



# fallEN

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# 1. Abstract

“Fallen” is an experimental live-action VFX project that explores the destruction of nature caused by human expansion, embodied through the figure of an “angel of nature.” This ethereal being becomes increasingly wounded and diminished as humanity progresses through three key eras: the Agricultural Revolution, the Industrial Revolution, and the Modern Age.

Visually and emotionally, the piece evokes a sense of mythology and melancholy: blending magical realism with fragile, dreamlike imagery to express the tension between creation and decay.

The project is created as a project for the “Digital Media Studio 5: Specialisation” course, Bachelor of Design (Digital Media), RMIT University.

# 2. Members & Roles

## Anh Tho

Director  
Camera Operator  
Styling Decisions  
Color Grading  
Sound Design  
Editor

## Bao Chau

Makeup Artist  
Props Setup  
3D Generalist  
VFX  
Compositor

# 3. Concept

The photography of Directors Choi Yeyong and Cho Giseok left a deep impression on us with its narrative depth. Even though they work with still images, the storytelling in their visuals is incredibly strong, and that is what inspired us most (Fig 3).

**Mood & Vibe: Magical, mythical, dreamy, surreal, melancholic, delicate, nostalgic**



Fig 1: Work by Director Choi Yeyoung



Fig 2: Work by Director Choi Yeyoung



Fig 3: Work by Director Choi Yeyoung

The second key element is the color and tone. Their work carries a nostalgic and poetic tone that aligns perfectly with the story we aim to convey (Fig 1).



Fig 4: Work by director Cho Giseok



Fig 5: Work by director Cho Giseok



Fig 6: Work by director Cho Giseok

# 4. Color Scheme

The color palette will be divided into two main tones. In the scenes before the invaders arrive, the tone will be warm and subdued, (Fig 7) combined with film grain to evoke a nostalgic and dreamy atmosphere of the land.



Fig 7: Before invasion

After the invaders come and violate the land, the environment will turn cold, dominated by deep blue tones (Fig 9). Small patches of light in the background will be used to create visual contrast (Fig 10).



Fig 9: After invasion 1



Fig 8: During invasion



Fig 10: After invasion 2

# 5. Plot

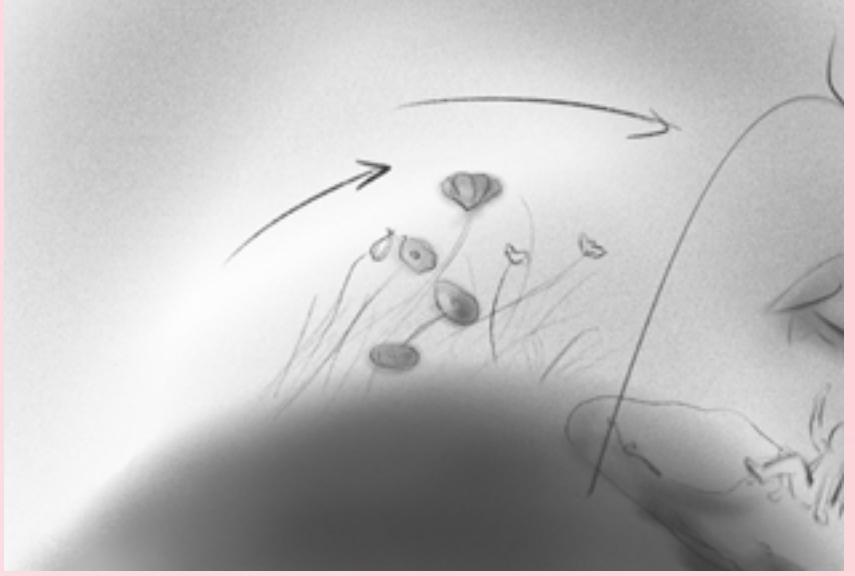
At the heart of “Fallen” lies a visual allegory – an angel who personifies nature itself (Fig 11). Through her transformation across three human eras: the Agricultural Revolution, the Industrial Revolution, and the Modern Age. The project reflects the profound consequences of human progress on the natural world.

Rather than unfolding as a linear story, “Fallen” presents a progression of visual and emotional states. In each era, the angel’s form and surroundings mirror the deepening corruption of nature. Harmony breaks apart as fertile land is exploited and life begins to fade. Invaders appear; machines rise, filling the air with smoke and noise. In the end, the angel’s heart burns and turns to stone – the final sign of nature’s loss and decay.

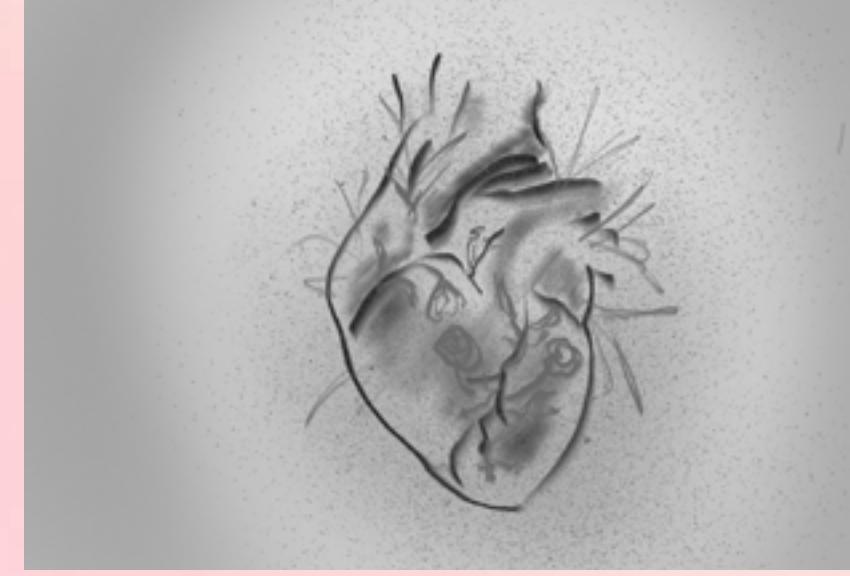
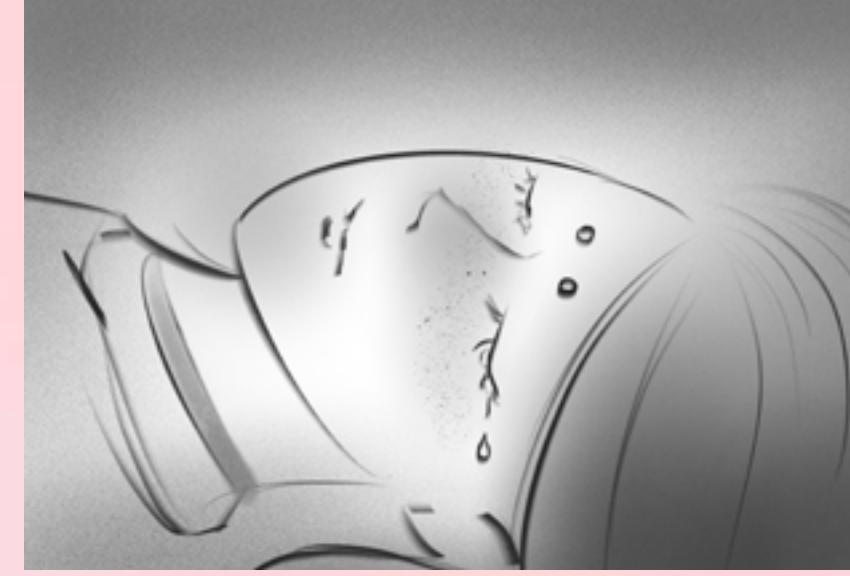
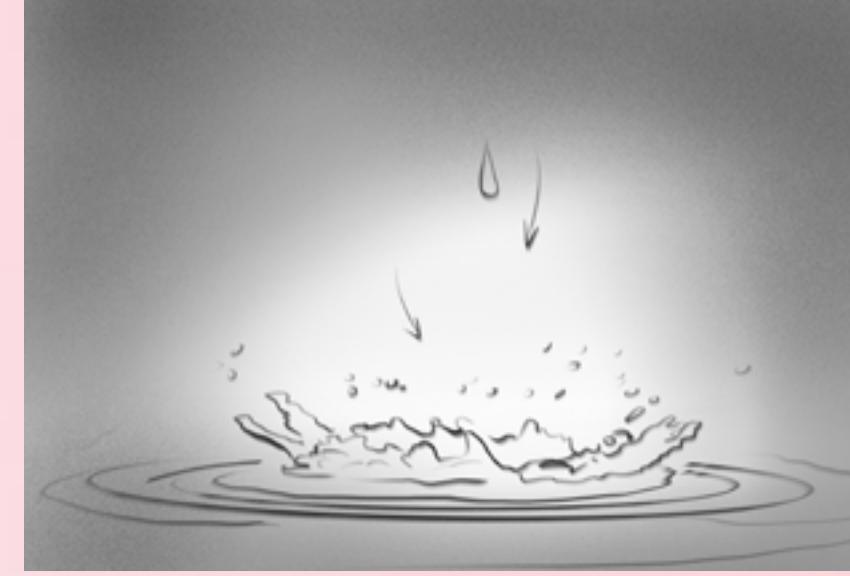
Fig 11: A shot after the angel is attacked



# 6. Storyboard

Visual	Description	Live Action	CGI/ 3D Elements	VFX/Compositing
 Shot 1.1	<p>The plant of life begins to grow from black liquid.</p>	<p>None</p>	<p>3D magical plant sprouting from liquid surface</p>	<p>Animated gradient background, fluid ripple compositing, lighting glow</p>
 Shot 1.2	<p>The angel sits peacefully on a lush, round piece of land (the pristine state of nature)</p>	<p>Actress on green screen</p>	<p>3D butterflies, particles, flowers, grass, soft fog</p>	<p>Light compositing, shadow integration, color grading for harmony</p>
 Shot 1.3	<p>The lush land sphere rotates upside down, revealing the wasteland beneath.</p>	<p>None</p>	<p>Cracked wasteland terrain</p>	<p>Rotation and environment transition, lighting shift, sky replacement</p>

<b>Visual</b>	<b>Description</b>	<b>Live Action</b>	<b>CGI/ 3D Elements</b>	<b>VFX/Compositing</b>
	Invaders emerge from a dark, fog-filled space wearing masks.	Actors/Actress on green screen as invaders (with push-in camera)	3D fog, smoke, and pointed mountain silhouettes	Camera tracking, depth compositing, blending fog and shadows
	A weapon is thrown toward a butterfly, tearing through a natural barrier.	None	3D weapon, butterfly, and torn barrier (weeds, leaves, vines)	Debris simulation, interaction FX between weapon and barrier
	The angel's wings dissolve and vanish.	Actress on green screen	Withered flowers, dissolving smoke, vanishing wings	Particle dissolve FX, background animation, glow and lighting composite

Visual	Description	Live Action	CGI/ 3D Elements	VFX/Compositing
	The lush heart of nature burns and hardens into stone.	None	Floral heart model, stone heart, fire simulation	Burn and transformation FX, heat distortion, color shift
	Black tears stream from the angel's eyes.	Actress on green screen	3D or simulated black liquid (tears)	Face tracking, liquid simulation, subtle reflection and shadow integration
	The tear falls and merges into the dark liquid below.	None	3D droplet, liquid surface with ripple	Water surface interaction, reflection and refraction compositing, fade into black

# 7. Technical Approach

## Tools

Shooting: Blackmagic camera

3D/ CGI: Blender

Compositing: Nuke

Simulation: Blender & Em bergen

Video Editing & Color Grading: DaVinci Resolve

Camera Tracking: Blender/ Syntheyes

Sound Design: Ableton

## Pipeline

Pre-production:

Concept art > Storyboard > Animatic > Shotlist > Props > Technical Planning

Production:

Set Preparation > Shooting Plates > Actor Performance & Direction > Reference Footage

Post-production:

Data Organization > Rotoscoping > Matchmove & Tracking > 3D Modeling, Animation, Simulation > Lighting > Rendering > Compositing > Editing & Sound Design

## Color Pipeline & Delivery Specs

Color Space: ACES

Bit Depth: 16-bit EXR for compositing

# 8. Production Plan

## Pre-production

- Storyboards: Visual development of each shot (Completed).
- Animatic: Basic timing to define pacing and transitions.
- Concept & Mood Boards: Reference lighting, color palette, and emotion per era.
- Asset Design:
  - 3D: Plants, butterflies, angel wings, heart model, industrial props.
  - Practical: Angel costume, invader costume, customized gas mask
- Technical Tests: Camera green screen lighting tests;

## Production

- Filming Days: 1-2 days in controlled studio environment. (rent)
- Setup:
  - Green screen backdrop (including floor).
  - Tracking markers placed for accurate match move.
  - HDRI photos captured on-set for 3D lighting reference.
  - 1 spotlight (keylight), 2 background lights, 1 fill light, 1 black floopy (flag), lighting gel sheets

## Post-Production

- Tracking & Match move: Align live-action with 3D camera in Blender.
- Modeling & Simulation: Create 3D plants, wings, smoke, and environmental transitions.
- Compositing: Merge CGI and live footage; add atmospheric FX (glow, fog, dust).
- Color Grading: Establish consistent yet distinct tone across all eras.
- Sound Design: Layer ambient, mechanical, and organic soundscapes for emotional rhythm.
- Final Output: exported with final mix..

BẢNG DỰ TRÙ KINH PHÍ FALLEN							
STT	MỤC ĐÍCH	HÀNG MỤC	ĐƠN VỊ	SỐ LƯỢNG	ĐƠN GIÁ (VND)	THÀNH TIỀN (VND)	
1	CHI PHÍ KỸ THUẬT	Render	Giờ	9	100,000	900,000	
2		Assets	File	1	115,000	115,000	
3		Mentorship	Lần	1	2,000,000	2,000,000	
TỔNG (1)						3,015,000	
4	CHI PHÍ SẢN XUẤT	Stylist	Buổi	1	500,000	500,000	
5		Model	Buổi	2	500,000	1,000,000	
TỔNG (2)						1,500,000	
6	CHI PHÍ ĐỊA ĐIỂM	Studio	Giờ	8	200,000	1,600,000	
TỔNG (3)						1,600,000	
7	CHI PHÍ ĐÀO CỤ	Váy (shot 2)	cái	1	380,000	380,000	
8		Mặt nạ	cái	1	59,000	59,000	
9		Tất ren	đôi	1	11,000	11,000	
10		Lens	đôi	2	80,000	160,000	
11		Phấn nhuộm tóc	bộ	1	42,000	42,000	
12		Trang trí mặt	bộ	1	36,000	36,000	
13		Đồ Makeup	bộ	1	382,000	382,000	
14		Nước mắt giả	lọ	1	265,000	265,000	
TỔNG (4)						380,000	
TỔNG (1) + (2) + (3) + (4)						6,495,000	
CHI PHÍ PHÁT SINH 10%						649,500	
TỔNG CHI PHÍ						7,144,500	

# 9. Main Scenes

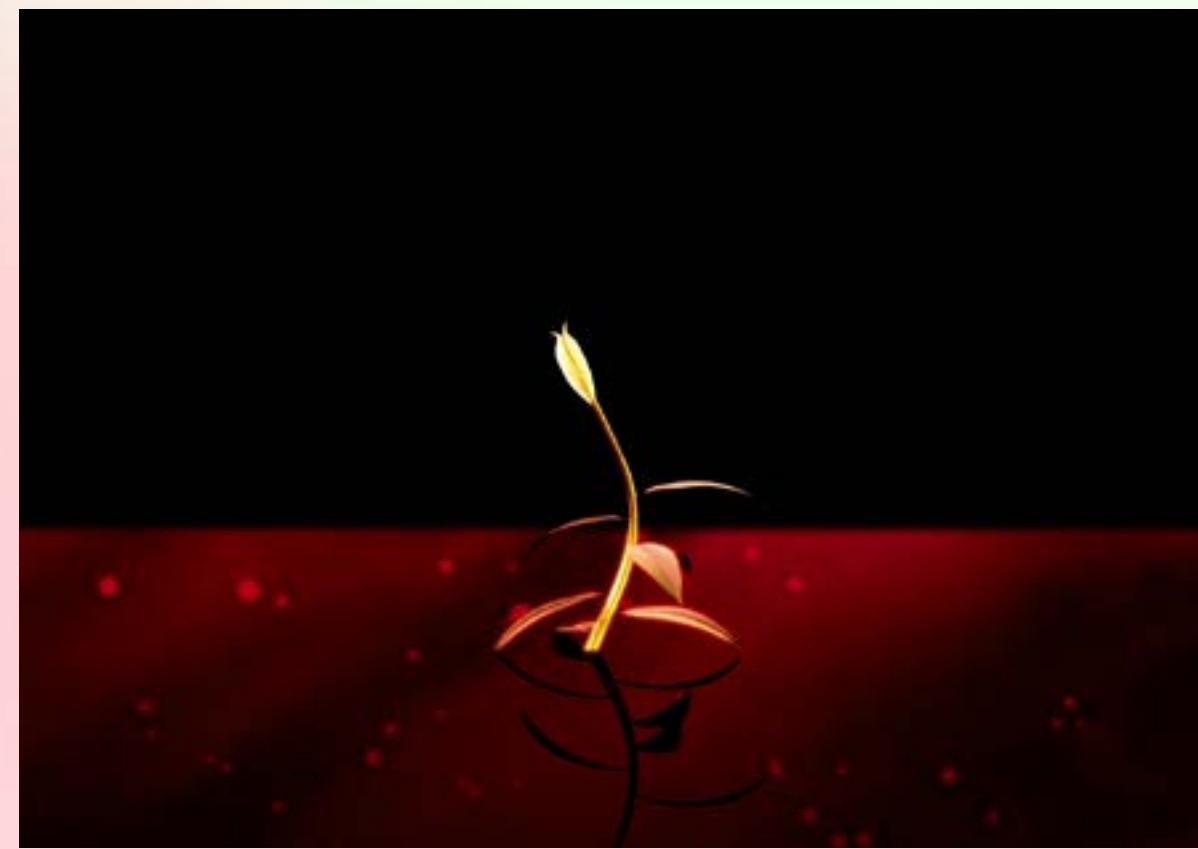


Fig 12: Scene 1 - Shot 1 (5s): The plant of life begins to grow from black liquid



Fig 13: Scene 1 - Shot 2 (10s): The angel sits peacefully on a lush, round piece of land



Fig 14: Scene 1 - Shot 3 (10s): The lush land sphere rotates upside down, revealing the wasteland



Fig 15: Scene 2 - Shot 1 (15s): Invaders emerge from a dark, fog-filled space wearing masks.

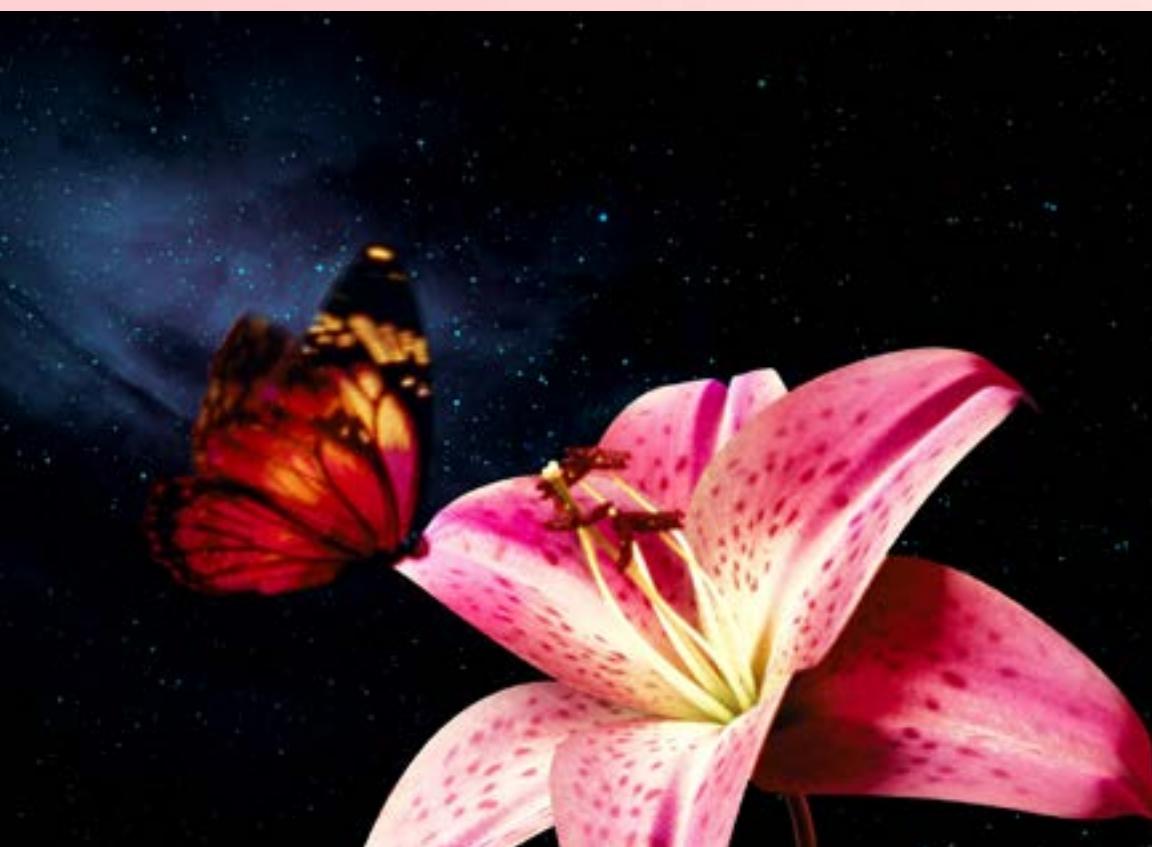


Fig 16: Scene 2 - Shot 2 (8s): A butterfly approaches a flower but disintegrates before it can reach it



Fig 17: Scene 3 - Shot 1 (15s): The angel's wings dissolve and vanish



Fig 18: Scene 3 - Shot 2 (14s): The lush heart of nature burns and hardens into stone.



Fig 19: Scene 3 - Shot 3 (7s): Black tears stream from the angel's eyes

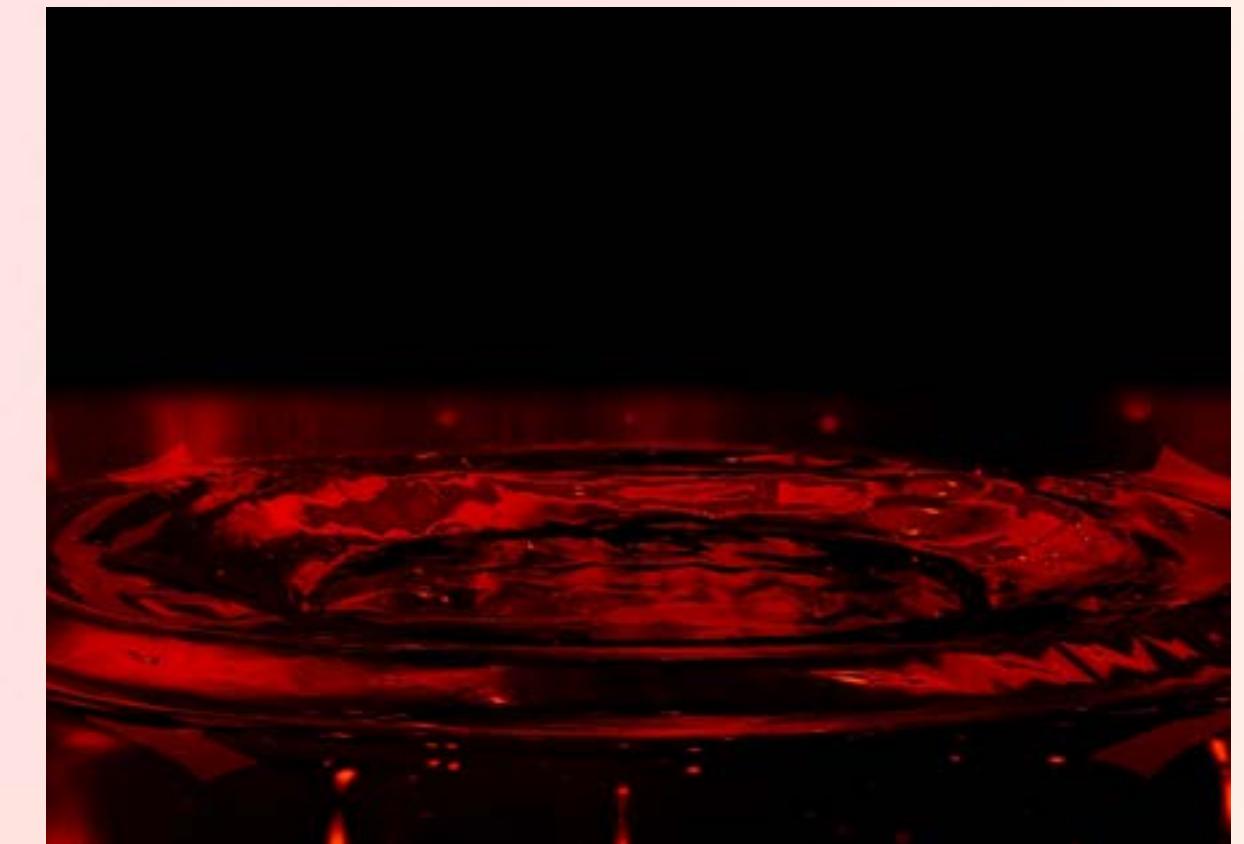


Fig 20: Scene 3 - Shot 4 (10s): The tear falls and merges into the dark liquid below.

# 10. Makeup & Styling

The makeup look for the first phase (Angel in her natural habitat) is inspired by the lily flower (Fig 22), which symbolizes fragility yet carries a sense of gentle vitality. Its soft, delicate qualities perfectly reflect the mood we want to capture, and the lily's tones also harmonize beautifully with our pink-centered color palette (Fig 23).

After the attack by the invader, she appears lifeless, with black smoky eyes and pale lips (Fig 24). She wears a flowing, pale beige dress that enhances her ethereal, fragile appearance.

The invaders' costumes adopted a cyber-goth, techno-futuristic style, evoking post-human strangeness. Their faces were fully masked, enhancing their mysterious, dangerous aura.

The all-black palette reinforced the dark, futuristic aesthetic of their identity (Fig 26).



Fig 21: Makeup sketch



Fig 22: Lily makeup on model's face



Fig 23: Lily makeup and outfit

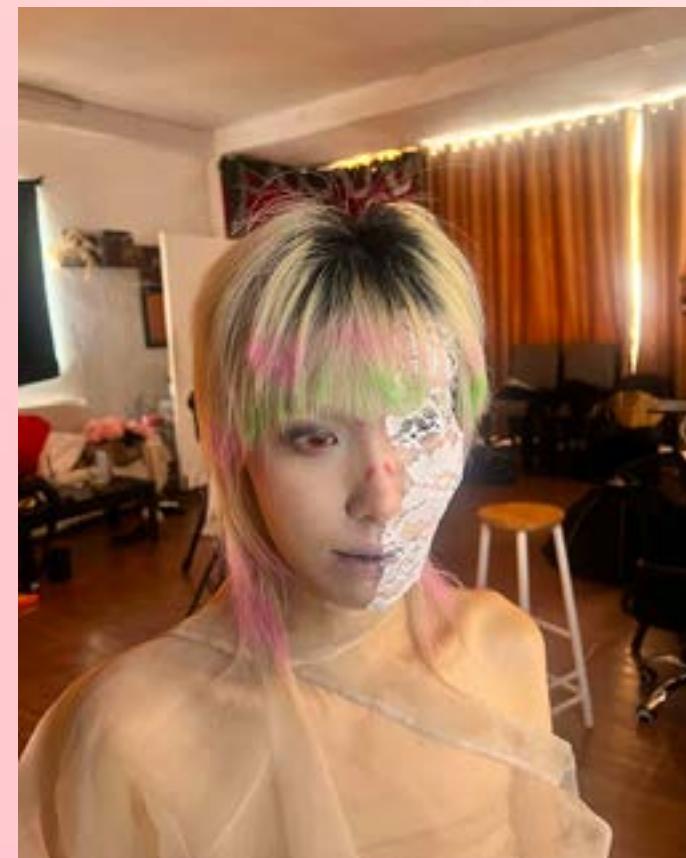


Fig 24: Lifeless makeup



Fig 25: Behind the scene



Fig 26: Invader's outfit

# II. Video Production

For this project, we have 2 shootings in totals.

## First shooting

In this project, I gained significantly more insight into video production, ranging from lighting setups to using a green screen for the first time.

We shot on a Blackmagic camera using two types of lenses: a close-up (Fig 27) and a wide-angle lens. For a first-time shoot, things went relatively smoothly as we adhered strictly to the timeline, from makeup to lighting setup.

However, a critical mistake we made was blasting colored light directly onto the character to create an effect. This resulted in a heavy color cast on the skin tones, making it impossible to color grade (Fig 28).

Fortunately, we managed to keep one shot that used white light, which allowed us to keep our progress on schedule.



Fig 27: Close-up shot



Fig 28: Shooting scene setting



Fig 29: Us doing the makeup



Fig 30: Us doing the hair styling

## Second Shooting

For the second shoot, knowing exactly what we wanted allowed us to be much more focused and time-efficient. We also rotated responsibilities for shared tasks, which made the workflow significantly smoother (Fig 29) (Fig 30).

Learning from our previous experience, we exclusively used white or soft yellow lighting this time. However, the lighting setup remained the most time-consuming part, particularly for the shot involving fake blood tears. We had to dilute the fake blood with a significant amount of water to achieve the right consistency. This allowed the tears to flow naturally, which was crucial for the subsequent compositing stage.

Additionally, booking a studio, hiring talent, and sourcing costumes gave us valuable experience in expense management and calculating a budget for a real production set.

# 12. 3D Assets

## Modeling

### Goals:

Maintain clean topology for efficient rendering while achieving a refined, natural look (Fig 31) (Fig 33).

### Actions:

- Kept most modeling lightweight and modified plant assets to match the project's aesthetic.
- Used Blender 5.0's scatter-on-surface modifier to layer vegetation on the land (Fig 34).
- Built the lily bloom procedurally in Geometry Nodes by instancing petals, stamens, and pistil along curves (Fig 32).

### Challenges:

The complexity of the Geometry Nodes setup caused deformation and animation issues, extending production time.

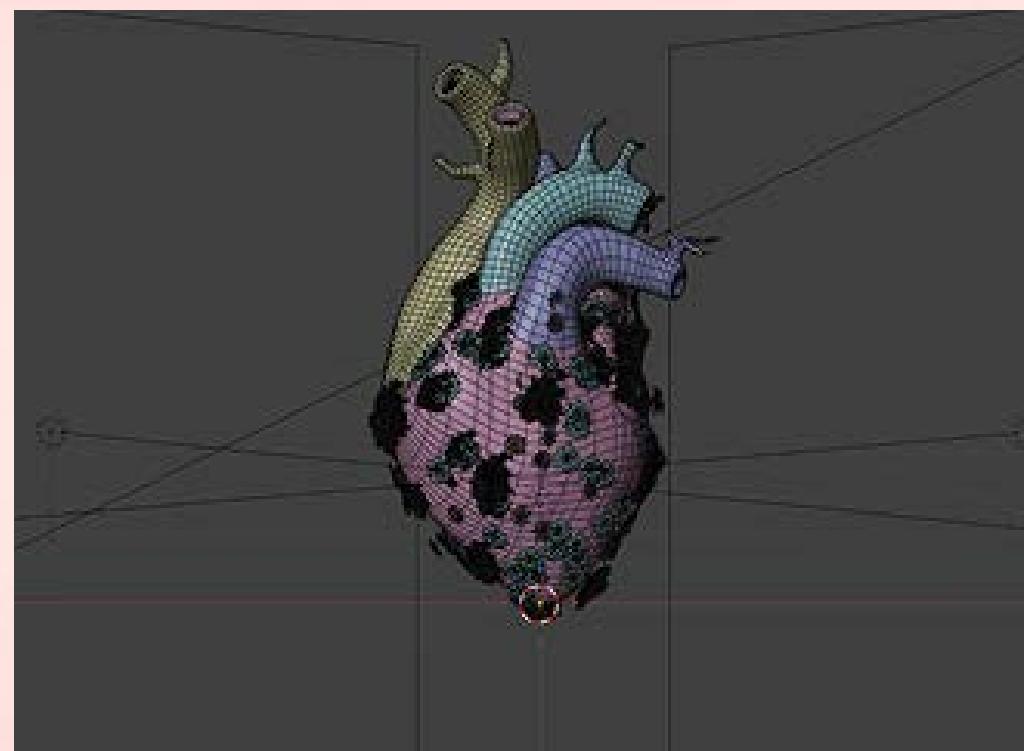


Fig 31: Heart model with clean topology

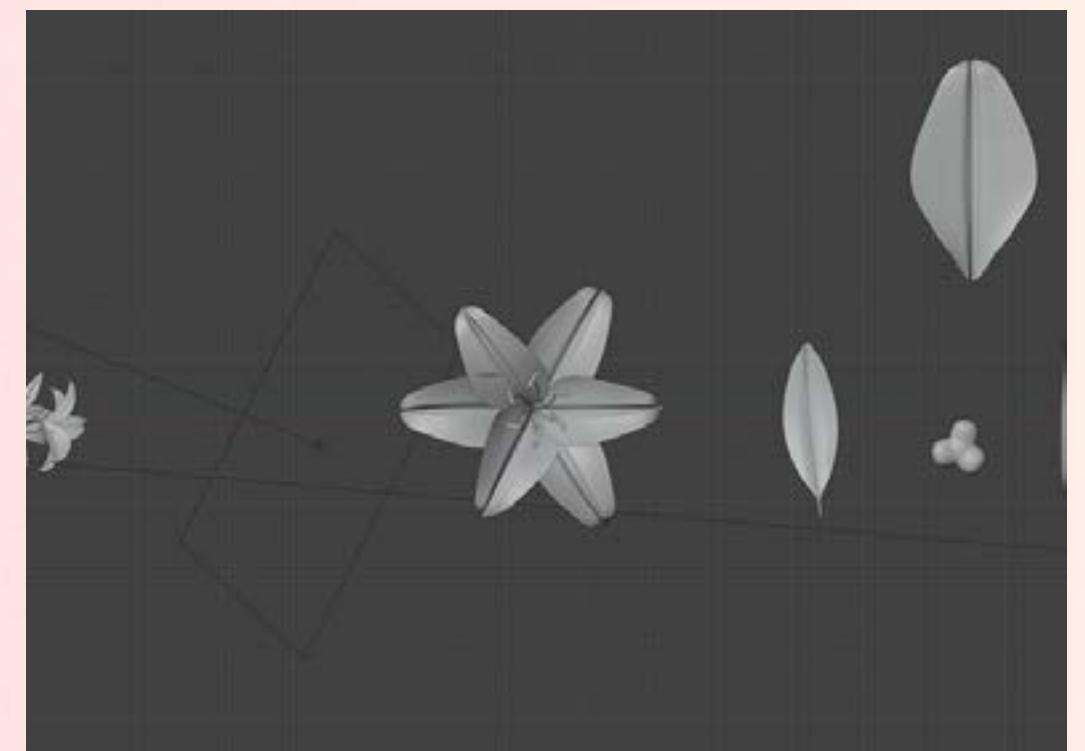


Fig 32: Lily flower's single parts being put together

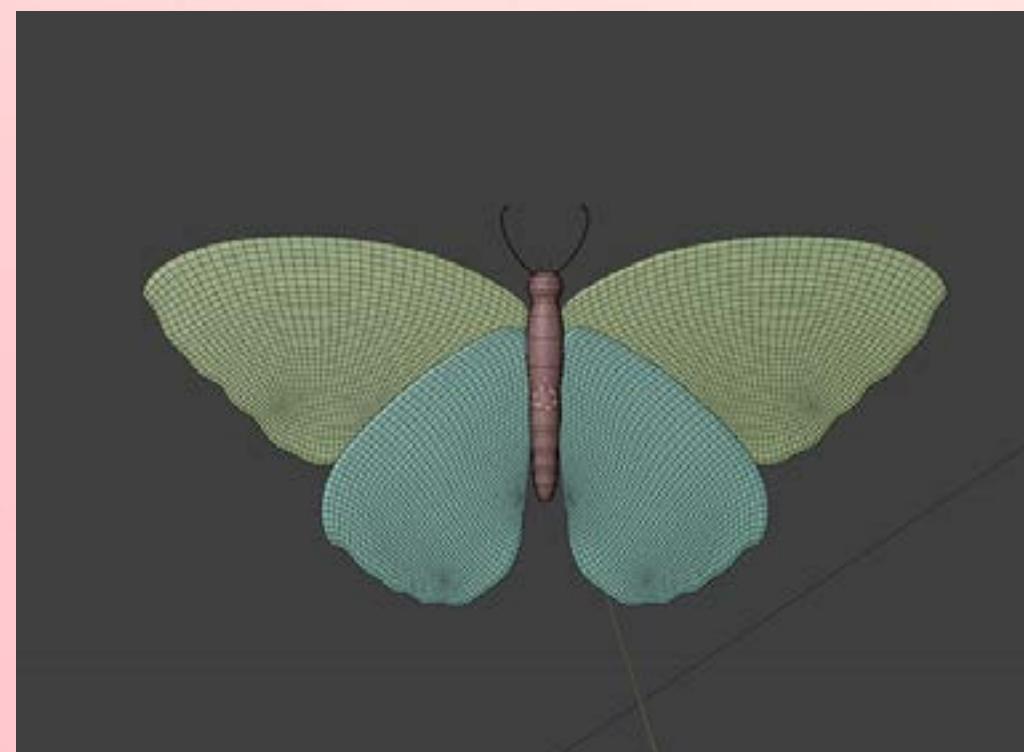


Fig 33: Butterfly model

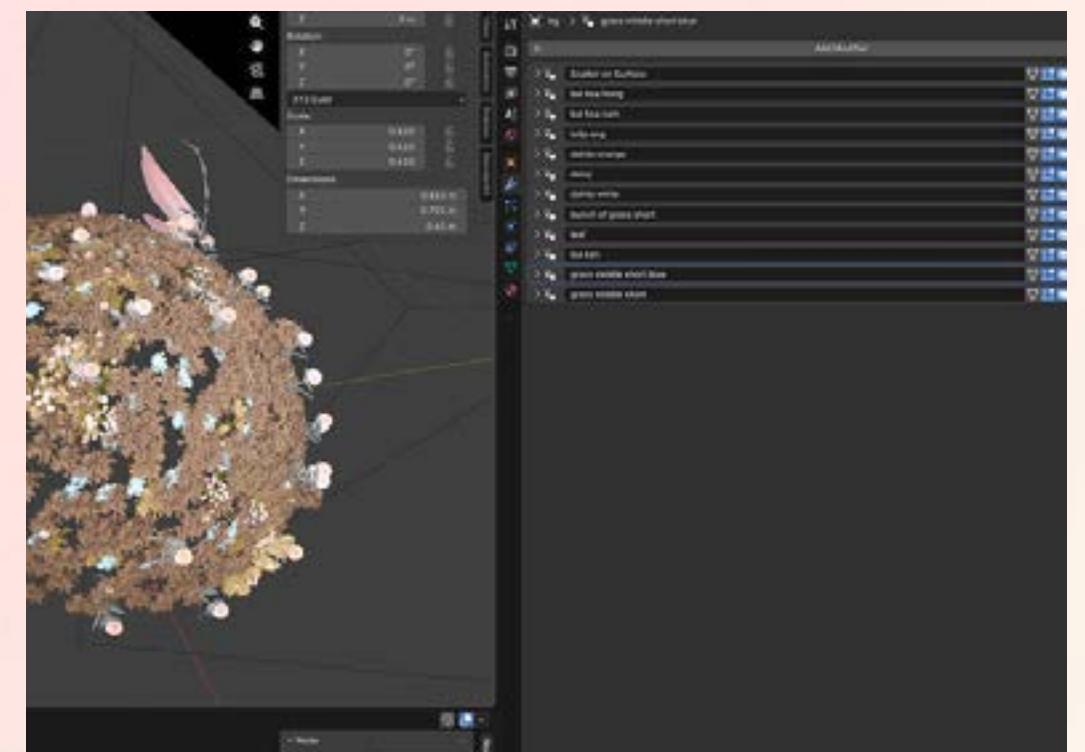


Fig 34: Modifier for making the lush pristine land

# Texturing

## Goals:

- Achieve cohesive, high-quality textures that matched the project's core aesthetic (Fig 35).

## Actions:

- Sourced real-world texture scans, refined colors in Photoshop, and generated alpha and normal maps (Fig 37) (Fig 38).
- Added noise, adjusted shader colors, and blended multiple textures for depth.
- Created separate “before” and “after” textures for shots requiring texture transitions.
- Adapted select BlenderKit and Substance Painter textures to add unique details and ensure visual consistency (Fig 36).

## Challenges:

- The volume of texture variations and fine adjustments made the texturing process time-intensive.

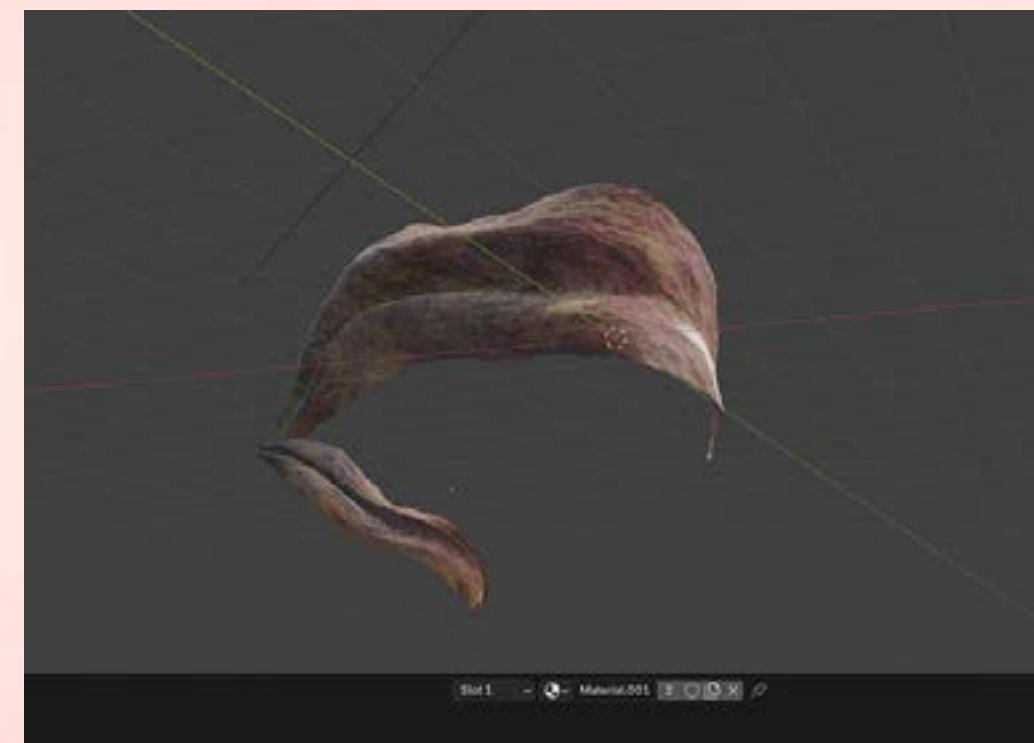


Fig 35: Wilted wings texture

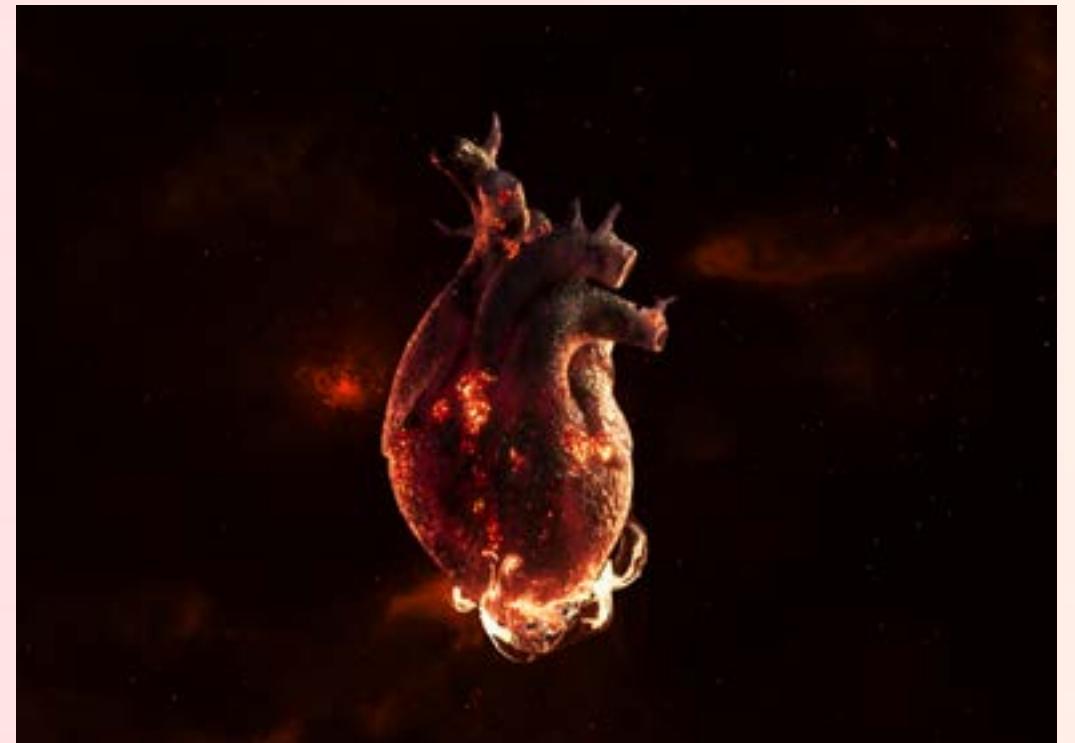


Fig 36: Burnt heart texture



Fig 37: I made my own alpha map, normal map for the butterfly

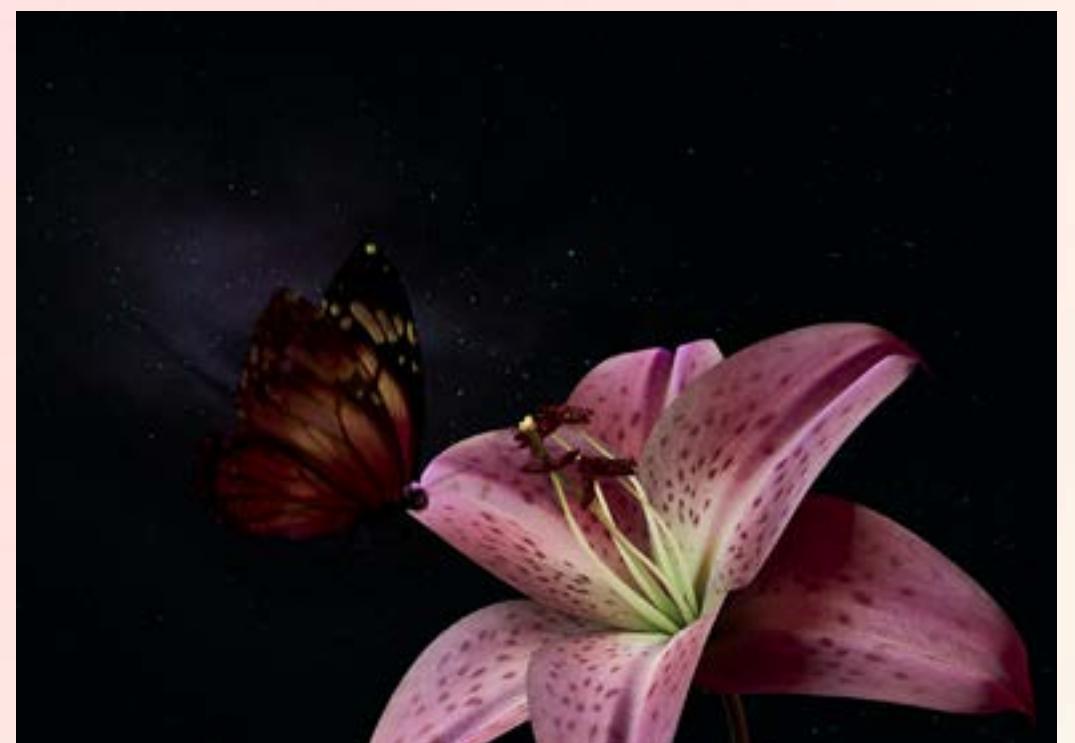


Fig 38: Lily flower texture

# Rigging & Animation

## Goals:

- Create natural, believable motion and growth that integrates realistically with live-action footage.

## Actions:

- Used a Damped Track constraint on the wings and butterfly to achieve soft, flowing movement, with manual speed-graph adjustments (Fig 39).
- Animated lily growth and bloom at the curve level using Trim Curve and Spline Parameter so petals grew organically. (Fig 40)
- Animated the heart in Nuke to work around limitations of Blender's new Scatter modifier (Fig 42).
- Combined rotation, bending, and texture color transitions to enhance realism.
- Used reference video imported into Blender to ensure believable interaction with the footage.

## Challenges:

The complexity of the Geometry Nodes setup for the lily bloom was difficult to troubleshoot, requiring significant time and effort.

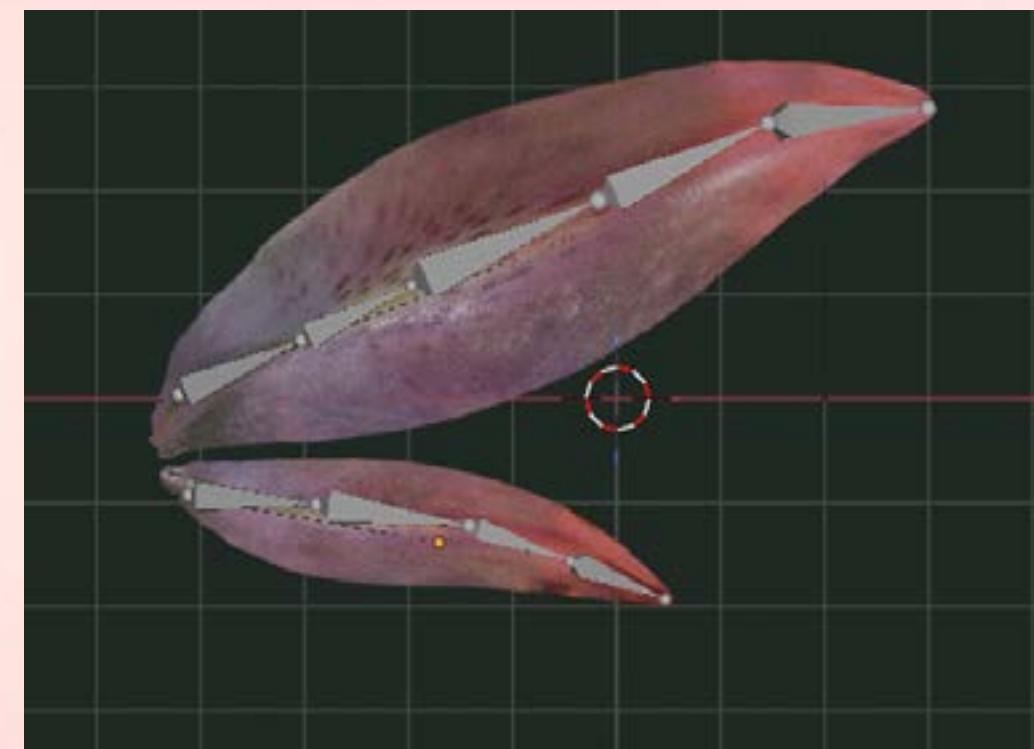


Fig 39: The wing rig



Fig 40: Preparing for the grow animation

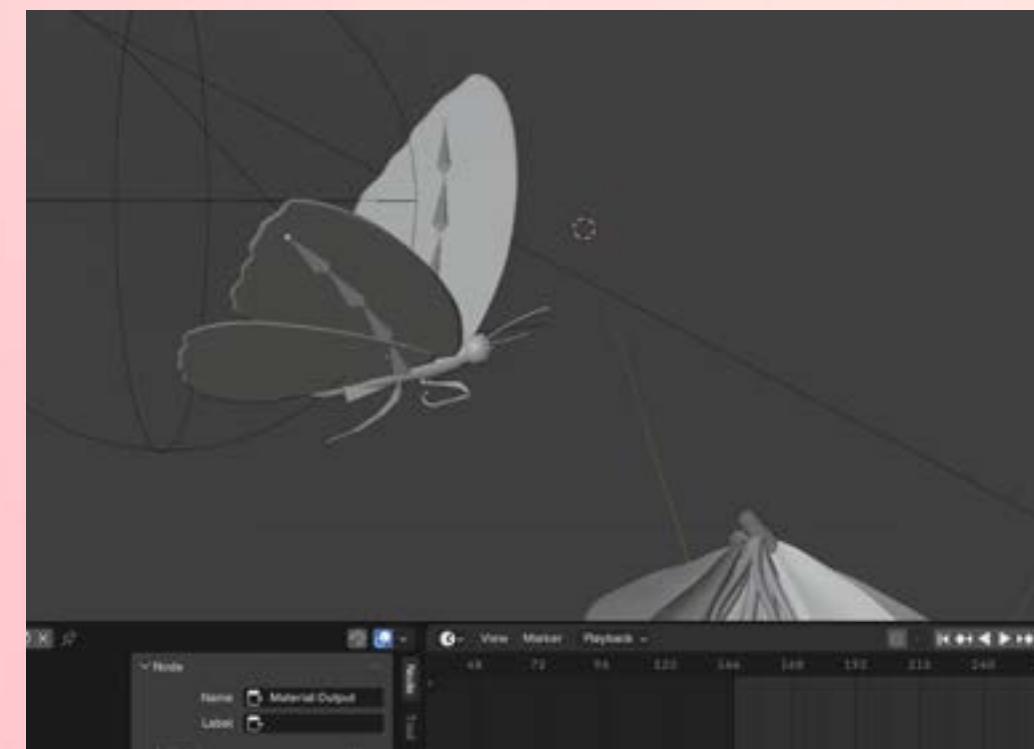


Fig 41: Butterfly flying animation

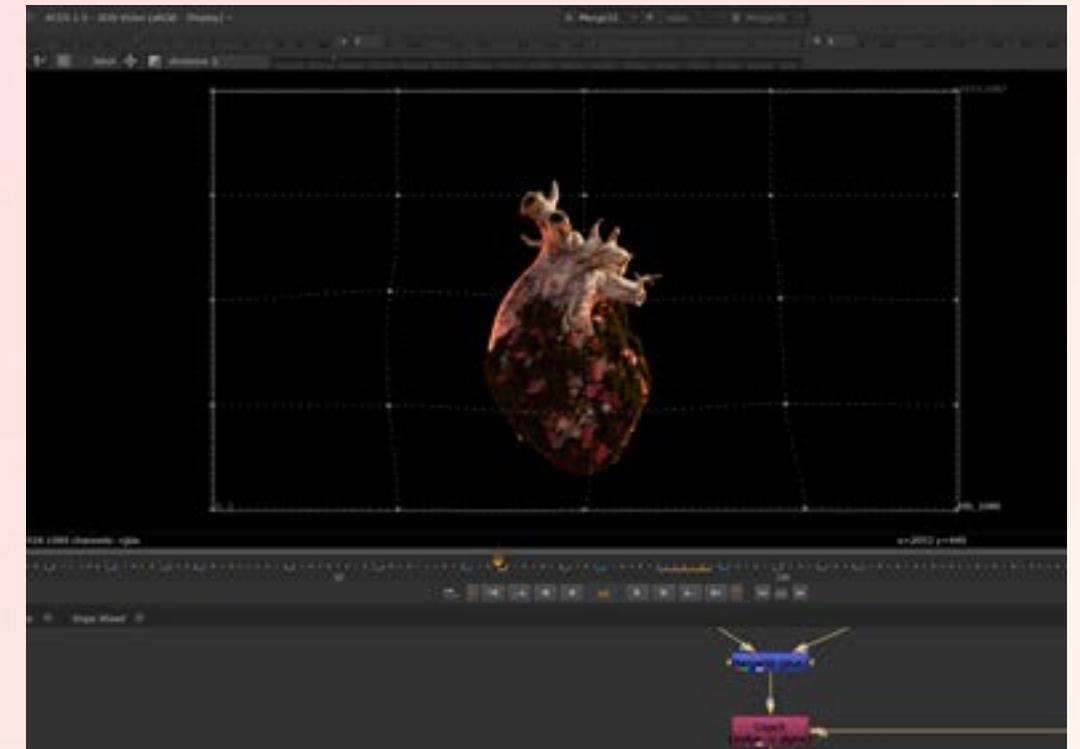


Fig 42: Animation using GripWarp keyframe and expression in Nuke

# Simulations

## Goals:

- Create dreamy, soft, and slow-moving simulation effects that support the fantasy mood.

## Actions:

- Used simulations for fairy dust particles, water, fire, burning smoke, and atmospheric ground fog (Fig 43) (Fig 44).
- Tested Em bergen for pink ground fog but switched to Blender due to poor interaction with the sphere.
- Carefully adjusted simulation settings to achieve fluffy, slow motion.
- Added subtle interaction where growing plants gently pull the ground fog upward (Fig 45).
- Used Em bergen for other simulations where it performed better.

## Challenges:

- Limited prior experience with simulations
- Blender simulations were heavy and often crashed, preventing real-time previews



Fig 43: Fairy dust



Fig 44: Particles from self-disintegration

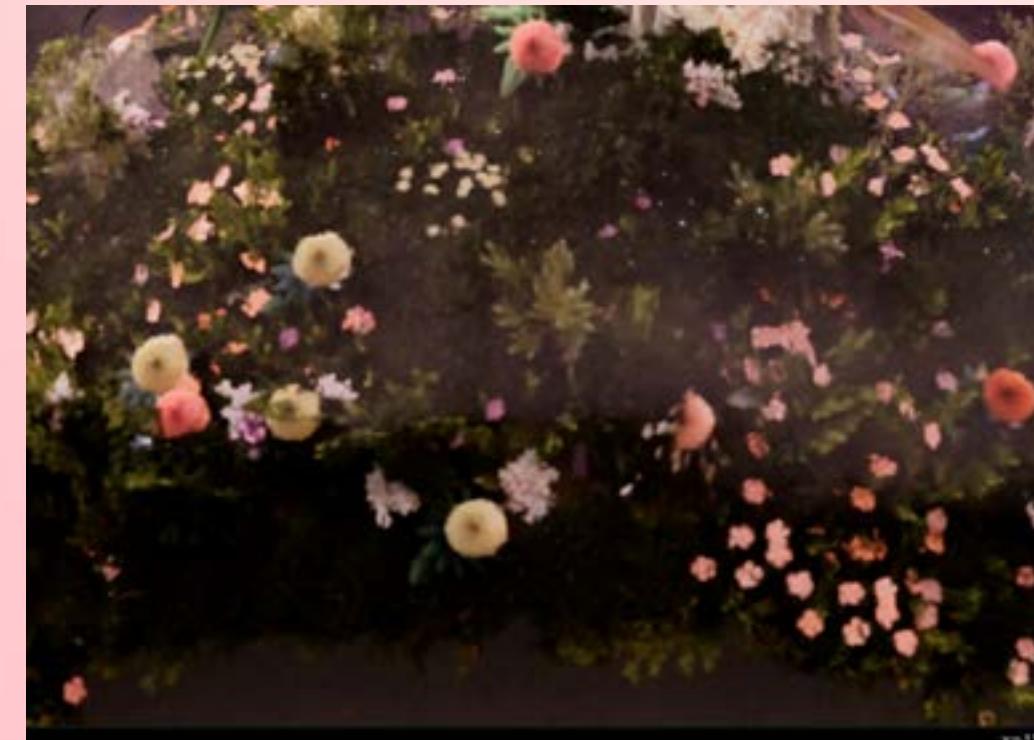


Fig 45: Ground smoke

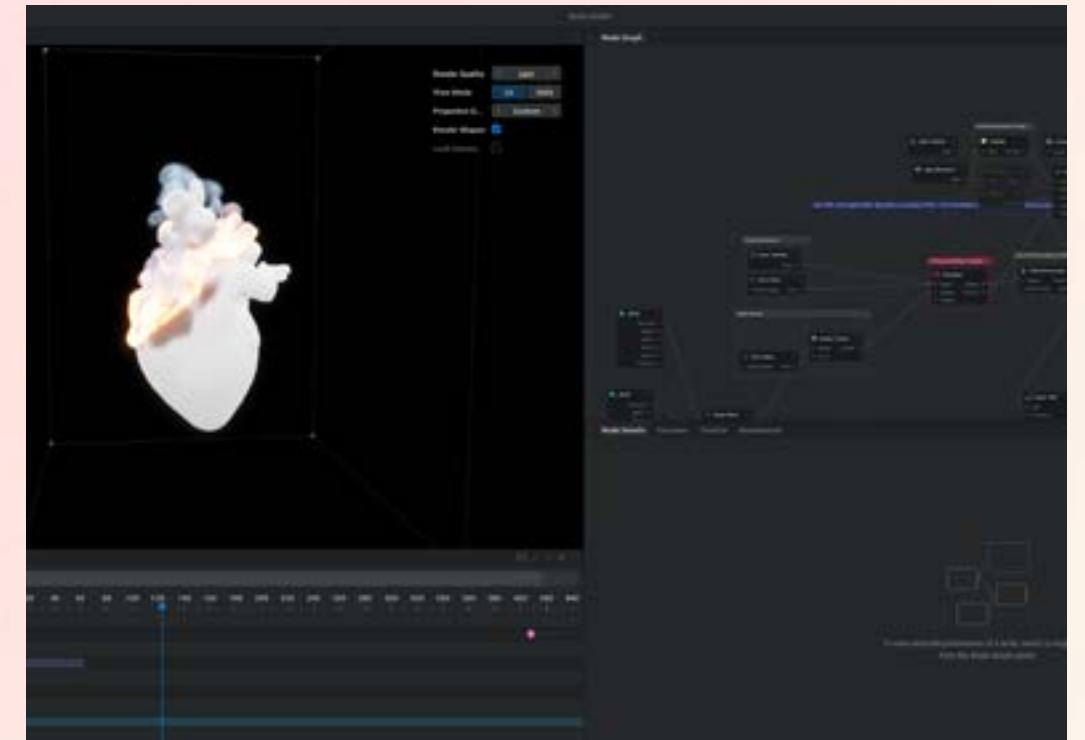


Fig 46: Fire using Em bergen

# 13. Compositing

## Goals:

- Seamlessly integrate CG elements into live-action footage with realistic lighting, depth, and motion

## Actions:

- Practiced and became familiar with node-based compositing workflows
- Used the following nodes as part of the compositing pipeline
  - Primatte for hard matte extraction
  - IBKColor and IBKGizmo for soft matte refinement
  - Keyer (Luminance Key) for removing black backgrounds from assets
  - Keylight for despill
  - Keymix to combine keys and add roto-based masking (Fig 47)
  - Shuffle to read specific channels or render passes
  - Soften to reduce CG harshness without introducing blur
  - Lightwrap to match background lighting with foreground objects
  - Color and Grade nodes for value and color matching
  - Distort and Noise to mimic wind-driven tree movement
- Radial for masking
- Exponential Glow for physically plausible glow effects

## Followed core compositing principles

- Consistent light source and direction
- Avoiding flat atmospheric effects
- Matching motion between interacting elements
- Maintaining foreground, midground, and background depth
- Matching grain, sharpness, and exposure values across elements

## Challenges:

- High noise levels caused by elevated ISO
- Difficulty keying transparent fabric and hair due to low contrast with the green screen
- No prior experience in compositing, VFX, or Nuke, resulting in a steep learning curve

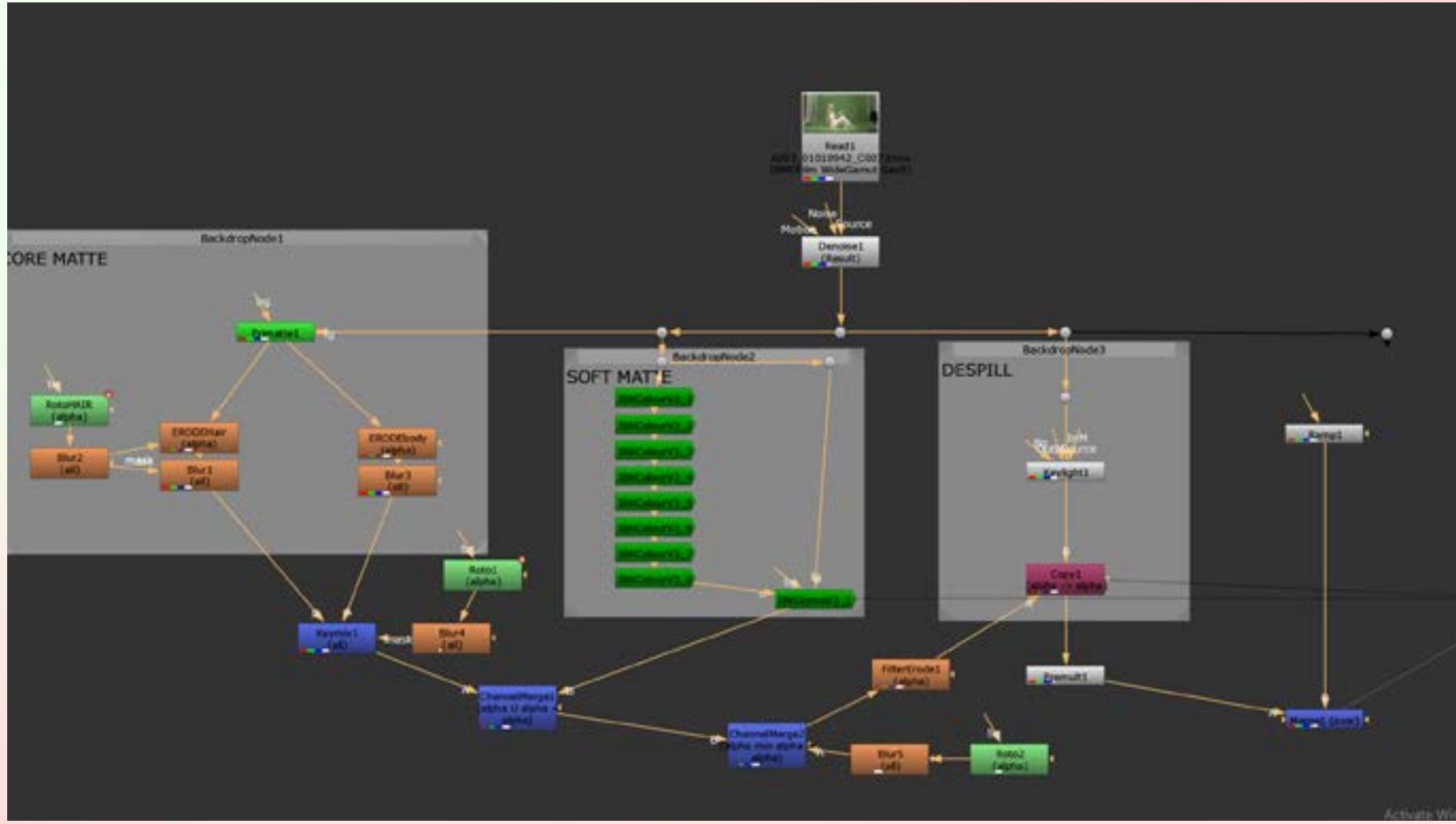


Fig 47: Combining Key

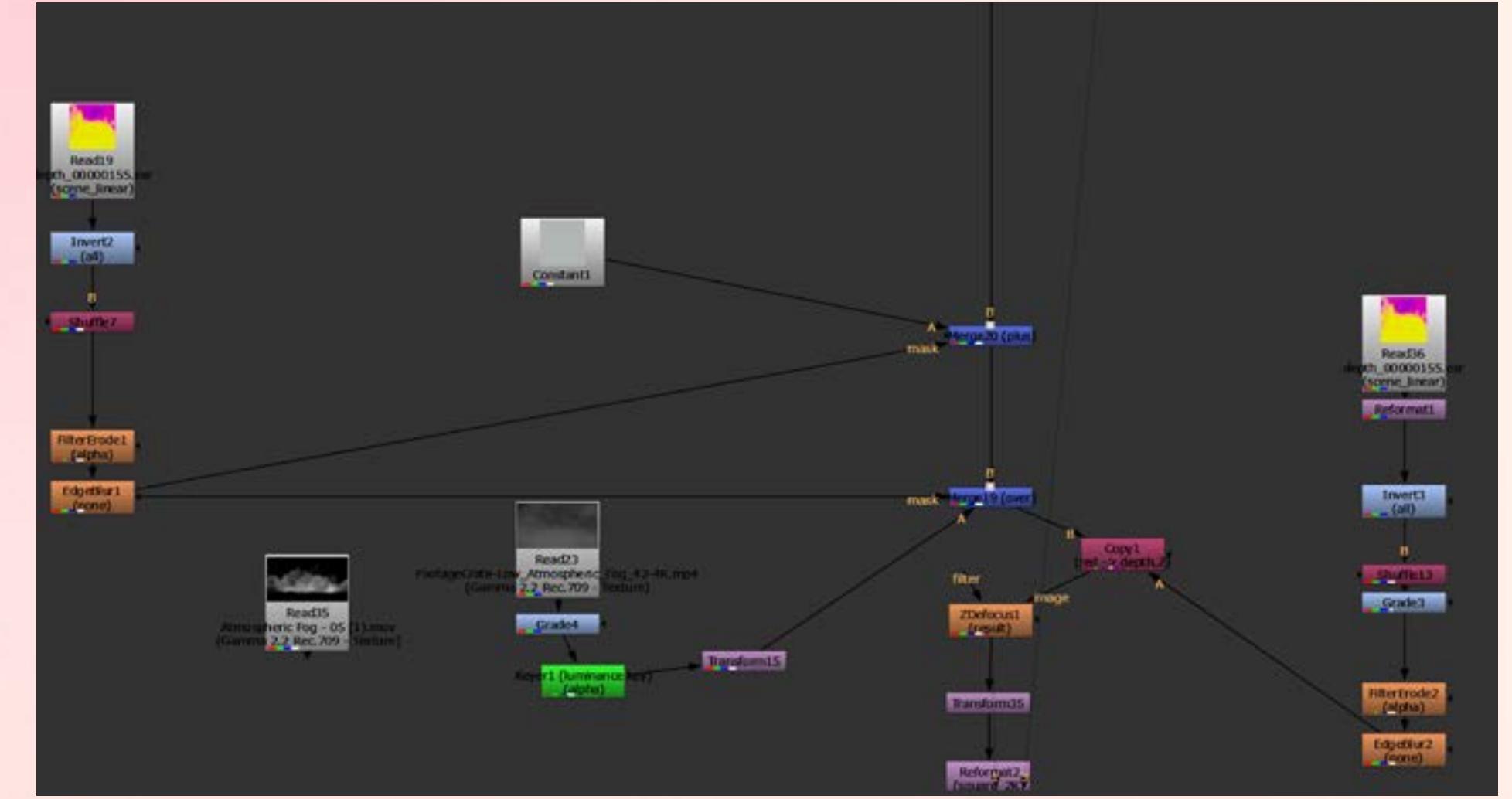


Fig 48: Multipass (AOVs) additive compositing method

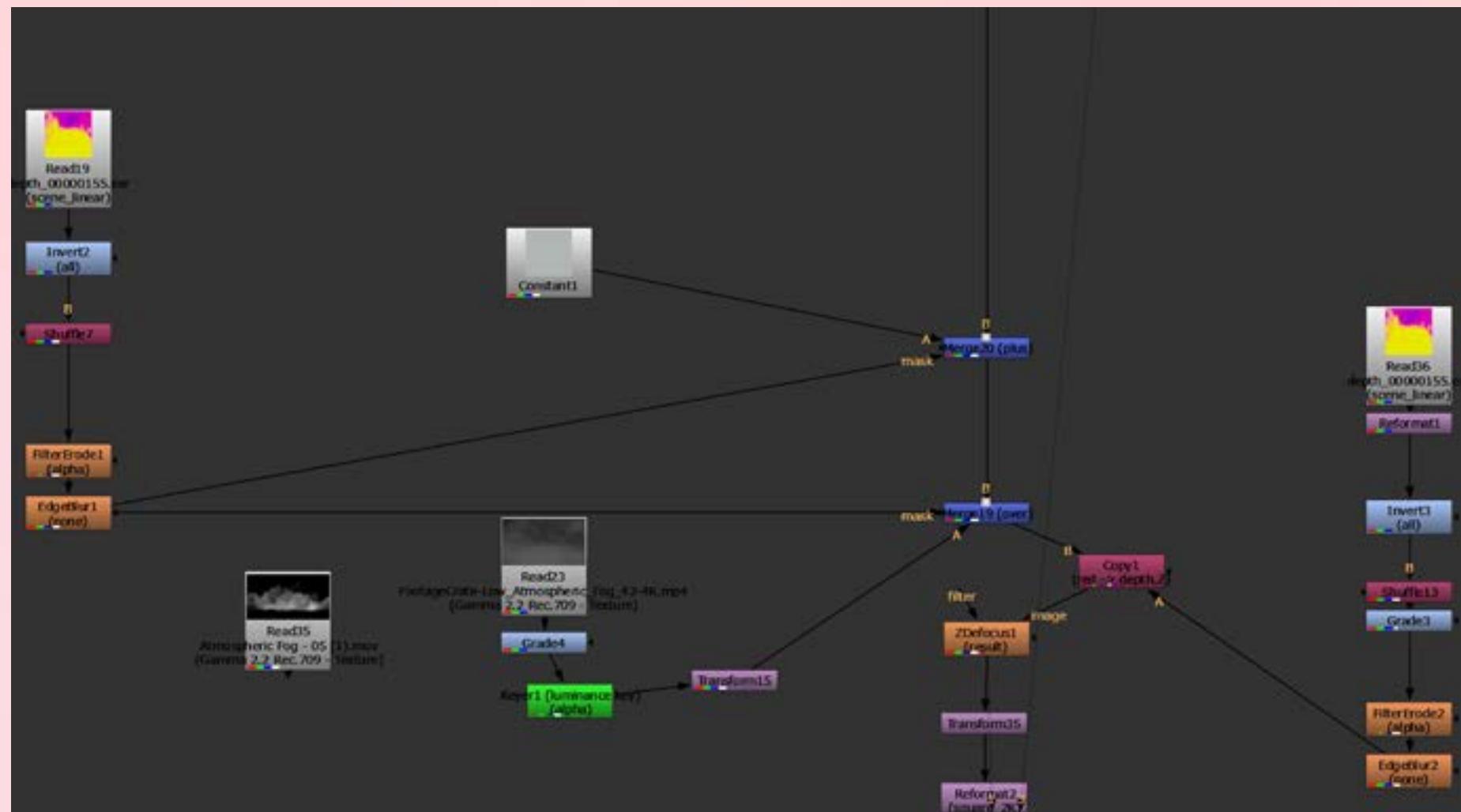


Fig 49: Generated depth map for fog and depth of field

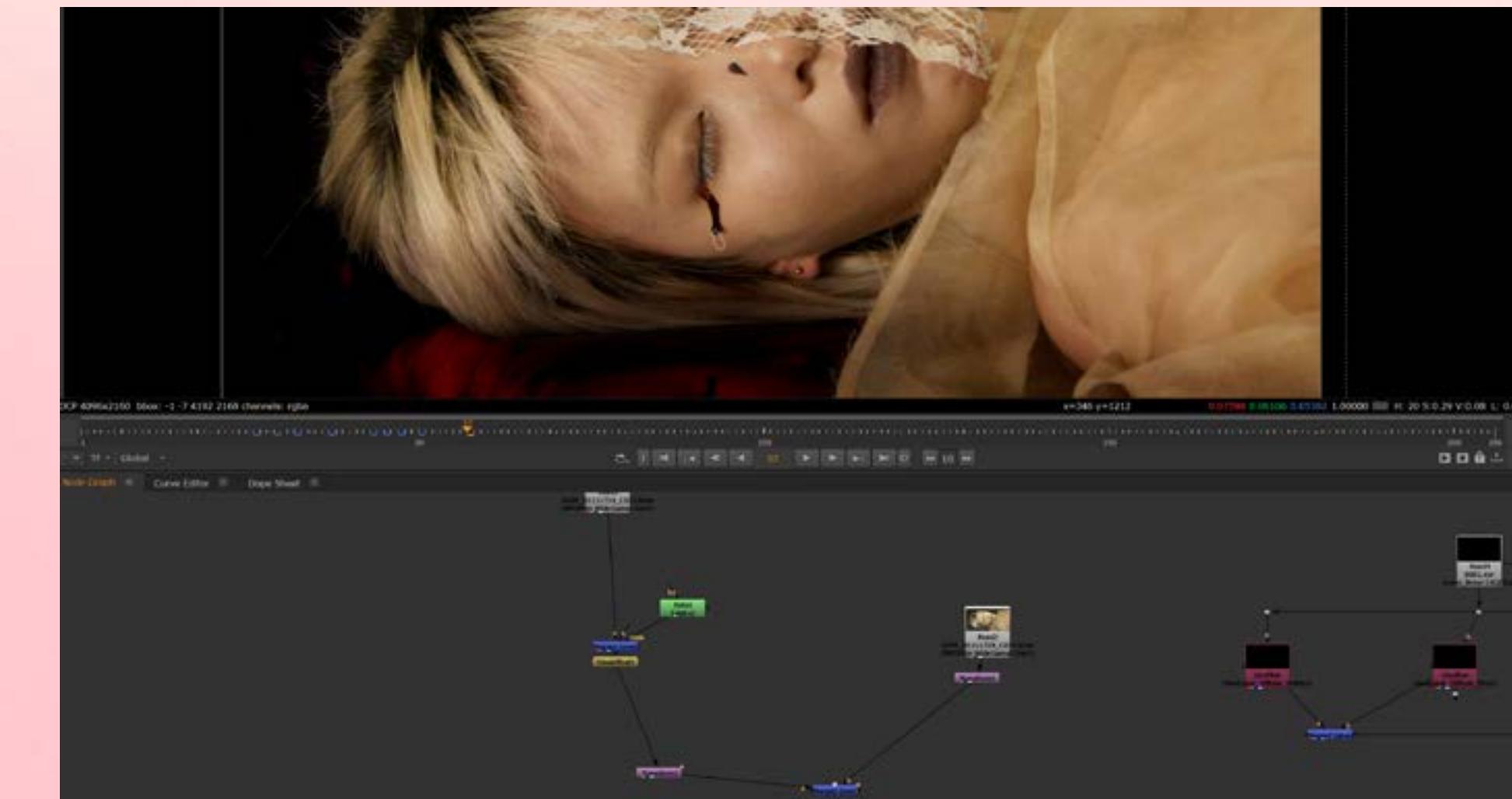


Fig 50: A lots of rotoscope and keying

# 14. Color Grading

Based on the experience gained from Assignment 2, I have dedicated more time to researching fundamental industry workflows and have been exposed to various real-world projects. I have integrated this knowledge and applied it directly to this assignment.

The workflow is divided into basic nodes, starting with Exposure, White Balance, and Saturation (using only one channel within the HSV color model) (Fig 51). This is followed by color masking for specific areas that require adjustment. Finally, I focused on Look Development for the shots, applying Halation or Grain effects at the end of the pipeline to achieve the highest visual impact (Fig 52).

Through working on my first VFX project, I have gained significant experience in handling ACES workflows, Color Space Transforms (CST), and industry-standard rendering processes.

While there were many challenges over the past three months and throughout Assignment 3, the most difficult part of the color grading process was creating a consistent look that could convey the narrative intent without the use of any dialogue or subtitles. However, this challenge granted me more creative freedom and the opportunity to fully explore the possibilities of visual storytelling.

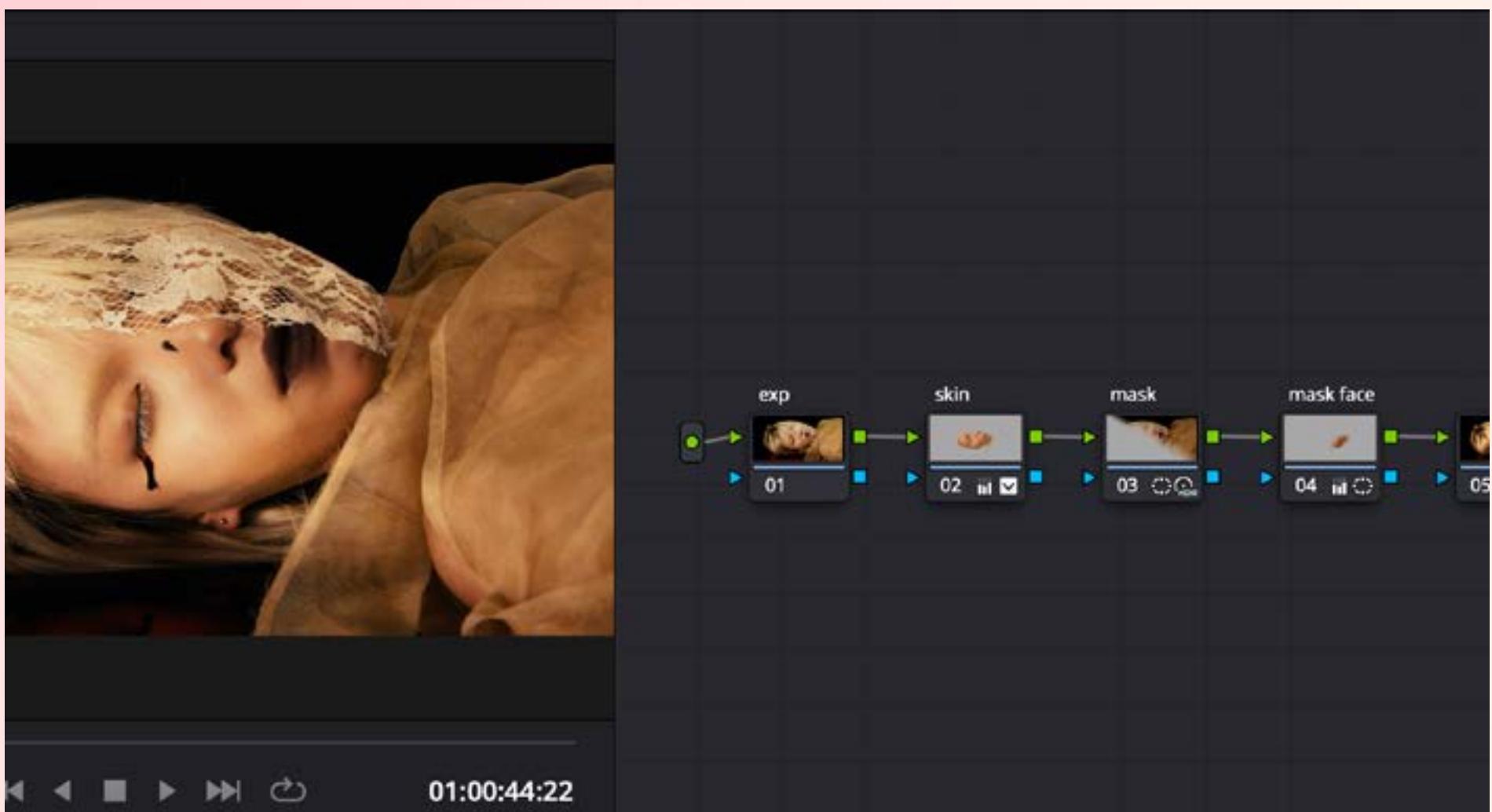


Fig 51: Basic correction and nodes to create look

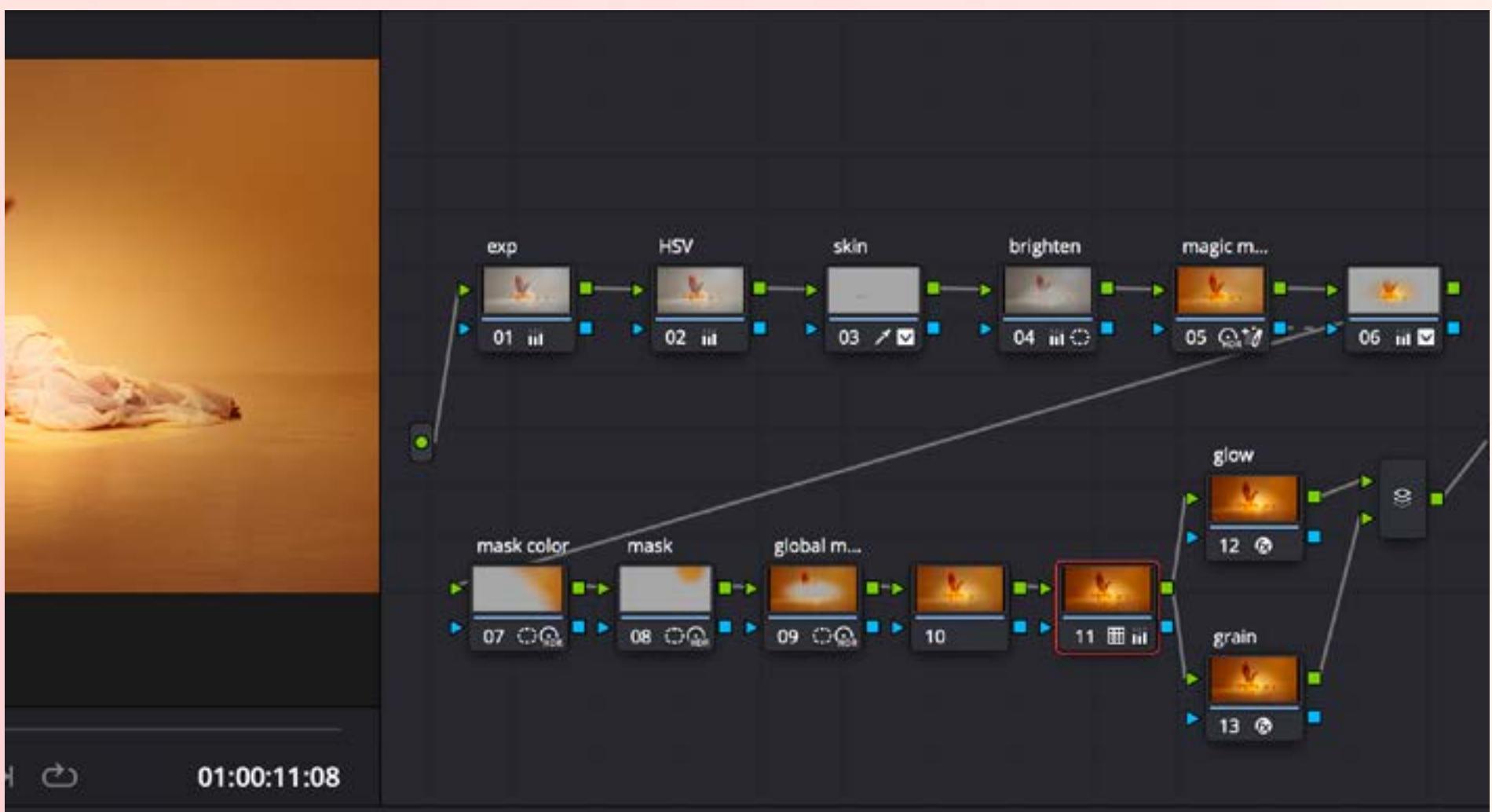


Fig 52: Using effects and grains at the end of the process

# 15. Sound Design

In the absence of dialogue or subtitles, sound becomes the primary vehicle for storytelling. This presented several unique challenges during the creation of the soundtrack for this VFX project.

As with my previous work, I utilized Ableton Live along with various royalty-free MIDI libraries (Fig 53) (Fig 54). Reflecting on the experience from Assignment 2, I placed a stronger emphasis on refining the rhythm and maintaining a consistent tempo throughout the track. This approach was essential to creating a sense of stability and cohesion for the entire piece. For the sound base, I experimented with multiple MIDI layers to build emotional depth through specific sonic textures and melodic choices. Furthermore, I employed track panning techniques to direct audio—specifically the bird chirps—from the left to the right channel, enhancing the spatial immersion of the scene (Fig 55).

The most significant hurdle, however, was achieving a perfect sync between the audio and the visuals before the final render was complete. Working primarily from an animatic forced me to rely heavily on my imagination. I had to mentally immerse myself in the fictional environment of the project to compose a soundtrack that would eventually breathe life into the final, fully realized visuals.



Fig 53: Mixing layers with different MIDI

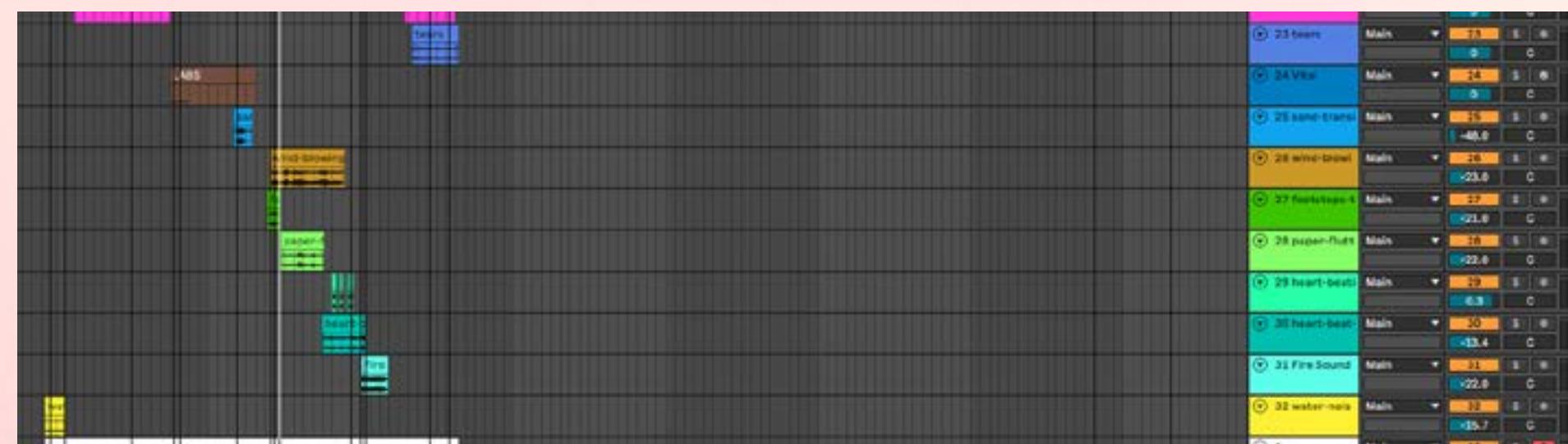


Fig 54: Mixing layers with different MIDI

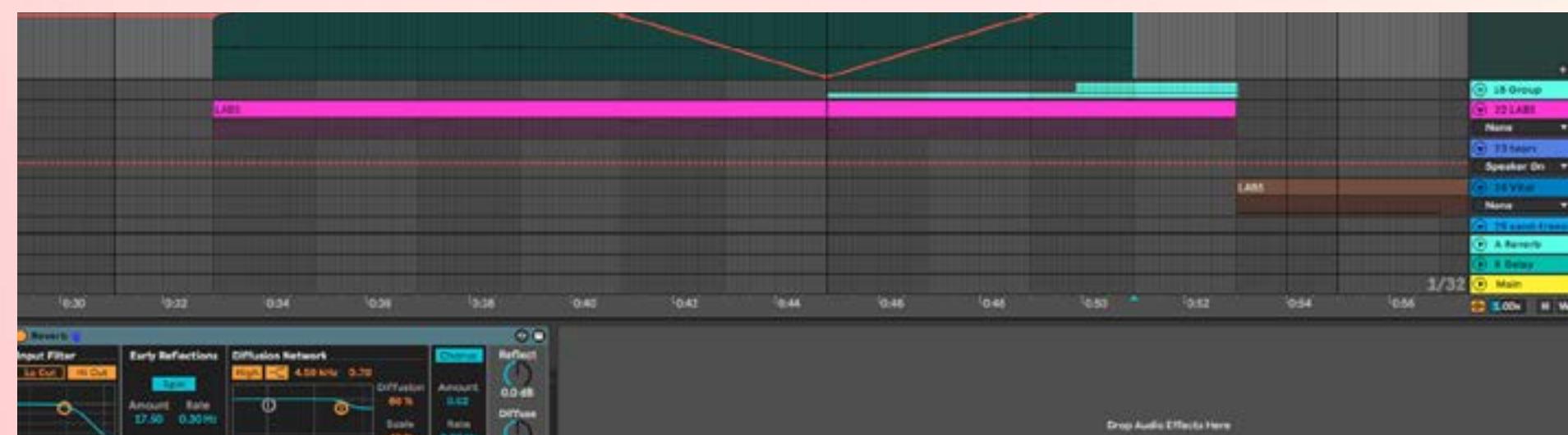


Fig 55: Panning track of the bird sound

Following the final presentation, I realized that the overall volume of the piece was slightly too low. To rectify this, I imported the entire project into Audacity, where I compressed the peaks and normalized the track at -3dB to ensure a more impactful and professional sound level. Additionally, I layered in a supplementary soundtrack during the “Invaders” shot to heighten the sense of drama and imminent danger (Fig 56).



Fig 56: Compressed and normalized in Audacity

# 16. Schedule

Phases	Tasks	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12
		27/10 - 2/11	3/11 - 9/11	10/11 - 16/11	17/11 - 23/11	24/11 - 30/11	1/12 - 7/12	8/12 - 14/12	15/12 - 21/12	22/12 - 28/12	29/12 - 4/1	5/1 - 11/1	12/1 - 18/1
Pre-production	Ideation												
	Animatic												
	Planning & Props												
Production	Shooting												
	Plate Selection												
Post-production	3D Assets												
	Simulation & Animation												
	VFX/Compositing												
	Color Grading												
	Sound Design												
	Final Edit												

Bao Chau	
Anh Tho	
Both	