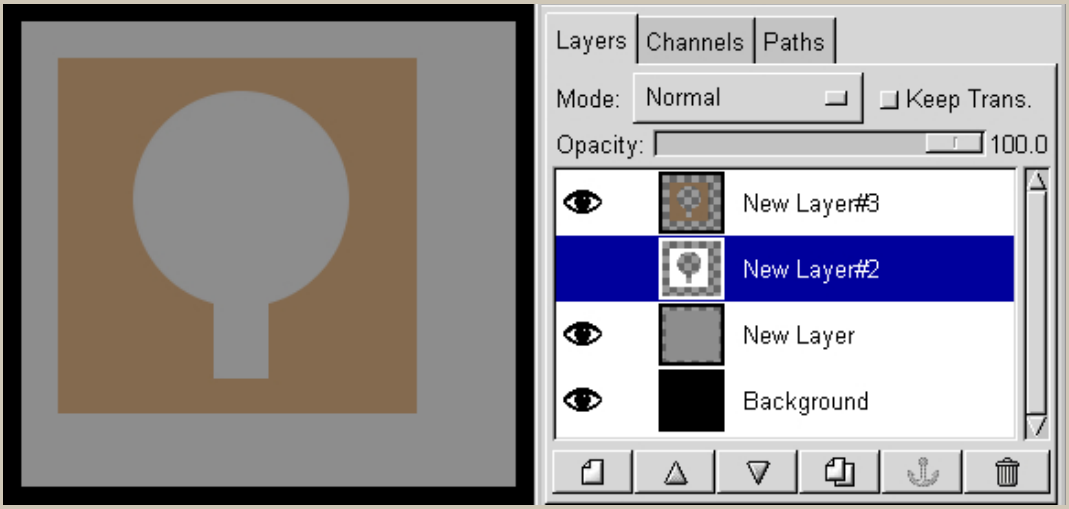
Ron Scott's tutorial - Transparent Objects

Here is a simple method I use to make planar transparent objects. To create the illusion in two dimensions I try to exploit the presence of edges and the scene situated behind the transparent object to create visual cues.



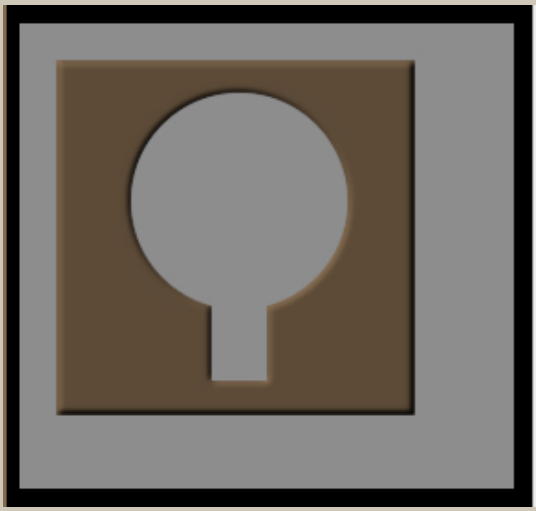
1. On a black background we create three transparent layers as shown on the left.

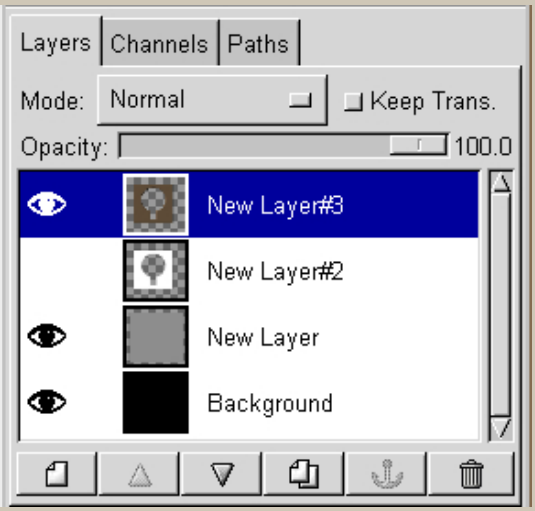
In the first, New Layer, use the selection tool to make a rectangular backdrop that will be viewed through the transparent piece. Fill it with a medium gray.

Now make a second transparent layer, New Layer#2, and create the shape of the object you wish to make transparent. Using Selection and Fill tools, I made a square shape from which I cut out a circle and a slot to provide plenty of edges. Make your shape white and obtain the selection of your final shape using "Alpha to Selection" in the menu that appears on right-clicking New Layer#2 in the Layers dialog.

With this selection showing, create the third transparent

layer, New Layer#3, and fill the selection with a rich, dark brown. Now remove the selection by right-clicking <image> -> Select -> None.



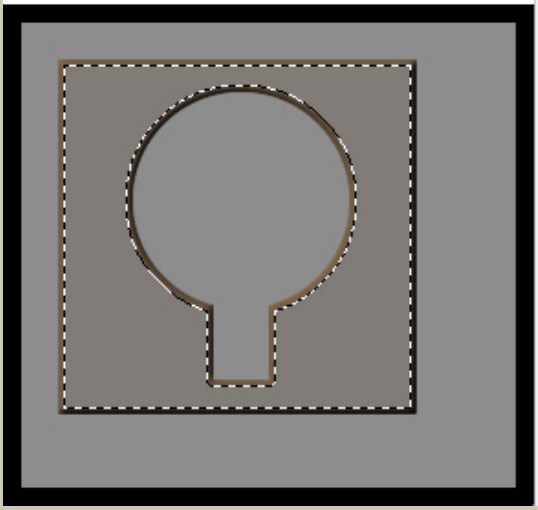


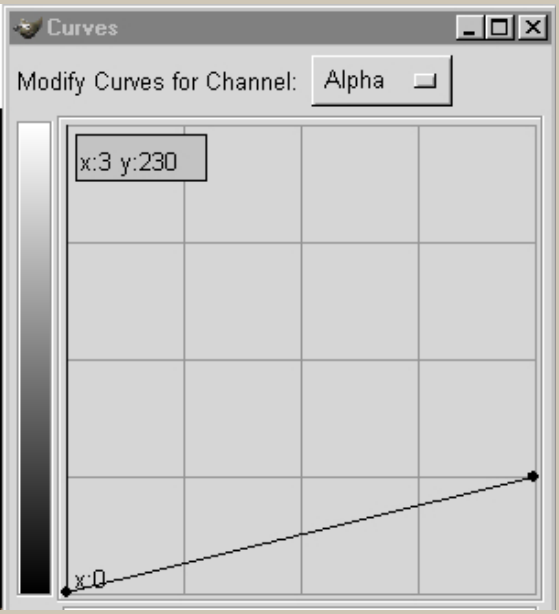
2. Make New Layer#3 invisible by clicking off its eye icon on the Layers dialog.

Now go to New Layer#2, the white form, and make it the active layer by clicking on it in the Layers dialog. Be sure it is visible.

Next, blur the white form by 5 pixels: <image> -> Filters -> Blur -> Gaussian Blur(RLE).

Make New Layer#2 invisible (click eye icon), activate New Layer#3 and make it visible. Now bump map New Layer#3. Use <image> -> Filters -> Map -> Bump Map. Under Parameter Settings, select New Layer#2 as the bump map and set Depth to 4 pixels. Click OK.





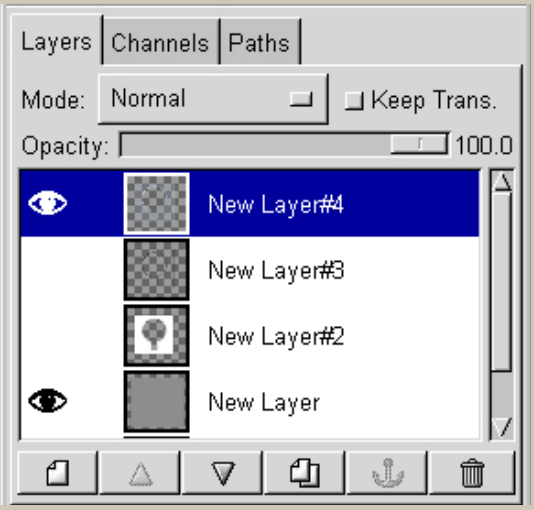
3. Still on New Layer#3, select the object and shrink the selection, as shown on the far left, by 3 pixels: <image> -> Select -> Shrink. Then feather the selection by 2 pixels: <image> -> Select -> Feather.

The thin margin of color outside the shrunken selection will form the edges of the object; the portion inside the selection we now make transparent. To do this, right-click <image> -> Image -> Colors -> Curves.

Near the top of the Curves dialog you find an entry labeled, "Modify Curves for Channel:". From the drop-down menu choose Alpha, as shown on the left.

The curve, a straight line, terminates in a large black dot in the upper right-hand corner of the graph. Click and

hold on the dot while dragging it down the right side of the graph. Moving the dot down progressively reduces the opacity of the region inside the selection. Adjust the curve down to approximately the position shown here on the left. Click OK. Be sure to keep the selection.

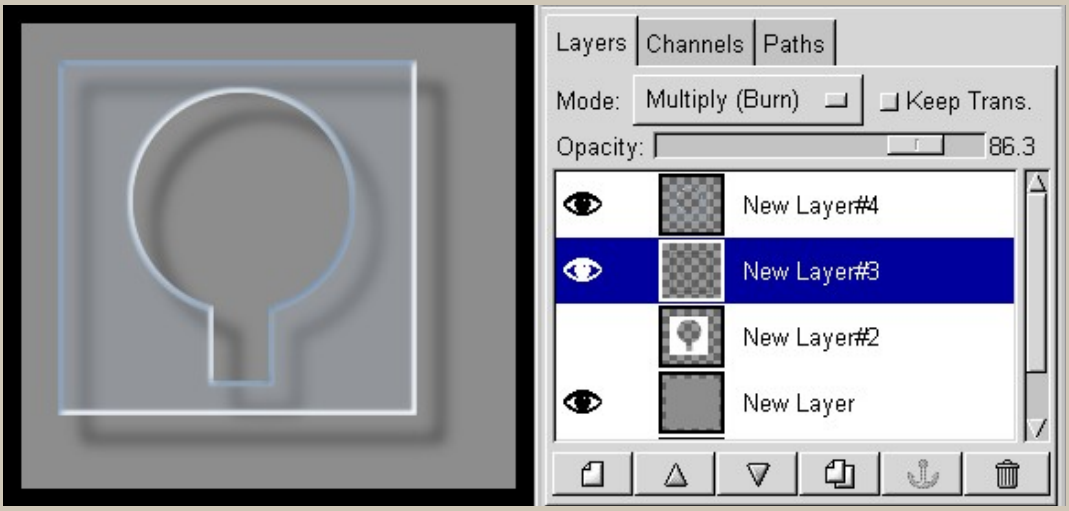


4. With New Layer#3 still active and the selection still in place, click on the Duplicate Layer button at the bottom of the Layers dialog. This gives a copy of the object in New Layer#4, as shown here on the immediate left.

Now make New Layer#4 invisible and return to New Layer#3, making it visible and active. With the selection still showing, we completely clear out the interior of the selection by: <image> -> Edit -> Clear. This result will be used to make a drop

shadow to enhance the illusion of a transparent object. **Remove the selection: <image> -> Select -> None.**

Make New Layer#3 invisible and return to New Layer#4, making it visible and active. Now invert the color of New Layer#4: <image> -> Image -> Colors -> Invert. You should now have the basic element of the transparent object complete with properly illuminated edges shown here on the far left.



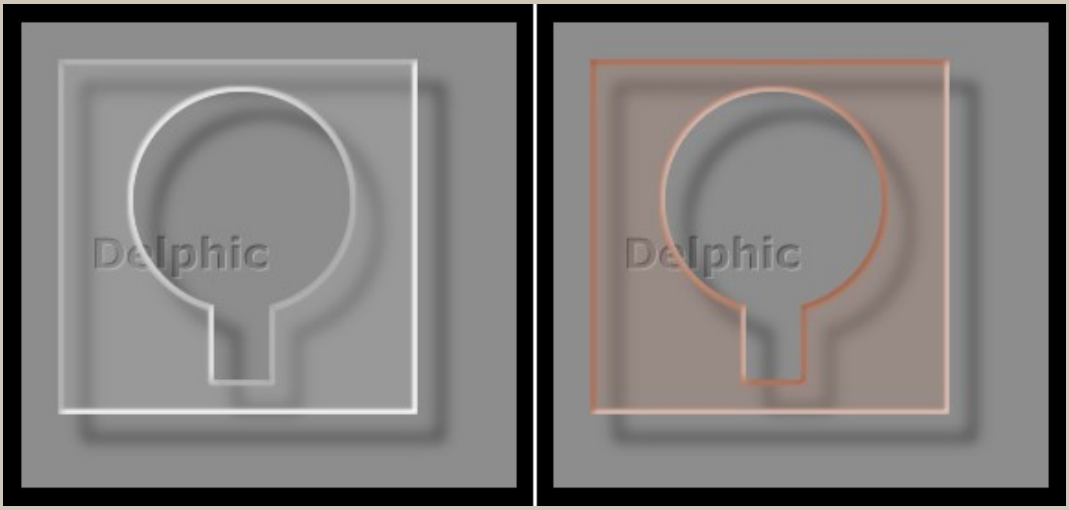
5. To render the drop shadow, make New Layer#4 invisible and return to New Layer#3, making it visible and active, then blur by 10 or 12 pixels.

Now offset the drop shadow. Right-click <image> -> Image -> Transforms -> Offset and select x and y offsets of 12 pixels each.

Finally, make New Layer#4 visible again with a result something like that on the far left. The

shadow generally needs some adjustment. In my example, I've set the Mode (top of Layers dialog) to Multiply (Burn) and knocked the Opacity down to about 86%.

The transparent piece is not quite finished. There is for example the matter of the color; blue may not be what you had in mind and this will be taken care of in step 6.



6. We can now use the Hue-Saturation function to obtain just about any color for the object.

Activate New Layer#4 and right-click <image> -> Image -> Colors -> Hue-Saturation. There are three sliders in the dialog that appears; for Hue, Lightness and Saturation. Suppose, for example, you think blue is nice but what you really wanted was a clear, colorless sheet of glass or plastic. In this case, slide the Saturation control

all the way to the left, to a value of -100, and the transparent piece becomes colorless, as shown in the illustration on the far left.

By experimenting with all three adjustments, Hue, Lightness and Saturation (and the Opacity control at the top of the Layers dialog), wide ranges of color, look and feel are available. In this way I made the darker, orange rendition shown on the left. I added some text to the backdrop, hopefully enhancing the illusion of a transparent object in three dimensions.