Symmetry and SubPatches

Creating organic shapes
Welcome again, I’d like to go over utilizing the symmetry option while helping you to create organic shapes. This is an extremely useful tool when having an element in a model mirrored is essential. Let’s begin!
Human torso

First, we’ll box model a torso and then extrude limbs as we see fit.

What I’ll do is supply you with screenshots of the created models as following them isn’t necessary, but merely a means to give direction.

Ready?
Box Modeling a torso

Be sure that your box is segmented properly as they are in the image to the right.

Also, pay attention to the size of your box...resizing isn’t difficult but starting with the correct size never hurts. :)

![Numeric: Box Tool](image)
Box Modeling a Torso

Now, we will need to turn on the “symmetry” button to ensure that our modifications on one side of the model will be reflected on the opposing side of the major axis.

Simply look to the bottom of the menus and you’ll see “symmetry” nextled next to the Points and Polygons buttons.
Box Modeling a Torso

- You’ll also need the mirror tool, so I will give a simple explanation on how to use it.
- When you have an object that you want reflected over an axis that you define, mirror is the way to go. Nice thing is, that it properly lines up opposing polys for our symmetry to work properly.
Box Modeling a Torso

Now you’ll end up with something like this:
Box Modeling a Torso

Now that we’ve come this far, let’s setup the shoulder area to extrude an arm.

First, let’s subdivide the model to allow us to tune the torso a bit to give our arm a little more realism.

Next, take the area that we will be extruding and shape it into an octagon, giving us a little more freedom and shape to our arm.
Box Modeling a Torso

Here is our current torso:
Box Modeling

Now onto the arms. Let's use the bevel tool to create the arms.
Select that octagon shaped set of four polygons that I had talked about earlier.
Hit “b” and make about 9 sections of this beveled set of polygons.
You’ll see what we’re doing this in a second.
Box Modeling

Now we’re on our way, this is a quick check to show you what polygons you’re going to be beveling:
Box Modeling

Now, the arms. To have your model look like this one, be sure to make 9 bevels.

Also, you’ll notice that each polygon beveled, we’ll need to remove those inner polygons.
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Note: I had to remove a side then mirror it to achieve proper symmetry after the point welding.
Movin’ On

Now we’re starting to get somewhere. The real fun begins here.

Now remember that we’re going to be utilizing SubPatches, therefore we need to keep in mind how this particular tool works. Thus, if you want any particular shaping, you must exaggerate with your preliminary polygons. You’ll see what I mean in a moment.
Movin’ On

Here we go!
Notice the odd way the body looks.
Now hit “Tab” … this enables the SubPatches.
Movin’ On

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Just a little different isn’t it?
Movin’ On

Time for a quick render...let's see what we have!

Doesn't look too bad! You’re doing great!
Overview

I’ve gone over how to use symmetry to aid in modeling, as well as mirroring.

Also, we’ve seen how to change from standard polygons to subpatches. Not to mention the inherent problems that can arise if one is not careful when applying them.

This is just a first version and will later include the rest of the body.

Thank you for your time, I hope this tutorial was helpful!