

GETTING STARTED WITH BLENDER

PART 2 - TEXTURING IN BLENDER *(FOR USE WITH UNITY)*

CSCI 130 - Computer Game Design
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INITIAL VIEW

Info menu

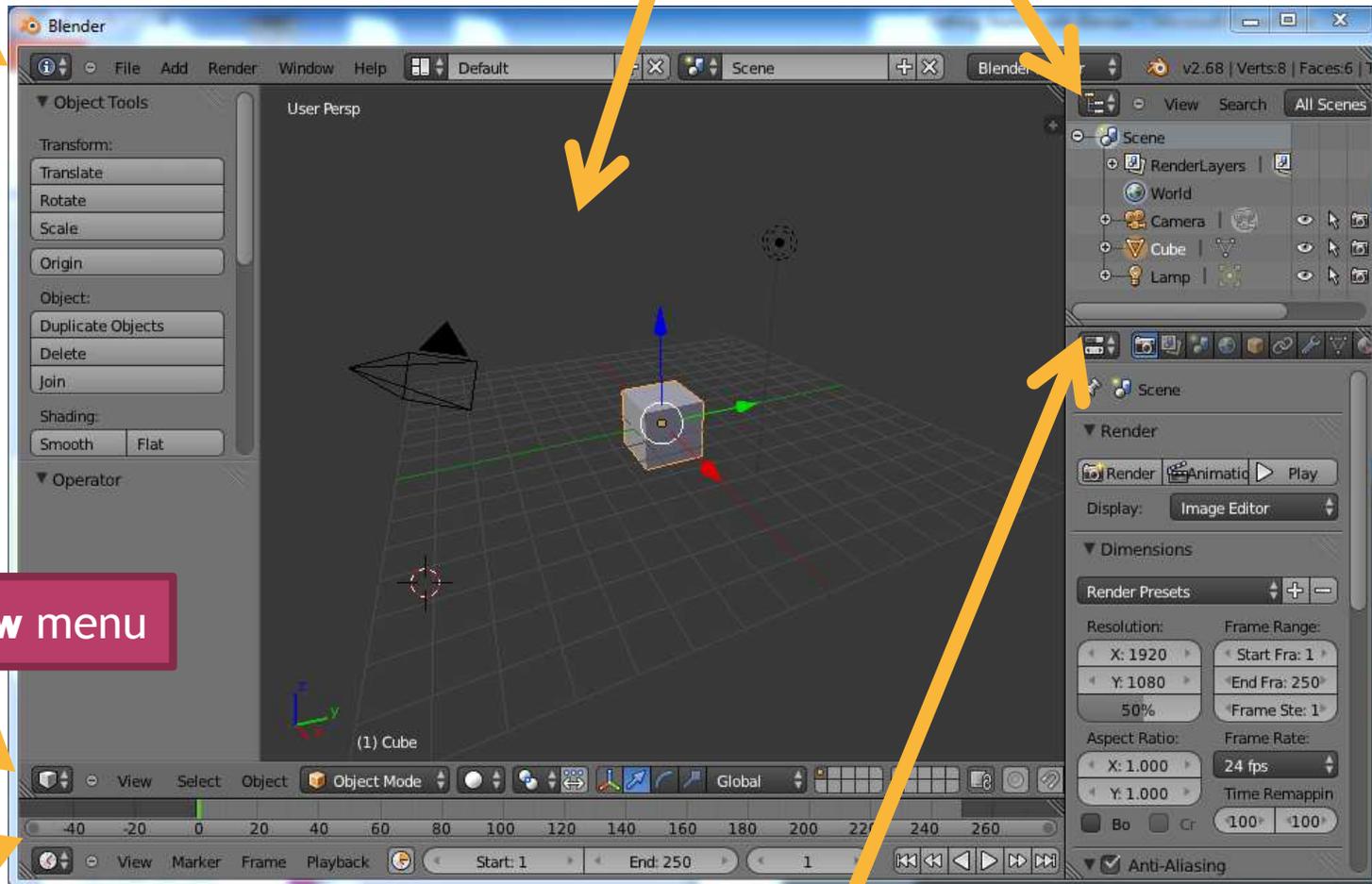
3D View window

Outliner menu

3D View menu

Timeline menu

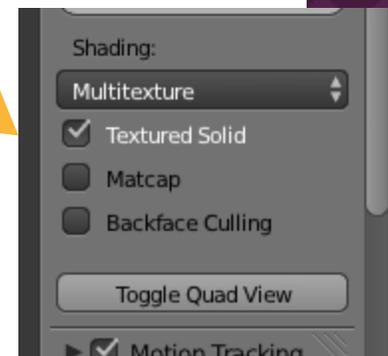
Properties menu



FIRST THINGS FIRST

- TURN ON TEXTURE VIEWING

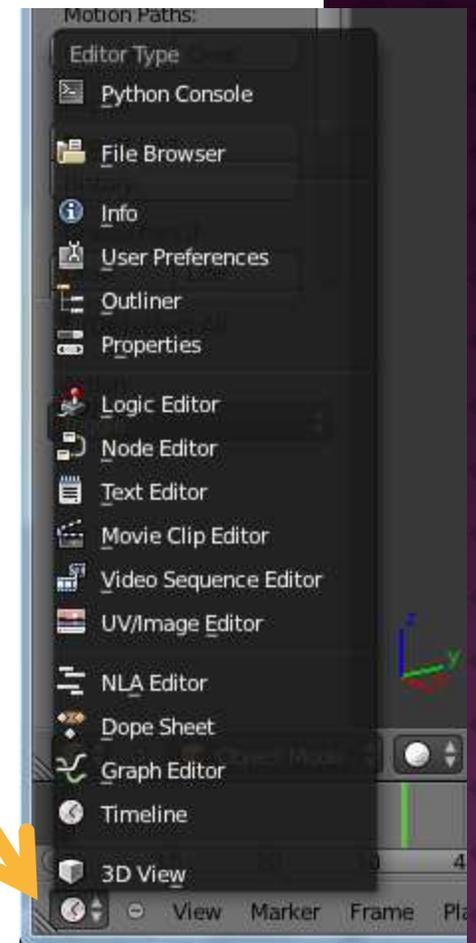
- In order to add textures to objects in Blender, we must be able to see the textures
 - In the 3D View window, toggle <N> until the Properties panel opens on the right side
 - Scroll about 2/3 the way down the panel, until you see the “Display” heading
 - Under “Display”, find the “Shading” sub-heading
 - Under “Shading”, check **Textured Solid**
 - May also want to select **Multitexture**, though it shouldn’t be required to see textures



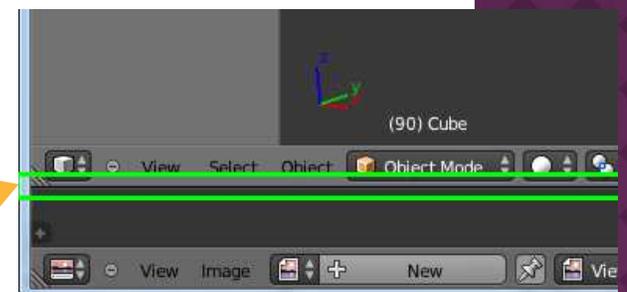
FIRST THINGS FIRST

- ADJUSTING THE VIEW

- For Texturing, we need to add a sizeable window for the UV/Image Editor
 - but don't need Timeline view, so swap it out
- Change Timeline View to UV/Image Editor
 - in bottom left corner of screen, click Timeline view button, and in pop-up menu, select **UV/Image Editor** view
- Grab bottom border of 3D View window and move up to enlarge UV/Image Editor window
 - want UV/Image Editor window to take up about 40% of vertical height of screen



Grab bottom of 3D View Window and pull up to enlarge UV/Image Editor window



TEXTURING VIEW

Info menu

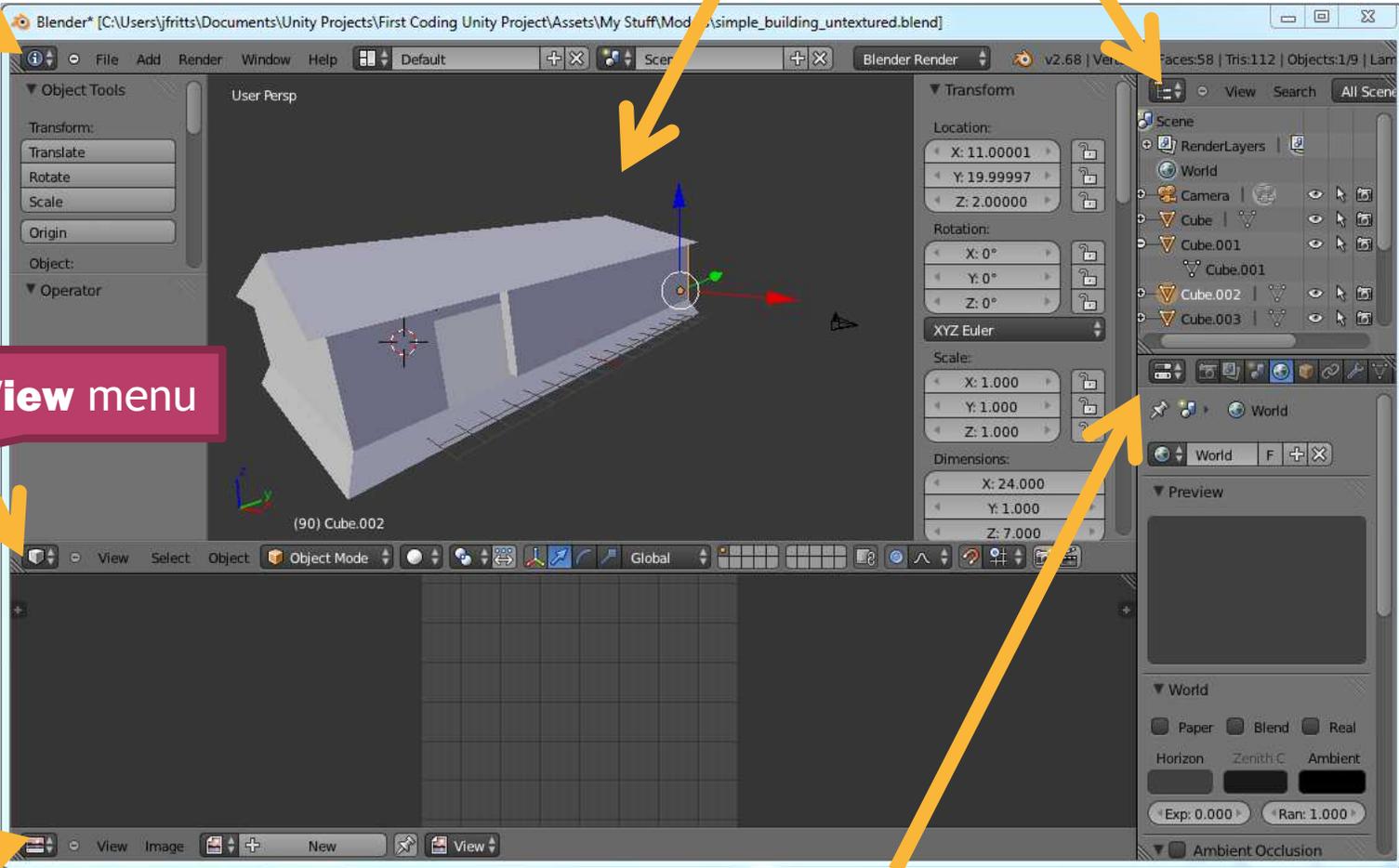
3D View window

Outliner menu

3D View menu

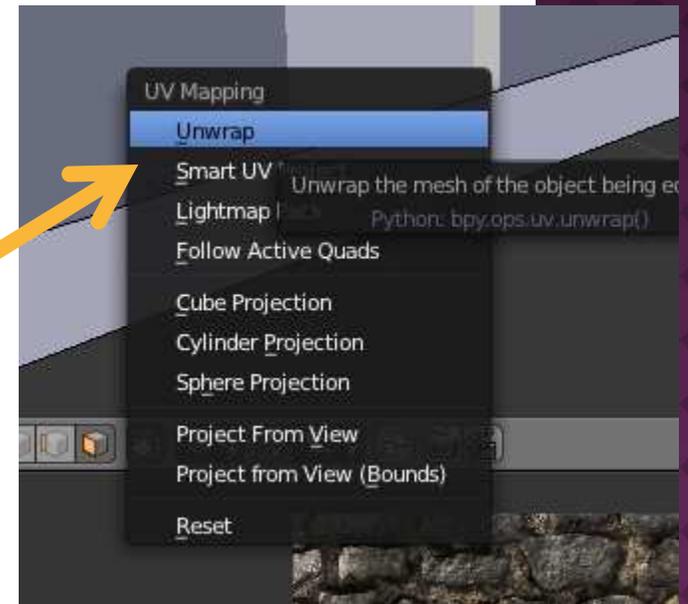
UV/Image Editor menu

Properties menu



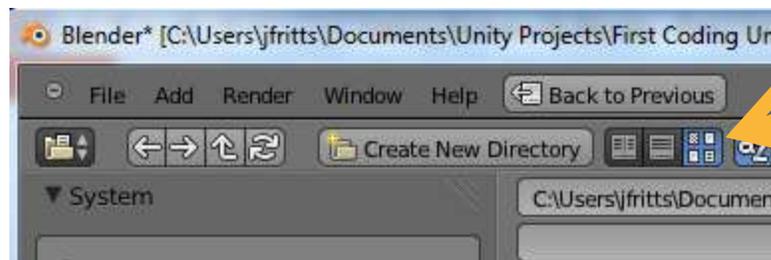
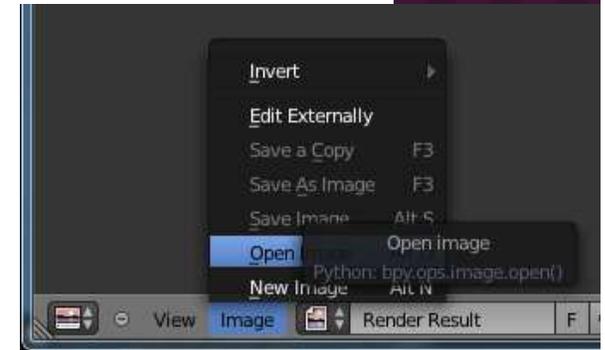
TEXTURE FOUNDATION

- Let's texture the foundation of the house first
- First, need to create UV map for foundation
 - click Right mouse button on foundation to select it
 - switch to Edit mode
 - <TAB> if in Object mode
 - in 3D View view window, hit <A> to select all faces of foundation
 - hit <U> to open UV Unwrap pop-up menu
 - select **Unwrap** option



TEXTURE FOUNDATION

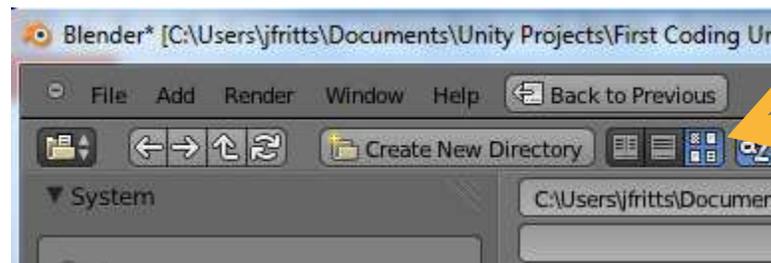
- Now let's select texture for faces of foundation
 - in 3D View window, hit <A> to select all faces
 - in UV/Image Editor window select **Image -> Open Image**
 - select the directory of your Unity then within it, select the directory of the CSCI 130 textures:
 - Assets/CSCI 130 Assets/Building & Object Textures
 - change the view to thumbnail images, and then select the desired foundation texture



select thumbnail
image view mode

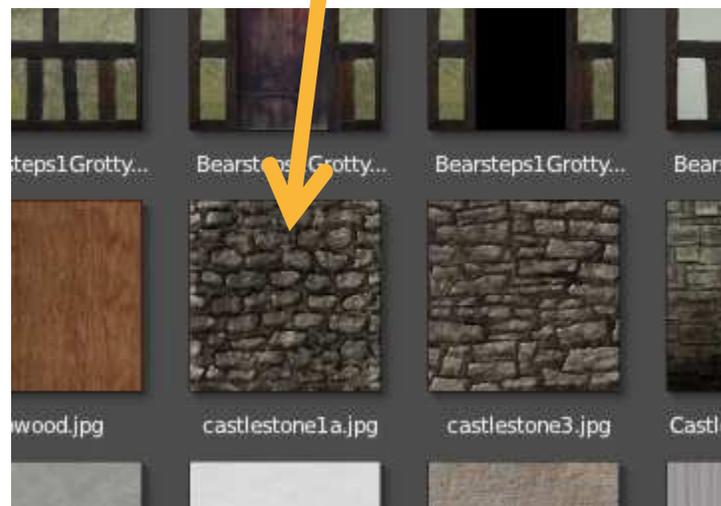
TEXTURE FOUNDATION

- change the view to thumbnail images



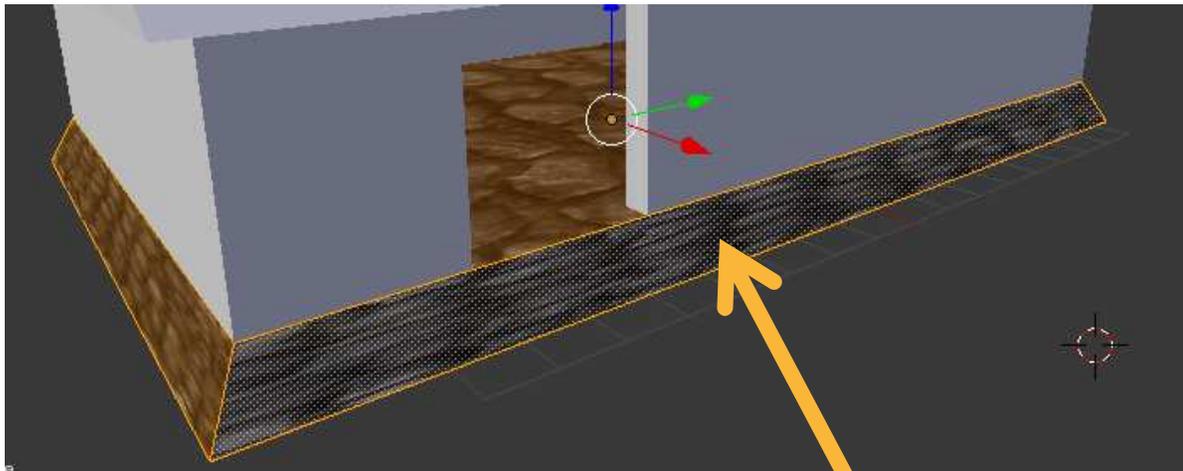
select thumbnail
image view mode

- then select the desired foundation texture
 - here, I selected **castlestone1a.jpg**



TEXTURE FOUNDATION

- after selecting image, your 3D View window should show the foundation textured, as shown here:

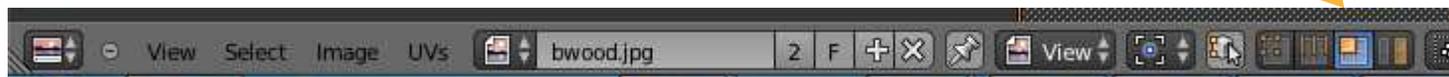
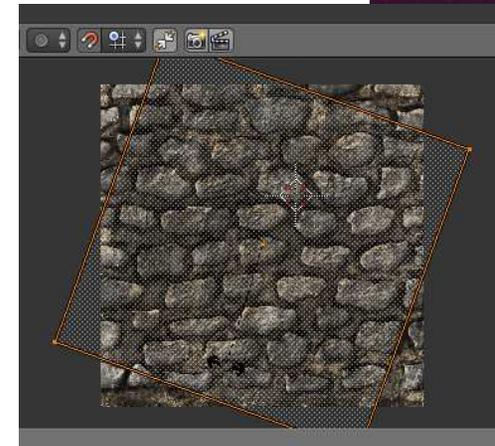


- next, we'll scale the image for individual faces, to make each face look nice
 - correct size
 - correct orientation
 - scale in appropriate direction to eliminate “stretched” look



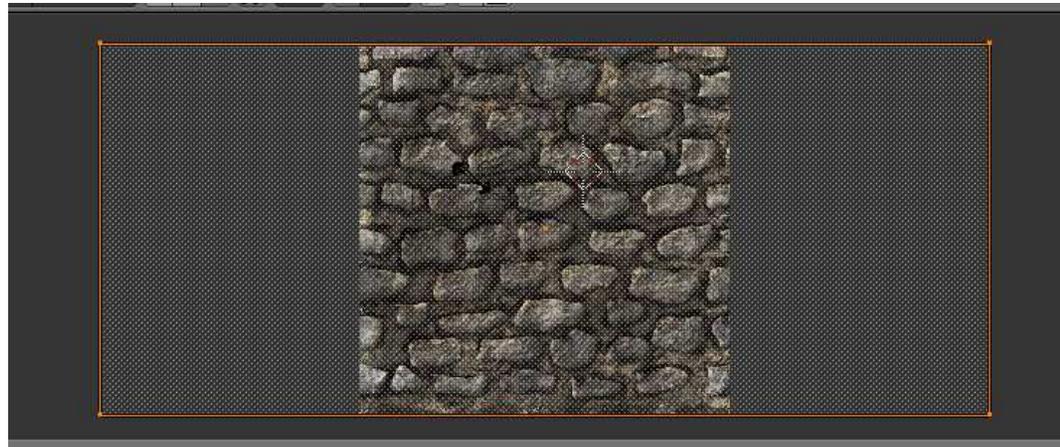
TEXTURE FOUNDATION

- adjust orientation and scale of front of foundation
 - in 3D View window, select front face of foundation
 - in UV/Image Editor window
 - first make sure Faces mode selected
 - right click on image to select it
 - hit <R> to begin rotation
 - rotate image 90 degrees



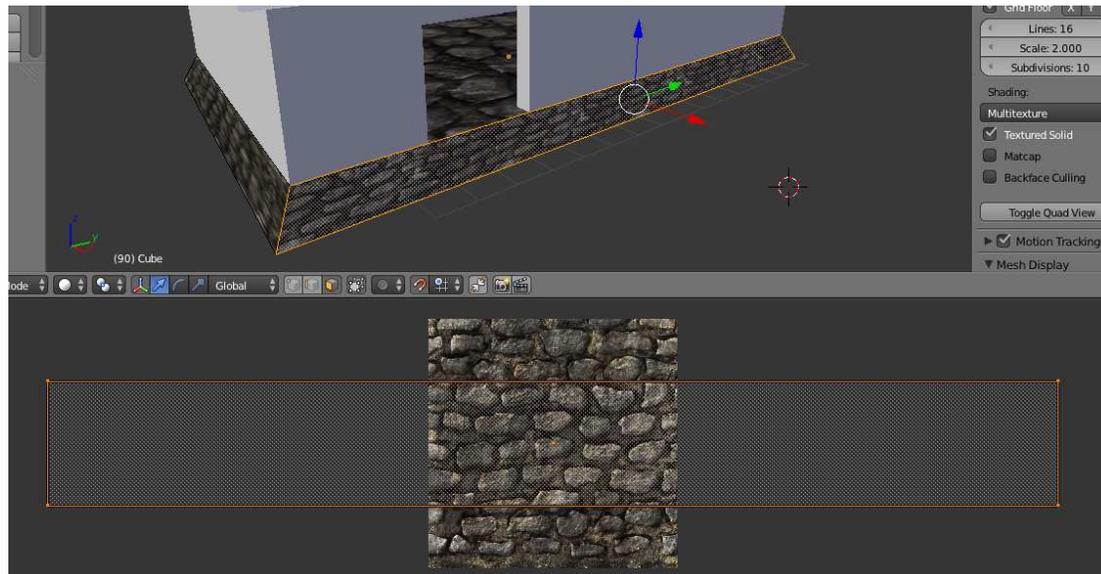
TEXTURE FOUNDATION

- in UV/Image Editor window
 - hit <S> to begin scaling
 - hit <X> to scale only in X direction
- when scaling in X direction, notice how texture changes in 3D View window while you're moving the mouse
- extending scale beyond the bounds of the image “tiles” (repeats) the image



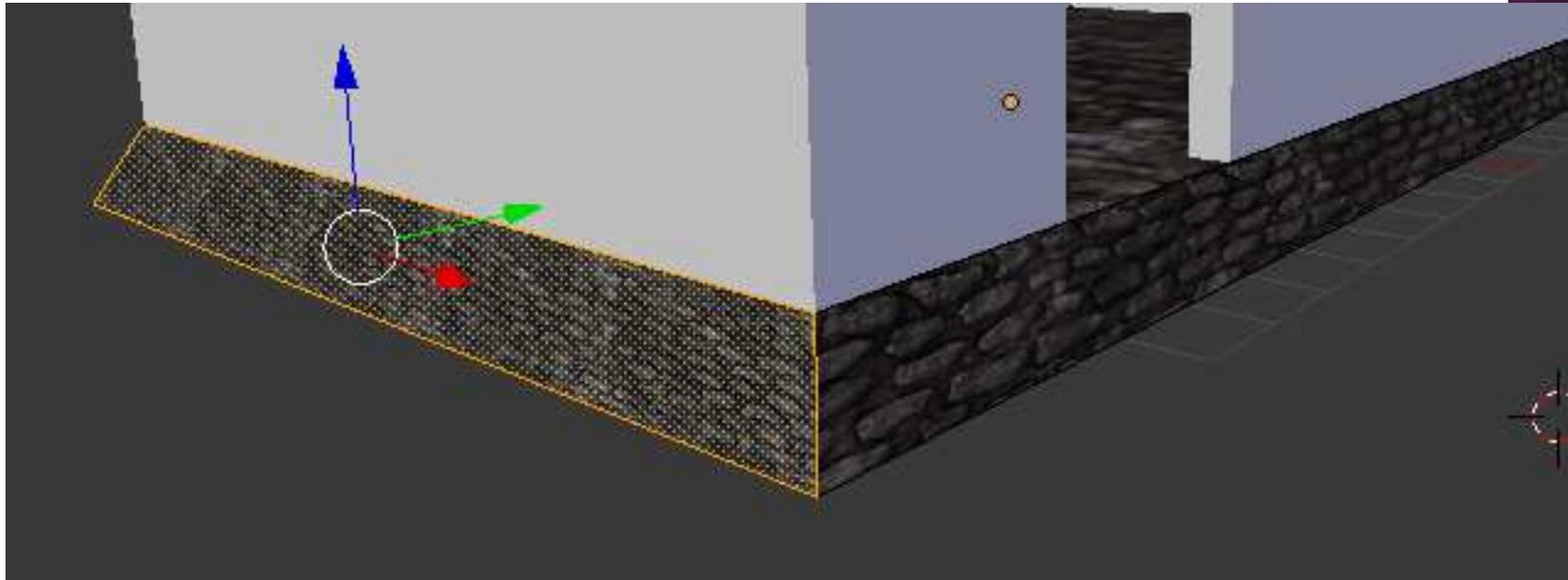
TEXTURE FOUNDATION

- when sizing a texture for a face, a good approach is to adjust scale bounds so they're roughly the same rectangular shape as the face
- then scale globally to get the appropriate texture scale
- here's my final scaling of the front face:



TEXTURE FOUNDATION

- Repeat process for other faces of foundation
- Note, be sure that sizes roughly match up from face to face
 - notice that in this example the stone sizes are clearly different from front face to side face



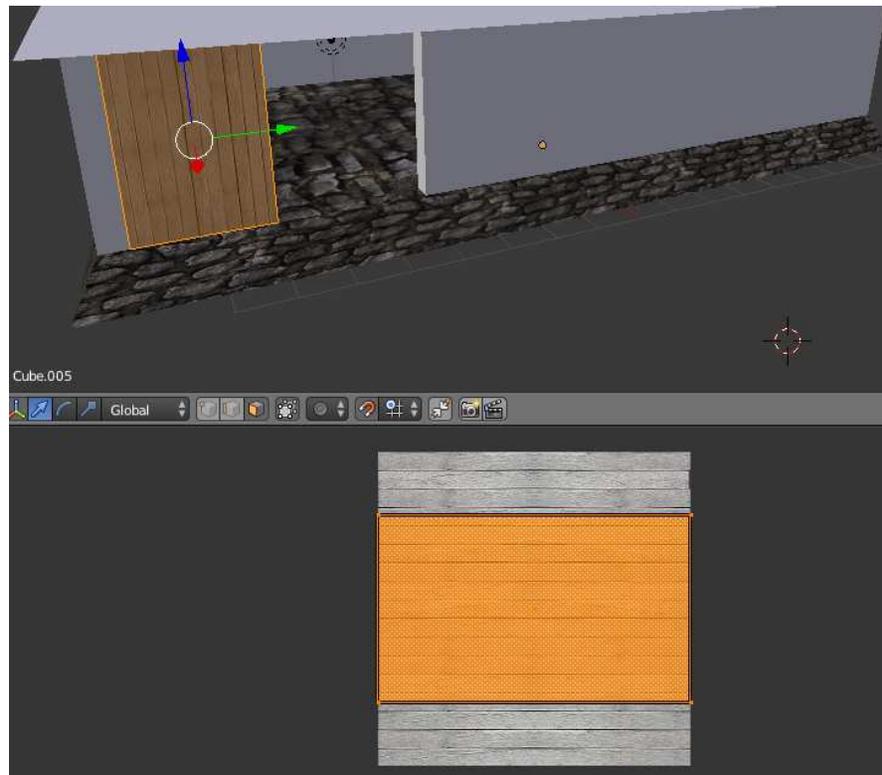
TEXTURE A WALL

- Now let's texture a wall with different textures inside and out
 - First, repeat process for UV unwrapping
 - in Object mode, right click on wall to select it
 - <TAB> to switch to Edit mode
 - <A> to select all faces
 - <U> to open UV Unwrap pop-up menu
 - select **Unwrap**
 - Then in UV/Image Editor window
 - select **Image -> Open Image**
 - choose an exterior wall texture from the CSCI 130 Assets



TEXTURE A WALL

- Here, I used **BarnPlanks256.jpg**
- For scaling, I rotated 90 degrees for vertical planks, then matched scale shape to wall shape



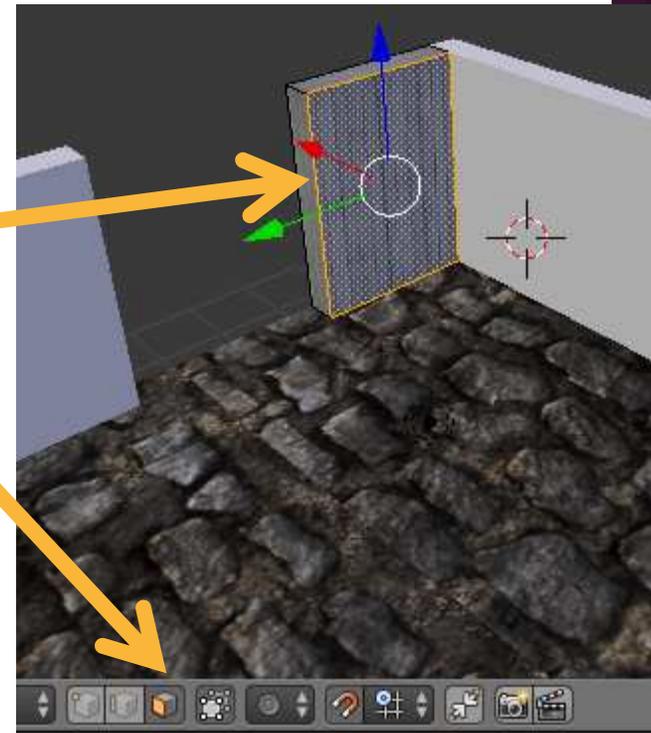
TEXTURE A WALL

- Now, use a different texture for interior of wall
- First, let's "hide" roof so that we can see interior of wall better
 - <TAB> to switch back to Object mode
 - select roof
 - in Outliner window, click on "eye" icon for highlighted object
 - roof should no longer be visible



TEXTURE A WALL

- Change image for interior of wall
 - select wall again
 - <TAB> to change to Edit mode
 - select Faces mode
 - select only the face corresponding to interior wall
 - in UV/Image Editor window, select **Image** -> **Open Image** and select a new image



TEXTURE A WALL

- Change image for interior of wall
 - Here, I chose **Panel2HighWallSpace256.jpg**
 - Rotate, re-size dimensions, and scale as appropriate
- Also notice that doorway's wall texture is too squished?
 - Simply select that face and re-scale as appropriate

