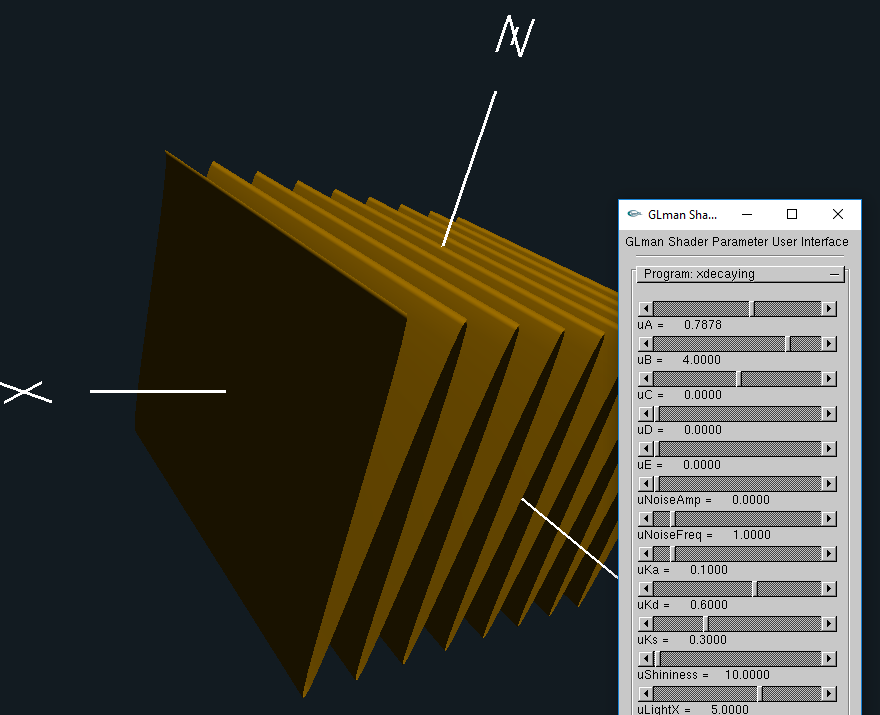
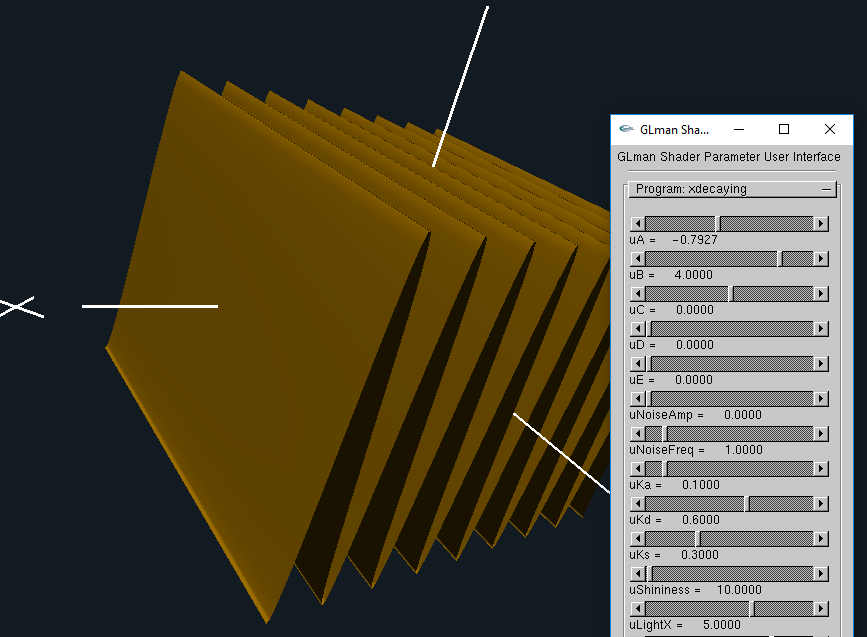
**Project 3 - Displacement Mapping, Bump Mapping, and Lighting**

Explanation:

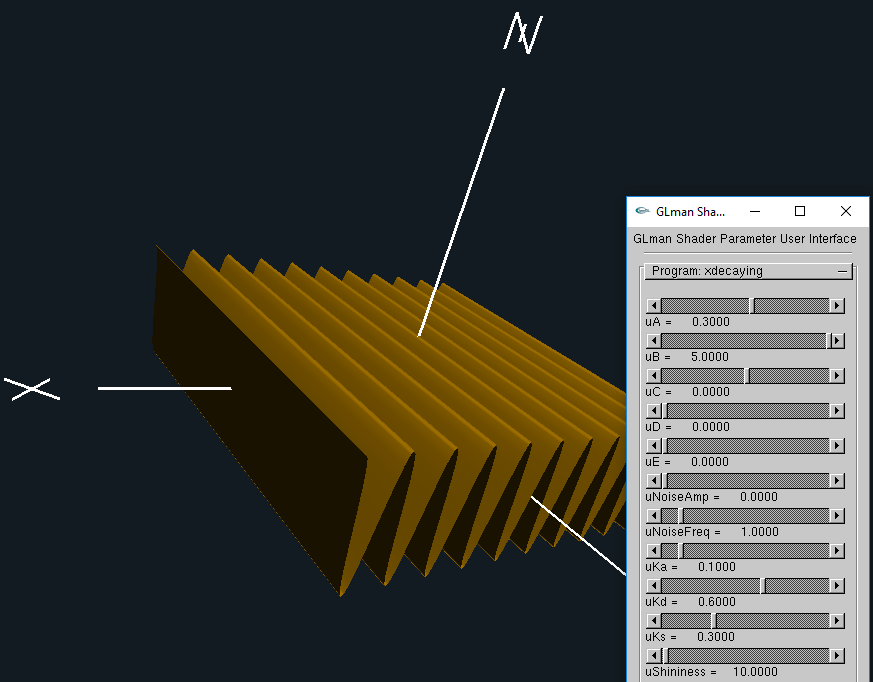
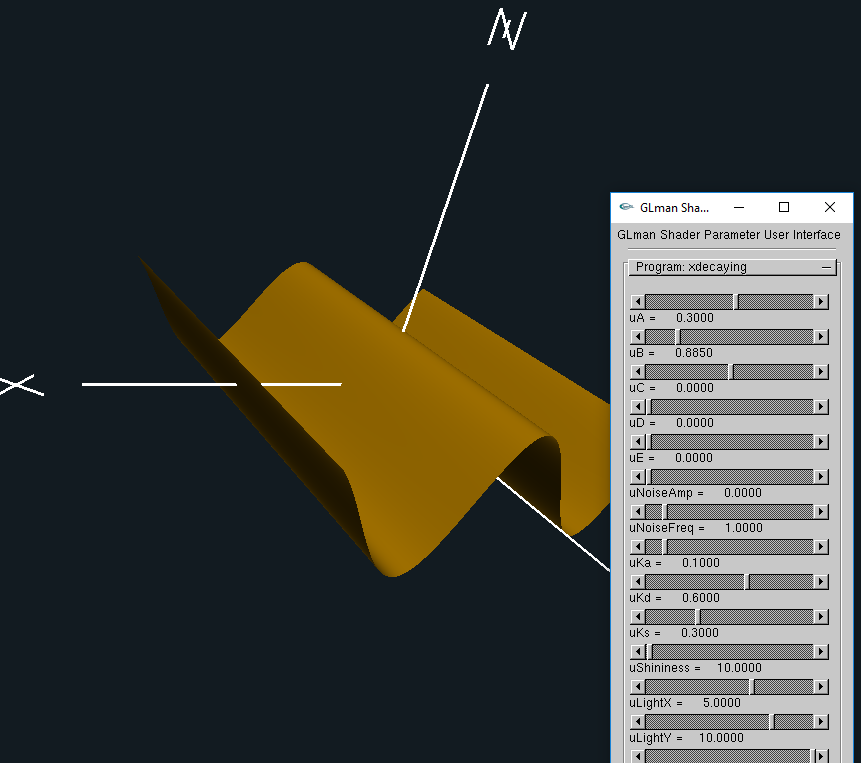
Using the provided formulas (and some quick googling about maths within C++) I believe that I have managed to find the normals and apply them in a satisfactory manner. I combined the declaration of the vec3’s with the normalize call, so that was a small shortcut that I had used. The formulas for distortion 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:

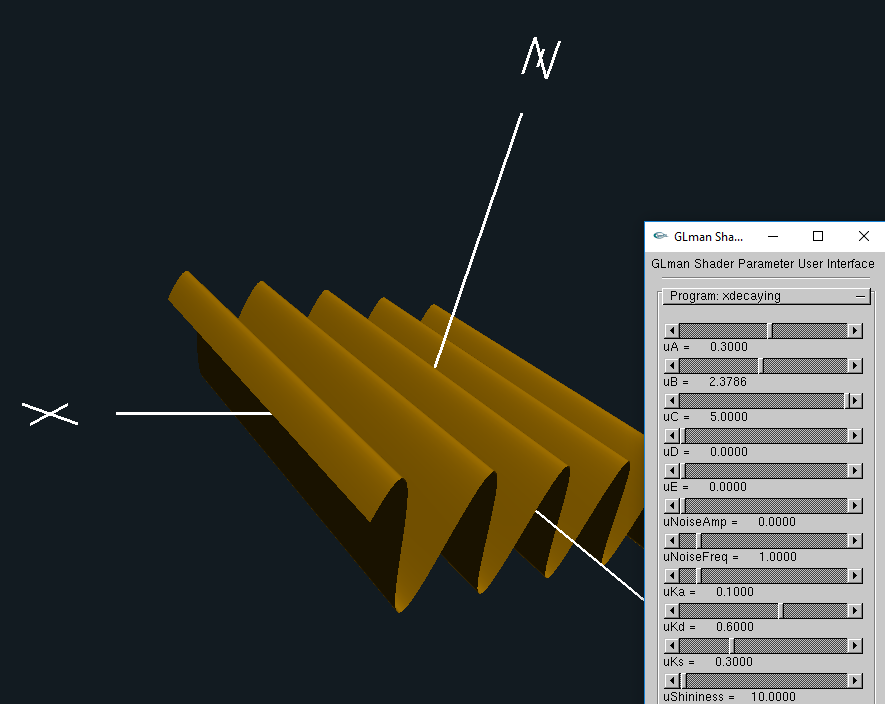
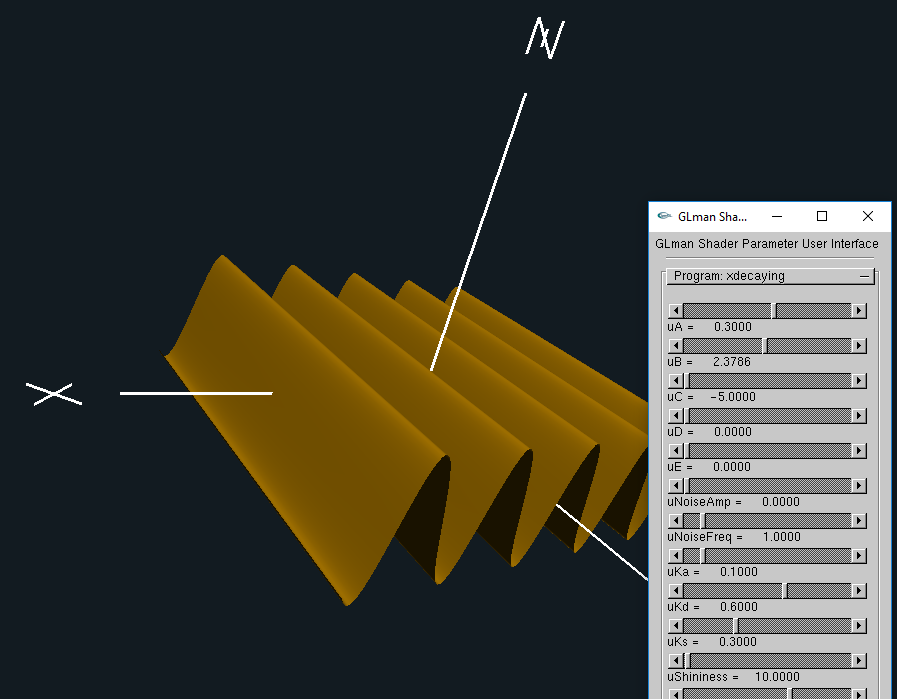
**uA**

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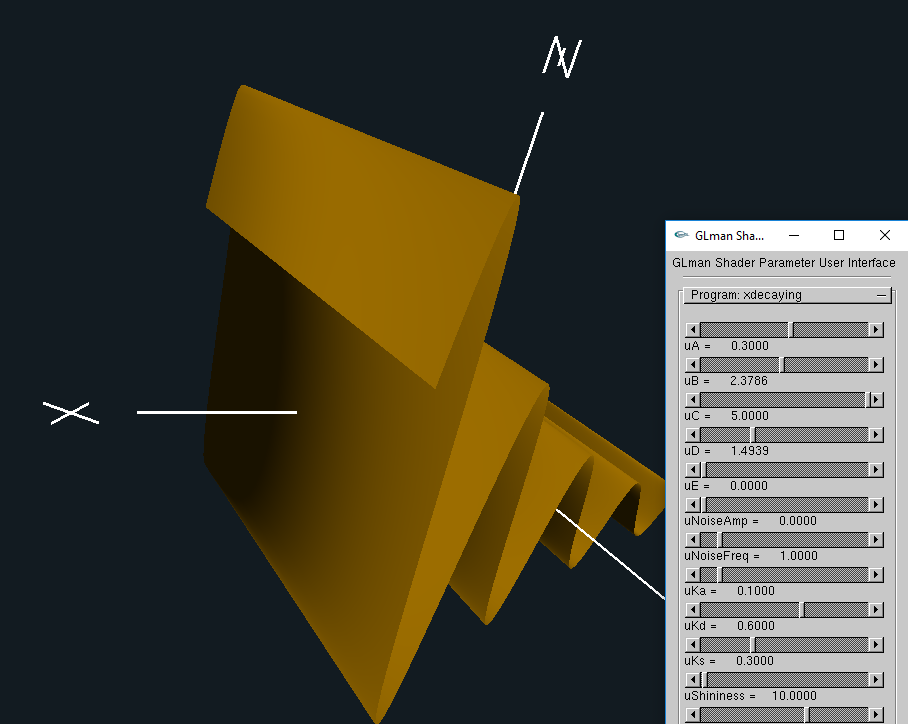
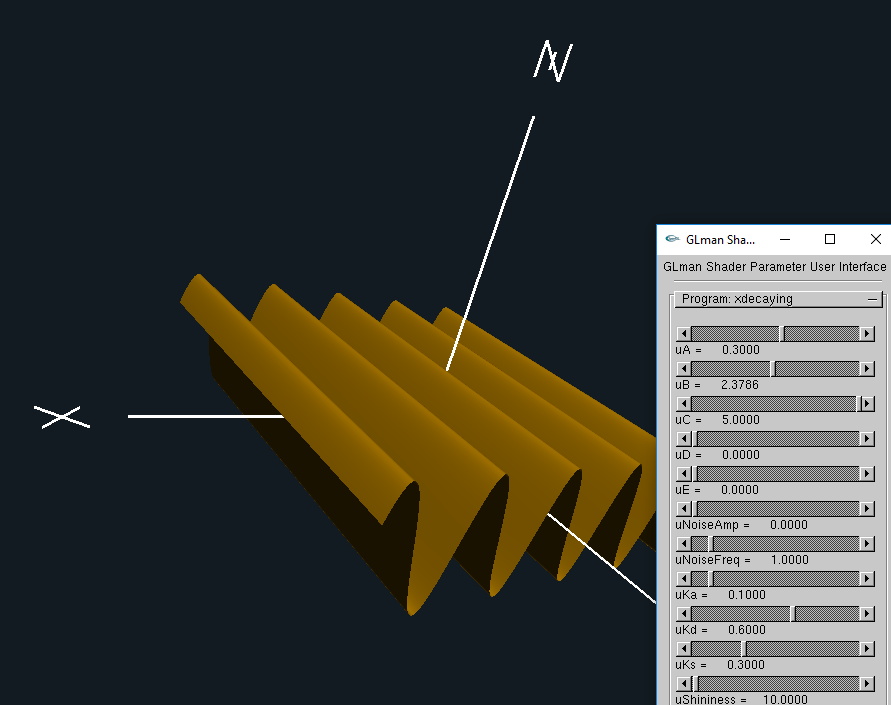
**uB**

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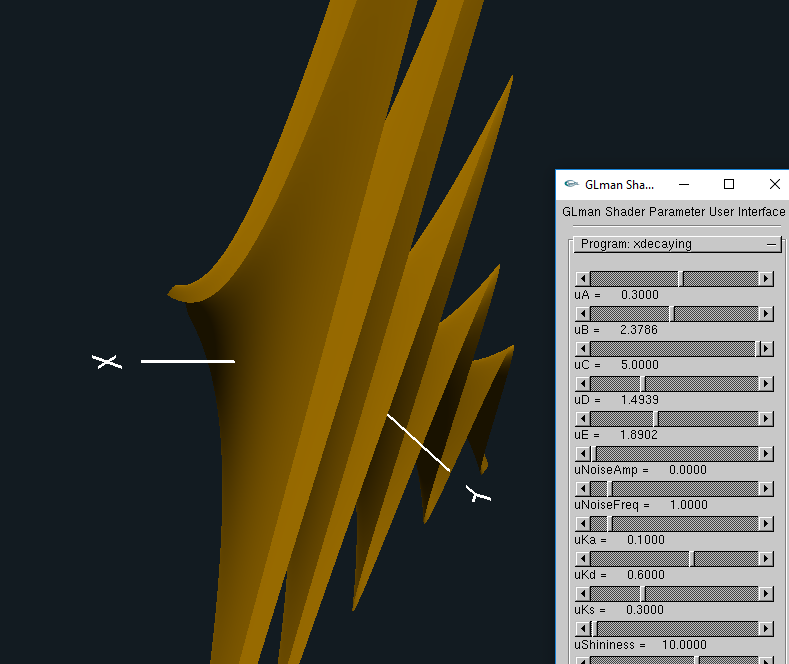
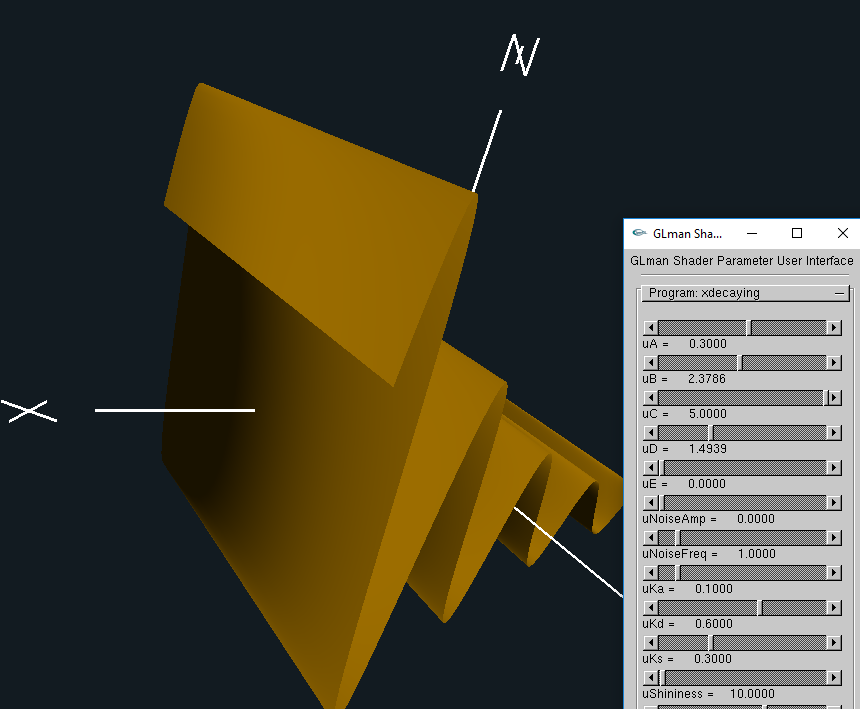
**uC**

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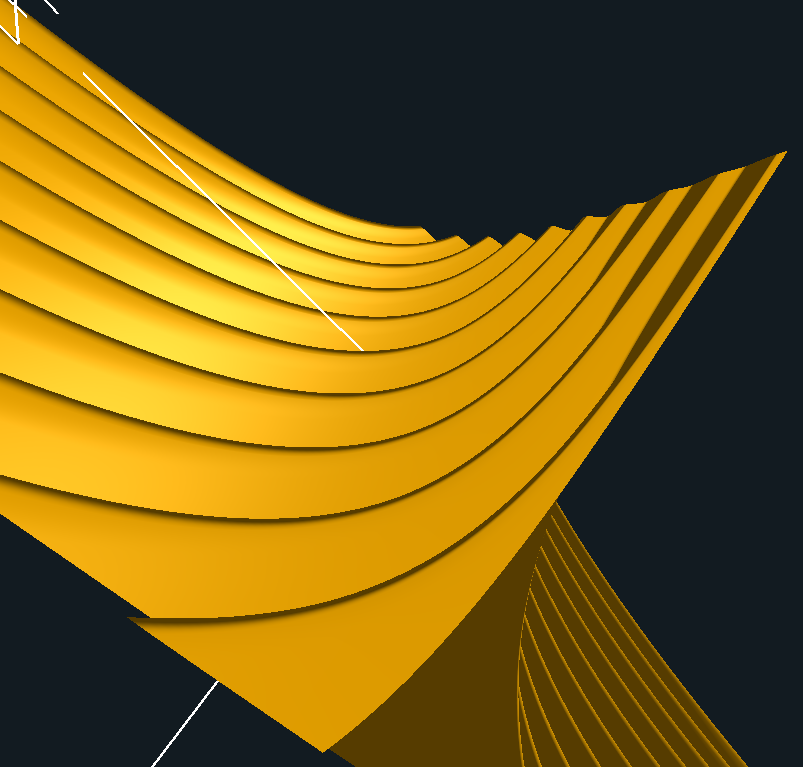
**uD**

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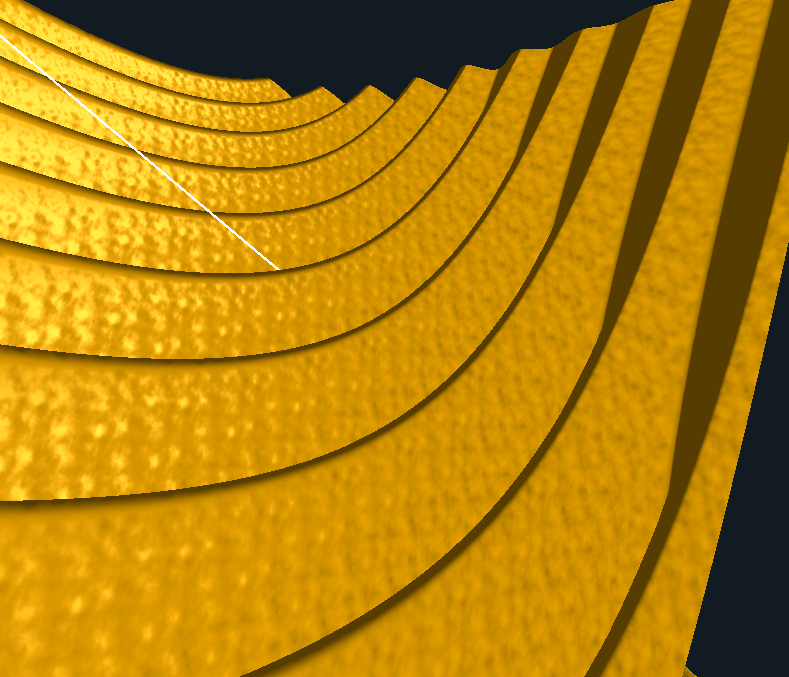
**uE**

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**Normals**

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**Bump**



Video Link:<https://media.oregonstate.edu/media/t/0_erc1b531>

Thanks, and have a great day!