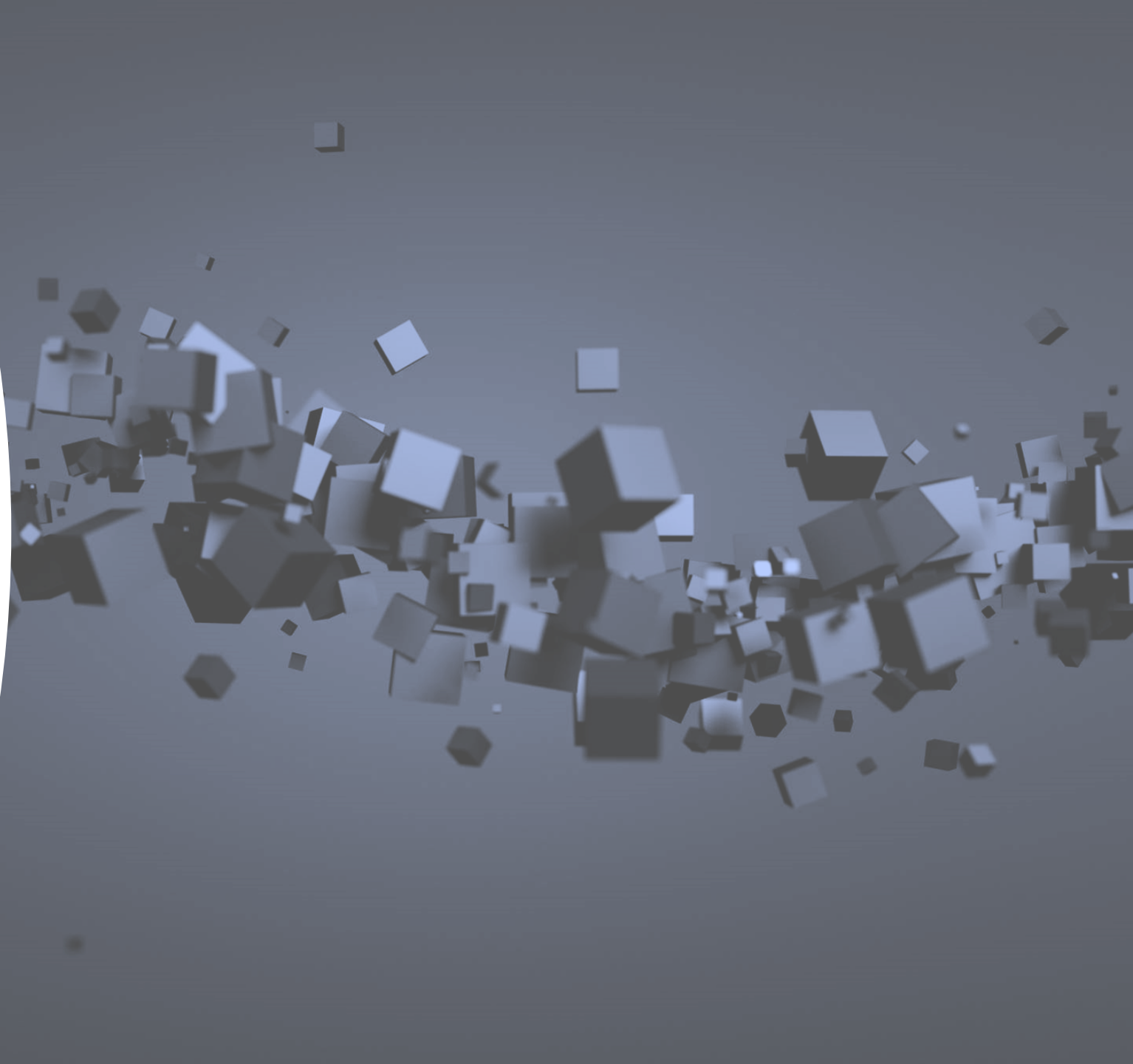
Destruction

Sunique Plante



Render Stats

- Average Render Time: Mantra- 2.8 min/frame
  1280x720

- Number of lights in scene: 2
  (1 sun and sky light)

- Vase Complexity (approximate):
  Points: 596
  Vertices: 660
  Polygons: 18

About This Project

- This project uses RBD Bullet examples from Professor Fowler's website including rigidbodysolver, scatter, and collision objects to create the simulation.

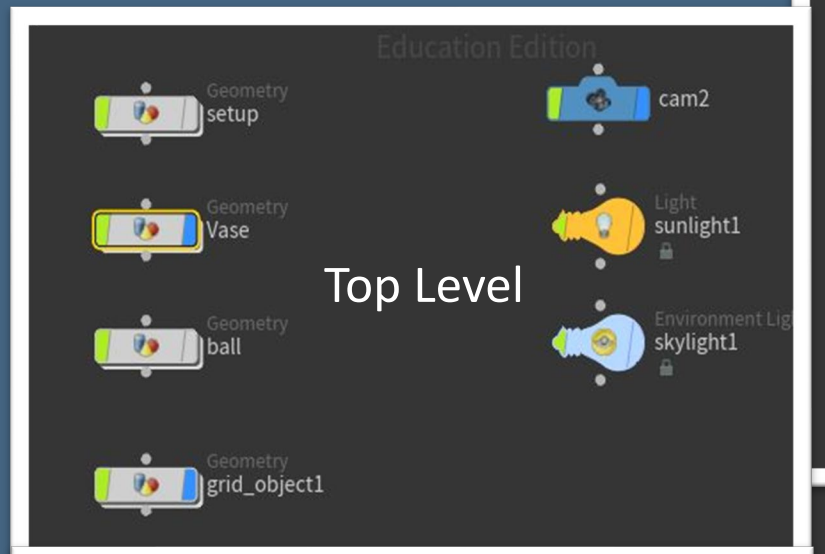
- I also followed an online tutorial to aid my understanding of how to do a destruction effect, by adding a voronoifracture and attributes for the constraints

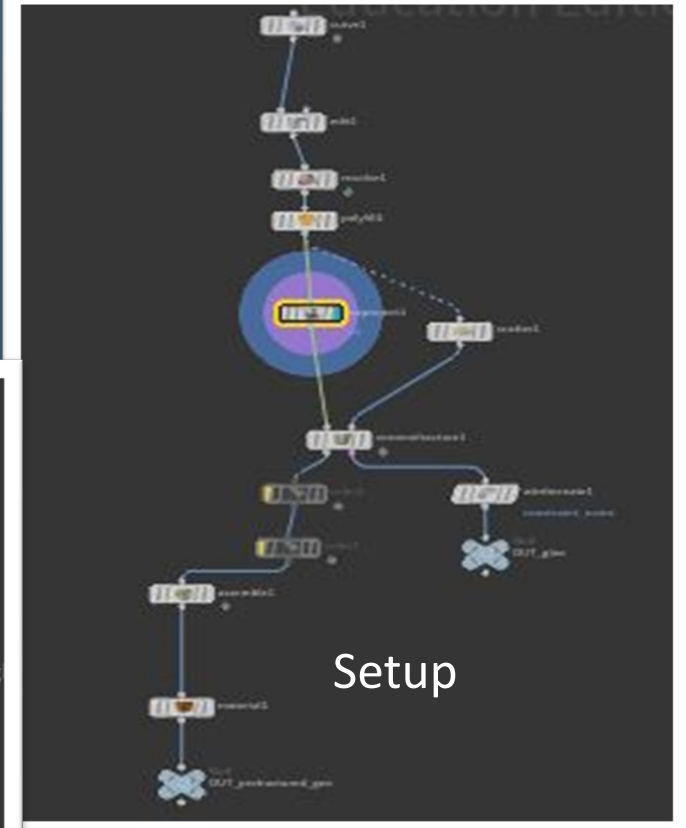
Examples provided by Professor Fowler
Source:https://www.deborahrfowler.com/HoudiniResources/RBD-Basics.html

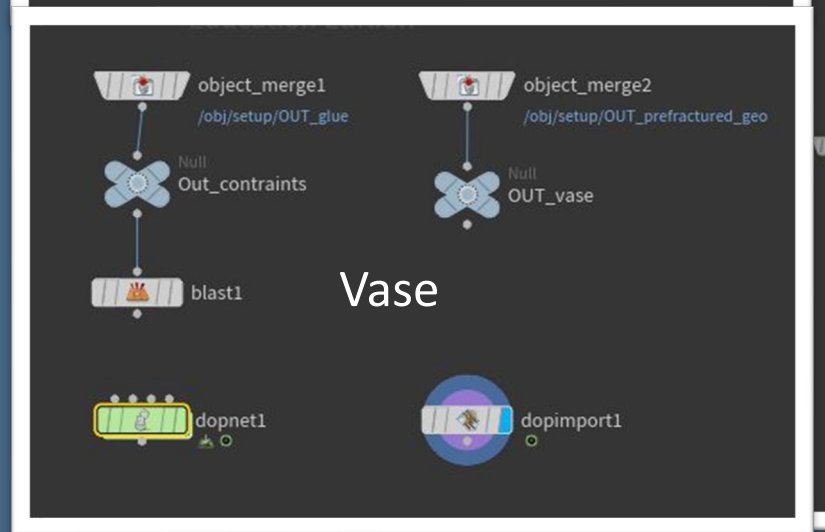
Video tutorial of Destruction:
https://www.youtube.com/watch?v=pjRlqjmoEOg

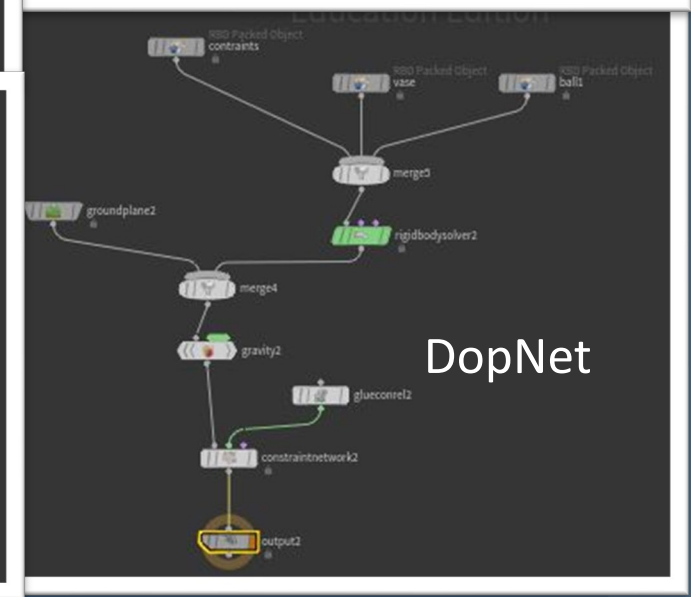
File Organization

- In the Top Level, there is the setup node, vase, ball, grid, camera and lights.
- The Setup node has the vase fracture and constraints, it is used to control or change the geometry and destruction simulation. (This node is not visualized)
- The Vase includes object merges of the null objects (constraints and vase) that are in the Setup node. (This node is visualized)
- The DopNet has the RBD objects of the vase, constraints, and ball feeding into the rigidbodysolver, gravity, and glue constraints.









Challenges

- The main challenge of this project was to get the debris to work properly in my destruction simulation. I searched online a lot to try to figure out how to get the debris to work but, in the end, it was better left out of my final video.
- I solved the problem of the vase breaking at the bottom, by fixing the glue constraints in my vase dop network