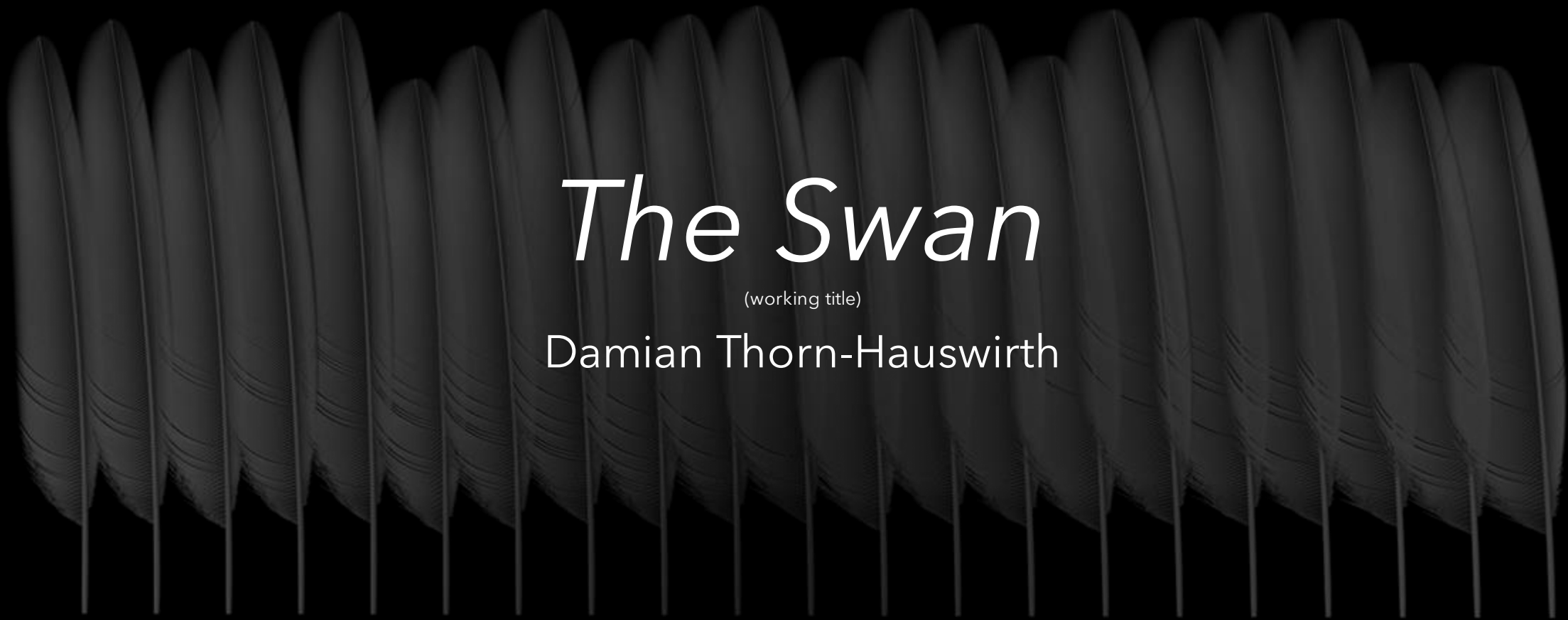


The Swan

(working title)

Damian Thorn-Hauswirth

The Swan
(working title)

by Damian Thorn-Hauswirth
UNIVERSITY OF CENTRAL FLORIDA

Introduction

"The Swan" is a rendered virtual reality (VR) experience intended to emulate a visual poem.

This sensory experience containing symbolic imagery and sound will be used to convey my theme:

In the worlds we create that are permeated with suffering, there is always the possibility of transformation.

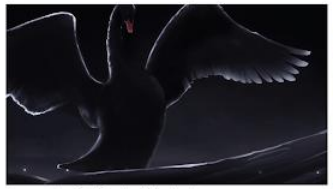
Visual Synopsis

As my film is an unconventional narrative, bridging both a story and effects driven film, I have included a breakdown of key moments, focusing on the symbolic meaning rather than a literal summary.

The journey begins in the transitional space of the elevator, introducing the literal self being born into a new reality.

The unconscious higher self emerges in the form of the swan.

This emergence comes with the inevitable encounter and processing of suffering.



The meeting of self and suffering leads to new unfolding and transformation.

The very things we try to avoid become basis of a new reality.

Through the art of self creation, we come back into the literal world—transformed.

VR Approach & Methodology

Two main avenues exist for creating rendered VR content. One is the interactive game engine approach, the other is an entirely pre-rendered experience.

I have chosen the latter. The viewer will only be in control of the camera rotation based on the direction they look while wearing the headset. This method sacrifices interactivity for the sake of viewability. However, this lack of control feeds into my theme and brings up questions about choice (or the illusion of choice) and free will.

This method will allow for easy online distribution, and a low barrier for viewing. If you have a phone and a $15 headset you can experience VR.

Stereoscopic VR Test Renders

Motivation & Research

Virtual Reality is a nascent technology which creates new ways of telling stories. I plan to create an experiential film that takes advantage of what the platform has to offer - a full immersion into another world.

The imagery featured in my film is rooted in the surreal and sci-fi. The primary figures of the story, the swan and the statue, are full of meaning, both personally and universally.

My middle name is Swann and it is the name my family calls me, but on a broader level swans have been used as symbols across many cultures and mythologies. In Hinduism, the goddess of learning is illustrated with a swan and can be a depiction of self realization. The black swan theory coined by Nassim Taleb refers to an event in which "nothing in the past can convincingly point to its possibility." (1) The swan acts as a symbol in my film of the unconscious self, or "an ultimately unknowable inner center of the total personality and also the totality itself." (2)

Cloaked statues and figures are found across many funerary monuments as well as the surreal paintings by Rene Magritte. This imagery is often representational of death and suffering, and this visual has left a lasting impression in my own mind. In my film, the statue carries these meanings, but also the possibility for transformation. This symbolism of suffering is akin to Buddhist philosophy: "Happiness and suffering...do not come from the external world. They come from within, from our own minds." (3)

Below are images I am taking inspiration from for the final look of my film.

Statue from my family's home

The Lovers by Rene Magritte (4) featuring figures draped in cloth

Still image from Bladerunner 2049 (5)
I am inspired by the eerie, atmospheric, monochromatic environment

Still image from Twin Peaks: The Return (6)
David Lynch's surreal imagery in Twin Peaks and many of his films are great examples of a visually driven symbolic narrative

References

(1) Taleb, Nassim Nicholas. *The Black Swan: The Impact of the Highly Improbable*. Random House, 2012.
(2) Von Franz, Marie-Luise. Individuation in Fairy Tales. Shambhala, 1990.
(3) Zopa, Thubten, and Yeo Puay Huei. The Four Noble Truths: a Tibetan Buddhist Master's Guide for Everyday Life. Wisdom Publications, 2018.
(4) Magritte, Rene. *Les Amants*. 1928, Australian National Gallery, Canberra. www.renemagritte.org/the-lovers-1.jsp.
(5) Velleneuve, Dennis. director. *Bladerunner 2049*. ew.com/movies/blade-runner-2049-exclusive-photos/?slide=576677#5766677.
(6) Lynch, David, director. *Twin Peaks: The Return*. heavy.com/entertainment/2017/07/twin-peaks-episode-11-explained-explanation-recap-theories-clues-photos-season-3/.

I have included my Fall Poster so viewers can see how the project has evolved and have a recap of the project thus far.

My film is a rendered VR experience emulating a visual poem.
A sensory experience evoking a theme.

Theme:

- *In the realities we create that are permeated with suffering, this suffering is a doorway to transformation and greater understanding.*

Editing Changes

Two main changes were made to my reel over the course of the semester.

The first change is the inclusion of ambisonic audio. Ambisonic audio is in its infancy and a complicated subject. Essentially the sound will have a direction while watching the film. So if an elevator door closes, I can position the sound so it emanates from behind the viewer and actually seems like it is coming from a certain direction. In my research I found there are two main ways of obtaining ambisonic audio. The first would be to get a special microphone which is an array of six smaller microphones that records the directionality of the sound in real life. This is an avenue I want to explore later in development when we start adding soundtracks. For my current reel I have converted mono and stereo clips into a 360-degree environment. The effect is subtle, but the sound does have directionality to it.

I am still playing around with the implementation of this and recently found a suite of tools created by Facebook which greatly increase the accuracy of where the sounds originate from. In my current setup I had to rotate the source of the sound within Premiere which is a touchy trial and error process. These new audio tools I found allow you to directly click on the image and place the source of the audio. For future sound development I plan on learning this pipeline.

The other major change to my reel is the inclusion of a big camera move through the tunnel portion of my film (which I will talk about in the next slide). I wanted to see how it felt as a viewer when the camera is moving. Animating the camera rotation or doing a drastic move could result in motion sickness so it must be used carefully. I started by building a simple tunnel in Houdini that is easily modifiable. This allows me to change the shape and length of the tunnel. The final look of the tunnel will likely differ greatly, but this worked well for simulating a long camera move. The effect in VR is similar to a theme park ride, or an on-rails experience. The camera movement worked very well and also plays into the motif of free will and choice. The viewer can look around, but they are pulled through this environment despite what they do. This also was a great test of actually rendering 360 content as opposed to the rest of my animatic which is live action created using a 360 camera.

Production Design - Environment

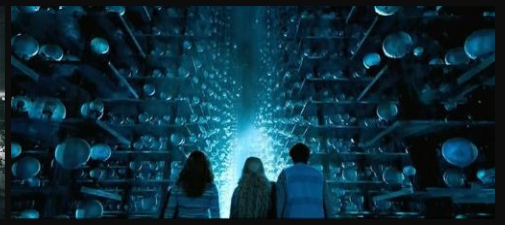
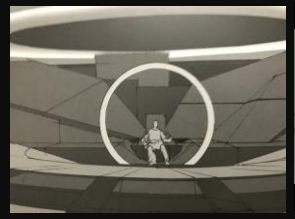
My film contains three distinct locations: the initial room containing your literal self in an egg-like apparatus, the surreal space which houses the immense statue, and the transitional space of the elevator. I will refer to these areas as the room, the zone, and the elevator. The meaning of my film is tied closely to the objects and areas I depict, and their symbolic significance.

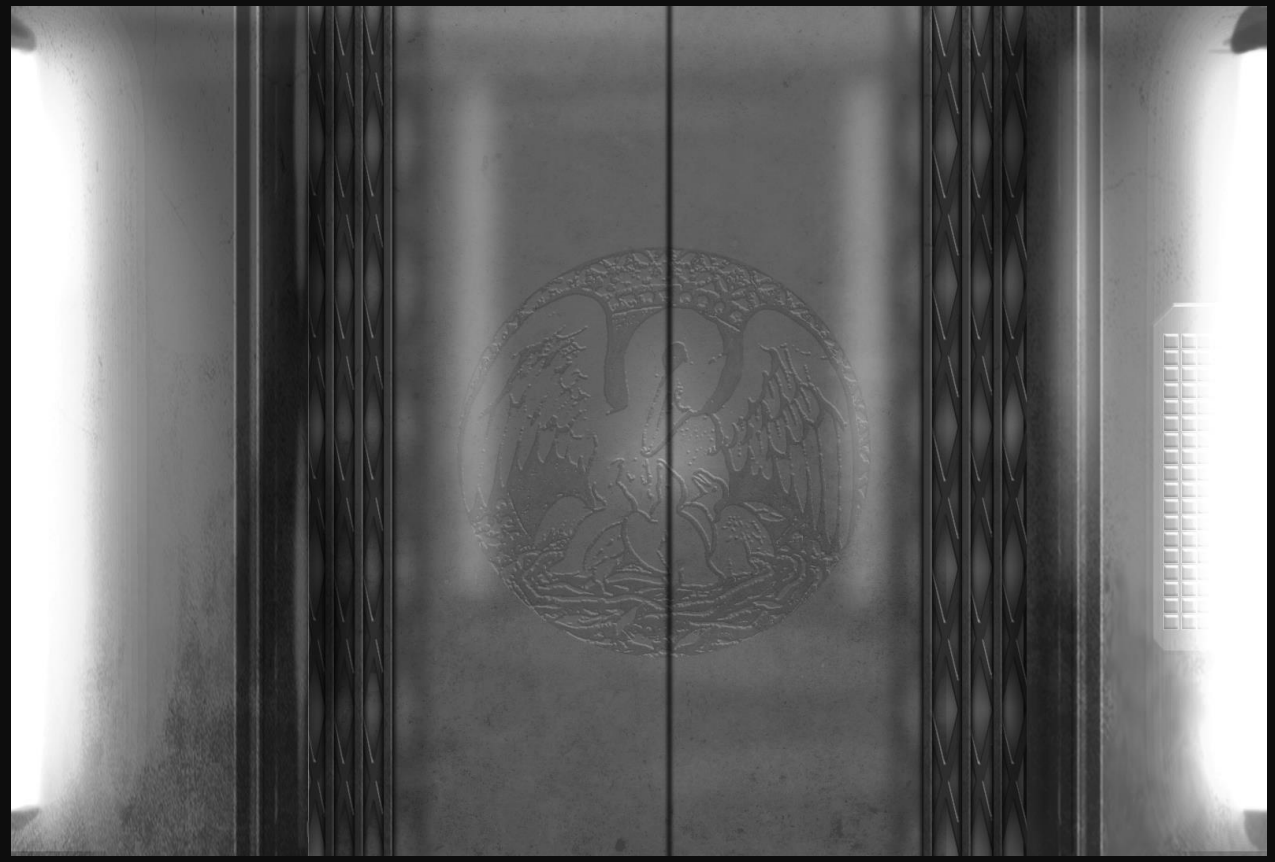
I have leaned into a more eclectic sci-fi inspired style. For the elevator I had originally pictured a simple stainless-steel interior. I have decided to change this to a more art deco inspired elevator interlacing modern and futuristic elements. In addition to providing more visual interest, this design choice will lend a sense of timelessness to the environment and allow the viewer to inhabit a space they never have seen before. Signs of wear and tear as well as this timeless décor will help push the motif of the cyclical nature of self discovery. It raises the question – does this process end? "Transformation and again transformation, the eternal entertainment of the eternal spirit." - Goethe.

The biggest change to the surreal zone is I have added a tunnel portion as you leave the elevator. The viewer will travel down this tunnel emerging from the giant statue. The tight space of the tunnel will contrast with the open space of the statue as you're symbolically born into the ambiguous space.

The following slides will show my own concept art with thumbnails of research and inspiration on the bottom of the slide.

Inspiration:



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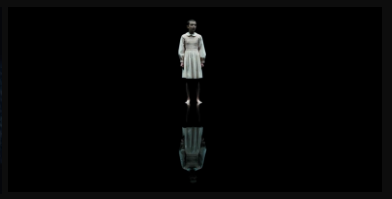


Production Design - Character

My film has two characters: the swan and the statue.

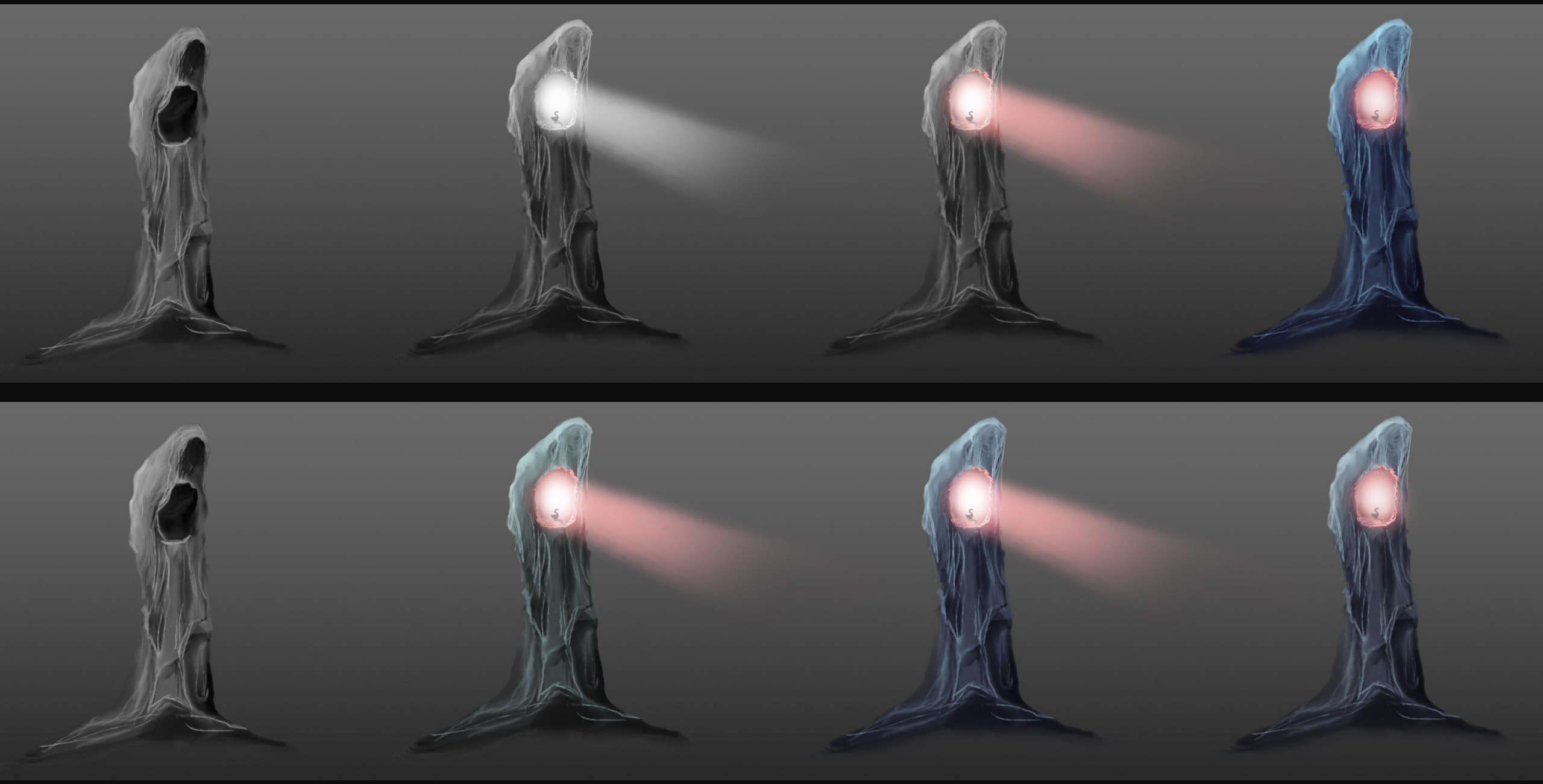
I plan on making the swan appear as realistic as possible. I focused on studying bird anatomy in order to help craft a convincing creature.

The statue will be seen in the film only for a few moments. It will start as an ominous solid figure, but it will transition into a cloth effect as the form beneath the cloth disappears. I have tweaked the design of the statue, so it creates the caverns the viewer emerges from. The statue is symbolic of suffering. It is the first thing the viewer encounters as they enter this zone.

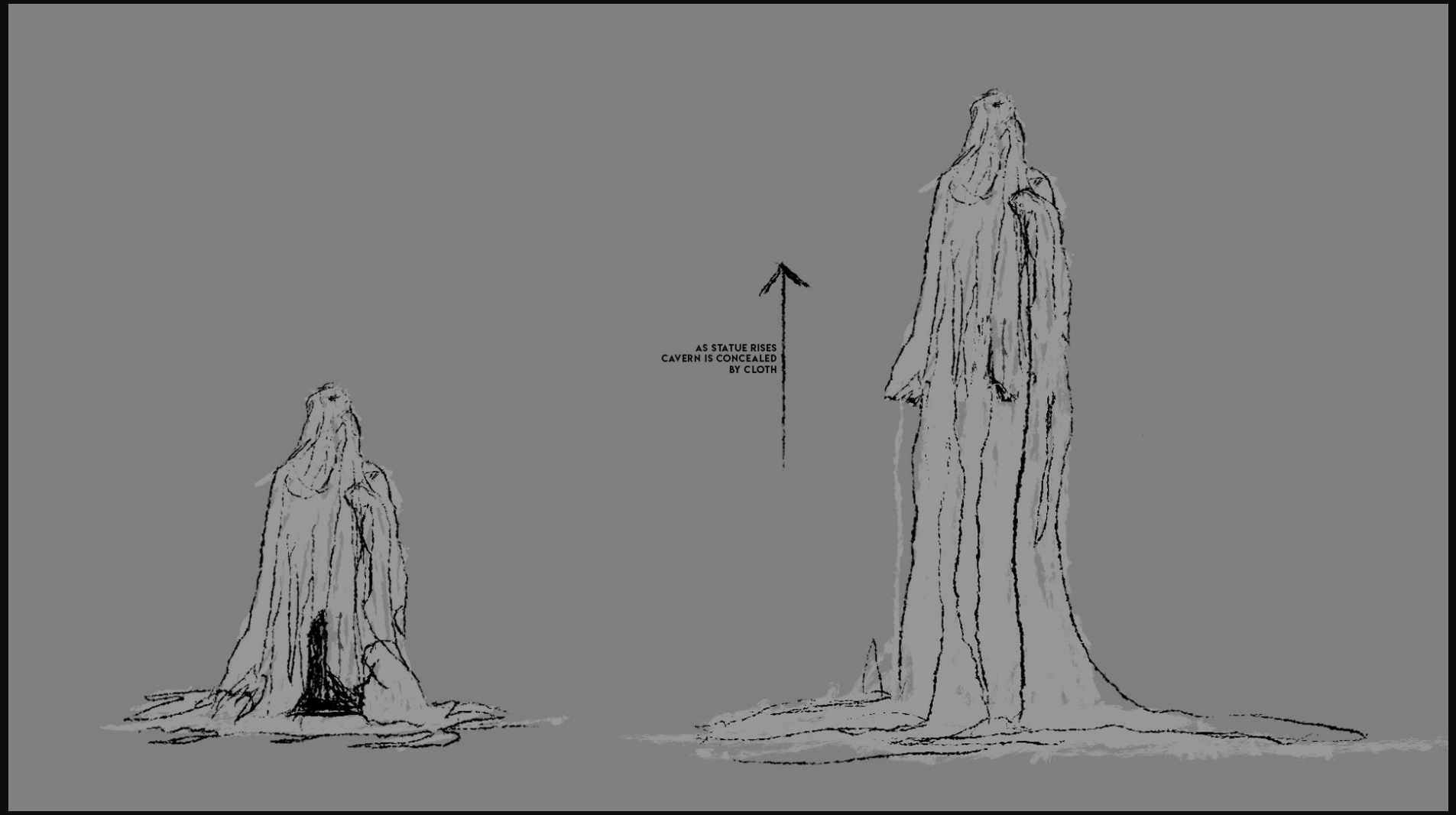
The confrontation of the self (as depicted through the swan) and suffering ultimately result in the statue becoming the nest for the swan. I am considering the idea of having the swan transition from more of an armature into the realistic swan pushing the idea of the illusory nature of reality.

STATUE SILHOUETTES

Inspiration:

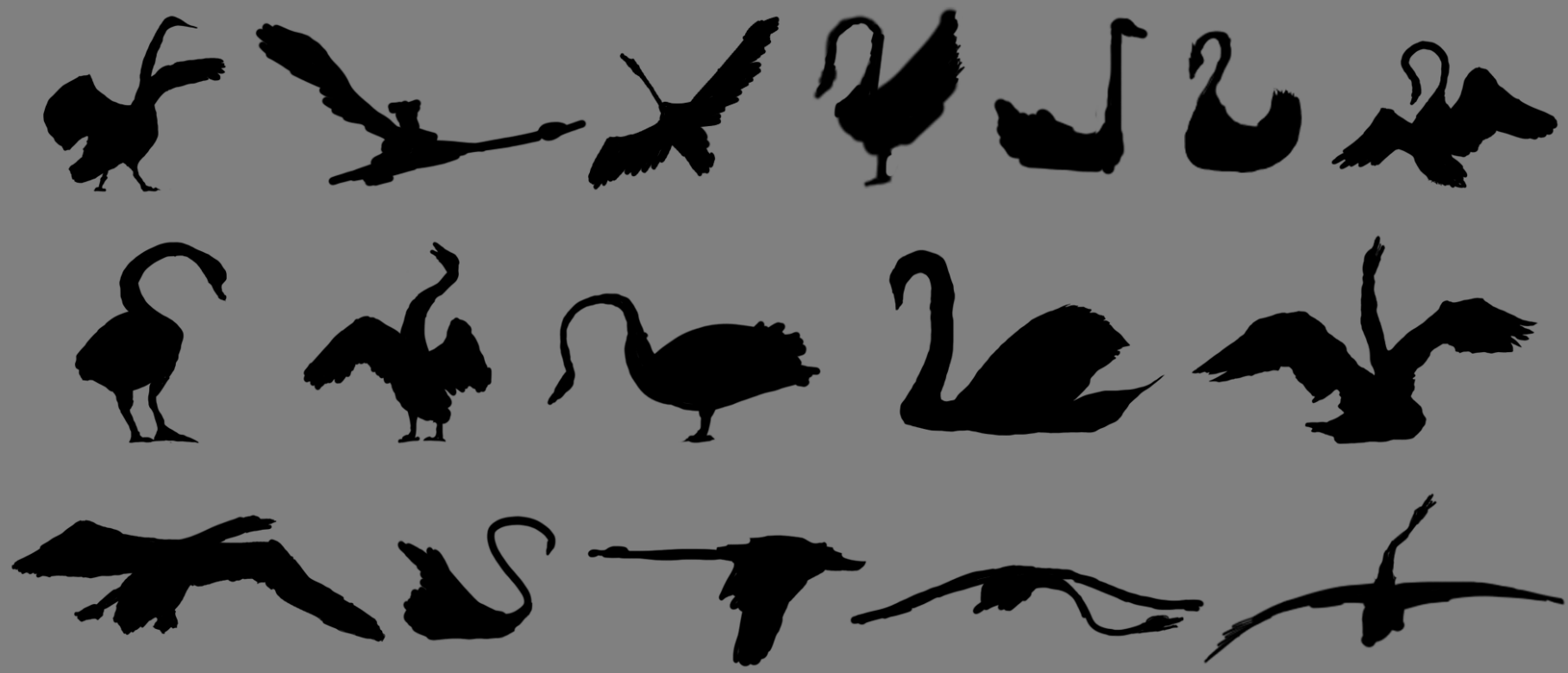


In this concept the viewer would exit from the top of the statue and be far above the ground. The light from the tunnel could act to direct the viewer's gaze.


AS STATUE RISES
CAVERN IS CONCEALED
BY CLOTH

This is the look of the statue I am leaning towards. The viewer would exit the statue and be about the size of the black swan silhouette.
This will encourage the viewer to look up and be dwarfed by the statue.

SWAN SILHOUETTES



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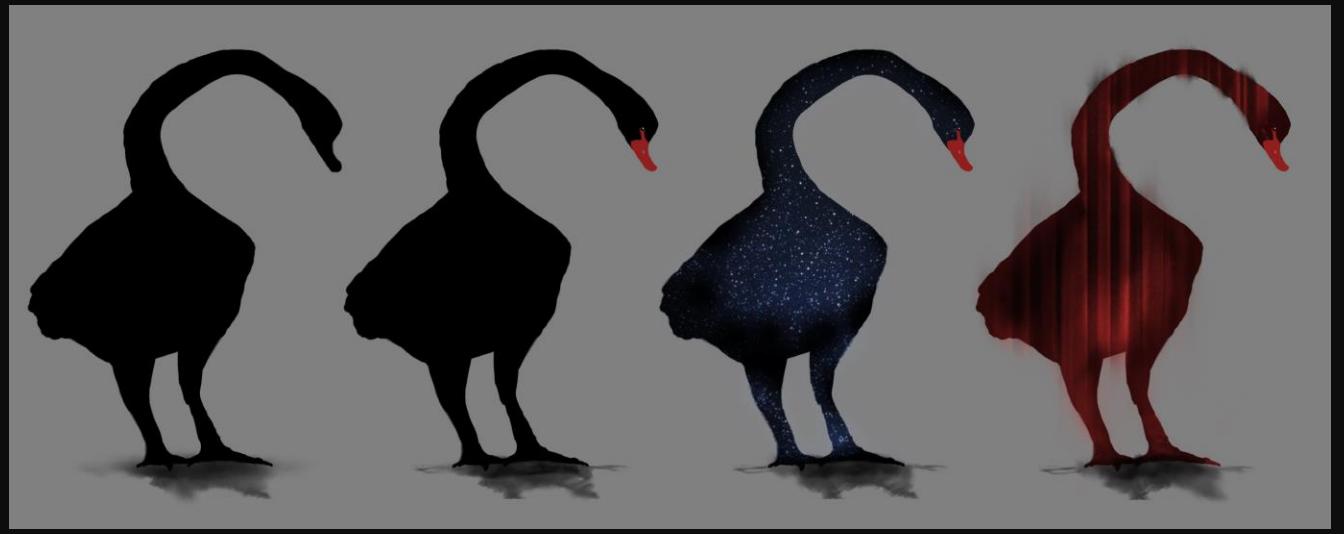
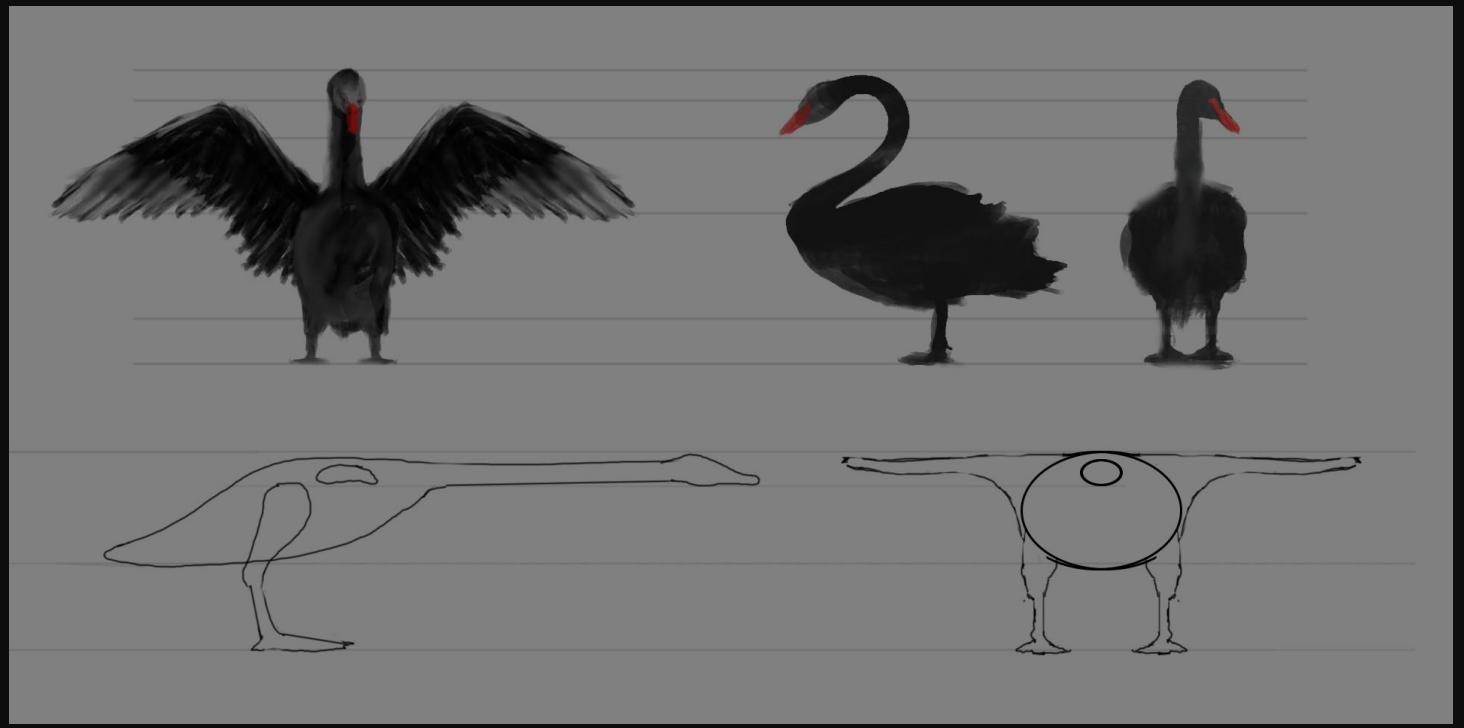




Swan VFX - Feathers

One of the main challenges the swan poses is a realistic feather simulation.

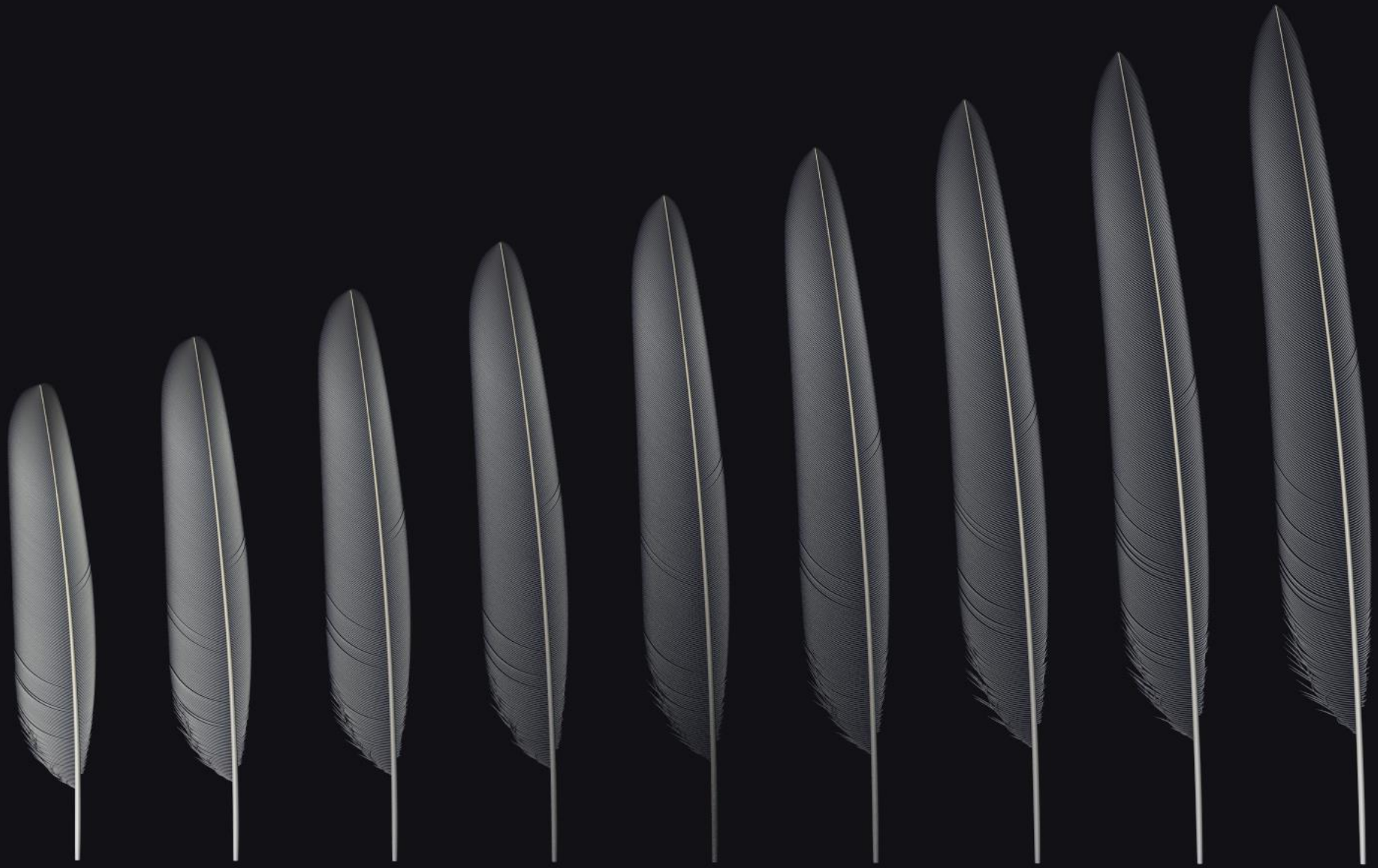
I have researched solutions to this problem and decided to pursue a Houdini based solution built upon some commercially available feather tools created by Tighe Rzanjowski inside of Houdini.

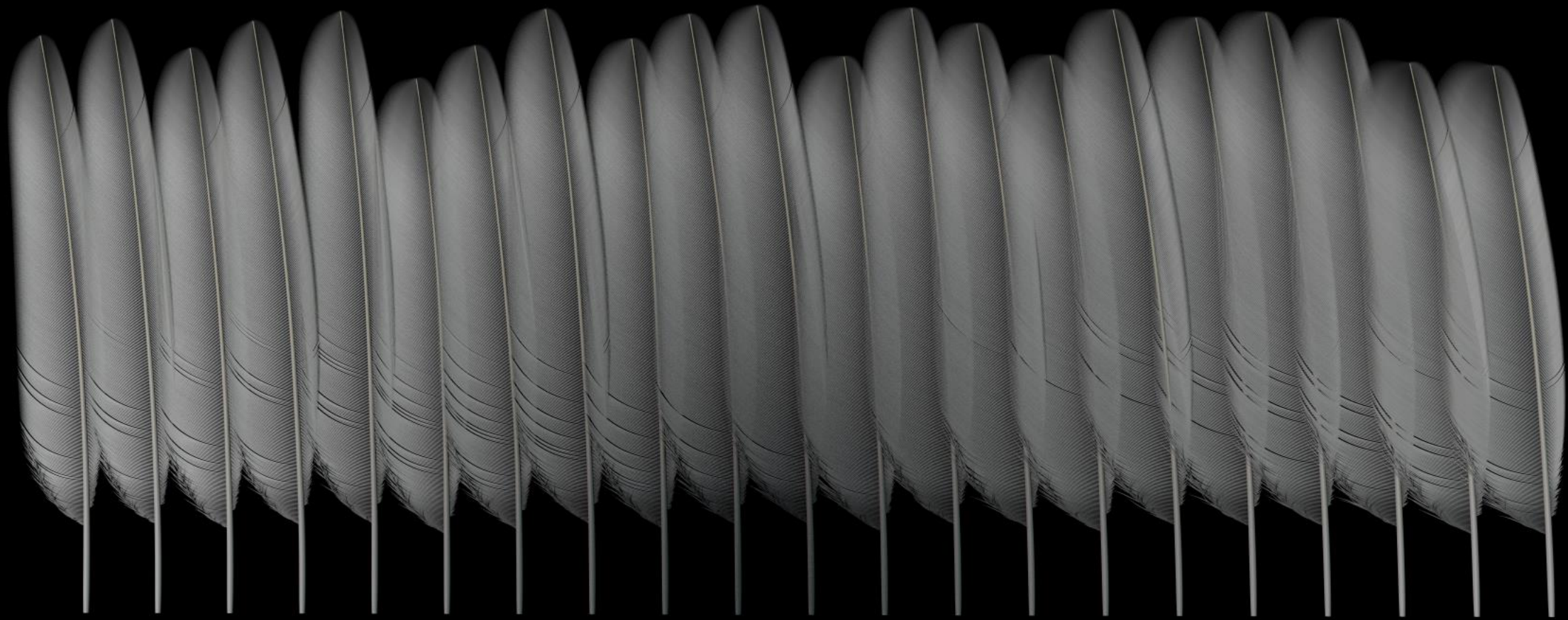
The following slides contain some test renders of the feathers. I am happy with the results and my next step would be creating the swan model and trying to apply the feather simulation to rigged geometry.

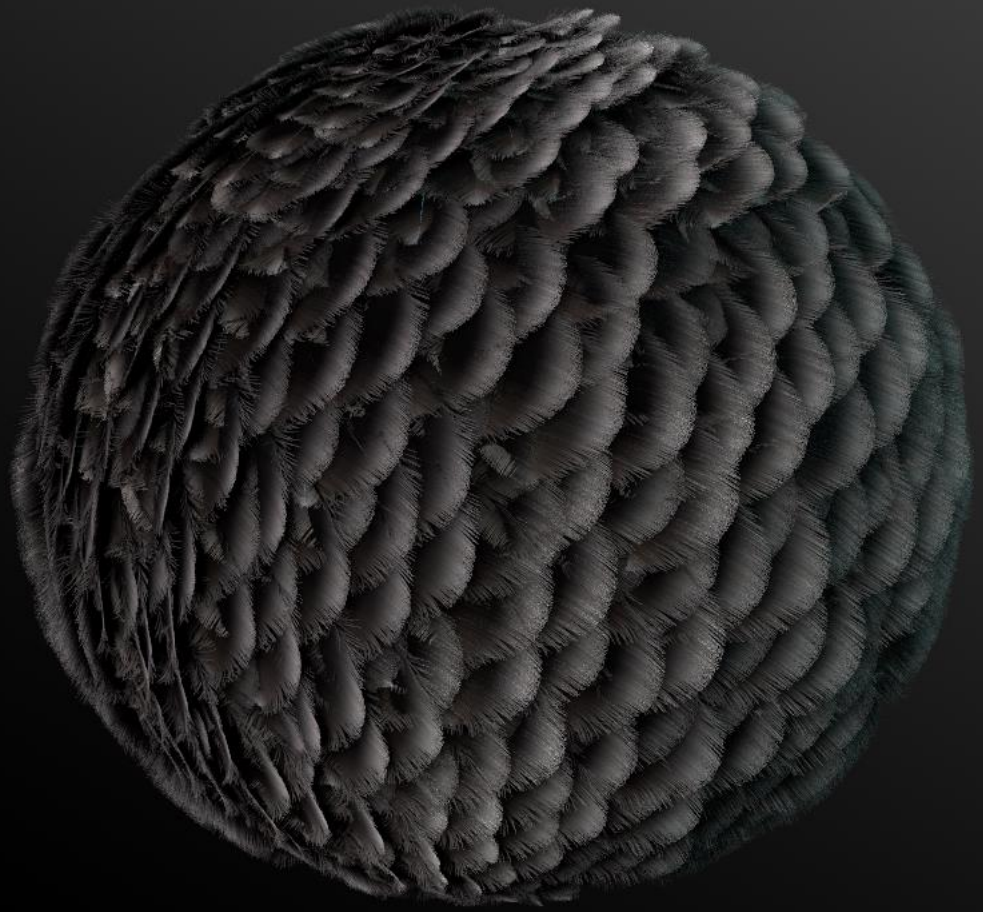
Below are links to two feather simulation tests. The first of feathers falling and the second of feathers attached to a moving sphere.

Feather Fall

Feather Ball







Next Steps

Over the summer I plan on getting the swan model mostly solidified and feather fx applied.

The biggest part of my reel that needs solidifying is the section where you exit the tunnel and encounter the statue. Right now it is not accurately reflected in my reel. The viewer should exit the tunnel which originates from inside of the statue and then witness the transformation sequence.

I need to plan out how the transformation of the statue into cloth will appear visually and work on this effect. I also need to plan exactly how the swan interacts with the cloth. Due to the VR aspect of this film, a lot of this will have to be experimented with in 3D. I plan to do some 3D mockups and low res VR renders to get a sense of how the scale and motion of this scene should feel.

Spring 2020 Reel

First Person View: https://youtu.be/evKjpWgv78s
Interactive View: https://youtu.be/vbV8zFY6-EE

I have included two video links. The first link is a first person recording of the experience being watched along with associated beat boards.

The second link is the actual interactive video where you can look around by dragging your mouse in YouTube, or by watching on your phone or interactive headset.

Keep in mind when you see me flapping around this will be replaced by a swan in the actual film.