

Aberdeen Shang

VSFX721 Procedural Modeling and Animation

Spring 2018

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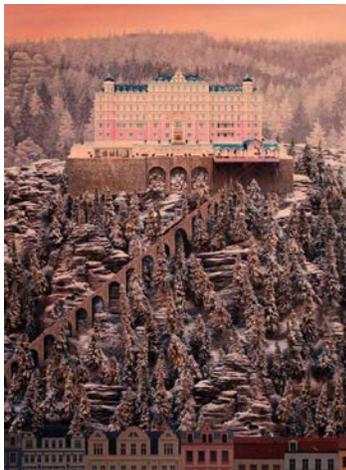
## Project I

Average Render Time: 0:40:30  
Samples:6\*6

Resolution: 1280\*720  
Lights Source: Sun Light & Environment Light



Final Render



Reference Image

This project is inspired by film *The Grand Budapest (2014)* by director Wes Anderson. In exercise three, I built the Hotel. Then for this project, I use the hotel I build; and I add the background mountain showed in its poster.

In this complex scene, I have: **One castle; Different mountains; Trees; Snow; Fog.**

This final render in using the same color palette as the reference image. But I also have a color correction version to give it a different sense of feeling.



Color Palette



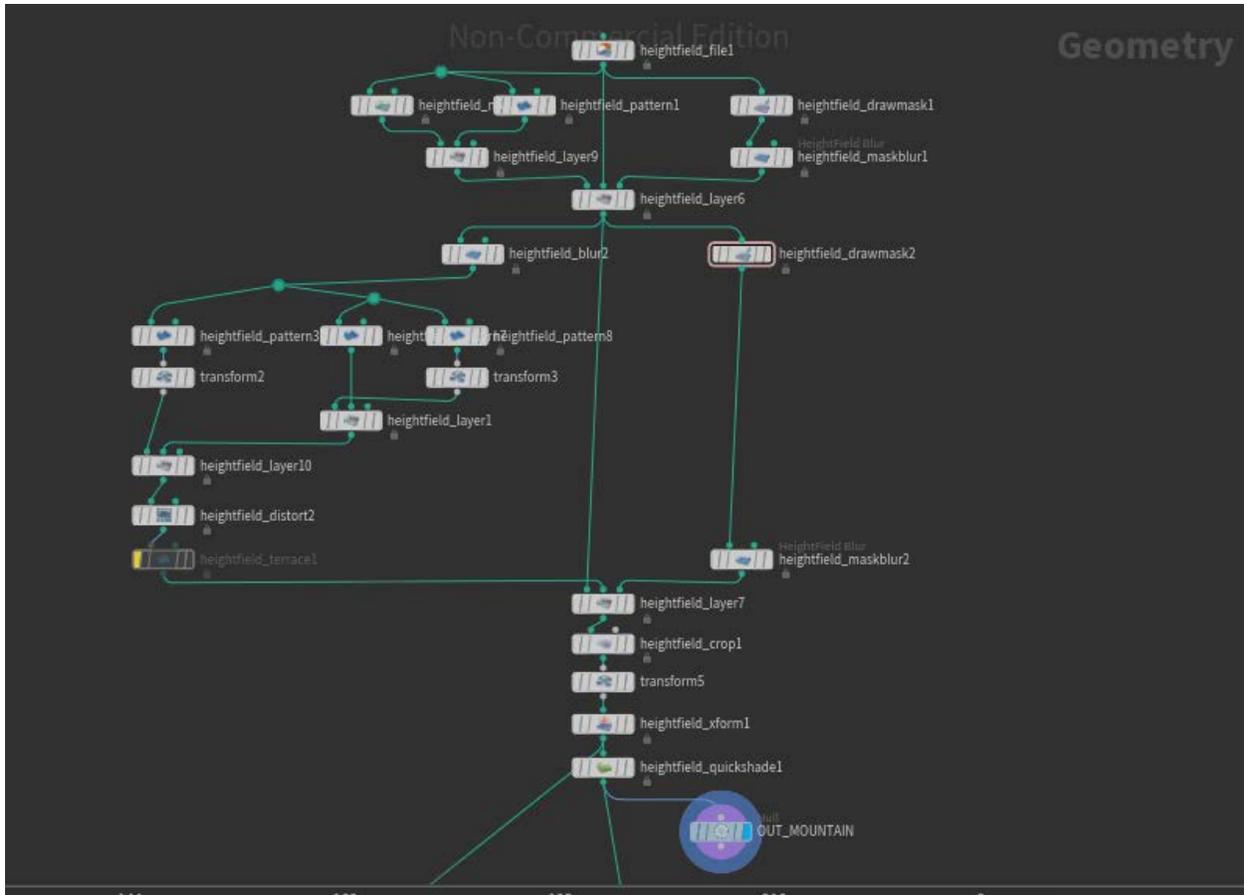
*After Color Corretion*

## Mountains

1. I went to website <http://terrain.party/> to download a map from Switzerland. I chose Switzerland because there are a lot of mountains.
2. I used **Heightfieldnoise** / **Heightfieldpattern** / **Heightfieldmask** / **Heightfieldmaskblur** / **Hwightfielddistort** to build the exact shape I want.
3. For the texture, I used Heightfieldquickshade. I added base texture map, texture1 map and roughness map onto it.



*Texture Maps*



Node Tree of Main Mountain

## Trees

1. For the basic shape of the tree, I used Add node, Line, and Copystamp.
2. Then I added Fur node to get the needle. And I use Hairshader for the needles.

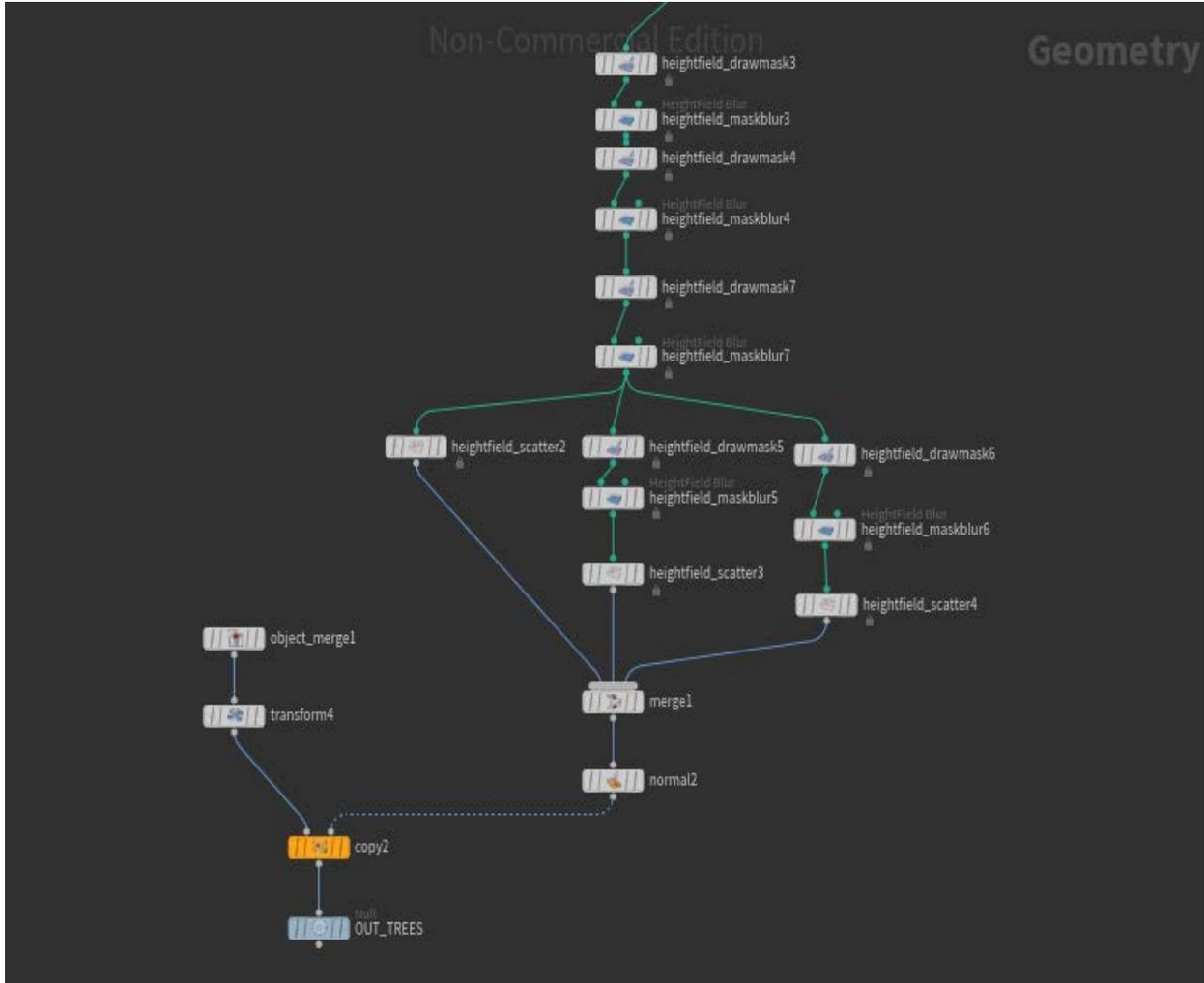


Shape of a single tree

3. To make a forest, I use Copystamp and Heightfieldscatter to copy y trees onto the scatter points on the mountain. I also use several different Heightfieldmasks to control the amount of the trees on different sides of the mountain.



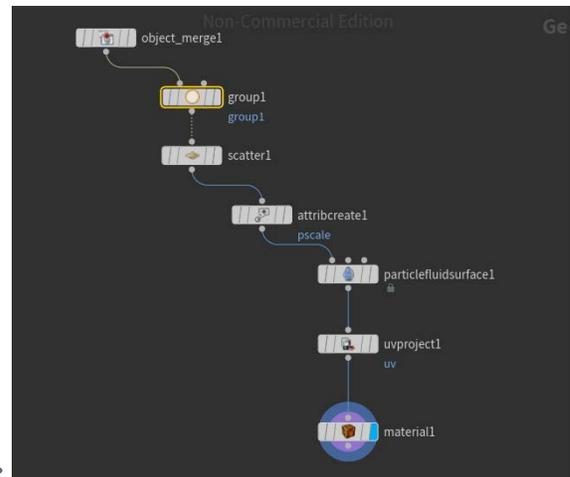
Single tree render with HairShader



Copy trees to points

## Snow

To make snow on the mountain and trees, I use Scatter node and Particlefluidsurface to make the shape. However, I can only use Scatter on geometry, so before I use Scatter node, I convert my mountain to polygons.



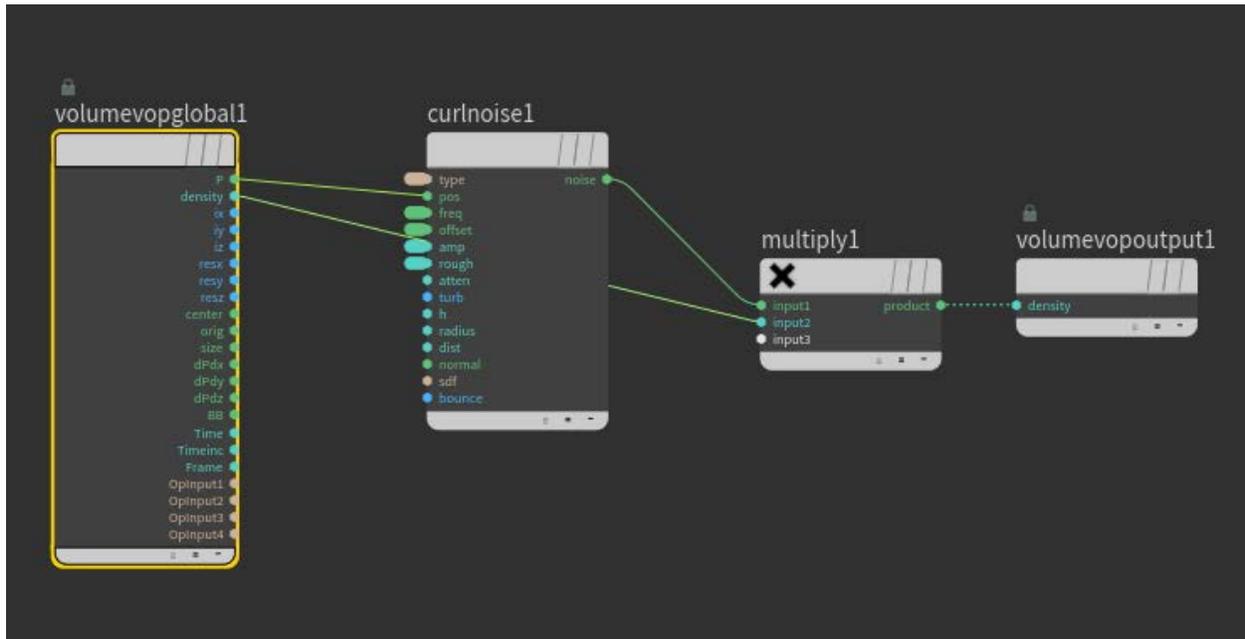
Snow Node Tree

# Fog

Because this mountain should be high, so I added fog to make the atmosphere.

I use volume vop to make the fog.

This is a very simple Vop net.



*Volumevop*

## Render

Because my scene is a really big one. I have to render them by parts. So I rendered three different layers in total. They are:

- Hotel with main mountain
- Mountains at back
- Fog

Also, I rendered them with Z- depth. Then I composited in NUKE and added some depth of field with Z-dfocus.