

# 3-D Buttons That Pop

By Ben Willmore

Beyond Layer Effects

## What You Will Need:

- Adobe Photoshop 5.0 or later
- Practice image: you can download `campaign2000.jpg` from the *PEI* Web site: [www.peimag.com](http://www.peimag.com)

People who attend my Photoshop seminars always show a great deal of interest in the Displace and Lighting Effects filters. So in this tutorial, I'll show you how to combine these two filters and create a very realistic looking 3-D button. The first time around you should probably use the exact settings that I use so you can get a good feeling for the technique before you stray too far from the path.

### Prepping the Image

Start by creating the artwork you would like to use for your button. I created mine in Adobe Illustrator and then opened it in Photoshop. You can use the same image I'm using by downloading it from the *PEI* web site at [www.peimag.com](http://www.peimag.com).

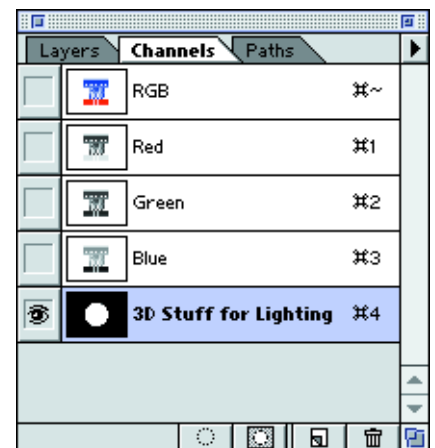
Once you have the image opened, grab the Elliptical Marquee tool and

make a selection a little bit larger than the button you would like to create. Be sure to hold the shift key to constrain the selection to a circle.

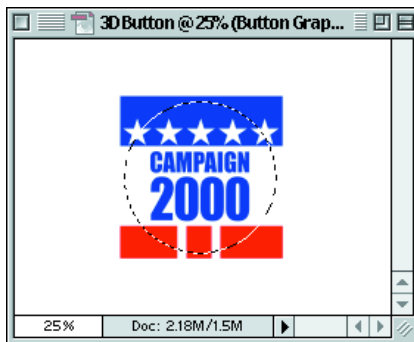
First we need to make some guides that we'll need later in the technique. Choose `View>Show Rulers` and drag out a guide from the left ruler. Release the mouse once it snaps to the left edge of the selection. Now pull out another one and make it snap to the right side of the selection. Then create two more guides for the top and bottom of the selection (use the top ruler or hold `option/alt` to switch the orientation of the guides while moving them).

We also need one in the center of the selection, but I'd rather not have you eyeball it, so try this: Choose `Edit>Free Transform` and pull out two guides until they snap to the center point that shows up. Once you have the guides in place, press the escape key to abort the transformation.

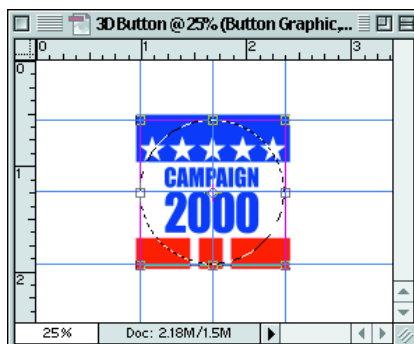
With the selection still active, now we need to create a few channels—don't worry, you don't need to know much about channels to do well with this technique. Open the Channels palette (`Window>Show Channels`) and click on the second icon from the left at the bottom of the Channels palette. Next, double-click on the name of the channel and change its name to something like "3-D Stuff for Lighting."



Your new channel should look like a white circle on an otherwise black channel.



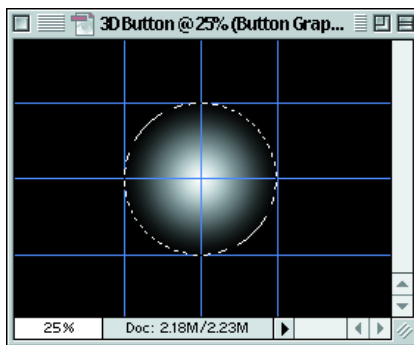
Make a selection of your graphic a little bit larger than the desired button size.



You should end up with a total of six guides

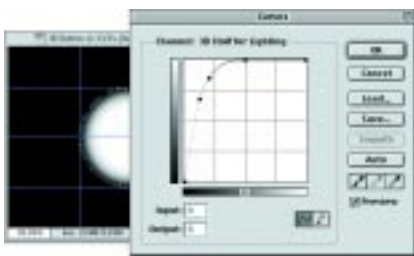
Double-clicking on the channel should also make it visible, which is exactly what we need. Next, click and hold the Gradient tool in Photoshop's tool palette and choose the second option—Radial Gradient. Now double-click on the Gradient tool to open its options palette and set the Gradient pop-up menu from

Foreground to Background, and then reset your foreground color by pressing the “D” key. To make a gradient, click on the guides that define the center of the circle and drag until you hit the guides that define the top center of the circle.



Create a radial gradient in the channel.

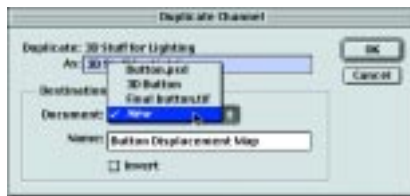
This gradient will define the 3-D edge of your button. Now let’s refine that shape. Choose Image> Adjust>Curves and draw a profile of what your button should look like. Just click on the line and drag to change the shape of the curve. To be safe, I suggest you create a curve very similar to the one I’m using. Do this by making sure the entire right half of the curve is all the way at the top of the grid.



This curve defines the shape of the button’s edge.

One of the filters we’re going to be using isn’t smart enough to know that this channel exists, so we’ll have to fool it by saving this channel in a separate document. Hold down opt/alt, drag the channel we just made to the new channel icon (it looks like a sheet of paper with the corner folded over),

and choose New from the Document pop-up menu in the Duplicate Channels box. Now save this image in the Photoshop file format and close it (remember where it’s stored because you’ll need it in a few minutes).



Copy the channel into a new document and save it in the Photoshop file format.

### Creating Dimension

Now let’s stop playing with channels and get on with creating our button. Click on the topmost channel, then switch over to the Layers palette. Click on the layer that contains the artwork you want to turn into a button (if it’s on the background layer, change its name by double-clicking on the layer). Let’s limit where the artwork shows up so it appears only inside our selection. To accomplish this, choose Layer>Add Layer Mask>Reveal Selection. Now your layer should have two thumbnail images in the Layers palette. Turn off the link symbol between them by clicking on the symbol in the Layers palette and then click in the middle of the left thumbnail picture to make it active.



The layer mask limits where your artwork can appear.

Now that we have our document ready to go, let’s bend our artwork around the button. Choose Filter> Distort>Displace, set both the

Horizontal and Vertical scale settings to 20% (you can experiment with other settings later), and leave the settings at the bottom alone. As soon as you press the OK button, Photoshop will present a standard Open dialog box. Navigate through your hard drive and find that file we saved a few steps back.



Use 20% for both settings and then click OK.



After applying the Displace filter, your button should have dimension, but will lack any shading.

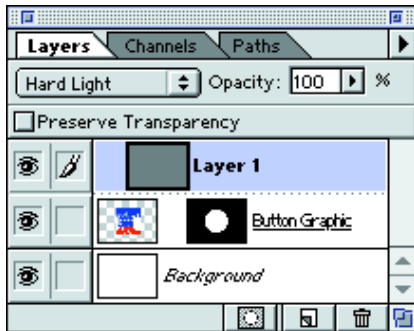
### Adding Lighting

Now your artwork might look as if it has been bent around a button, but it’s missing highlights and shadows, so let’s add some. Create a new layer above the artwork layer, choose Edit>Fill and set the Use pop-up menu to 50% gray. Next, choose Layer>Group with Previous and then set the Blending mode of that layer to Hardlight from the top of the Layers



Fill the new layer with 50% gray.

palette. After you've done that, the 50% gray will no longer show up, because you used the Hardlight mode. This will allow us to put the lighting effects on a layer separate from the artwork layer.



In Hardlight mode, 50% gray disappears.

Now let's get some realism by applying the Filter>Render>Lighting Effects Filter. With the default setting, this filter thinks it's shining light on a flat surface, but you can let it know that we have a 3-D object by choosing the name of the channel we created earlier from the Texture Channel pop-up menu. Now play with the settings until you can see a nice 3-D button appearing in the preview (or just copy my settings).



I used an Omni light with the following settings: Intensity 65, Gloss 50, Material 100, Exposure -30, Ambience -30.

The only problem with this filter is that it can give you ugly looking results when using a Texture Channel.

The whole reason we put the lighting on a separate layer was so we could blur the light without blurring the artwork. So, choose Filter>Blur>



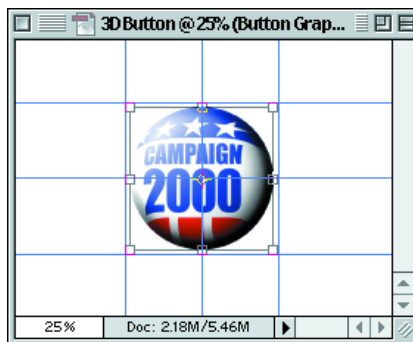
The result doesn't look smooth yet.

Gaussian Blur and blur the lighting effect just enough to smooth it out (somewhere between 2 and 2.5).



Gaussian Blur will smooth out the lighting effect, making it look more realistic.

But now the edge of the button might not look quite right. It's almost as if we've flattened out the edge. To fix that, go to the Layers palette and click on the layer mask that is attached to the artwork layer (the image that looks like a white circle on a black background). Now choose Edit>Free Transform and hold the shift key while you pull in one of the corner handles. When you do



Transform the layer mask to crop your button.

that, the layer mask will not remain centered on the button, so click somewhere in the middle of the handles (but not on the exact center) and move the handles until the center point snaps to the guides that appear in the middle of the button. When you've removed any areas that looked flat, press the enter key to finish transforming the layer mask.

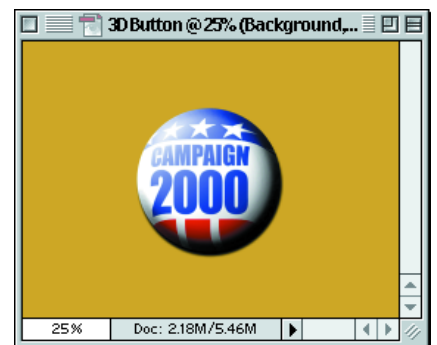
Now we need a simple shadow. With the artwork layer still active, choose Layer>Layer Effects>Drop Shadow and use settings similar to the ones below.



My settings: Opacity 100, Angle 120, Distance 10, Blur 5, Intensity 0.

### Creating a Background

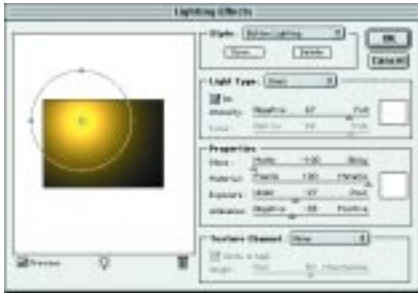
Next, create a new layer below your button and fill it with a solid color (I think I used something close to 204R, 165G, 102B).



Fill the layer below your button with a solid color.

You can make it even more realistic by adding lighting to the background. To do that, make sure the solid colored layer is active and choose Filter>Render>Lighting Effects. Photoshop will present you with the same options you used

when adding lighting to your button. Since the background is flat, you'll want to set the Texture Channel pop-up menu to None. You might also want to lower the Gloss to zero so you don't get overly harsh highlights on the background.



Apply the Lighting Effects filter without a texture channel for the background.



The final image, complete with background lighting and shadow effects.

Now, considering what we started with, we should have a very realistic-looking button. If you're wondering how all this stuff worked, the key was in that channel we created. Photoshop considered any areas that were brighter than 50% gray as being closer to you and areas darker than 50% as being further away. Then it used that information to bend the artwork and apply lighting to the image.

That's it for now. Go forth and make a multitude of buttons, and while you're waiting for the next issue of *PEI* to arrive, check out all the free tips I provide on my Web site, [www.digitalmastery.com](http://www.digitalmastery.com). ◀

Ben Willmore is author of the best-selling book *Official Adobe Photoshop 5 Studio Techniques* (Adobe Press) and founder of Digital Mastery, in Boulder, Colorado. Find out if he is coming to your area with his "Master Photoshop In 3 Days" seminar by visiting [www.digitalmastery.com](http://www.digitalmastery.com).

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