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+BREAKDOWN: 2016 SURFACING DEMO REEL

LAYERED OCEAN SHADER (LOS)

LOS is a RenderMan displacement shader that was presented at SIGGRAPH 2015: Dailies, and was the center of my thesis. Created for the short film, Peanut Butter Jelly.

- Implements FFT wave algorithm based on a statistical model
- Tileable height fields that are generated at specified, base-two resolutions, that can be added together to increase the amount of detail.
- Can dynamically generate up to 3 layers and edit each layer's parameters (could do more layers but don't see the need)
- Renderman shader with a C++ plug-in.

UNDERWATER GROWTH SHADER

This underwater shader was created to fill the need of a consistent under growth look in the short animation, Peanut Butter Jelly. This shader was used by multiple artists throughout the production to surface the plane, ship, sword, and cannons. I am personally responsible for primary surfacing (diffuse, bump, displacement) of the ship, plane, and a several other objects for the shot in Mari. Also responsible for lighting and compositing for this shot.

- Has the ability to paint a growth map to allow purposeful growth distribution.
- 3 procedural layers (bacteria, sand, and general surface displacement)
- 6 semi-procedural layers that need black and white maps to establish location to allow for more specific placement (algae, barnacles, bubbles, cellular structures, polyps, and fungus)

ROBOT SURFACING

Surfaced in Mari, and rendered using Mental Ray. This robot was given to me with the basic colors done on the upper half and a completely unfinished lower half.

- Surfaced in Mari, rendered with Mental Ray.

SUNRISE

Inspired by Life of Pi scene, this scene has LOS surface shader with only one layer. Sky is a timelapse by Brett Junvik, and the artifacts are actually birds.

- Rendered with RenderMan, with render time less than 2 mins a frame.