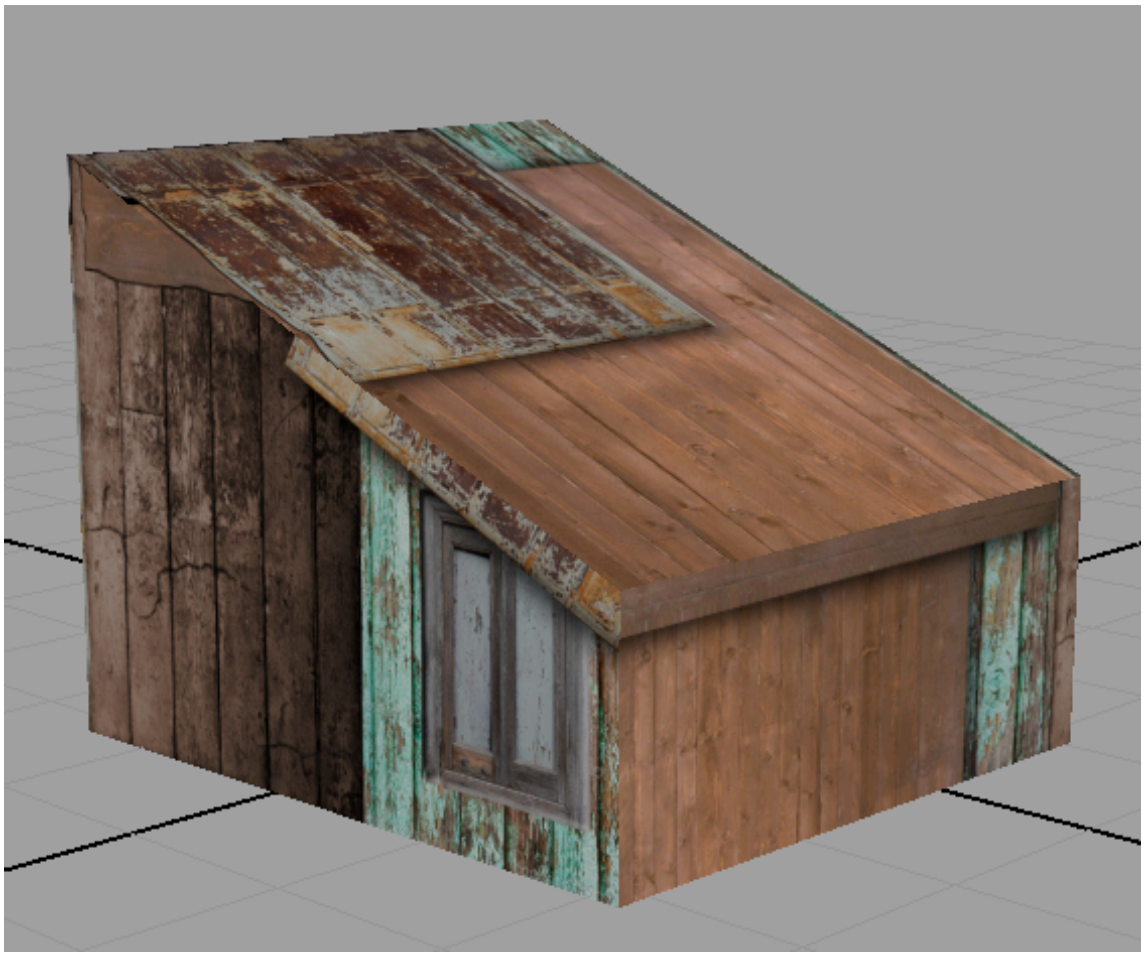
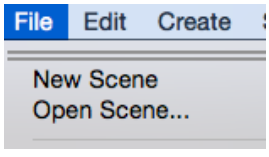
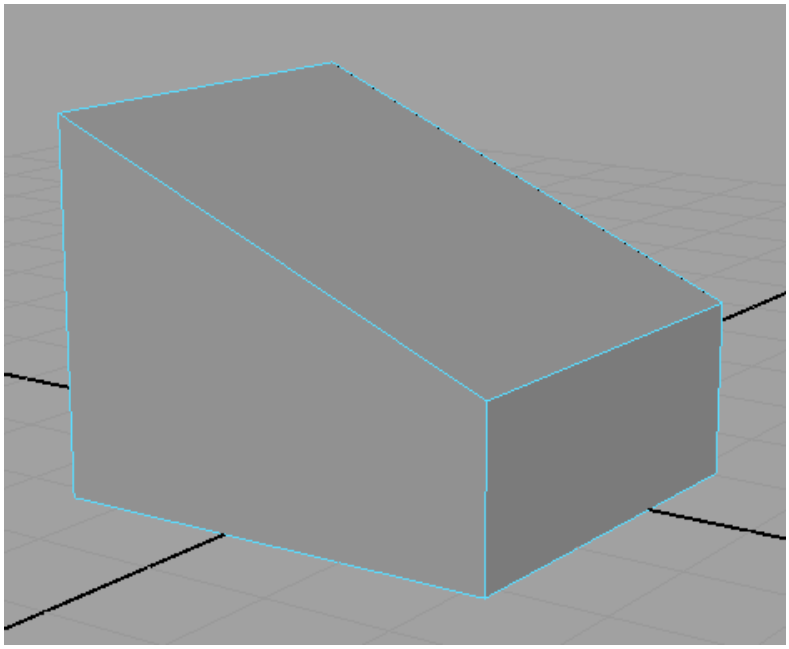
Tutorial
Simple texturing of a Poor House

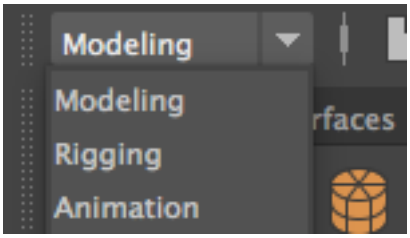




Open this scene: “PoorHouse.mb”

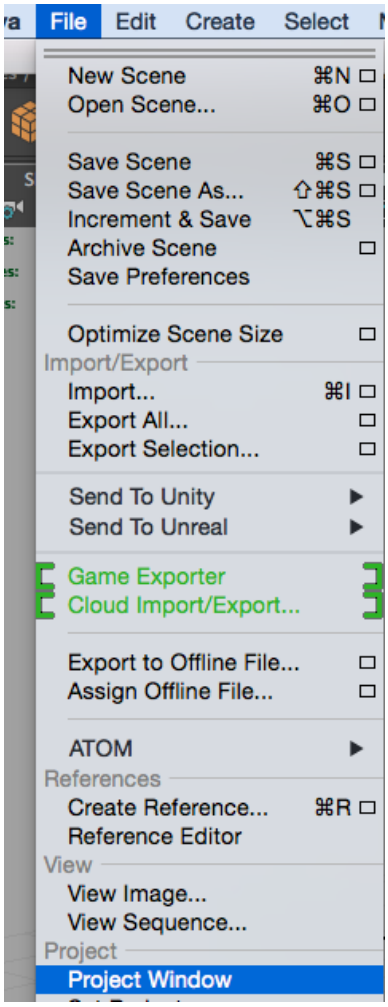


It looks like this



Make sure you are in Modelling mode

Set up your project



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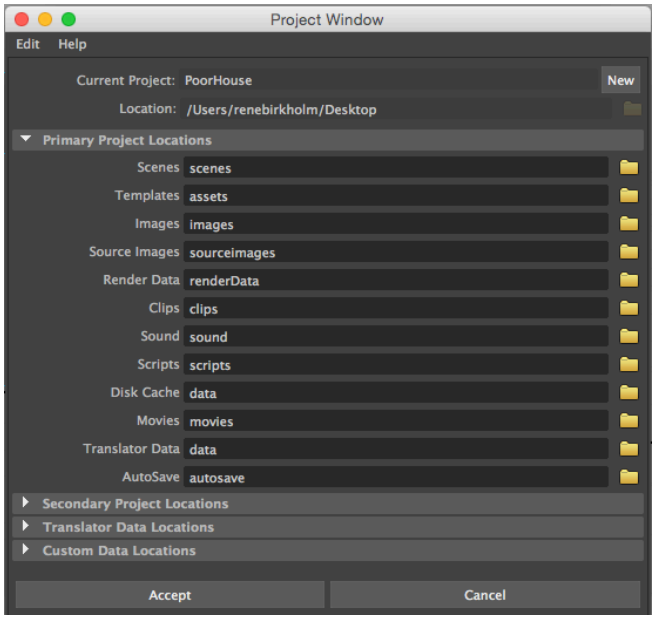
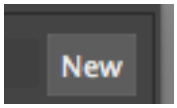
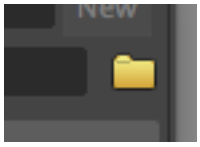


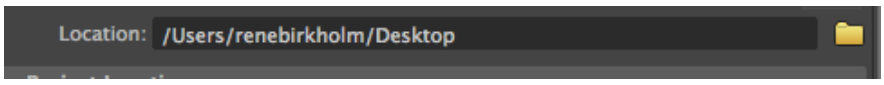
Open the project window.



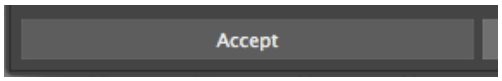
Click New and call it PoorHouse



>

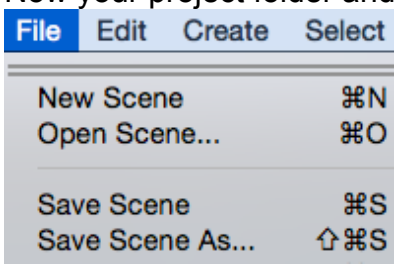


Click this folder icon and navigate to your desktop as location.

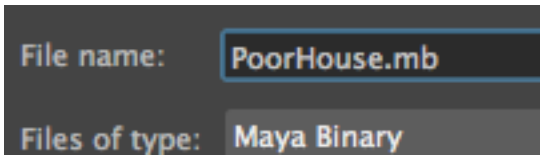


Accept

Now your project folder and all its subfolders are created on the desktop.



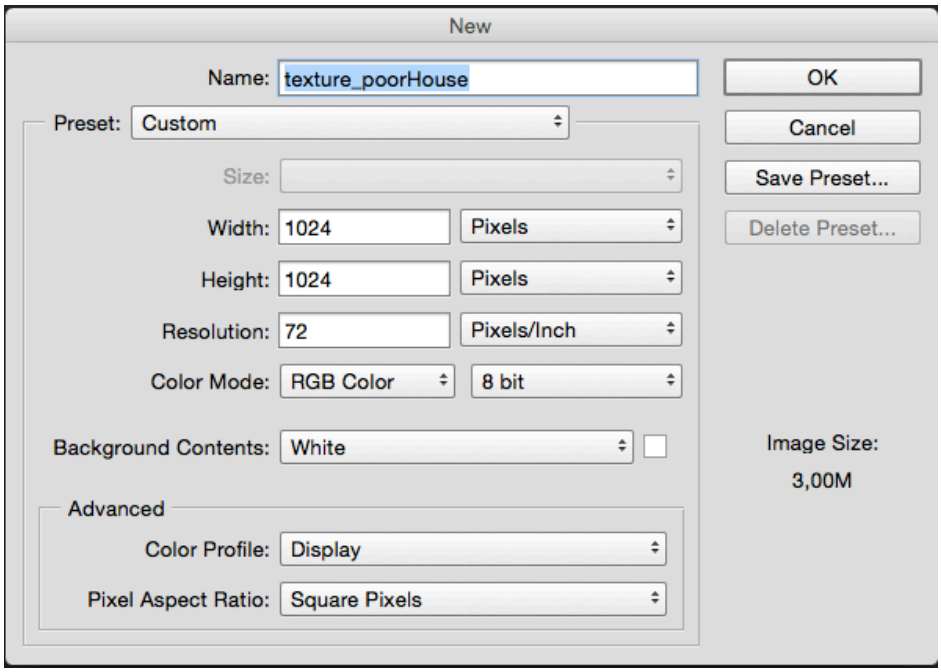
Save scene As…



Save in the folder called scenes in your project.

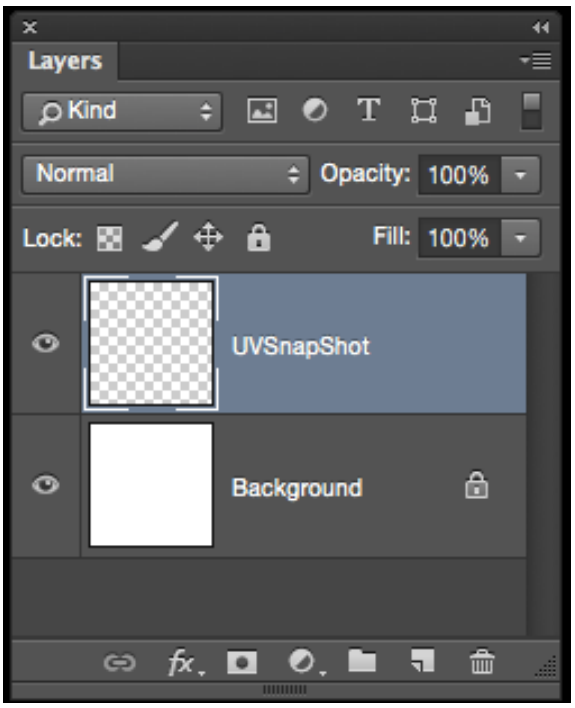
Psd-network

We will create a so-called Psd-network (a Photoshop-network) for our texture.



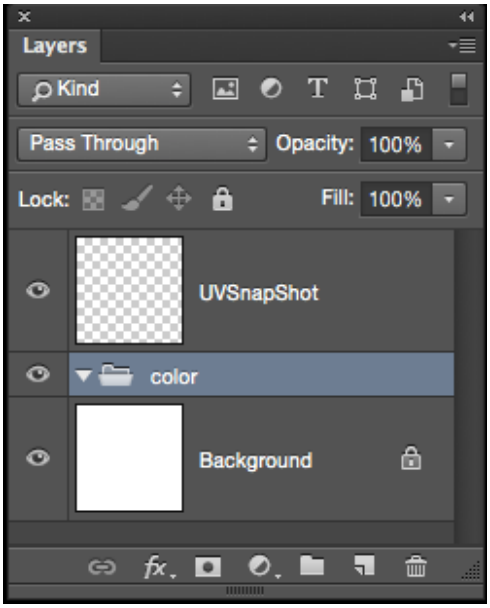
Launce Photoshop and create a new Photoshop document. Put in the numbers above.

It can also be double this size, 2048 x 2048 pixels.

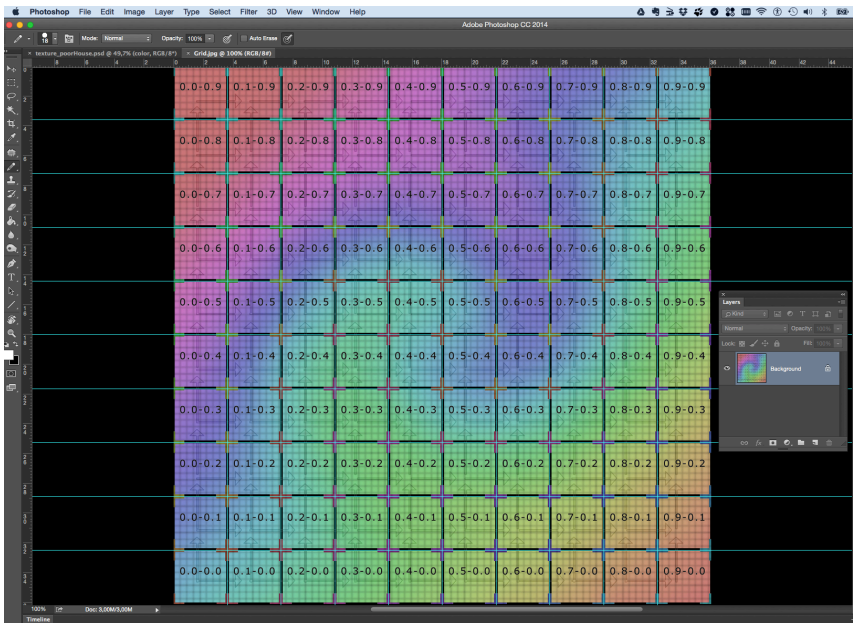


Make a layer called “UVSnapShot”. It’s important to spell the name right.

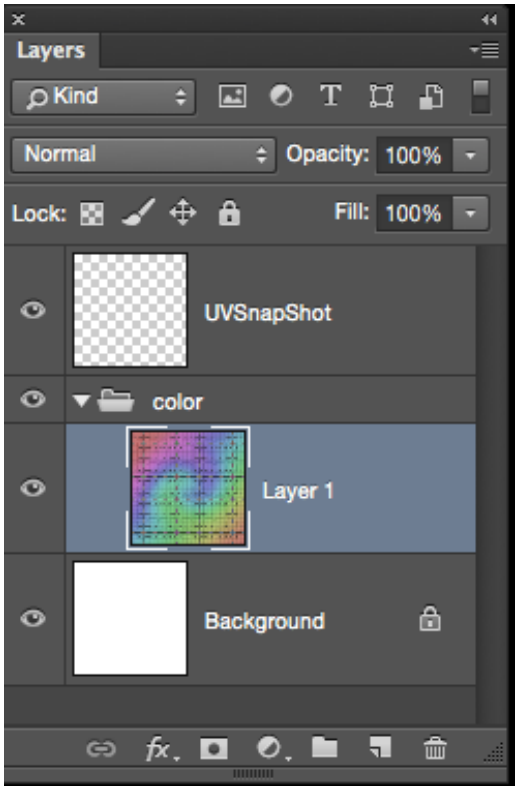
>



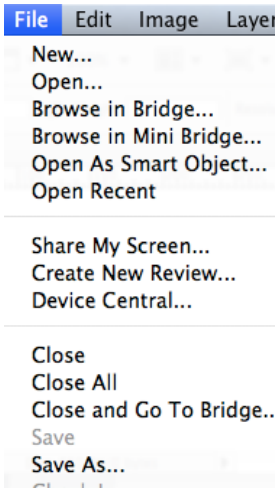
Make a new group and name it “color”. Spell it right. For the moment this group (or folder) is empty.



Open the file called “Grid.jpg” in Photoshop. It is placed next to the document you are reading in this very moment. We use this file as the foundation for the texturing work. The grid and the numbers make it possible to judge if the texture is nicely distributed on the 3D object.



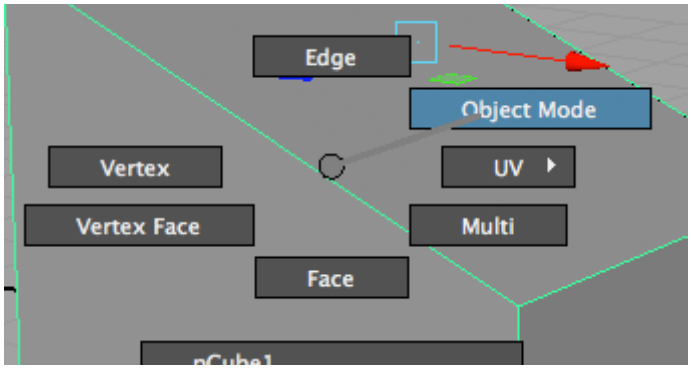
Copy and paste the image into the color group.



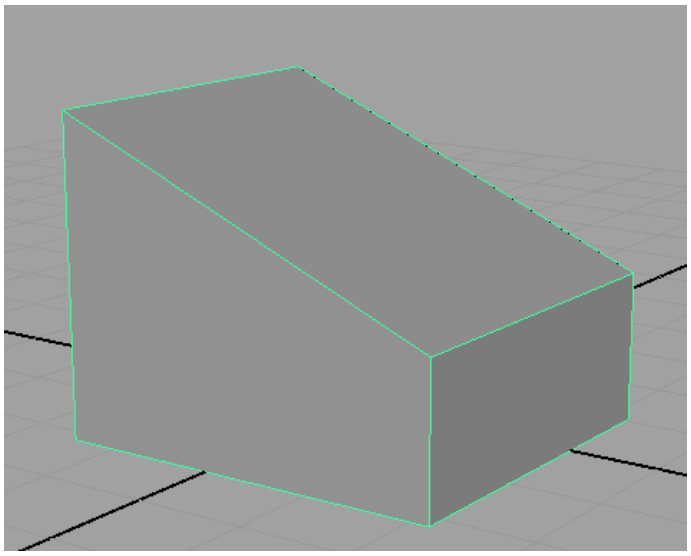
Save the document as a Psd-file into the “sourceimages” folder in the project you made on your P-drive. Call it “texture_poorHouse” or whatever you like, but don’t use space; Scandinavian letters odd symbols etc. in the name.

Go ahead

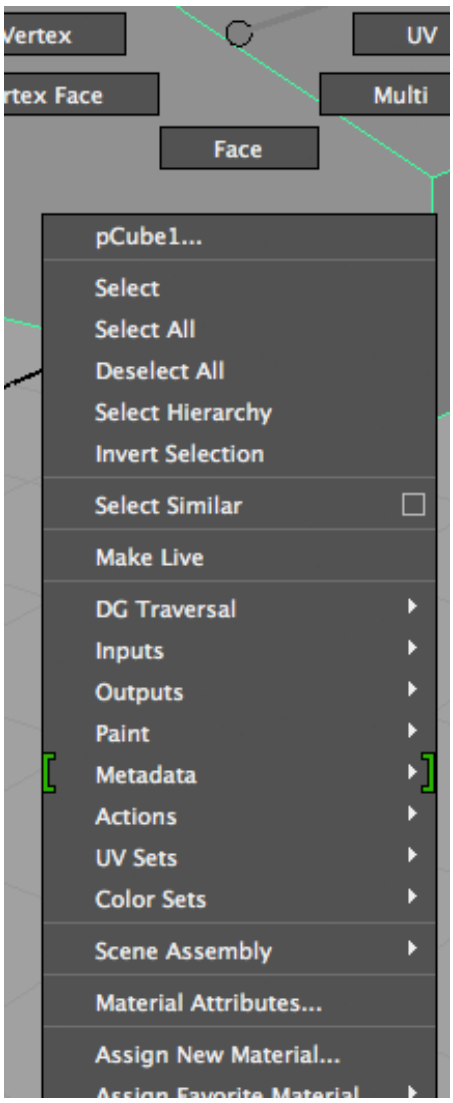
Jump back into Maya.
The file “PoorHouse” is still open.



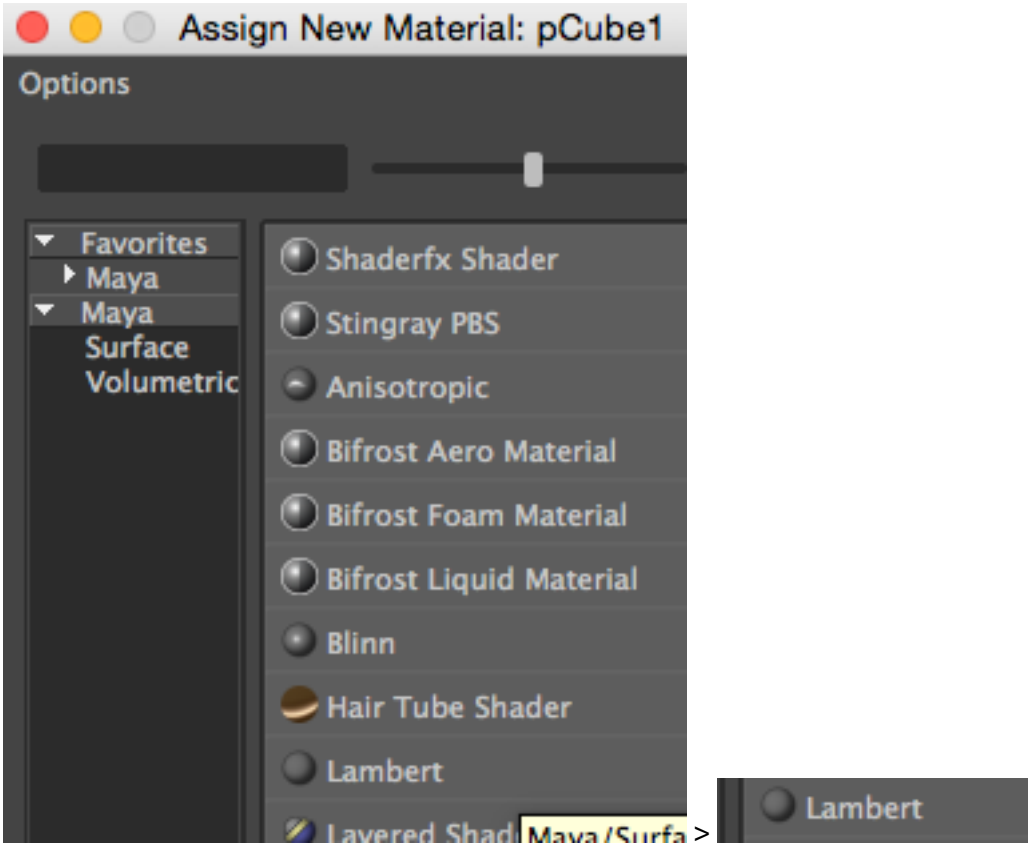
Right click somewhere on the house > Object Mode



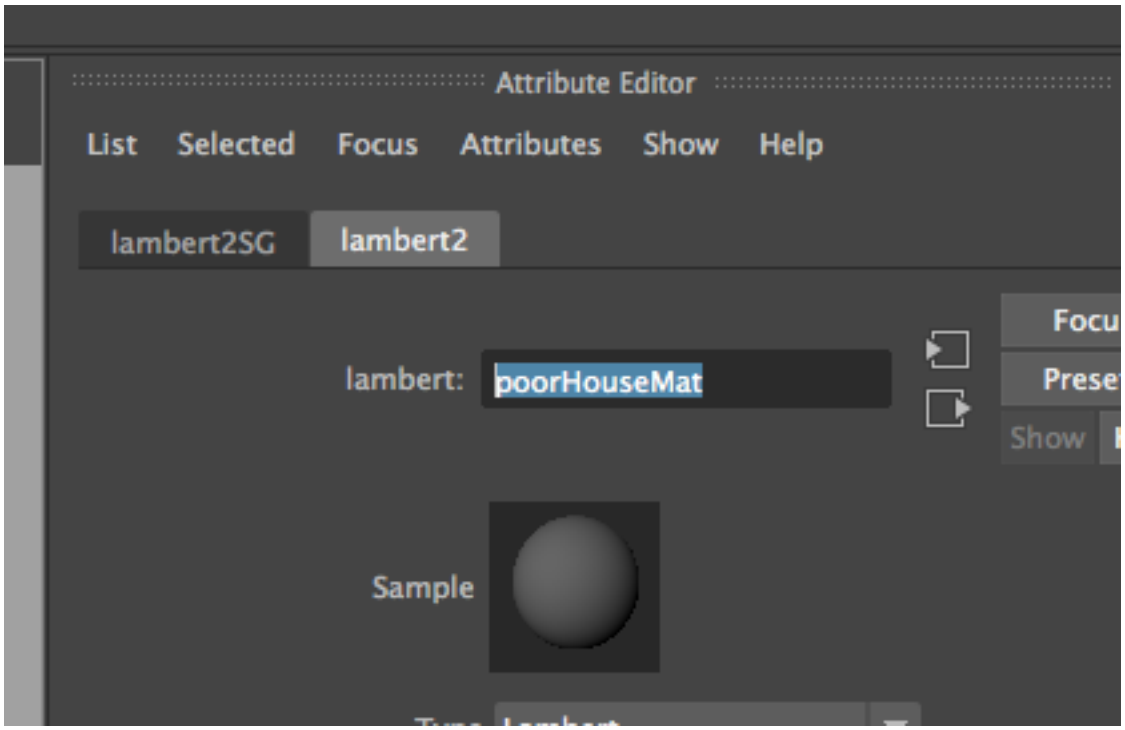
Click-select the object



Right click: Assign New Material



Select Lambert. It will create a mat surface.

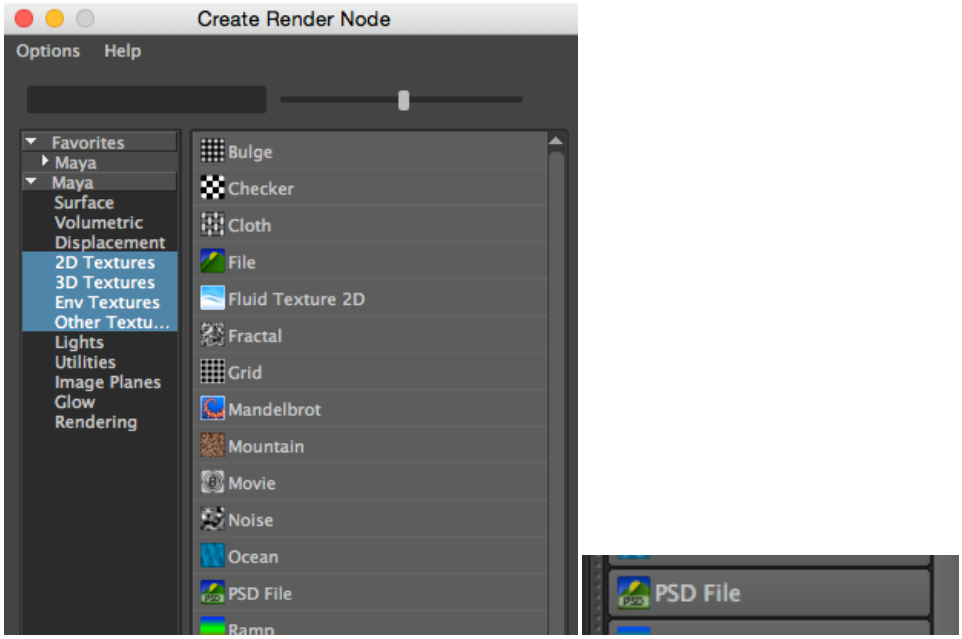


Change the name in the Attribute Editor window that appears afterwards. Rename the Lambert to “poorHouseMat”. Important: Again avoid spaces

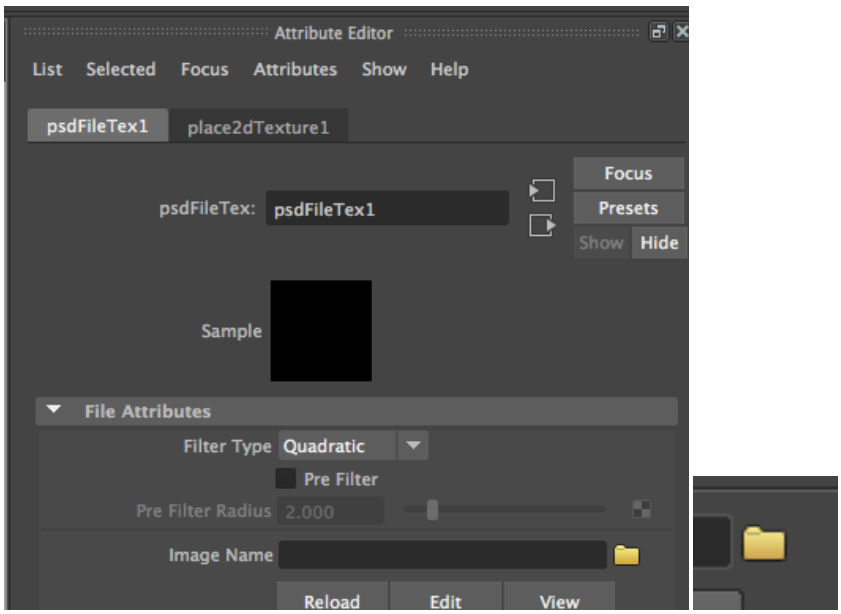
between words when naming in Maya. Use underscore instead. Also avoid odd symbols and letters from “foreign countries”.

Drag the color handle to the right to get white color

 Click this icon next to the handle.

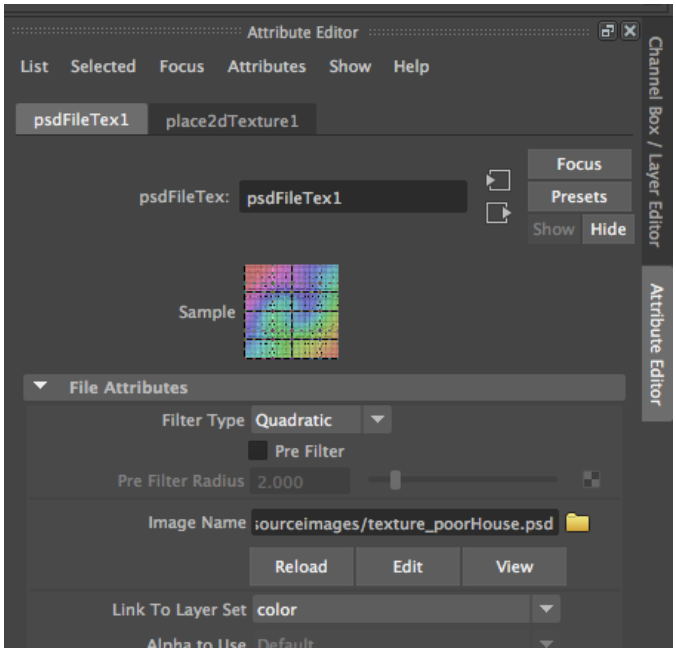


Click PSD File

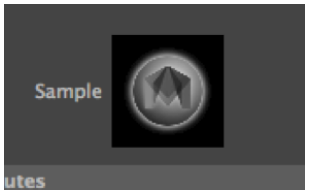


Click

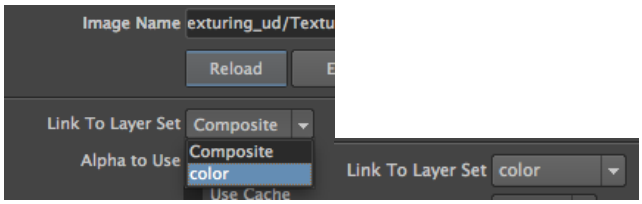
Navigate to the sourceimages folder in your project on your desktop and select the Psd file you just saved. Click Open.



The file appears in the Attribute Editor



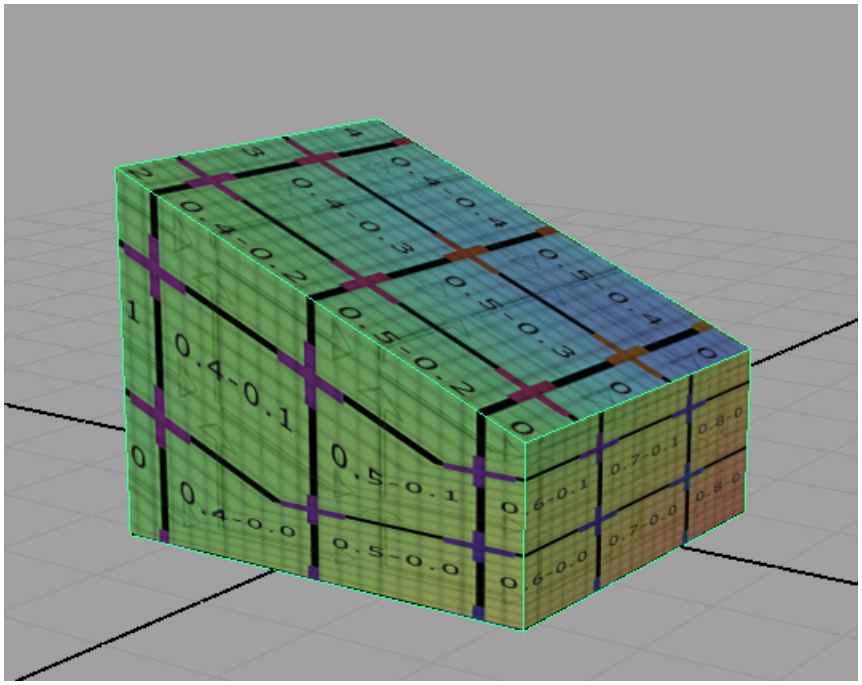
Note! If the image doesn't appear and just look white like here..



..then select the color layer here to make it visible.

>  Click.

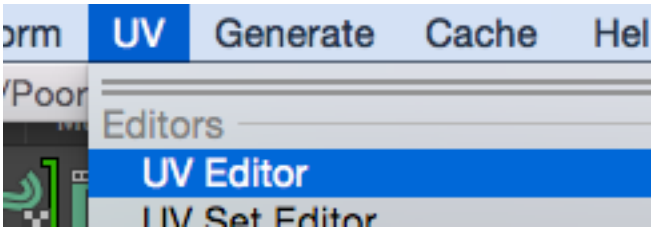
Make the texture visible on the object…



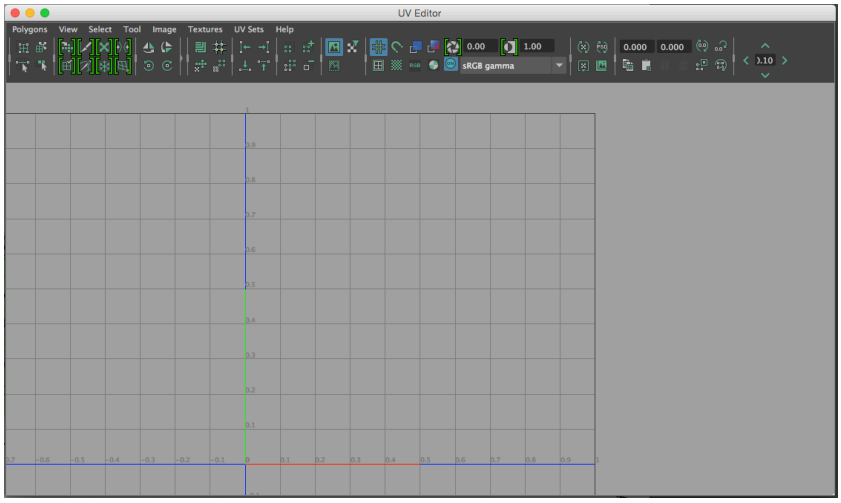
It's visible. Don't worry that it looks strange. The texture is distorted. We will fix that later.

The UV Texture Editor

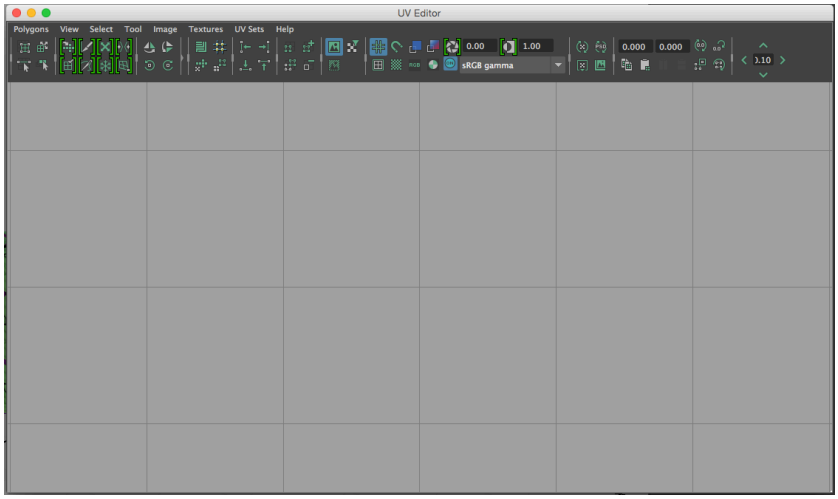
Deselect everything by clicking on nothing next to the house model.



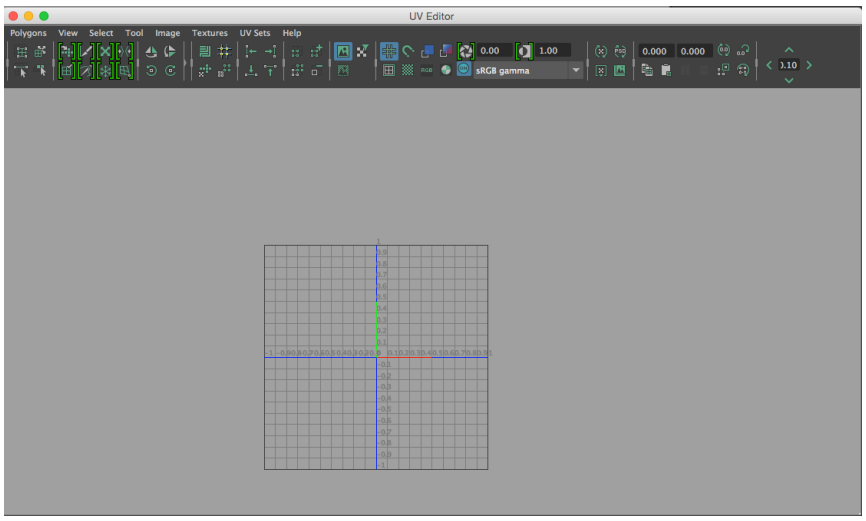
Open the UV Texture Editor.



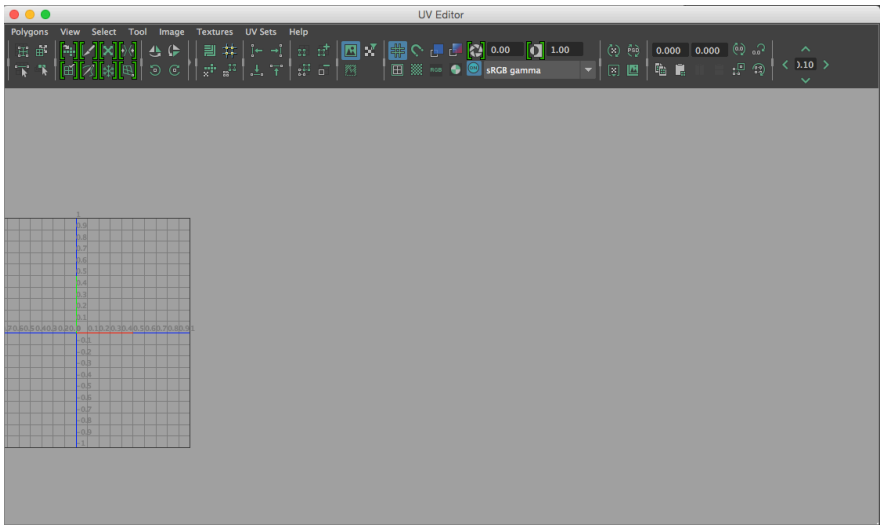
It looks like this. This window is used for making the texture fit the model. Right now it's pretty empty.



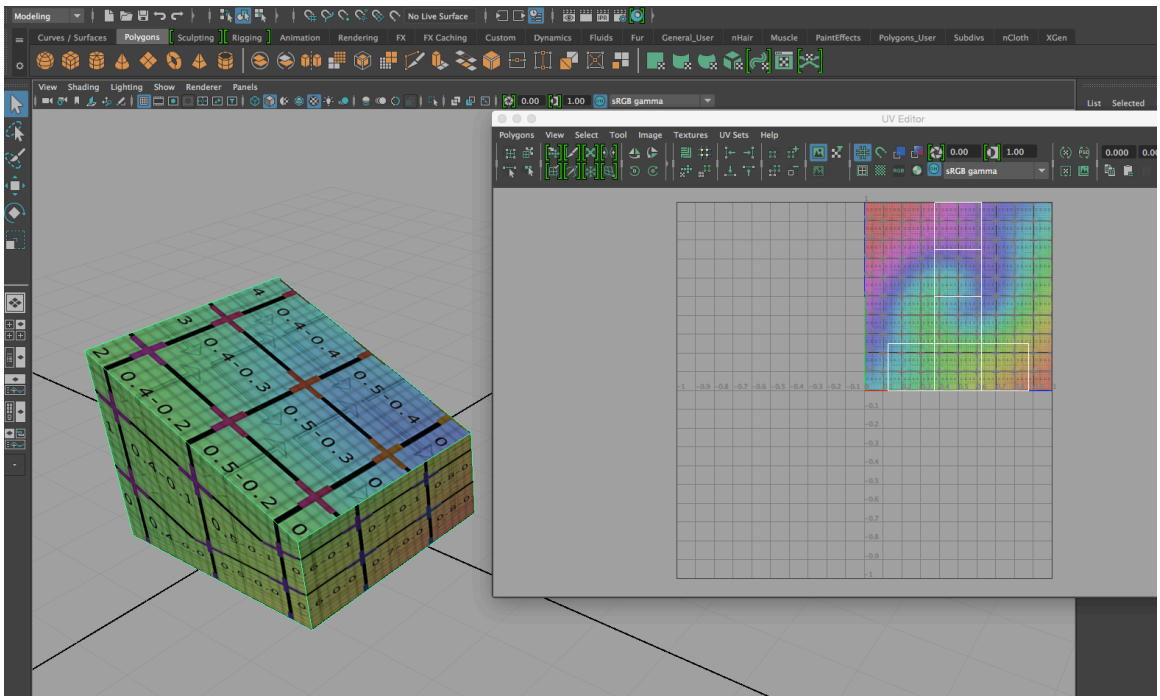
You can zoom in (Mouse wheel).



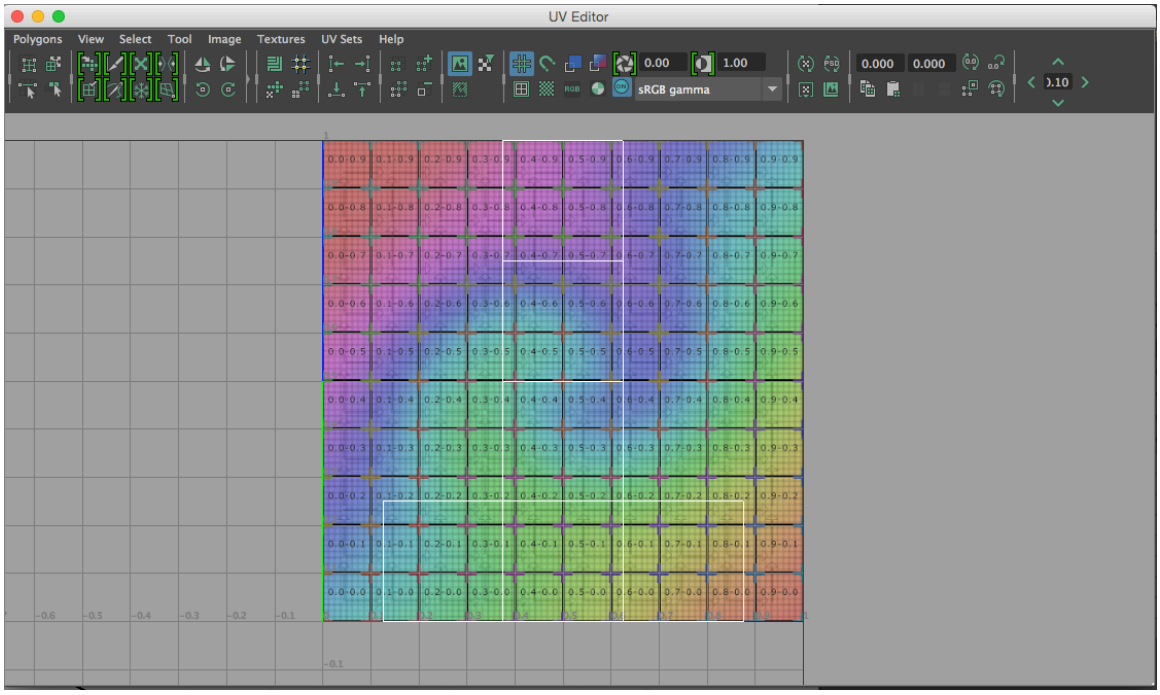
And out…



…And pan like you do in the 3D view (alt + Left key).



If you click on the object in the perspective window “something” becomes visible in the UV Texture Editor. It’s the Photoshop image and a so-called “shell”.



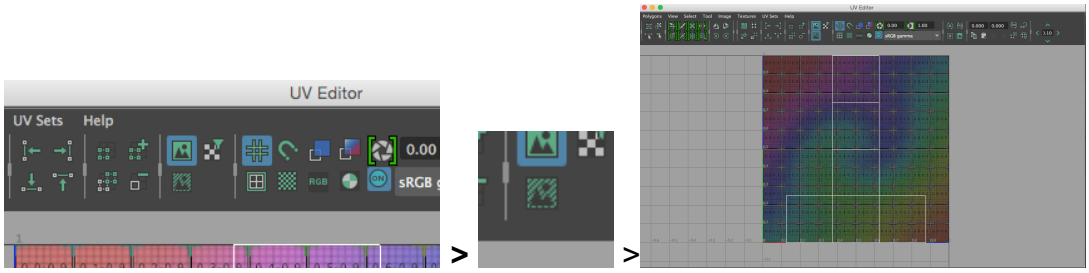
Zoom in and pan to come closer in the UV Editor.

The shell (the white lines) determines how the image is distributed on the house model.
It is just placed by chance. We will correct that. This is called mapping.

Next step

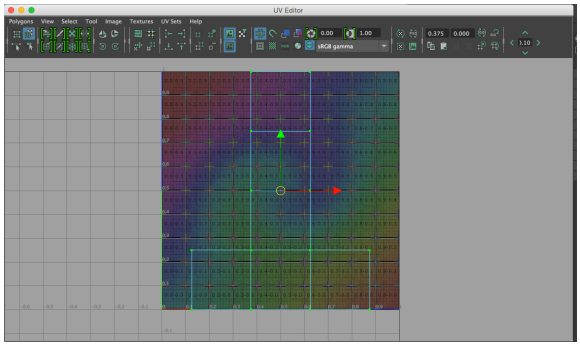
Start mapping

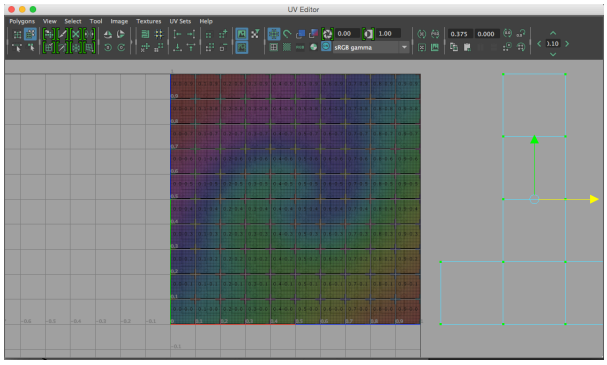
With The Manipulator tool



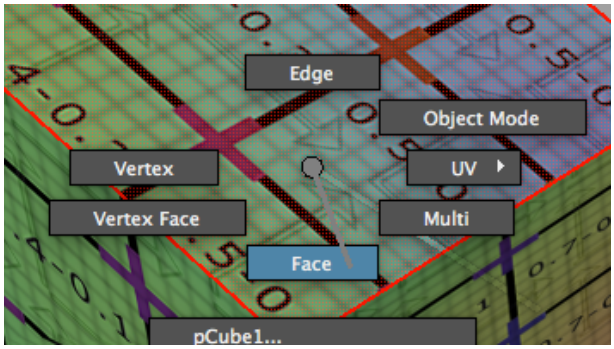
Click the dim Image icon to make it easier to see the shell

 Select the Move UV Shell Tool (If its not visible you might have to click on one of these small icons to see it )

 Drag-select the shell.

 Move it aside.

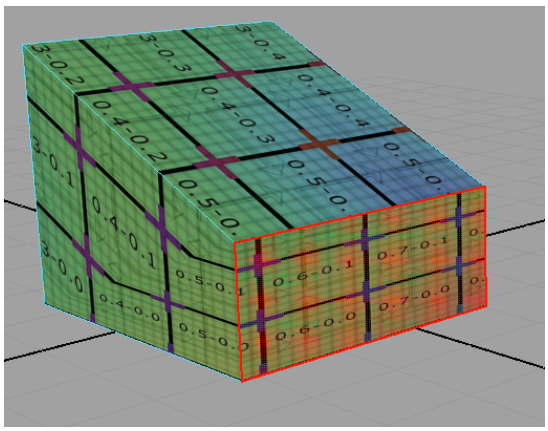
Next step is to replace this shell with a new one that is correctly added…



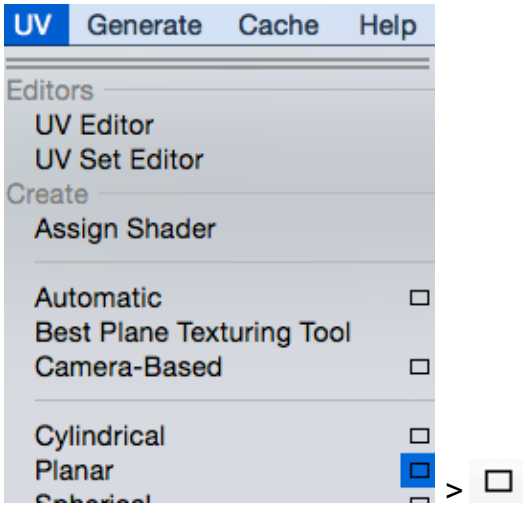
In the perspective window: Right click the house. Select Face.

Use the Select Tool…

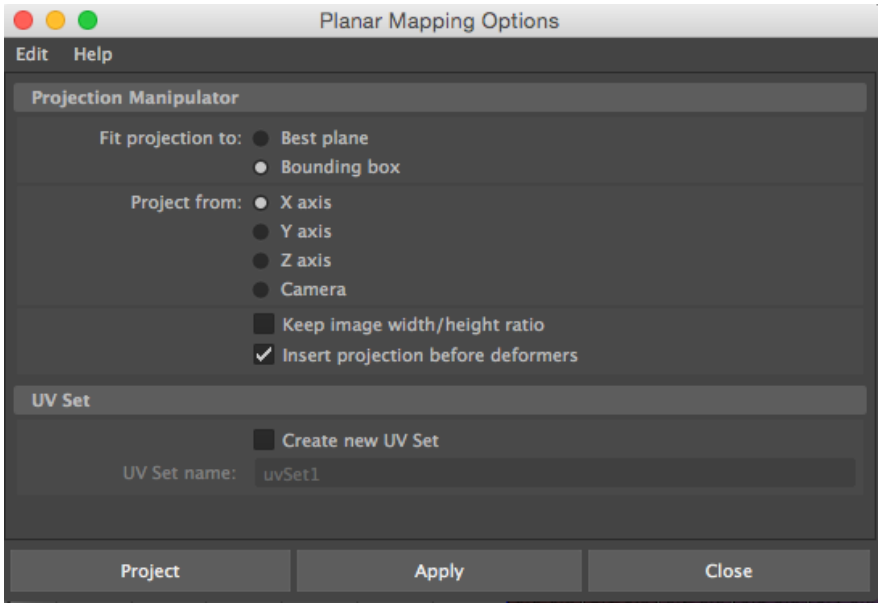
… Or the Paint Selection Tool to…



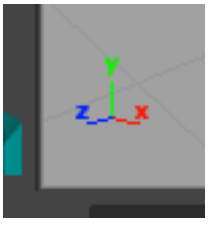
… Click-select this face.



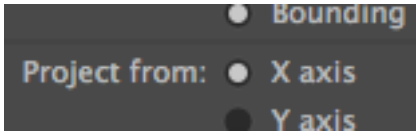
Make a Planar Mapping: Click on the little window symbol to the right.



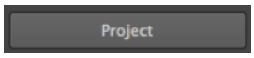
This window opens.



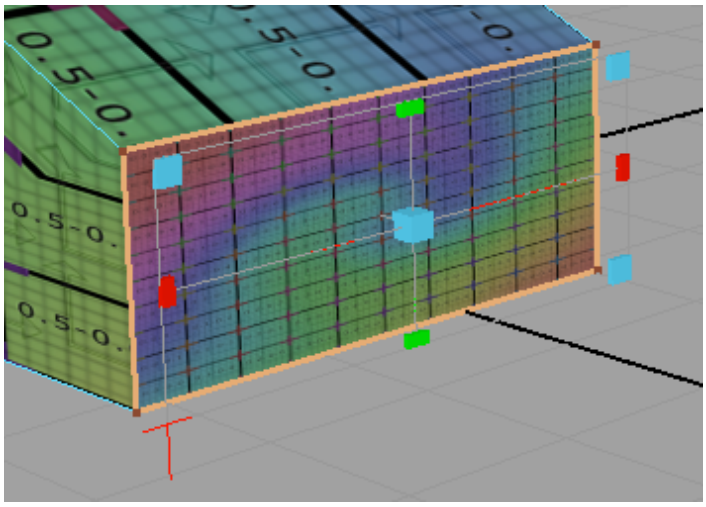
This symbol at the lower left corner of the perspective window helps you determine what axis the projection should be from.



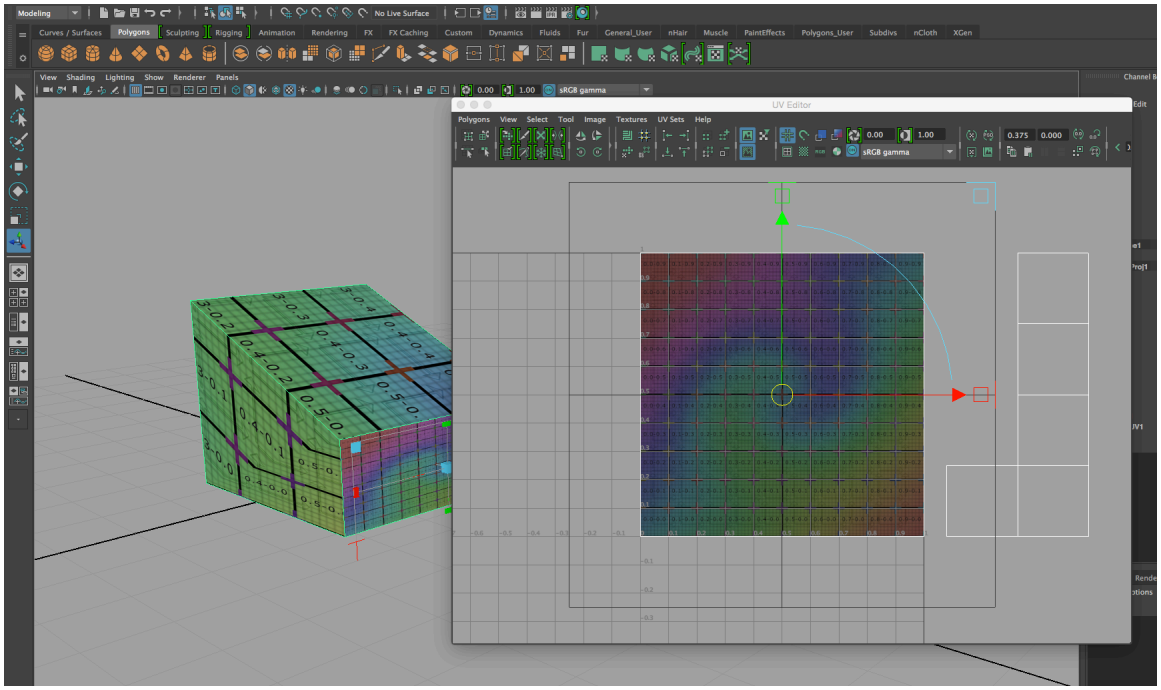
Click Project from the X-axis.



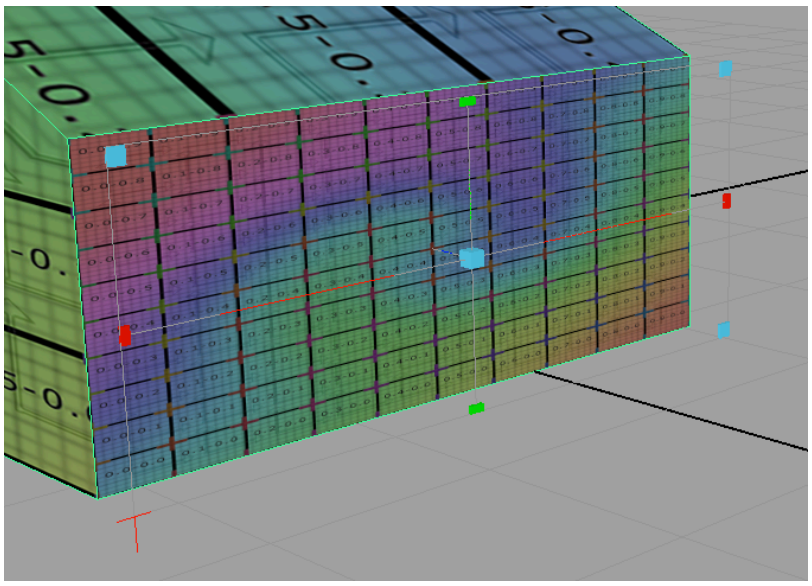
Click Project



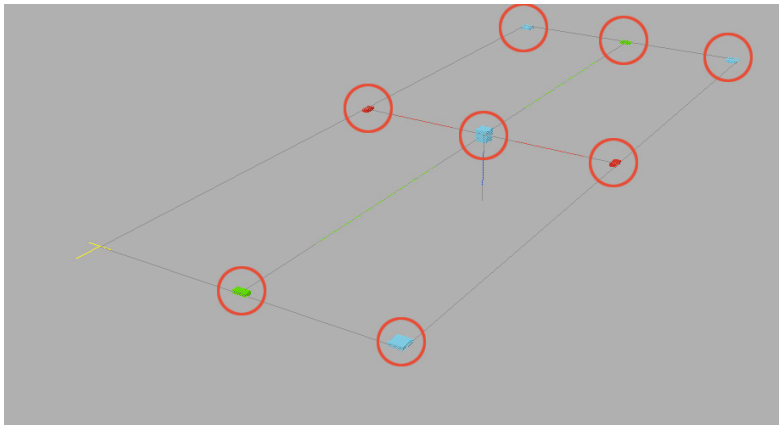
The planar projection manipulator tool appears.



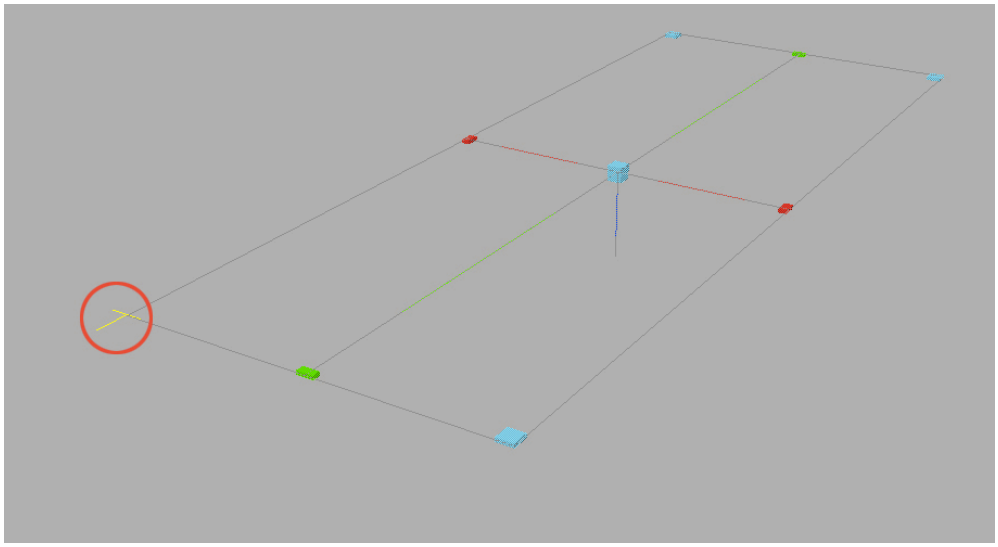
We also got a new look in the UV Texture Editor: A new shell and a manipulator tool.



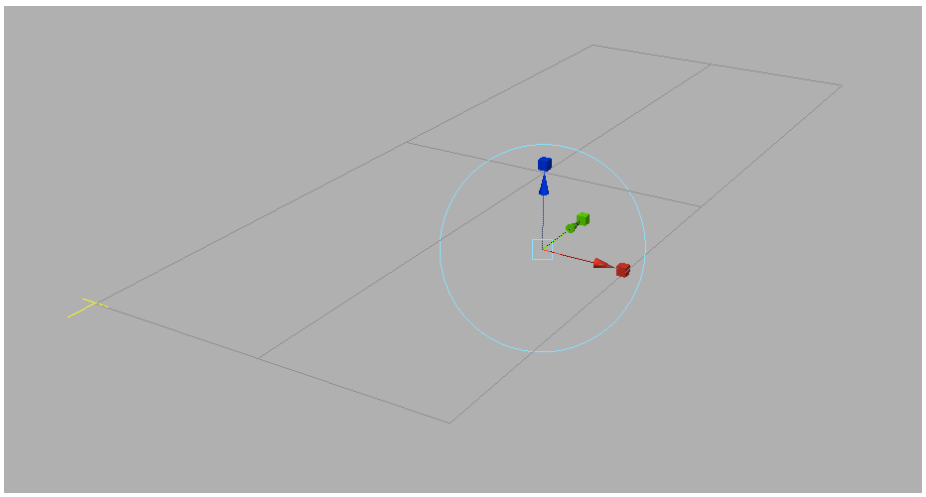
The planar projection manipulator tool works like this:



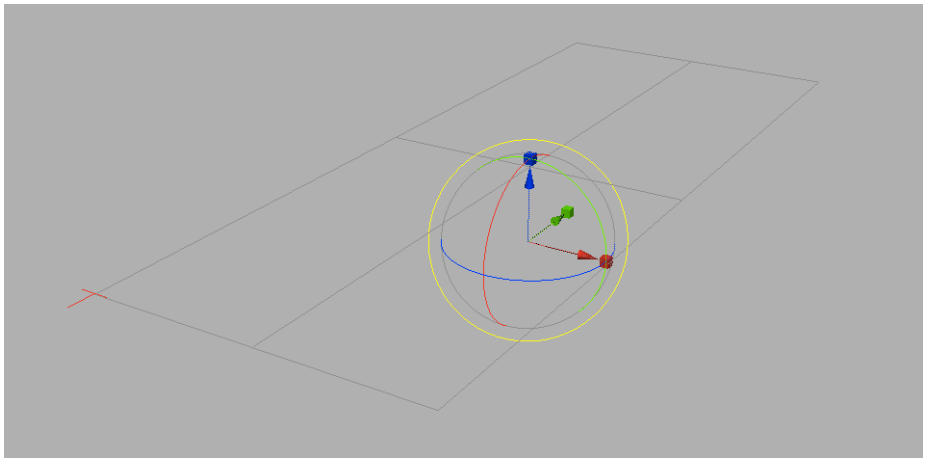
The colored handles make it possible to scale the projection.



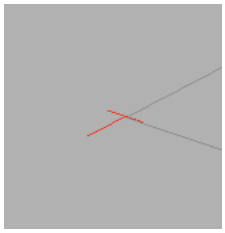
If you click on this…



…You get this: move handles… if you click on the blue circle.



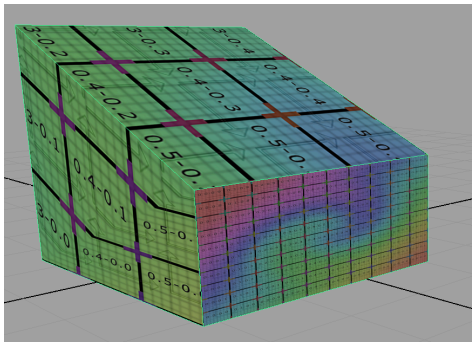
…You will get rotation options.



You can move back and fort between these options by clicking on the red cross.

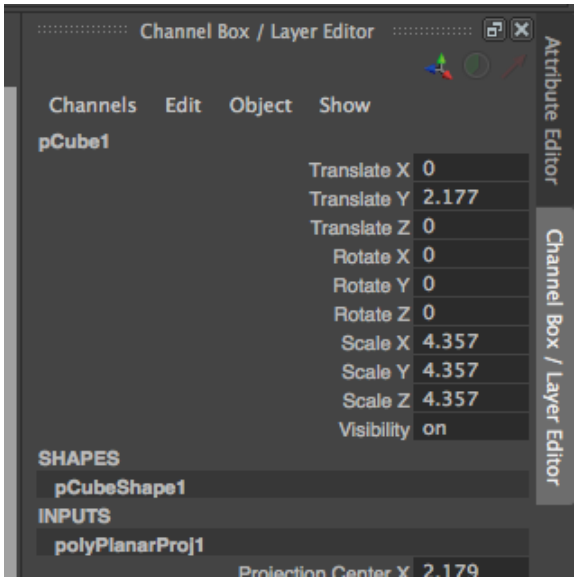
Lets try to make a nice distribution of the texture by scaling and rotating. The aim is to make nice even squares.

If the manipulator is gone



If the projection manipulator disappears, reselect the house by right clicking it, select Object Mode and click on the house …

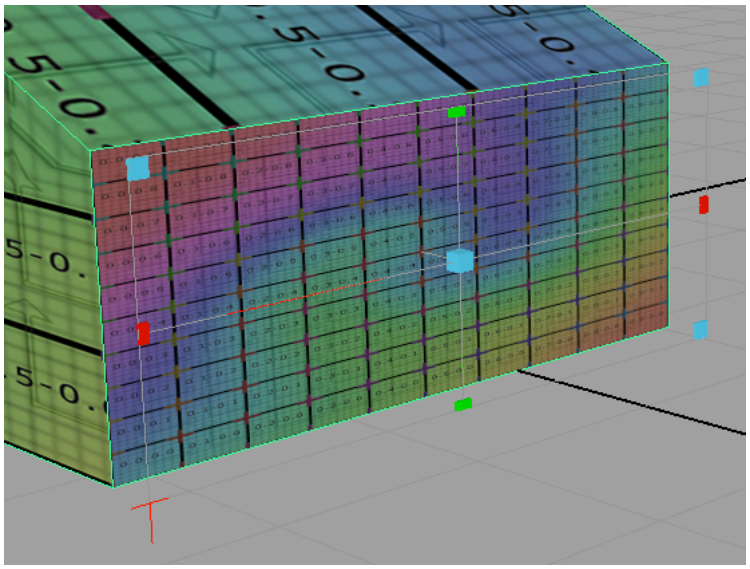
…Then open the Channel Box by clicking on this button placed in the topmost right corner…



> 

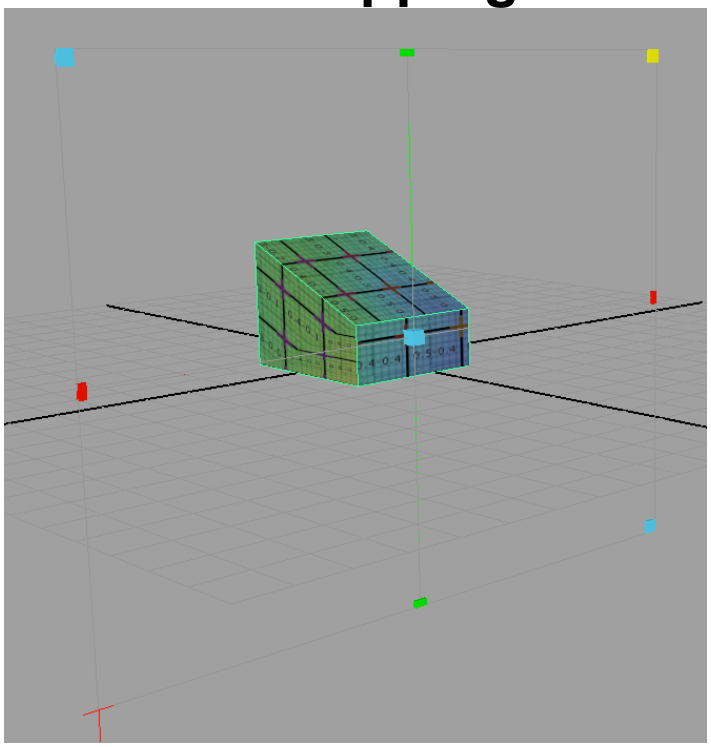
…Click on the polyPlanarProj point…

  ..and then click on the manipulator tool in the bottom of the toolbox.

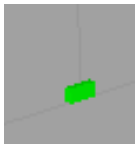


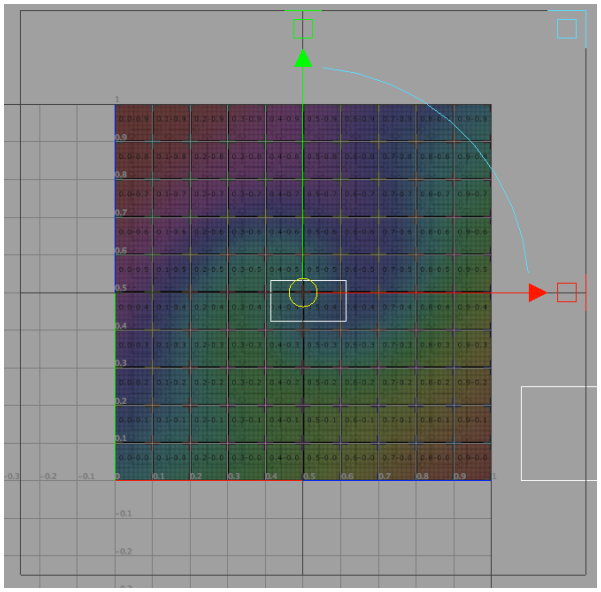
Now the projection manipulator is visible again.

Continue mapping

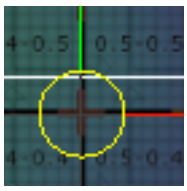


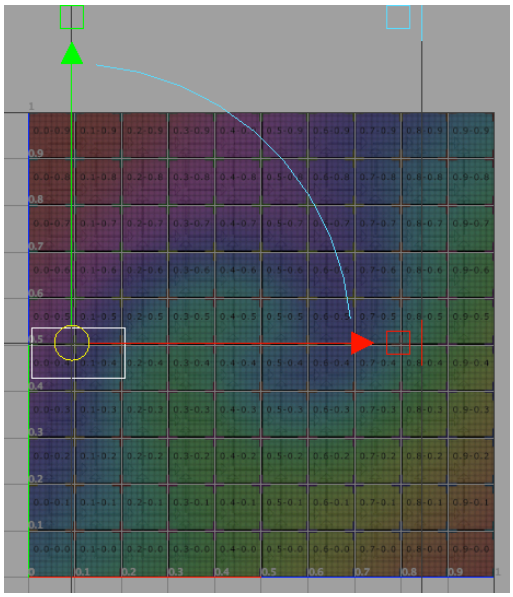
Use the manipulator tool to scale up the projection.

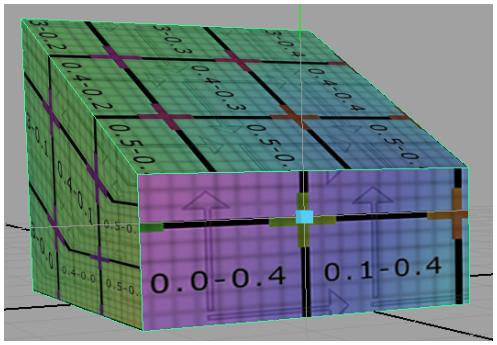
I mainly used this  and this handle 



In the UV Texture Editor it looks like this. As an alternative the manipulator tool in the UV Texture Editor can be used for scaling and moving as well.

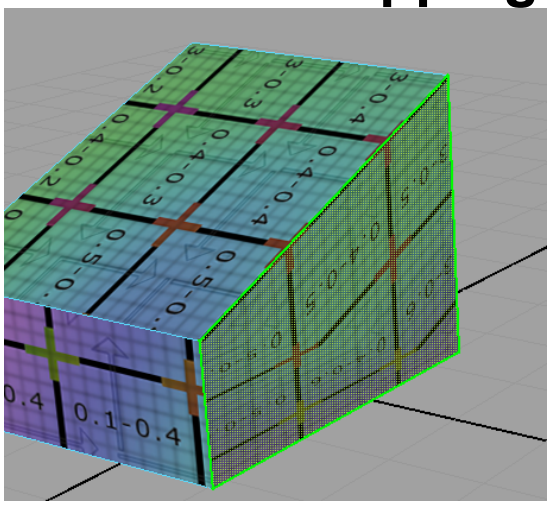

Use this handle…


…To move the shell to about this position

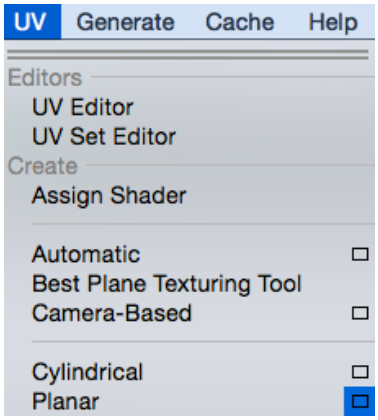


In the perspective view it looks like this.
The grid pattern must be square.

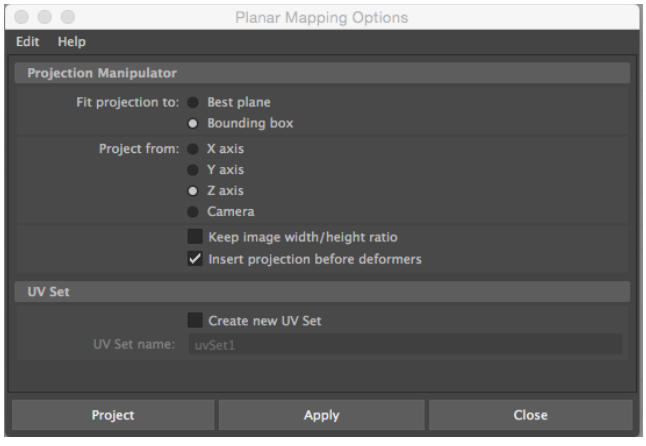
One more mapping



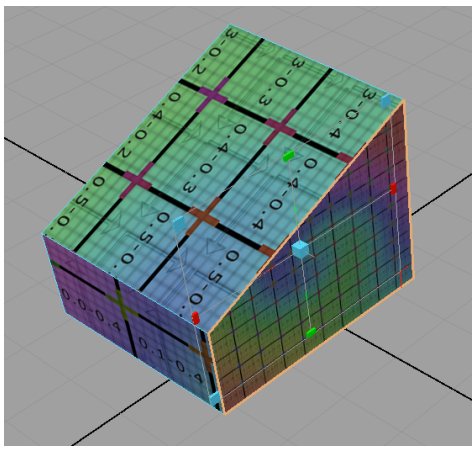
We continue by mapping this side. It's the same procedure. Select the face.



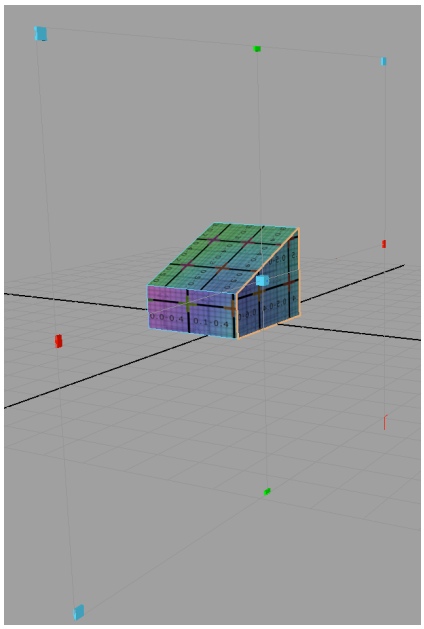
Open the Planar Mapping window.

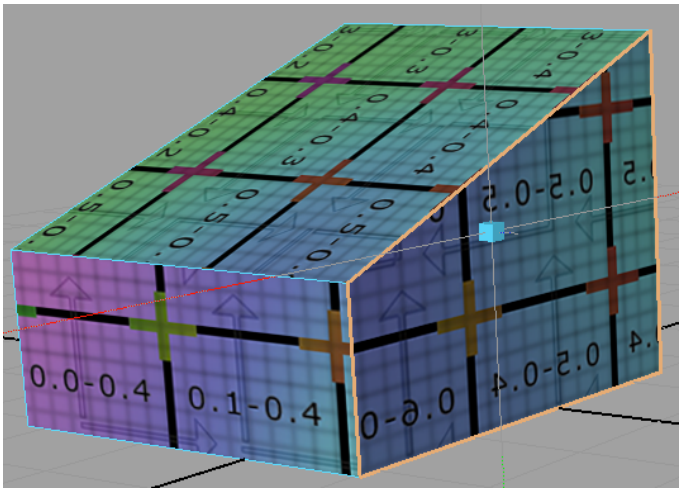


Same settings except of the projection axis. This time pick the Z-axis.



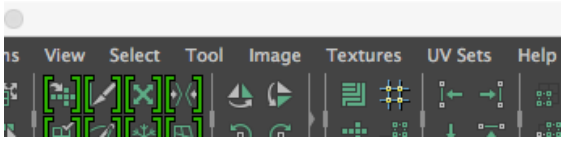
The Manipulator Tool appears.

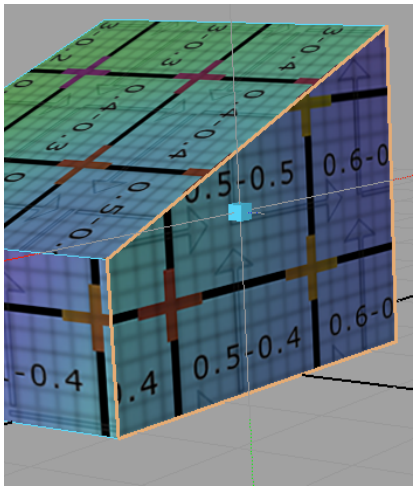




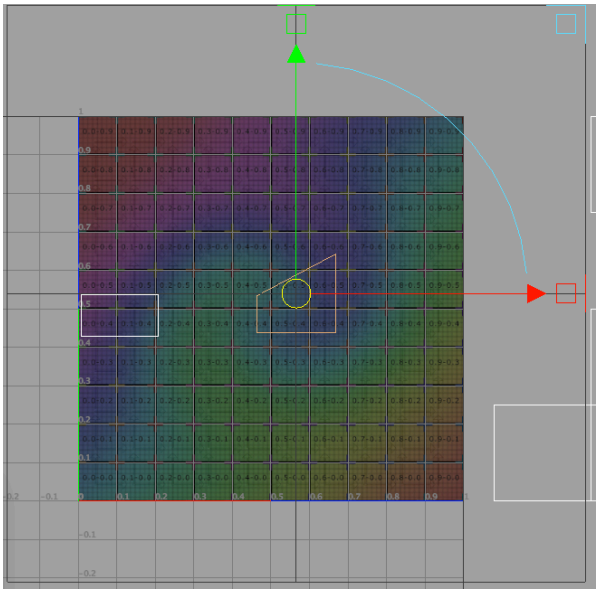
Scale to fit the texture size on the wall with the window. The grid pattern should be square.

Notice the numbers are inverted (spejlvendt).

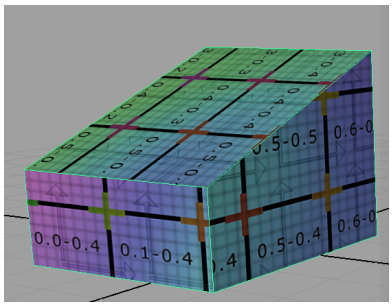


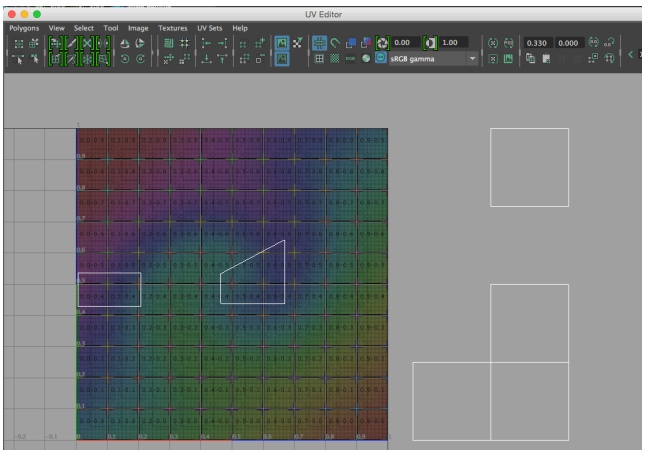
> 

Click on this icon in the UV Editor to mirror.

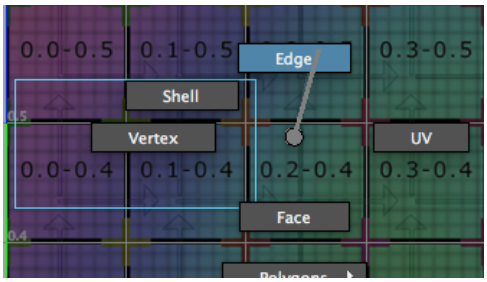


In the UV Texture Editor it looks like this.

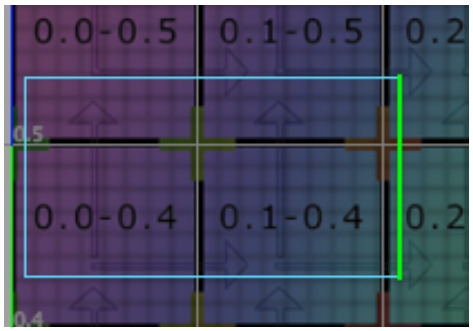


>


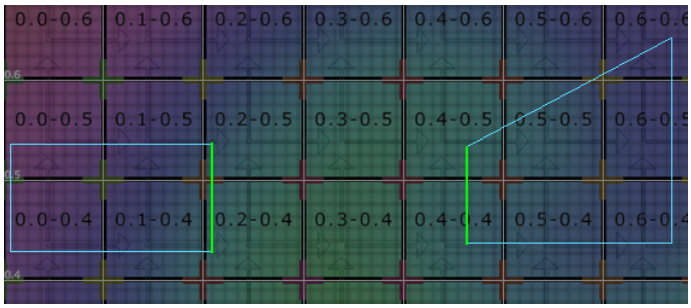
Select the object. Notice how the shells are changed in the UV Texture Editor. They look white.



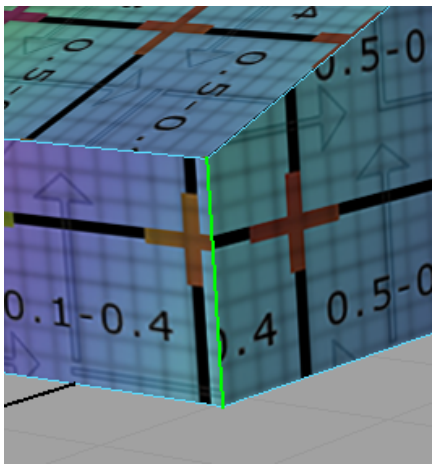
Right click and select edge.



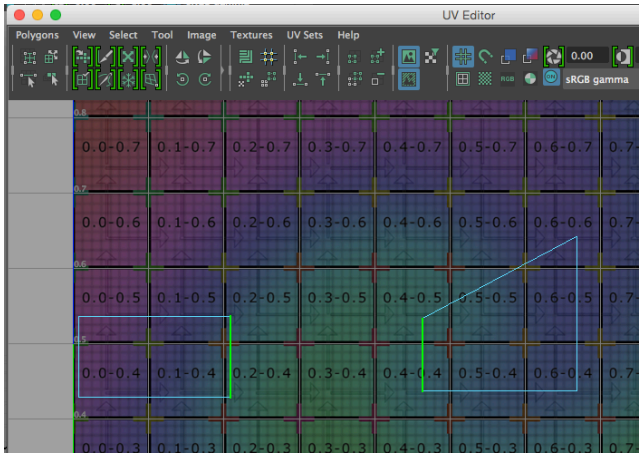
Select this edge



Another edge is automatically selected too.

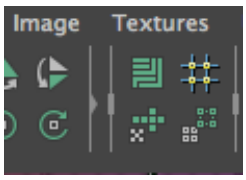


In the perspective view we see why. It's actually the same edge on both shells.

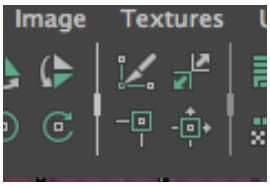


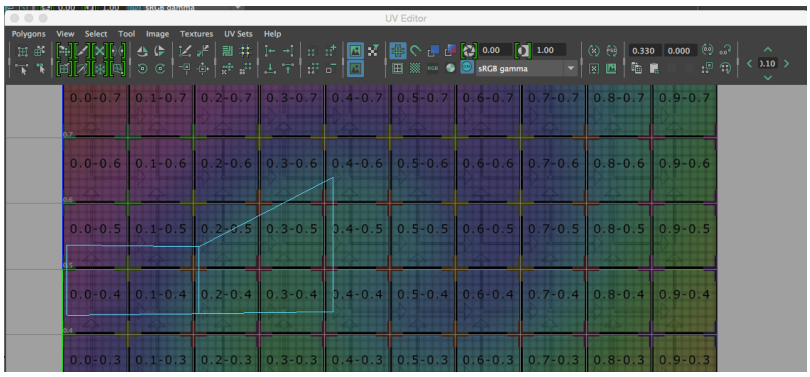
> 

In the UV Texture Editor: Hit the "move and sew the selected edges tool" icon.

If it's hidden click here to get it: 

> 

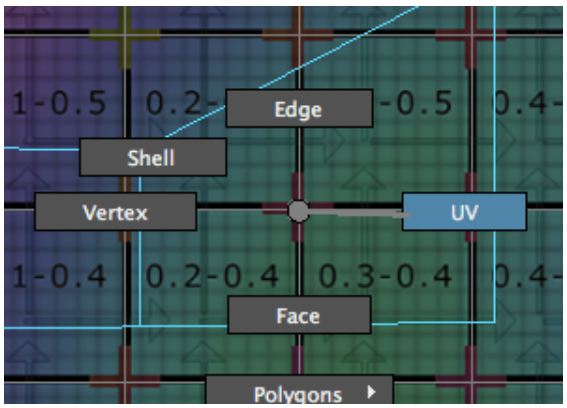
> 



The edges are sewed together (In Danish: syet sammen).

But the horizontal lines are not straight.

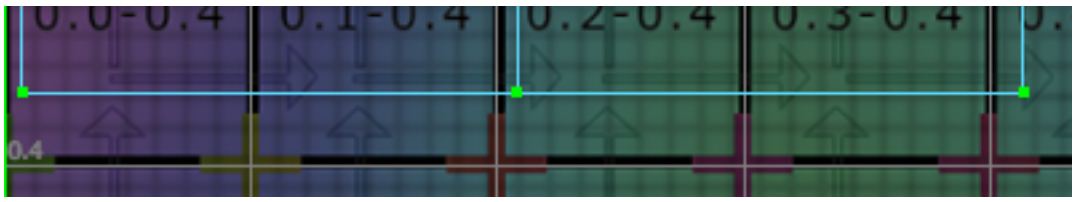
This must be fixed.



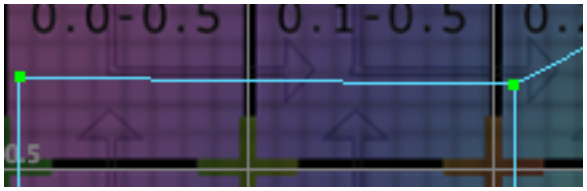
Right click and select UV. UV's are small handles on the shell.

Drag-select these UV's

Click this button…

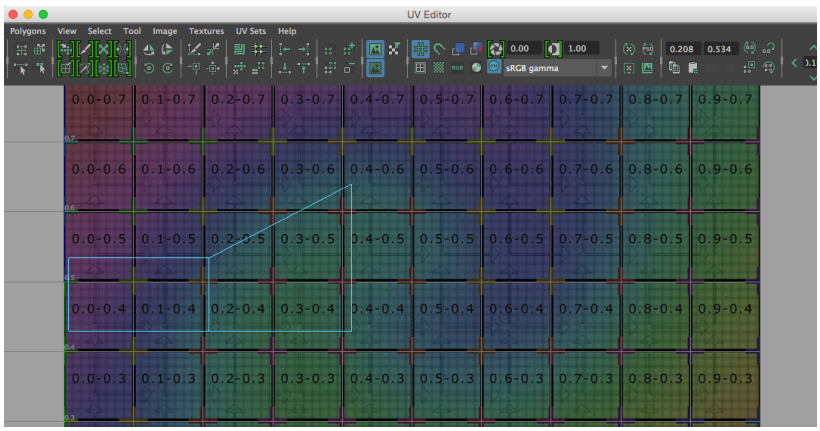


… To align them.

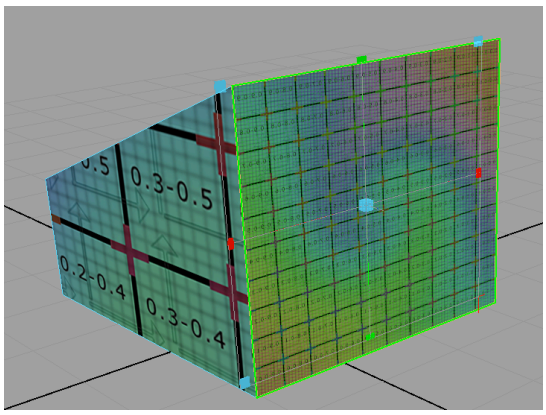


Repeat on these UV's: Select and…

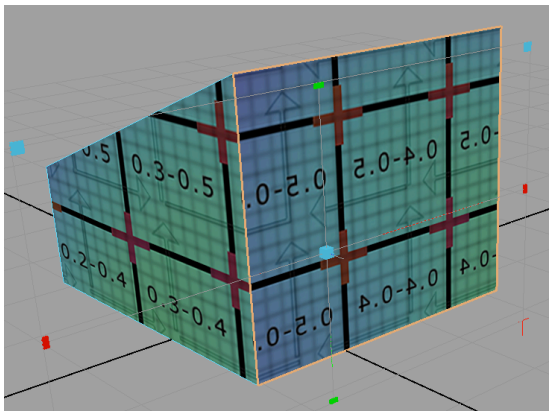
… Align.



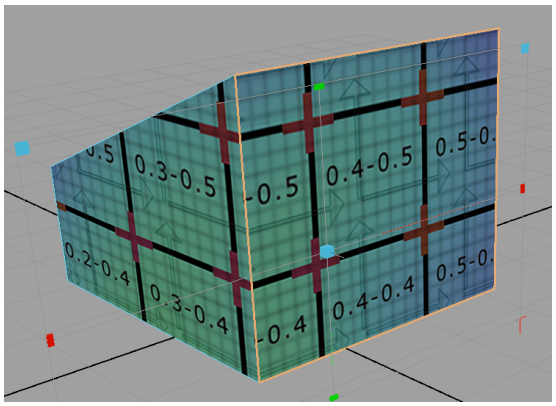
So now we got this.



We continue with the next side. It's projected from the X-axis.

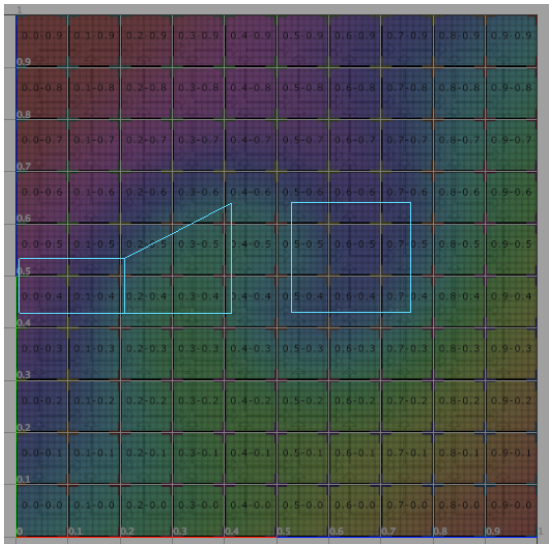


Scale

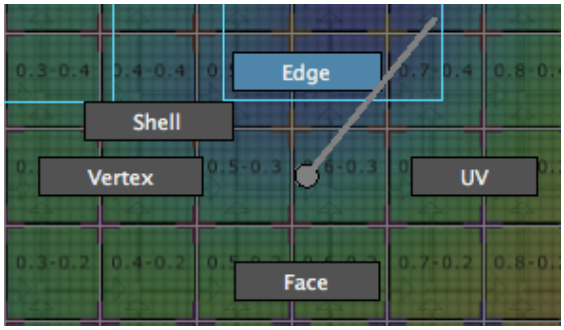


Flip to mirror the numbers.

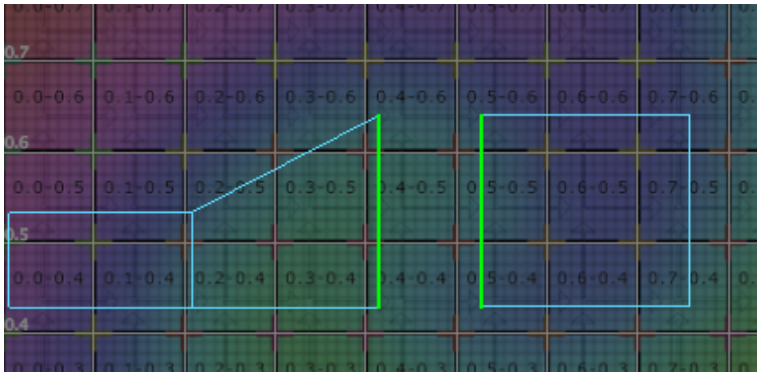
Another Sewing



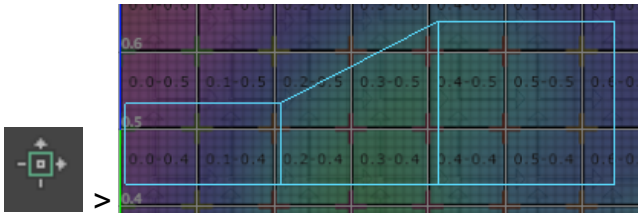
Sew the next shell together with the last one. It's the same procedure as before:



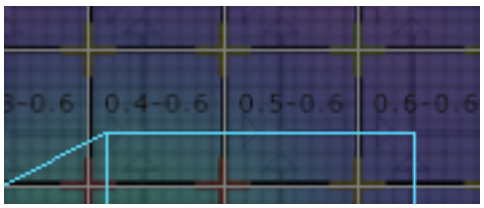
Right click > Select edge



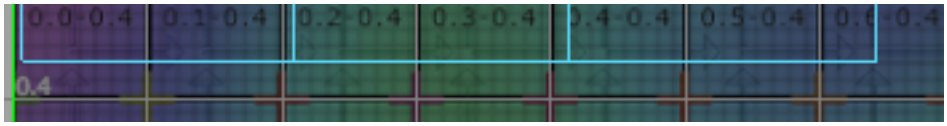
Click-select edge



> Sew edges

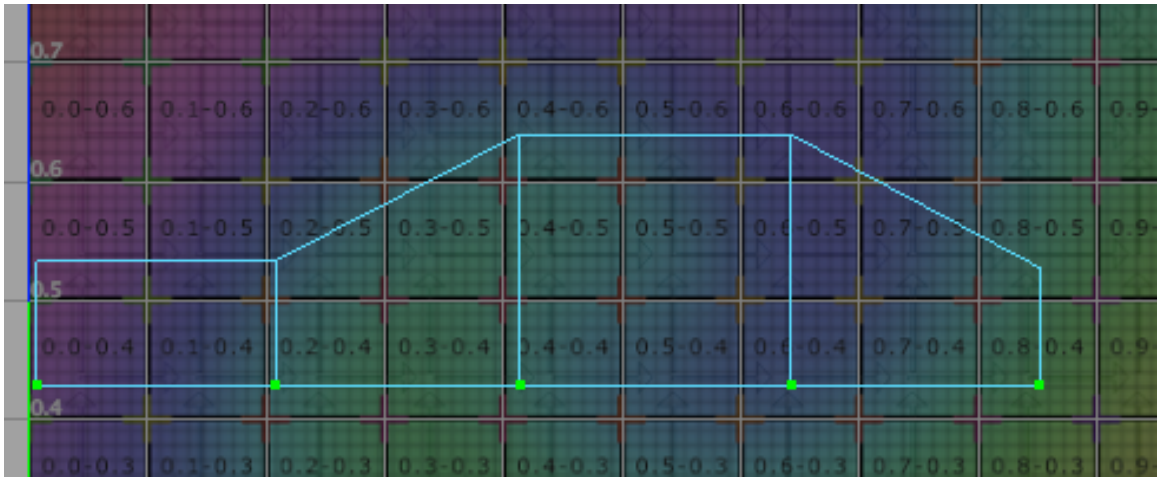


If this…



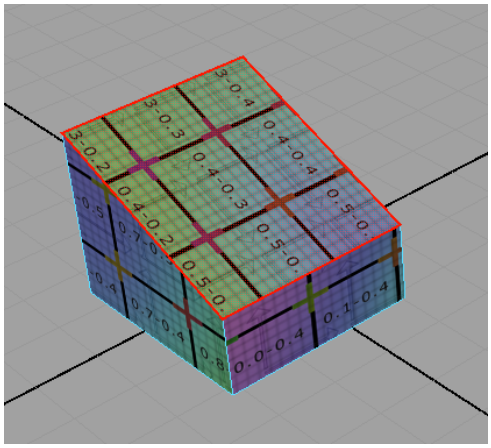
…or this line is not straight you must align them like before.

Add the last side

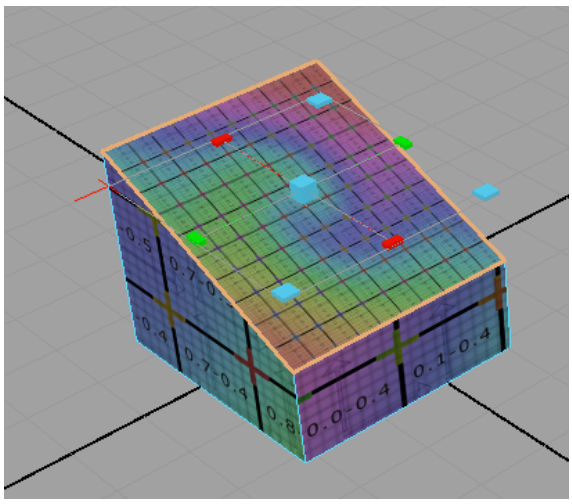


Add the shell of the last side in the same way as before.

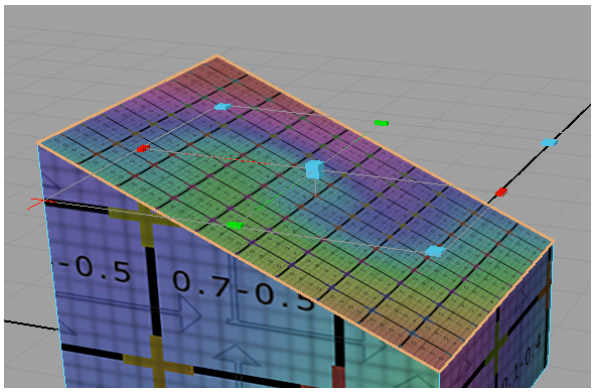
Add the top



Select the face

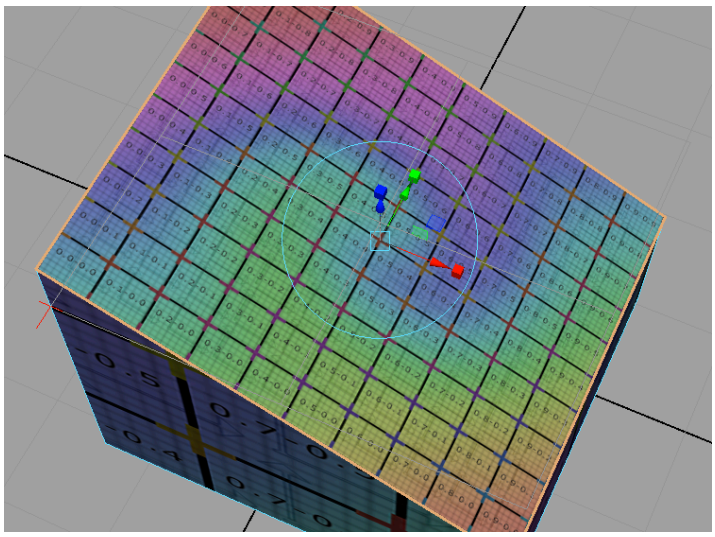


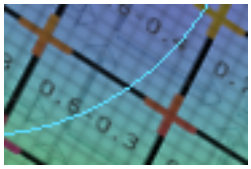
Planar projection along the Y-axis

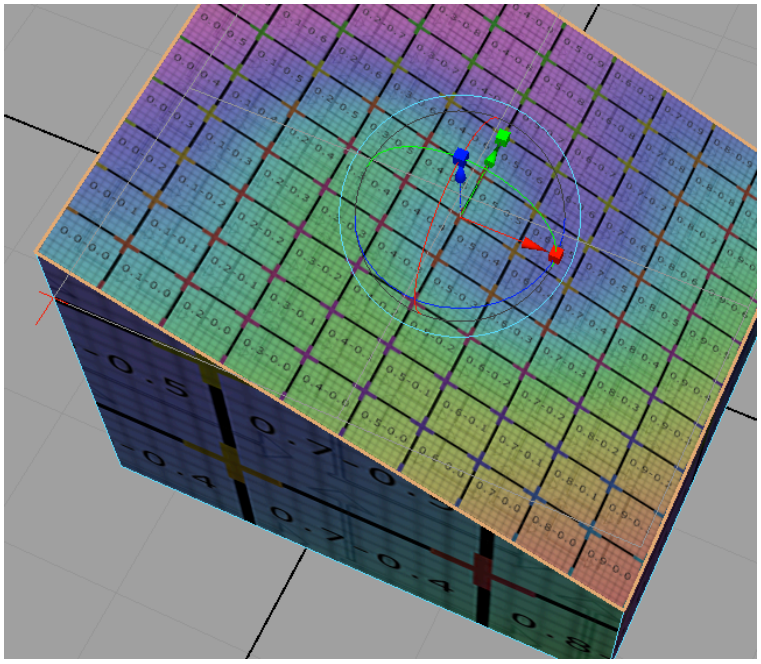


This face slopes so we have to rotate the planar projection to make it fit.


Click on the little red cross.

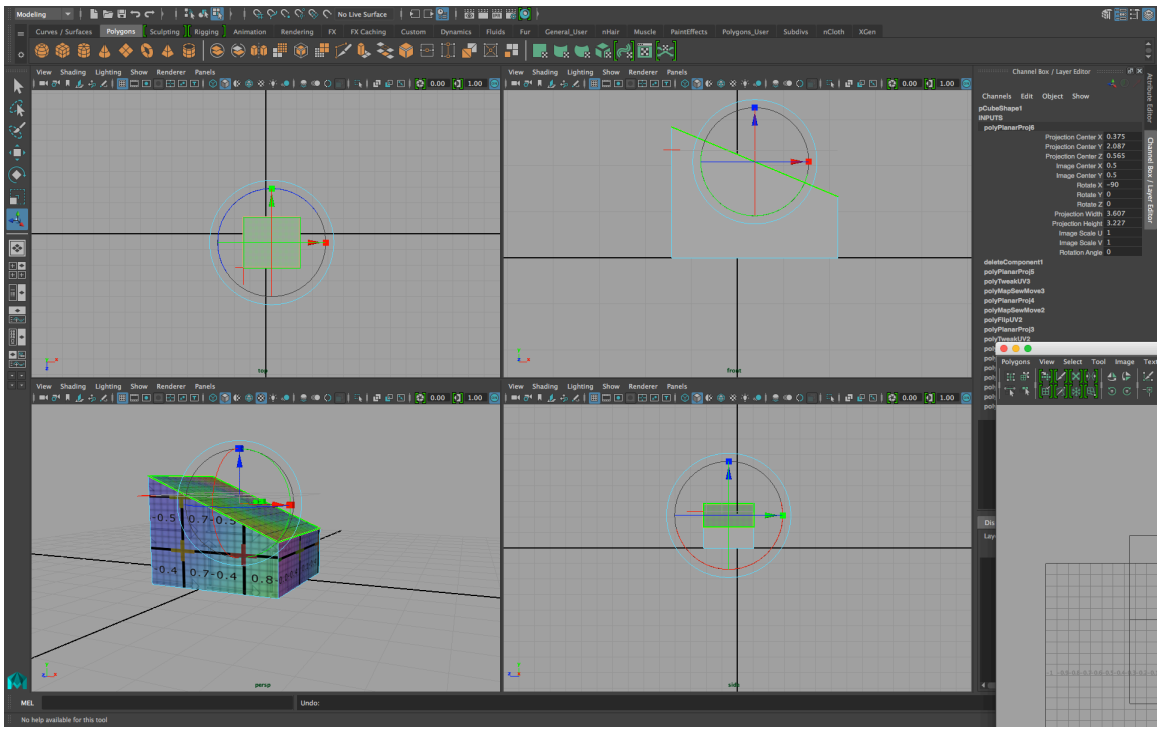
 This changes the projector tool.

 Click the blue circle.

 The tool changes again. Now we have access to the rotation options.

It's easier to rotate precisely in the orthographic side view.

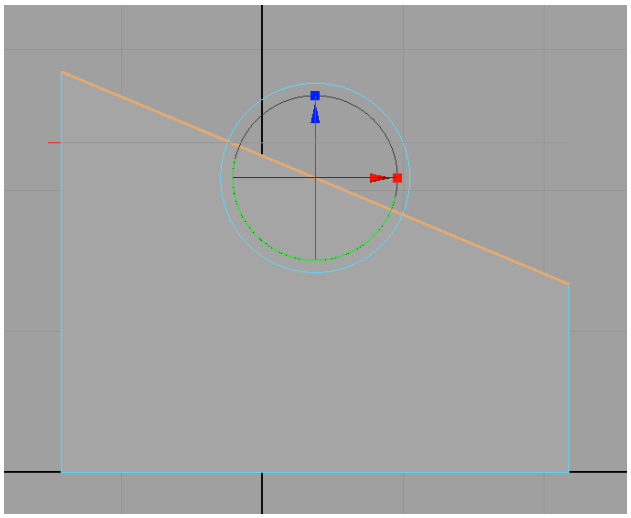
So we move to it like this. In the perspective view hit the space bar.



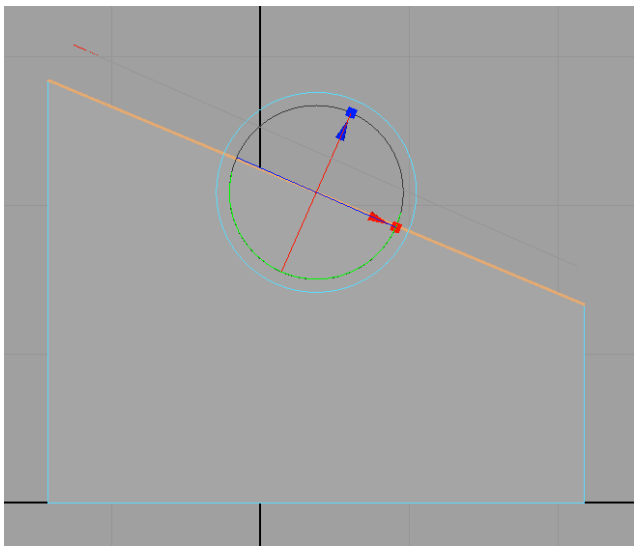
All four views become visible.

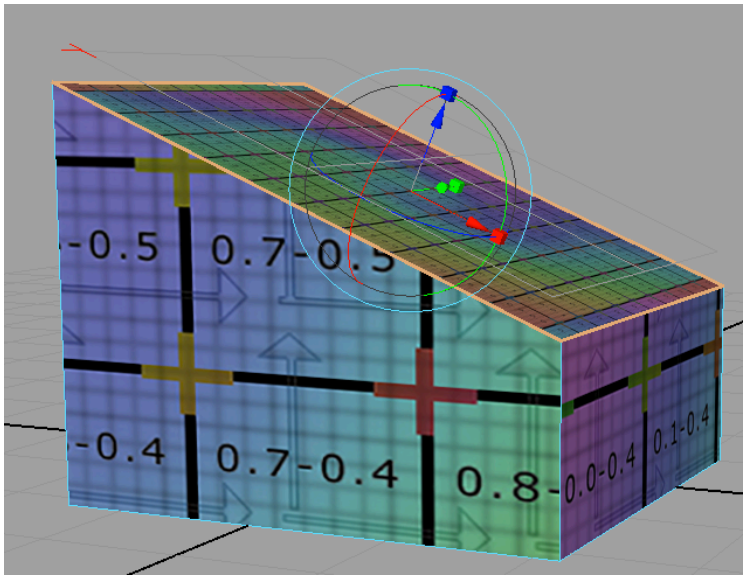
Let the mouse hover over the front view window.

Hit the space bar again.

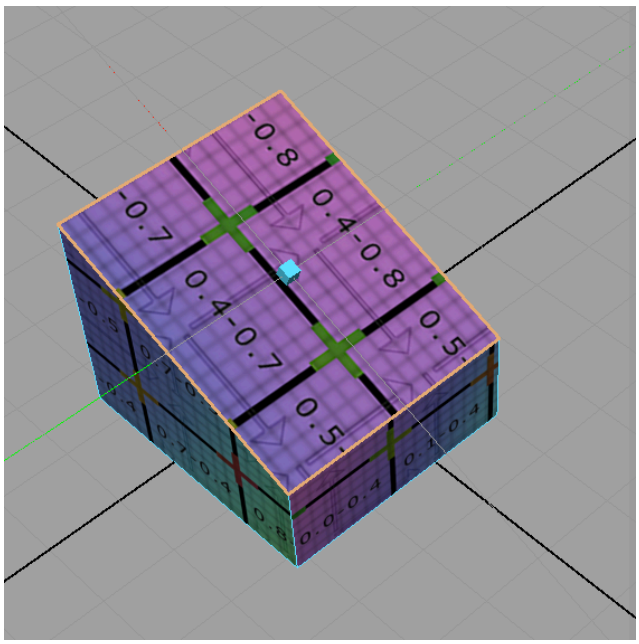


Now we are in the orthographic side view.

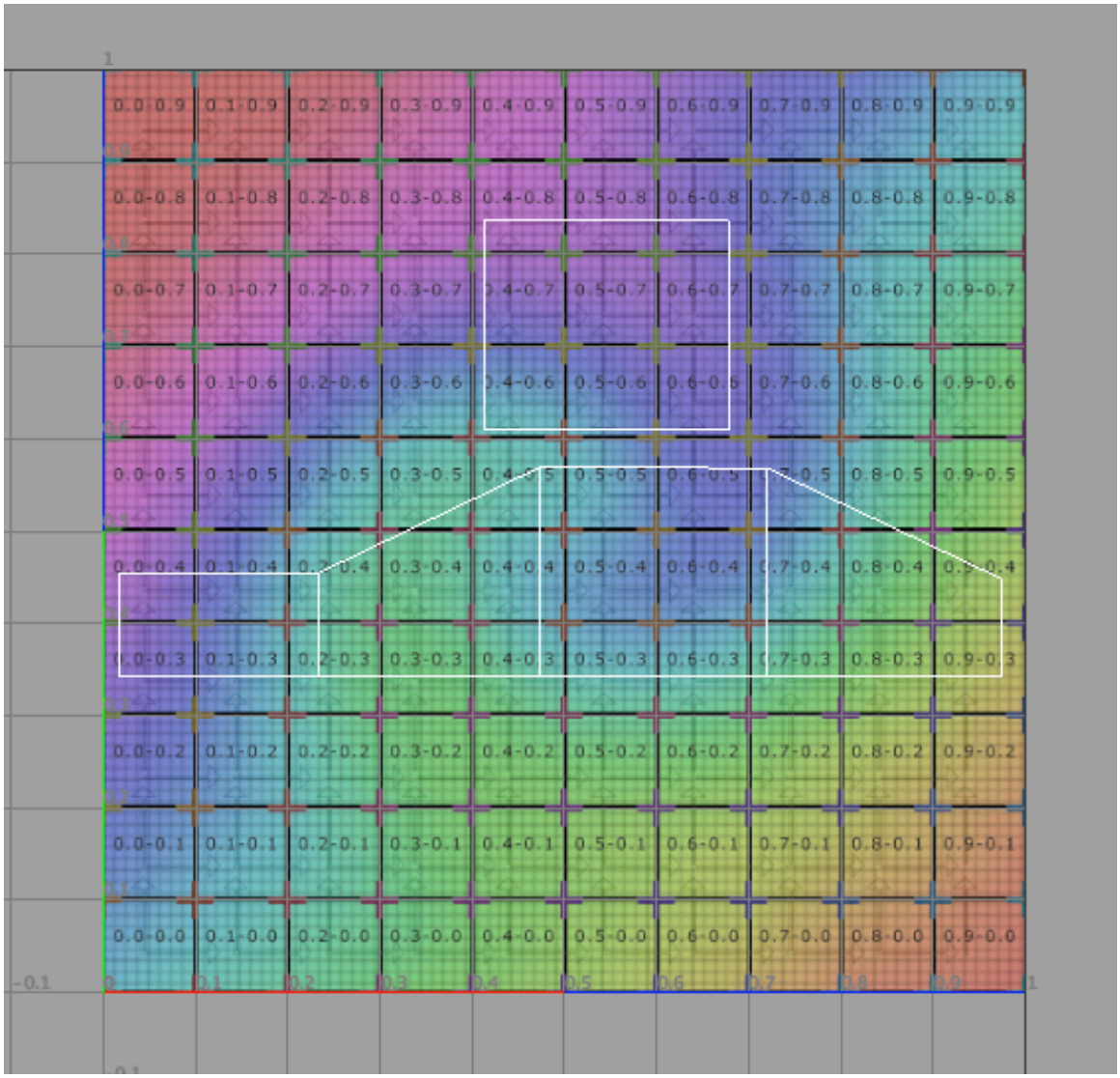

Use the green circle to rotate to make the projection parallel to the face.



Move back to the perspective view in the same as you moved to the side view.

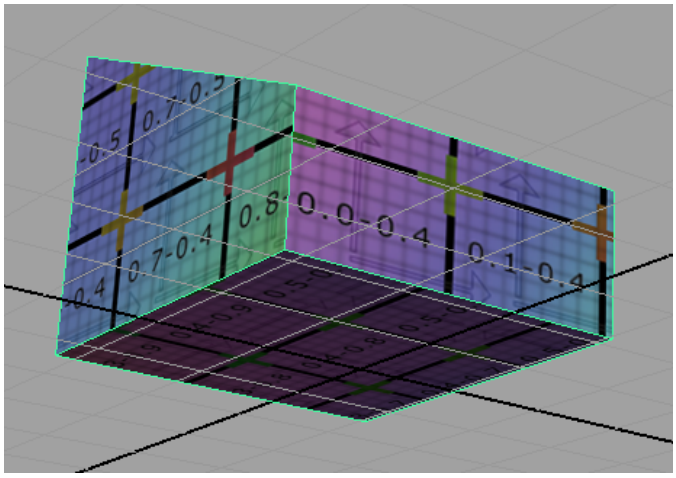


Scale

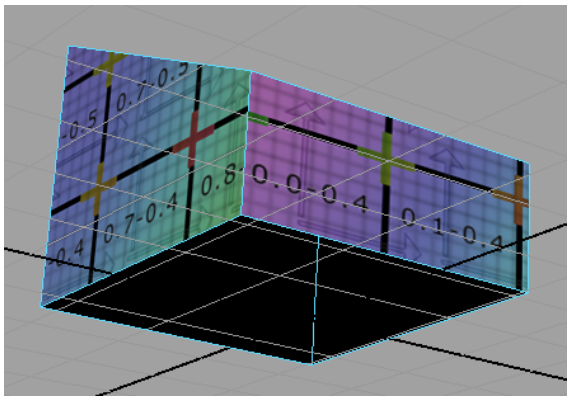


Move a bit away from the other sides

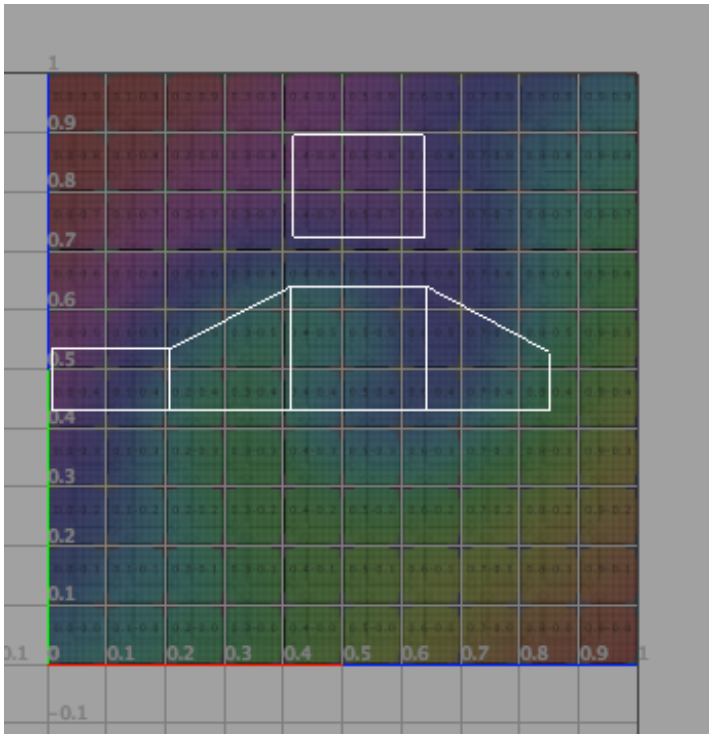
The bottom



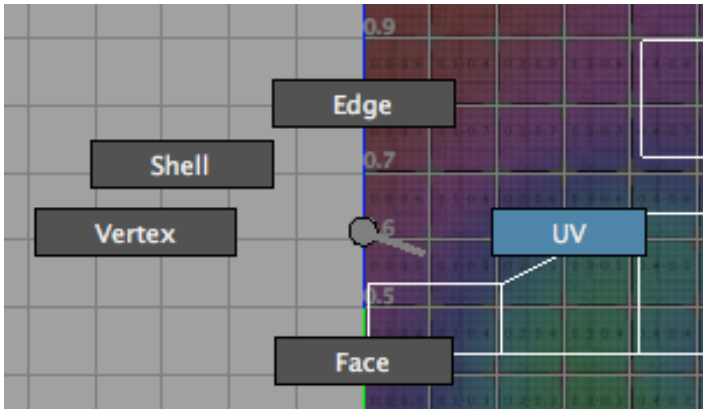
The only part left is the bottom. Actually we don't need that.



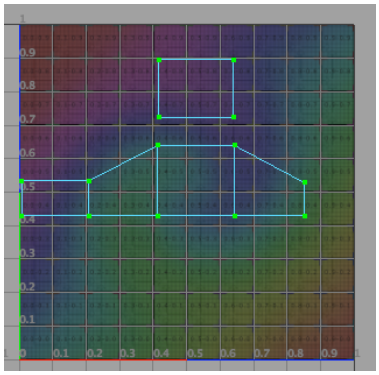
Select the face and delete it.



In the UV Editor it now looks like this.

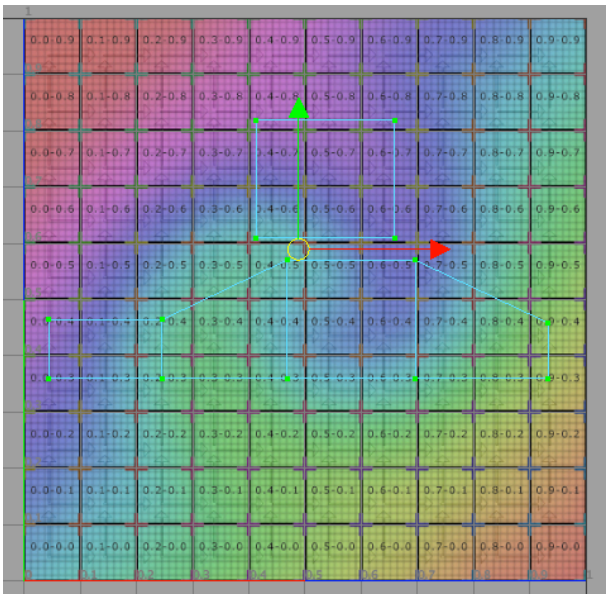


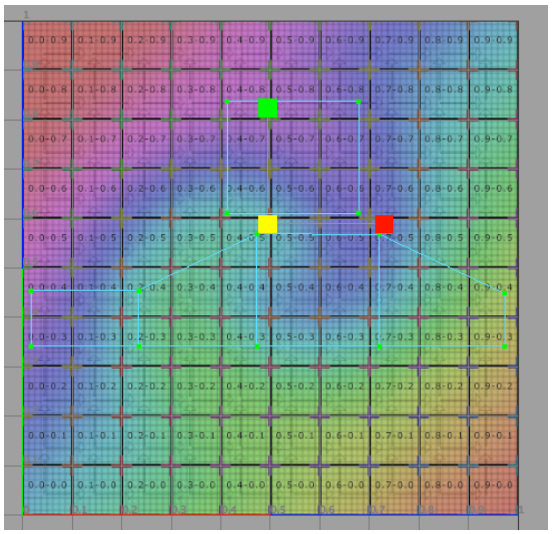
Right click and select UV.



Drag select all the UV's.

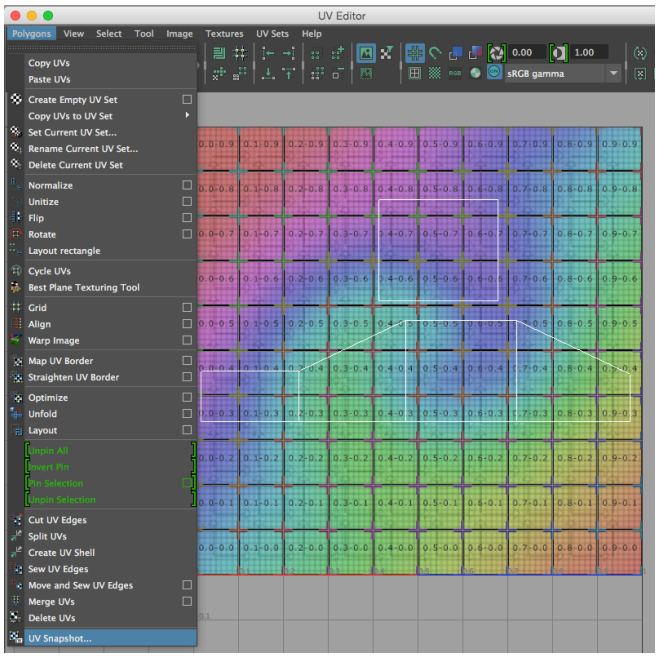
 >  Click the dim-image button in the UV-editor to make the image more visible.

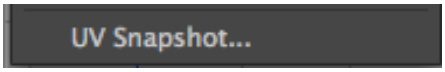
 >  Use the traditional move tool in the tool box and drag the UV shell more to the centre of the UV Editor.

 >  Use the scale tool and its yellow handle to scale the UV shell up a bit.

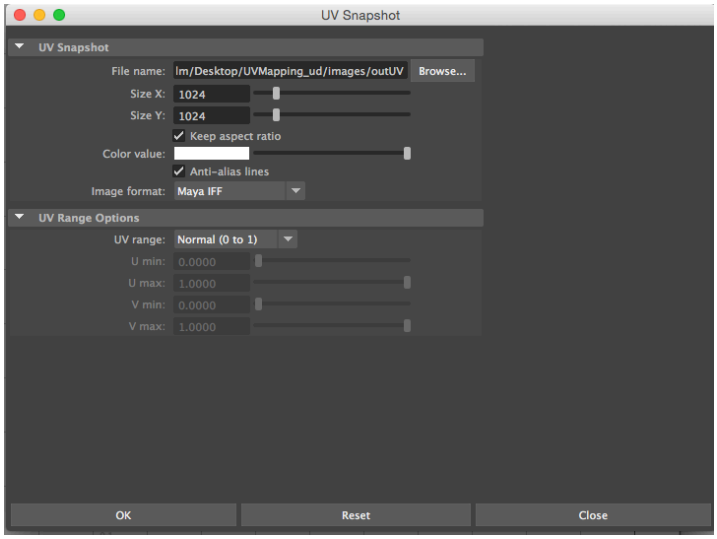
Snapshot

Select the entire object (house) in the perspective view.

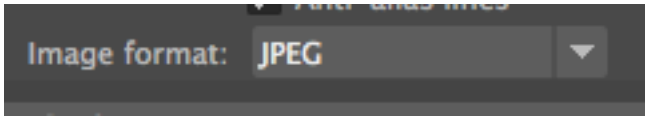


> 

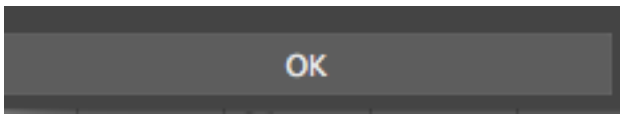
Make a so-called snapshot of the shell



Save it in the images folder of your project. Set the size to 1024 x 1024.

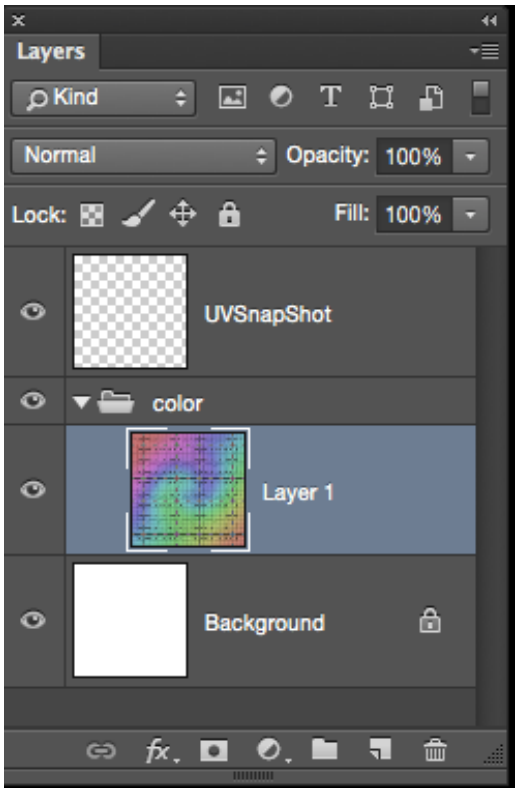


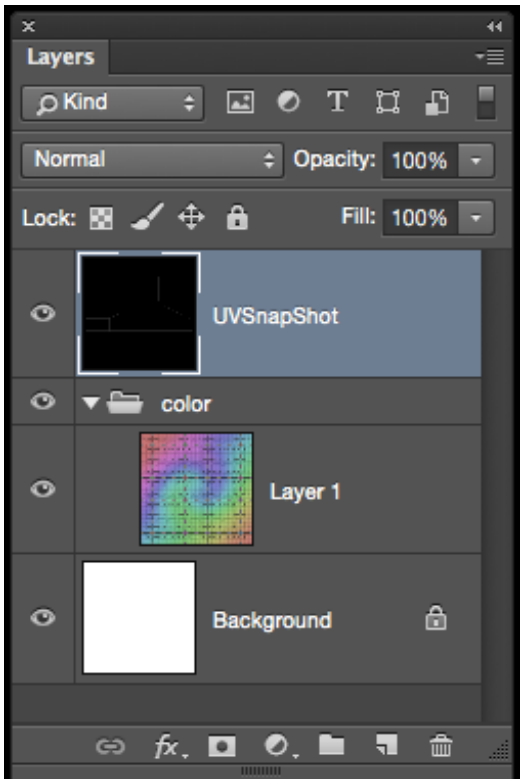
Pick jpg.



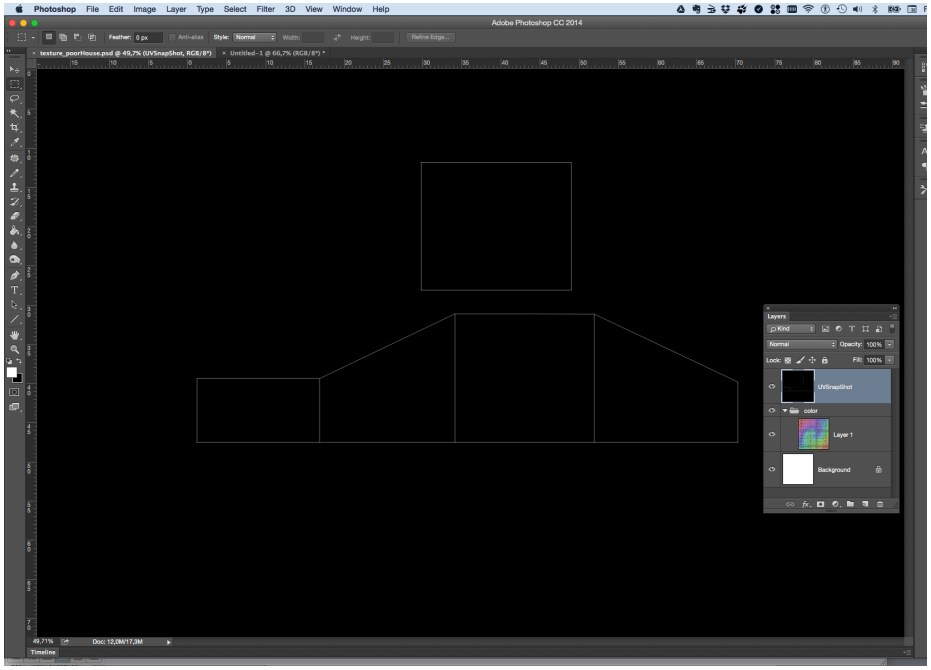
Click.

Open the snapshot in Photoshop.
Copy paste it into the UVSnapShot layer in the texture document you made previously.

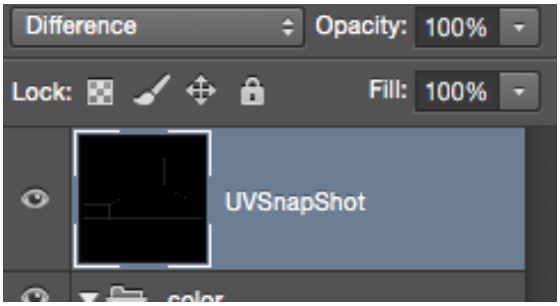


>


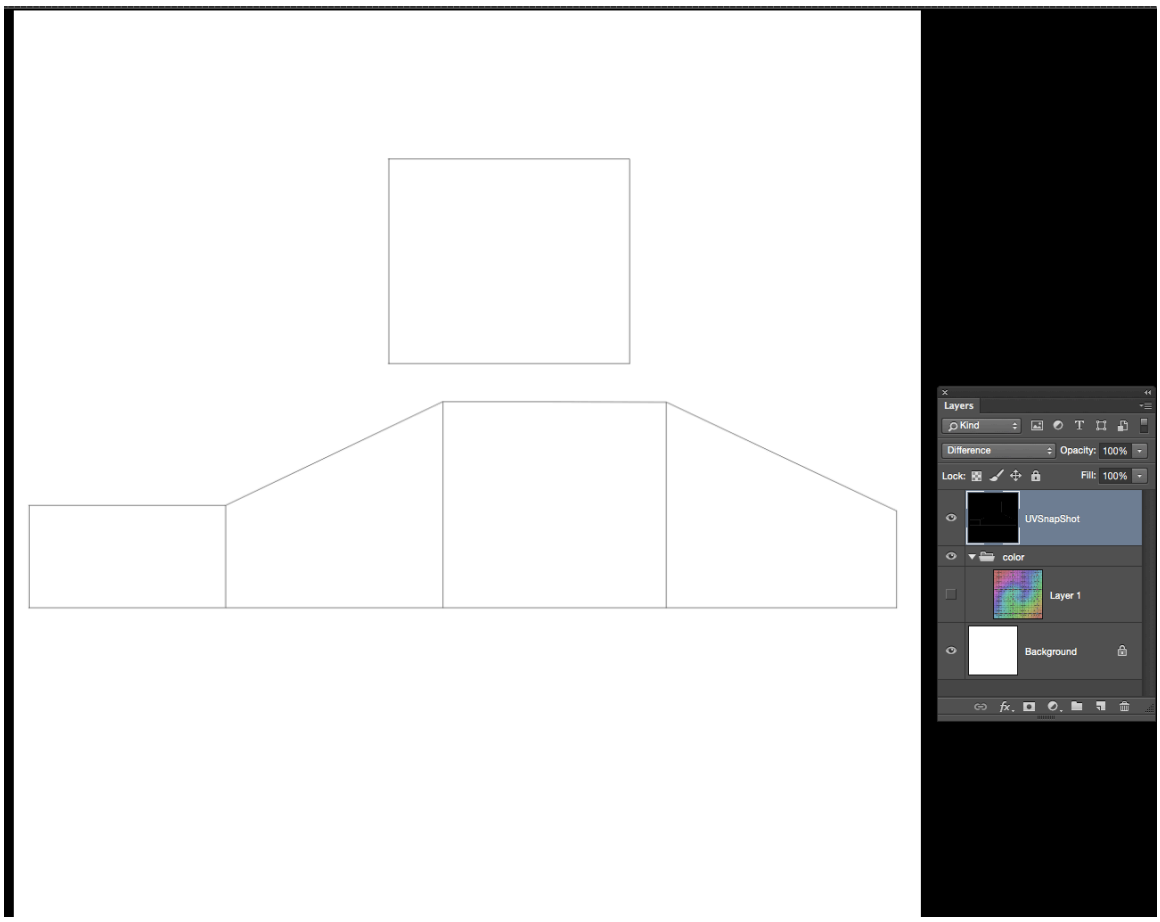
Make sure the UVSnapShot layer is placed at the top.



The snap shot is in negative



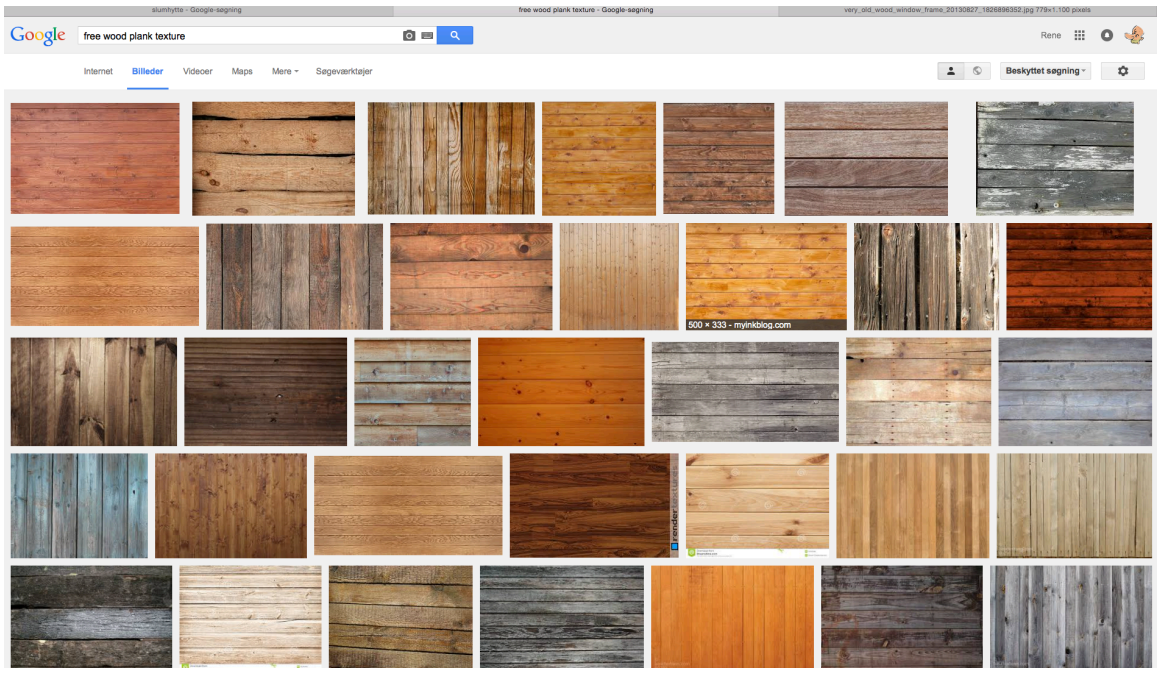
Use Difference for the layer. Now you can look through it.

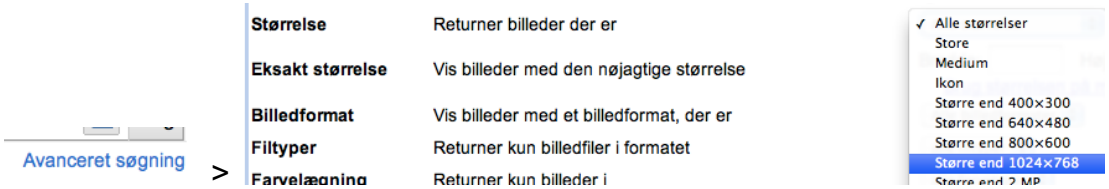


Then make the coloured grid invisible. You don't need it any more.

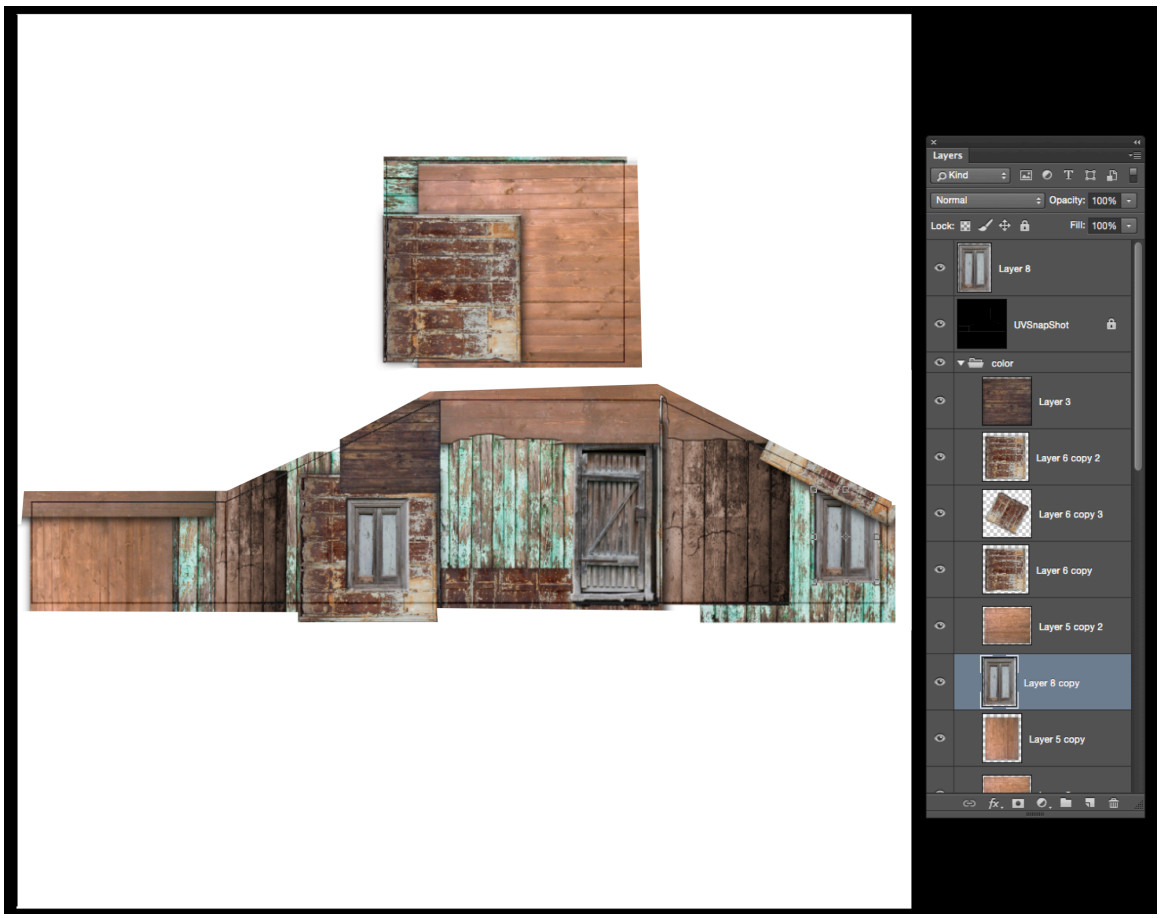
The next step is to replace the coloured grid layer with some "real" house-texture layers.

Search on images in Google. Use words like "free texture wood plank"

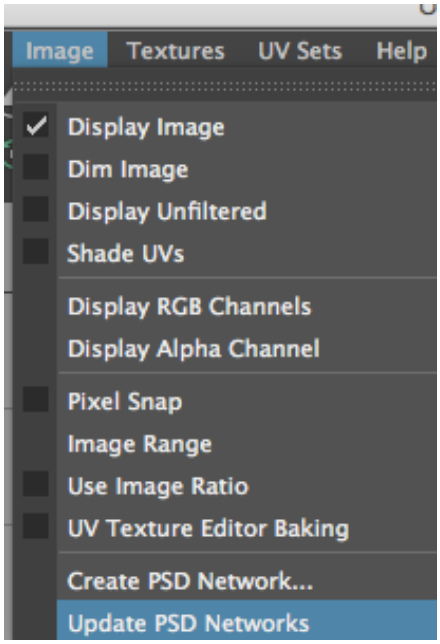




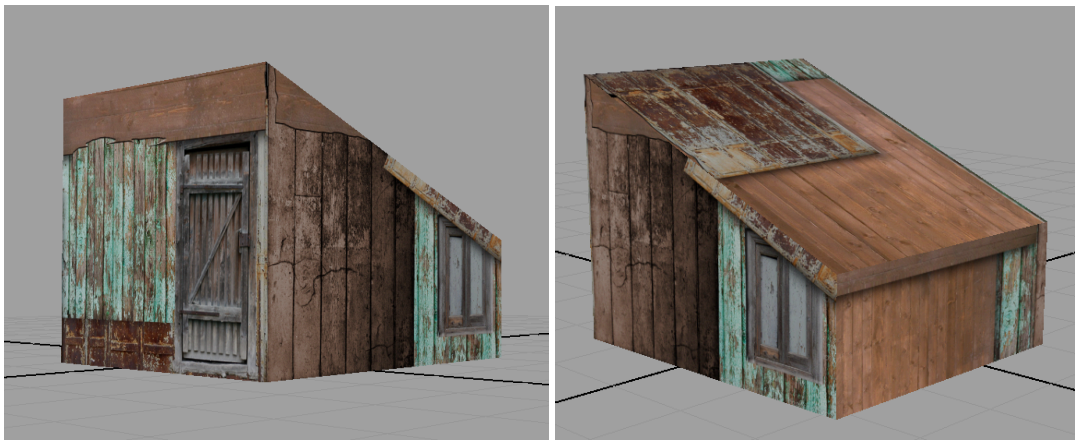
Make sure the textures are large



Paste your textures into the color group of the Photoshop wall texture file.



Save the Photoshop file. In Maya update the PSD Networks in the UV Editor.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