



Modelling a 3D Pillars set Using basic primitives

Just by way of introduction, I'm intending these tutorials to be at a really basic level, so they're suitable if you're just starting out, and know nothing to very little about 3D applications. Bear in mind that I'm not an expert in any of these programmes, just a hobbyist wanting to help other people starting out in 3D, so this is not the only way of doing any of these things, and possibly not the best either! It's just the way I've found to be easiest in my own experience.

After I made a 3D model of the Pillars of Nosgoth (© Eidos Interactive), a couple of people said they'd been waiting forever for someone to make some Legacy of Kain based stuff, and it occurred to me that the model itself is actually really basic. Anyone with any 3D programme could make something very similar, with a bit of patience. I modelled them in Carrara, but I could in fact have made them in any other 3D modelling application, even in Poser or Daz Studio, because they're all basic primitive shapes. I'm using Carrara 5 for this, but the same principles would apply for any other 3D programme.

Seedydeede's general advice on making your first 3D scene.

1. Get to know your application (s).

You'll need to know how to change the view and navigate around your workspace, how to create and resize a shape and move it around, how to parent props, how to assign a material and how to click the render button. If you don't know how to do this already, see the guides in the Tutorials section of [my website](#) for how to do these things in Daz|Studio, Poser 7 and Carrara 5.

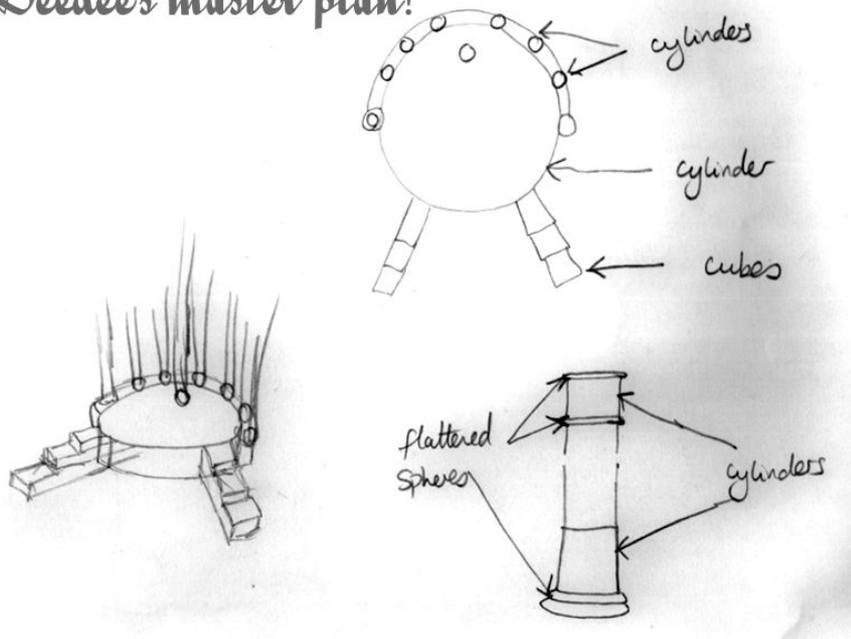
2. Decide what you're going to make, and plan it out.

I have to admit, I don't always do this, but if I'm trying to recreate something that already exists, like these pillars, then I make some plans.

Because we're making this particular set with primitives, it's quite an easy task. We just need to decide what shape we're going to need for each of the different parts of the model.

In the dodgy diagram on the next page, I've picked cylinders, spheres and cubes for the various shapes (excuse the smudging caused by dodgy scanner).

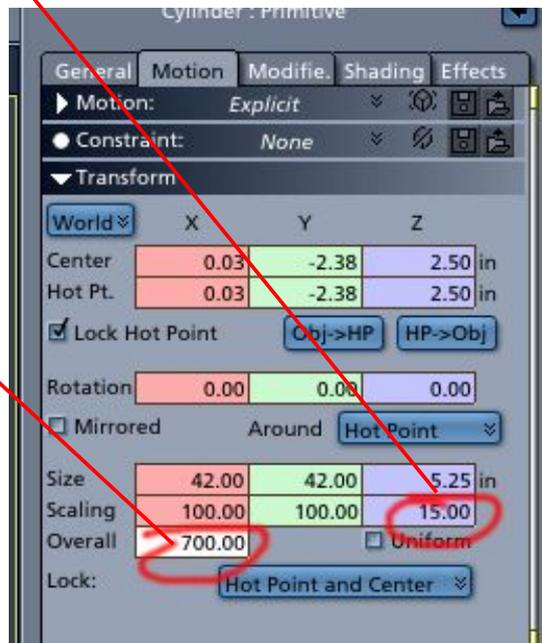
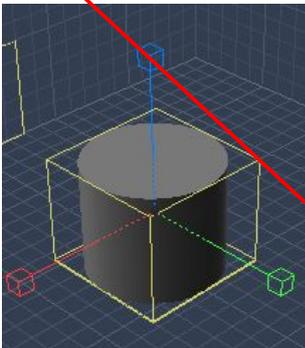
Deedee's master plan!

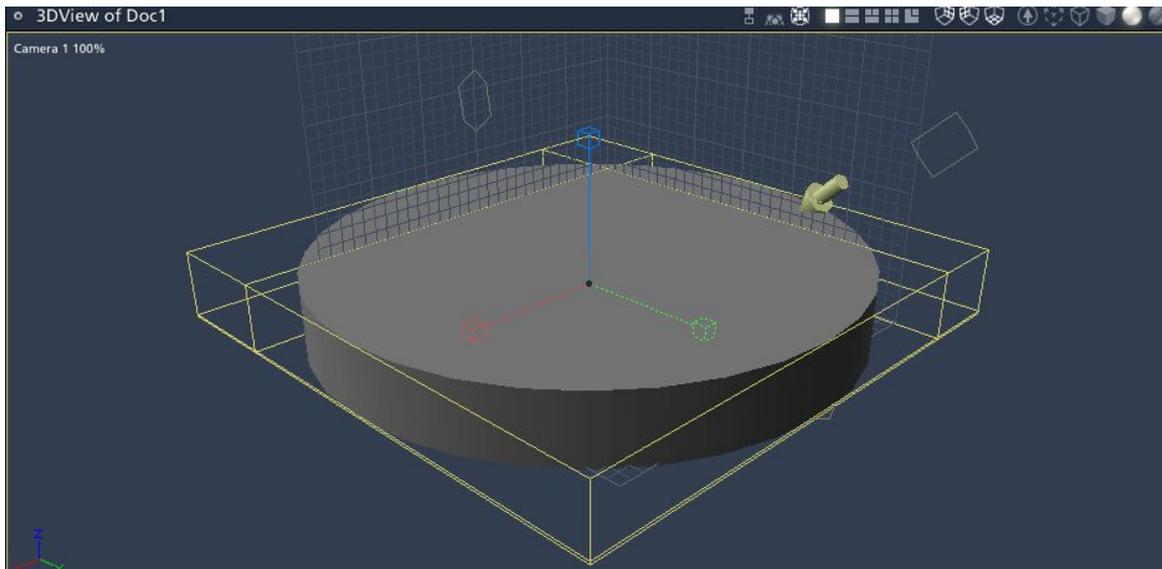


3. Get stuck in!

OK, let's look at our plan. We need a base, 9 pillars with rings and bands on them, and some steps.

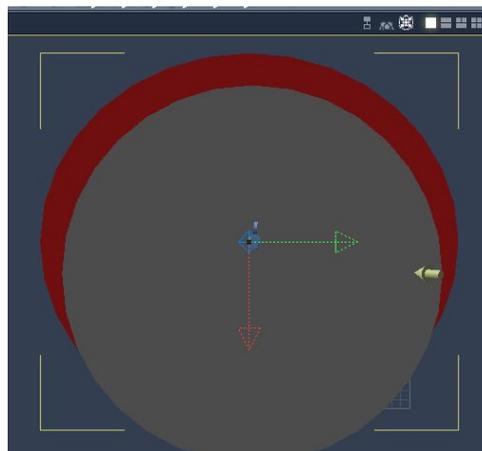
First off, let's make the base. Create a cylinder, and increase the overall scale to about 700%. Next, decrease the vertical scale (Z in Carrara – Y in Daz and Poser) to about 15%.



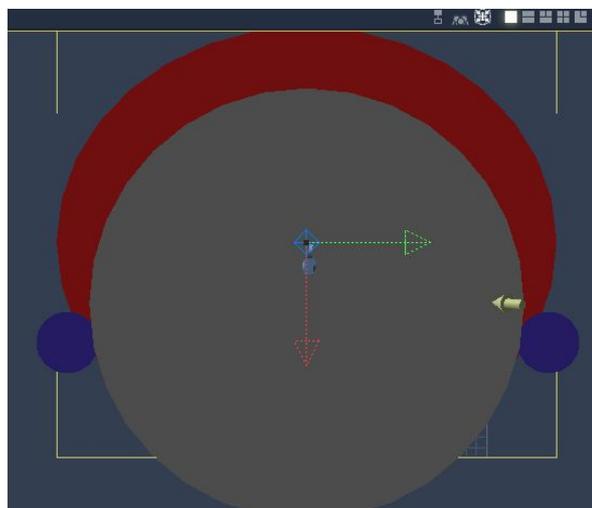


You should end up with a shape like this.

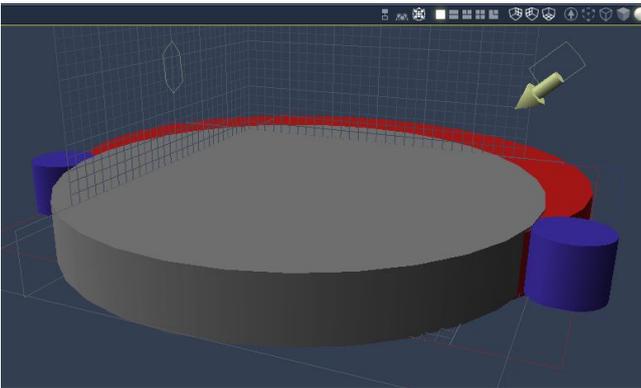
Create another cylinder of the same size, or duplicate your current one, and change the Y scale to around 110% (X scale for Poser / Daz|Studio). Place it slightly back from the other and overlapping (change to top view so you can see where you're positioning it). The new cylinder is shown in red below. This will form the rear of the base where the pillars will stand.



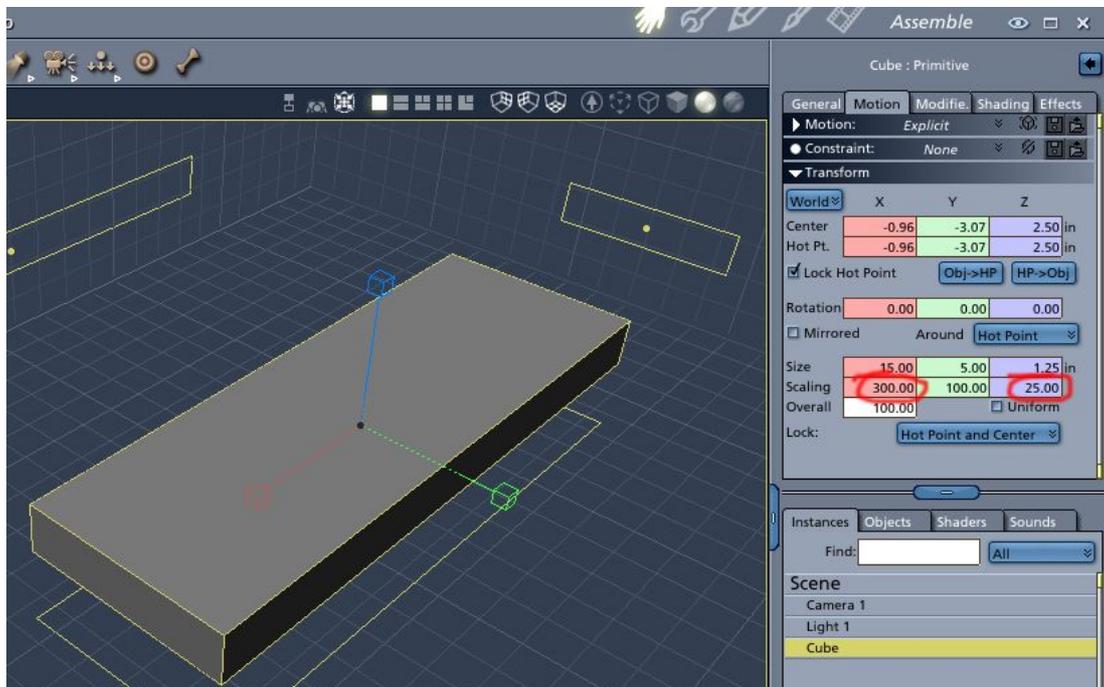
Create another 2 small cylinders, and place them to the right and left of the main base. Resist the urge to draw a smiley face on it.



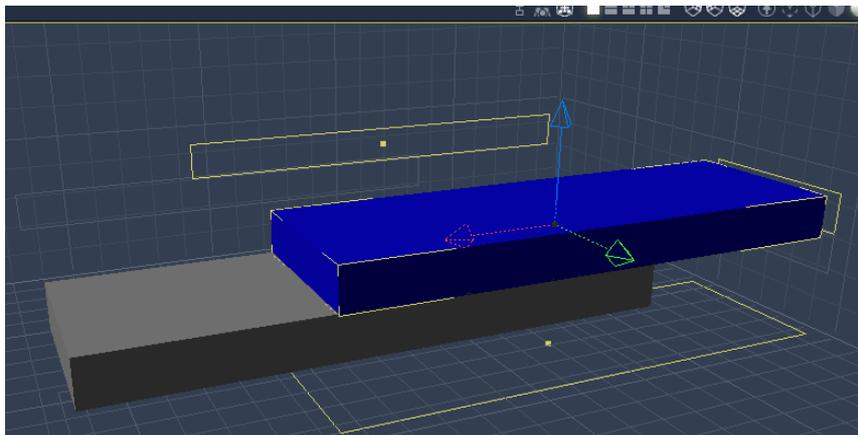
Now change your view back to normal (Main Camera / Perspective / Camera 1) and check that everything's where it should be.



Right, on to the steps now. Create a cube and change the scaling to 300% on the X axis, and 25% on the Z axis (or Z and Y respectively in Poser / Daz[Studio]).

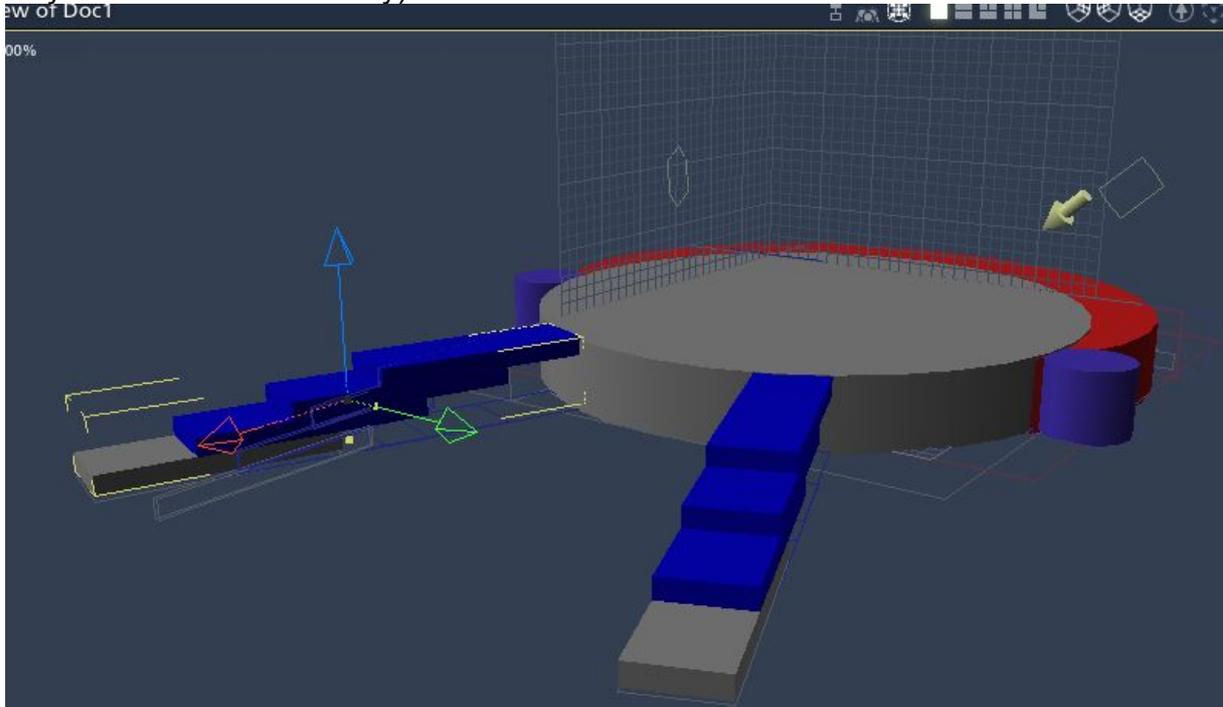


Create another cube in the same proportions (shown in blue below), and place it on top of the first, setting it back a little so it creates a long step. (Check out the optical illusion on the image below. It's not skewed, honest, but It's driving my brain to distraction looking at it!)

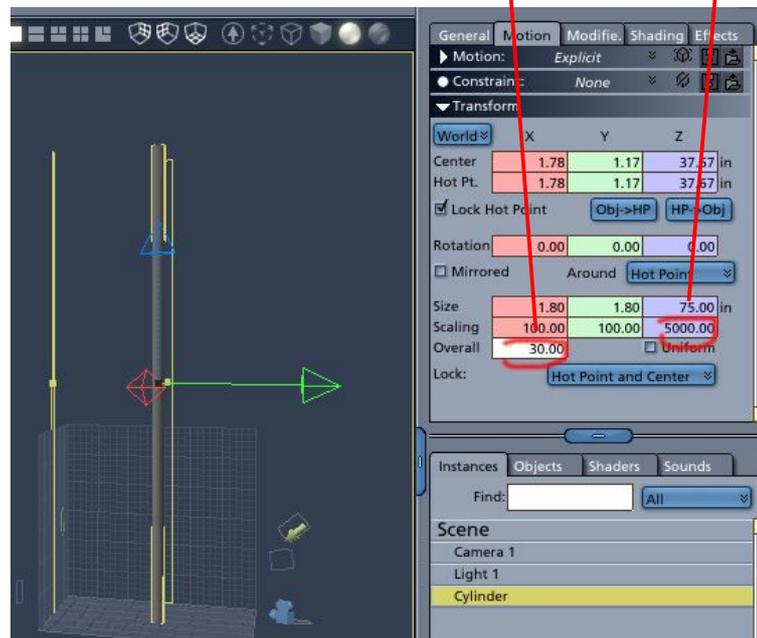


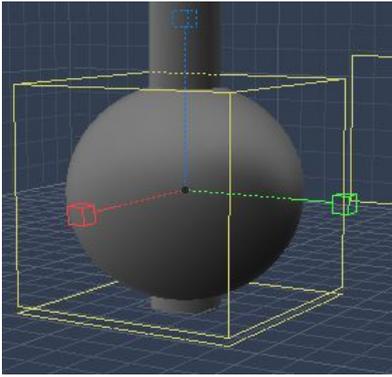
Repeat this until you have four steps. Group or parent them together, then save them to your library as 'Steps'. Load a second copy of 'Steps' into your scene, and position them both at the edge of the base you made earlier, using top view and/or any of the side front views to make sure you get them exactly where you want them.

Now change your view back to normal (Main Camera / Perspective / Camera 1) and check that everything's where it should be. You should be able to see your model taking shape now. Save what you've done so far and go have a cup of tea (assuming this tutorial hasn't driven you to the vodka already).

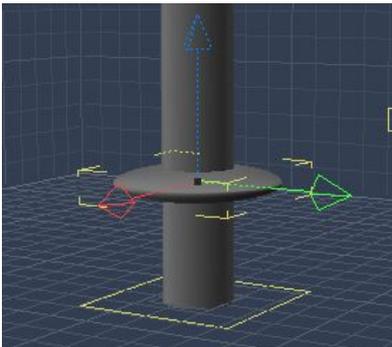


Next, let's create a pillar. I've no idea how tall the pillars we're recreating actually are, but they're well into the clouds in the pictures I've seen. For now we're just going to make them big enough to ensure that we can get the whole thing in shot and not see the tops. Create a cylinder. Change the overall scale to around 30%, and the Z (vertical – Y for Daz and Poser) scale to around 5000% to make a tall, thin pillar.

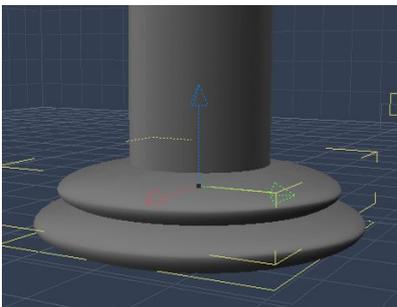




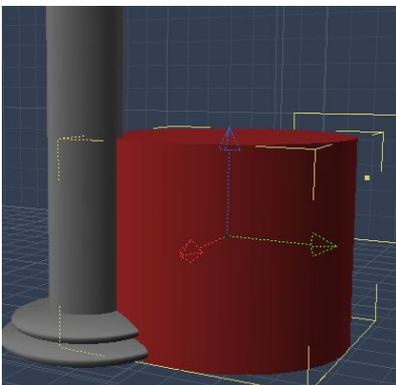
Next, zoom in on the pillar base, and create a sphere at the bottom.



Change the Z (vertical – Y for Daz and Poser) scale of the sphere to around 20%, and change the overall scale until it's the right size for our lower pillar base.

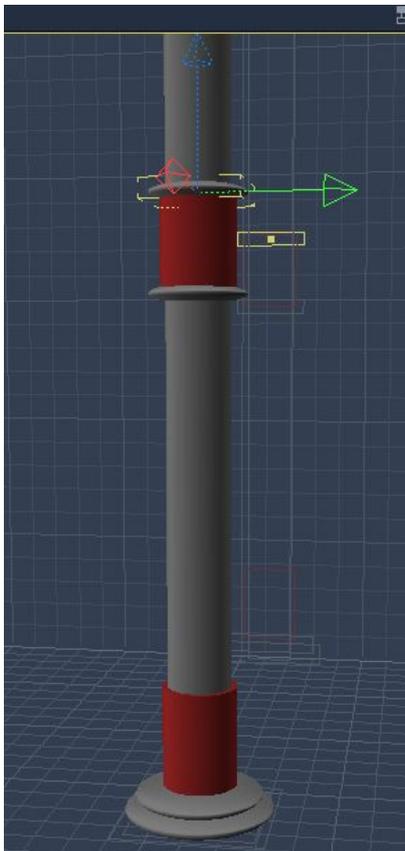
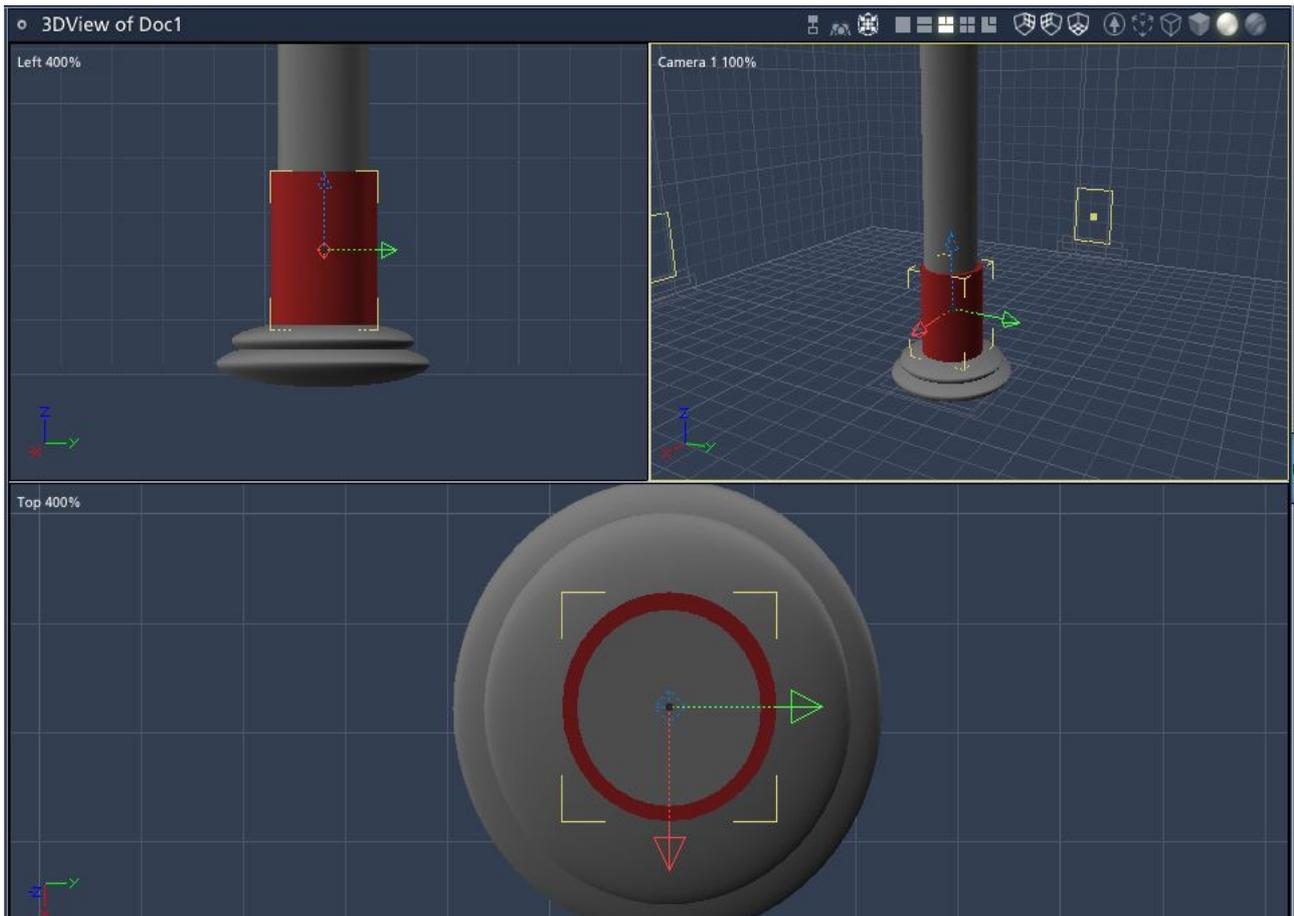


Move the flattened sphere down to the bottom, and create another, slightly smaller one on top.



Next, create another cylinder, scale it down, and move it so that it rests on top of the smaller flattened sphere.

This is where the multiple views become really handy – you can see exactly how big the cylinder needs to be, and exactly where to place it.



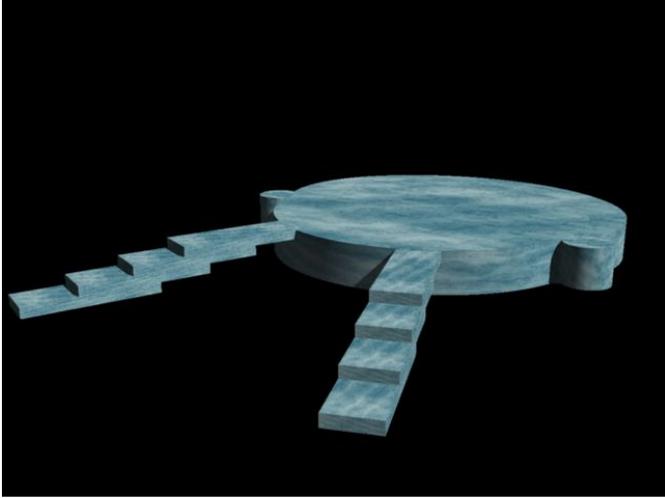
Create another cylinder and two more flattened spheres, and place them a little higher up the pillar.

Next, parent all the cylinders and spheres you've made to the main cylinder (the pillar itself), or group them together, depending on your software.

Save the pillar object to your content library.

Now let's add some materials.

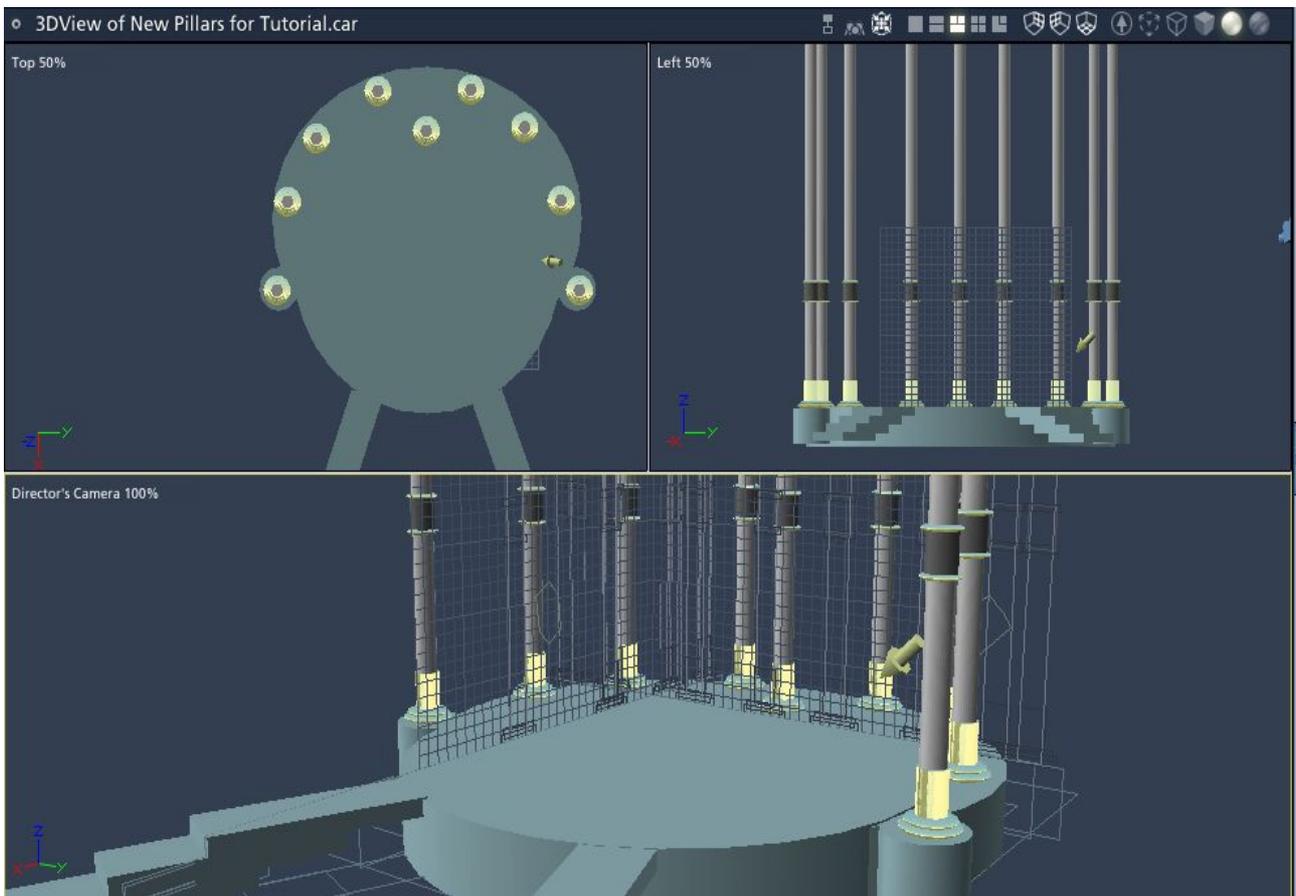
For the base, just assign a basic marble effect texture to everything. You could either make your own texture or you could find a picture of something marble and assign that as the image map for your model.



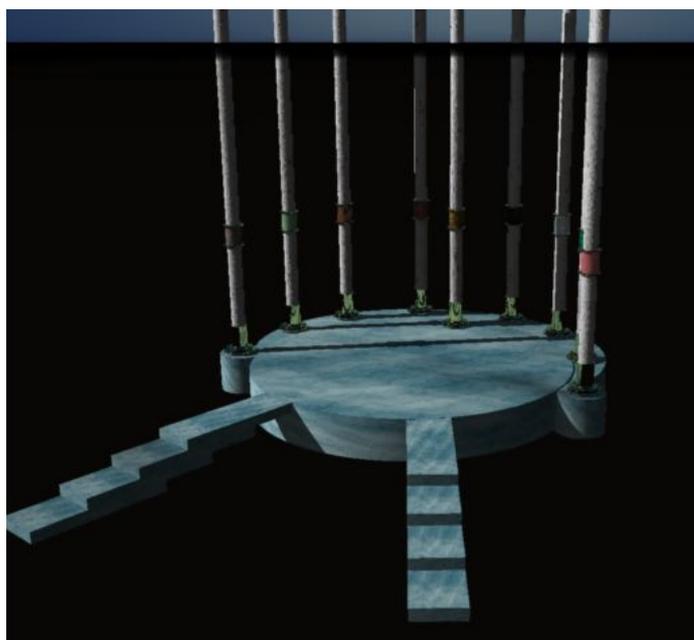
For the Pillar, ensure you've named the different shapes so that you can tell what's what, then assign textures as in the picture below. The main pillar is a sort of white marbled texture, the round bands and lower cylinder are gold, while the upper cylinder is going to be different for each one.



Now we're going to load the base plus 8 other copies of the textured pillar into our scene from the content library, and arrange them as in our original sketch. Again, change the view so that you can see the scene from the top and from one side, as well as the main view.



Change the textures on the upper cylinders on each of the bands, and see how it looks when you render it. Add a background and fiddle with the lights until you get the atmosphere you want :)



I haven't made a floor texture for this particular model, as that's a whole different kettle of fish, but hopefully this has shown that it's easy enough to make a decent looking set model out of basic primitives.



Happy fiddling, and if I've missed anything, or if you get horribly stuck, just let me know! :)

Deedee
August 07

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