



3D & MOTION GRAPHICS > BLENDER

Modeling, UVmapping And Texturing A Low Poly T-Rex In Blender: Part 2

by [Karan Shah](#) 5 Jan 2012

Difficulty: Beginner Length: Medium Languages: English ▾

[Blender](#) [3D](#) [Gimp](#)



This post is part of a series called [Low Poly T-Rex In Blender](#).

◀ [Modeling, UVmapping And Texturing A Low Poly T-Rex In Blender: Part 1](#)





We're back with part 2 of Karan Shah's awesome tutorial on creating a low-poly T-Rex using Blender and Gimp. In the second part you'll learn how to Unwrap your model using Blender's built-in UV Mapping tools, bake an Ambient Occlusion map and finally how to create textures for your T-Rex using Gimp (or your image editing software of choice.) Click through to get started!

Additional Files/ Plugins:

- [T-Rex Blueprint](#)

Step 1

We will be painting a symmetrical texture for our model, **so continue using the Mirror modifier**. To start select the model with right click, and press "TAB" to enter into "Edit" mode.

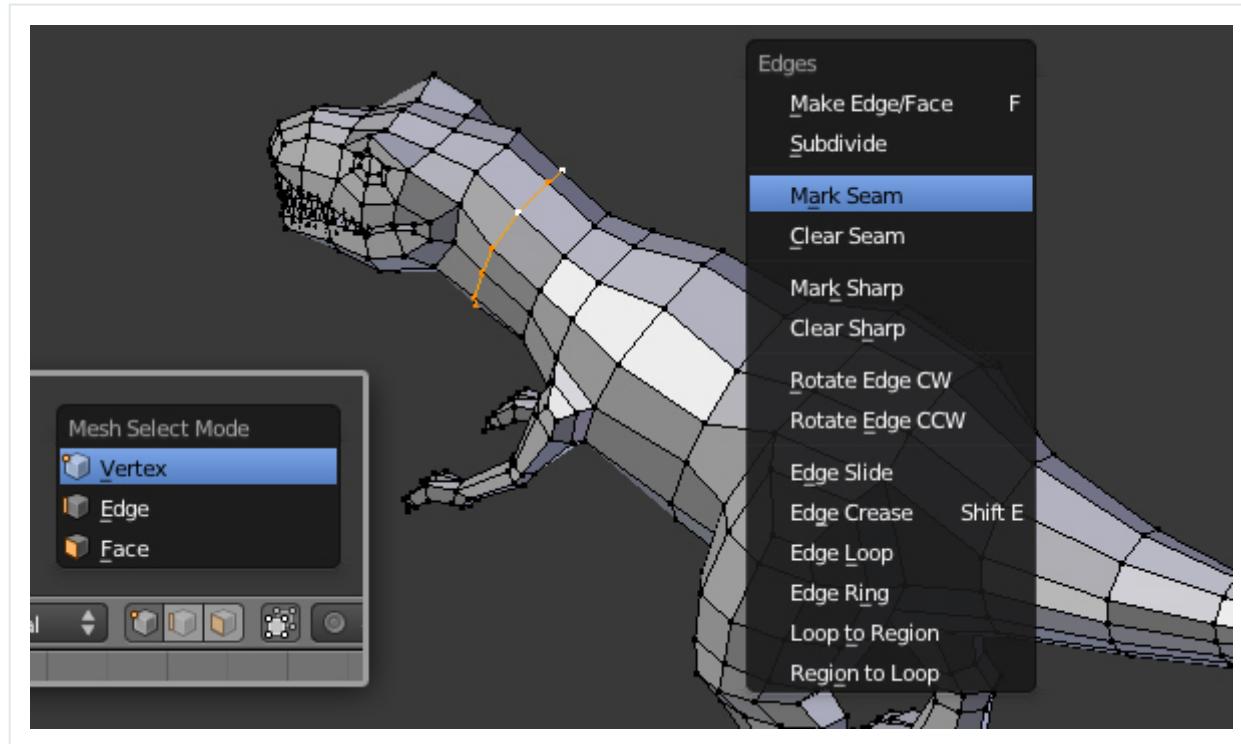


Step 2

Make sure that you have either 'Vertex Select Mode' or 'Edge Select Mode' selected. Press 'Ctrl+Tab' to choose, or click on the button in the 3D view's menu bar. Select the row of vertices just

behind the head with 'Alt+Right click' or hold 'Shift' and then Right Click to select the multiple edges individually.

Press 'Ctrl+E' and select 'Mark Seam'. The seams are the line from where the mesh gets 'unstitched'. Press 'A' to deselect the vertices.



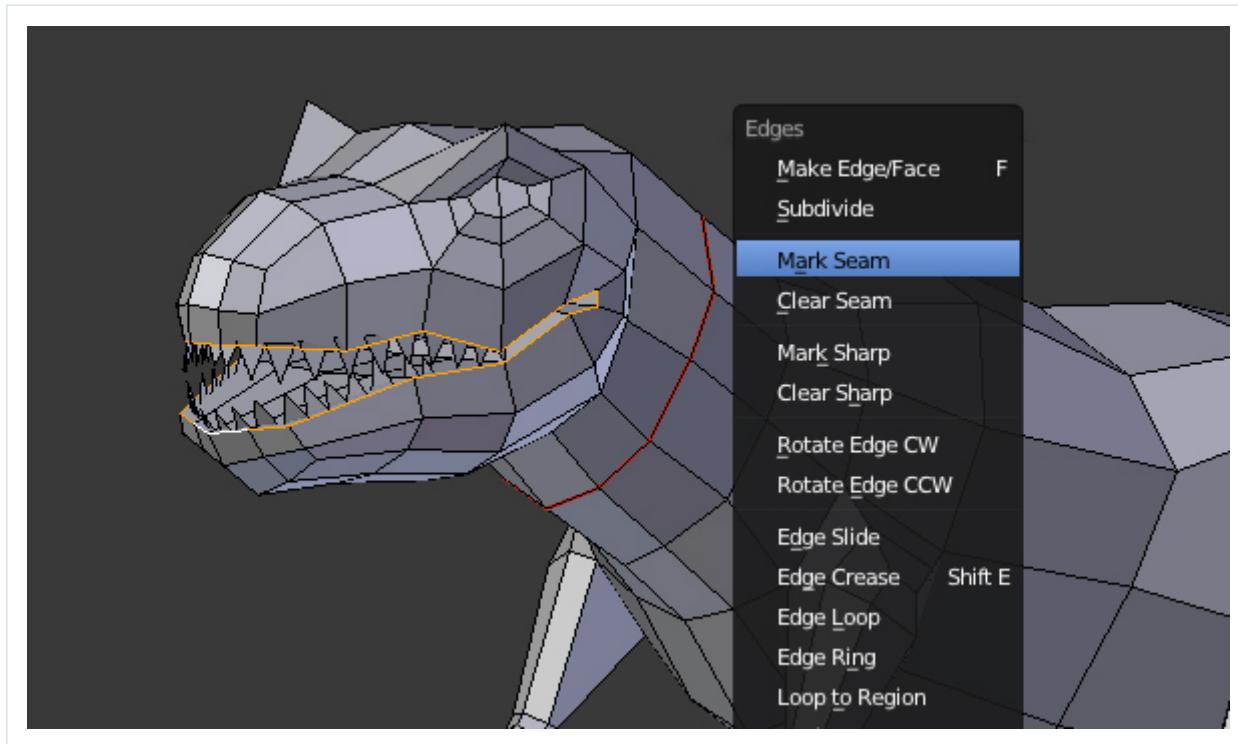
Advertisement

Step 3

Select the edges around the corner of the mouth and press 'Ctrl+E' and then select 'Mark Seam'. You will notice that the

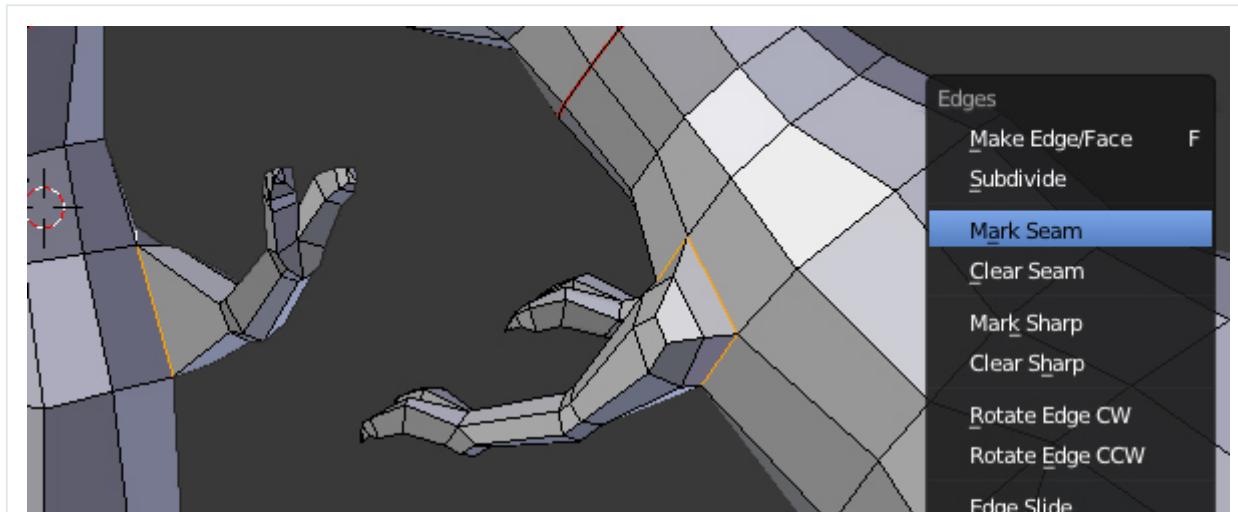
seams are now marked in red

seams are now marked in red.



Step 4

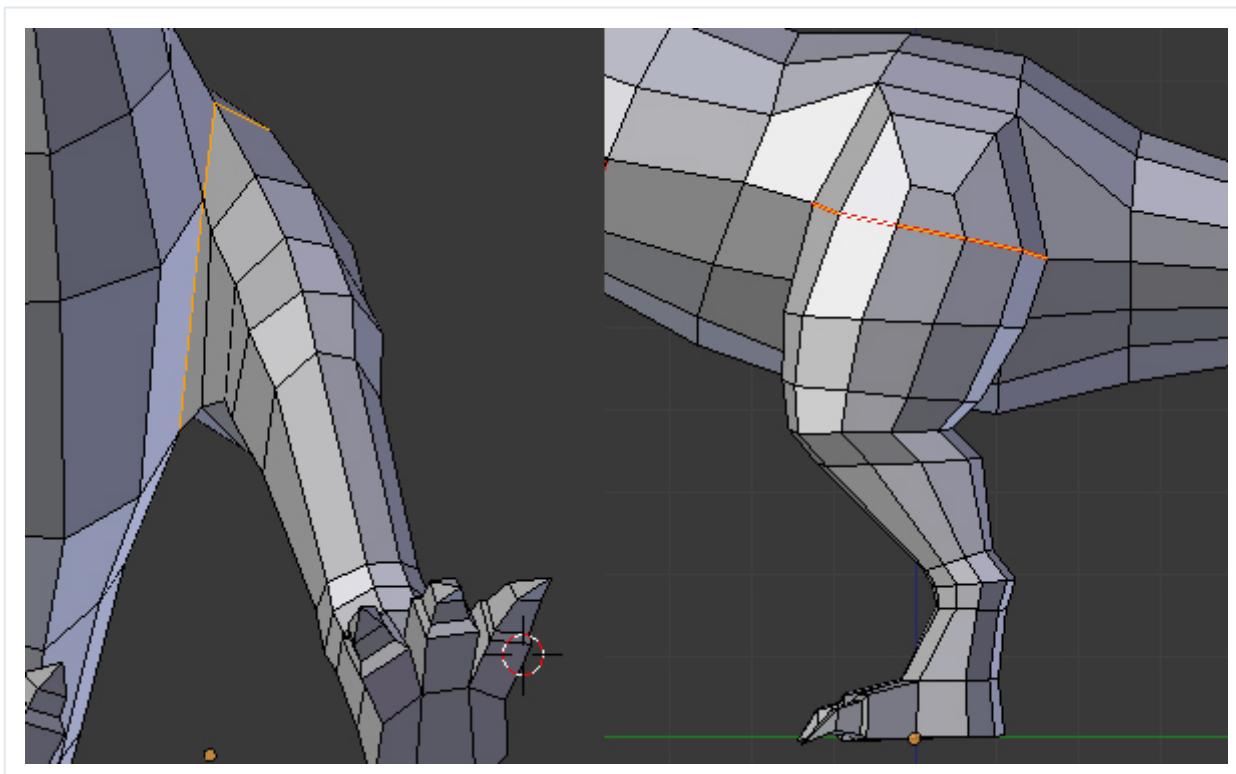
Similarly, select the edges around the origin of the arm, and 'Mark Seam'.





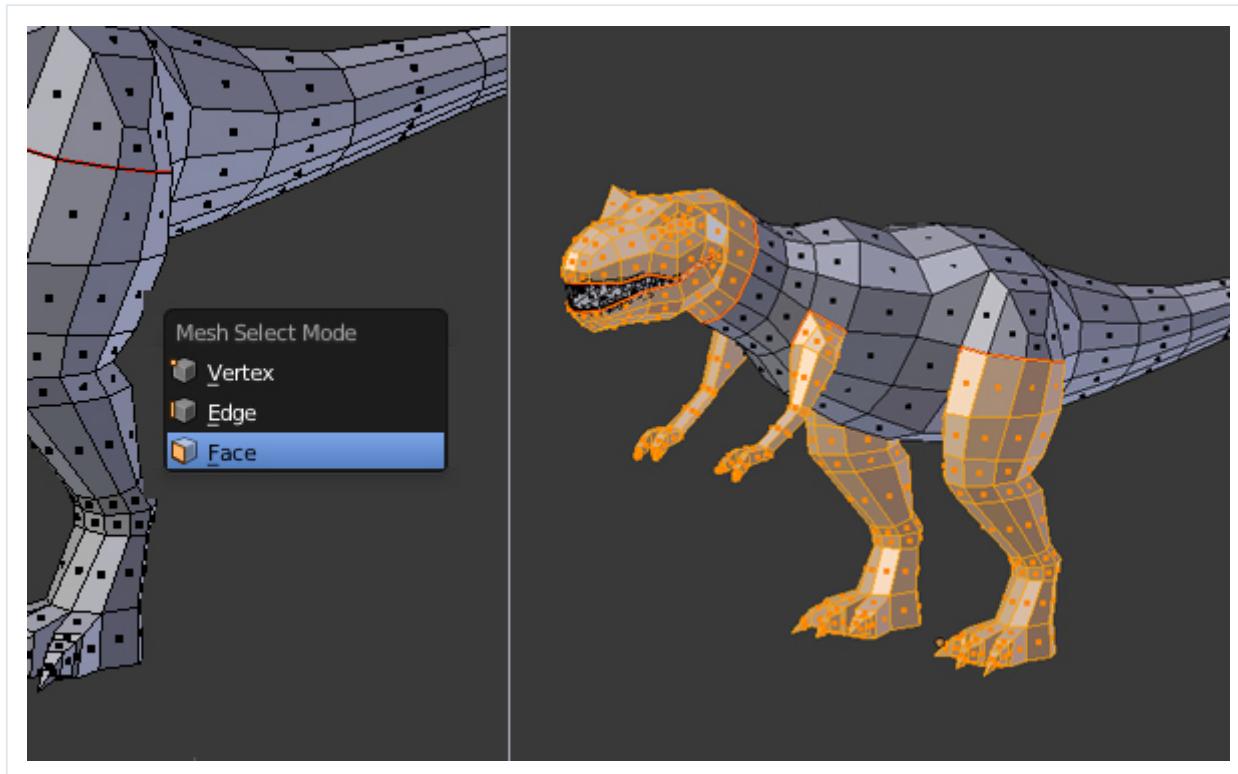
Step 5

Same goes with the legs. But this time, instead of going all the way around the top, select the edges shown in the image below. This is done because we want the texture to continue towards the leg and it should not appear broken. You'll understand this when we paint over the body.



Press 'Ctrl+TAB' and select 'Face' select mode. Mouse over any of the faces of leg and press 'L'. You'll see that only the group separated by the seam is selected (this only works with Face select mode.) If you press 'L' to select a group while in Vertex select mode, all connected vertices will be selected despite any of the seams. Hover over the head and press 'L' again to check. If you get any extra faces selected, then the seams are not properly closed. Re-check them from all views. Move your mouse over the

CLOSED. RECHECK THEM FROM ALL VIEWS. MOVE YOUR MOUSE OVER THE selected group and press 'SHIFT+L' to deselect it.

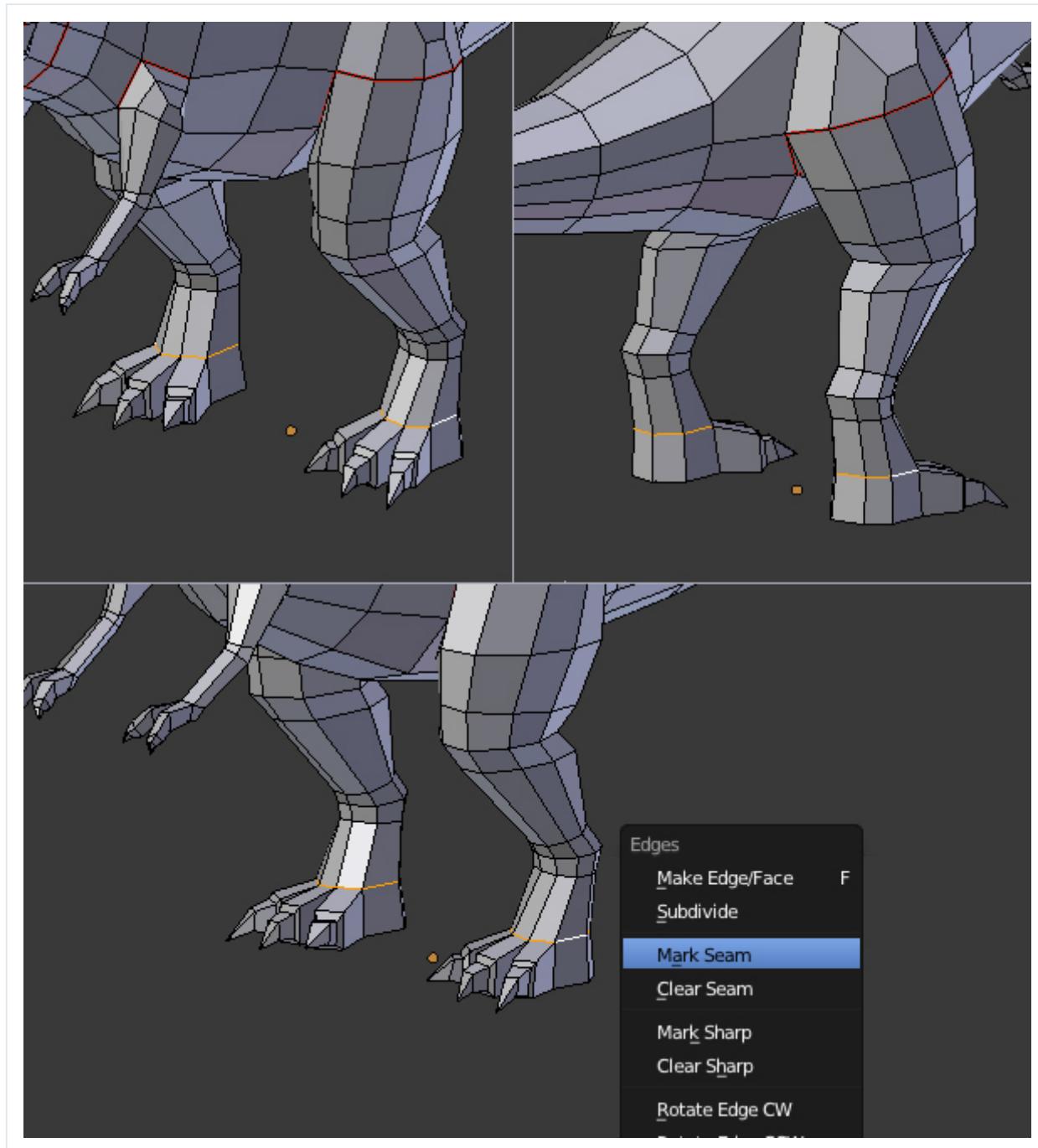


Advertisement

Step 6

Press 'A' to deselect all, and switch back to 'Edge' Select mode

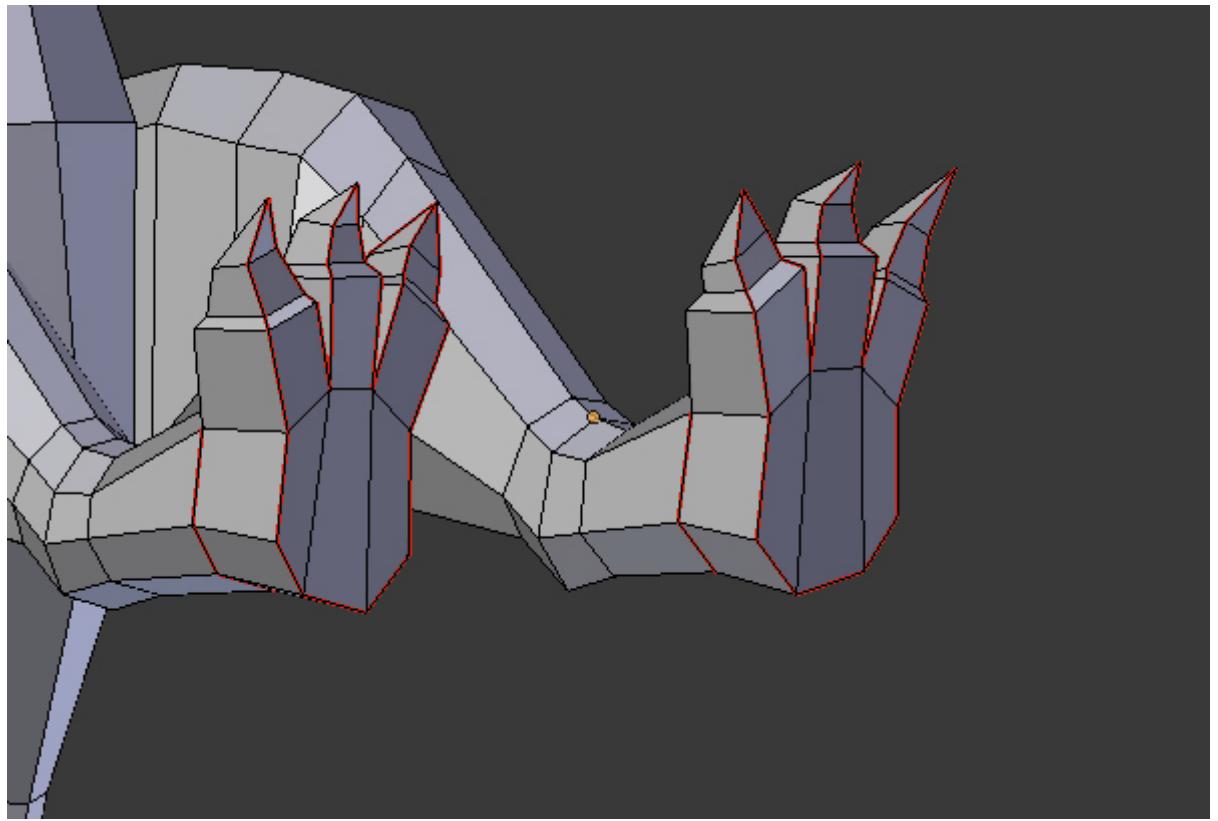
with **Ctrl+Tab**. Now we'll separate out the foot. So select the edges just above and around the foot and Press 'Ctrl+E' and then select 'Mark Seams'.



Step 7

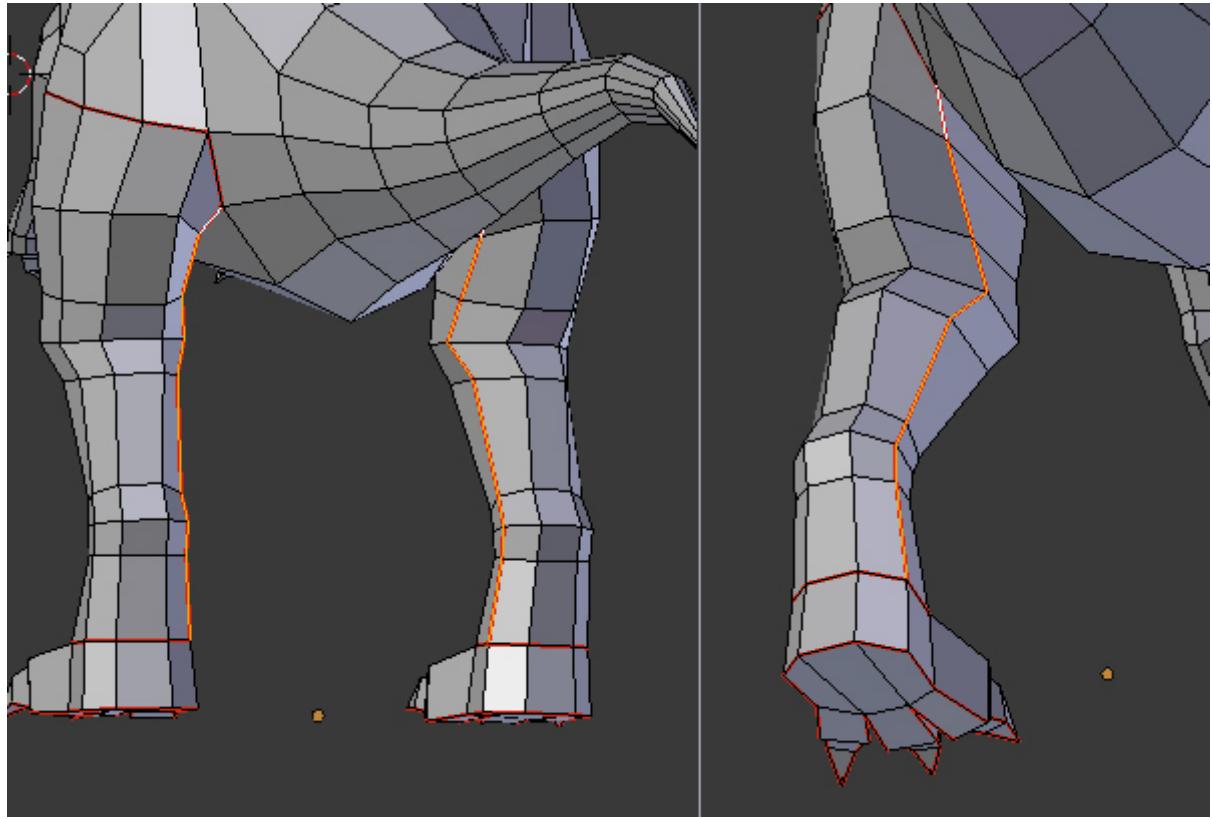
Select the Edges around the sole of the foot and mark them as

seams.



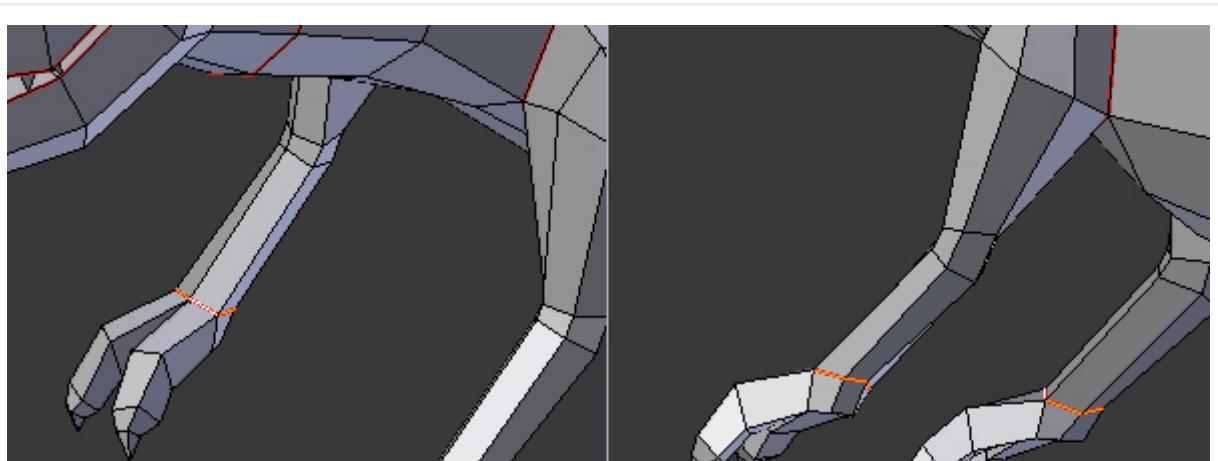
Step 8

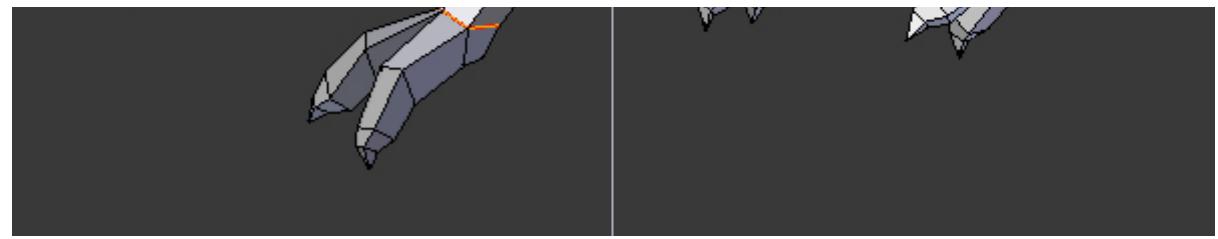
Now select the vertical edges on the inside of the leg, and mark them as seams. This seam should only be in the leg group, and should not cross the seams we marked above or below.



Step 9

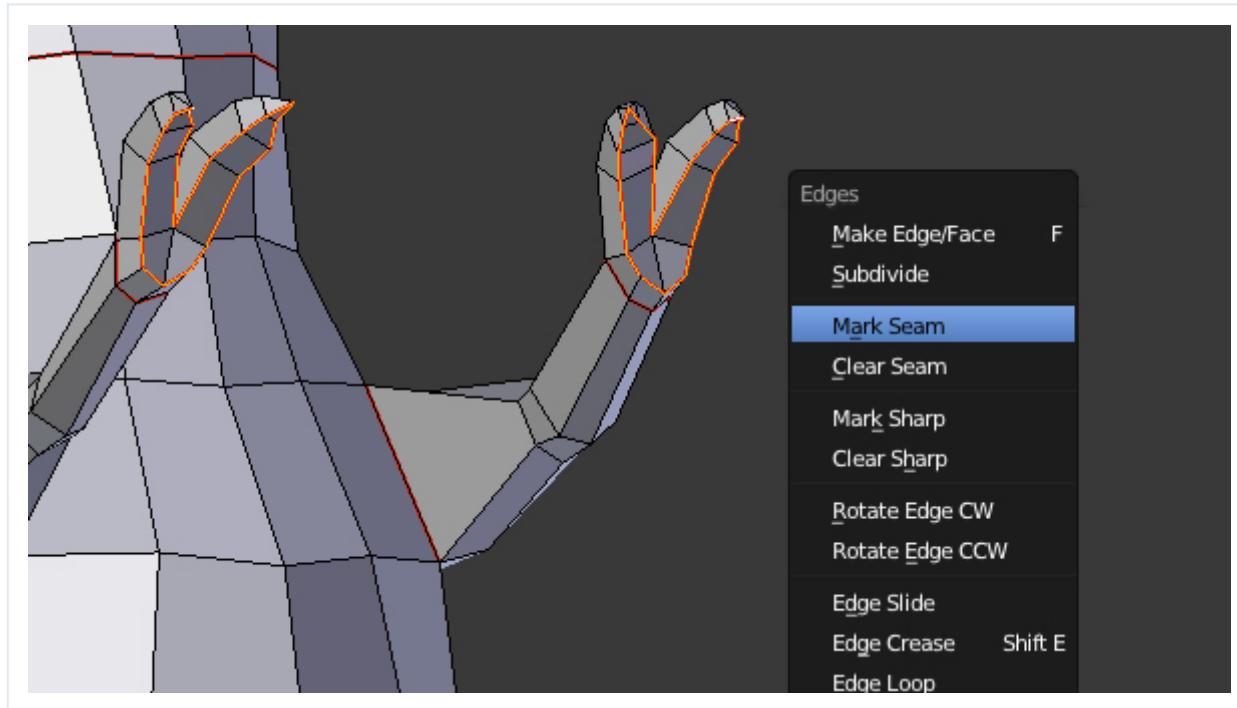
Now Mark the seams around the edge loop, just above the 'hand'.





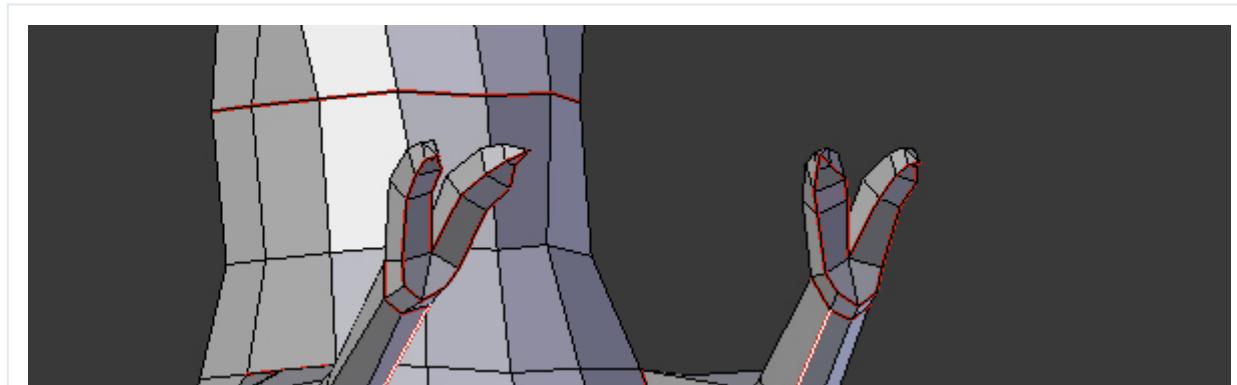
Step 10

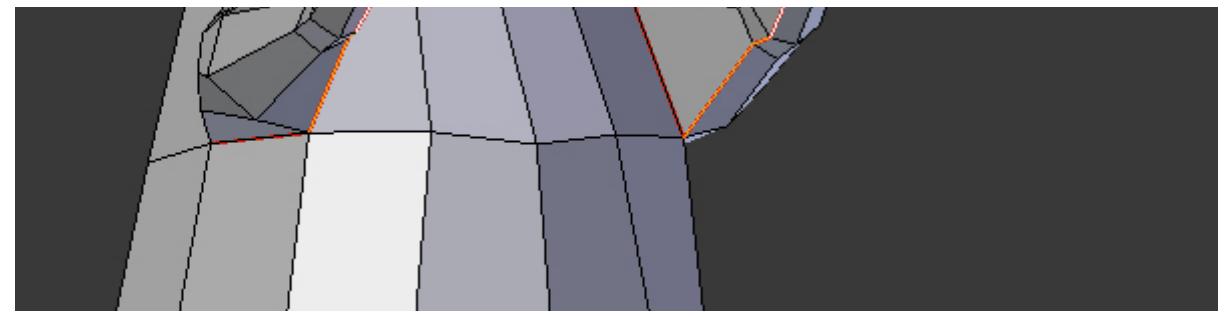
Do the same for the lower part, and separate the palm with a seam.



Step 11

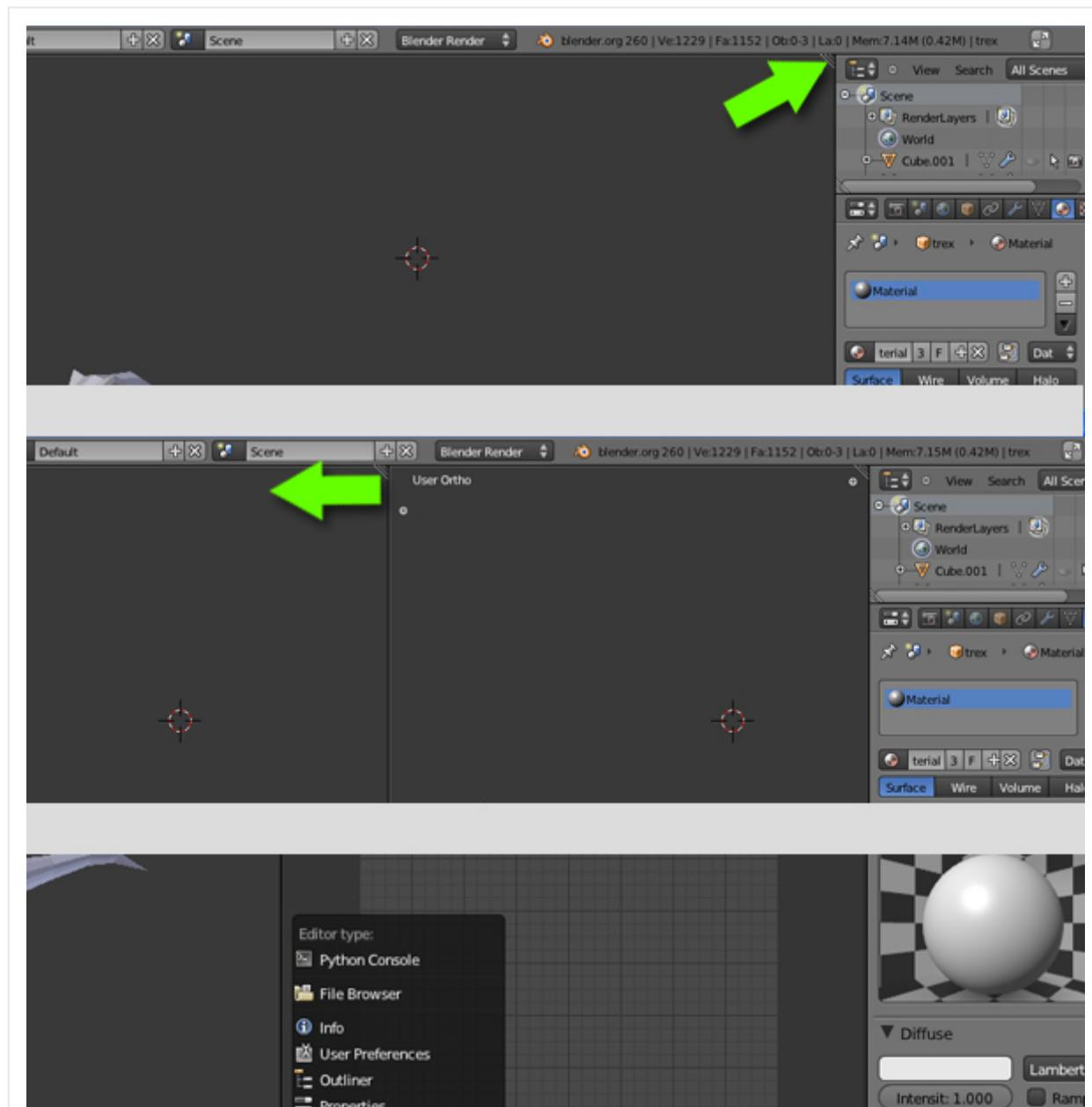
Mark the seam on the inside edges of the arm, as shown in the image. It should be on the back side of the arm.

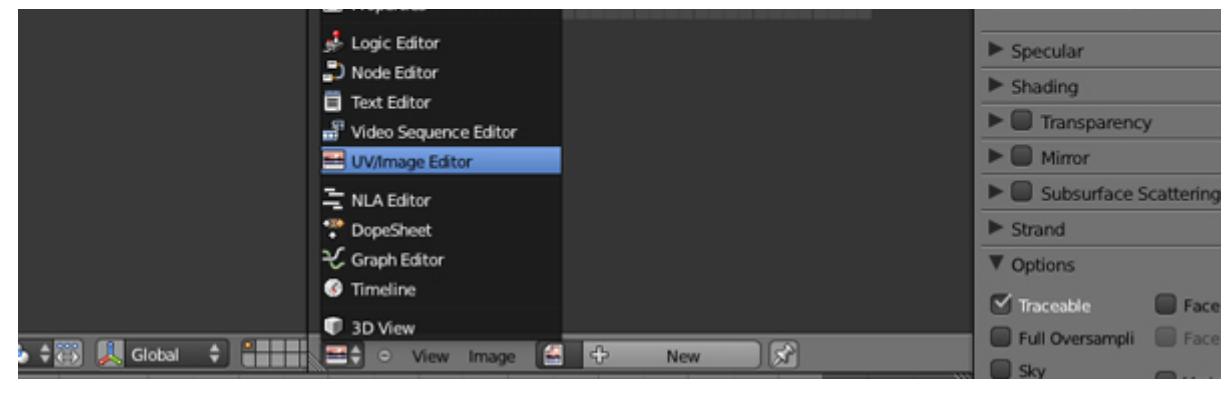




Step 12

Move the mouse over the 3D view's top right corner and drag to split the view into two. Click on the left most icon, in the new 3D view's Header (located at the bottom of the view), to bring out the Display Type Menu, and then select 'UV/Image Editor'.

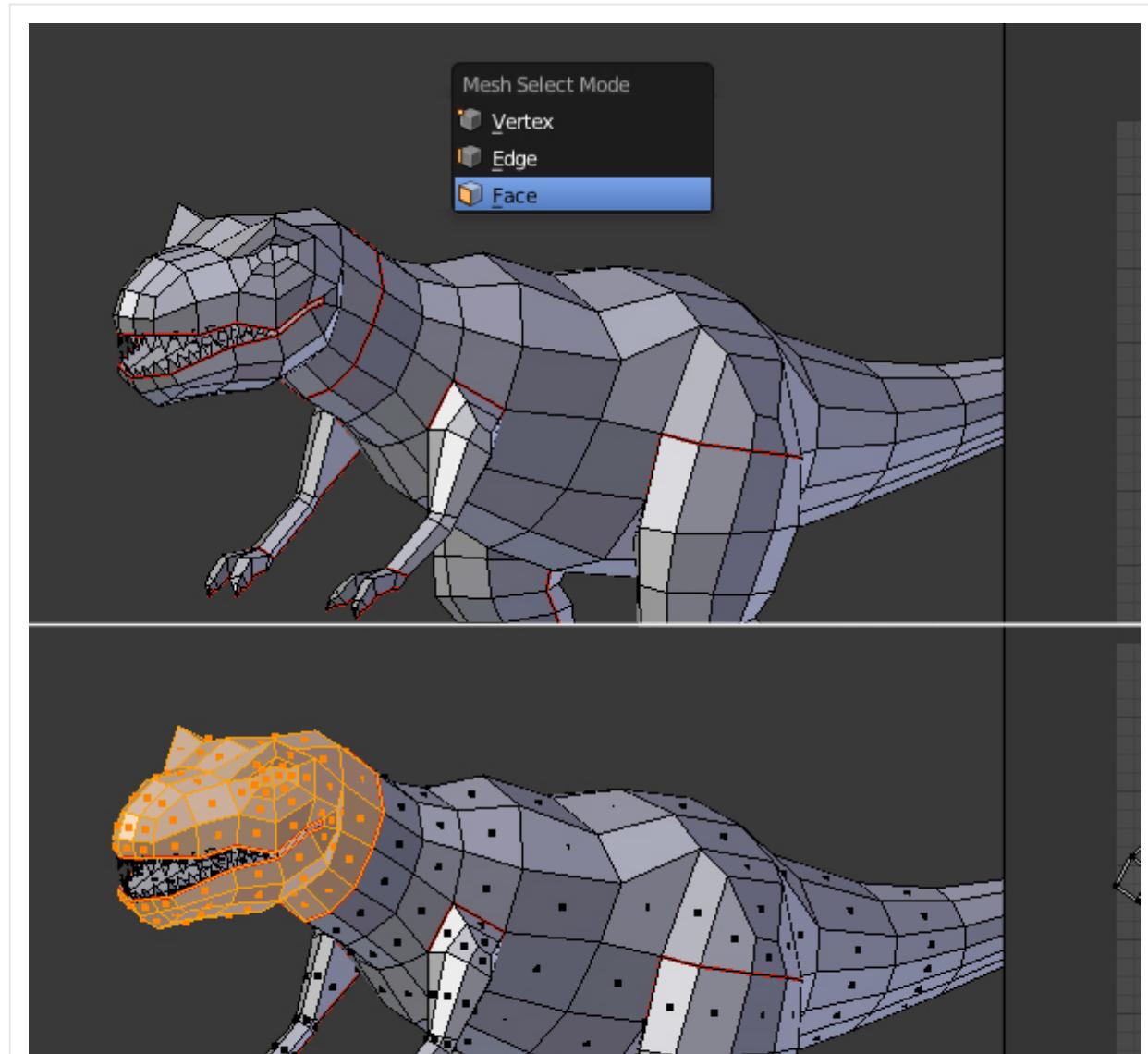


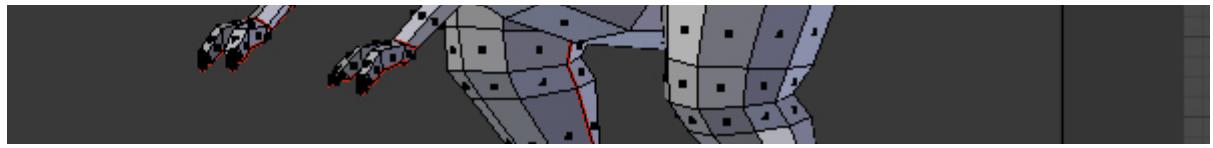


Step 13

Now we will unwrap the mesh. We can do it either by selecting the groups individually and then unwrapping them, or we can unwrap the whole mesh at once. Here we will practice both methods.

Press 'Ctrl+Tab' and select 'Face' select mode. Move the mouse over the head and then press 'L' to select only the head group.

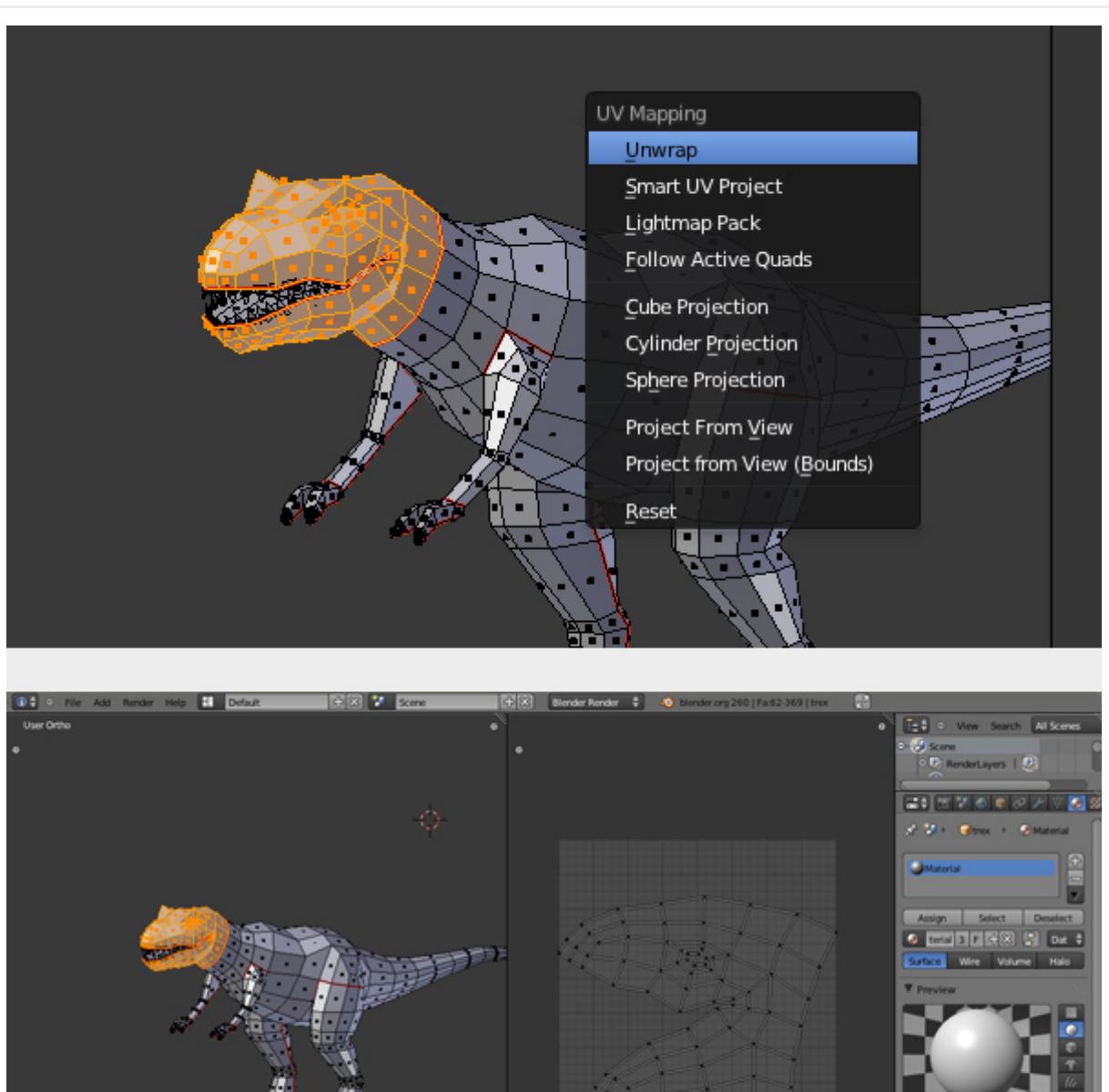




Step 14

With the head group selected, press 'U' to bring out UV Mapping Menu, and then Select 'Unwrap'. You will see that the Head is

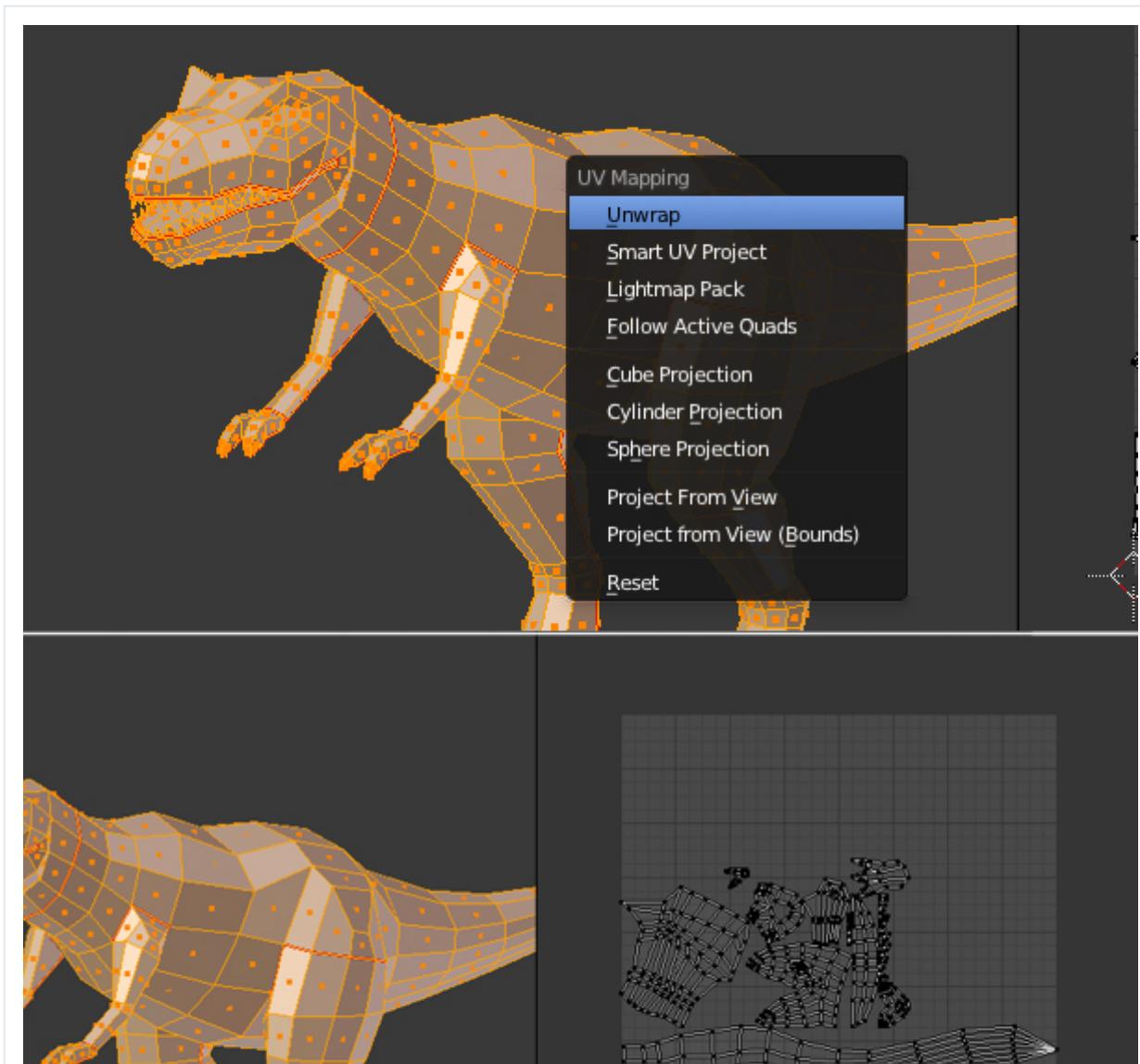
unwrapped on the UV area in the right viewport. We can only see one side of the head unwrapped because the other side (right) is being generated by the Mirror modifier. Just like editing the points on one side of the mesh, it's mirrored on the other side, similarly, painting on one side will also be mirrored on the right side.





Step 15

Now we'll unwrap the whole mesh at once. Deselect any faces with the 'A' key. Then press 'A' again to select all the faces. Press 'U' to bring out the UV Menu and select 'Unwrap'. You'll see that the whole mesh is being unwrapped at once. You can choose any method you want - either unwrap the groups individually or all at once. Then Save the file.





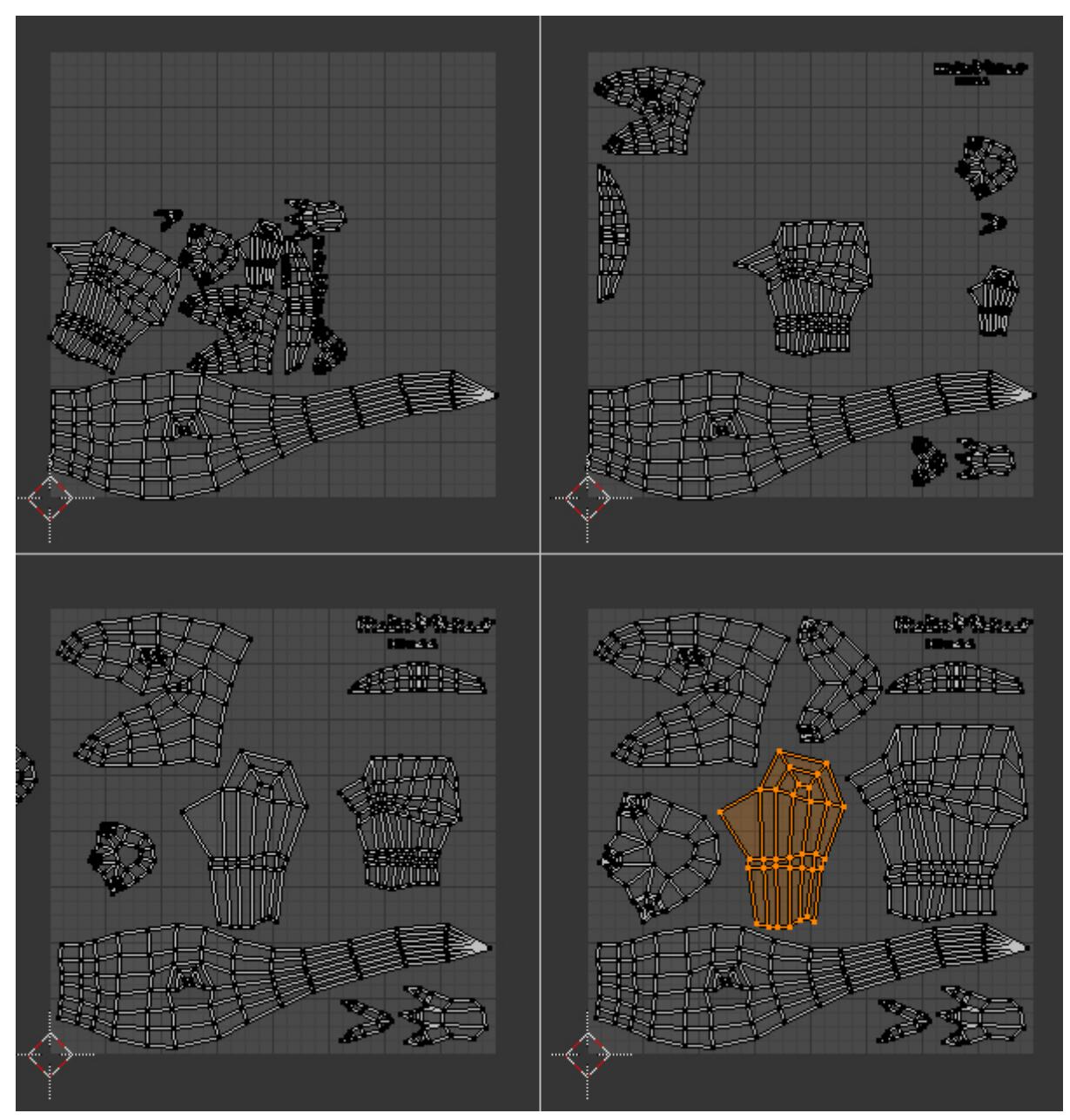
Step 16

With all the faces selected, re-arrange all the groups or 'islands' in such a way that they perfectly fit the UV Area. Only selected faces

will appear in the UV editor, so make sure you have all the faces / points selected in the 3D view. The commands are:

- Select a group - Mouse over and press 'L'
- Select vertices - 'C' for cursor, 'B' for box select. Right click to select one point, Hold Shift and then Right click for multiple select.
- Alt+Right Click for Loop select.
- Toggle Select all / Deselect all = 'A'
- Move = 'G'
- Scale = 'S'
- Rotate = 'R'
- Zoom in / Zoom out = Mouse wheel.
- Pan = Shift+Middle mouse button + drag.

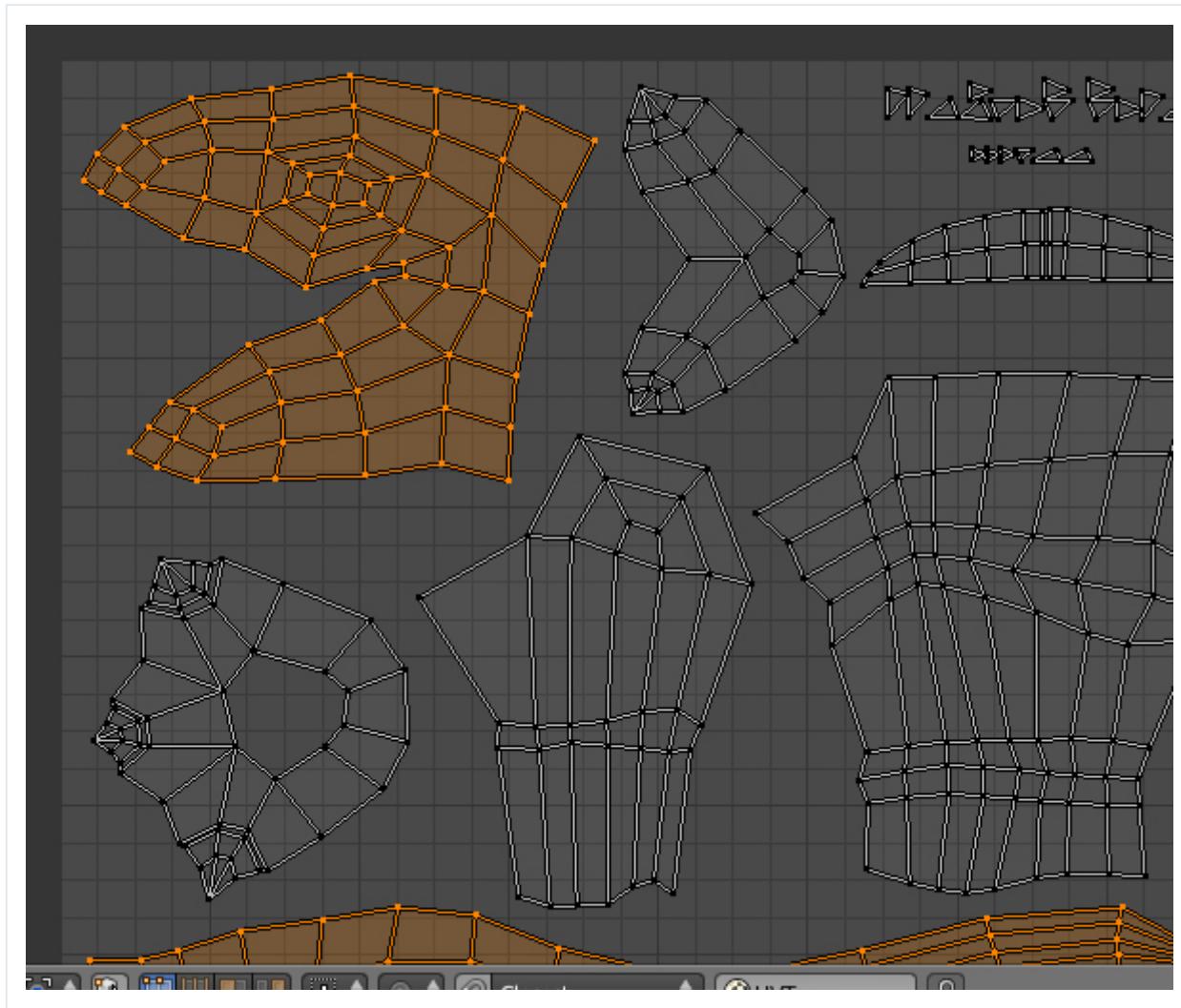
Of course there are more commands to learn but these will do for now. To maximize the UV Editor, move the mouse over the UV Editor and press 'Ctrl+Up Arrow'. Press Ctrl+Up arrow to toggle back.



Step 17

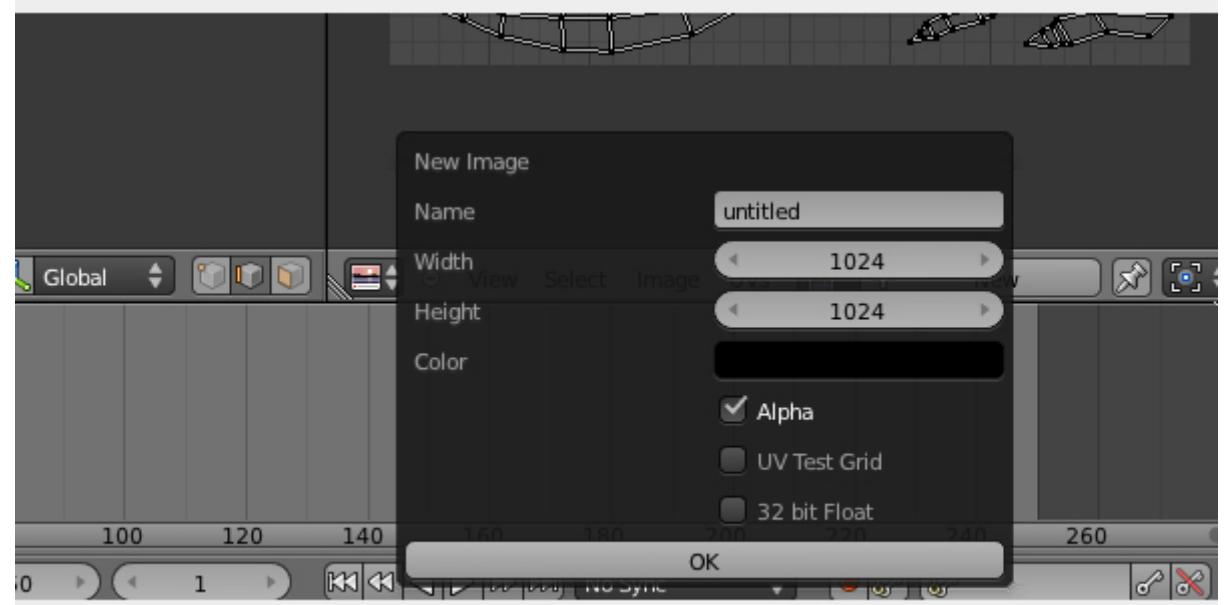
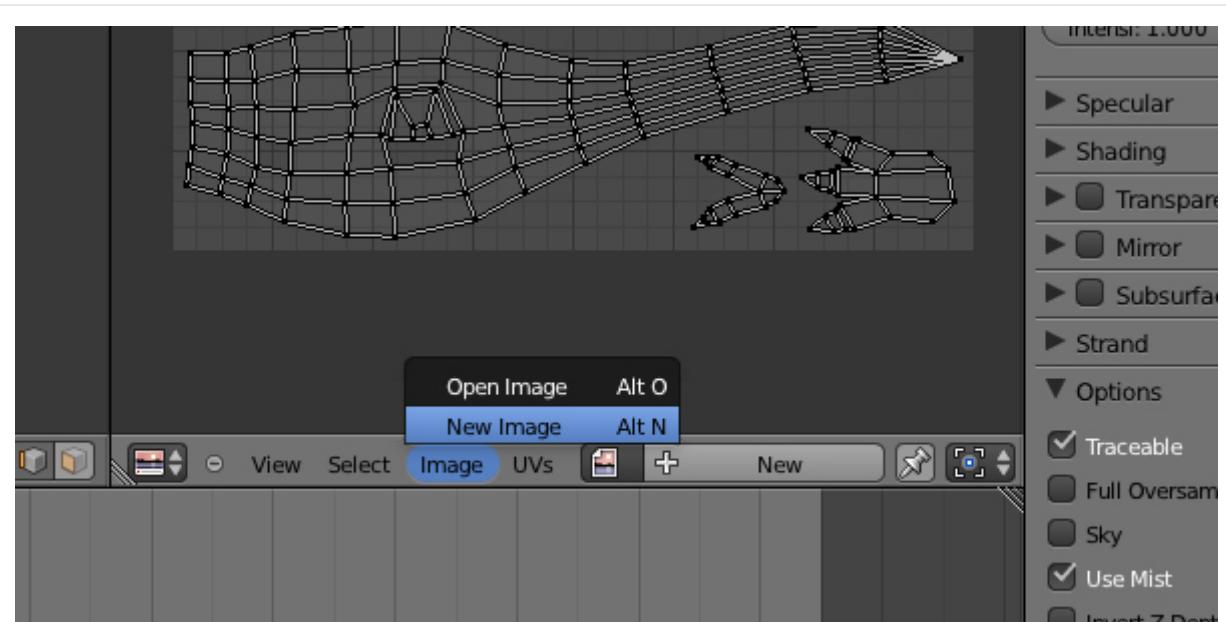
I have ease out the head a bit so that the vertices are not congested around the eye area. Select the head group and press

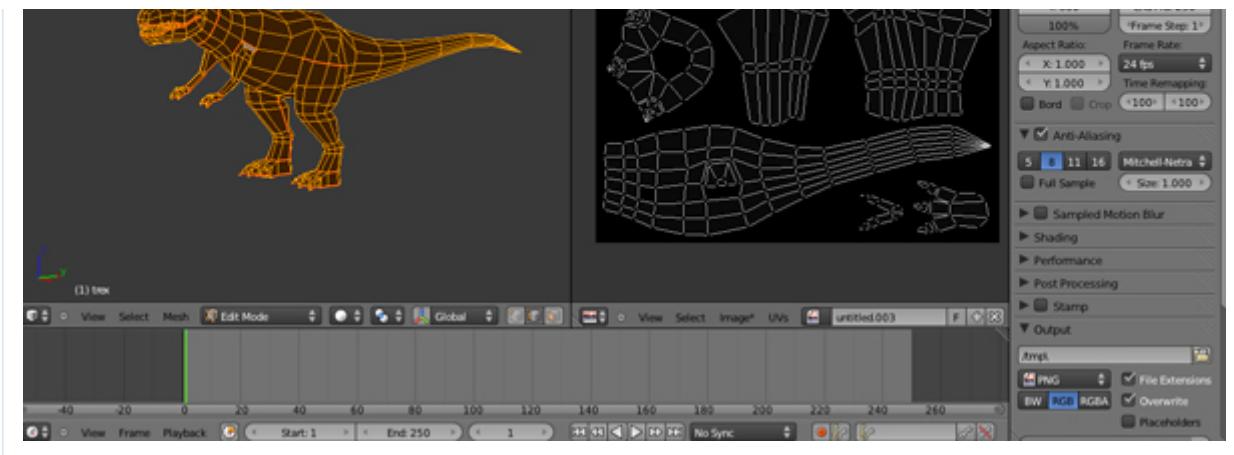
'Ctrl+V' to ease it a bit, Left click to confirm. You can also spread it out manually.



Step 18

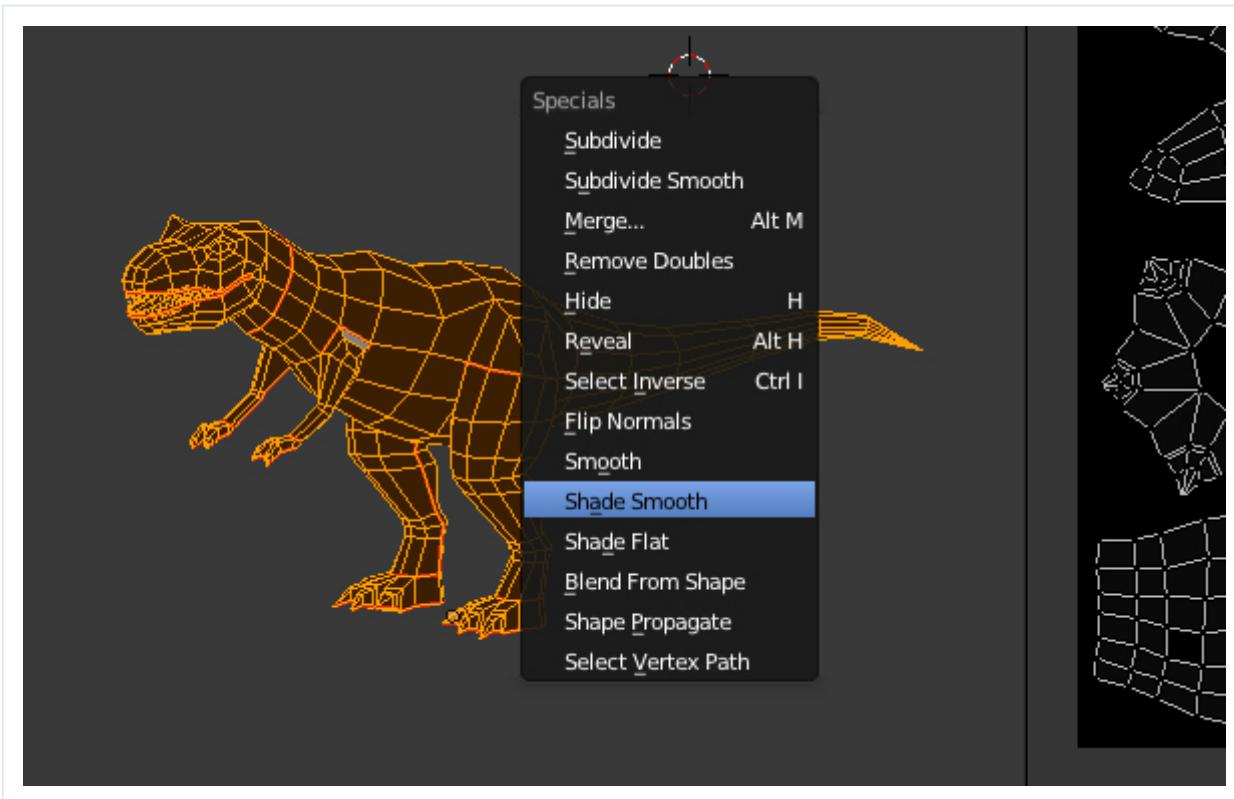
Now in the UV Editor add a new image. We will use the default dimensions.





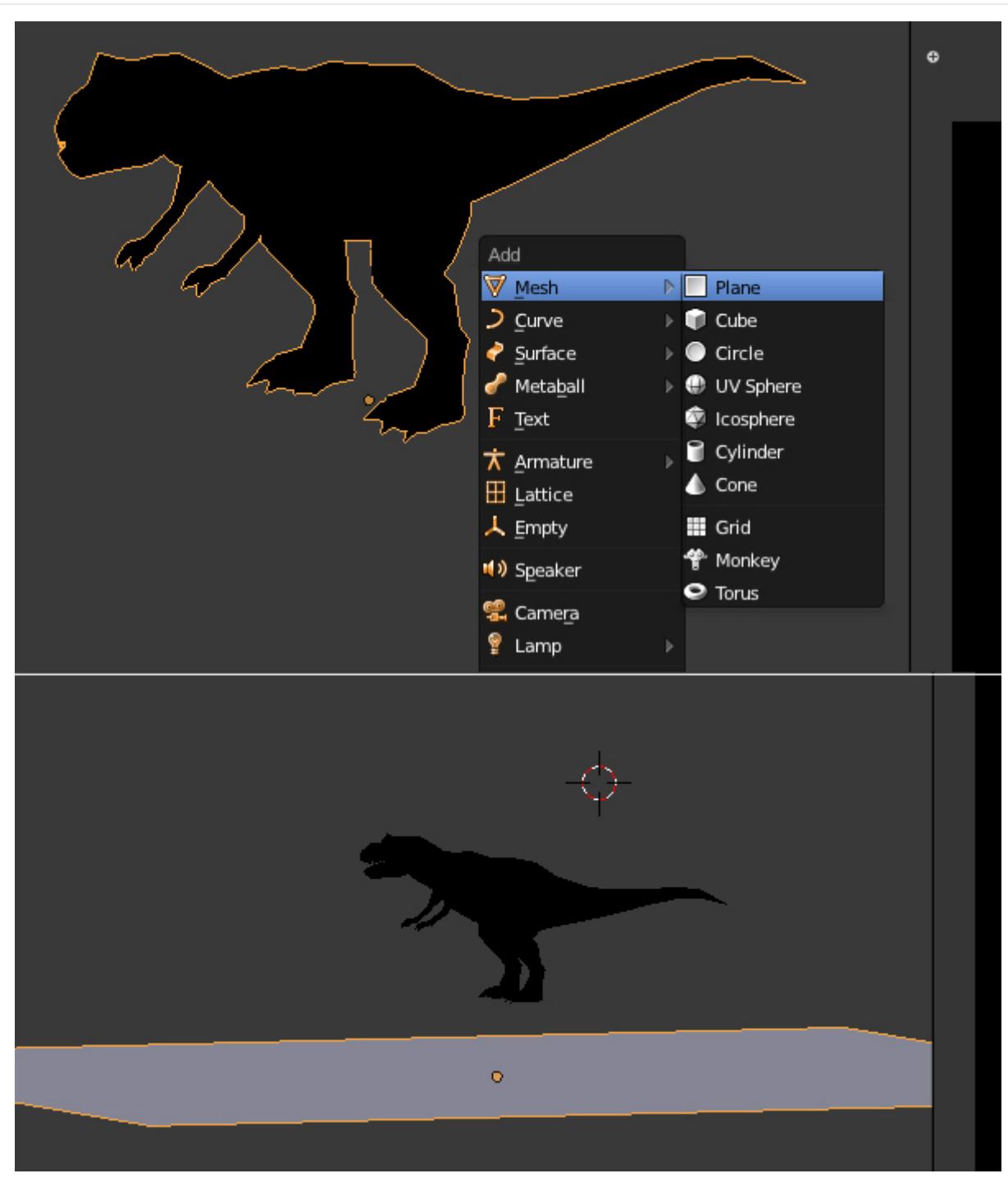
Step 19

Select all vertices and press 'W' and select 'Shade Smooth'. Press 'TAB' to exit edit mode.



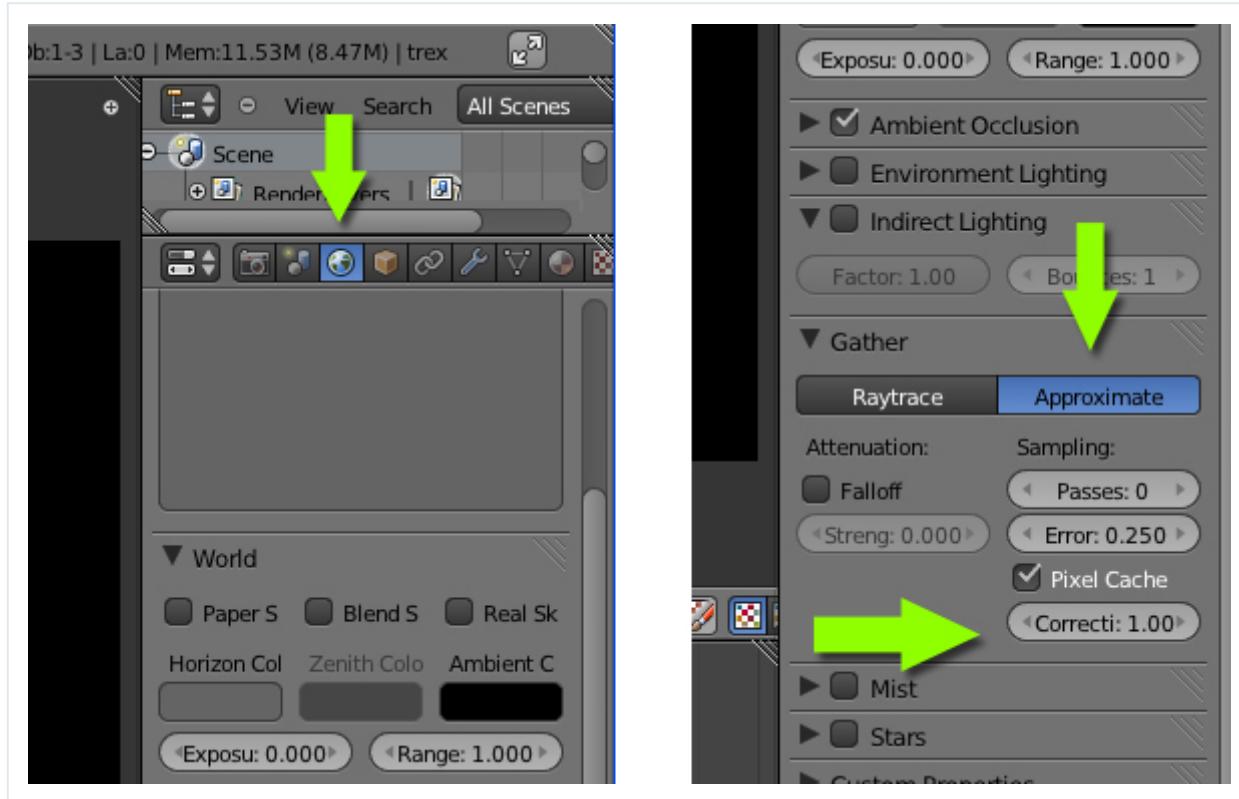
Step 20

Add a plane below the T-Rex model (not too close). This will prevent light from coming from below, and help achieve nice shades to bake the AO data (in the next step).



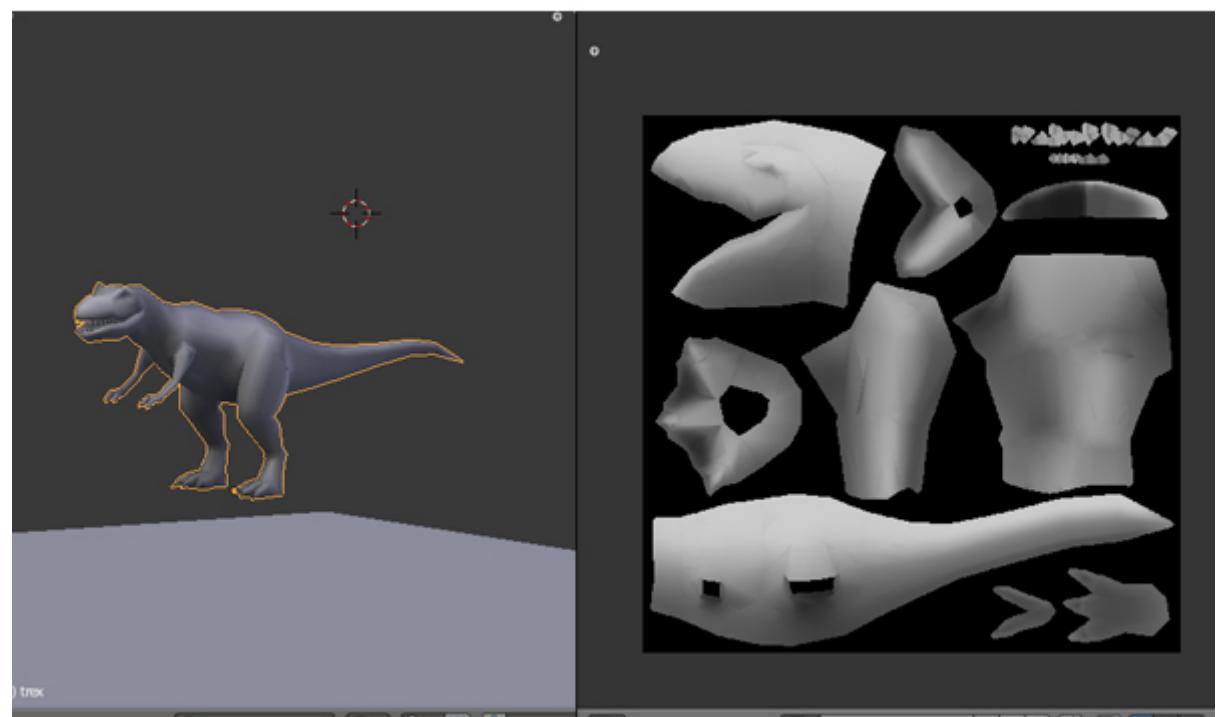
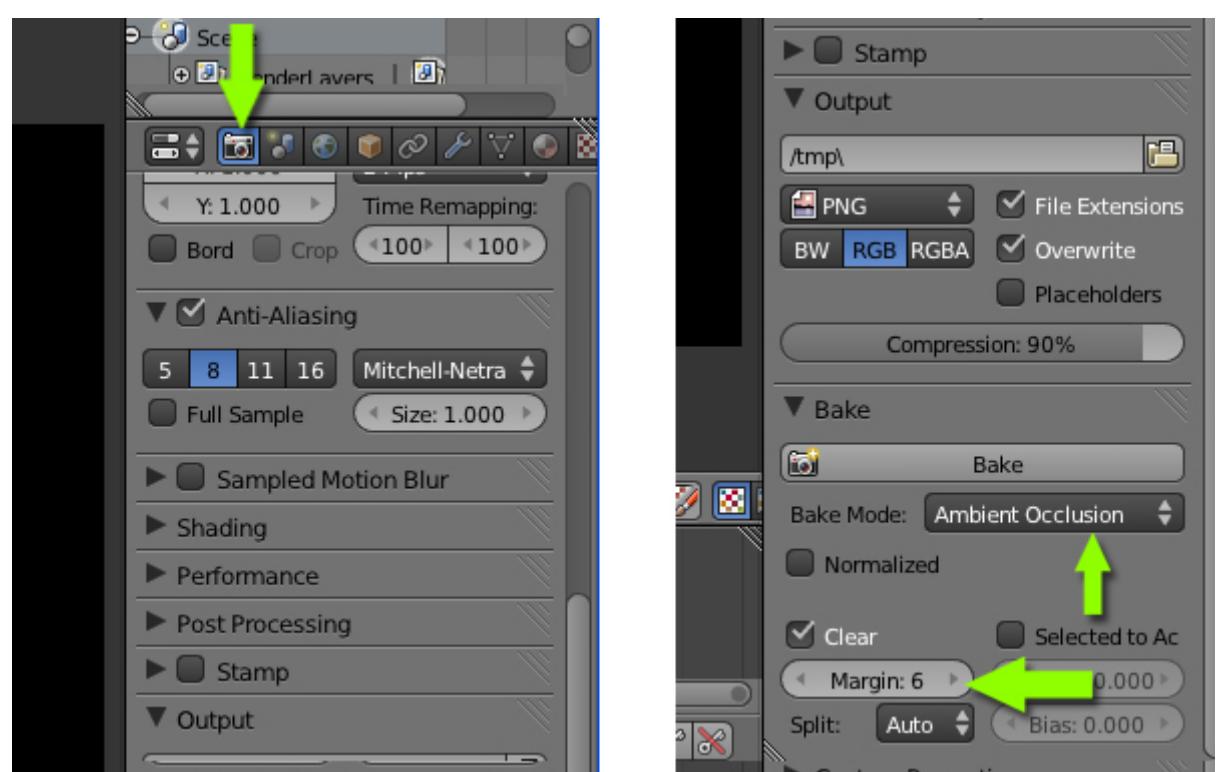
Step 21

Now we'll bake the Ambient Occlusion data onto the image. This will add shadow information, giving a nice effect. Click on the 'World button' on the Properties Panel. In the 'Gather' panel, turn on 'Pixel Cache', pull up the 'Correction value to 1' and switch to 'Approximate'.



Step 22

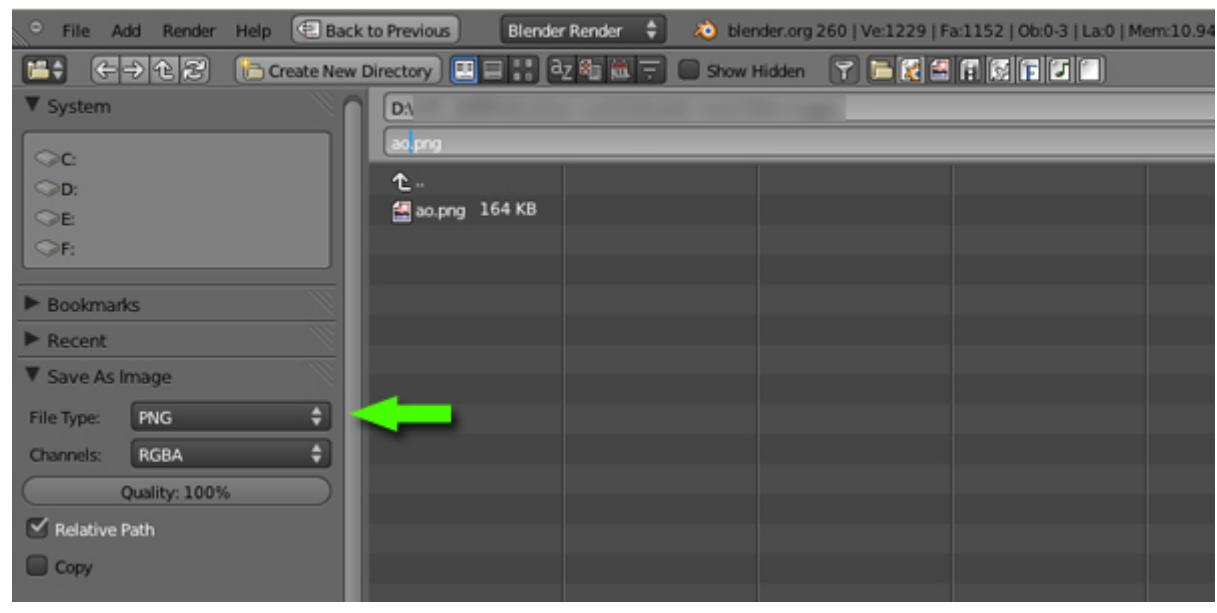
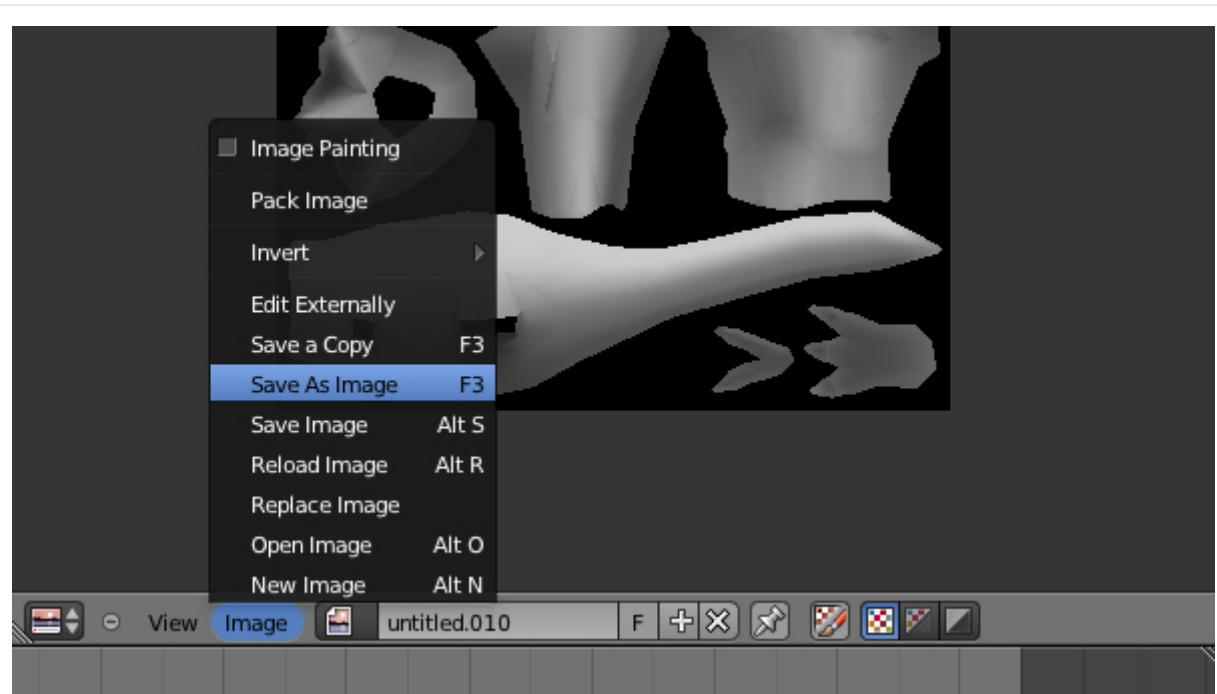
Right click and Select the T-Rex model. Open up the Render Panel in the property window. Scrol Down to the 'BAKE' Panel and change the 'Bake mode' to 'Ambient Occlusion'. Increase the Margin to 6, and click on the 'Bake' button. It'll take few seconds, and the image will be updated. In the 3D View, Press 'Alt+Z' to view the model with the texture applied. Use 'Alt+Z' again to toggle back to shaded view.





Step 23

Save the new image. Choose your desired format and directory.

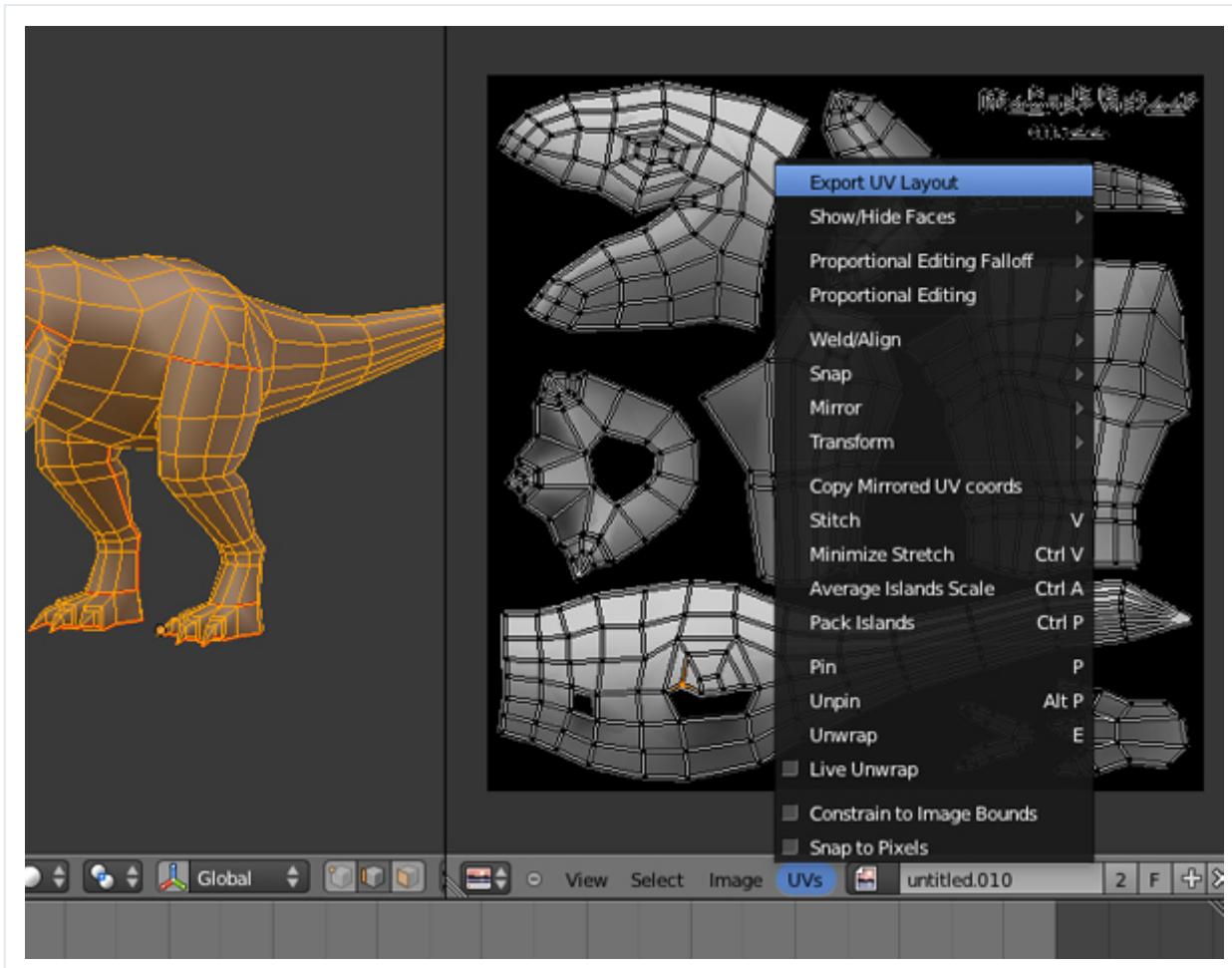


Step 24

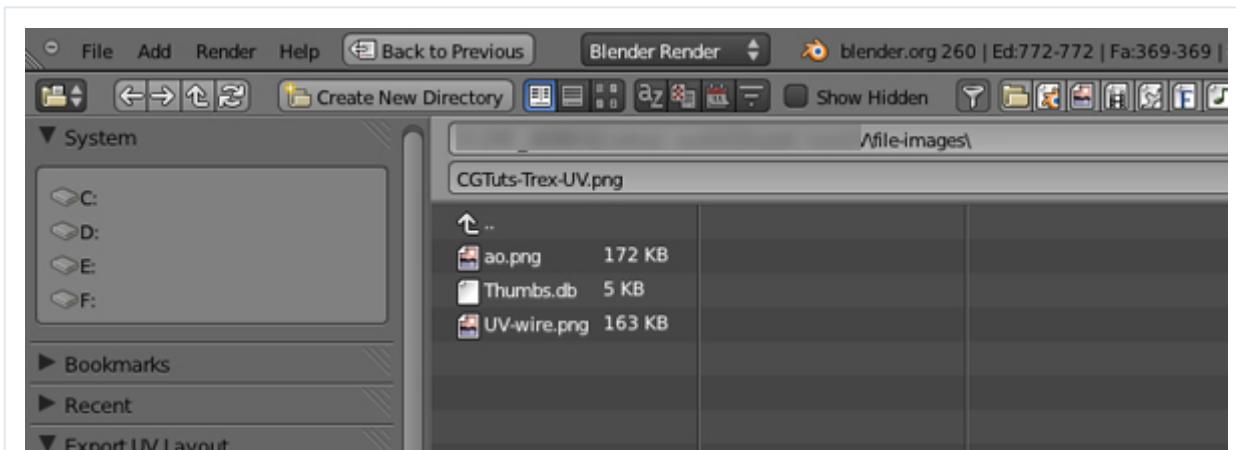
While in the Edit mode select all the vertices of the T-Rex model

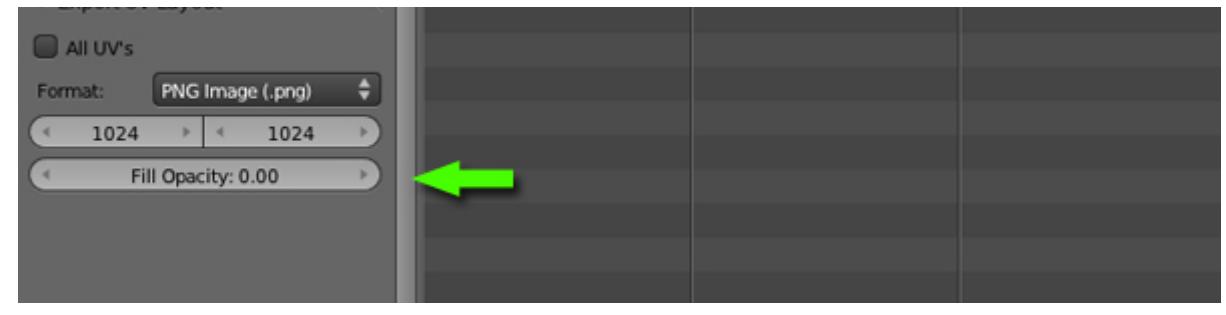
While in the Edit mode, select all the vertices of the T-Rex model.

And in the UV Editor, click on the 'UVs' Menu and select 'Export UV Layout'



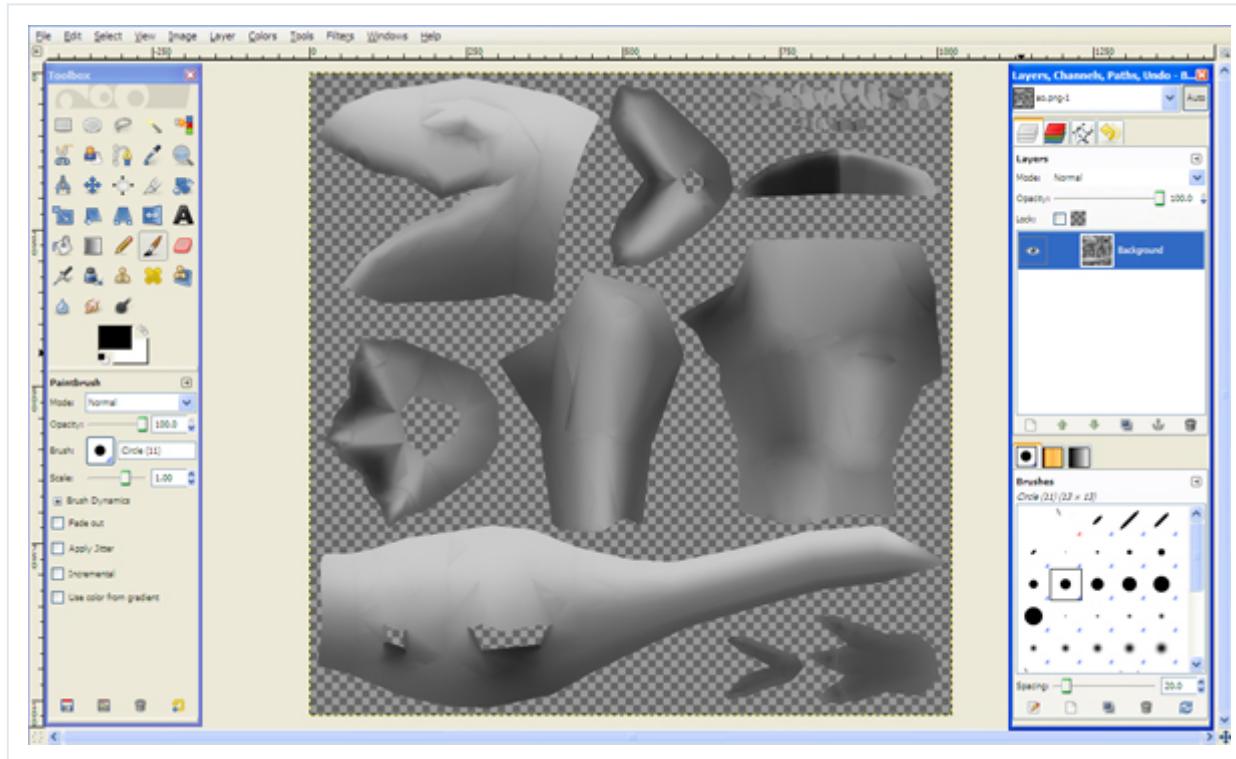
Select 'PNG' Format and decrease the 'Fill Opacity' to 0.00.



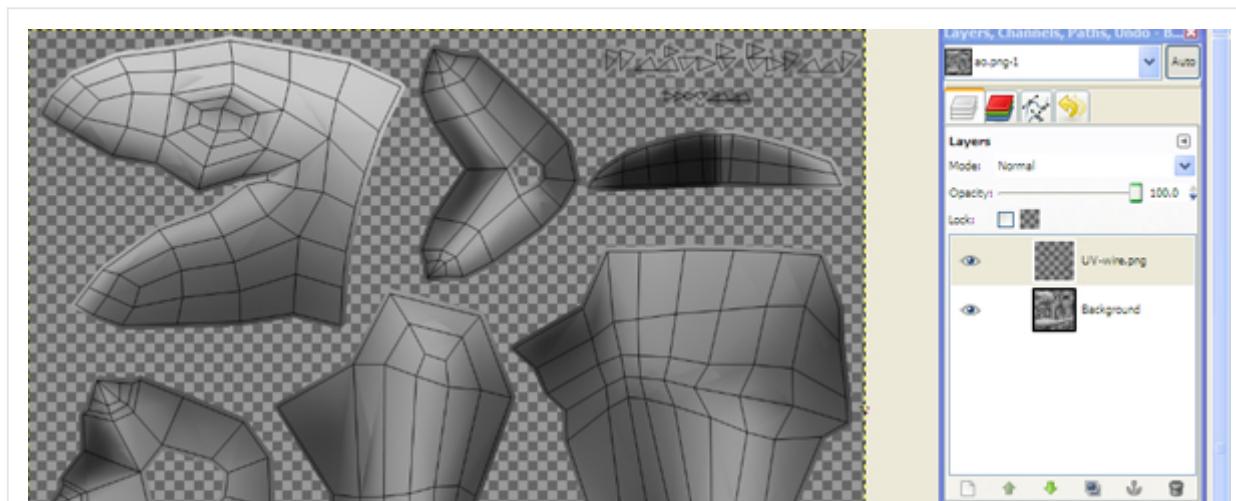


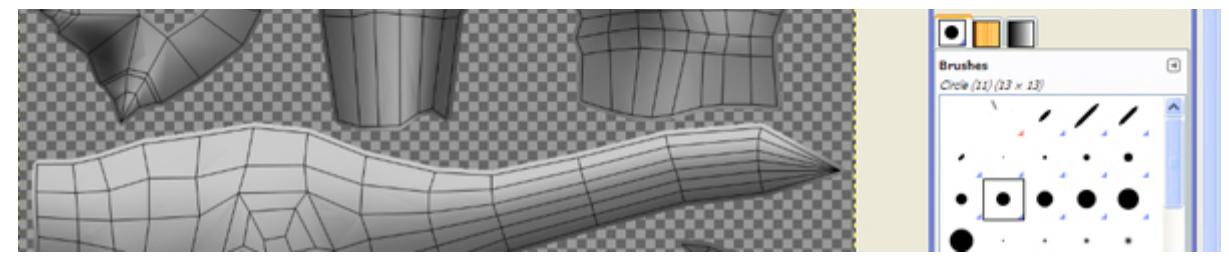
Step 25

Open the image with the Baked AO data, in your favorite image editor.



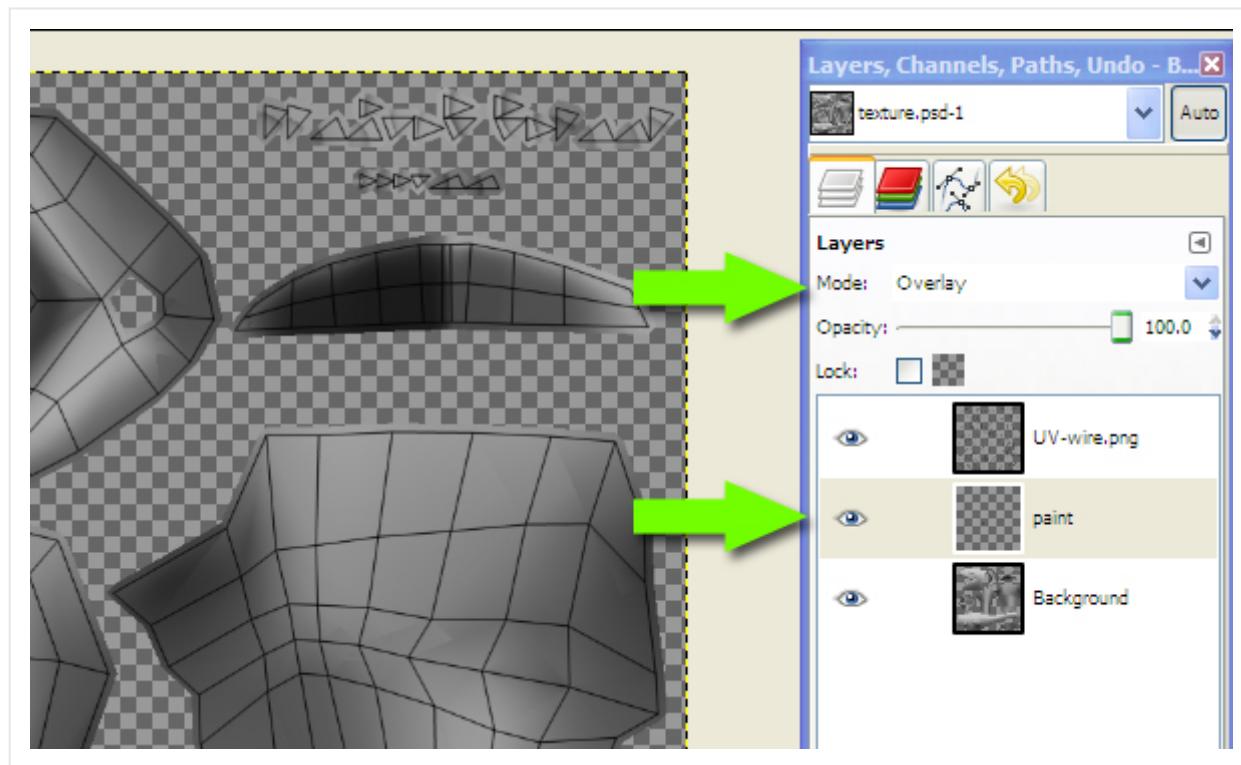
In a new layer on top, put the UV Layout we exported in step 24.





Step 26

Create a new layer in between the wire (UVs) and the AO layers. This will be the layer on which you can paint the texture. You can create more layers for painting, but always keep them between the Wire and AO Layers.



Step 27

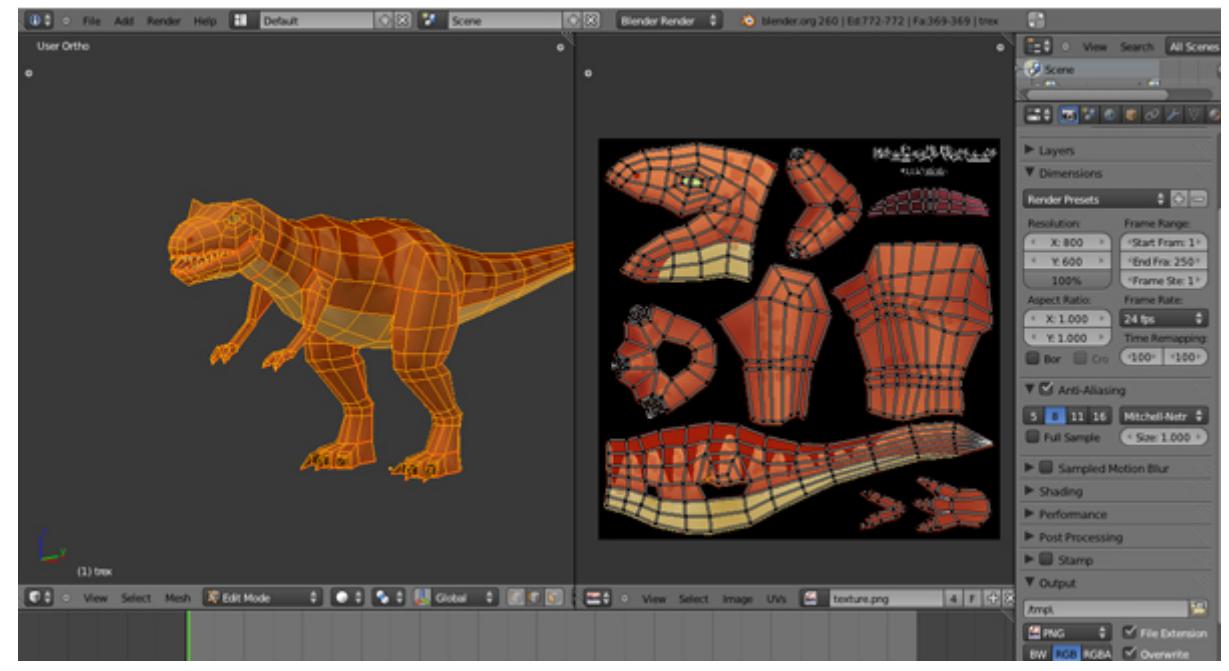
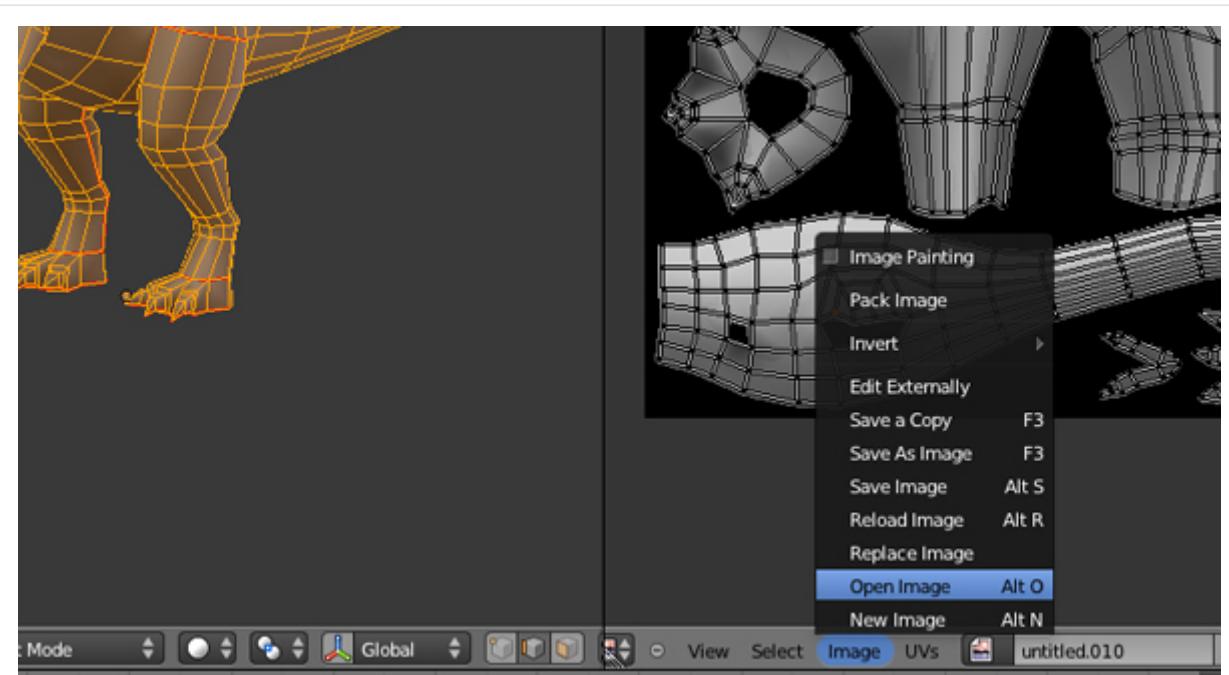
Paint the texture with the Wire frame as guidelines. Set the paint layer's Blend Mode to 'Multiply', 'Hardlight' or 'Overlay'. You can experiment with the transparency levels. We see that the AO layer automatically gives a nice shade to the overall texture. Once you have the texture completed, Save the image in '.PSD' format. Remember to Turn off the layer visibility for the Wire layer (UVs), and export the texture in

'.PNG' format.



Step 28

Now back in Blender with all the Verticies of the T-Rex selected (in 'Edit' mode), open your exported .PNG image, in the UV Editor.



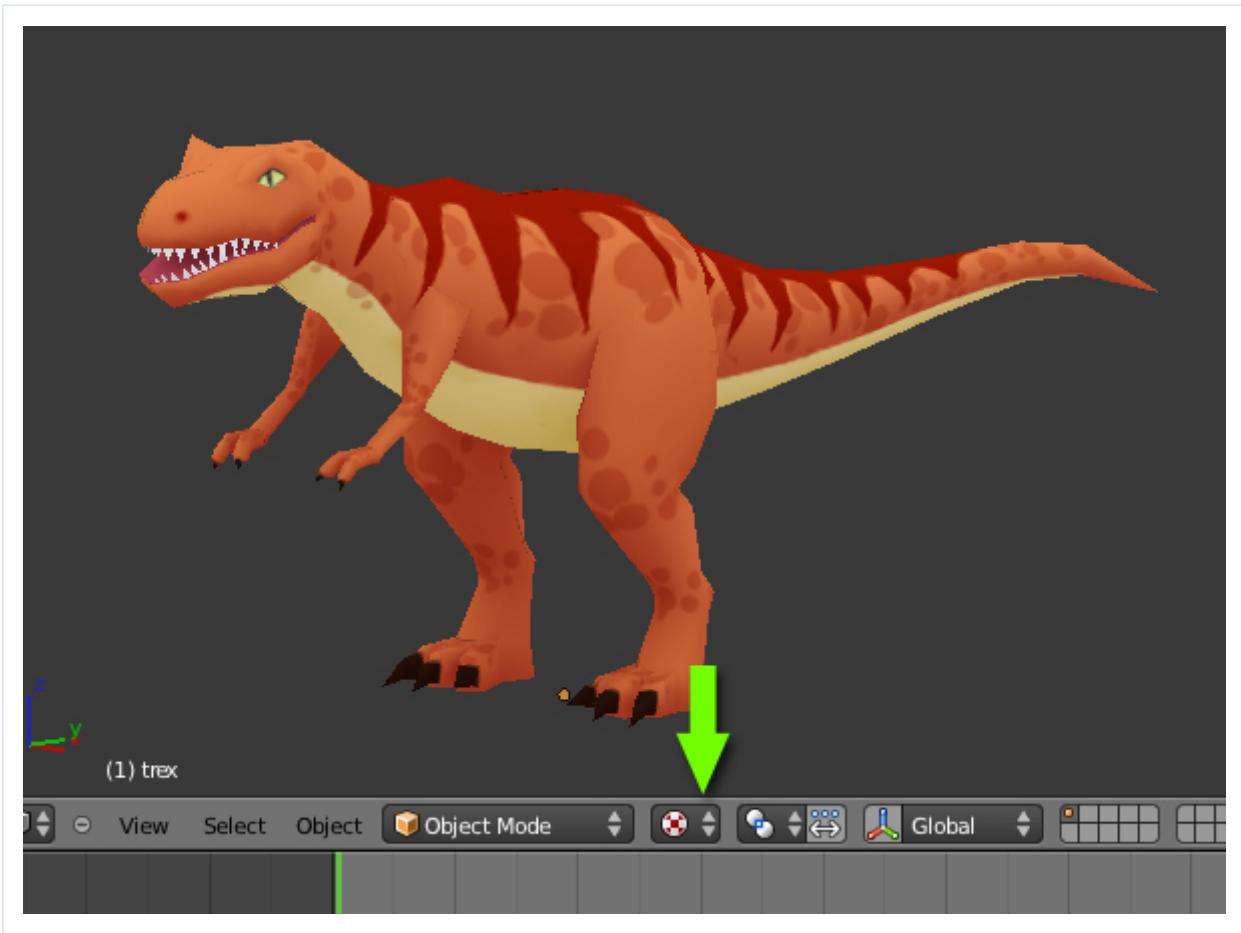
Step 29

In the 3D view, press 'Tab' to exit 'Edit' mode and toggle back to

In the 3D view, Press 'Tab' to exit Edit mode and toggle back to 'Object' mode. If you don't get a preview of the model with the texture. Press 'N' to bring up the View Properties, scroll down to the 'Display' Panel and turn on 'Texture Solid'.

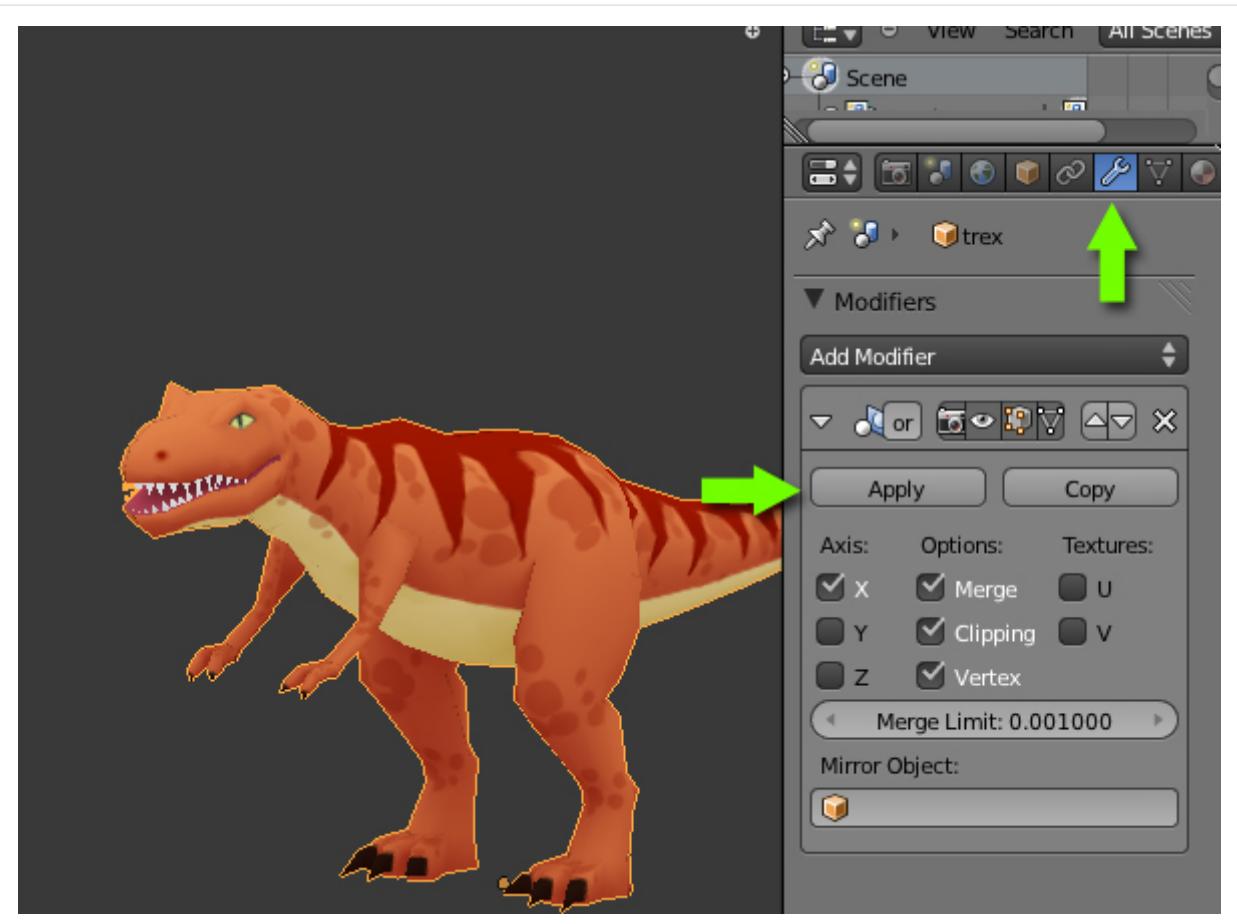


Also you can toggle 'Texture' View with 'Alt+Z'. This will display the object with only textures, and no other internal shading information.

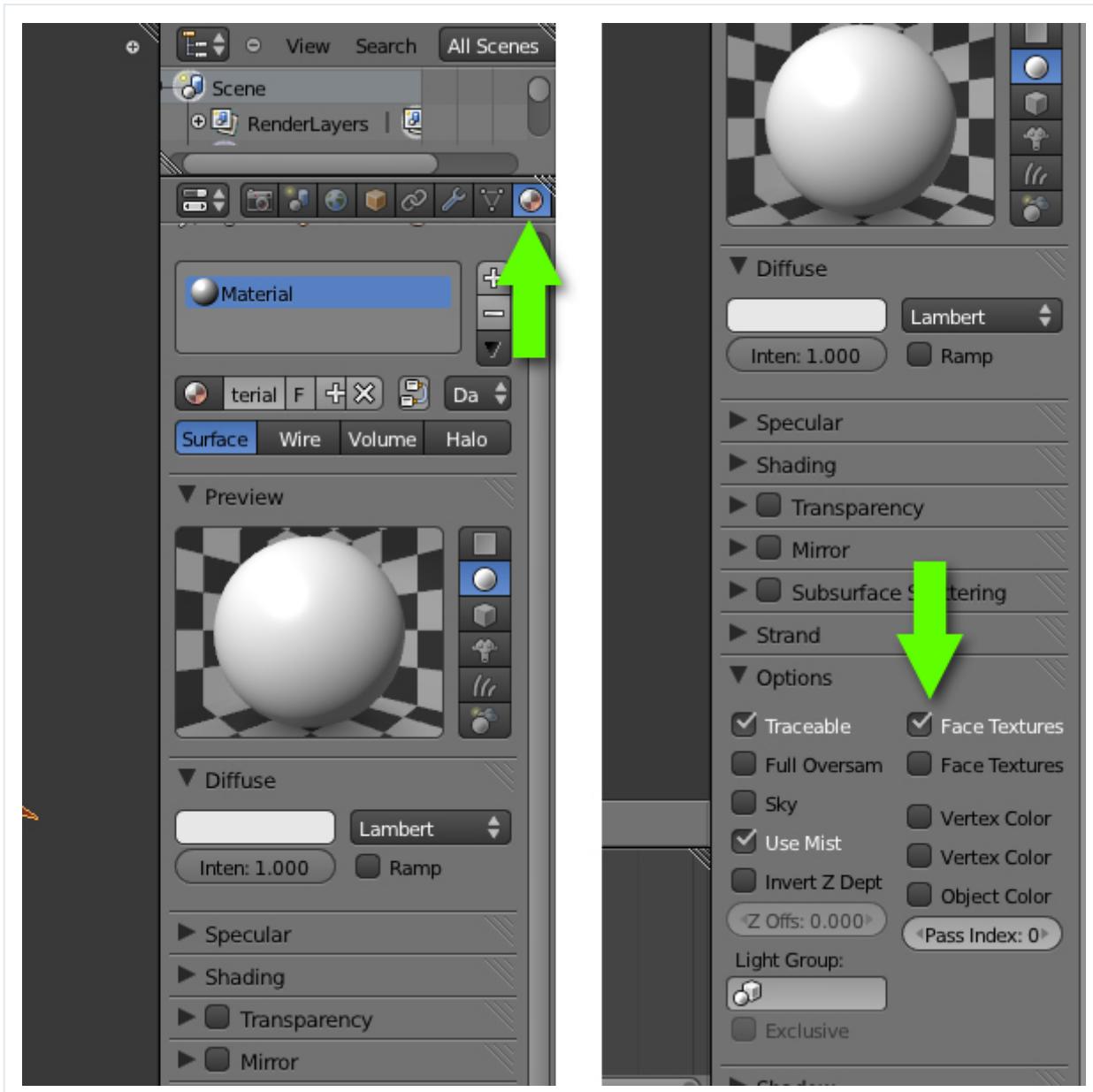


Step 30

Go to the Modifiers panel and press 'Apply' in the 'Mirror' modifier.



In the Materials Panel, scroll down to 'Options', and check 'Face Textures'.



And now the model is now ready for use!



Related Tutorials:

- [Modeling, UVmapping And Texturing A Low Poly T-Rex In Blender, Part 1](#)
- [Character Modeling in Blender](#)
- [Model, UV, and Texture a Complete Manga Character in Blender](#)
- [Re-Topologize a Game-Ready Alien Head in Blender](#)
- [Sculpt, Model and Texture a Low-Poly Skull in Blender](#)



Karan Shah

Karan Shah is a 3D Artist and Animator from India. He is a BFA Graduate with specialization in sculpture. An inclination towards the digital medium made him a self taught computer artist. He is currently freelancing..

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Mark Harrison

6 years ago edited



Great tutorial. Finished it and also made a Triceratops to go with it.

<http://mhazza.deviantart.co...>

3 ^ | v Reply



Gerardo Bevilacqua

4 years ago



Acabo de terminarlo. Muchas gracias por el tuto!

[View](#)

1 ^ | v Reply



mafon2

5 years ago edited



BTW, hands position's wrong. Dinos are clappers, not slappers.

1 ^ | v Reply



kryptoraptor

6 years ago



Wow, thanks for that great tutorial.

I made the T.Rex, then, with similar technique, I made a triceratops, and at last, a malayan tapir.

Links:

[View](#) – disq.us

[View](#) – disq.us

[View](#) – disq.us

[View](#) – disq.us

[View](#)

[View](#)

1 ^ | v Reply



T. Only

2 years ago



Hey Karan!

It was fun and nice tutorial. Thank you!

Here's my result [View](#) – uploads.disquscdn.com

^ | v Reply



tigris115

3 years ago



What if I wanna add transparent alphas to give the illusion of feathers?

^ | v Reply

[tigris115](#)

**ugris115**

3 years ago edited



Never mind

^ | v Reply

**Tim Mansheim**

5 years ago



Great tutorial! I named my T-Rex Trevor.

^ | v Reply

**Dan**

5 years ago



Thank you so much for making such a great tutorial!

^ | v Reply

**mafon2**

6 years ago



One day i'll make my 3d-dino

^ | v Reply

**mike**

7 years ago



Thank you so much for this. Im already ok with modeling in blender but texturing was killing me. This has really helped.

^ | v Reply

**Terry Morgan**

8 years ago



Thanks, that was great, but I can't get the ao baking going on another model.

Here's my dino

<http://terrymorgan.net/imag...>

I even did the texture in Gimp.

^ | v Reply

**vtk**

8 years ago



I did it! Thank you very much for this great tutorial!

^ | v Reply

**Nunud**

8 years ago



Excellent tutorial! Concise and to the point! Thanks man!

Here's my dino... As you guys can see, I've made a couple of mistakes, but since this is my first attempt ever at UV painting, I'm pretty happy with the result: "<http://imgur.com/a/gs8Jy#0>"

^ | v Reply

**felix**

8 years ago



Very much enjoyed this tute, I've been trying to get my head round UV unwrapping for ages, thanks.

PS my attempt is here: <http://screencast.com/t/XZw...>

cheers!

 **Joey**
8 years ago



Wonderful tutorial. I have done dozens of tutorials and this is one of the very best. Please make more for beginners. Your instructions and pictures are short and to the point with nothing extraneous.

For my purposes, I had to map the image onto the UV but I finally got that to work.

Thank you very much

Joey

 **Nurby**
8 years ago



Thank you very much for this useful tutorial. Better than a video, every important step is described.

 **Bryan Vivas**
8 years ago



Great! here's my result.

[http://bryansvt92.deviantar...](http://bryansvt92.deviantart...)

 **ff777**
8 years ago



Great, this is my first try, and I have really appreciate this tutorial.

 **Michael A.**
8 years ago



finished mine just now, thank you for the great tutorial

Check out my result on my dA page ;)

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