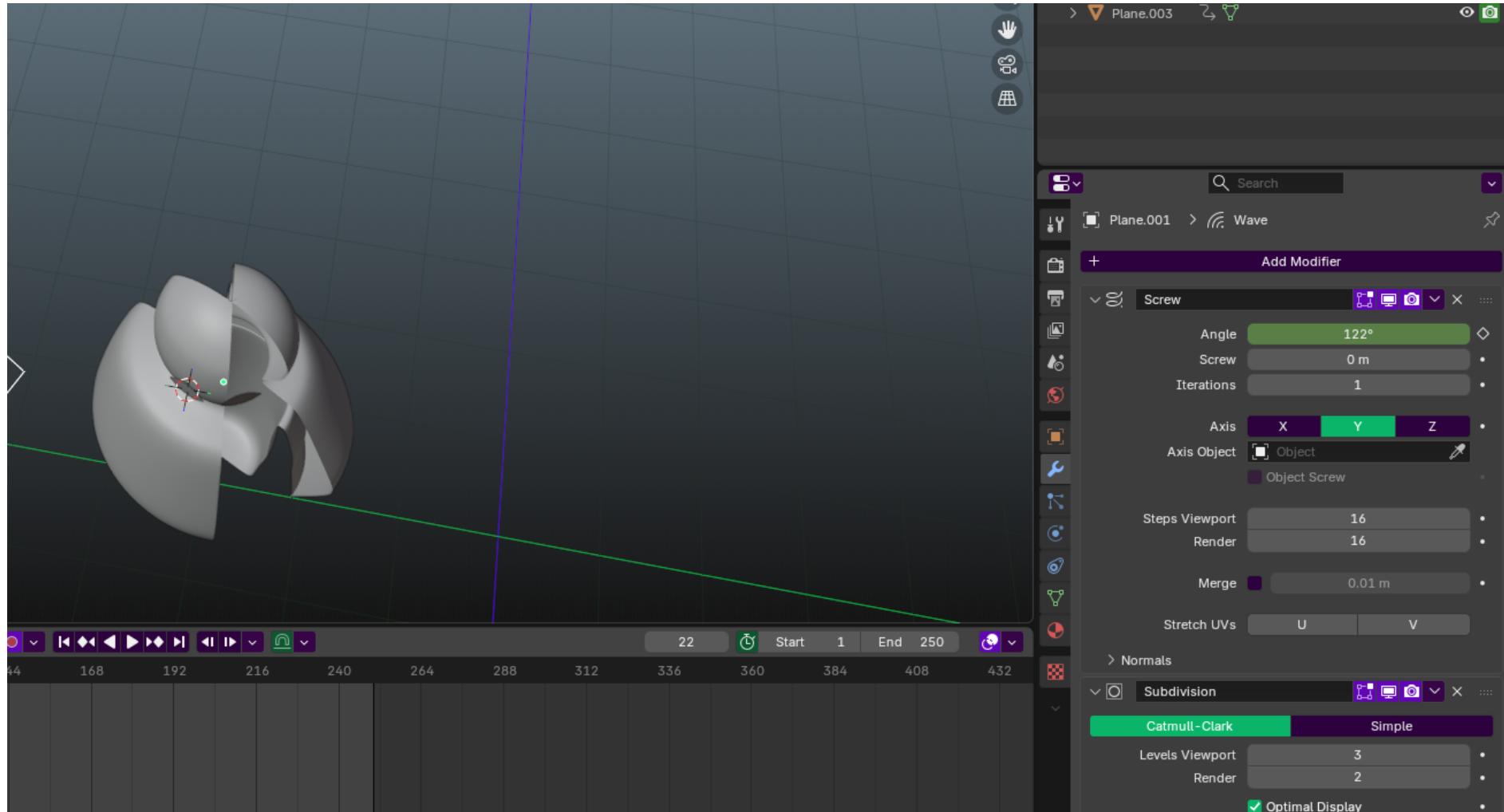


Creating the Media Plate

After the acting, I move to Blender to animate the media plate for the shadowy figure. I started from concept art and placing and extruding vertices until I got the basic shape.

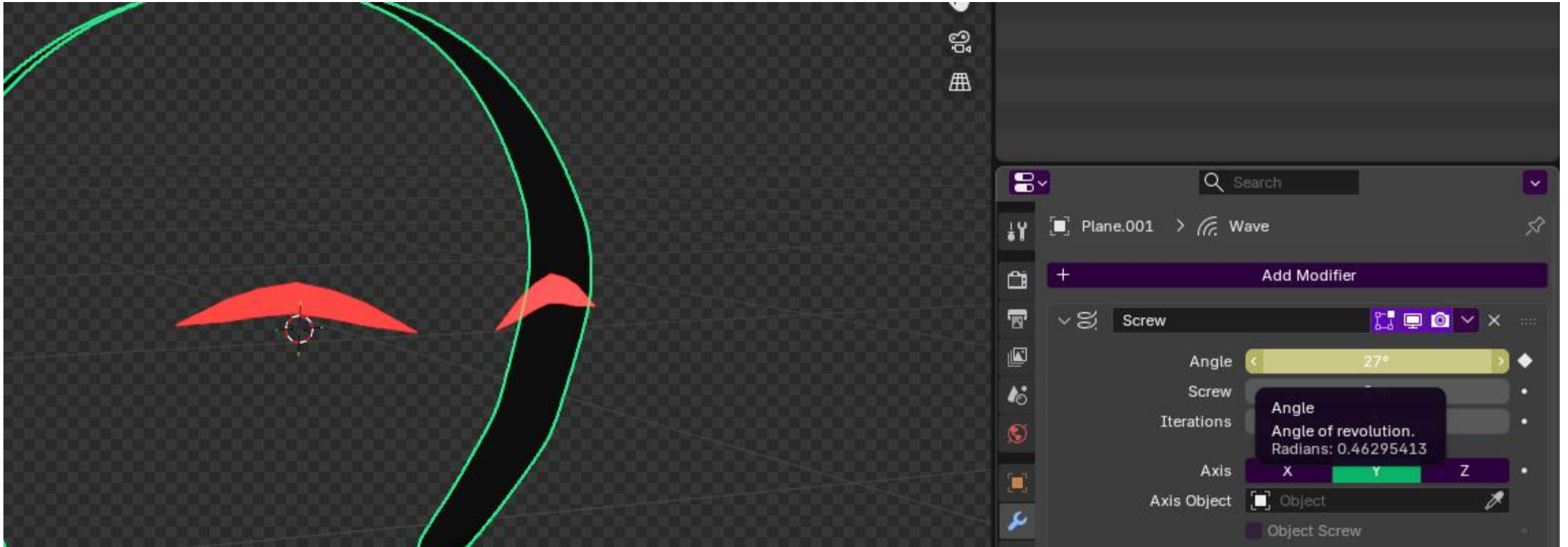


Creating the Media Plate



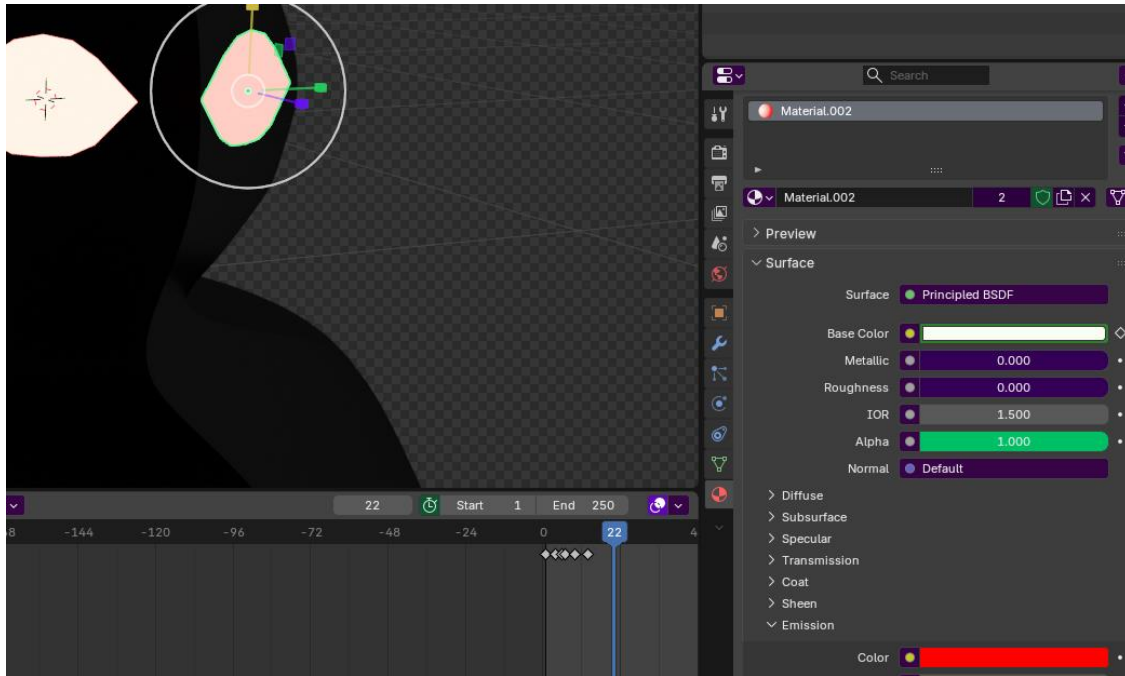
I used the 'Screw Modifier' so the figure could take up 3-dimensional space and not seeming fully flat.

Creating the Media Plate



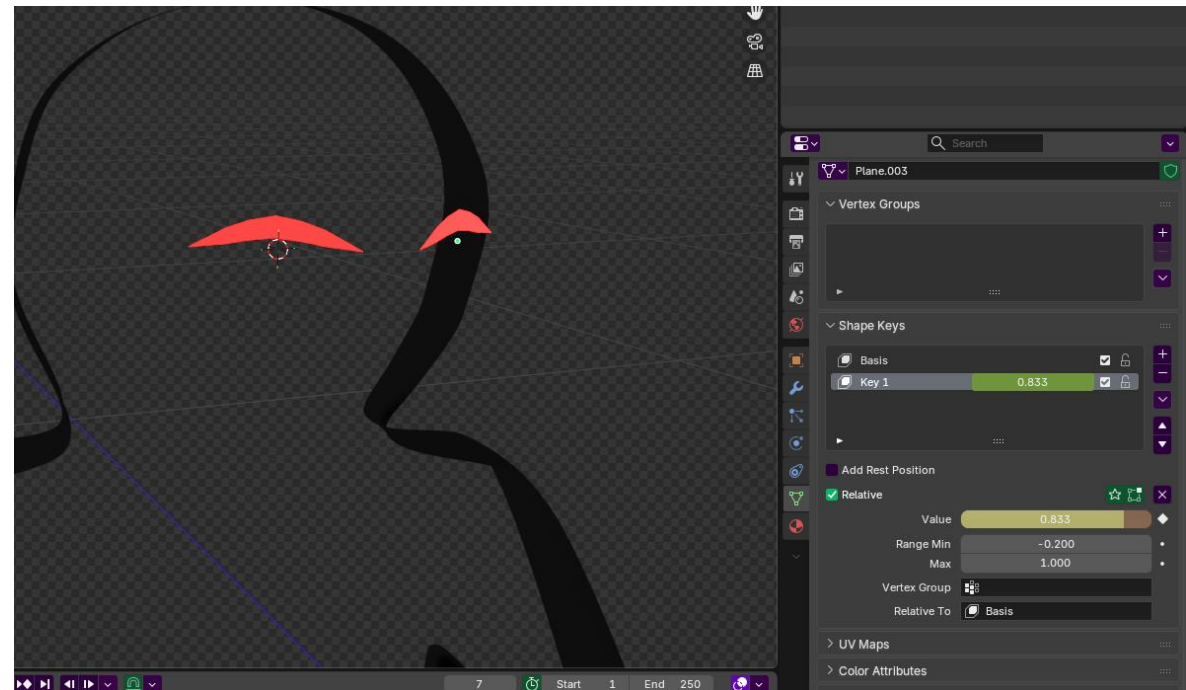
The Screw Modifier was also keyed to make the shadow appear in a way that wasn't just a fade in.

Creating the Media Plate

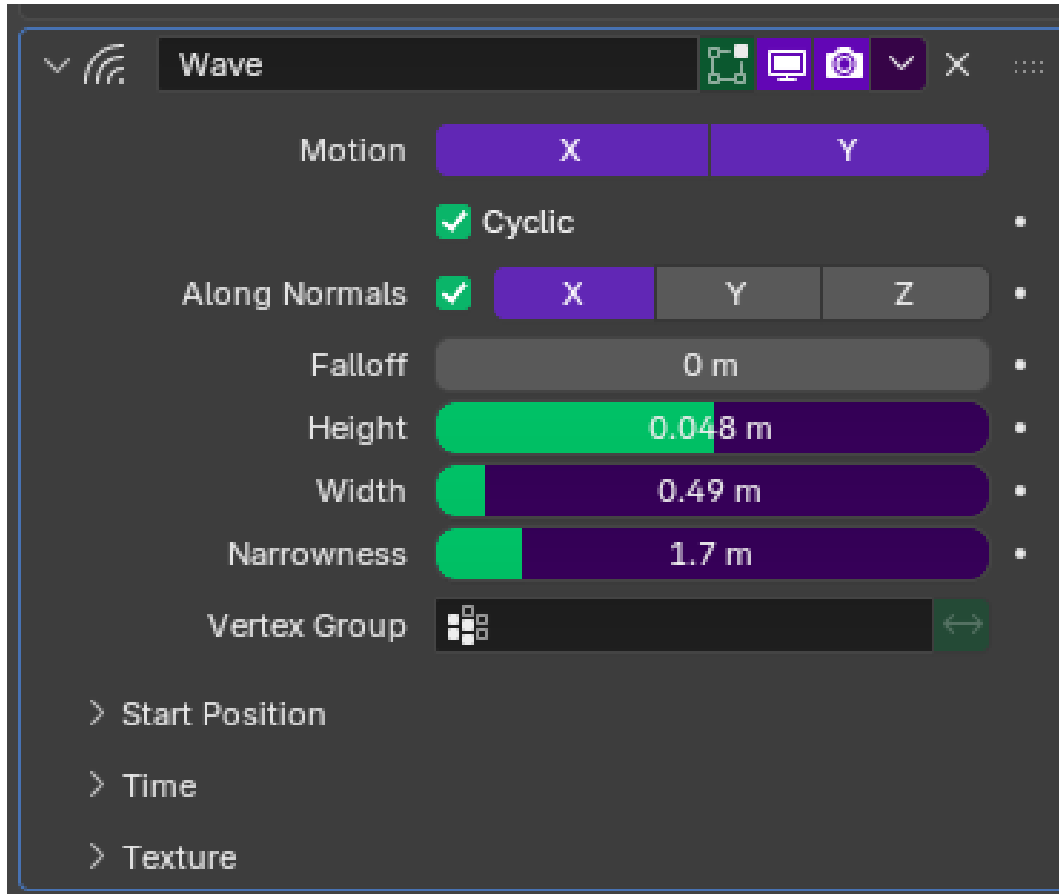


These parts were keyed – the emission from red, closed eyes to open, glowing bright eyes.

Here, the 'shape key' is keyed from closed eye to open eye.



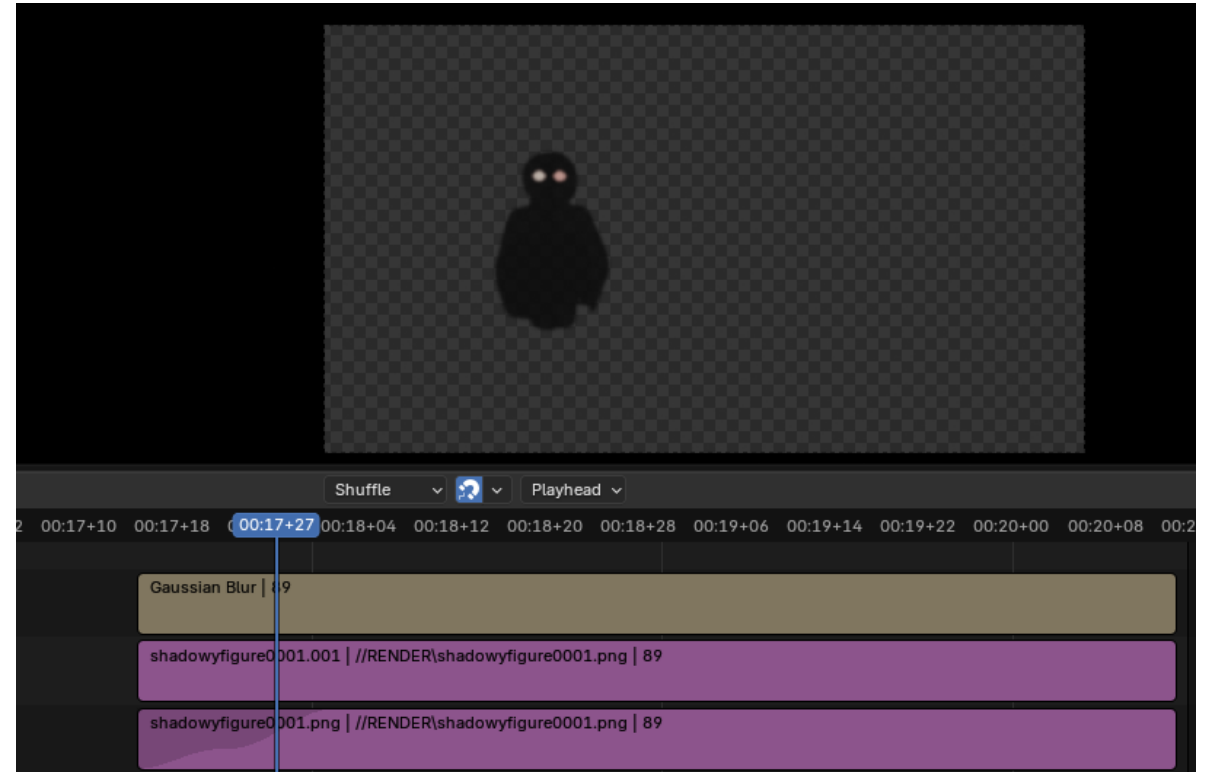
Creating the Media Plate



Finally, a wave modifier was used, and I adjusted the parameters to give it that unstable, non-solid feel. The plate was then rendered into 250 frames, for enough time in the shot and extra to be reused just in case. Then the plate was put into the shot.

Creating the Media Plate

Gaussian blur was added in post, to make it fit more naturally into the scene as it faded in and out.



SERENA BUNTING

Storyboarding

Concept Art

Environment Lighting & Volumetric Fog

Rendering

Compositing

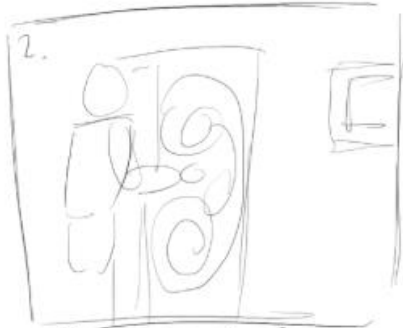
Keying

STORYBOARDING

STORYBOARD 3



CHARACTER OPENS DOOR



OPEN DOOR REVEALS PORTAL



CHARACTER WALKS THROUGH PORTAL



CHARACTER IS TRAVELLED BACK IN TIME

STORYBOARD 2



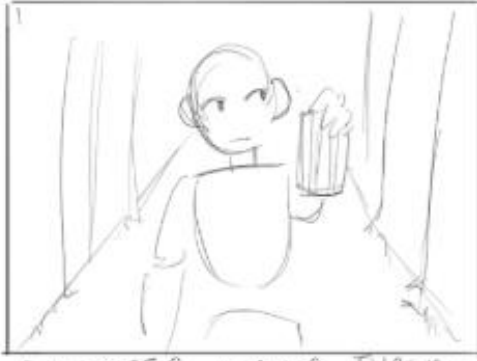
CHARACTER FALLING THROUGH SKYLIGHT

- Moving through static models in UNREAL ENGINE
- STATIC SKYBOX
- RECORDED BY PROPPING(?) SOMEONE UP WITH A GREEN SCREEN BOX(?)

I wanted to create multiple storyboards for our team, so we could plan ahead what shots to take and what positioning we needed for the cameras in the immersive room. This also helps decide what props we could use.

Ultimately, these storyboards were not chosen, but provided a good basis of understanding for what was capable for us in our creative process going forward.

Storyboard 1



CHARACTER WALKS THROUGH
DARK FOREST

- LIT BY LANTERN
- QUIET, OMINOUS NOISES
- COLD COLOURS, CONTRASTED BY LIGHTING



SIDE SHOT OF CHARACTER
WALKING

- LEAVES CRUNCHING BENEATH FEET



NOISE ABRUPTLY STOPS CHARACTER

- CHARACTER & NOISES STILL

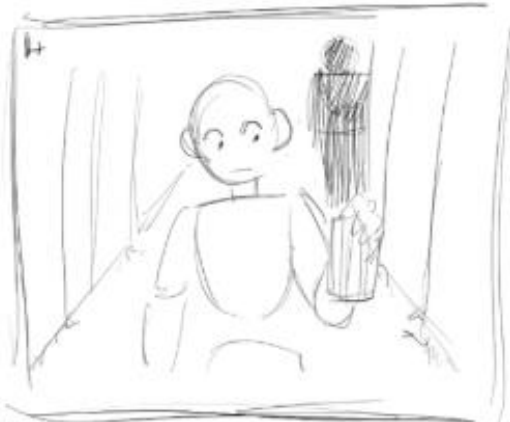


FIGURE APPEARS AS LANTERN
FLICKERS OUT

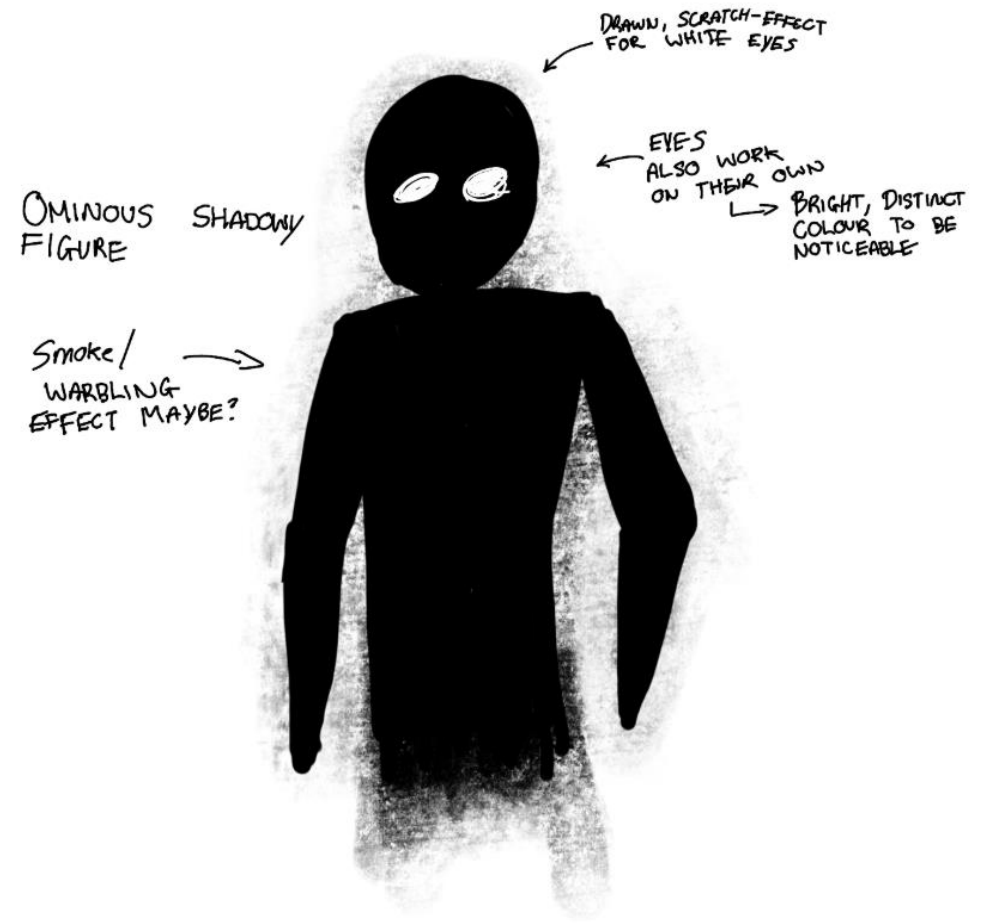
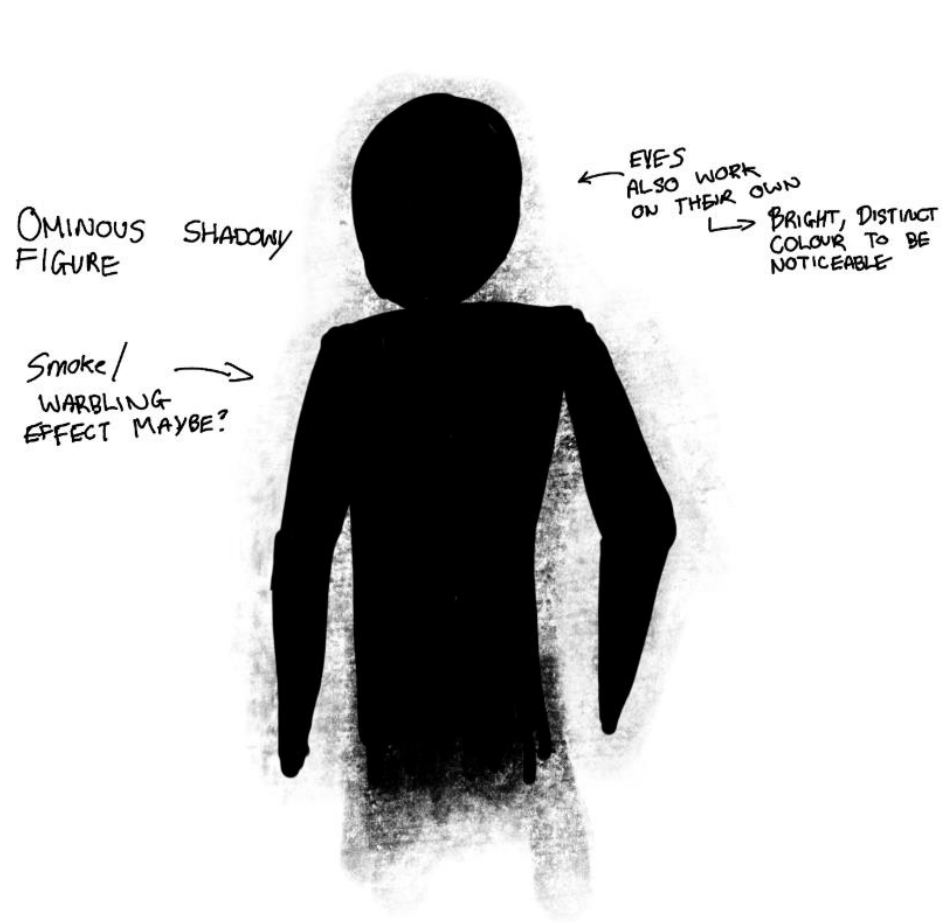
This is the storyboard we chose.

We wanted to create a horror sequence, and I followed our previous discussions as a group to develop the 'forest' idea further.

We decided, later, to replace the lantern prop with a phone, as Laura wanted to add sound design to our shot. We instead implemented a phone instead.

While creating the thumbnails of the storyboard, I made sure that all shots could be done within the 3-screen environment of the Immersive Room, having two side plates and a back plate.

CONCEPT ART



To add to the narrative of our project, I designed a 'creature' for Arif to later add into our project.

I designed four, with slight adjustments to each to have a different effect. I also recommended being able to utilise the eyes alone, if creating a humanoid figure would be too time consuming for our team.

OMINOUS
FIGURE

SHADOWY

Smoke /
WARBLING
EFFECT MAYBE?



"REALISTICALLY"
STYLED EYES FOR
UNCANNY EFFECT

EYES
ALSO WORK
ON THEIR OWN
→ BRIGHT, DISTINCT
COLOUR TO BE
NOTICEABLE

OMINOUS
FIGURE

SHADOWY

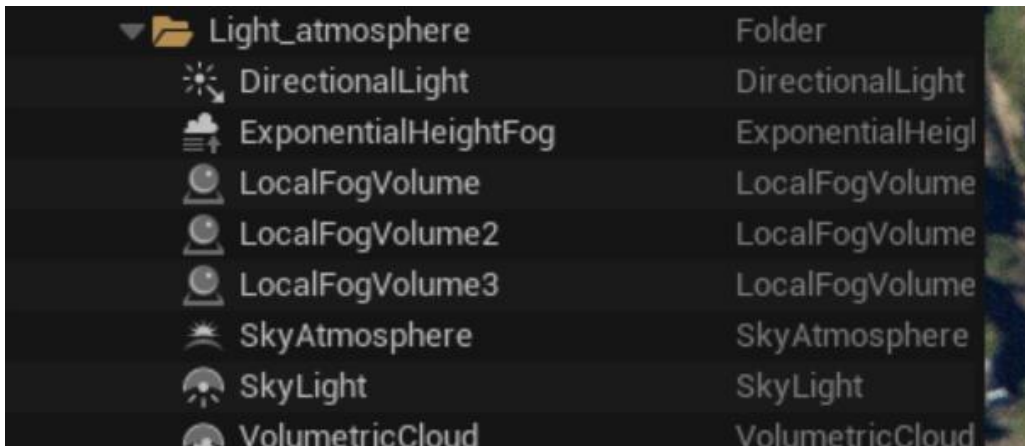
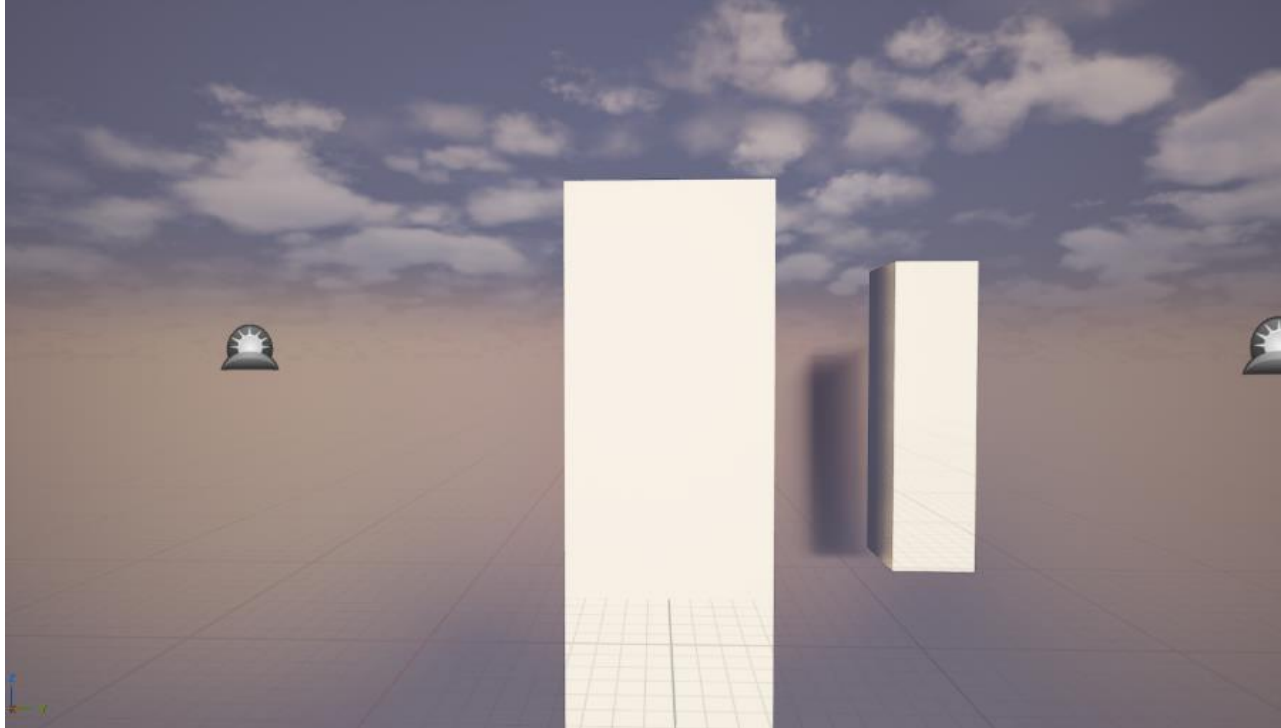
Smoke /
WARBLING
EFFECT MAYBE?



CARTOONISH?
EXAGGERATED
RED SINISTER
EYES

EYES
ALSO WORK
ON THEIR OWN
→ BRIGHT, DISTINCT
COLOUR TO BE
NOTICEABLE

LIGHTING & ENVIRONMENTAL FOG



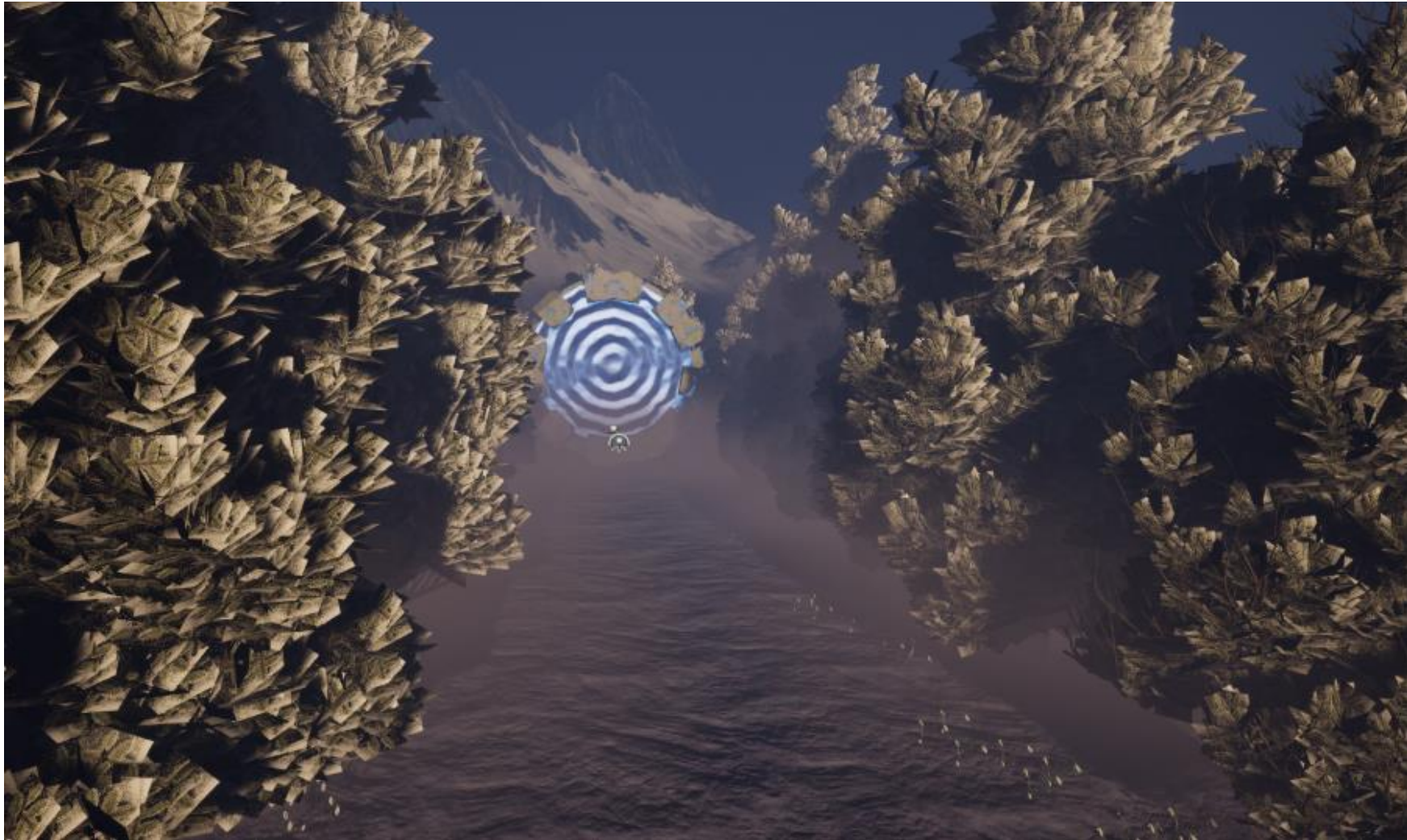
To create fog for our background, I wanted to utilise the 'LocalFogVolume' tool in Unreal Engine to create a realistic effect.

This also allowed us to render cameras from any angle, as the fog was a part of the environment. I think this saved us some later edits within our project.

Unfortunately, at first I had an issue with creating a blueprint from the fog I had originally created (as seen in the photo). This was mainly because of the version of Unreal Engine, as I was working in an outdated version.

Upon updating my software, I had no further issues with the local fog-- but we soon came to the realisation that as a team, we were working on different versions of the same program as I was unable to utilise it in the Unreal Engine file that contained our environment. This could be improved in the future by better planning and/or communication, but it was easily corrected as Unreal Engine is forward compatible.

I recreated the fog in our environment, using the same tools as before. It worked perfectly, and I think that it adds a lot of animosity to the ominous atmosphere of our background.

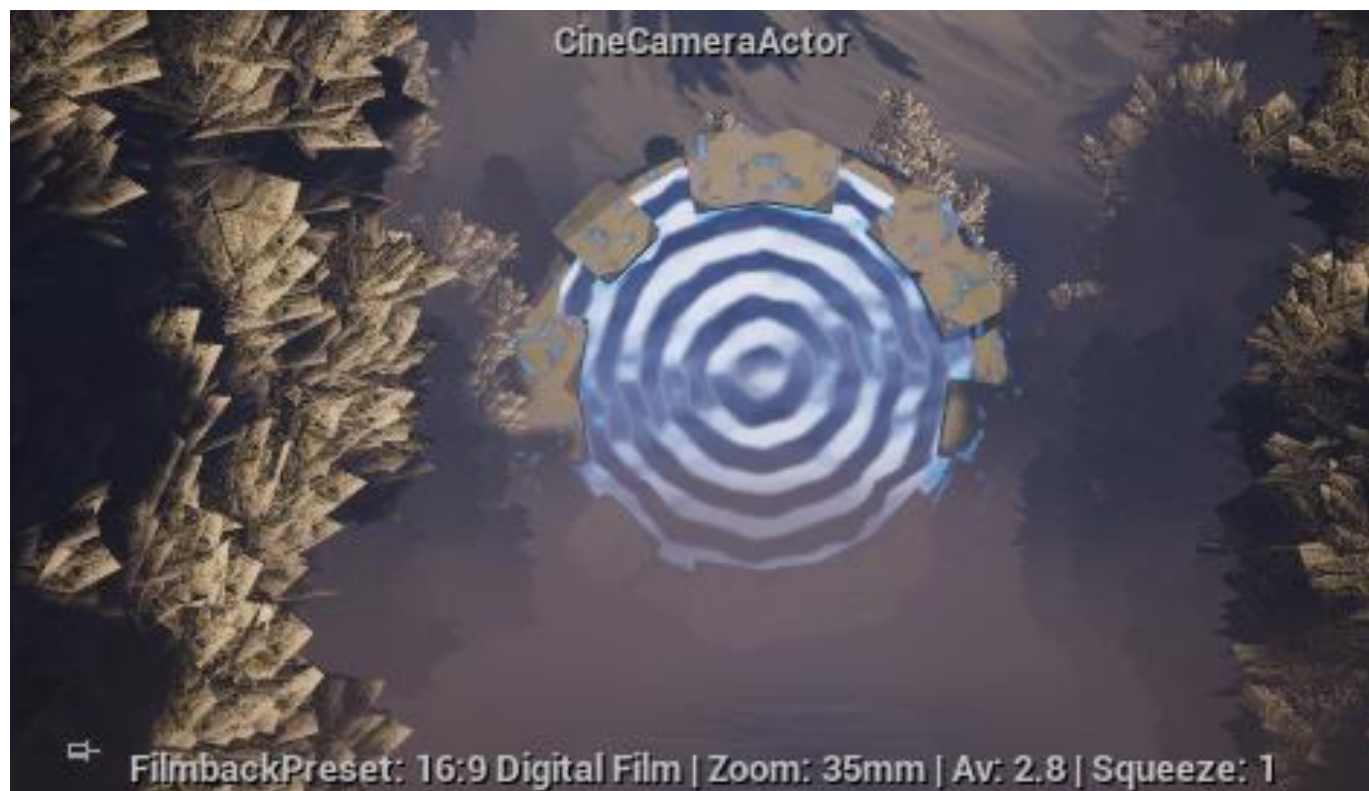


RENDERING

My next step was to render out the cameras for our background.

I did this by using a 'CineCameraActor' node in Unreal Engine. This allowed me to have full control over the camera as if I was actually in the environment. This helped as it encouraged me to keep as close to our planning and storyboard as I possibly could.

I recorded one long shot of the walkway that I could be cut up into separate pieces at 24fps, and a long side shot of our environment.





While rendering was easily done through the 'Level Sequence' option, I faced some issues later while in compositing that could have been addressed during the rendering stage.

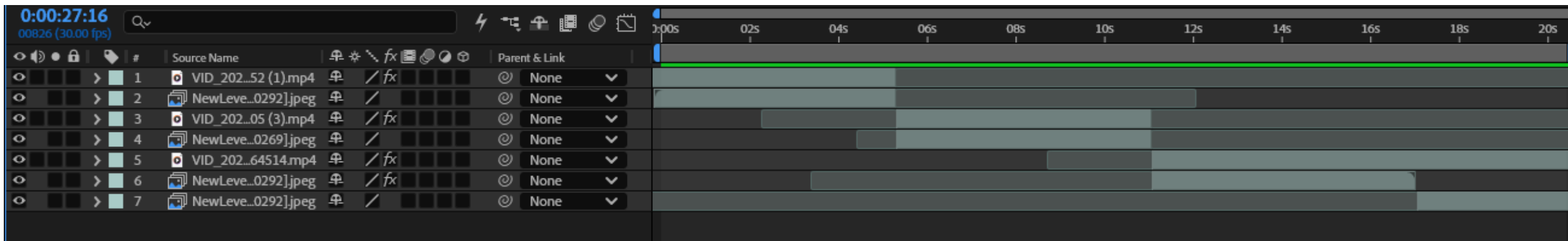
I had planned to slow the footage down to match the walking speed of our actor, so I recorded a longer shot at a quicker frame rate so I would have better control over it. Unfortunately, this did lead to the frames-per-second dropping by a noticeable degree. This made the environment look really unrealistic during this side shot of our actor, and could be solved in the future by either recording at a higher fps or moving the camera itself at a relative speed.

COMPOSITING



To composite the shot, I used Adobe After Effects, as I felt familiar with it and I knew my team would have access to the files I was using and the same tools. For our footage, I used my camera renders for the background, and our recorded footage of our actor in front of a green screen.

I cut the footage of our actor off at the waist, so it would look as though he was walking. I wanted to make sure our character in the shot was a believable height, so I stayed cautious of how large he was compared to our backdrop and where he would be positioned within the space.



While it is not the neatest, I wanted to make sure my workflow was clear and organised for the next person I would hand my work off to. I made sure to group each shot's files in order, so my team could easily see which shots are currently in view.

Leaving my footage unclipped was also intentional, as I knew we would not be rendering out our work through the media encoder just yet, and we could change speed, time stamps or footage if we needed to.

KEYING

Due to time allocation, I had to pick up keying our greenscreen footage.

At first, I had some issues with transparency after using the 'Keylight' tool in After Effects.

I fixed this by tweaking the levels of the footage of our actor. I only touched the black and white values, as I had worried that tweaking any RGB would later cause issues for our colour corrector.

I think the outline of our actor came out really nicely, but there are issues with the reflective items in the shot. I think this might be able to be solved with lighting during shooting the footage, or awareness while shooting that the greenscreen will be visible on reflective surfaces.



THANKS FOR
LISTENING!

Any questions?

VIDEO LINK

[FINAL VPD - MWS SB AK - No Sound.mp4](#)