

# Intermediate

## Environments

By the same token if the background distance is too far back it will effect the way the objects transparent and especially the refraction channels interact with the background. Which may also cause some not as noticeable but still undesirable results. In **Fig. 1\_9** towards the bottom of the glass the background looks like it is cut off. This is caused because the background image is too far back. It could possibly be fixed by adjusting the refraction channel, but then if other objects were added to the scene the glass would look too thick and not give a very good real world appearance.

In **Fig. 1\_10** the background distance has been set to about the right distance to let the glass transparency show completely, and not too far back to effect the refraction channel to give undesirable results.

The distance of the background also effects the way an object reflects the background image.

In **Fig. 1\_11** through **Fig. 1\_14** the sphere is placed at 0.000 world coordinates and different background distances.

The texture background option can not be animated, the last or current image and distance loaded will appear at every keyframe set. Although the background image will render in any camera view, raytracing interaction between the background image and the objects in the scene will only occur when the camera view is used for the render. A new camera view can be made using the camera, then positioned at any angle and raytracing interaction will occur whether the camera's form of view ( FOV ) is set to perspective or isometric. But rendering using one of the other views ( front, top, right, iso ) or creating a new camera from one of these views ( other than camera ) and using it to render, will not have raytracing interaction present.

### Sky & Ground option

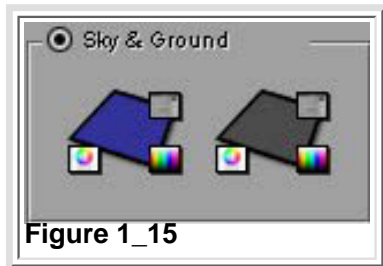


Figure 1\_15

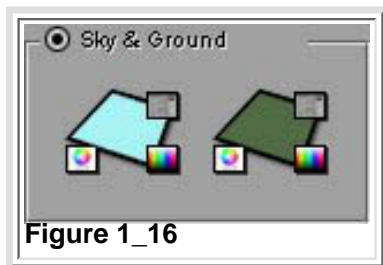
There are more options to set up the Sky & Ground background options.

### Continued [Begin 2 3](#)



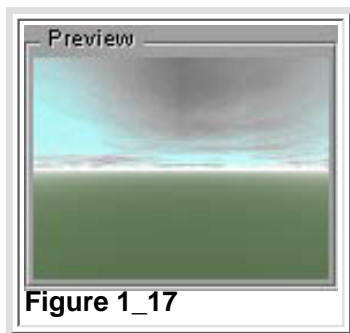
Fig. 1\_9 Background distance 10000.000

The cloud tab ( **Fig. 1\_18** ) and the haze tab ( **Fig. 1\_19** ) are also used to set up the way the sky and ground will appear when rendered. All of the sky & ground options on the color tab, cloud tab and haze tab can be key framed and animated. The first two sky & ground options are on the color tab and this is where the color of the sky ( left plane) and the color of the ground ( right plane ) is set up using one of the three color swatch. ( **Fig. 1\_16** )



**Figure 1\_16**

The changes made on all of the tabs are shown in the preview window in real time. ( **Fig. 1\_17** )



**Figure 1\_17**

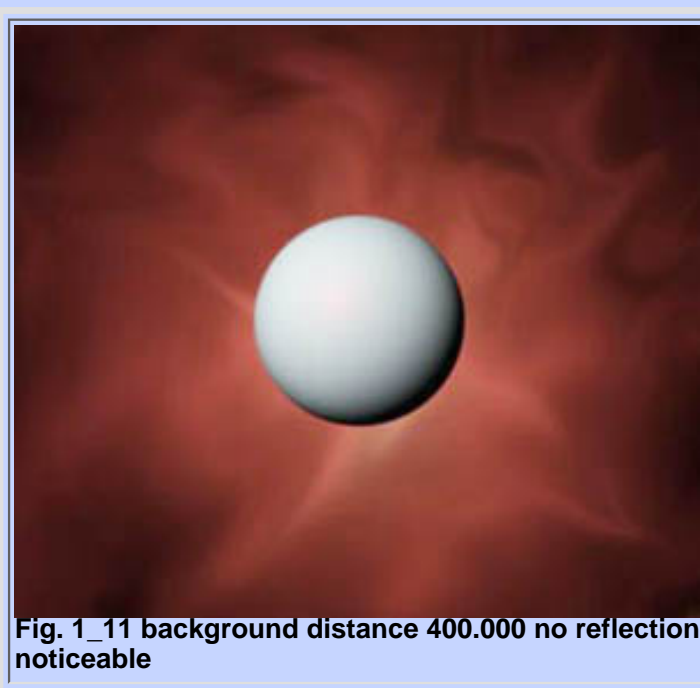
On the clouds tab is where the properties of the clouds is set. ( **fig. 1\_18** ) The two color planes will be mix together to determine the color the clouds will be. The frequency will determine how close together the clouds appear to one another, with lower setting being closer together and higher settings being farther apart. The coverage is used to determine how thick the clouds appear or their density, with lower setting being thinner and higher setting being thicker. The offset X option will move the clouds along the X axes. Positive numbers will move them right to left and negative numbers will move them left to right.

To move the clouds rather slowly use number sequences that reflect little value change as this example: 4.01, 4.02, 4.03 ect...

This will move the clouds slowly across the sky, where using higher value changes as this example : 4.00, 5.00, 6.00 ect... will move the cloud faster like a time elapsed film would. The offset Y option will raise or lower the clouds with positive numbers lowering the clouds as the value gets higher, example: 1.1, 1.2, 1.3 ect... and negative numbers will raise the clouds example: -10.1, -10.2, -10.3 ect... The offset Y option also gives the



**Fig. 1\_10 Background distance 600.000**

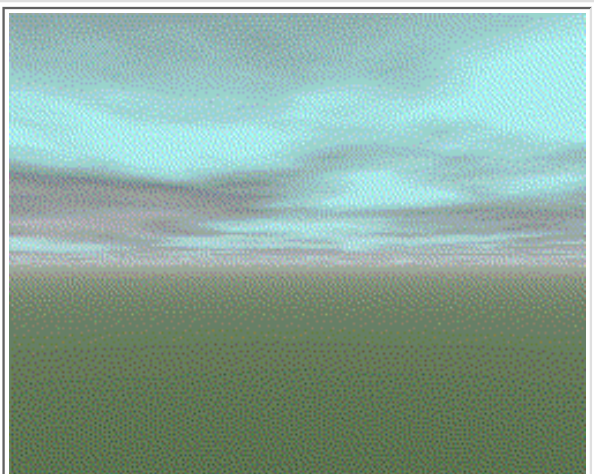


**Fig. 1\_11 background distance 400.000 no reflection noticeable**

impression that the clouds are moving on the Z axis or forward and backwards.

The haze tab ( **fig. 1\_19** ) is used to set up the way the haze appears, which also includes the horizontal line ( the line where the sky and the ground meet ). The haze color is set using one of the three color swatch. The opacity option determines the density of the haze or how thick and thin the haze appears to be. With lower values being thinner or less visible and higher values being thicker or more visible. The width option determines how much of the scene the haze will cover. The width starts at the horizontal line and covers more of the scene with lower values and covers less of the scene with higher numbers. The width option will effect the color of the sky and ground as lower values will place the haze over them.

A distance setting isn't needed for the sky and ground option since both the sky and ground are considered infinite planes. ( **fig 1\_20** ) Therefor raytracing interaction works between objects in the scene and the sky and ground. The ground will not receive shadows when the render shadows option is enabled on the radiocity menu. ( **Anim. 2** )

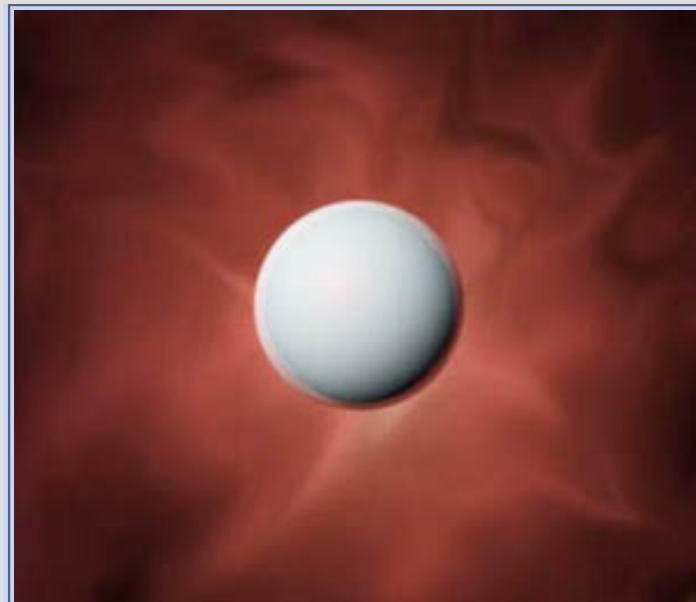


**Anim. 2**

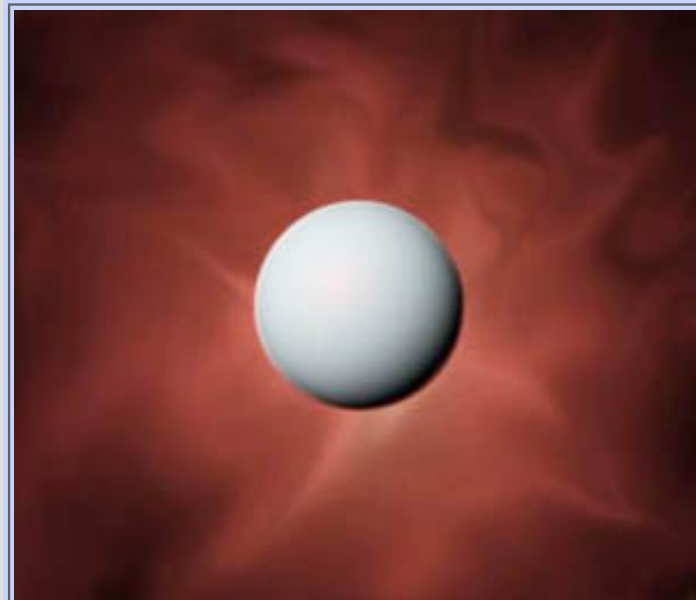
## Creating Custom Environment

### Using Mesh for Sky and Ground

Here is an environment technique which is a rather easy concept using a mesh plane for a textured back drop, ground plane or both. By using a mesh plane for the ground a more realistic texture can be used and the ground will also receive shadows, ( **Fig. 2** ) but also have raytracing interaction with objects, no matter which camera view is used to render. This also hold true for a mesh plane used for the sky or back drop to. If you don't want the background or sky to receive shadows, the cast and receives shadow option can be turned off on the mesh plane's properties



**Fig. 1\_12** background distance 600.000 little to much reflection



**Fig. 1\_13** background distance 1000.000 about the right amount of reflection.

menu render tab. This easy technique does give a little flexibility with animation, ( **Fig. 2\_2** ) even though the texture's materials channels cannot be animated the way the texture is mapped to the plane can be animated in the mapper workspace using the liquefy, move and scale mapping tools.

### Using a Ghost Environment

Another environment can be created using objects and the ghost option ( **Fig. 2\_3** ). When an object is ghost it will not be visible when rendered, but it will still effect the way other objects appear through raytracing interaction. In other words it will appear through transparent objects and as reflections on objects. This is a unique effect purposely put in Amorphium Pro, if you want an object to be ghost and not be visible in any way shape or form when rendered, raytracing interaction will need to be turned off on the object. This can be done on the objects properties menu, render tab, by removing the check next to the option. ( **Fig. 2\_4** )



Fig. 2\_3

Continued [Begin 2 3](#)

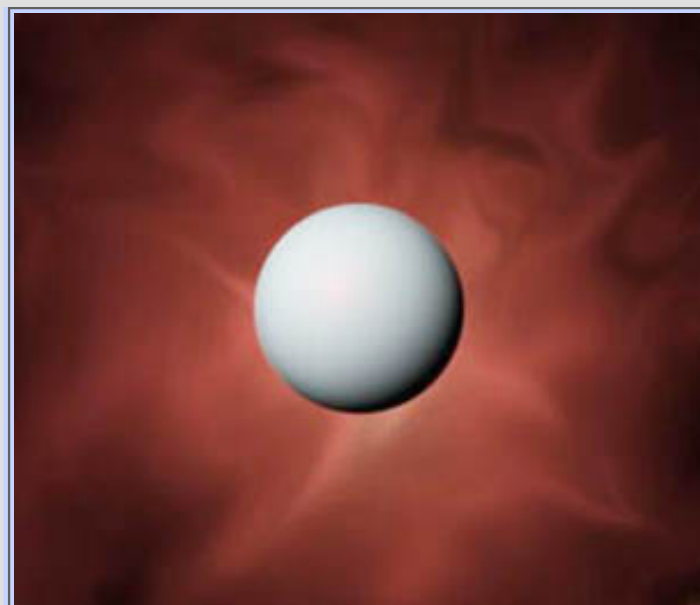


Fig. 1\_14 background distance 9000.000 hardly any refraction noticeable.

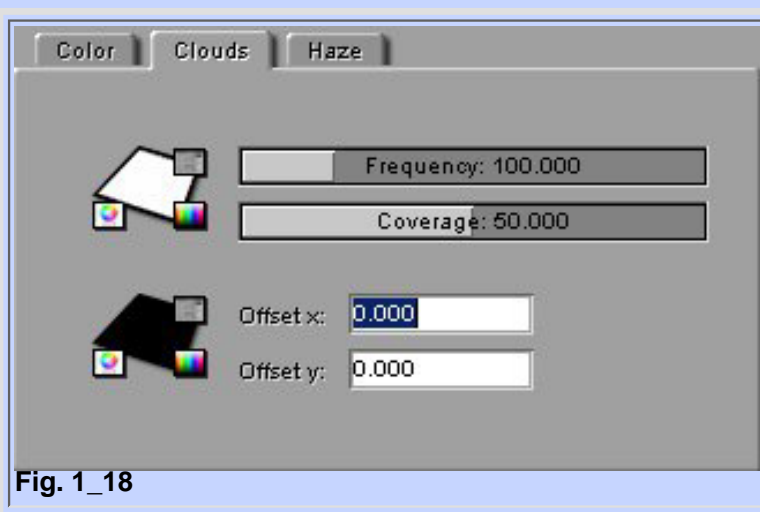


Fig. 1\_18



Fig. 1\_19

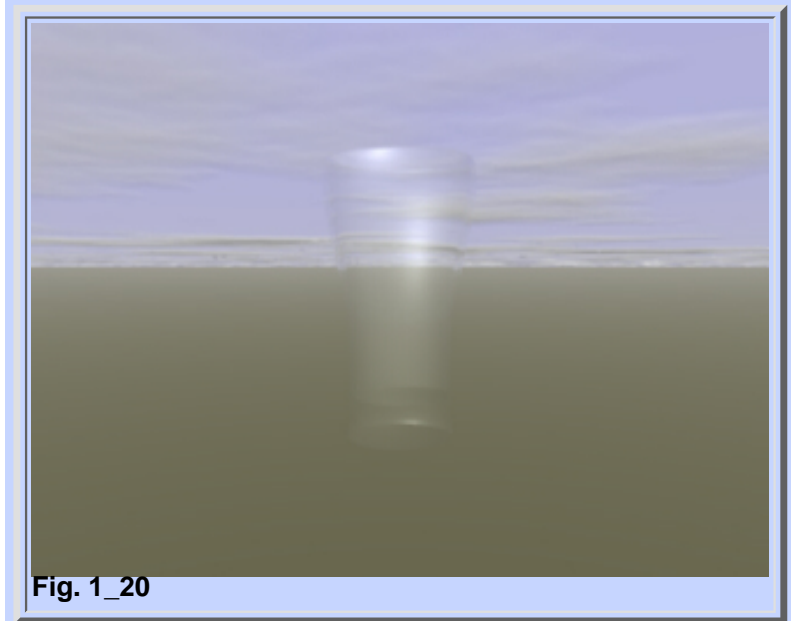


Fig. 1\_20



Fig. 2

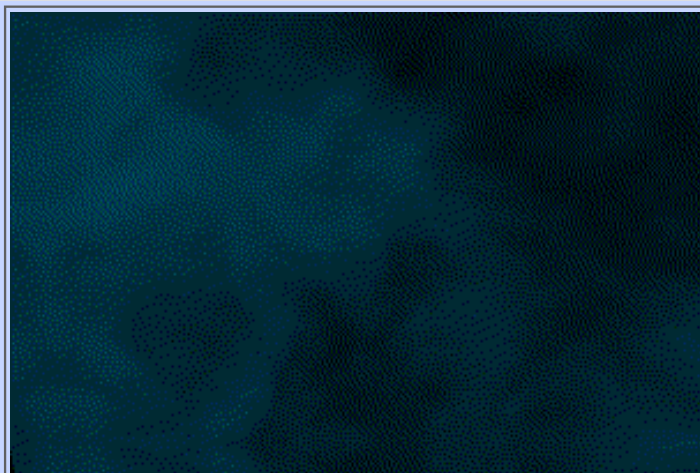


Fig. 2\_2

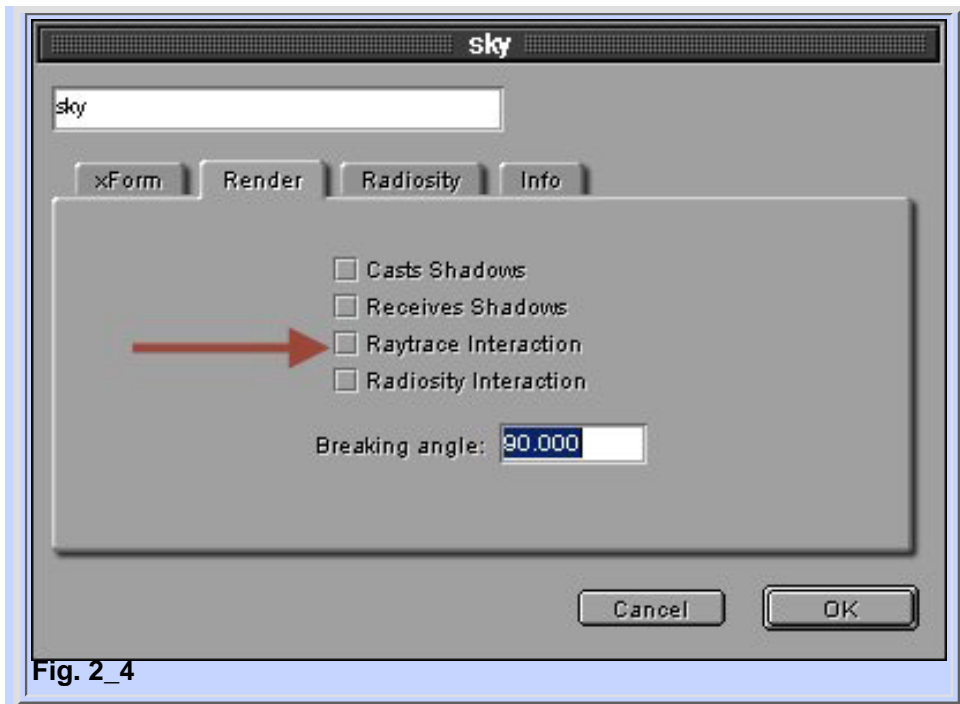


Fig. 2\_4