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CS557 - Computer Graphics Shaders

Project #6: **The Snake Menagerie Project**

Description:

My final project was related to fire/smoke, so for this project I wanted to create the effect of making the snake burn and disappear. The vertex and fragment shaders create a burning and disappearing effect for a snake OBJ model. The vertex shader distorts the model's surface by displacing vertices along their normals using a 3D noise texture, creating a dynamic distortion that evolves over time. It also computes lighting vectors for shading. The fragment shader applies a fire-like effect by mapping noise values to colors ranging from red to yellow, simulating flames. It introduces a dissolving effect by discarding fragments below a burn threshold that fluctuates with time, making the object gradually disappear in a burning fashion. This combination of displacement and fragment manipulation achieves a visually dynamic burning effect.

Screenshot:

Burning Snake	Burning and Disappearing
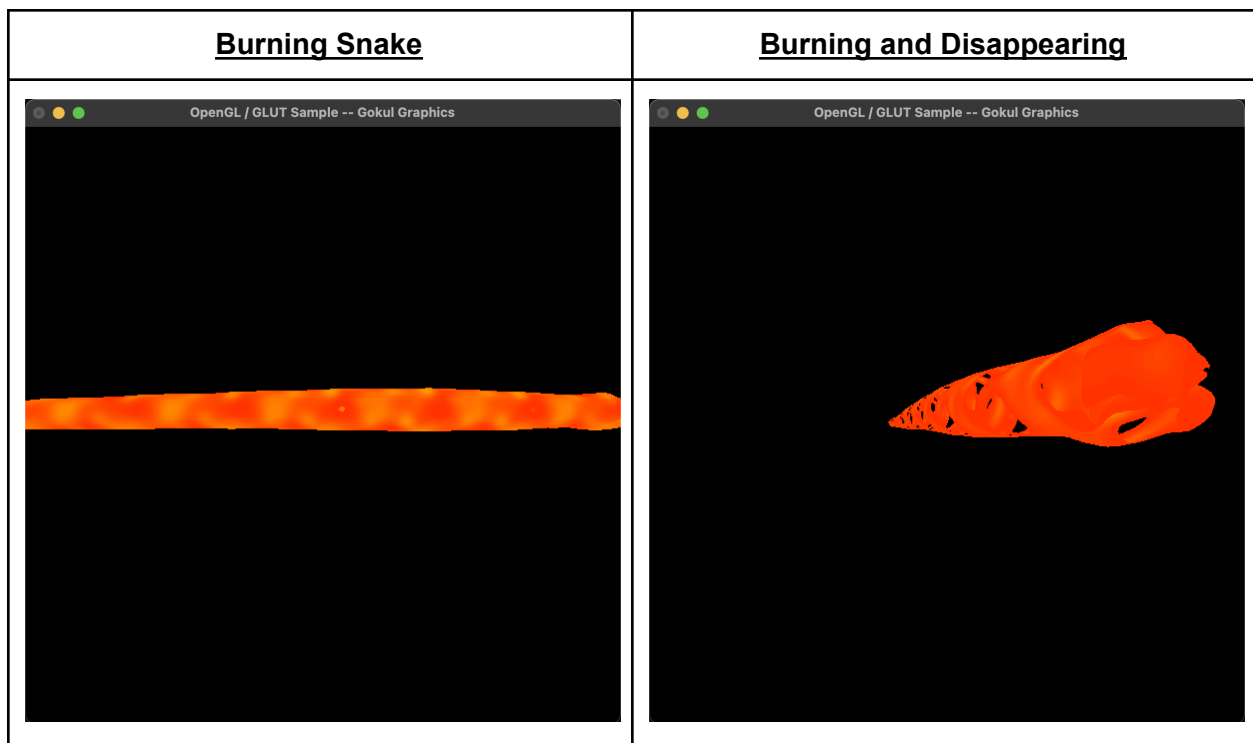
Video Link: https://media.oregonstate.edu/media/t/1_8hipa93j