



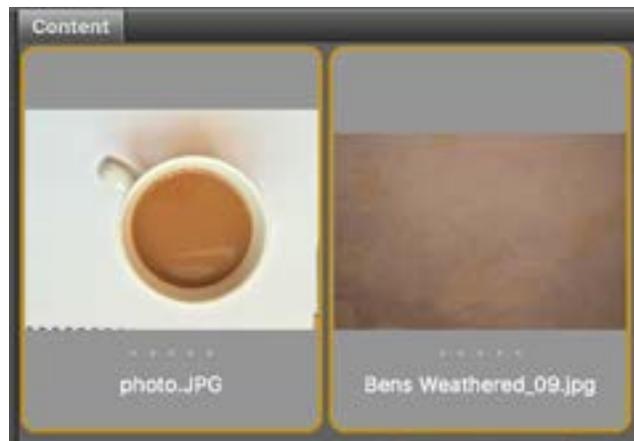
Realistic Shadows

# Realistic Shadows

In this lesson, we're going to explore how to create realistic shadows in your images. This could come in handy when you want to remove the background on an object and then place that object on a new background while maintaining a realistic look. Having a realistic-looking shadow will be key in making that object look like it naturally belongs in its new environment.

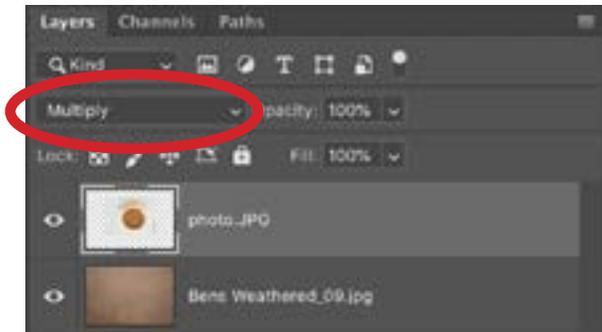
## Maintaining the original shadow

One of the ways we can go about incorporating a natural shadow after removing the background on an object is to maintain the object's original shadow. In the video example, we will take an image of a coffee mug and place it on top of a different, textured background while maintaining the mug's original shadow.



**At left, you can see the mug image and the textured image that we will use as the new background for the mug.**

**Load files into Photoshop layers** In Bridge, we'll select the two images (the mug image and the background image), we'll go to the Tools menu and choose Photoshop > Load Files into Photoshop Layers. This will place both images as separate layers in the same Photoshop document. We'll just make sure that the mug image is positioned above the background image. In order to make it look like the mug is sitting on the new background, we'll need to isolate the subject onto its own layer. That's because we'll be using a blending mode to make it look like the shadow is printing on top of the background as if it were made of ink. The blending mode that will achieve this look is the Multiply blending mode. Note that you can change the blending mode of a layer by activating the layer and then using the Blending Mode



**ABOVE:** The Blending Mode menu is located at the top of the Layers panel.

**RIGHT:** The mug image is set to the blending mode of Multiply and you can see that it doesn't look appropriate. We need to make it so only the mug's shadow is set to Multiply.



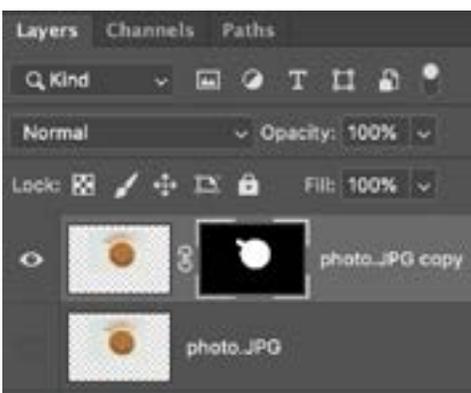
menu at the top of the Layers panel. The subject itself will not look appropriate in the Multiply blending mode, however, and that's why we'll need to isolate the mug from the background. After doing this, we'll be able to set the blending mode of the mug's shadow to Multiply while allowing the mug to remain normal.

**Isolate the subject** We'll start by duplicating the mug layer. To duplicate a layer, make sure the layer is active in the Layers panel and then use the keyboard short-cut Command+J (Ctrl+J on Win). We'll temporarily hide the visibility of the original image layer by turning off the eyeball icon to the left of the layer's thumbnail. With the top layer active, we'll work on isolating the mug by creating a selection around it. In some images, you could use the Quick Select Tool to do this, but because the color of the mug is so close to the color of the background, we are going to take a more manual approach here. We'll activate the Elliptical Marquee Tool and use it to create a selection around the circular part of the mug. The Transform Selection command will make it easier to make a selection like this. We'll start by creating a roundish selection around the mug. Then, we'll go to the Select menu and choose Transform Selection. Transform handles will appear around the elliptical selection and we can click and drag on these handles in order to perfectly position the selection around the mug. Note that if you're using a newer version of Photoshop (after the October 2018 update), you will need to hold down the Shift key while dragging



**LEFT: The Elliptical Marquee Tool was used to make a round selection around the mug and the Free Transform command is now being used to fine-tune the selection so that it perfectly matches the edges of the mug. RIGHT: We are adding the handle of the mug to the selection by using the Brush Tool in Quick Mask Mode.**

these handles if you do not want the selection to be scaled proportionally. We'll hit the Return/Enter key to exit the Free Transform feature. Now we'll need to add the mug handle to our selection. To make this easier, we'll tap the Q key to enter Quick Mask Mode. While in Quick Mask Mode, any area that is not selected will be covered with a red overlay and this will make it easier to visualize the selection. We'll activate the Brush Tool and use a relatively hard-edged brush to paint with white over the handle of the mug. We'll tap the Q key again to exit Quick Mask Mode.



**With the mug selection active, we created a layer mask and the selection was automatically applied to the mask.**

We now want to isolate the mug by use of a layer mask. With the selection active, we'll click on the Layer Mask icon at the bottom of the Layers panel. Whenever you create a layer mask while you have an active selection, that selection will be applied to the mask. All selected areas will be white on the mask and this represents the area that remains visible in the layer. Any areas that were not selected will be black in the layer mask and these are the areas that will be hidden. This results in our coffee mug sitting on a transparent (checkerboard) background.

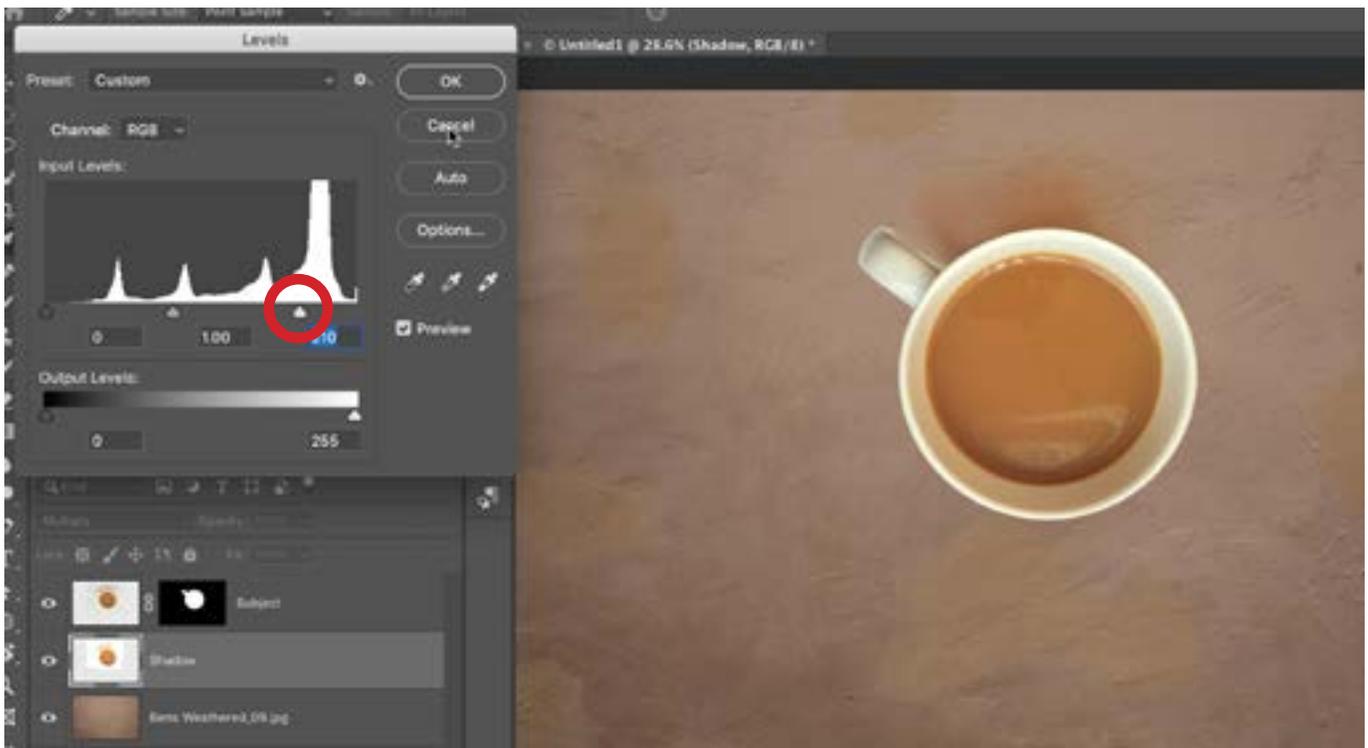
Now we'll turn the visibility of the original image layer (the one we'll be using to create the shadow of the mug) by turning on the eyeball icon to the left of the layer's thumbnail. We'll also rename the layer to "Shadow" so that it's obvious what its purpose is. We'll name the top layer "Subject" just to be organized.

**Adjust the Shadow layer** We'll make sure that the Shadow layer is active and we'll change the blending mode of this layer to Multiply. This causes the shadow layer to blend into the textured background layer. In this example image, we also need to use the Eraser Tool to remove some dark areas from the edge of the layer. (This mug was shot on top of a white notebook, and you can see some of the dark edges and spiral binding of the notebook, so we need to remove those.)



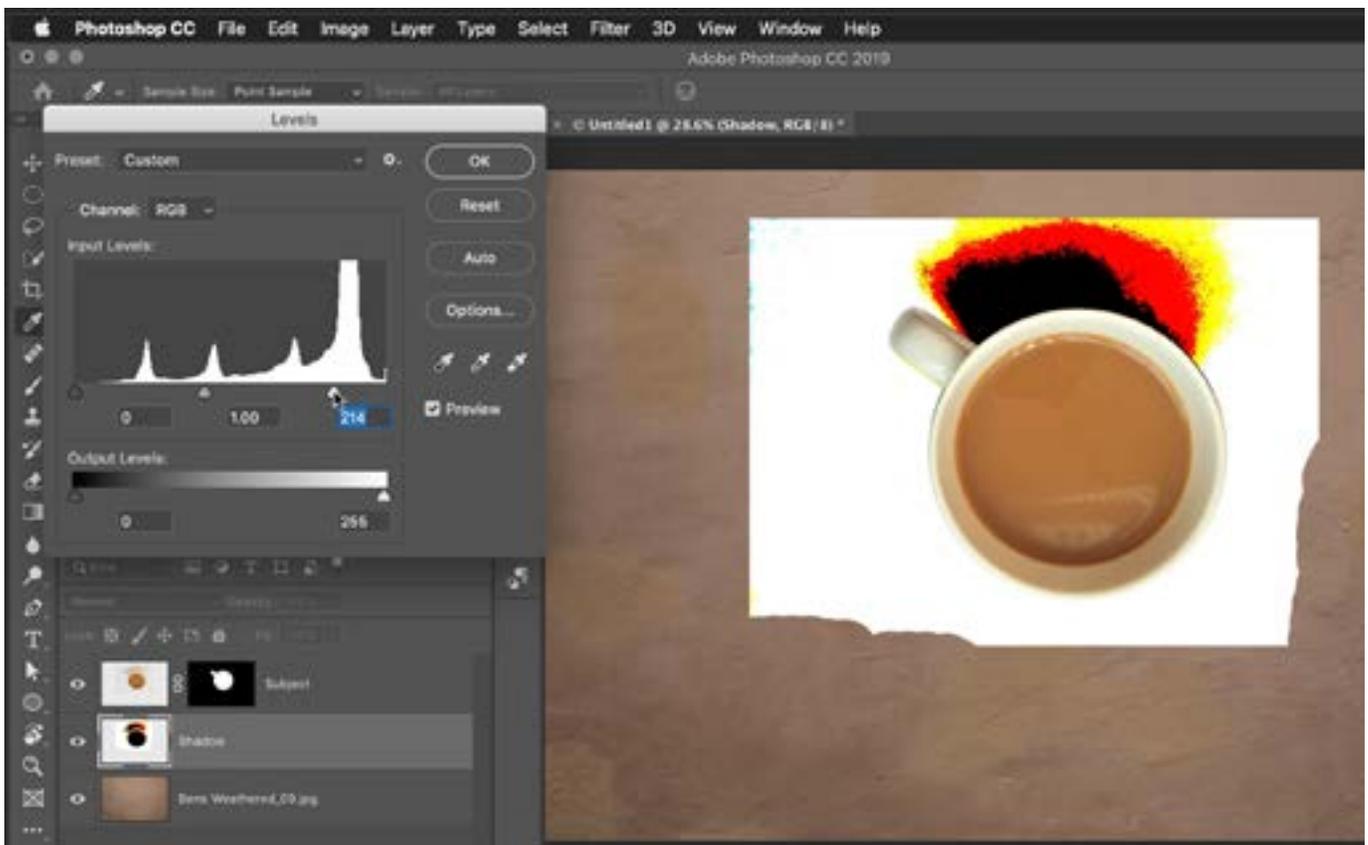
**LEFT:** The shadow layer was set to the Multiply blending mode. We can see that there are some dark areas on the edges of that layer. **RIGHT:** We are using the Eraser Tool to get rid of those dark areas.

Any time you have a layer that is set to Multiply mode, it acts as if the contents is made out of ink. Because the paper that was sitting under the mug was not perfectly white, it is adding some “ink” to the image below, and that makes it so we can still see a slight darkening in that area. In order to fix this, we need to adjust the shadow layer to make the paper solid white. Once it becomes solid white, it will be completely invisible because anything that is solid white when set to Multiply mode will disappear. We’ll make sure this Shadow layer is active, we’ll click on the Image menu and choose Adjustments > Levels. In the Levels dialog, we’ll take the slider on the right side of the bar chart and drag it to the left. Moving this white slider to the left will force more and more areas of the layer to become solid white. We’ll continue moving this slider to the left until we can no longer see any of the paper.

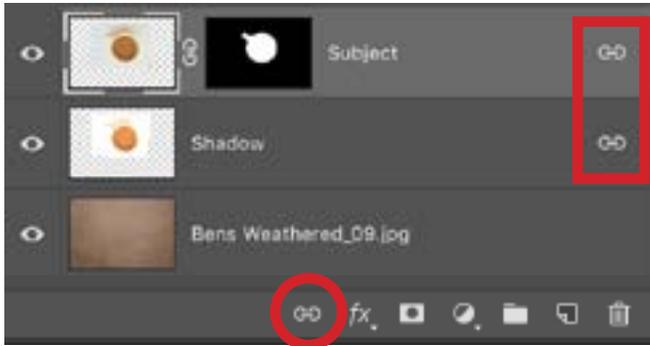


**A Levels adjustment is being used to force the paper in the background to be solid white and therefore disappear when set to Multiply mode. We are dragging the white slider (circled) to the left, which forces more and more areas to be solid white.**

**Levels Tip:** When working with Levels, it might not always be easy to tell when parts of your image become solid white. In the example we used, it was easy to tell because the layer was in Multiply mode and all white areas simply disappeared. That will not always be the case for you, so here is a trick for knowing exactly what areas are turning white. As you drag the white slider to the left, hold down the Option key (Alt on Win). This will temporarily change the view of your image to give you a visual representation of what areas are pure white. Colored areas represent parts of the image that are NOT solid white. We will drag the slider until the only areas that we still see in color are the areas where the mug's shadow should be. We'll then click OK and make sure the layer's blending mode is set to Multiply.



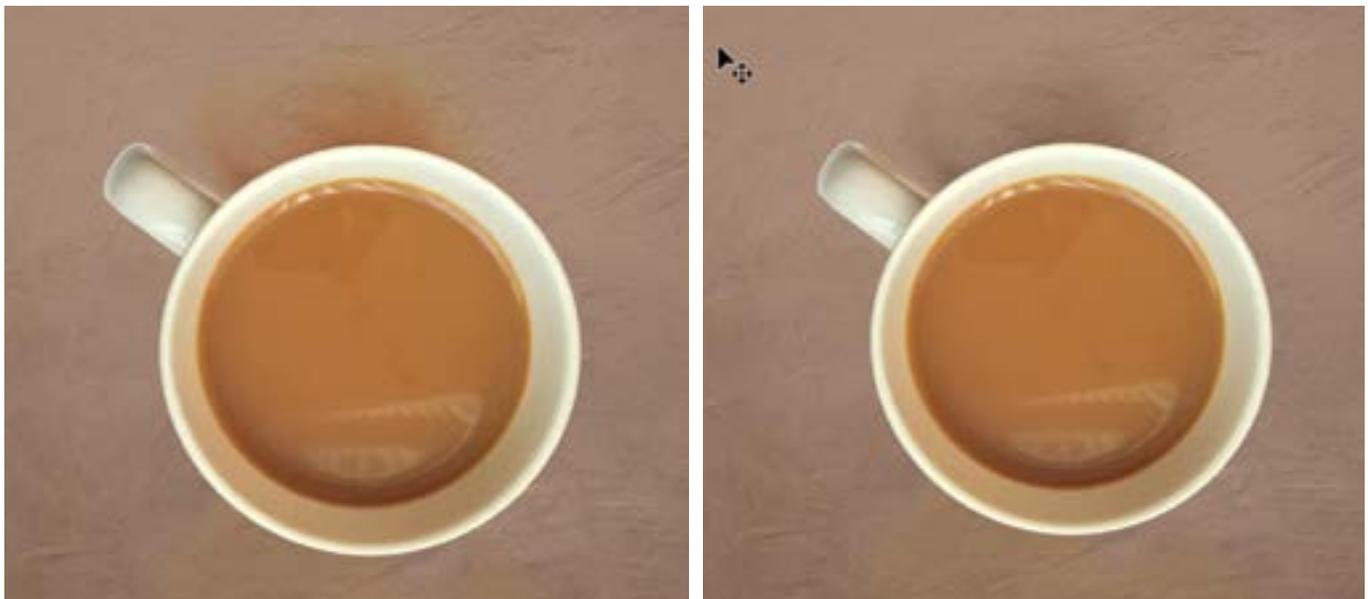
We are holding down the Option key (Alt on Win) while dragging the white Levels slider and this is giving us a different view of the image that shows what areas are solid white. The areas that are colored or black indicate areas that are NOT solid white.



The Link icon was used to link the two layers so that they will move together.

Now we want to make sure that if we move the mug layer (the top layer), the shadow layer will move along with it. We'll make sure that both of the layers are selected and then click the Link symbol at the bottom of the Layers panel. This will link the two layers together so that when we move one of them, the other will move with it.

**Correct for color cast in the shadow** In the example image, the mug's shadow seems to have a brownish tint to it. We'll correct for this by using an adjustment. We could either use a Hue/Saturation adjustment, dragging the Saturation slider all the way to the left to remove the color, or we could use the Desaturate adjustment, which will remove all of the color from the layer. We'll use the Hue/Saturation adjustment so we can have more control. With the Shadow layer active, we'll click on the Image menu and choose adjustments > Hue/Saturation. In the dialog box, we'll move the Saturation slider to the left. The result is a nice, neutral shadow.



LEFT: You can see that the mug's shadow has a brownish color cast to it. RIGHT: We used a Hue/Saturation adjustment to remove the color from the shadow.

**Place the object on a different background** Now that we have isolated both the mug and the mug's shadow, we can place the mug onto any appropriate background/surface that we'd like. To move the mug from one document to another, first make sure that the second document is open in a separate Photoshop tab. Then make sure that one of the mug layers is active (either the mug itself or the shadow). Because the two layers are linked, it doesn't matter which layer is active because both of them are going to move together. We'll click on the mug with the Move Tool and drag it to the Photoshop tab for the document we want to place it in. When we hover the cursor over the tab, that document will come to the front. Keeping the mouse button held down, we'll drag the cursor into the new document. When we release the mouse button, the mug (and its shadow) will appear in the new document. In our example, we're placing the mug into a scene where two people are playing a board game. The mug is far too large for the new image, so we'll use the free transform command (Edit > Free Transform) to scale the mug down to a size that suits the new surroundings.

## Extracting a shadow from a textured surface

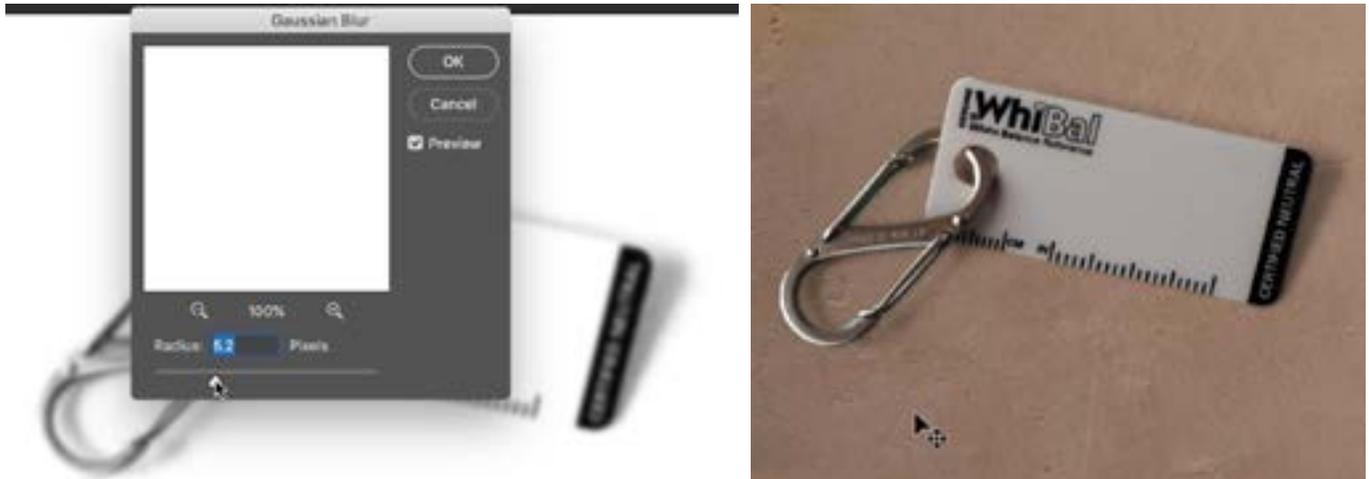
If a shadow falls on a textured surface, it might be more difficult to maintain that original shadow and place it onto a new background while looking natural. In our example image, we have a WhiBal card that is sitting on a textured surface and we can see the texture in the shadow. We want to place the card (and the shadow) onto a new surface while keeping the original shadow.

Just like in the first image, we'll duplicate the layer and isolate the subject via a layer mask. We'll use a Levels adjustment to force everything except the shadow to become pure white. Then, we'll remove the color from the underlying shadow layer so that it doesn't maintain that blue hue from the original background. To remove the color, we'll go to the Image menu and choose Adjustments > Desaturate.



**We want to extract this shadow while making it still look realistic by removing the texture.**

Now, we'll have to remove the texture from the shadow and we can do that via the Gaussian Blur filter. With the shadow layer active, we'll go to the Filter menu and choose Blur > Gaussian Blur. Here, we'll find the lowest setting that gets rid of all the texture and then click OK. Finally, we'll set this shadow layer to Multiply mode.

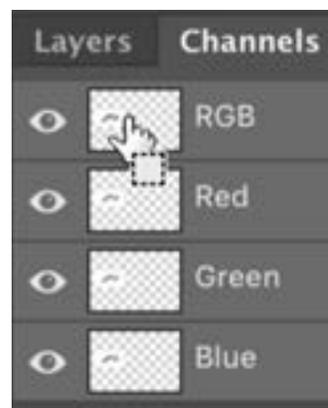


**LEFT: The Gaussian Blur filter is being applied to the shadow layer. We're using the lowest setting that still removes the texture. RIGHT: The subject is placed on a different background and, because the texture was removed from the shadow, it still looks natural.**

## Putting the subject and shadow on one layer

Up until now, our results have included two layers: one layer for the subject and another for the shadow. There may, however, be instances where you need everything on one layer. Maybe you need to open the image in a program that doesn't support layers or doesn't know what blending modes are. Or perhaps you need to upload the image for use on the Internet. Let's look at how to do this.

There is a technique that will give you a selection based on the brightness of your picture. It will select all areas that are solid white and as areas become darker, they will be less and less selected. To do this, we'll need to make sure the Channels panel is visible. It is usually grouped with the Layers panel. We'll hold down the Command key (Ctrl on Win) and click on the RGB thumbnail at the top



**We are creating a selection based on brightness by holding down the Command key (Ctrl on Win) and clicking on the RGB channel.**

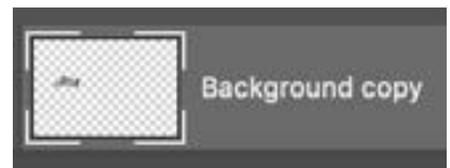
of the panel. This will create the selection based on brightness. This is actually the opposite of what we want (we want the dark areas selected and the white areas unselected) so we will go to the Select menu and choose Inverse. Now, we'll go back to viewing the Layers panel and we can actually get rid of the shadow layer by dragging it to the trash.

To re-create the shadow (on a layer that doesn't require a change of blending mode), we'll click on the Adjustment Layer icon at the bottom of the Layers panel and choose Solid Color. The Color Picker will appear, we'll use it to choose a black hue and then click OK. Because there was an active selection, that selection will automatically be applied to the adjustment layer's mask.



**With the selection active, we clicked on the Adjustment Layer icon and chose to create a Solid Color adjustment layer. Here, we are choosing black as the fill color.**

Now, we will select both the Color Fill layer and the layer containing the subject and merge the two together by going to the Layer menu and choosing Merge Layers. As a result, we have a single layer that contains both the subject and the shadow, with the necessary transparency to make the shadow look realistic.



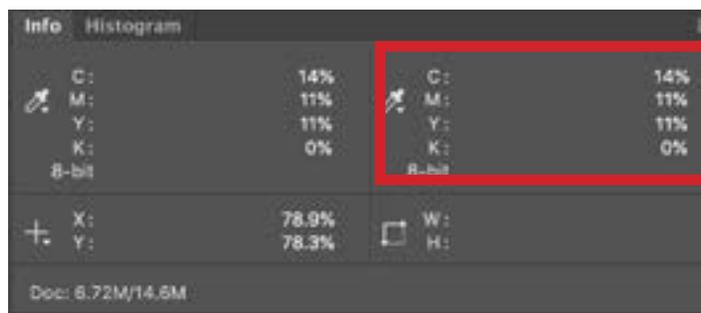
**The shadow and subject are now contained on one layer.**

Note that when saving an image like this, we are limited to the type of file format we can use because many file formats do not support transparency. The PNG file format is a good format to use because it supports transparency and is compatible for use on the web. You can either go to the File menu and choose Export > Export As or you could choose Export > Save for Web. Either of these methods will let you choose the PNG file format.

## Extracting shadows for use on a printing press

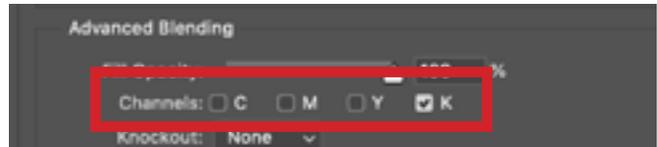
When you print something on a printing press, you're going to need to convert the document from RGB mode to CMYK mode, which is the color space required by professional printing presses. You can change the mode of the document by going to the Image menu and choosing Mode > CMYK. Printing a shadow on a press can present a bit of a problem.

After following the steps we used previously for separating the subject and shadow onto separate layers, activate the shadow layer and then open the Info panel. (If the Info panel is not already visible in your interface, you can access it by going to the Window menu and choosing Info.) We did this with the image of the Canon GPS receiver. Looking at the numbers for CMYK, we can see that the image is made of small percentages of Cyan, Magenta and Yellow. The problem is that with printing presses, it's easy for the inks to be off a little bit so that we end up with too much of one certain color of ink, and this would result in a shadow that has color in it. This is something we don't want so we need to do something that ensures the shadow won't have an odd color to it. This technique will also use less ink because we're going to reproduce the shadow using only black ink.



**Here, we're looking at the Info panel for the shadow layer in a CMYK document. You can see small percentages of Cyan, Magenta and Yellow in this layer.**

We need to make sure that the shadow layer is active and that it is not locked. We'll click on the FX icon at the bottom of the Layers panel and choose Blending Options from the pop-up menu. The Layer Style dialog will appear. In the middle of this dialog, there are Channel check boxes for C, M, Y & K. We'll turn OFF the check boxes for Cyan, Magenta and Yellow. We will make sure that the black (K) check box is turned ON and click OK.



**In the Blending Options section of the Layer Style dialog, we turned off the check boxes for Cyan, Magenta and Yellow. We turned on the check box for black (K).**

In our example image, the shadow is there but it appears very light. That's because we never changed the amount of black ink being used. We just told Photoshop not to use any of the other inks. We need to tell Photoshop to use the same amount of ink, but just do that with black ink. We'll go to the Image menu and choose Adjustments > Channel Mixer. The Channel Mixer dialog will appear and we want to make sure that the Output Channel menu is set to Black. Now we want to tell Photoshop to take whatever would usually be printed with Cyan, Magenta and Yellow and use Black instead. We'll just drag these three sliders up until the shadow starts to look



**The Channel Mixer adjustment is being applied to the shadow layer. We're using the sliders to tell Photoshop to insert black in the areas that used to contain Cyan, Magenta and Yellow.**

dark enough again. The three sliders should be set to about the same value but there is no precise algorithm. We're just going to move the sliders up while looking to see how they are affecting the image. We'll make sure the Black slider is set to 100 and then click OK. Now, we can look back at the Info panel and we'll see that there is no Cyan, Magenta or Yellow in the image. The entire shadow layer is made up of black ink. This will ensure that the shadow will not have a color cast to it when printed on a printing press.

## How to re-create a shadow

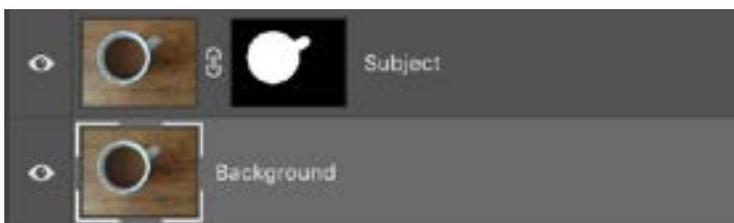
There are going to be instances where it will be impossible to maintain the original shadow when placing a subject onto its own layer (or layers). An example would be an image where the shadow falls on a very busy background, like the woodgrain in the video example. In this image, we tried to use the Levels adjustment to force the background to white, but because there were dark details interspersed in that background, the lightening took the shadow along with it. In order to get around this, we're going to have to re-create the shadow instead of maintaining the original shadow.

We'll start in the same way that we have done so previously. We'll duplicate the background layer and then use a selection and layer mask in order to isolate the subject in that layer copy.

In order to make a truly realistic shadow, the shadow will likely need to consist of more than one piece. In the mug image, we can see a large shadow extending from the right side of the mug and we can also make out a secondary shadow created by the handle of the mug.

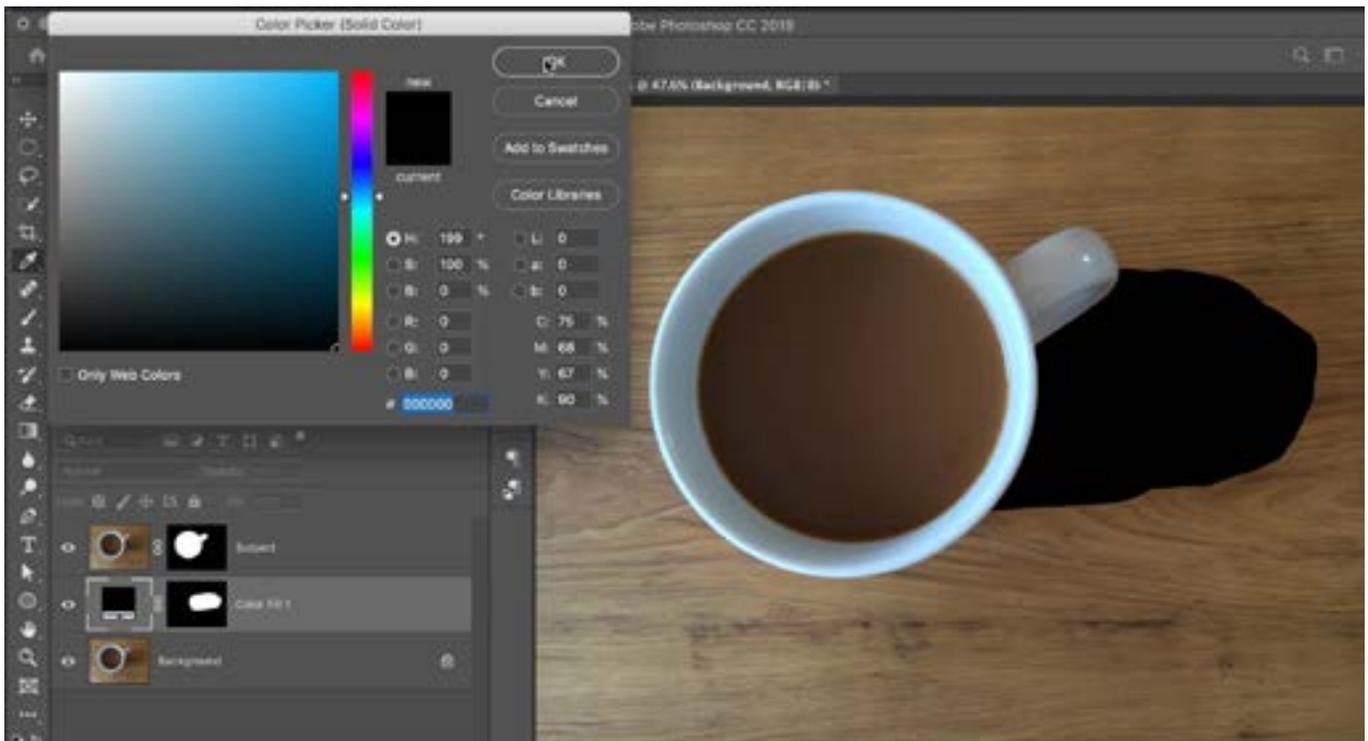


**It will be impossible to maintain the original shadow for an image like this because there is too much detail in the background. We'll instead need to re-create the shadow.**



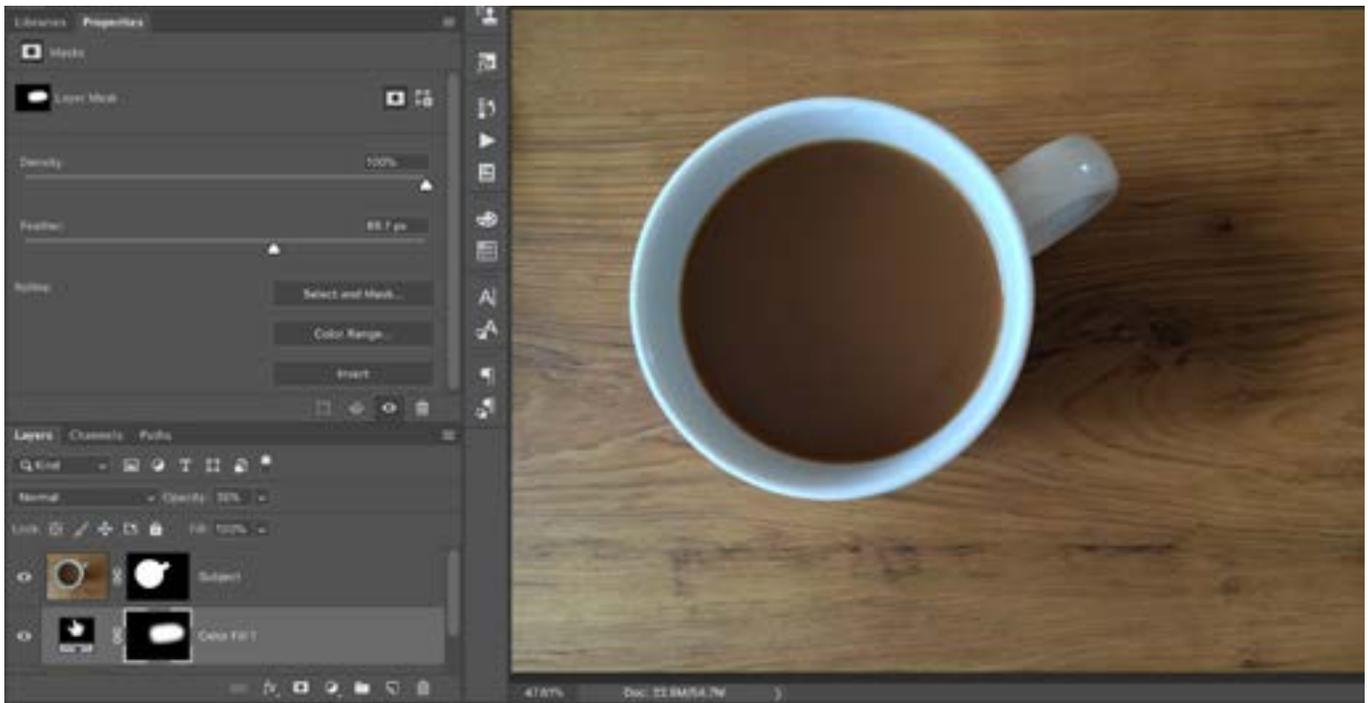
**A layer mask was used to isolate the mug.**

For the first piece, we'll activate the bottom layer and then use the Lasso Tool to draw an outline around one of the shadows. In the coffee mug example, it's the large, oval-shaped shadow falling on the right side of the mug. Then, we will click on the FX icon at the bottom of the Layers panel and choose to create a Solid Color adjustment layer from the pop-up menu. The Color Picker will appear and we can either choose a black color or we can use the eyedropper to choose a color from a shadow that is already in the picture. In the video example, we'll choose black and then click OK. Because there was a selection active, the selection will automatically be applied to the mask for the solid color layer. This leaves us with a black shape that sits above the background layer but below the layer containing the isolated mug.



**The Lasso Tool was used to create a selection in the shape of the desired shadow. This selection is being used to create a Solid Color layer, set to black. The Solid Color layer is positioned just beneath the subject layer.**

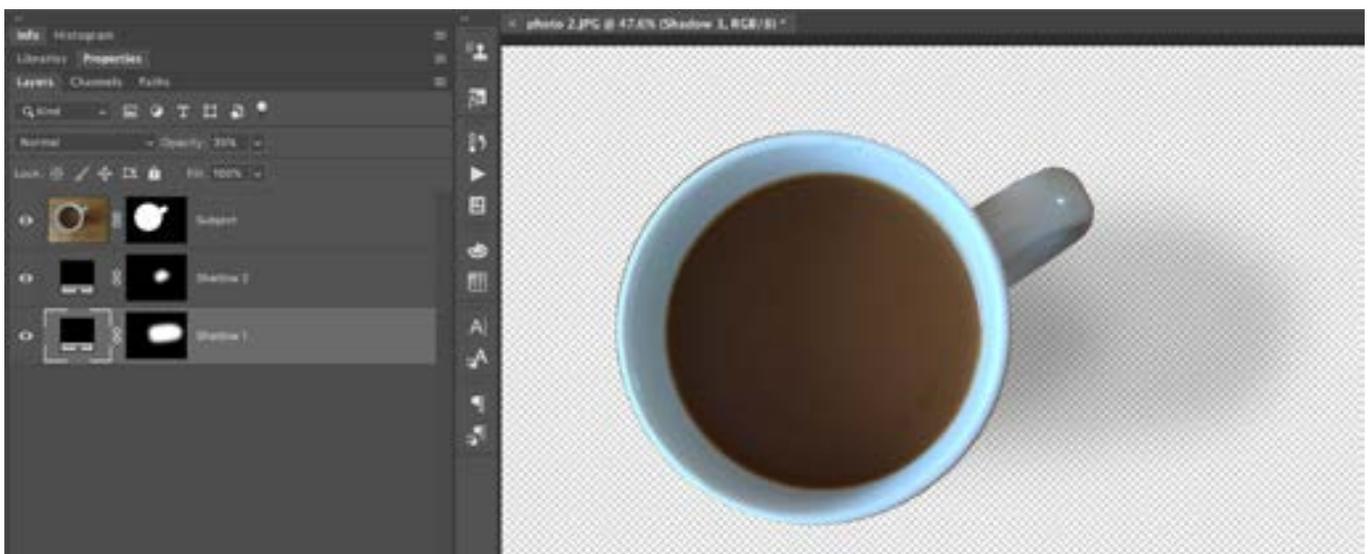
This black shape clearly does not yet look like a shadow. It is obvious that we must blur the shadow. To do this in a way that can be changed later (if we should so desire), we'll need to make sure that the Color Fill layer is active and we will expand the Properties panel, which contains the settings for the layer mask. Here, we can drag the Feather slider to the right, softening the edge of the shadow until it looks appropriate. Then, we will use the Opacity setting at the top of the Layers panel to lower the opacity of the shadow so that it looks natural.



**To make the shadow look more natural, we opened the Properties panel for the Solid Color layer and dragged the Feather slider to the right, softening the shape. We are also lowering the opacity of the shadow.**

Next, we'll work on the next piece of shadow, which is created by the handle of the mug. We'll follow the same procedure as we did with the first shadow. We'll use the Lasso Tool to make a selection around the area that is darkened by the handle shadow. With that selection active, we'll click on the FX menu and choose to create a Solid Color adjustment layer. We'll use the Color Picker to choose a black color and click OK. Because there was a selection active when we creat-

ed the Solid Color adjustment layer, that selection will automatically be applied to the layer mask and there will be a black shape that represents this second shadow. It doesn't look natural, so we'll open the Properties panel and drag the Feather slider to the right until the shadow looks appropriate. Lastly, we'll lower the Opacity setting so the shadow is not quite as dark. We can now turn off the visibility of the underlying, original image layer so that we have our mug and shadow sitting on a transparent background. We can easily use the Move Tool to place the subject onto a new background and fine-tune the opacity of the different shadows so that they look appropriate in their new surroundings.



**A second shadow was added for the handle of the mug and we are viewing the result on a transparent background.**

The color of these shadows can also be adjusted at any time by double-clicking on the color swatch thumbnail for the Solid Color adjustment layer. The Color Picker will appear and we can use it to choose a new color from within the color square or use the eyedropper to sample a color within the image.

If we set the opacity to a high setting for one of the shadows, it might start to look unnatural because we won't be able to see through it to the background. This would happen if the blending mode of the shadow layer was kept to Normal mode. In order for the textured background to appear through the solid color fill shadow, we'd need to change the blending mode to Multiply mode.

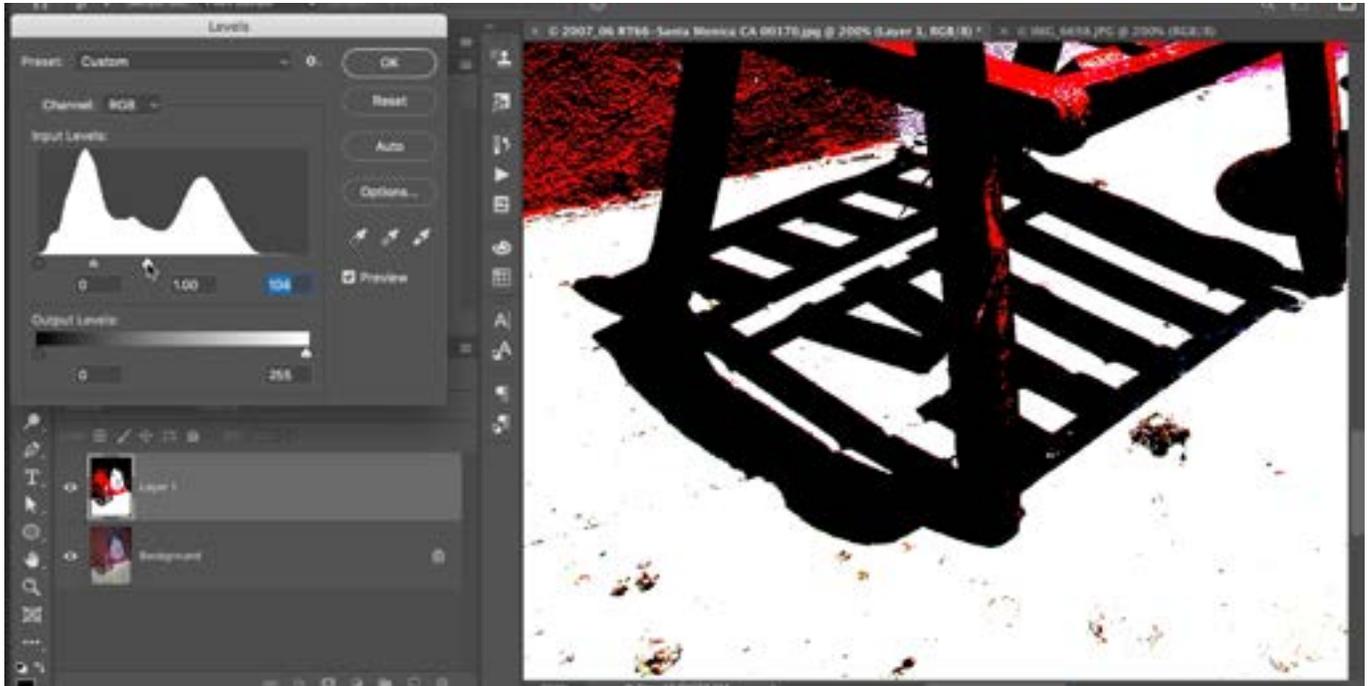


**This shadow is set at a high opacity setting and you can see that it's starting to look unnatural because you can no longer see the background texture. To fix this, we can set the shadow blending mode to Multiply.**

## How to re-create a complex shadow

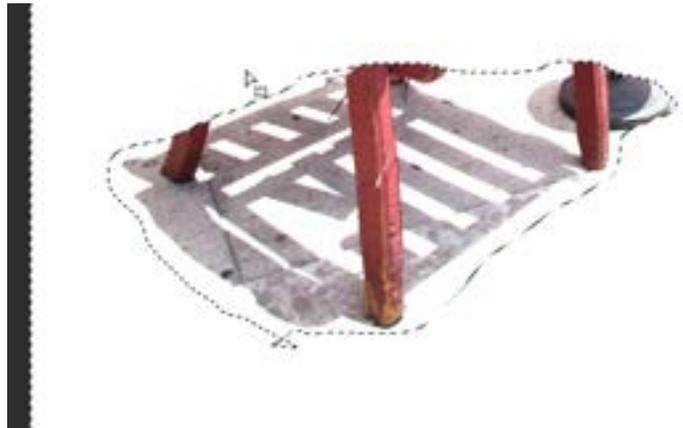
There are going to be instances where you won't be able to re-create a shadow by simply drawing out an oval with the Lasso Tool. This will be the case when the shadow is a really complex shape, like the bicycle shadow in the video example. Let's look at how to tackle a job like this.

We'll work on the image that contains a shadow of a chair and we'll start by duplicating the image layer. Duplicate a layer by using the shortcut Command+J (Ctrl+J on Win). Now, we want to try and isolate the shadow using this layer duplicate. We will try to use a Levels adjustment to force the areas surrounding the shadow to become solid white. We'll go to the Image menu and choose Adjustment > Levels. In the Levels dialog, we'll move the white slider to the left, forcing more and more areas to become white. We'll hold down the Option key (Alt on Win) while we drag this slider so that we can get that special view of the image that shows us what areas are becoming solid white. Once we have forced as much of the surrounding area as possible to white, we'll click OK.



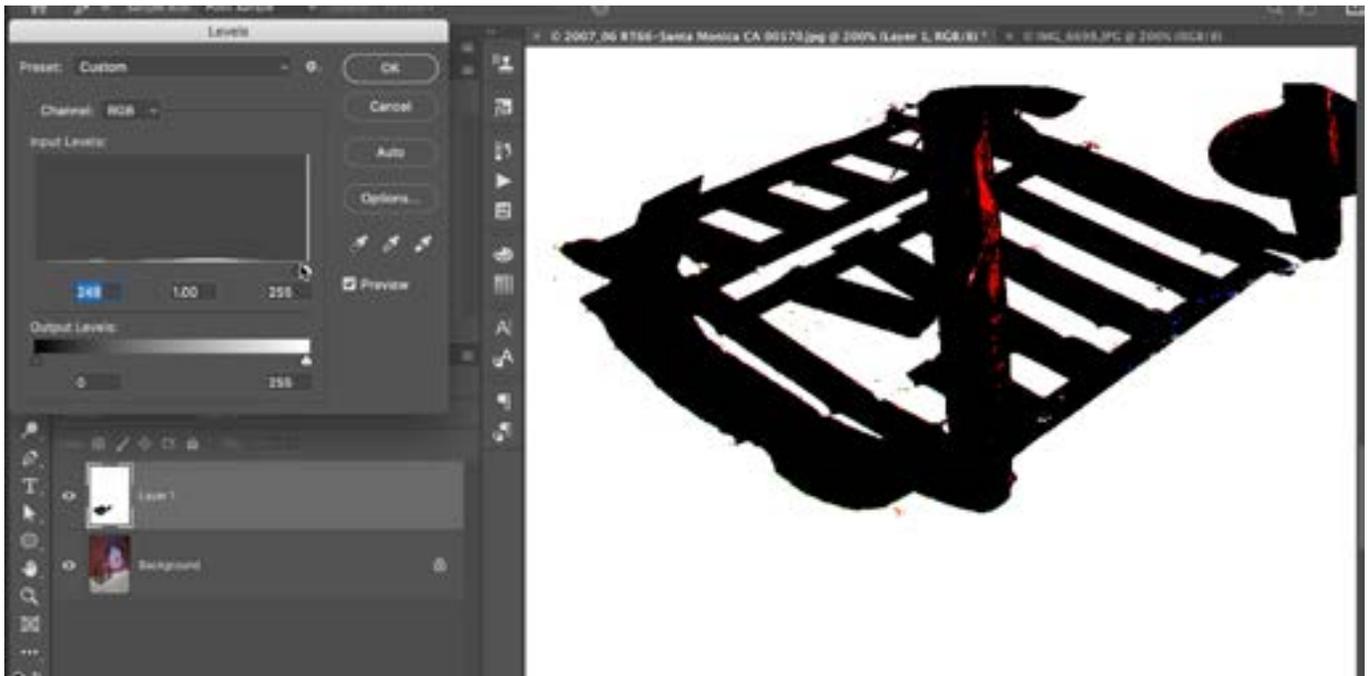
**A Levels adjustment is being used to force the area surrounding the shadow to white.**

More of the surrounding area is now white, but we still have patches of color surrounding the shadow. We'll use the Brush Tool to paint with white in the areas directly around the shadow. We won't worry about any spots that are distanced from the shadow because we'll fill those with white after making a selection. We'll use the Lasso Tool to make a loose selection around the shadow and then go to the Select menu and choose Inverse. This will make it so everything EXCEPT the shadow is selected. We'll fill this selection with white by going to the Edit menu and choosing Fill. When the Fill dialog appears, we'll choose to fill with white and then click OK.



**A selection was made around the shadow. That selection was inverted and then filled with white.**

Now we have our shadow isolated, but there is still texture to the shadow. To fix this, we'll go back to the Levels adjustment (Image > Adjustments > Levels) and use the black slider to force more areas to black. We'll drag that black slider to the right, forcing as much of the shadow to black as possible, and then click OK. The result looks good, but we have a small amount of cleanup to do. We'll use the Brush Tool to paint with white in any areas outside of the shadow that are not white already. We'll paint with black inside of the shadow in any areas that were not perfectly black.



**A Levels adjustment is being used to force as much of the shadow as possible to become solid black.**

The shadow of the chair is now isolated in this layer. The shadow is black and everything else is white. We will now make a selection of this shadow and we can do that by using the technique that allows us to create a selection based on brightness. We'll open the Channels panel, hold down the Command key (Ctrl on Win) and click on the top-most channel (named RGB). This will make a selection where all white areas are 100% selected and all black areas are 0% selected.

This is, of course, the opposite of what we want so we'll go to the Select menu and choose Inverse. Now we have the shadow perfectly selected and we can go back to viewing the Layers panel. The only reason we duplicated the image layer was to create the selection of the shadow. Now that we have that selection, we can drag that layer to the trash can icon at the bottom of the Layers panel.

With the selection active, we'll click on the FX icon at the bottom of the Layers panel and choose Solid Color from the pop-up menu. The Color Picker will appear and we'll use it to choose black and then click OK. Because there was a selection active at the time we created the Solid Color layer, that selection will automatically be applied to the adjustment layer's mask and we will be left with a color layer in the shape of our shadow. We can then adjust the Opacity of the shadow or we can soften the edges by opening the Properties panel and dragging the Feather slider.



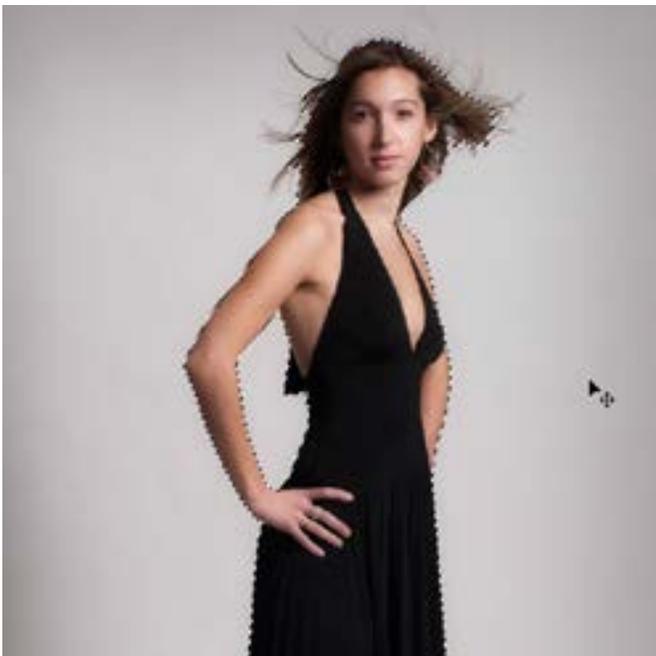
**LEFT: We now have a selection of the chair's shadow. RIGHT: The shadow is isolated on its own layer.**

## Create a custom shadow

There are also going to be times when the original shadow will not work on a different background. This means that we can't use that original shadow and we can't use it as a guide to create a new shadow. The video example image shows a model on a white backdrop, but the shape of the backdrop is influencing the shape of the shadow. This makes it so that if we were to place the shadow on a different background, it would not look appropriate. Let's look at how to create a new shadow for her.



**The shadow in this image would not be appropriate on a different background, so we're going to create a new shadow.**



**The selection of the model was created by going to the Select menu and choosing Subject.**

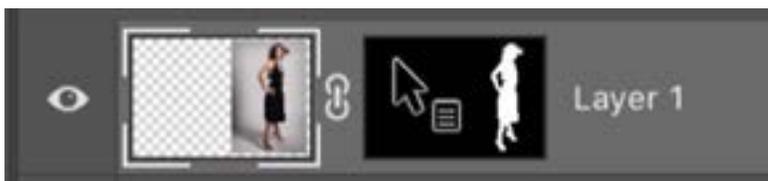
We'll start by placing the subject on her own layer by the use of a selection. For this image of the model, we'll go to the Select menu and choose Subject. This may or may not work correctly. It will depend on the subject of your image. In our example, it actually did a pretty decent job. We could further refine the selection using the Select & Mask feature, but that is the subject of a different lesson. Plus, we're going to be creating a shadow from this selection, so it's not going to matter if all of the fine hairs and other details are selected properly because the shadow is going to be blurred significantly. We will, however,

refine the selection around the shoes because this part might be more noticeable in the result. We'll tap the Q key to enter Quick Mask Mode and then use the Brush Tool to refine the selection around the shoes, making sure that there is no red overlay on the shoes and that there IS a red overlay in the area surrounding the shoes. We'll tap the Q key again to exit Quick Mask Mode.



**The selection is being refined in the area around the shoes by using the Brush Tool in Quick Mask Mode.**

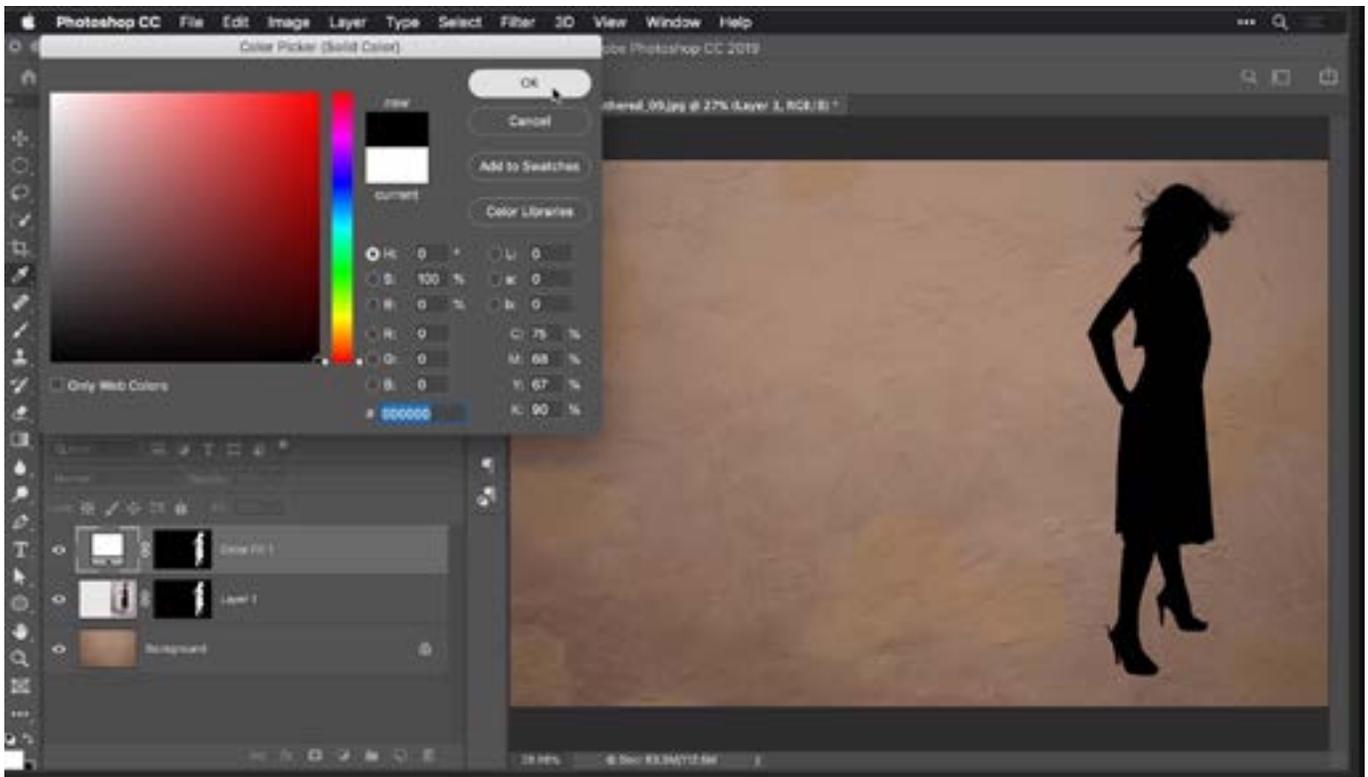
Now, we'll isolate the subject by adding a layer mask (the layer mask icon is at the bottom of the Layers panel). Because there was a selection active, the selection will automatically be applied to the mask so the model is visible but the background is not.



**The subject was isolated by taking the selection and turning it into a layer mask.**

Let's create a Solid Color layer based on a selection of the subject. We will then be able to use that layer as the shadow. We already have the subject isolated using a layer mask. You can turn a mask into a selection by holding down the Command key (Ctrl on Win) and clicking on the layer mask thumbnail. With that selection active, we'll click on the FX icon at the bottom of the Layers panel and choose to create a Solid Color layer. The Color Picker will appear, we'll use it to choose black and then click OK.

Now we have a black Solid Color layer in the shape of the subject. It's on the top of the layer stack, so we'll need to drag it beneath the image layer in order for the model to show up on top. We can now modify the Solid Color layer so that it looks like a shadow.



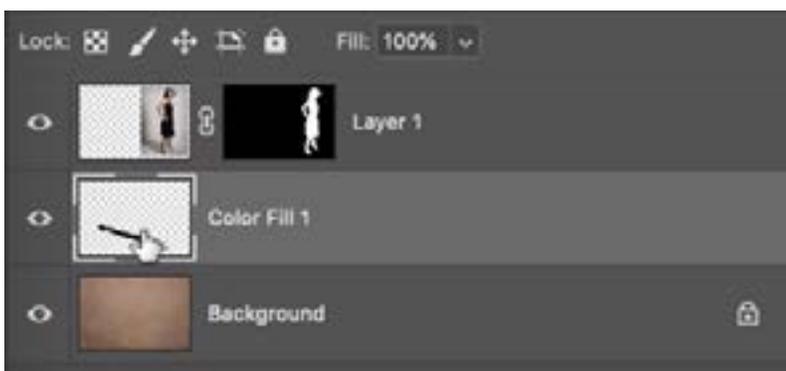
**With the selection of the subject active, we are creating a Solid Color layer and choosing black for the fill color.**

With the Solid Color layer active, we'll go to the Edit menu and choose Transform > Distort. Transform handles will appear on a rectangular box and we can use these handles to distort the layer. If you're using a newer version of Photoshop (updated after October 2018), you will need to hold down the Shift key while dragging these handles. This will allow you to apply the transformation without constraints. Keeping the Shift key held down, we'll drag the handles individually so that they extend in the way that the shadow would extend (see screen shot). Note that it will be difficult to get the shoes to look right. That can be remedied using the Puppet Warp feature, and there is a separate Masters Academy lesson that covers that topic.



**The Free Transform command is being used (with the Distort setting) in order to warp the shadow into the correct position.**

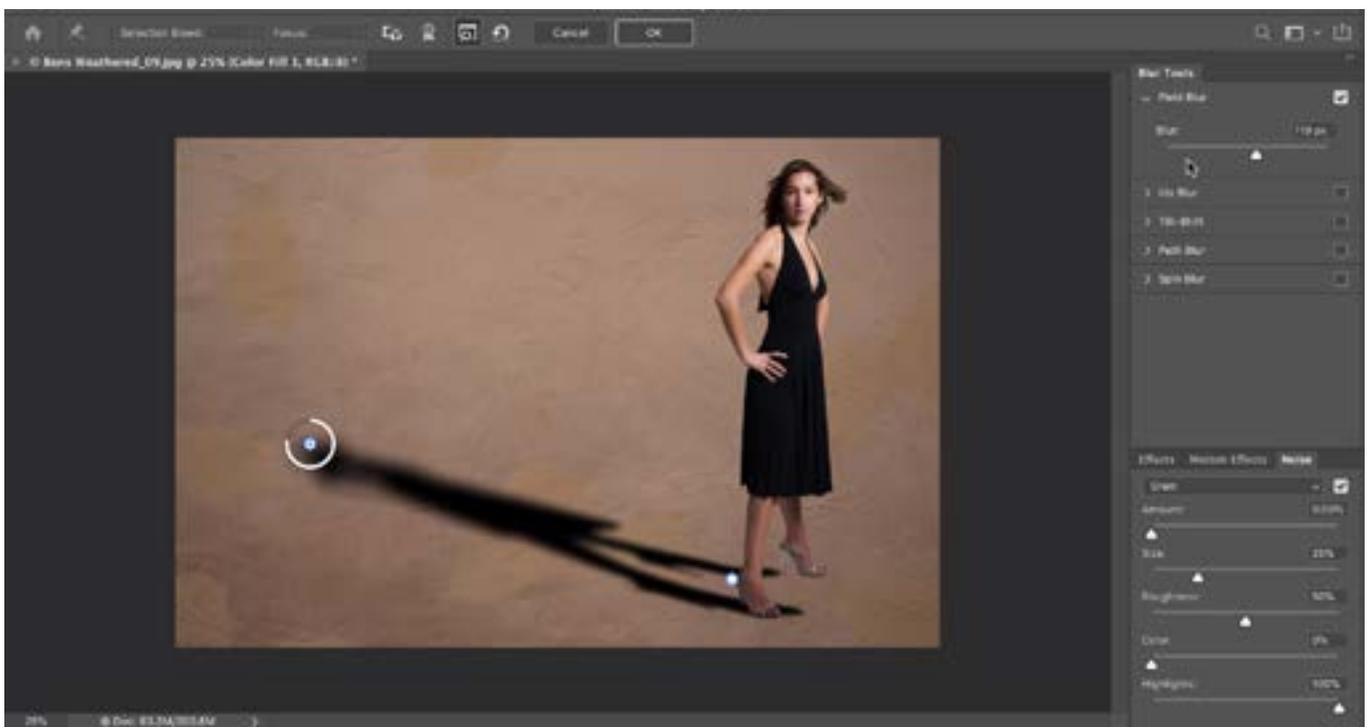
To make the shadow look more realistic, it will need to be blurred. Just like we did in previous examples, we'll open the Properties panel and drag the Feather slider up until the shadow looks more appropriate. Shadows tend to be more crisp in the area close to the subject and they get softer and softer as they extend away from the subject. To achieve this, we'll need to start by rasterizing the layer. With the Solid Color layer active, we'll click on the Layer menu and choose Rasterize > Layer. This will take it from being a special, Solid Color layer to being a regular



**The Color Fill layer was rasterized and the layer mask was applied. This leaves us with a normal layer containing the shape of the subject.**

layer that is filled with black and has a layer mask applied. Next, we'll drag the layer mask to the trash can icon and a dialog box will appear, asking us whether we'd like to apply the mask. We'll click Apply. This will delete all the areas hidden by the layer mask, leaving us with a black shape of the subject.

Now we can more easily blur the shadow. We'll click on the Filter menu and choose Blur Gallery > Field Blur. The Filter Gallery window will appear and the Field Blur circle will be positioned over the image. We will drag this circle to the subject's feet and then drag the ring, determining how blurry that area should be. Since this part of the shadow is close to the subject, we don't want it too blurry. Then we will click on the head part of the shadow, adding another Field Blur ring. We can use the slider on the ring to determine how blurry this area should be. This part of the shadow is farthest from the subject, so it should be much more blurry. When we're satisfied, we'll click OK.



**The Color Fill layer was rasterized and the layer mask was applied. This leaves us with a normal layer containing the shape of the subject.**

The next issue is opacity. Look at a photo that includes a natural shadow and you will see that the shadow is very opaque when it's close to the subject and it gradually fades out as it gets farther from the subject. We'll need to mimic this in order for our shadow to look natural. This can be achieved by adding a layer

mask and using the Gradient Tool. With the shadow layer active, we'll click on the Layer Mask icon at the bottom of the Layers panel. This will add a white layer mask. When a layer mask is entirely white, it means that the entire layer is visible. We'll activate the Gradient Tool and make sure that the foreground color is set to black. We'll use the gradient menu in the Options bar to choose the Foreground to Transparent gradient. Then, we'll make sure the layer mask is active and then drag out the gradient. We'll start where the "head" of the shadow is and drag out the gradient line to the "feet" of the shadow and then release the mouse button. This will place a lot of black into the mask near the head and then add less and less black as it gets closer to the feet. As a result, the area near the feet will be pretty opaque and the shadow will become more and more transparent as it moves toward the head.

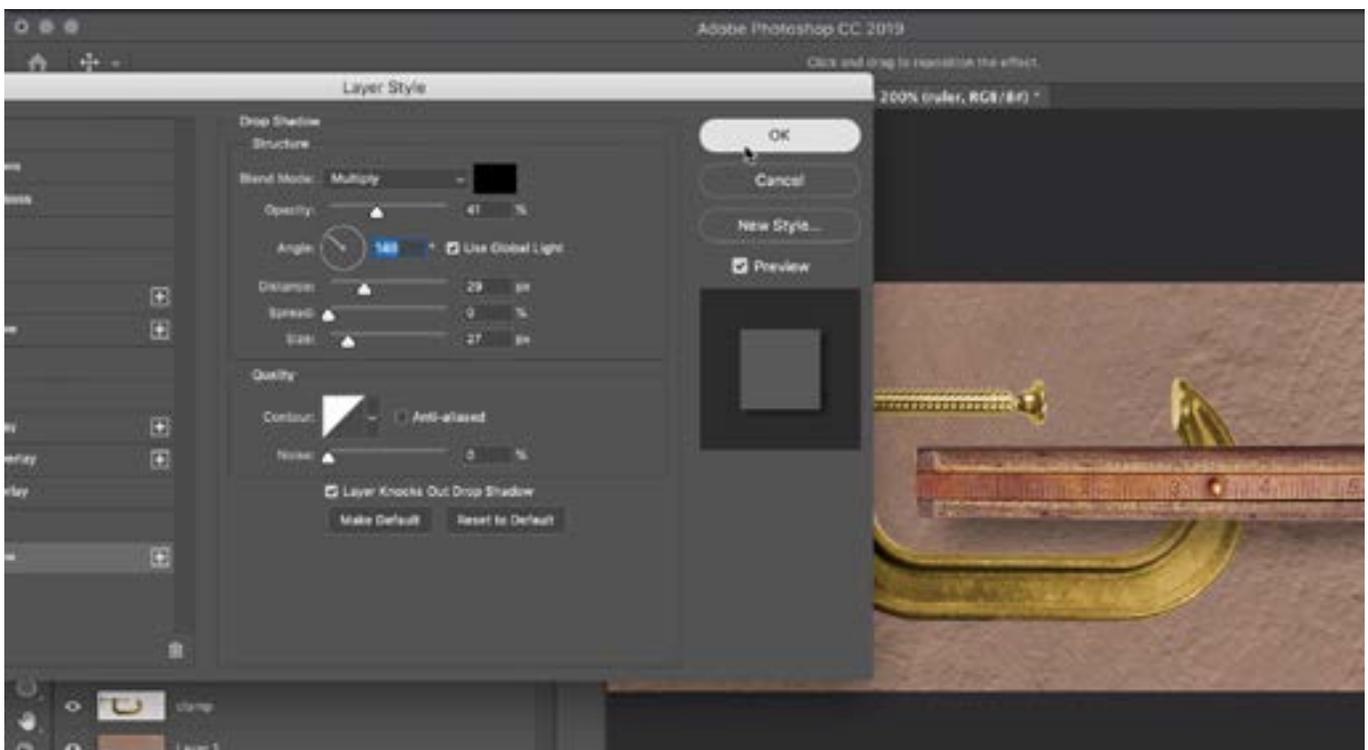


**A layer mask was added to the shadow layer and then the Gradient Tool was used on the layer mask. We used a foreground (black) to transparent gradient and dragged from the head of the shadow to the feet of the shadow. This hid the layer more near the head and less near the feet.**

## Shadows falling across objects

We have talked about how we can cast shadows onto different backgrounds. But what if that background includes other objects? Let's look at how we can create a shadow and make it look realistic when falling over another object. We'll work on the Photoshop document that contains a ruler layer positioned over a clamp layer. We want the ruler to cast a shadow down on the clamp.

We don't have any shadow to go from, so we'll create one using the Drop Shadow Layer style. With the ruler layer active, we'll click on the FX icon at the bottom of the Layers panel and choose Drop Shadow from the pop-up menu. The Layer Style dialog will appear and the drop shadow settings will be at the forefront. We'll adjust the size and opacity settings so that the shadow looks like it is casting a decent distance from the backdrop. We'll click OK.



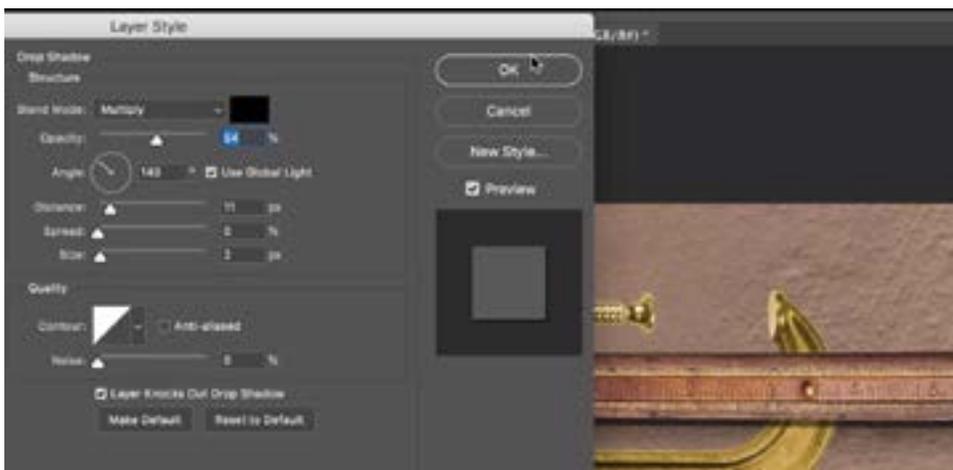
**A Drop Shadow layer style is being added to the ruler layer so that it looks like it is sitting a good distance from the backdrop.**

Now, the shadow is casting onto the backdrop and the clamp equally, and this doesn't look totally natural. We need to remove the current shadow from the clamp and create a new, different, shadow JUST in the area where the ruler overlaps the clamp. To do this, we first need to turn the drop shadow layer style into its own layer. We'll click on the Layer menu and choose Layer Style > Create Layer. This will remove the drop shadow from the ruler layer and place it onto its own layer, directly below the ruler layer. We'll drag this shadow layer down in the Layers panel so that it is positioned under the clamp layer. This will remove the shadow from the clamp.



**LEFT: The drop shadow is being applied as a layer style to the ruler layer. RIGHT: The drop shadow was separated from the ruler layer and placed onto its own layer.**

Now we'll create a new shadow to fall on the clamp. We'll activate the ruler layer and we'll again add a drop shadow layer style. This shadow needs to make it look as if the clamp is just below the ruler, so it will be a harder shadow that has a higher opacity setting. The Size slider will also have a lower setting. Once we create a realistic look here, we'll click OK.



**A new drop shadow is being added to the ruler. This time, it's a harder shadow that has a smaller Size setting. This makes it look as if it is positioned closer to the clamp.**

Now we only want this new shadow to fall on the clamp, so we will again need to take the drop shadow and put it on its own layer. We'll click on the Layer menu and choose Layer Style > Create Layer. This will again take the drop shadow, remove it from the ruler layer and place it on its own layer, just beneath the ruler layer. In order to make it so the shadow only appears in the area where the clamp is, we'll create a clipping mask. With the shadow layer active, we'll go to the Layer menu and choose Create Clipping Mask. This will take the shadow layer and only



**The shadow layer is clipped to the clamp layer. This causes the shadow to only appear in the area where there is content in the underlying layer (the clamp).**

allow it to be visible where there is content in the underlying layer (the clamp layer). You can tell that a layer is “clipped” to the layer beneath it because it will be slightly indented in the Layers panel and it will have a down-pointing arrow to the left of the layer thumbnail.



**Above, you can see the resulting image. There is one shadow designed to cast on the back-drop and another designed to cast onto the clamp.**