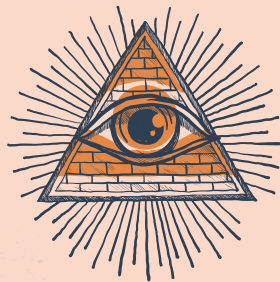




# Graphics Final Project

Karsten Steinhorst



# Idea and concepts

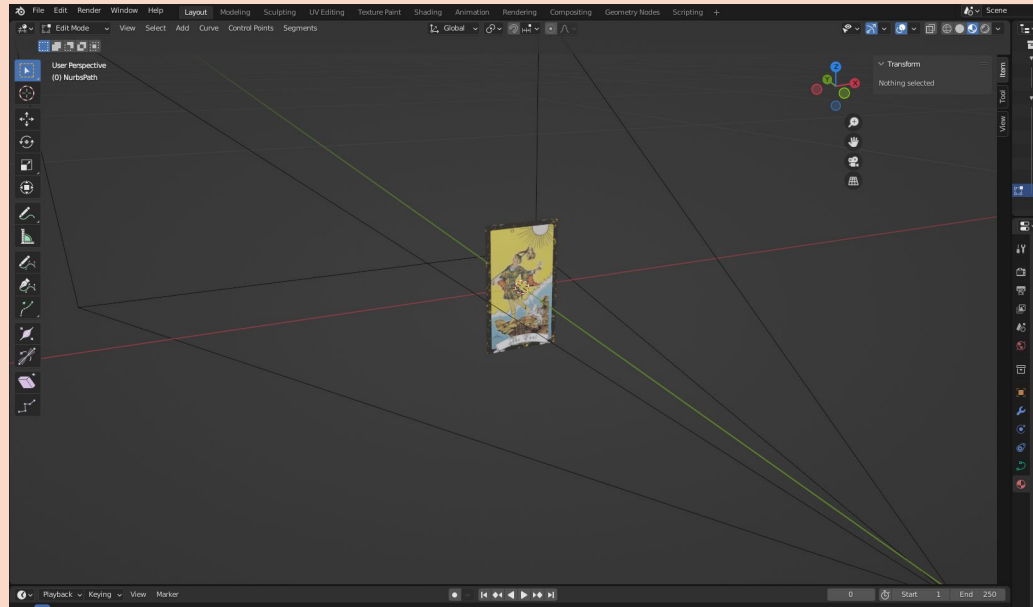
✧ The original proposal was to create a revolving Tarot card that would change to a different card when facing away from the viewer

- The idea centered around Tarot cards purely because of aesthetic
- The idea evolved into various different concepts
  - Parallax effects
  - Animation in/outside of cards
  - Non-Euclidean geometry
  - Custom textures



# Initial Project

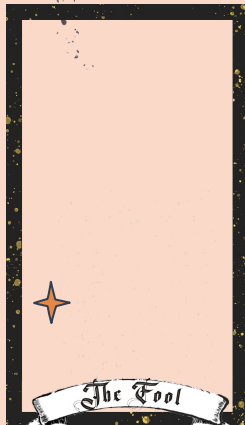
Blender first,  
Javascript second approach  
(my downfall)



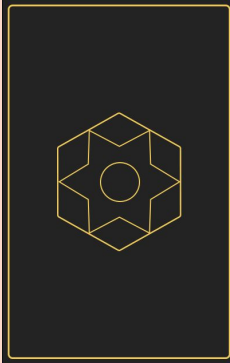
# Initial Project-materials

Created image textures  
in Photoshop

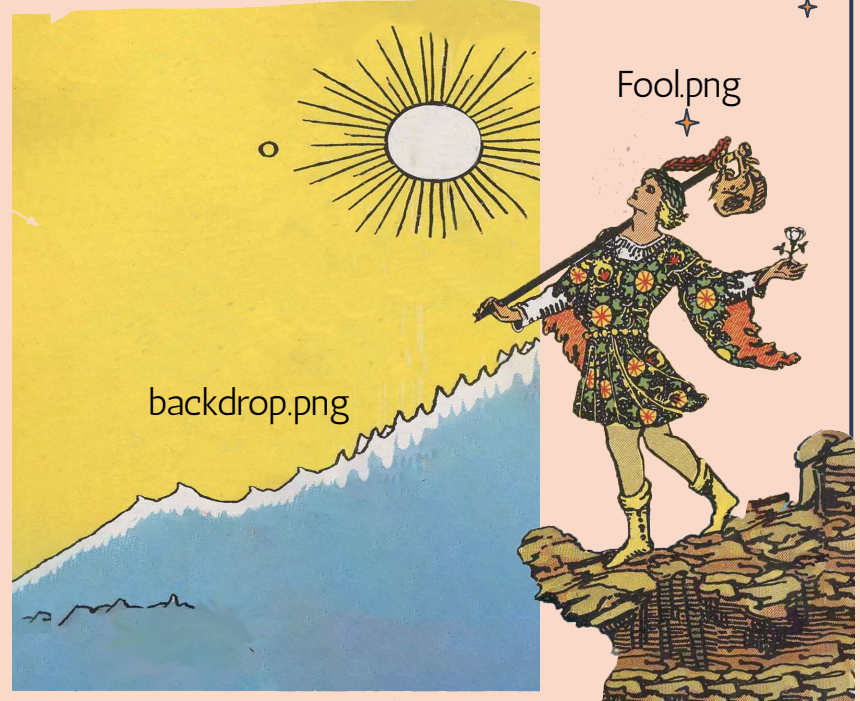
front.png



Cardback.jpg

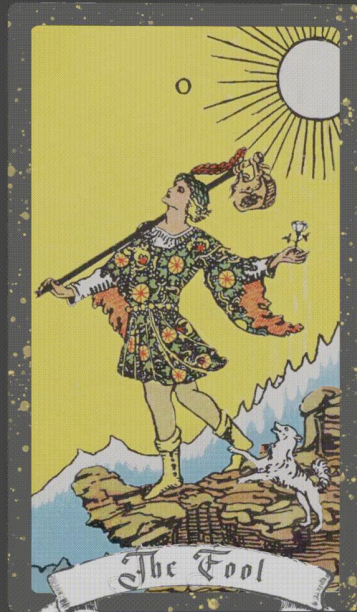


le\_doge.png

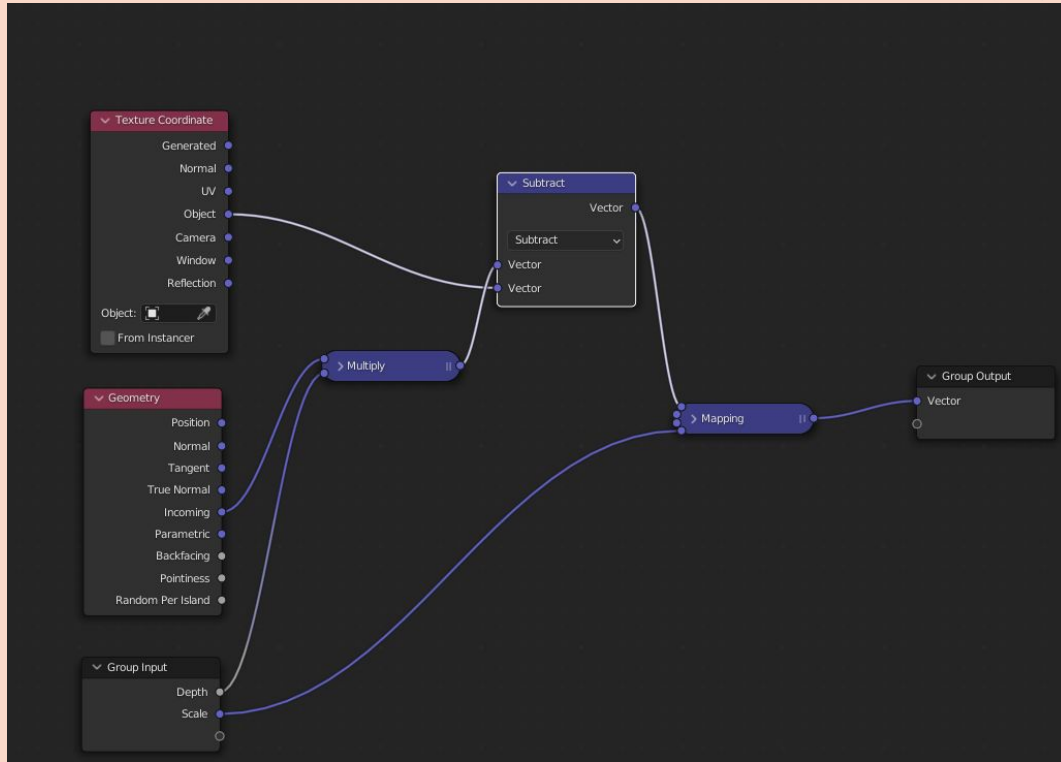


Fool.png

# Biggest Wow



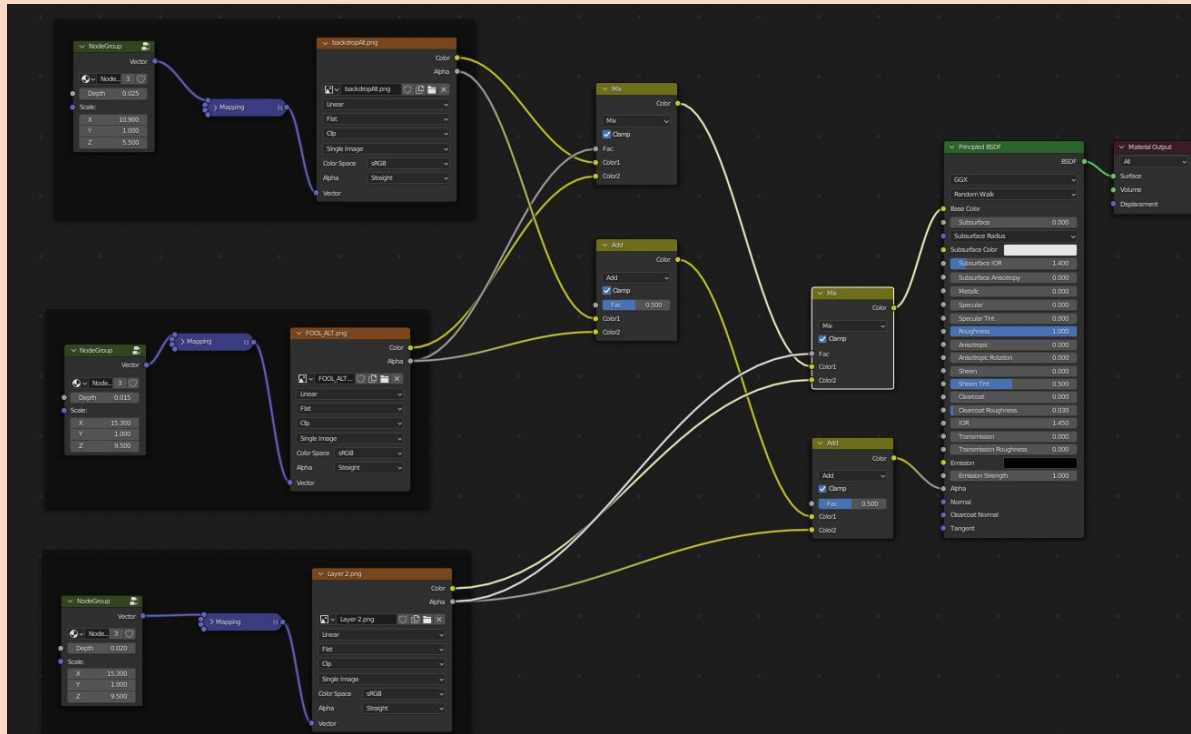
# How it works



We can create the tilting parallax effect using shader operations.

By multiplying the incoming geometry \* depth, we get the tilting effect, which is subtracted from the original image.

# How it works

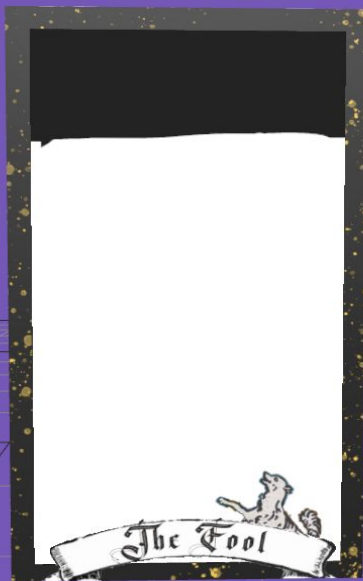


Each Frame on the left is a different layer of the card.

The rest of the shader nodes are used to combine the layers and adjust their location in the card.



# Biggest crap





# Back to the drawing board

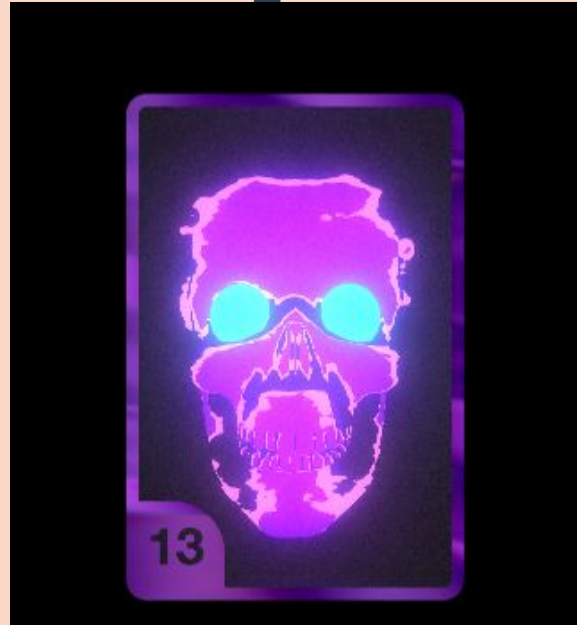
Given enough time, I would've tried implementing this effect within three.js, but I couldn't find many resources on how to do it,

- Started strategizing new ideas
- Knew I could reuse existing assets if I found a different approach

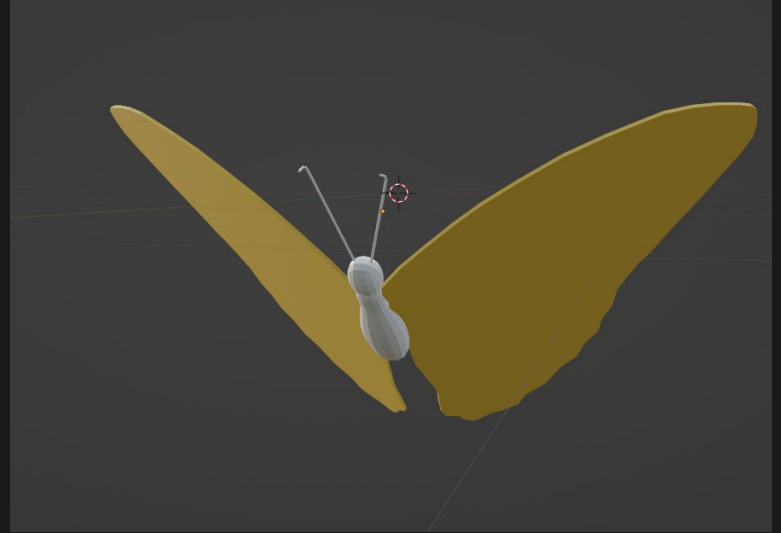
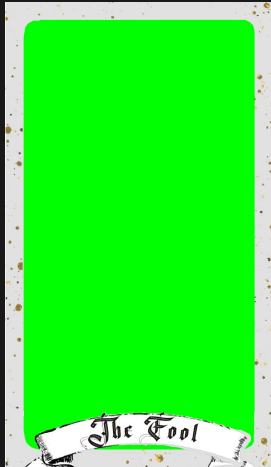
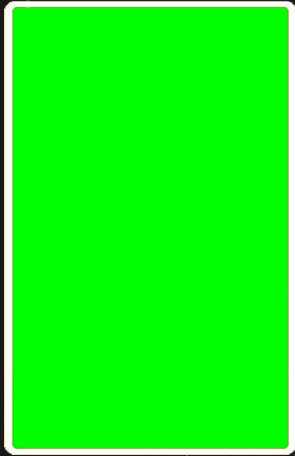
This time working from three.js first.



**To have  
something on  
three.js, I  
adapted from a  
example I found  
online**



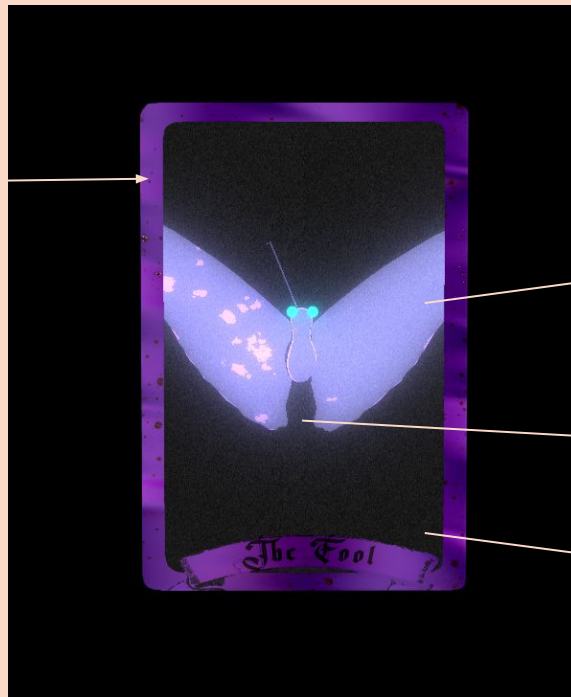
# Asset changes



# How it works



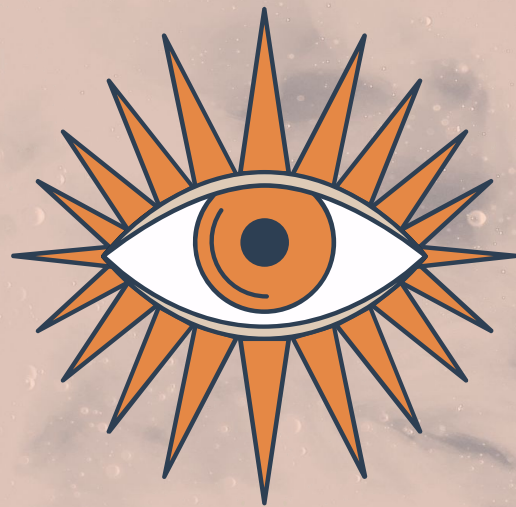
Outside  
scene/holographic  
texture



Frag shader for  
random bloom

Inside scene

Noise plane  
as surface



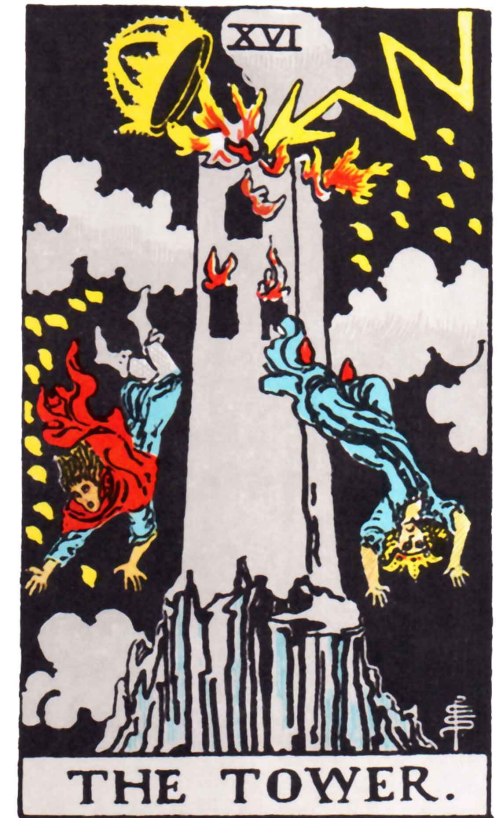
**Live demo**

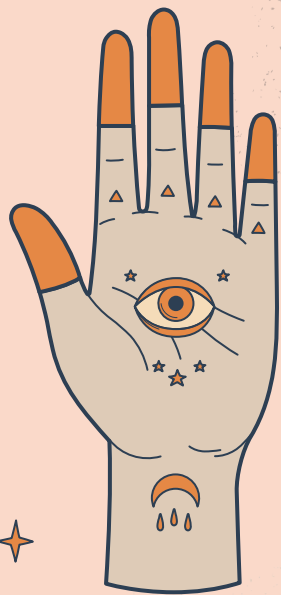


# If I had more time



[WWW.MASONICEXCHANGE.COM](http://WWW.MASONICEXCHANGE.COM)





# Questions

