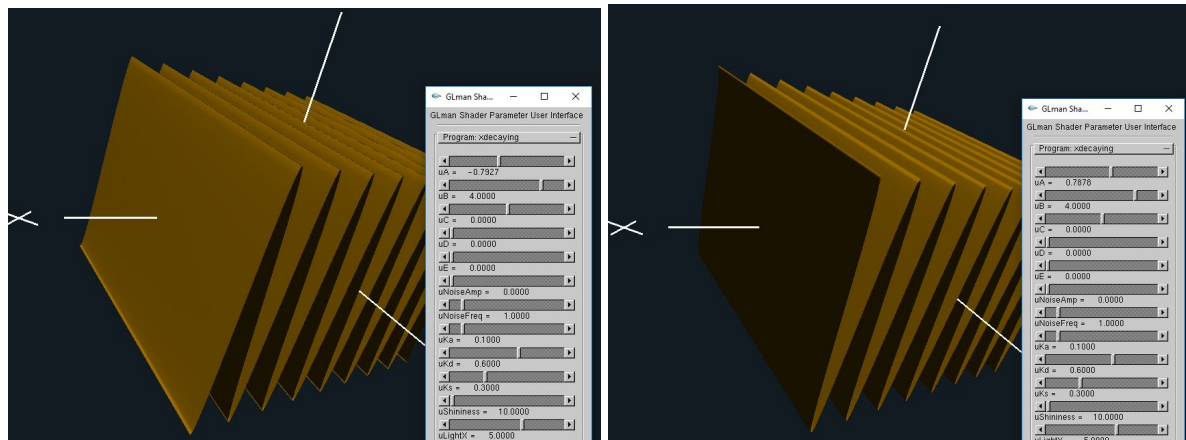Nicholas Skinner
Skinnern@oregonstate.edu

Project 3 - Displacement Mapping, Bump Mapping, and Lighting
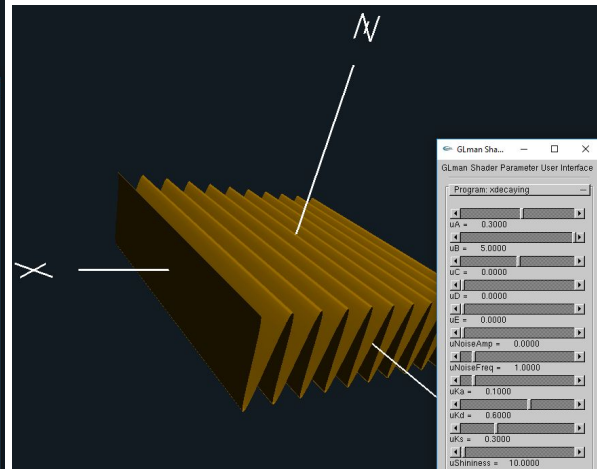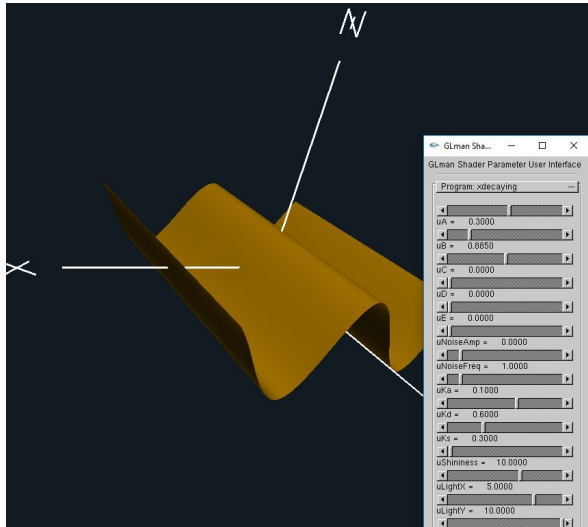
Explanation:
Using the provided formulas (and some quick googling about maths within C++) I believe that I have managed to find the normals and apply them in a satisfactory manner. I combined the declaration of the vec3's with the normalize call, so that was a small shortcut that I had used. The formulas for distortion worked as they were taking an existing object, and modifying it in relation to a formula. Locating normals works (or so I believe it does) through following the given derivatives to calculate normal values we need for our mapping.
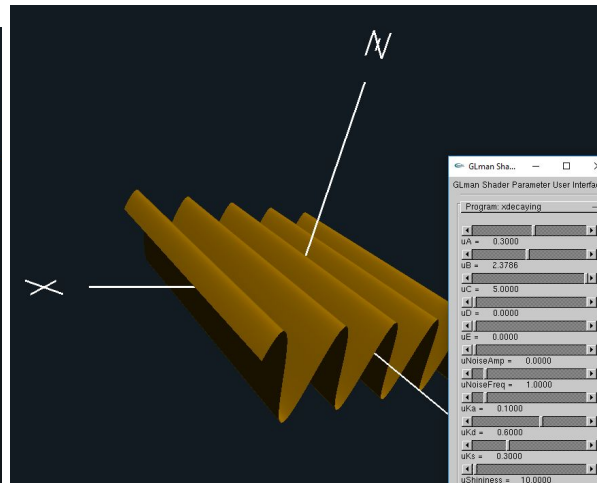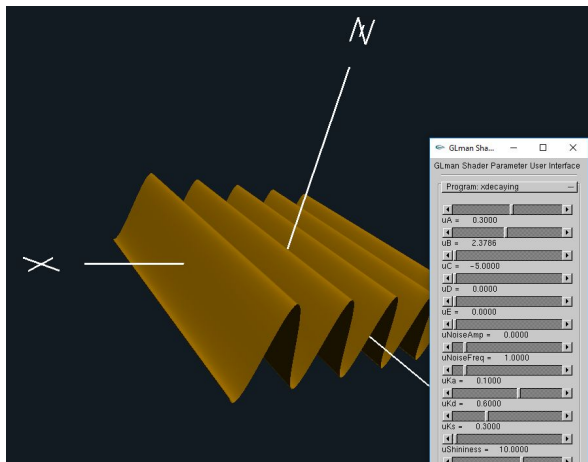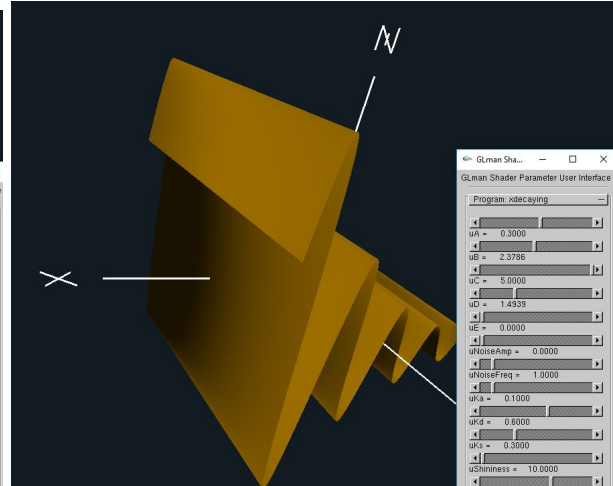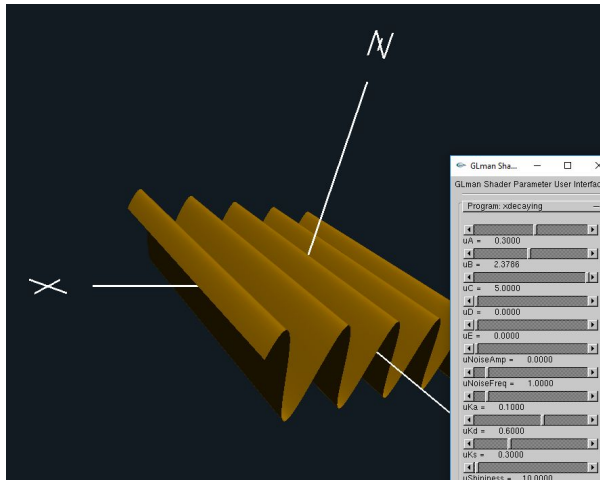
Screenshot comparisons:

uA

uB

Nicholas Skinner
Skinnern@oregonstate.edu

uC

uD

Nicholas Skinner
Skinnern@oregonstate.edu

uE

Normals

Nicholas Skinner
Skinnern@oregonstate.edu
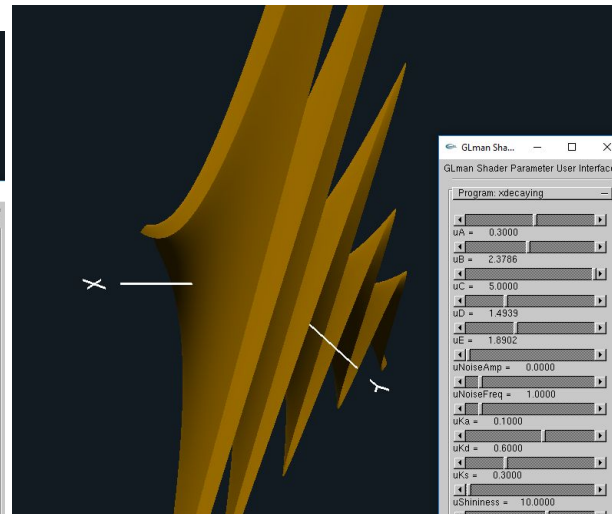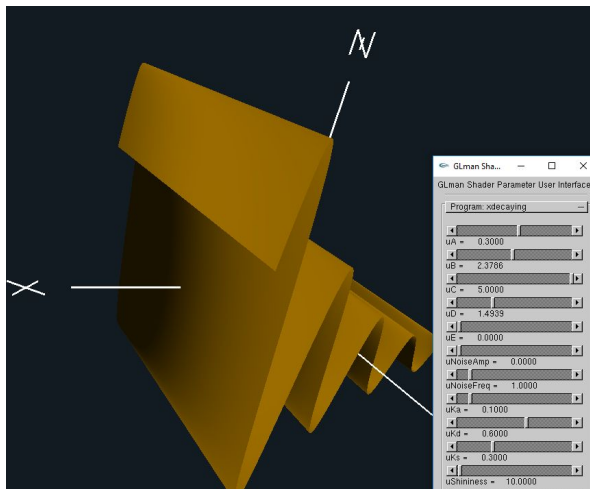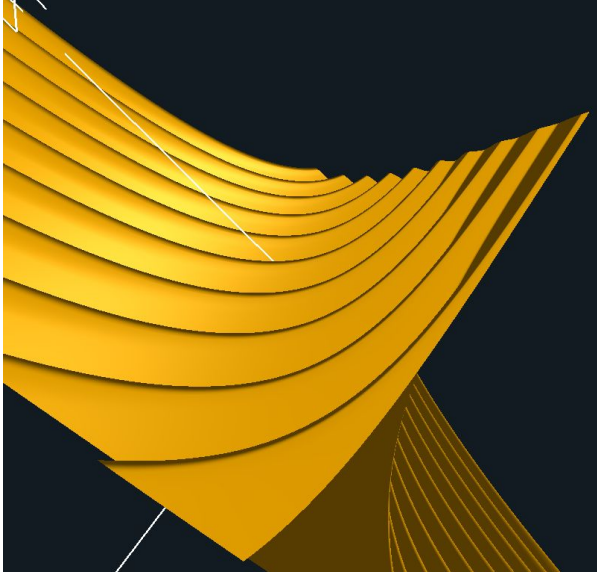
Bump
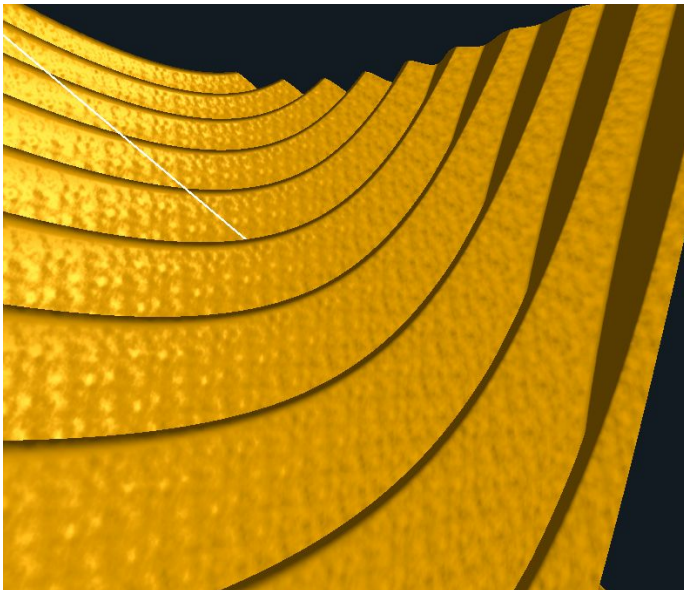
Video Link:https://media.oregonstate.edu/media/t/0_erc1b531

Nicholas Skinner
Skinnern@oregonstate.edu

Thanks, and have a great day!