

Intermediate

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MeshMan

This is an intermediate four part tutorial. Part one explains the basic of how Amorphium Pro creates mesh. Part two explains when, why and how to use the MeshMan Tools. Part three shows some ways to use the MeshMan Tools for rendering effects, modeling and texturing techniques. Part four is a quick projects (Disintegrating a planet)

Part three

Using MeshMan Tools for Rendering Effects, Modeling and Texturing Techniques.

This portion of the tutorial takes into account that you are familiar with the various workspaces and their tools in Pro.

Combining two material surfaces.

This techniques lets you use two different textures, shader materials, paint jobs or a combination of the three to a model.

It will increase the file size of your project or model, since it requires duplication the model or object. Since you'll need to increase the polygon count on the duplicate, it is best to use synthetics primitives and imports with low polygon counts.

Here I imported a cow skull, then bucket painted it light gray and added some very dark gray noise, using the FX paint noise tool. Fig. 3



Fig. 3

Then I duplicated it (a duplicate is created at the exact same coordinates as the original) I'm going to change the polygon count on the duplicate, So I'll hide the original temporarily, so I don't accidentally select the original. Fig. 3_2



Fig. 3_2

I'll increase the polygon count using the MeshMan Quad tool on the duplicate.

Nr of Vertices: 1113
Nr of triangles: 2096

Fig. 3_3 Polygon count before quad tool used.

Nr of Vertices: 4322
Nr of triangles: 8384

Fig. 3_4 Polygon count after quad tool used.

Then I bucket painted the duplicate a medium gray and added some medium badge noise, using the Fx paint noise tool. Without the original object hidden portions of the 2 models show through giving the model more depth and realistic look. Fig. 3_5



Fig. 3_5

Here is the same technique using shader materials on the two objects. Fig. 3_6



Fig. 3_6

Two different texture can be used. Fig. 3_7

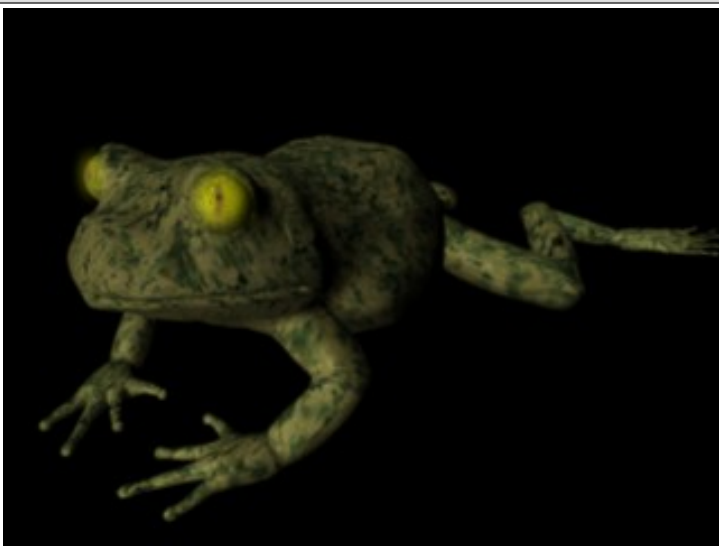


Fig. 3_7

Changing the material channels on each object will produce some interesting results. Fig. 3_8

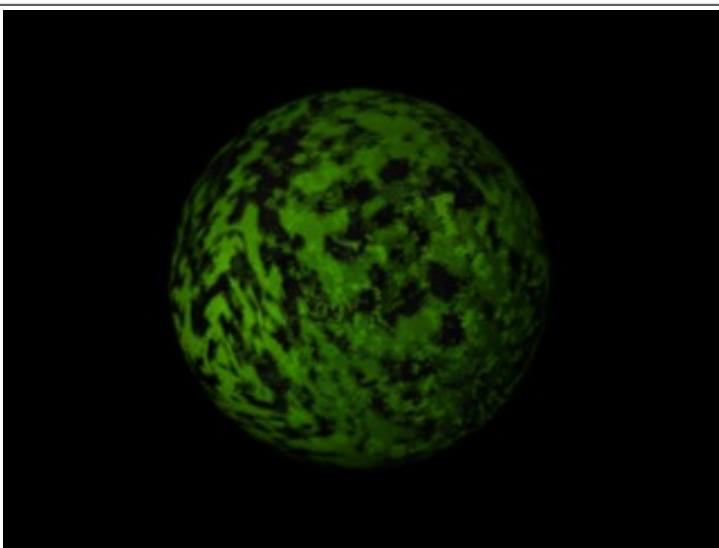


Fig. 3_8

The two objects can be linked together for positioning, manipulating or exporting. But if the hierarchy is flattened or they are boolean together they will take on the properties of only one of the objects. (If they are both painted they will retain their paint jobs) You'll also lose the ability to set up different material channels on two objects.

Turning one sided mesh into two sided mesh.

This is a basic operation , which will make imported models with one sided faces into two sided faces.

Here is a plant which the flowers were made with one sided mesh planes. So when the plant is rotated, the one sided mesh planes that are facing away from the camera appear invisible.



Fig. 4

To fix this I'll duplicate the plant, then use the invert normals tool on the duplicate. Then use the link to parent hierarchy tool, to link the duplicate to the original. Then use the flatten hierarchy tool on the parent.

This method will transform the object into a two sided mesh object.



Fig. 4_2

Disintegrating objects

This is a nice effect that can be animated or used to make fractal like objects. This effect may cause the program to respond a little slower than normal.

Created an organic or synthetic object, then used the Break Triangles. You'll notice the object gets a rough look to it with the triangles broke. Fig. 5

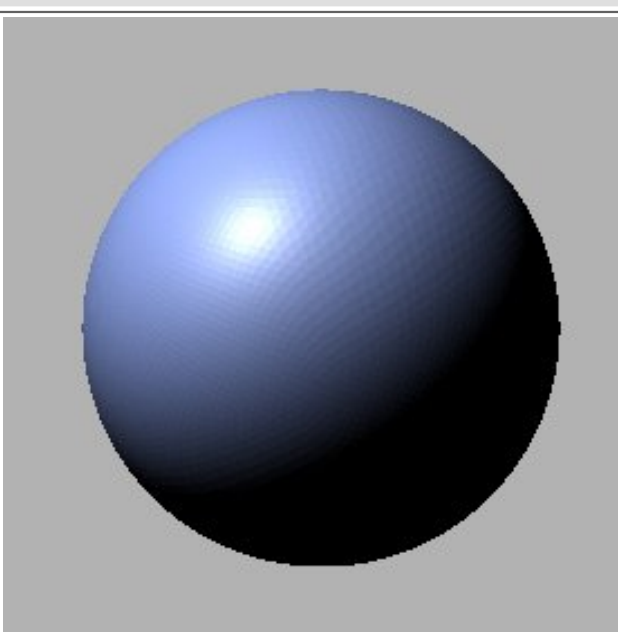


Fig. 5

With the triangle broke, some of the FX tools (normal displace, noise and smooth) and the smooth brush in the Tools workspace will pull or smooth each individual polygon. In Fig. 5_2 the FX displace tool was used on the sphere.

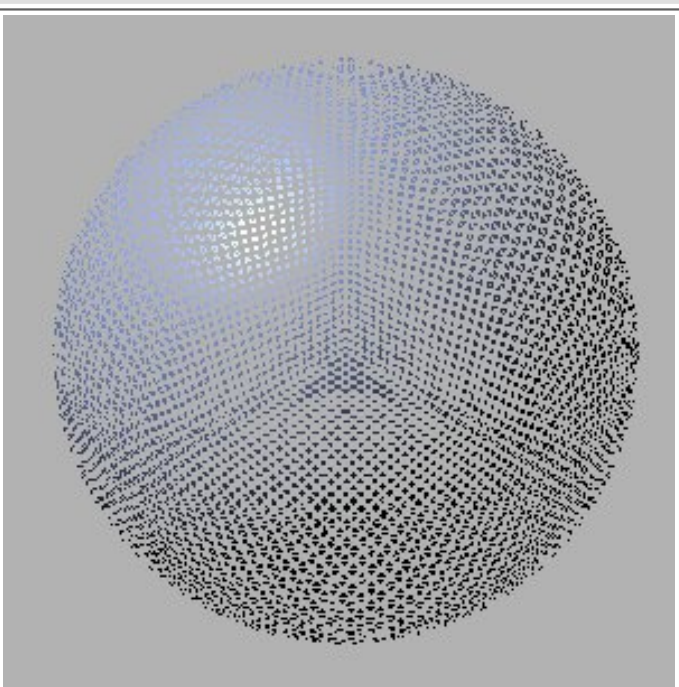
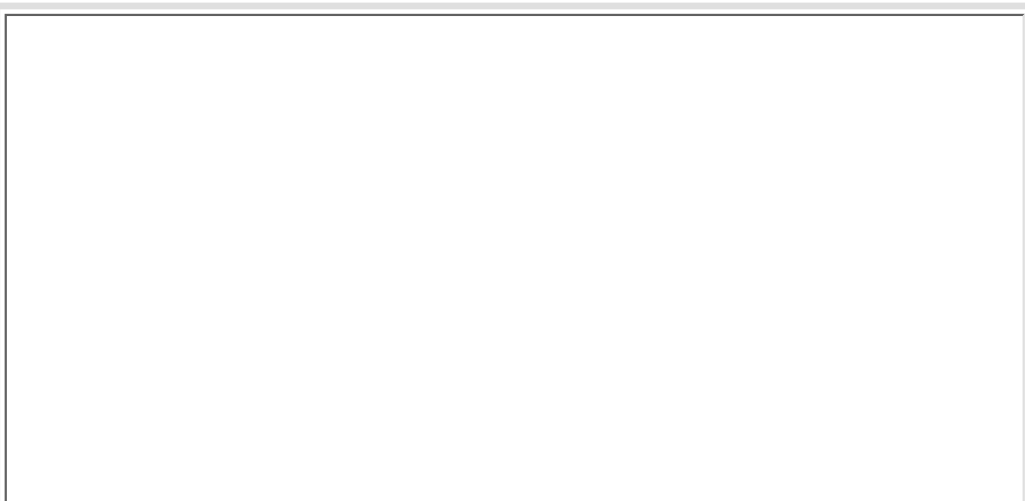


Fig. 5_2

With the triangles broke the polygons can be smooth until they disappear. Latter in the tutorial I'll do a little project showing how to animate this effect.

Fractal like effects can be made by distorting and separating the polygons (smoothing them) then setting up material on them. Fig. 5_3



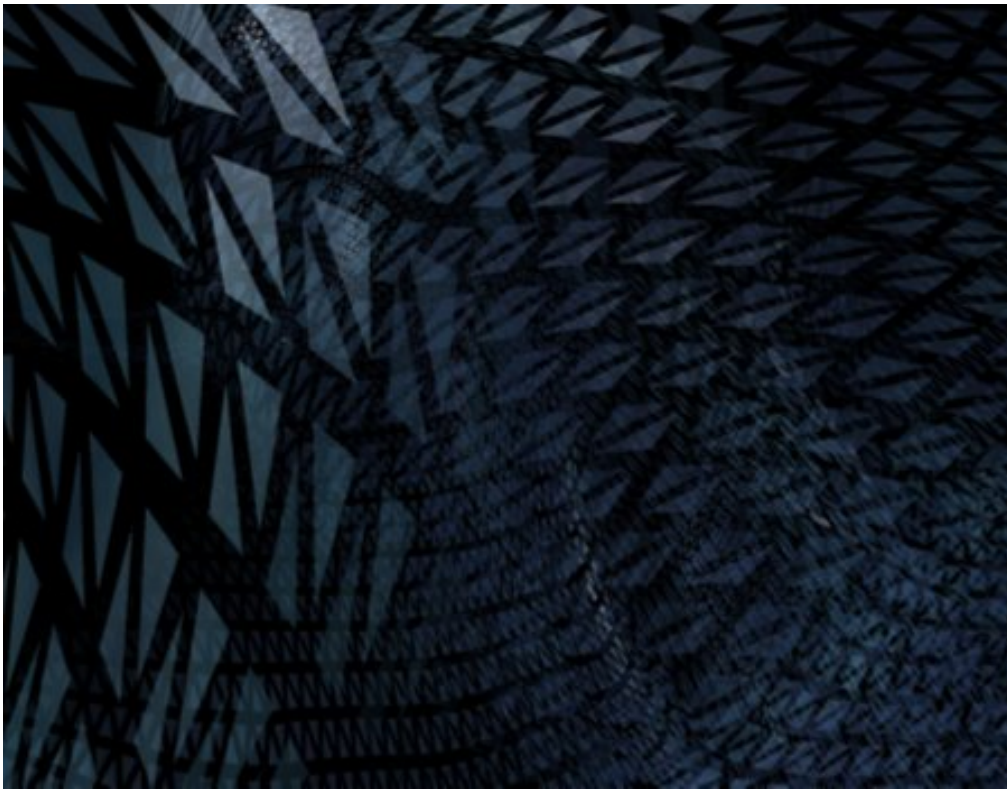


Fig. 5_3

Using the mirror tool to help create models.

Making models with identical left and right or top and bottom parts can easily be accomplished by using the MeshMan mirror tool. Make one piece then duplicate it and use the mirror tool on the duplicate to make an identical but exact opposite part.

Here I created a leaf for left side of a plant. Fig. 6





Fig. 6

I would like to have an exact replica leaf on the right side. So I duplicated it and rotated it on the Y axis. Then moved it to the right side, but it faced the wrong way.
Fig. 6_2

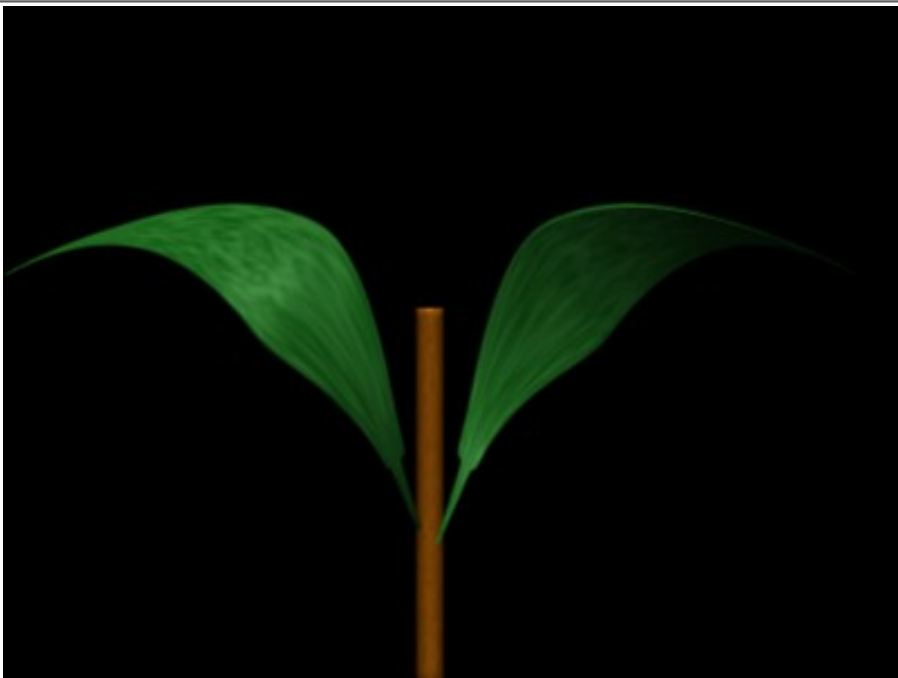


Fig. 6_2

The way to accomplish this is by duplicating it then using the mirror tool on the duplicate, to get an exact replica, but mirrored to use on the right side.
Fig. 6_3



Fig. 6_3

Continued

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