

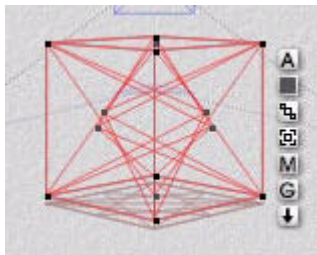
# Picture Cube

These operations were carried out on the PC Windows version of Bryce 3D.  
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To make a picture cube, which is a cube with a different picture on each of its six faces, is not as simple as creating a cube in Bryce and applying an image to each side. You can't apply a separate image to the faces of a Bryce cube. This method creates a cube out of pyramids and applies each image to a separate pyramid using Object Top mapping.

First create a pyramid, it's important to use the one shown ringed to the left. This pyramid is 20.48 units square on the bottom and 20.48 units in height. More importantly, its centre of rotation is already positioned so that when you rotate a duplicate through 90 degrees, the base of the rotated duplicate lines up with the base of the original.



Duplicate the pyramid (Ctrl D). Hold the shift key down and rotate the duplicate 90 degrees around the X axis by dragging on the rotation wheel. Now duplicate the new pyramid and rotate again through 90 degrees around the X axis. Duplicate again and rotate to finish up with four pyramids whose bases form four sides of a cube.

Select the original pyramid, duplicate it and rotate through 90 degrees around the Z axis. Duplicate this one and rotate it through 180 degrees around the Z axis. You now should have six pyramids whose bases form the six sides of a cube.

### **Applying the pictures to the cube faces.**

Select one of the pyramids (choose one whose base appears to the front of the cube so that you can see what's happening) and click on M to enter the materials editor. Click on the diffuse and ambient buttons in the A column of the colour section. This will cause a random material to be loaded. Click on the P button and Leonardo will appear. Click on the pinkish button above the P button. The Picture Source editor will appear. Click on the word Load above the rightmost of the three images. Select your .bmp, .psd or .tif image in the dialogue box. The image will be loaded. Select Object Top as the mapping mode. Click on the checkmark.

You will see the image appear on the base of the pyramid. It is important to note that the image as it appears on the base will be flipped right to left or upside down so you will have to compensate for this in your image preparation program. This happens because the image is actually applied to the peak of the pyramid and what you see on the base is as if you were looking at the image through the back of it.

Repeat for each of the pyramid bases. Render the finished cube as below.



If you're not going to animate the cube then you only have to apply the image to the three facing faces - you also only need create and rotate these three pyramids. Have fun!