

Programming Assignment #4

Taj Mahal



CSCI 480 Computer Graphics

Due date: Friday, Dec7, midnight. Put all your code in a folder, zip or tar the folder, and submit to moodle. **Please use your name for the folder name so I can find yours quickly and easily!** I'll have prizes for the best models!

The Assignment: Make a textured model of the Taj Mahal.

Camera motion: Enable two camera motions: mouse motion as in the previous assignment, and also the ability to move in the three directions of the camera frame with **w-s**: forward-back, **a-d** left-right, and **q-e** up-down. Moving with one of these keys should *also* move the “lookAt” point, along with the camera.

The Geometry: The geometry for the Taj Mahal should be similar to that shown in Google Earth. Only the main building, the four surrounding towers, and the platform it sits on need to be modeled.

The Shaders: You can use textures for some of the surfaces, but you need to use at least one procedural shader for some of the surfaces. I recommend a procedural brick shader for the main dome and the towers, and a similar flagstone shader for the roof and grounds. A full discussion of the brick shader can be found here: <http://www.informit.com/articles/article.aspx?p=171029>, which is a chapter from the OpenGL Shading Language book.