

MAYA Height Field Mapping

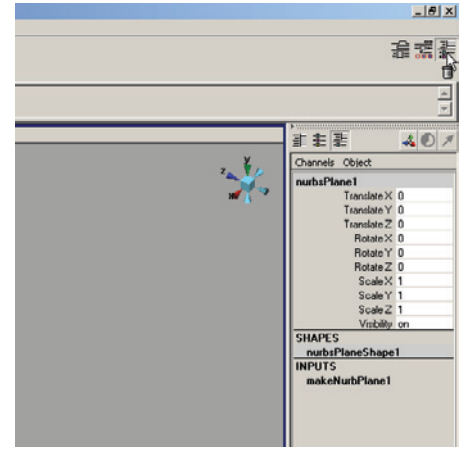
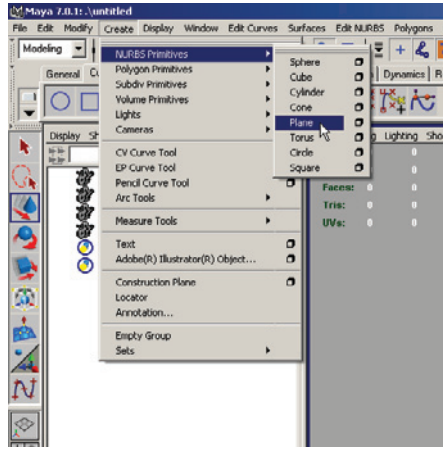
Transforming 2D image data into 3D NURBS surface

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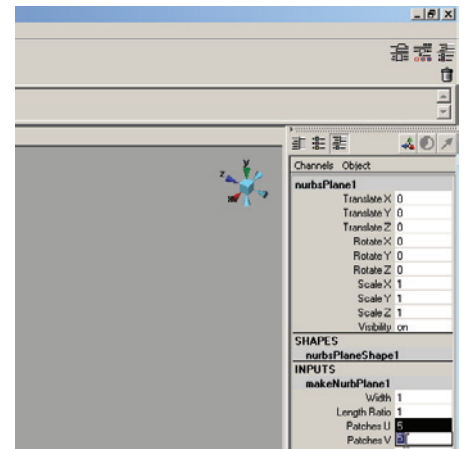
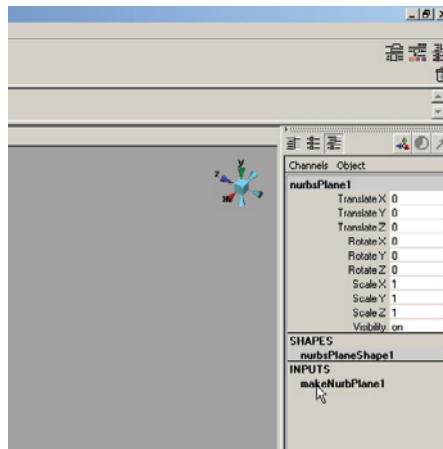
Create > NURBS Primitives > Plane

In this tutorial, we will be working with NURBS geometry. NURBS surfaces are always XY grids, but these grids can be shaped in different primitive forms. For our purposes, we will create a simple plane.

After creating the plane, open the channel editor.



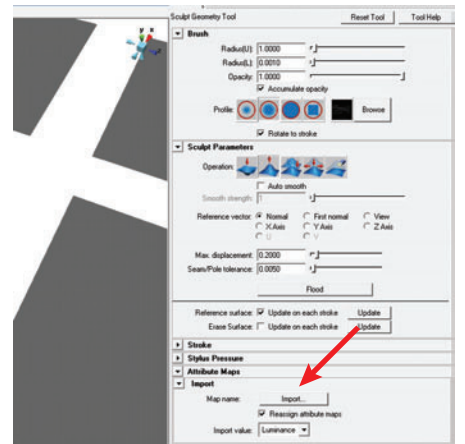
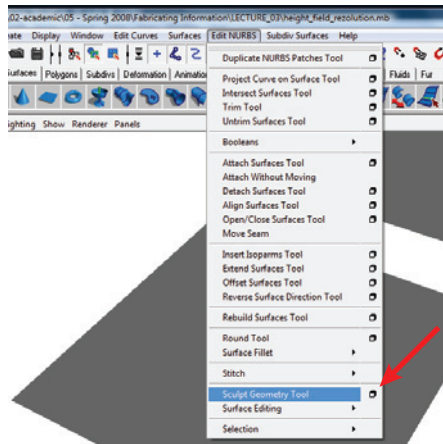
Within the channel editor, we can click 'makeNurbsPlane1' node to unfold a series of options for that NURBS surface. This is one example of 'history' within maya - we can go back and change any attribute that defined the object. In this case, we will increase the surface detail by increasing the values of 'Patches U' and 'Patches V' (from 1 to 5)



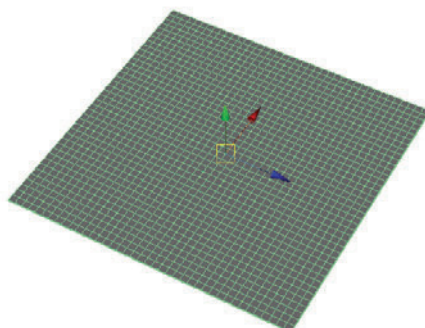
To apply an image data to transform the NURBS surface, we will be using the following command.

Surfaces > Edit NURBS > Sculpt Geometry Tool > Option Box

When we select the 'Option Box', to the right, we will find several settings. We will be looking at the 'Attribute Maps' tab. Under 'Attribute Maps' there is another tab called 'Import'.

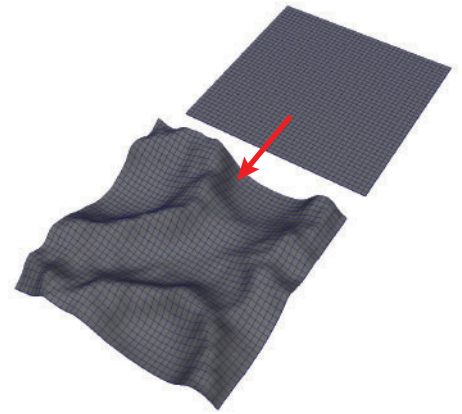
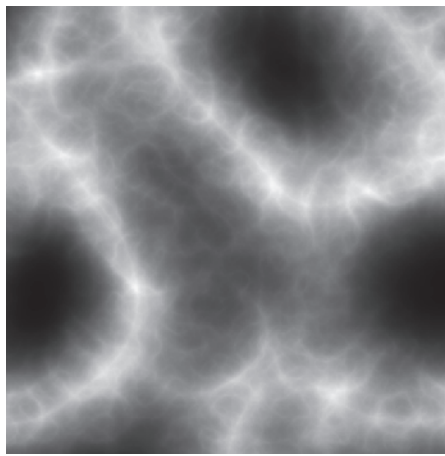


we must have our target shape selected. You can select the shape in the viewport OR in the outliner.



You will find a 'Import...' button under the 'Attribute Map'. Click on the button and a browser window will pop open. Go find the image you want to apply to the surface. Press OK and it will transform the surface according to the black as 0 and white as 1 height.

A side note: depending on the scale of the NURBS surface, the height scale might be off, but this can be adjusted afterwards.



NOTES:

Applying the same image data to different UV span configuration NURBS, you can see the resolution difference of detail on the NURBS surface depending on the number of spans.

