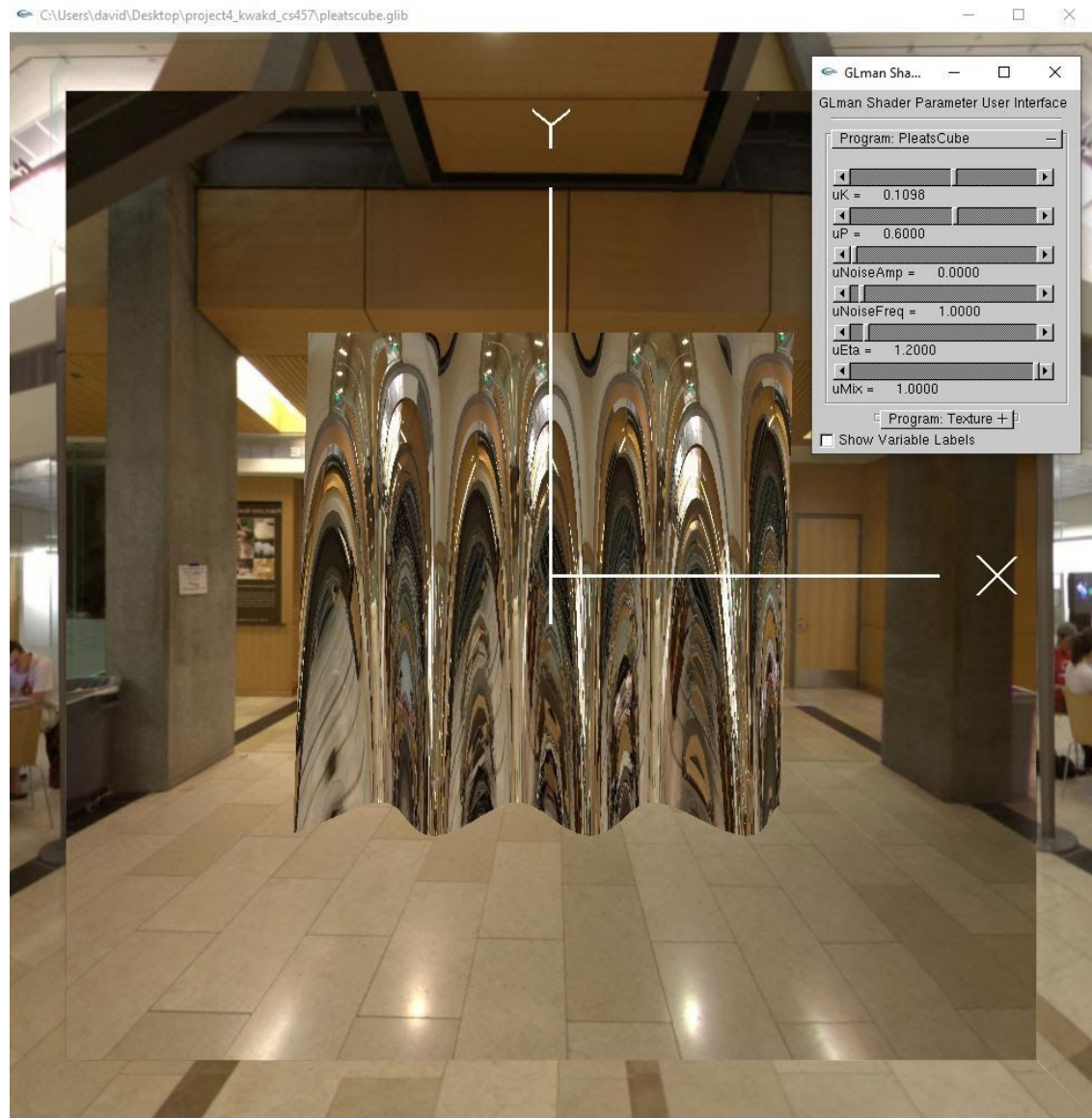


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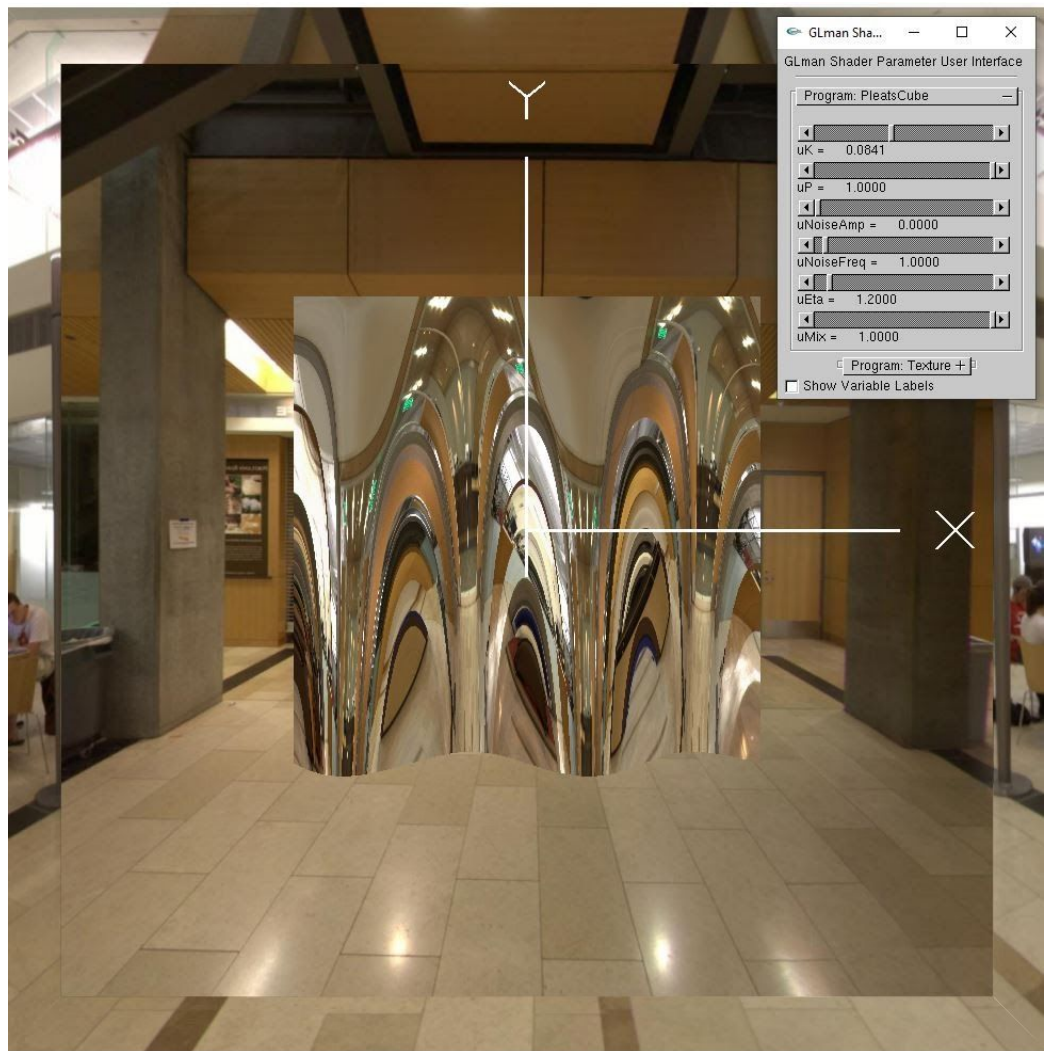
Project #4:
Cube Mapping Reflective and Refractive Bump-mapped Surfaces

- *What you did and explaining why it worked this way*
 - For this assignment I simply filled in the values that were marked ??? in the sample programs for Project 4. In the Sample Vertex Shader File the newVertex.z was said to be the same math function used in Project 3 so inside this variable I simply put in the same equation. Same with the dzdx and dzdy values. In the Fragment shader most of them were filled in with past values from the vertex shader along with aid from the powerpoints from lessons. For example for the reflectColor I knew from the powerpoint presentation on cube-mapping.

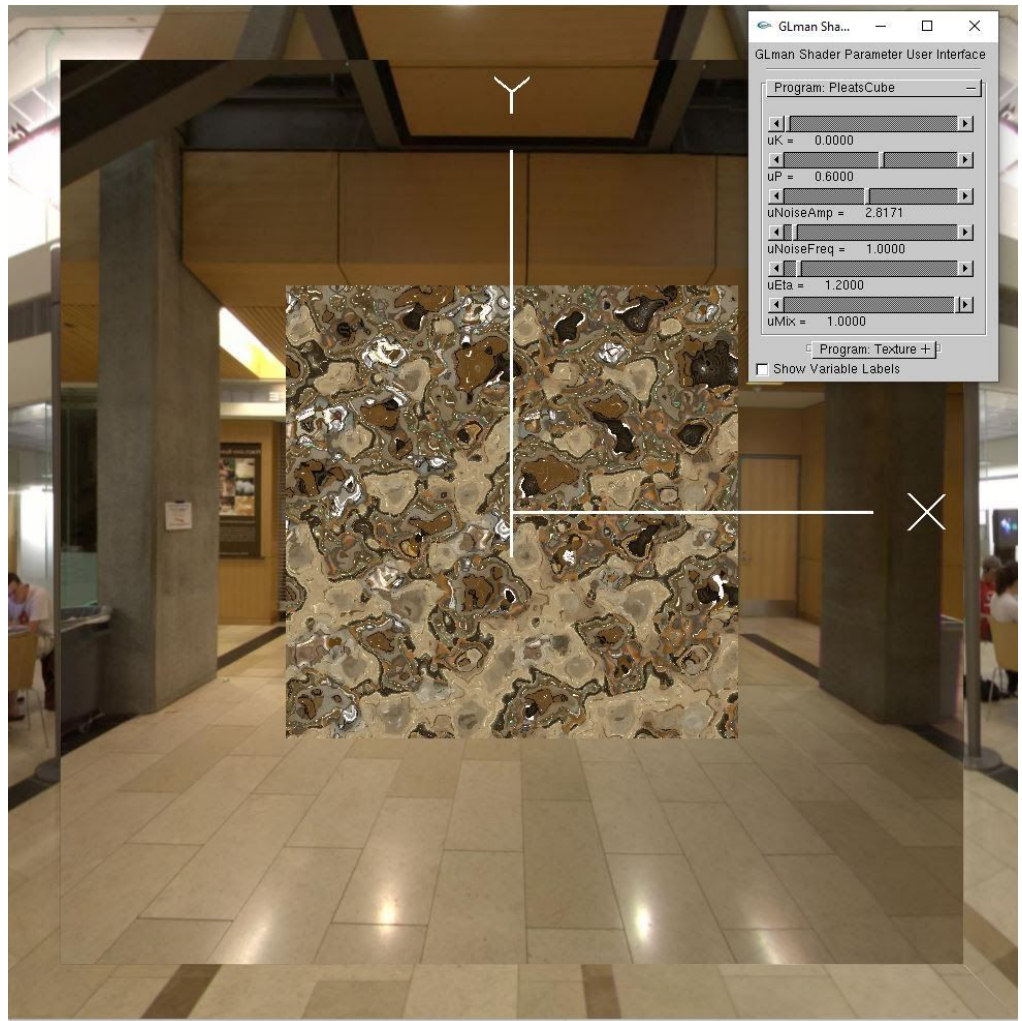
- *Side-by-side images showing different values for the input parameters*
 - When the uK value is raised



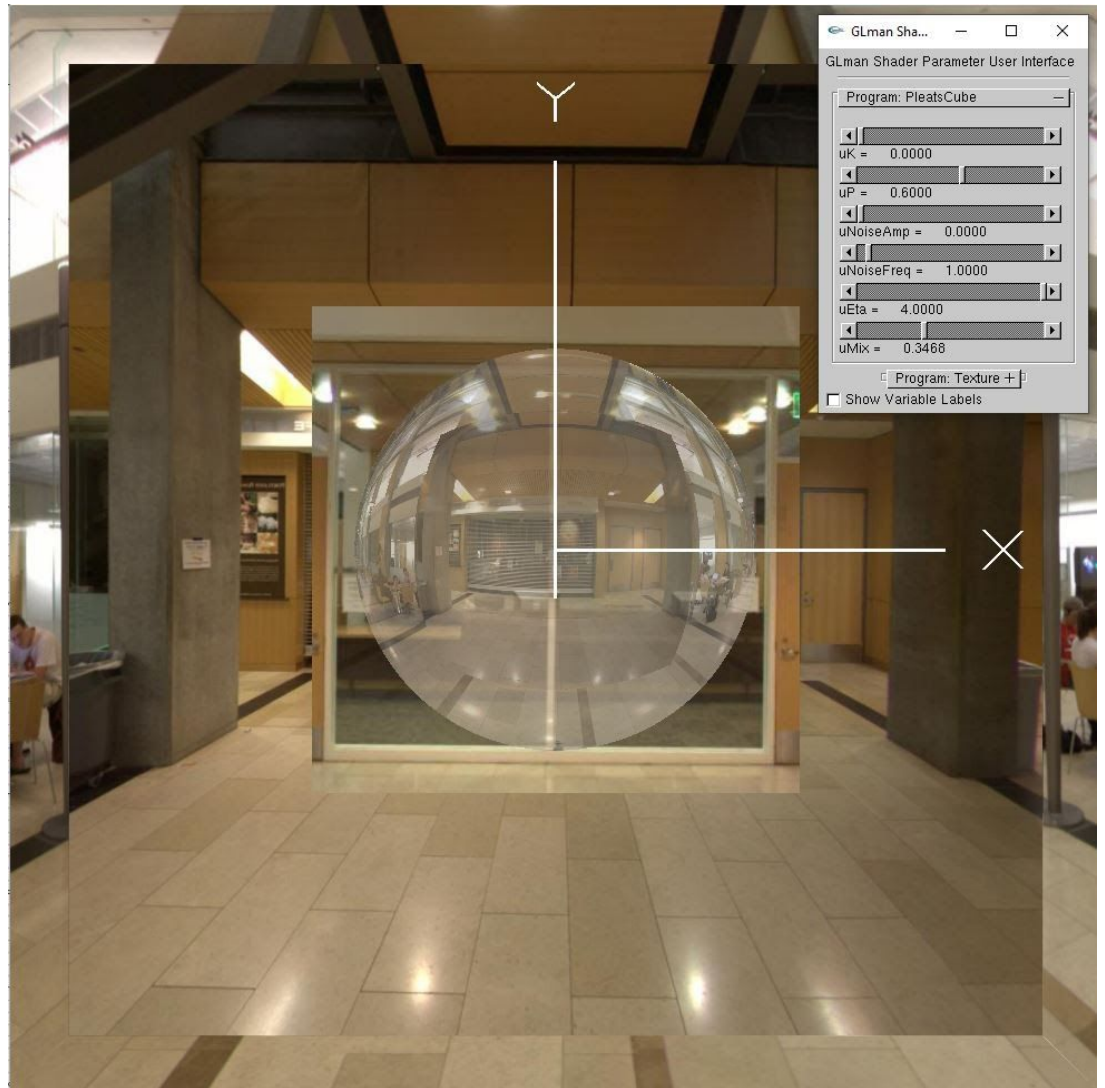
- When the uP value is raised



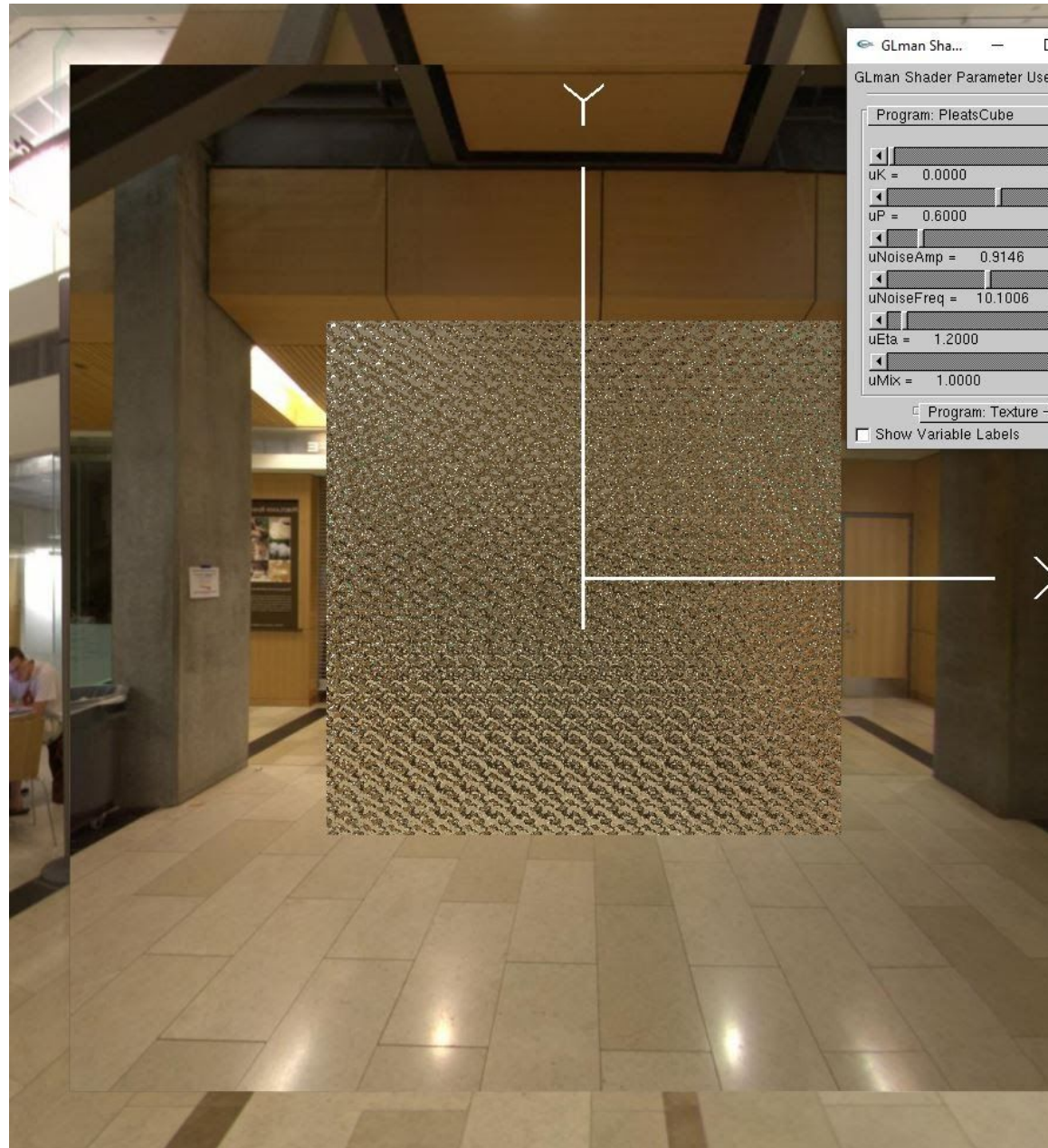
- When the uNoiseAmp is raised



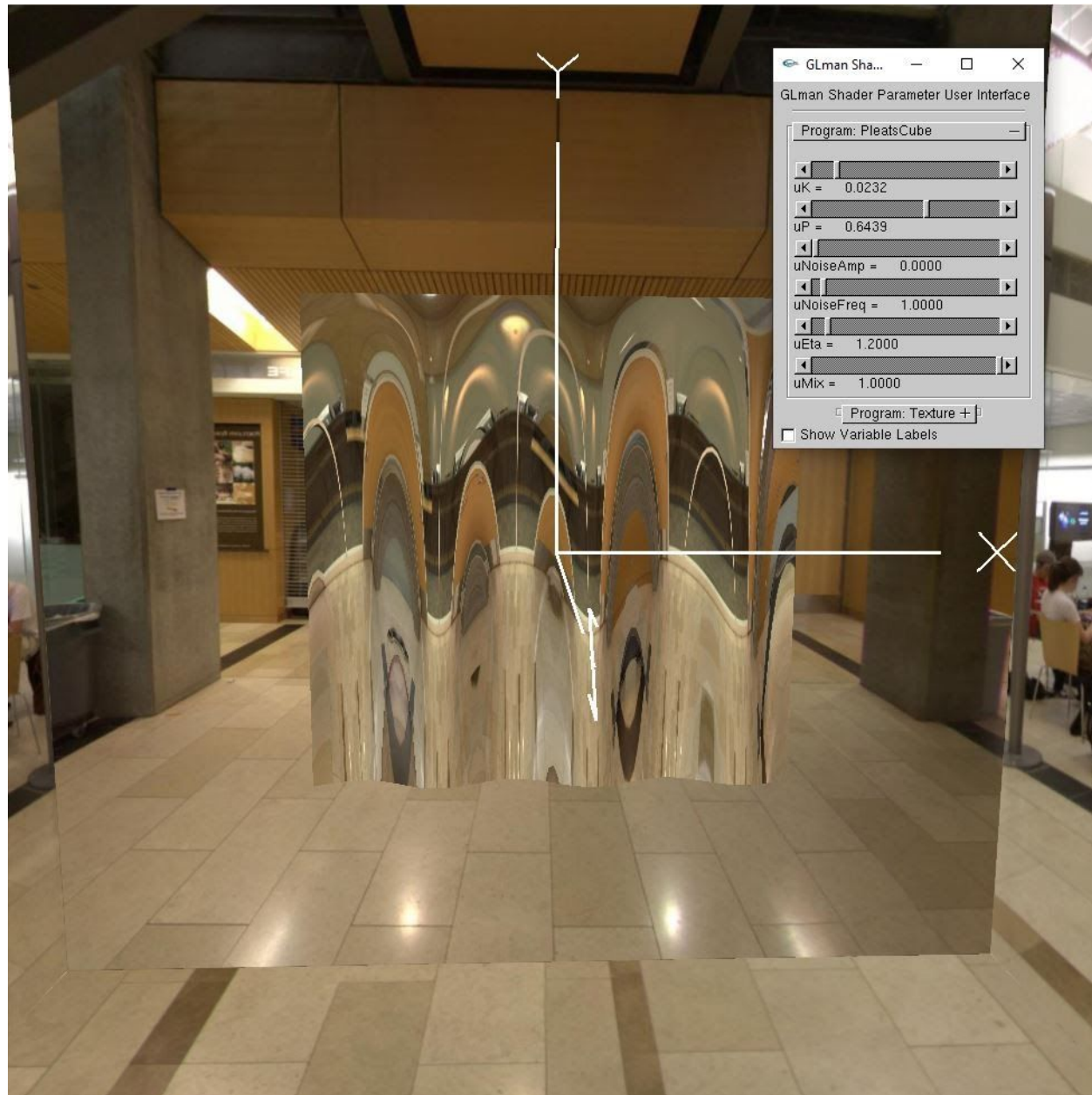
- When uEta and uMix is raised



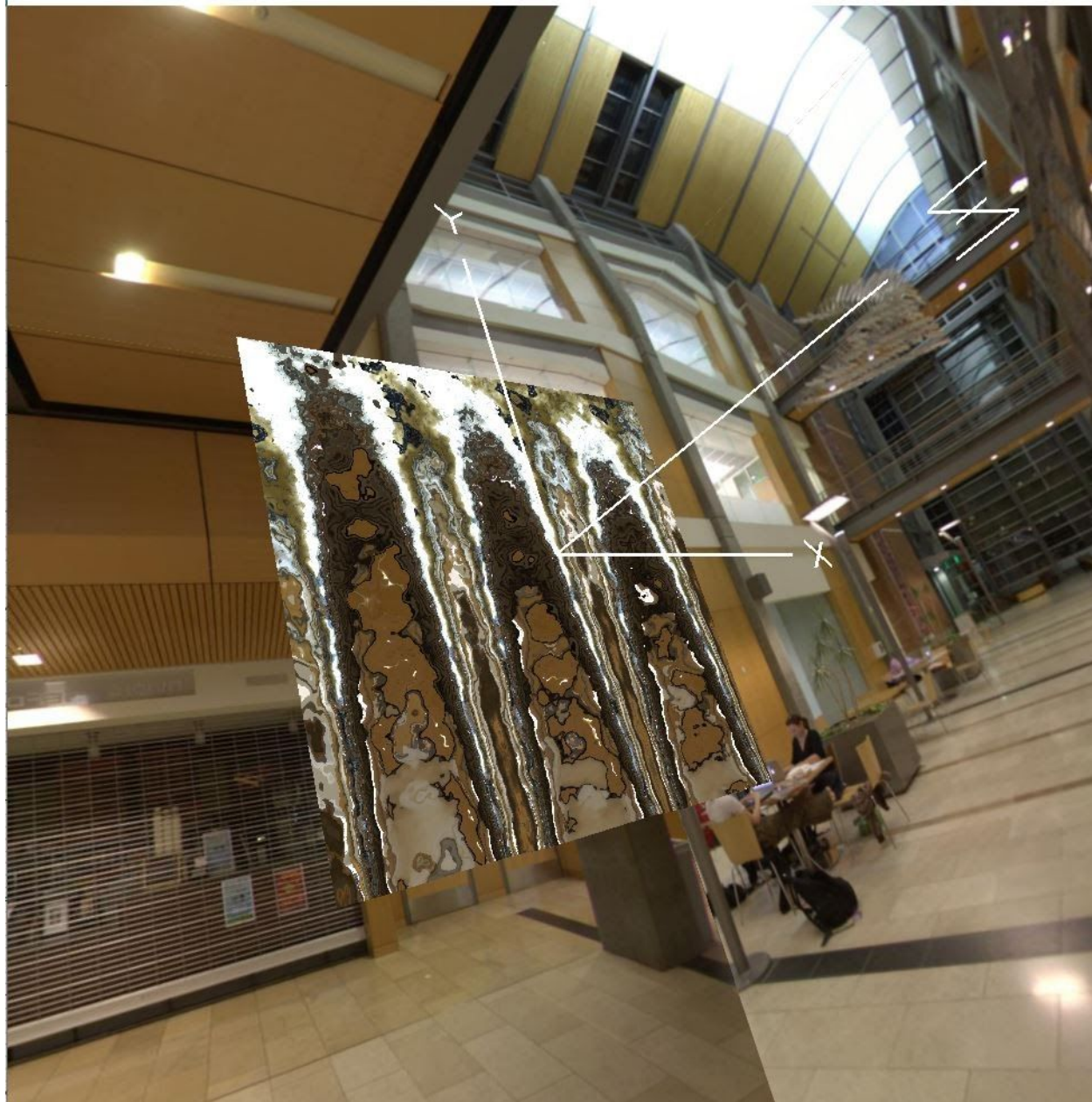
- When the `uNoiseFreq` is raised



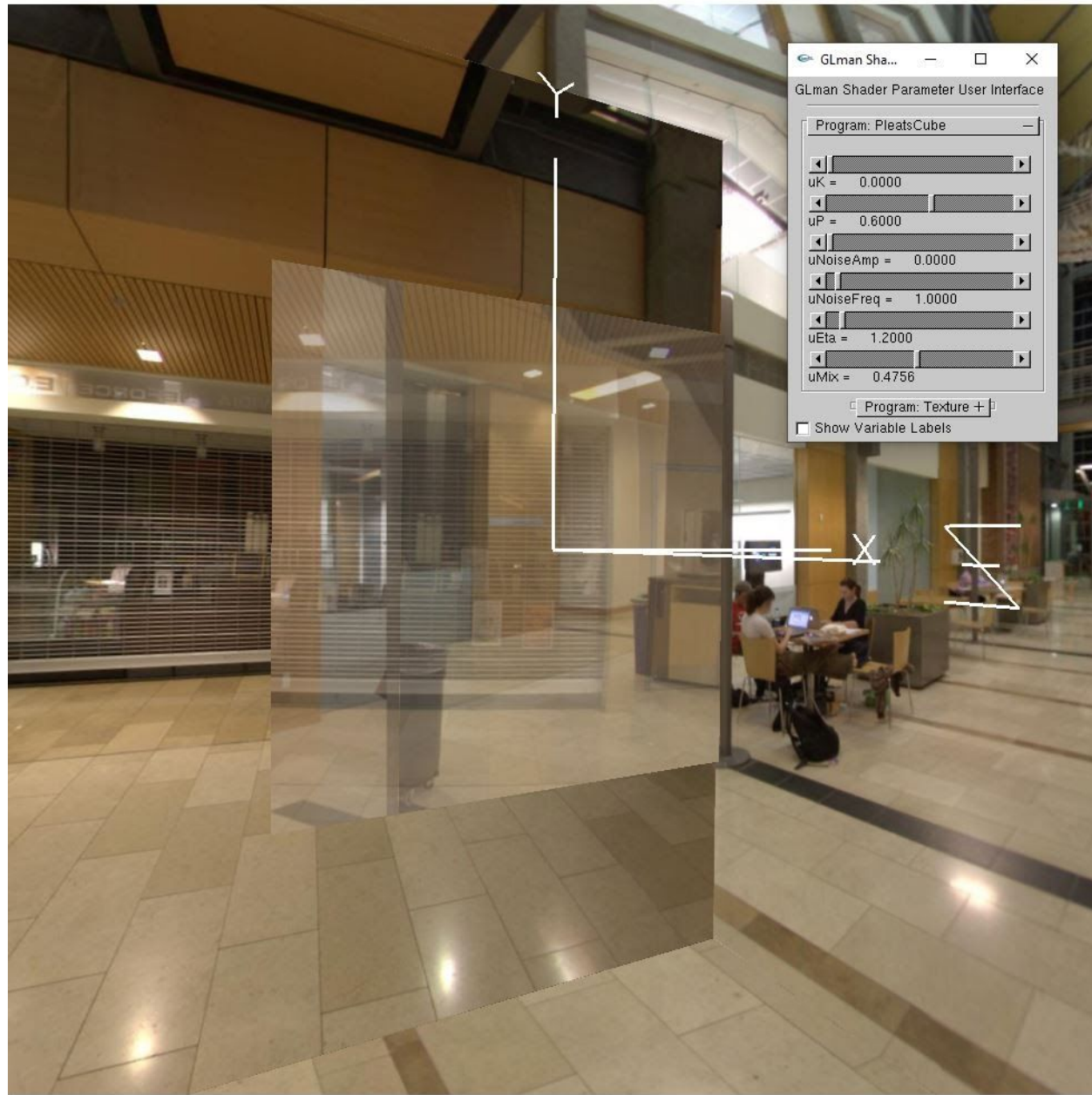
- *Image(s) showing that your normal computation is correct.*



- *Image(s) showing that your bump-mapping is correct.*



- An image showing that you can mix the reflective and refractive outputs.



- A link to your video
 - https://media.oregonstate.edu/media/I_7nthuovq