

# Intermediate

## Environments

To use a ghost object as part of the environment raytracing interaction will need to be enabled on the ghost object . Placement of the ghost object is important to. Depending on what effect is needed, the ghost object may need to be behind, surround, close to or even far away from the objects in the scene. Of course the material channel settings will determine how objects appear, but just as important are the material channels setting on the ghost object it's self. For they will also determine how it will appear on the objects in the scene that have transparency and reflections.

In **Fig. 2\_5** a transparent glass is rendered against a black background, which makes it barely visible and really looks nothing like glass. With a ghost medium gray sphere behind it makes the glass clearly visible but yet still have a transparent appearance. ( **Fig. 2\_6** )

**Fig. 2\_7** is a head painted gold with the reflection channel turned up on it. But with nothing to reflect it looks rather flat, not at all like it is metallic or made of metal. With a blue ghost sphere surrounding the head and the lights used in the scene, it has changed colors somewhat but has a more convincing metallic look. ( **Fig. 2\_8** )

Ghost objects can influence the way shadows appear on objects, if cast shadow is enabled on a ghost object it will cast a shadow on objects in the scene when between the objects and the light source. In Fig. 2\_9 a sphere is in-between the skull and the light source. In Fig. 2\_10 the sphere has been ghost, and the shadow still remains. Using this technique a ghost object could be used some what as a negative light.

Making the ghost object transparent will cause the shadow to be the color of the ghost object when it's in-between the light source and the object the light is hitting ( **Fig. 2\_11** ) . In **Fig 2\_12** the ghost object has been duplicate a few times and positioned around the skull and has radiosity set up on them, this can make the ghost object actually become a light source.

In **Fig. 2\_13** the sphere has a planet texture applied to it and the reflection channel is turned up high. Then in **Fig. 2\_14** a gray ghost sphere has been added to it's right side with it's ambient channel turned up high, the reflection on the planet makes it appear there is another light source shining on it.

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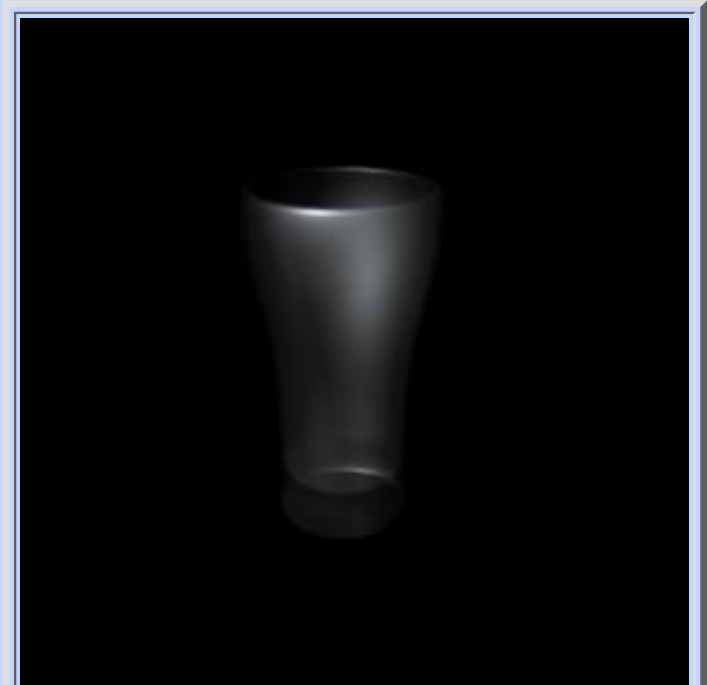


Figure 2\_5

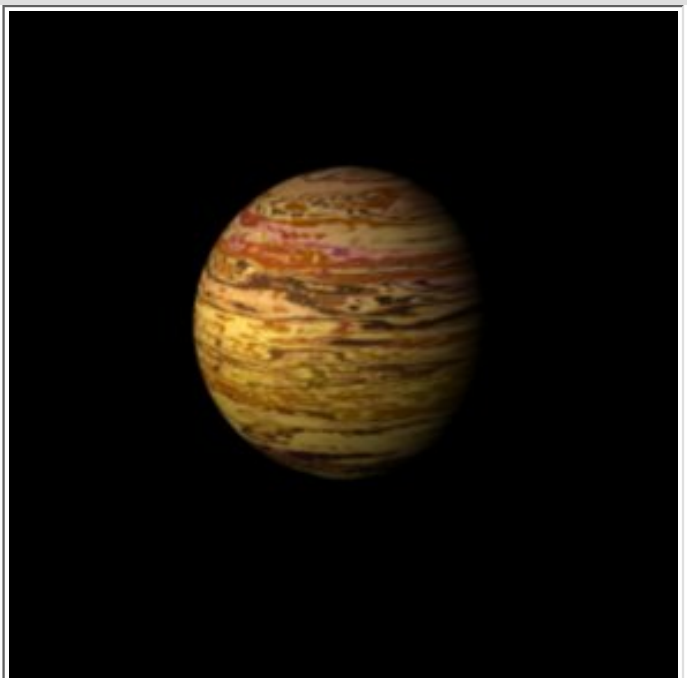


Fig. 2\_13

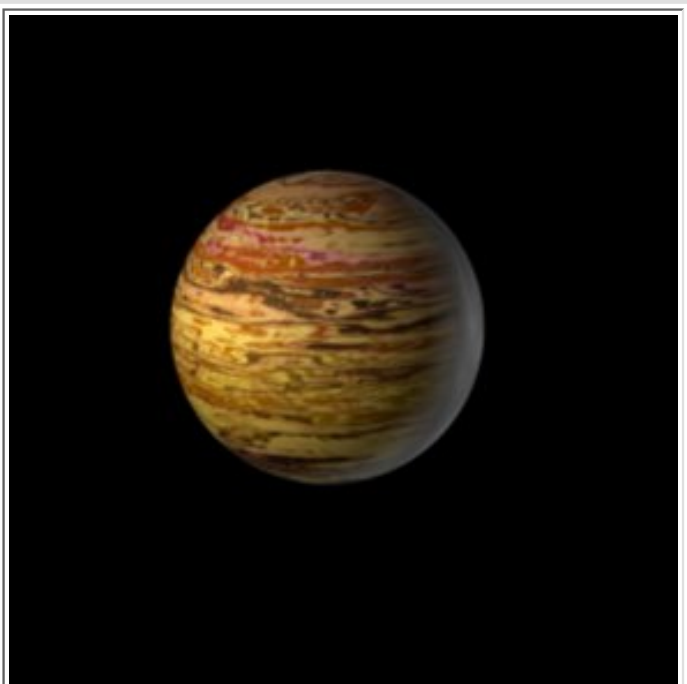


Fig. 2\_14



Figure 2\_6



Figure 2\_7

Using this ghost environment technique will produce some really nice effects. **Fig. 2\_15** is a

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ghosted flower inside a transparent sphere, which is inside a red ghosted cube against a background texture.

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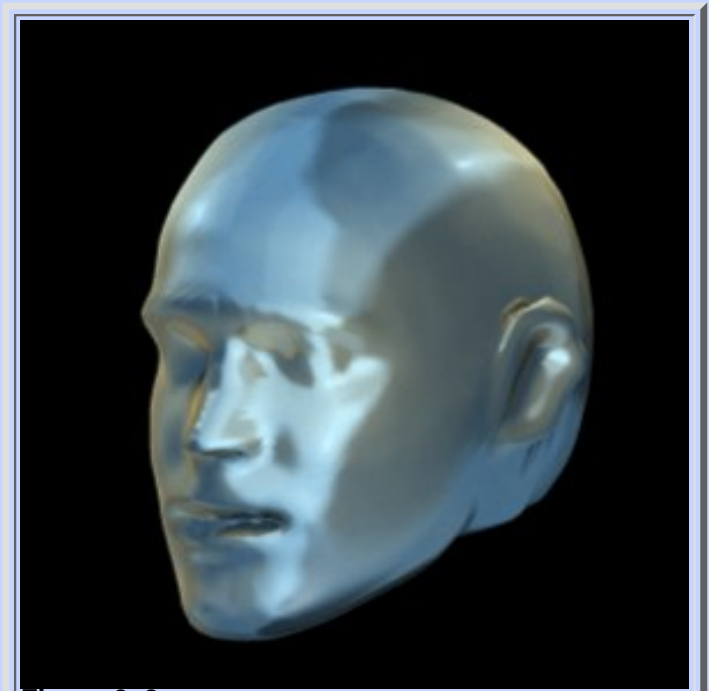


Figure 2\_8

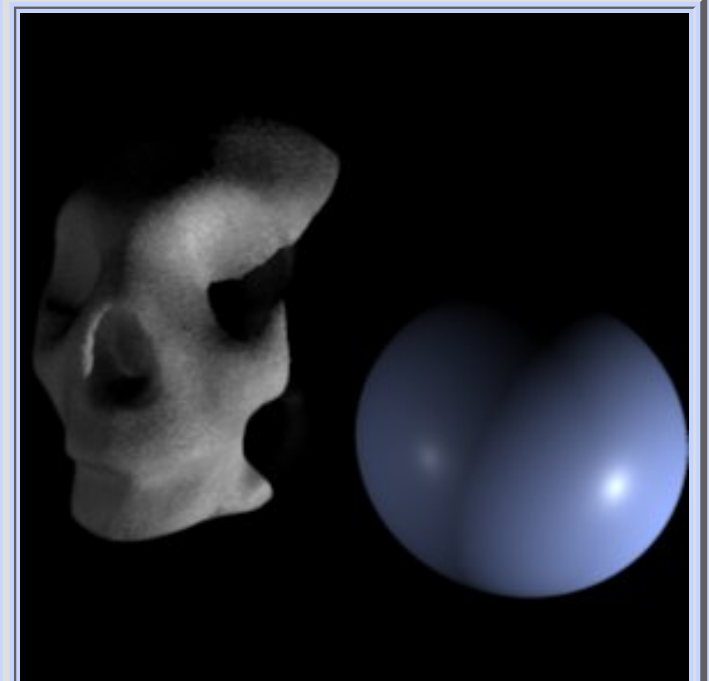


Figure 2\_9

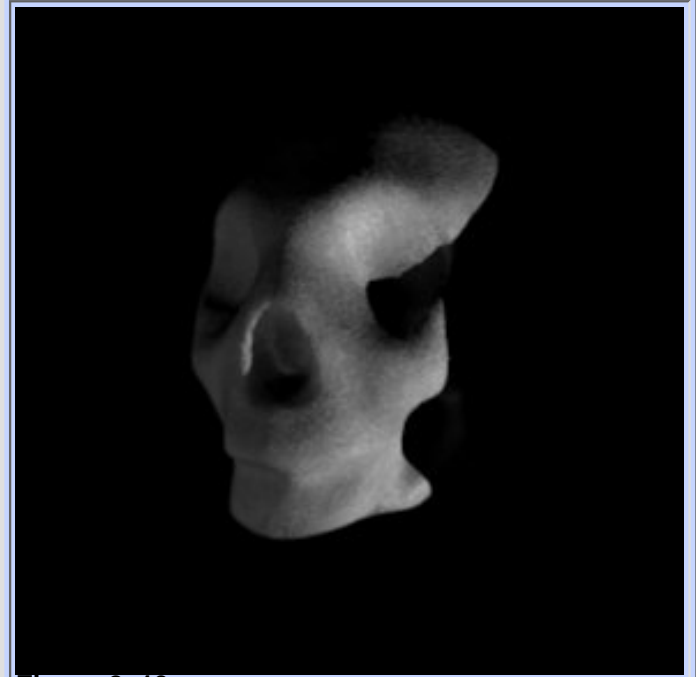


Figure 2\_13



Figure 2\_15