Design Solutions:
Blending Modes in Adobe® Photoshop®

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You've probably seen examples and even read the descriptions of Photoshop's blending modes. They're easy to experiment with on your own. Here we show you practical uses for several of them.

Layer Blending Modes

Blending modes have been a feature in Photoshop almost forever. They're easy to use and are non-destructive. (Because the information is in a layer, actual pixel values are not changed.)

The most common way to use a blending mode is to apply it to a layer. When you do that you create an interaction between that layer (the blend layer) and the layer(s) below (the base layer.)

Photoshop performs a mathematical calculation that looks at the color, luminosity, and opacity values in the two layers and generates a special effect.

It's also possible to choose a blending mode when you're using a painting or retouching tool. In this case the paint you apply will interact, or blend, with the pixels you're painting.

OK. Now you know what blending modes are. If you go to the Photoshop Help you'll find a definition of each and every blending mode available. Rather than repeat that information we're going to show how to use a few of the blending modes in useful and practical ways. The reality is that because each image is different, and each combination of images is different, you must experiment with blending modes.

In this Design Solution you may be asked to right-click to display the context sensitive menu. If you're still using a single-button mouse on a Mac you will need to Control + click. (Get a two-button mouse and configure your Mac for right-click—you'll never go back!)
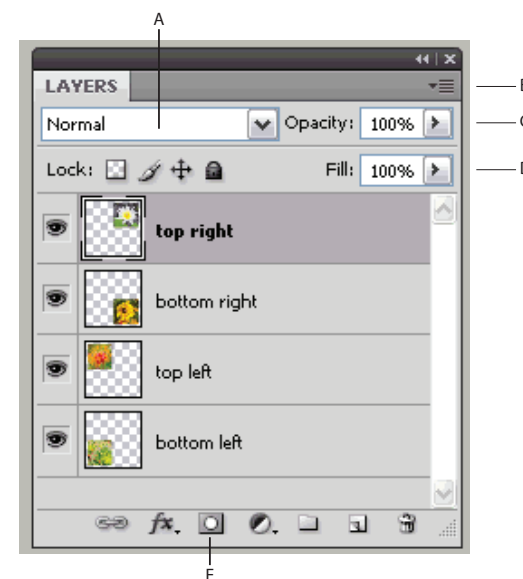
Photoshop Layers panel
A. Blend Mode menu   B. Layers panel menu   C. Layer Opacity control   D. Fill Opacity control   E. Add Layer Mask

Layers Panel

Blending modes work with layers. Let's quickly review the layers panel.

Most options are available to you from the Layers panel menu. However here are some techniques I commonly use:

» Duplicate a layer—right-click on the layer name (not the layer thumbnail!)

» Name a layer—double-click the layer name.

Be sure to distinguish between the layer name and the layer thumbnail, they're different hotspot areas and they yield different results.

Opacity vs. Fill—both of these sliders control opacity. The Opacity slider controls the opacity of the entire layer. The Fill slider controls the opacity of pixels that were painted on the layer or of shapes that were added to the layer.

Layer Masks—Use layer masks to hide (mask) part of a layer. A mask that is black hides the layer (to help you remember, black blocks.) A mask that is white reveals or allows the layer to show. Paint in the layer mask to selectively show/hide portions of the layer.

Dodging and Burning
You will see the words dodge and burn in the names of a few of the blending modes. Remember that dodging lightens the image and burning darkens the image.

Let's take a look at the blending modes…

Dissolve, Behind, Clear Modes
Behind and Clear show up only as blending modes for painting tools. They allow you to paint only on transparent pixels (Behind) or to make pixels transparent (Clear).

Dissolve
Just remember that this mode works only if you have partial transparency in your layer.

Darkening Modes
Darken, Multiply, Color Burn, Linear Burn, Darker Color. These modes always result in a darker image. White will disappear. The differences between the modes is subtle. As always, it depends on your image(s). Color Burn will saturate colors more than the other modes.

Darken
Darken mode darkens any area of the image that is lighter than the blend color.

Tone down hot spots on faces
This technique is great for those times when flash or other lighting has created a shiny hot spot on someone's face.

1. Duplicate the Background layer Name it Darken.

2. Select the Healing Brush from the toolbar (make sure you select the Healing Brush, not the Spot Healing Brush), choose Darken from the Mode pop-up menu on the options bar. Be sure to use a relatively large, soft-edged brush.

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3. Use the Healing Brush to clone part of the person's face over the shiny spot. It may still appear lighter than the rest of the face, but it will tone down the shiny look.

Multiply

Multiply mode can be used as a quick fix for images that are too light.

Darken images that are too light

1. Duplicate the Background layer
   Name it Multiply.

2. Choose Multiply from the Blend Mode pop-up menu in the Layers panel.

3. If the image is too dark, reduce the opacity of the layer using the opacity slider.

4. If the image still isn't dark enough, duplicate the layer again.

Color Burn

Use Color Burn to selectively saturate and darken areas of an image without affecting white. Imagine saturating and darkening a sky without affecting the clouds.

Saturate and darken an image

1. Create a new layer
   You're clicking on the Create a new layer button this time to create a new, empty layer. Make sure it's above the layer you want to affect. Name it Color Burn.

2. Choose Color Burn from the Blend Modes pop-up menu.

3. Set your foreground color to 50% gray. This is a good place to start. You can make it lighter or darker later if you want.

» There's a 50% gray swatch in your default swatches. (Hover to see the names of the swatches.) Another easy way to set your foreground color to 50% gray is to click the foreground color box on the toolbar and set both Hue and Saturation to 0%, then set the Brightness to 50%.

4. Use the Brush tool to paint in the layer to darken and saturate areas of your image. Reduce the opacity of the layer to decrease the effect. Paint with a darker gray to increase the effect.

Lightening Modes

Lighten, Screen, Color Dodge, Linear Dodge (Add), Lighter Color. These modes always result in a lighter image. Black will disappear.

Screen

Just as we used Multiply to quickly darken an image we can use Screen to lighten an image. And we don't have to worry about clipping the highlights.

Lighten images that are too dark

1. Duplicate the Background layer
   Name it Screen.

2. Choose Screen from the Blend Mode pop-up menu in the Layers panel.

If the image becomes too light, reduce the opacity of the layer using the opacity slider.

3. If the image still isn't light enough, duplicate the layer again.

Color Dodge

If you tried Color Burn to saturate and darken areas of an image without affecting white, you will understand that Color Dodge will saturate and brighten areas of an image without affecting dark areas very much.

Saturate and lighten an image

1. Create a new layer.
   Name it Color Dodge.

2. Set your foreground color to 30% gray. I find this a good place to start with Color Dodge. You can make it lighter or darker later if you want.

3. Paint in the layer to brighten and saturate areas of your image.
   Reduce the opacity of the layer to decrease the effect. Paint with a darker gray to increase the effect.

Contrast Modes

Overlay, Soft Light, Hard Light, Vivid Light, Linear Light, Pin Light, Hard Mix. These modes both lighten and darken, resulting in an increase in contrast. Anything darker than 50% gray will get darker, anything lighter than 50% gray will get lighter.

Overlay

You can use Overlay when adding a color wash or a pattern on top of an image. It will mix with the underlying color as well as lightening and darkening.

Add a color wash to an image

1. Choose Layer > New Fill Layer > Solid Color. Click OK in the New Layer dialog box.

2. The Color Picker will appear. Choose a color.

3. Choose Overlay from the Blend Mode pop-up menu in the Layers panel.

4. Try using a pattern by choosing Layer > New Fill Layer > Pattern.

Soft Light

Use Soft Light to create the appearance of a reflection. You'll need two images, one that will reflect in the other.

Create a reflection

1. Combine two images in separate layers. Make sure the object that you want to reflect is on top.

2. Choose Soft Light from the Blend Mode in the Layers panel.

Non-destructive dodging and burning

You can use Soft Light to lighten and darken areas of the image with control. Unlike Color Dodge and Color Burn you

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won't be affecting the saturation of the colors.

1. Create a new layer.
Name it Soft Light.
Make sure it's above the layer you want to affect. Choose Soft Light from the Blend Modes pop-up menu.

2. Set your foreground color.
For the greatest amount of darkening, choose black. For the greatest amount of lightening, choose white.

3. Use the Brush tool to paint in the layer to lighten or darken areas of your image. Reduce the opacity of the layer to decrease the effect. Or choose shades of gray to as your paint color. 50% gray will have no effect, so choose a lighter or darker gray.

Hard Mix

Hard Mix changes all your colors to primary colors. Use Hard Mix to create a poster effect.

Create a poster effect

1. Duplicate the Background layer
Name it Hard Mix.

2. Choose Hard Mix from the Blend Modes pop-up menu.

3. Adjust the opacity of the layer using the opacity slider.

Difference and Exclusion Modes

Both of these modes work with color. Blending with white will inverse the underlying color. Blending with black results in no change.

Difference

Difference looks at the colors in each layer and subtracts the brighter one. The result is usually quite colorful.

Pop Art effect

It's very easy to create a colorful, pop art effect using Difference.

1. Start by adding a fill layer. Choose Layer > New Fill Layer > Solid Color. Click OK in the New Layer dialog box.

2. The Color Picker will appear. Choose a color.

3. Choose Difference from the Blend Mode pop-up menu in the Layers panel.

4. Double-click the Fill Layer thumbnail to change the fill color.

Hue, Saturation, Color, and Luminosity Modes

As their names suggest, these modes specifically affect, hue, saturation, and lightness/brightness. Color mode affects both hue and saturation. Experiment with them to change the color of your images.

Hue

Hue only works on images that already contain color. Use Hue as an easy way to change the color in an image.

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Change color

1. Create a new layer. Name it Hue.

2. Make sure it's above the layer you want to affect. Choose Hue from the Blend Modes pop-up menu.

3. Select a foreground color.

4. Use the Brush tool to paint in the layer to change the color of the underlying image.

Experiment by changing the blending mode to Color. Observe that the saturation changes as well as the hue. Try changing the blending mode to Overlay. Remember that Overlay is mixing the blend color with the base color. Hue is changing hue, Color is affecting both hue and saturation.

Saturation

Saturation is the amount of gray in a color. Use Saturation to desaturate an area of your image or to convert it to grayscale.

Decrease Saturation

1. Create a new layer. Name it Saturation. Make sure it's above the layer you want to affect. Choose Saturation from the Blend Modes pop-up menu.

2. Set your foreground color to black.

3. Use the Brush tool to paint in the layer to change the underlying image to grayscale.

4. Reduce the opacity of the Saturation blend layer to allow some of the color to show. This is useful if you wish to tone down the saturation of a color rather than convert to grayscale.

Color

Color is commonly used to colorize grayscale images. To achieve different colorization effects, try changing the layer blending mode to Multiply, Overlay, or Color Burn.

Colorize a grayscale image

Always use a Black & White adjustment layer to convert a color image to grayscale.

This technique allows you to control the tonal range of the result.

1. Choose Layer > New Adjustment Layer > Black & White. Use the sliders and the On-image adjustment tool to adjust the lightness and darkness of the grays.

2. Create a new layer. Name the layer appropriately. Make sure it's above the Black & White adjustment layer. Choose Color from the Blend Modes pop-up menu.

3. Choose a foreground color. It's usually best to create a new layer for each color you use.

4. Use the Brush tool to paint in the layer. Reduce the opacity of the layer to change the effect.

Using Blending Modes with Painting and Editing tools

One cool trick is to use the blending modes with the Brush tool, the Healing Brush tool, or the Gradient tool. You may still want to be working on a duplicated or new

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layer so that changes are contained in their own layer. You cannot change the mode of paint after you have painted.

» Select the painting or editing tool you want to use and choose the blending mode from the Mode pop-up menu in the Options bar.

Using Blending Modes with Layer Styles

Next time you choose Layer > Layer Style check out the blending mode that is part of the style. Change the effect by changing the blending mode.

Use Blending Modes with Filters

Using the blending modes in combination with Photoshop's filters can be hours of fun!

1. Duplicate the layer to which you will apply the filter.

2. Choose Filter > Convert for Smart Filters. This creates a Smart Object layer and allows you to non-destructively edit the filter.

3. Choose your filter(s) from the Filter menu. You can use the Filter Gallery, but remember that not all filters are listed in the Filter Gallery.

4. Change the blending mode for the smart object layer to change how the pixels interact with the filter.

Filter examples

Begin by duplicating the layer and converting for Smart Filters.

1. Select a desired foreground color. Choose the Note Paper filter. Choose Color Dodge as the blending mode.
To achieve the note paper effect and use the colors from the image, choose Luminosity as the blending mode.

2. Try the Emboss filter with Linear Light.

3. Try the Find Edges filter with Multiply.

Experiment

Of course you need to experiment on your own—it's Photoshop! Hopefully these tips will give some direction to your experimentation. Just remember that when you're working with blending modes you're usually:

» Duplicating the existing layer, or—

» Combining multiple image layers, or—

» Painting on a new layer above the existing layer.

Check the definition of the blending mode so that you start being able to predict what will happen. Will it change the color? Or the brightness? Will it mix the colors? The more you use the blending modes the better you'll be able to incorporate them into your workflow.

Enjoy!

Respectfully submitted,
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