Backgrounds with Perspective UVs

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Step 1: Setting the Stage
Step 2: Catching the Shadows

Tools Needed

*** Poser 4 or higher**

Introduction
Many artists use backgrounds either taken from a photograph, or rendered in another program such as Terragen. When we try to put our Poser figures into this background, we either have to hand draw the shadows, or find some other means to enhance the realism of our endeavors.

This little trick enables the Poser Artist to incorporate his figure into a background image, and advanced use of the technique can even work no matter how cluttered the image!

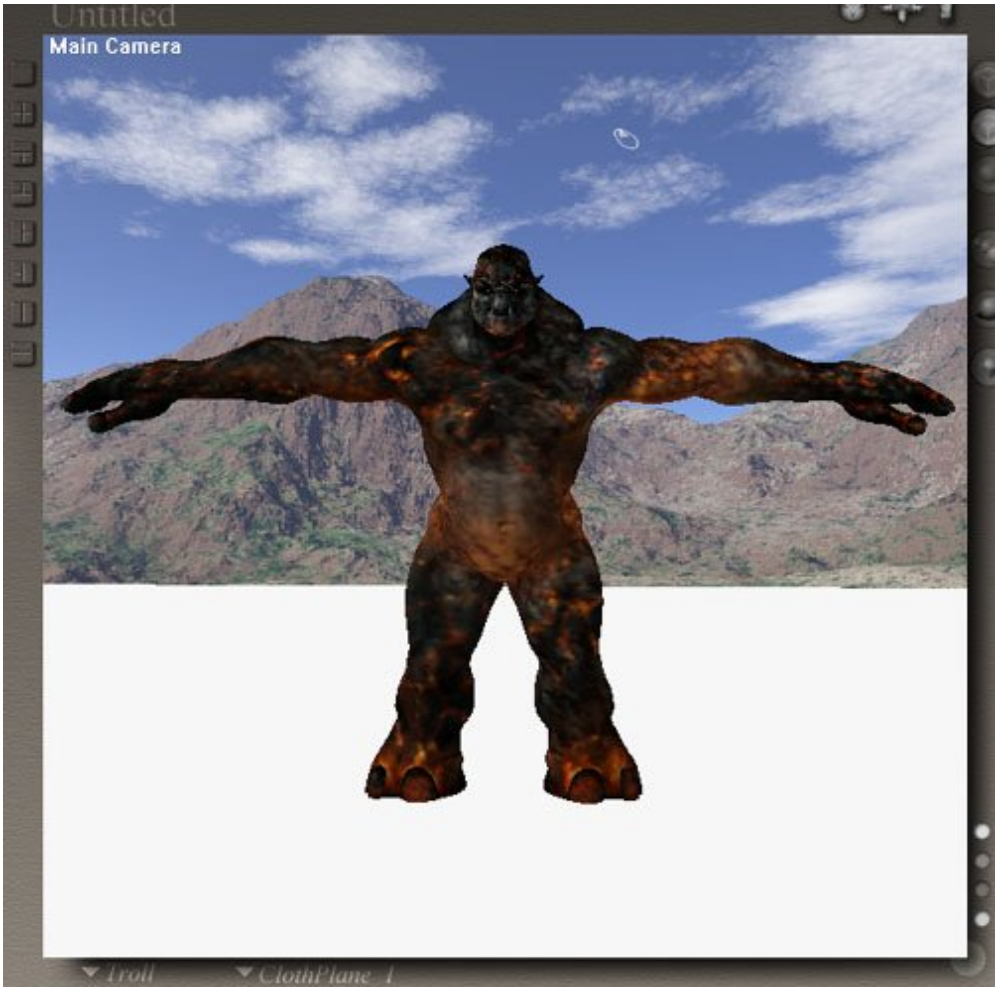
Step 1 - Setting the Stage

Okay, the first thing you're gonna need is a background image. I rendered a quick terrain with a nice, flat foreground and a hilly background. To get it into the program as a background, click File -> Import -> Background Picture, as shown in the image above.

Next, we need to load our figure. For this demonstration I used the DAZ Troll, but anything will work.

I also loaded the "Square Hi_Res" from the Primitives folder under Props. This will replace the ground plane for this tutorial. Note to Poser 4 users: The "One sided square" under "Prop Types" will not work effectively with this tutorial - you need a flat plane with multiple polygons for it to work right.

I then oriented the camera until the flat plane was at roughly the same angle as the foreground in the picture.



Next, I started scaling and moving the "shadow catcher", as I"ll call the flat plane, until it pretty much covers anywhere a shadow may fall. In this case, I covered almost the entire foreground of the image, when I really didn't need to.

Step 2 - Catching the Shadows

Now we get into the fun part. Make CERTAIN you have the camera angle you want before the next step, and save it to either a Camera Dot, or the Cameras library!

For the rest of this tutorial, I am using "Main Camera" as my production camera.

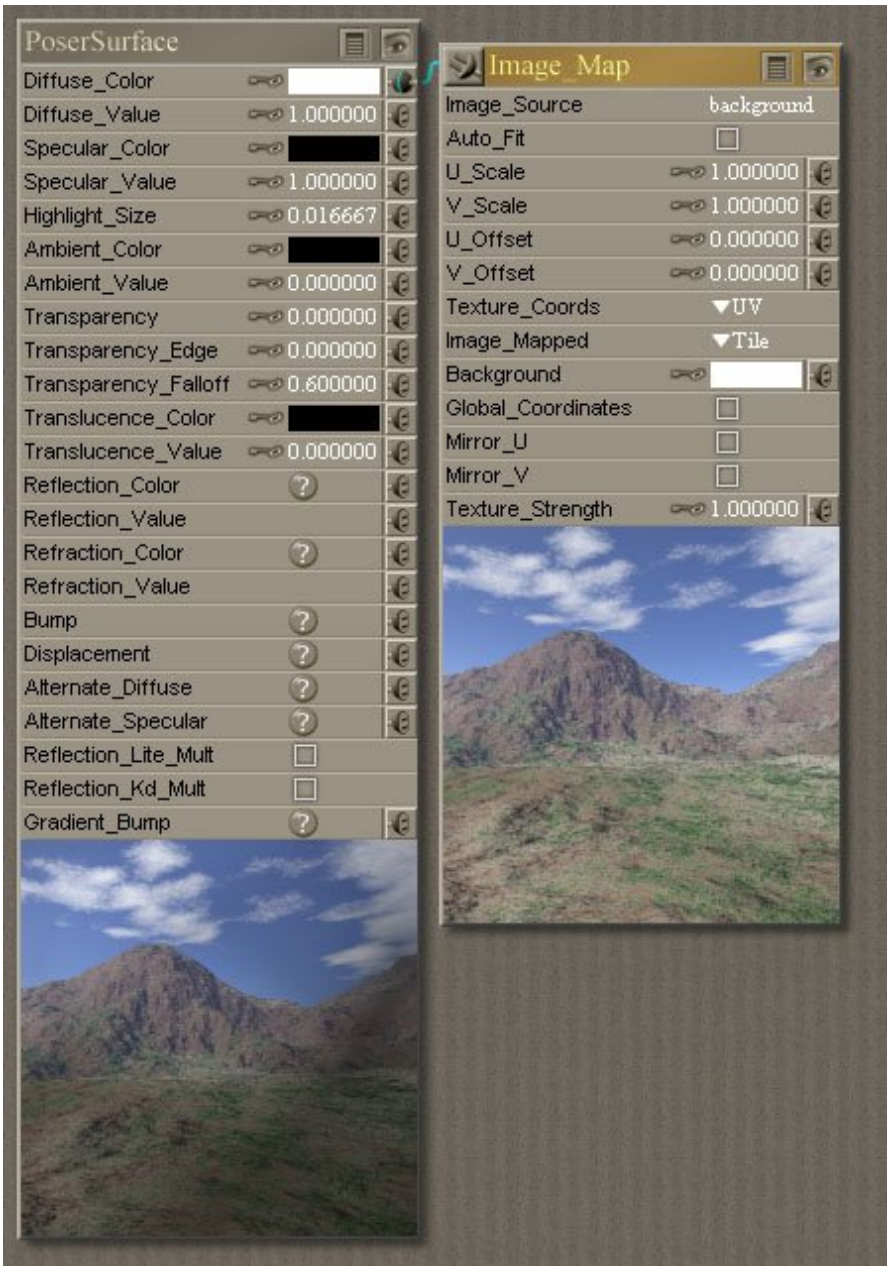
Select the "shadow catcher", and click on the icon for the Group Tool. This icon is the one highlighted in the image above (P4 users will not have the additional icons after the Group Tool icon). This opens a window as also shown in the picture above, with a drop down box and multiple buttons.

Step 1) Click on New group, and give it whatever name you want.

Step 2) Click on "Add All". This includes all of the polygons of our "Shadow Catcher" into this new group.

Step 3) Click on "Create Perspective UV's". This takes a "snapshot" of the mesh from the camera's point of view, and adds mapping coordinates based on this view.

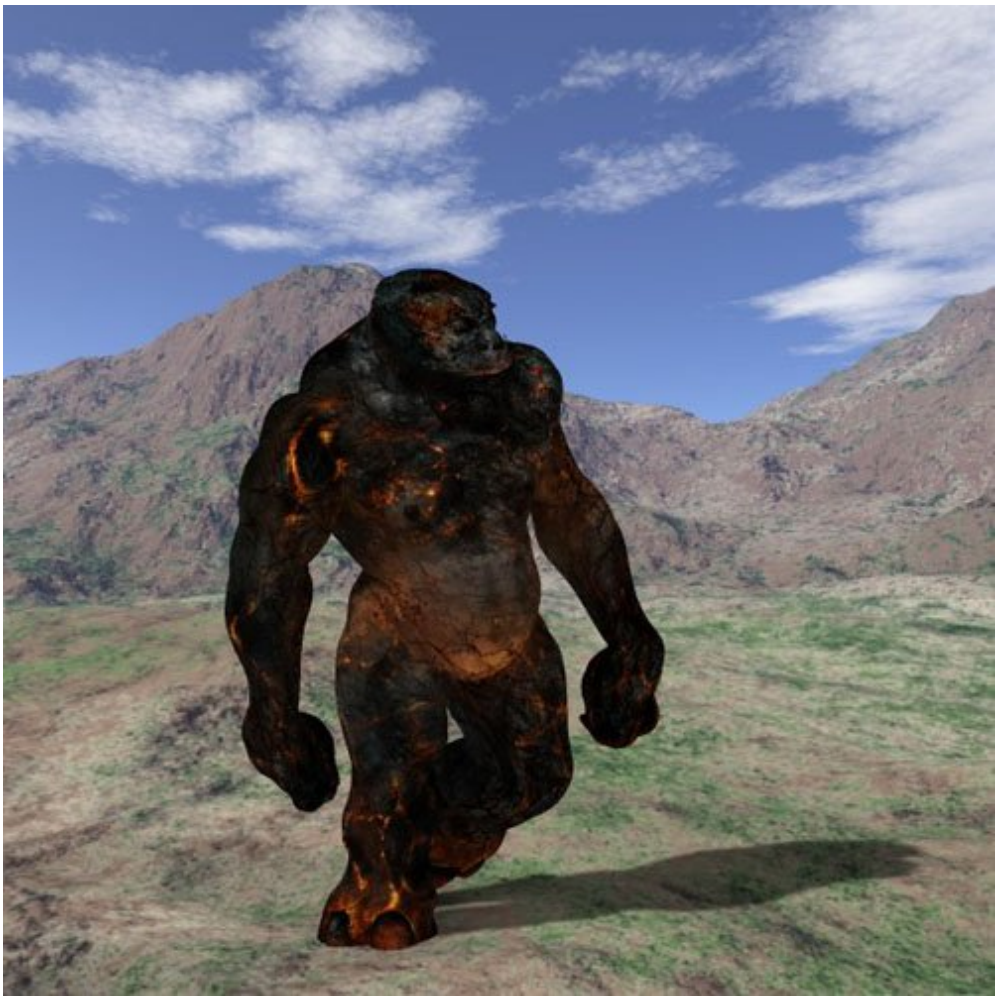
Once you have finished all three, close the Group Tool window. WARNING! Do NOT move the production camera after this step!



Now that we have the shadow catcher remapped for our scene, it's time to texture it. If you''re looking in the production camera, and have it set to show the textures, this step will make the shadow catcher seem to disappear!

Simply make sure all of the color swatches except the Diffuse color are black, and the Diffuse Color is white. Then assign the same image as used in the background as a Diffuse texture. The P5 Material Room settings are shown above.

Now, using the Posing or Aux cameras, or just about anything except the production camera, pose your figure, and adjust the lighting to taste.



And voila! Your figure is in the scene, with the shadows dropping on the "ground"!

If your background is cluttered with things that might catch shadow, but don't fit the simple flat plane, you have two primary options. ALL of the following instructions take place before using the grouping tool, but after orienting and scaling the shadow catcher ground plane:

Hills / slopes:

Use magnets on the shadowcatcher to lift polygons in the approximate area of these hills. They should roughly follow the flow of the hills, in order to get the best possible results.

Debris / objects:

Find primitives that are vaguely the same shape as the debris, orient them to their equivalent in the image, and tweak them with the scaling and taper dials until they match as close as you can. Each primitive so defined should also go through the steps to turn it into a "shadow catcher". Leaving "Cast Shadows" turned on for these extra objects will help you make sure you are catching the correct lighting angles, but this can be turned off to keep the integrity of the original shadows. If no primitive fits the object, it is very possible that a combination of primitives might, or magnets may be used to adjust the shape of the primitives.

This may take quite a bit more work than the examples above, but trust me, it's worth it.