



THE HIDDEN POWER OF **ADOBE PHOTOSHOP**

MASTERING BLEND MODES
AND ADJUSTMENT LAYERS FOR PHOTOGRAPHY

SCOTT VALENTINE

FOREWORD BY MEREDITH PAYNE STOTZNER, PHOTOSHOP SR. PRODUCT MANAGER, ADOBE

FREE SAMPLE CHAPTER

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Mastering Blend Modes and Adjustment Layers for Photography
Scott Valentine**

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ScoutAutomatedPrintCode

*For Carla and Austin, who never give up and remind me to be my best self.
And for Echo and Summer, who remind me to get up from the desk and feed them.
Never underestimate the power of little reminders.*



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FOREWORD

I have spent more than half my life in a relationship with Photoshop. It's a pretty healthy one, and we discover new things about each other even now. Like other couples we argue from time-to-time... you know how it is. But at the end of the day, we end up bringing out the best in each other.

It all started while I was studying for a degree in Imaging and Photographic Technology at Rochester Institute of Technology (RIT). My track had plenty of MATLAB, optics, and digital image processing, but I wanted to play in the pixels like they were finger paint. So I managed to get into the not-in-my-major class to use this awesome software called Photoshop—never imagining I'd spend my career at Adobe with the honor of representing Photoshop users.

I'd always considered myself creative, an artist. When I was 10 my dad got a free 35mm camera with his subscription to a magazine. I later used that same camera (covered in electrical tape to stop light leaks) in my high school photography class. That class was where I first began experimenting with imaging. I only had a standard lens, so I improvised macro shots with a magnifying glass in front of my 50mm. A classmate discovered reticulation by accident, but I liked the shattered look of the warped emulsion and replicated the process. I did a lot of creative experimentation before moving to the scientific side of imaging. Photoshop was the perfect medium for me to bring the two sides of my imaging experience together.

Scott Valentine also has a relationship with—and helps bring out the best in—Photoshop. He's been a key beta tester of the application and an advisor to the engineering team for more than a decade. Actually, as long as I can remember, Scott has been our partner.

One aspect that makes Scott unique and valuable to the team is that he is both artistic and intellectual. He makes his own beautiful creations to walk through the new Photoshop code and even creates test images to exercise and dissect features. The team has come to count on Scott's dexterity of science and art to help discuss and debate the direction of the application.

I'm pleased to see that this book, *The Hidden Power of Photoshop for Photographers*, stays true to Scott's balance of art and intellect to take readers on a journey of experimentation, discovery, and mastery. The symmetry of the conversational, approachable style of Scott's writing with his deeply inquisitive nature make this must-read material. I expect by the end, readers will be able to power their own tools the way the Photoshop team does.

—Meredith Stotzner,
Photoshop Product Manager, Adobe



PREFACE & ACKNOWLEDGEMENTS

When you spend enough time with someone or something, you start developing a relationship. Such is the case with this book, and it has not been the most pleasant, supportive relationship. We loved, we fought, we talked about trial separation and who would get the dogs... but in the end, we stuck together.

My wife and son were infinitely patient, the dogs less so. My first round of acknowledgement and thanks go to my family for knowing when not to ask “how’s the book coming?” They showed amazing restraint and kept providing encouragement.

The reason you’re reading this, however, is due entirely to the staff at Peachpit. Victor and Laura believed enough in this title and in me to keep at it long after they probably should have walked away. This pair of amazing professionals shifted between roles of friend and business partner seamlessly and smoothly, and I’ve learned a lot from them. These few words are not thanks enough for their efforts which started quite literally from the inception of this book and continued through it resting in your hands.

Longtime friend and Photoshop mentor Rocky gave his expertise for a fourth time, catching my errors and teaching me some new tricks along the way. Any technical faults in these pages exist because Rocky let me win an argument. He’s the best that way!

I’d be remiss if I did not include Meredith Stotzner and Chris Main in this list, as well. Meredith, whose fabulous foreword makes me go “aw, shucks!” has taught Photoshop a thing or two about supporting creative visions and has a genuine love for the tool. Chris gives me space to write in front of a great big audience every month to talk about how Photoshop works, and I love that.

Thanks to everyone not named, as well—you’ve inspired and supported someone to be their best, so keep that up, ok?



DODGE & BURN

Dodging and burning are cornerstone darkroom techniques, and there's no getting away from their benefits in the digital world. Fortunately, there is no end to the possible variations here.

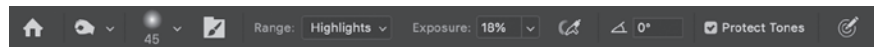
When dealing with pixels, Photoshop allows many different ways to accomplish the crucial tasks of dodging and burning, the classic darkroom techniques of selectively lightening (dodging) or darkening (burning) individual areas of an image to regulate exposure. The specific method you choose should reflect both how you work and what level of control you desire. And, you should freely move between techniques as the work demands.



DODGE & BURN METHODS

The most basic approach to dodging and burning (or “D&B”) in Photoshop is to use the dedicated Dodge and Burn tools, selected with the O shortcut key. If you use these tools directly on your photograph layer, however, they are destructive because they permanently change the pixels in your image. This might be best suited for making small refinements during a compositing project, for example.

The Dodge and Burn tools can also cause color shifting, as they are effectively operating with the Color Burn and Color Dodge blending modes. With the Protect Tones option enabled, the effect can be reduced, but this ultimately results in some desaturation. In this example portrait, the area under the model’s eye has a “corrected” exposure value, but the color is almost completely missing from the highlight area.



Fortunately, both tools let you choose a tonal range (Highlights, Midtones, Shadows) as well as a relative power setting called Exposure. The controls for these appear in the context-sensitive options bar when one of the tools is currently active. Choose the appropriate range, and drop the Exposure setting to around 20% so you can sneak up on the corrections.

Working carefully over your image, you can exercise reasonable control but be warned: Except for using the Undo command, you can’t completely recover the altered pixels back to their original state. Going too far with either of the tools typically causes unwanted artifacts, as well.

One way around these problems is to make your adjustments on a duplicate of your photograph layer. That way if something goes wrong, you can simply lower the opacity of the layer, use a layer mask, or replace the problem area

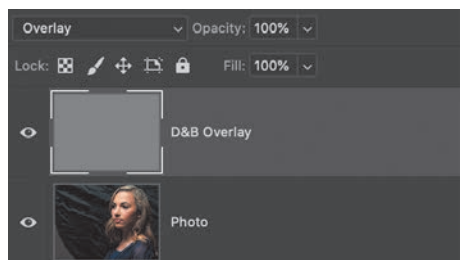
with a new selection from the original. The down side is that this approach adds to file size.

Other methods allow for a lot more flexibility and don't really have an impact on file size or performance, so the only compelling reason to continue to use destructive tools directly on your image layer is for speed in making minor corrections to small areas. Personally, I use these dedicated tools almost exclusively for working on masks, which is covered in the section, "Tweaking Channels & Masks."

OVERLAY

Let's start with a popular and time-tested method that uses a blank layer to hold your image corrections separate from the photo layer.

Start by filling a blank layer with 50% gray and setting its blend mode to Overlay. The Overlay blending mode ignores 50% gray but selectively darkens or lightens based on the gray value of the blend layer. That means the 50% gray overlay layer is effectively invisible until you begin working on it. Using the Dodge and Burn tools on this intermediate layer is probably your best approach, if you feel most comfortable with these tools.



The only purpose of using a filled layer is to be able to use the actual Dodge and Burn tools. Another option that gives you more expressive control is to skip the fill step and paint directly on a blank layer set to Overlay blending. Use a standard brush set to low flow and low opacity values, and paint with shades of gray (50% gray will of course have no effect). This lets you build up the effect slowly, with more control to avoid harsh transitions in value. You can set foreground and background colors to the default black and white by pressing the D key, and then toggle between them with the X key.

As a bonus, paint with colors sampled from your image to adjust saturation at the same time. The Overlay blending mode is effectively the same as using

TIP To fill a layer and set its blending mode all in one action, press Shift+F5. This calls up the Fill dialog box with choices for types of fill (black, white, 50% gray, foreground, background, patterns, etc.), which blending mode to apply to the layer, and the layer opacity. Remember to use this on a blank layer or with an active selection.

Multiply for darker areas, and Screen for lighter (see the “Blending Modes” chapter of Part IV, “References” for more details). Using this painting technique, it’s possible to retain some of the richness that might be lost when painting with only black or white.

In this rogue’s portrait, it was important to retain the slightly oversaturated look so painting with color as described helps increase the density of the darker tones while preserving and slightly increasing the saturation in the lighter tones.



You still have to be careful when painting on this layer because extreme changes can have bizarre results and also create artifacts. While you can always go back and repaint certain areas, you might also end up introducing small artifacts without realizing it.

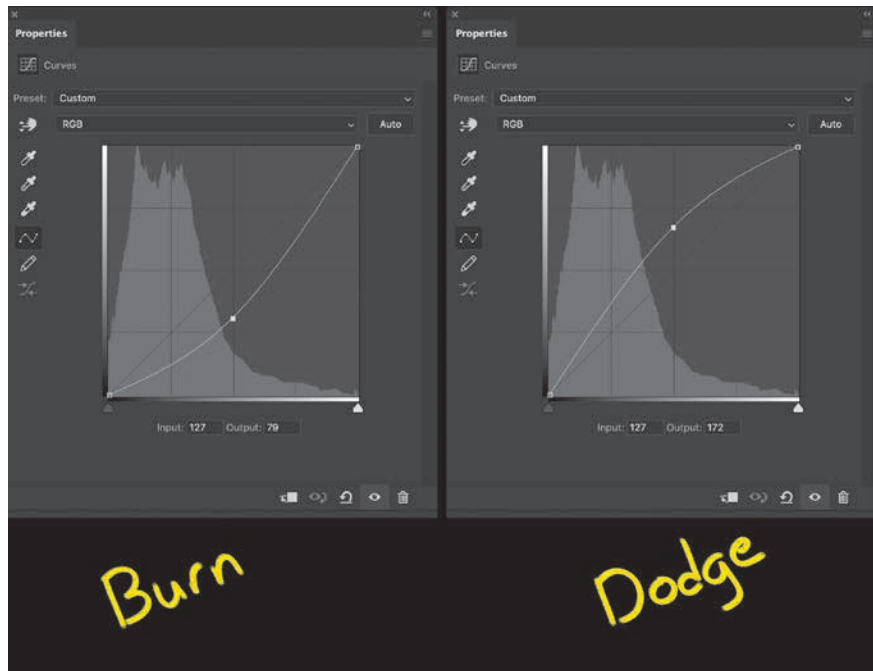
Just for fun, here's an example of how you can use the color-based technique for more than just styling. I treated these toy guns to a little color adjustment and then gave them a flat, masked texture layer. On top of that I added the Overlay D&B layer and manually painted with color, black, and white to create details and effects.



USING CURVES

My preferred starting technique for dodge and burn is to use a pair of Curves adjustment layers that are set up to limit the dodge and burn effect. This helps prevent some of the artifacting and extreme changes that are possible with the Overlay layer painting method. You also get the added benefit of separating the darkening and lightening effects to distinct layers.

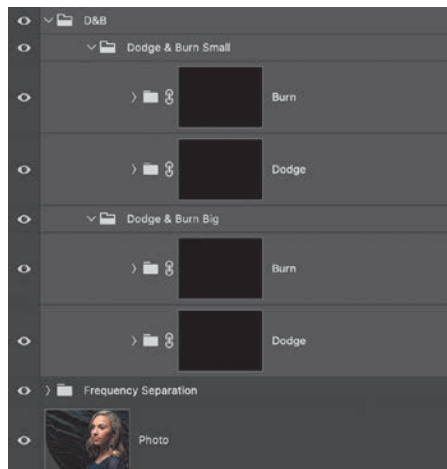
To start with, create one Curves adjustment layer above your scene, and drag the center of the curve upwards to the point where the darkest parts of your image are as light as you think you'd ever want them to be. Name this layer **Dodge**. Fill the mask with black.



TIP Once you have used the Fill dialog box, the settings for blending mode, fill type, and opacity will be persistent while Photoshop is open. Pressing Shift+F5 or using Edit > Fill will show you the last settings you used.

Create another Curves adjustment layer above that, and drag its curve down so that the brightest areas are as dark as you want them to be. Name this one **Burn**, and also fill its mask with black.

For organization, group them together and name the group **Dodge & Burn** or whatever makes sense for your work.



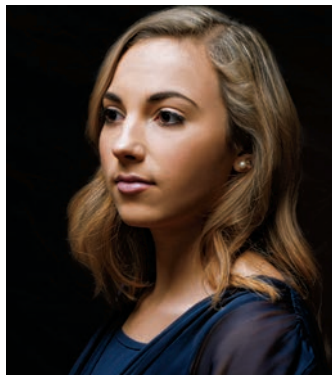
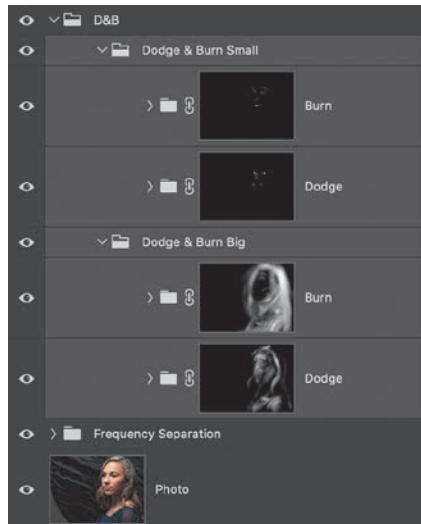
From here, you will use the Brush tool to paint with white on the mask of each layer. Use a soft brush with low settings for Flow and Opacity just as with the previous method. This means you will be working on only one adjustment at a time.

There are several advantages to this particular approach. First, it gives you discrete control over the dodge and burn operations independently. If you need to adjust the opacity of either of the layers, you can do so without affecting all of your adjustments at once. Additionally, working with just one type of correction at a time helps you focus a little better on the global adjustments.

D&B BEST PRACTICES

As a general workflow recommendation, I suggest starting with large adjustments first, such as overall shaping and setting visual focus, such as lightening the face in a portrait, the foreground in a landscape, or creating soft vignette effects to guide the viewer's eye around the image. The next pass would be intermediate features, and then finally a detail pass.

This example shows the mask from the first (the “Big” pass) Burn layer.



I also recommend using multiple D&B groups to keep them flexible and distinct. Using one pair of Curves each for large, medium, and small features gives you a lot of flexibility in balancing them later on. Each pair, and indeed each individual adjustment layer, can be modified without affecting the others. Of course, you can adjust the curves on each as well.



This same principle goes for working with the Overlay painting method: Use several layers rather than putting everything on one. For a more detailed workflow, look in Part III, “Project Examples.” The Rembrandt Portrait shows off a couple of different dodge and burn techniques grouped together.

INSTANT IMAGE ENHANCEMENT

With all of the blending modes available in Photoshop, and the stunning array of techniques in which you can use them, it's sometimes easy to forget that they can be used directly for some basic image enhancement. The four most popular blending modes for this are:

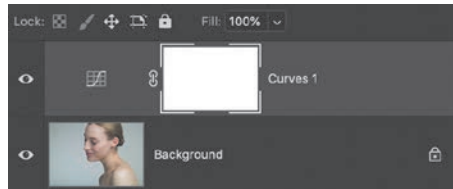
- **Multiply**
- **Screen**
- **Overlay**
- **Soft Light**

Most of the time, you will hear advice on duplicating a photo layer and setting the duplicate to one of those four modes. Multiply darkens, Screen lightens, and Overlay and Soft Light increase contrast. Using this little trick is a great way to jump start lots of images, but let's explore some variations on this theme.



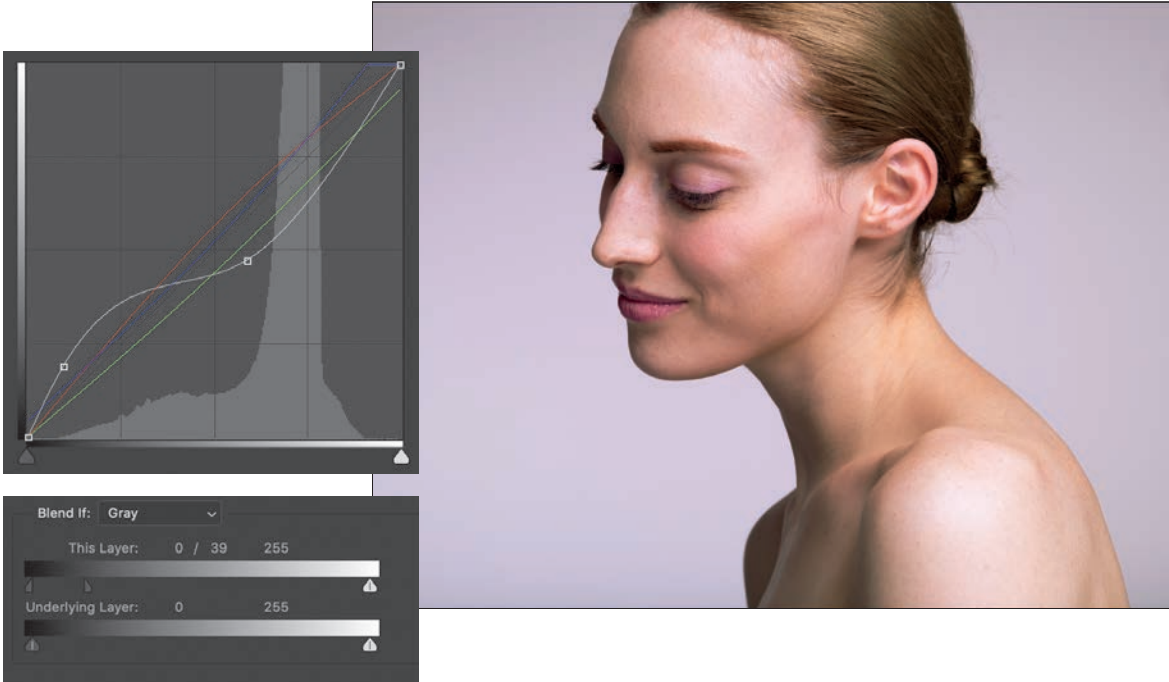
First, rather than duplicating the photo layer, you can generally use any adjustment layer instead. Without making any other changes, the adjustment layer behaves like a copy of the image, especially when it's clipped to the photo. This immediately gives you additional flexibility; not only do you get the exact same effect, including the ability to change opacity and advanced blending, you also get the features of the adjustment layer itself.

Adding a Curves adjustment set to Overlay gives a nice contrast, but you can take advantage of so much more. For example, I started by raising the left side of the curve to lighten up the muddy shadow regions and make everything a little less heavy.



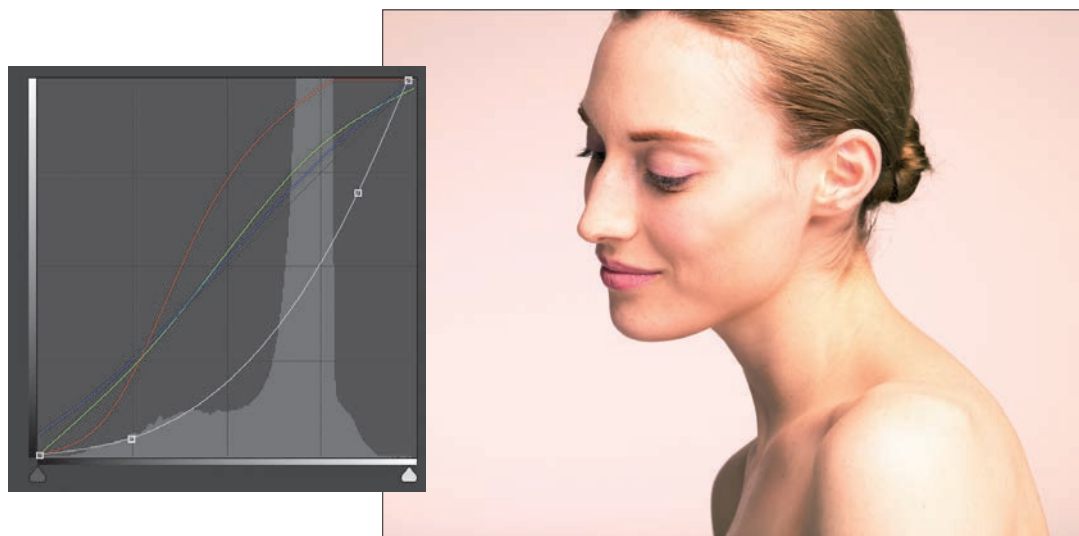
Stepping through the channel curves lets me run some color work to shift the overall tone towards reds and purples. Each channel can be adjusted individually, so this is a good way to explore a lot of variations.

Finally, a little tweak in the Advanced Blending section of the Layer Style dialog box, using the Blend If section's Underlying Layer sliders, allowed me to smooth out the shadows a bit more. I finished by lowering the Opacity setting (in this case, to about 90%).



This represents a lot of the early heavy lifting that can be done with a single adjustment layer, all non-destructively.

You can use this general approach for correction or enhancement, or just to try out lots of different versions. This time, let's use Screen, which initially blows out the highlights quite a bit. Again, the composite curve gets some dramatic tugging to bring back the highlights, and then each individual channel is adjusted to end up with a gold tone (increase Red and Green, decrease Blue).

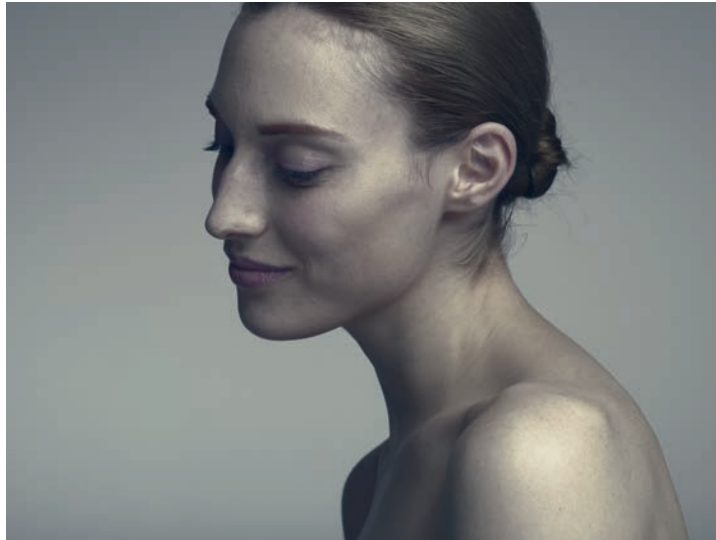


Each of the adjustment layers can behave this way, with the exception of Threshold, Inverse, and Posterize. These three will immediately apply their own effect. You can use Photo Filter if its Density slider is moved to zero, and the Color Lookup Table will be neutral until a lookup table is applied (once you choose one, however, there is no way to remove it completely without simply deleting the adjustment layer).

Choosing which adjustment layer to use for blending mode effects comes down to the usual question: What do you want to accomplish? For most purposes, I stick with a Curves layer simply because of its flexibility and power. Blending with other adjustments affects how they behave, so let's take a look at why you might consider certain blending modes for different adjustment layers.

Because, as you saw, the four most popular blending modes all have an immediate and independent effect, it makes sense to pair them with adjustments

that complement them in some way—either enhancing or mitigating their results. The Curves and Screen result is a good example of reducing the effect, or “pulling it back.” Similarly, using Soft Light with a Color Lookup Table (using the Foggy Night preset) gives a gritty look.



In one final example, this single frame is reasonably well exposed but kind of boring. To enhance the contrast, I added a Curves adjustment layer set to Overlay blending mode, which had nice results in the midtones, but muddied the shadows and blew out the highlights.



To correct for this, I went to the Advanced Blending section in the Layer Style dialog box set Blend If to Gray, and split the Underlying Layer sliders.

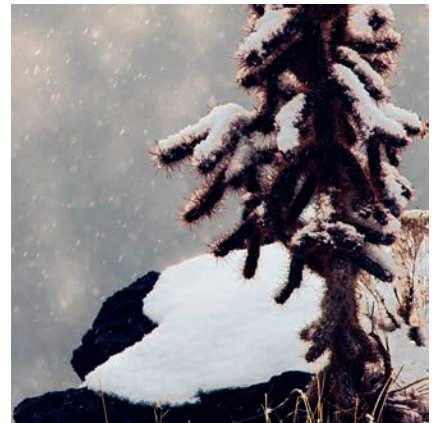


Splitting the sliders in this way allows the enhanced contrast to reach to the shadows and highlights more gradually, avoiding serious loss of detail.

HARD MIX CONTRAST

A more specialized application of using an adjustment layer to apply a blending mode takes advantage of the special nature of Hard Mix; it behaves differently when used with Fill compared to Opacity. See the “Blending Modes” chapter in Part IV, “References” for more details on why this is.

For images with low contrast, especially due to haze or extremely soft light, this trick can do some pretty amazing things. The shot below is from Coronado, California, showing some early morning fog. There’s not much detail or contrast to work with.

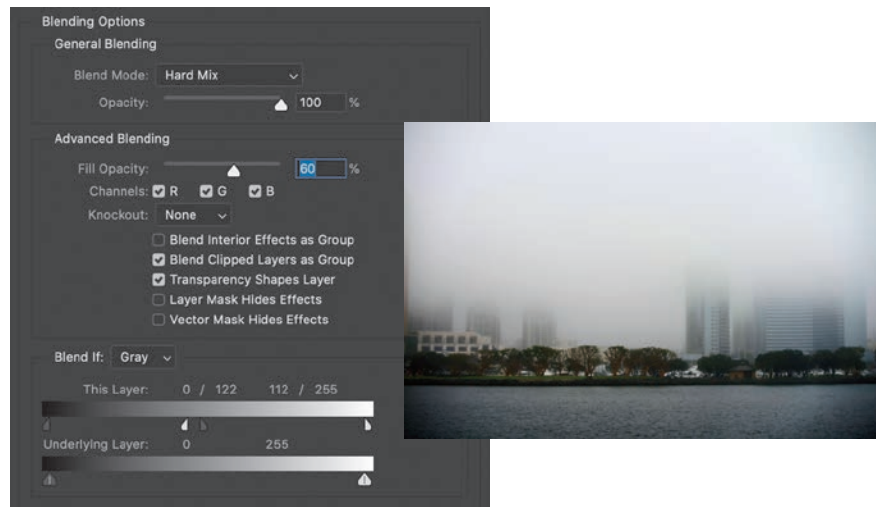


Just adding a Curves adjustment set to Hard Mix, and lowering the Fill to about 60% gives a pretty dramatic change everywhere so there's at least some detail to work with.



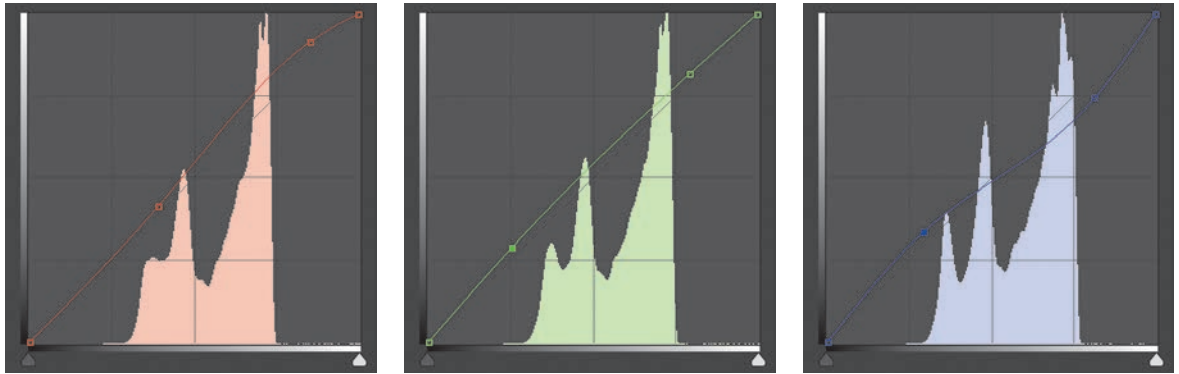
NOTE Pay attention to the fact that the Blend If sliders can be crossed at any time, including when split as shown in the screenshot. It is worth a few moments of your time to explore this capability by setting the Fill value back to 100% and completely swapping the Black and White stops, splitting them arbitrarily and using extreme values. This gives you a sense of how flexible this ability really is.

If you've used the Clarity slider in Camera Raw or Lightroom, this effect will look familiar to you. By now, you should recognize a good opportunity to use Blend If to clean up the muddled shadows. Splitting the sliders and in this case, crossing the highlight and shadow regions recovers those muted blacks well.



At this point, we can start to apply some of the usual techniques to adjust color and contrast in any way we like. Because we already have a Curves adjustment for free, let's exploit that by tweaking the individual channel curves a bit. I want a warmer, dreamy effect in this version. That requires a tiny boost in red and green, with blues dropping out. From the menu in the Curves Properties

panel, choose each of the channels in turn and apply minor changes. The thing to keep in mind, if you're not familiar working on each color channel individually, is that you're looking mostly for tonality in the first color you adjust, then sneak up on the colors you want with the remaining channels (more on this in a bit). The figures show what I ended up using.



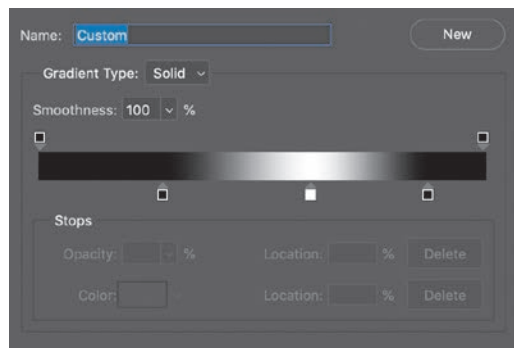
The adjustments to each channel are pretty small, except the Blue channel where I wanted to retain some coolness in the deep shadow areas. I really enjoy this technique because it can recover some otherwise unusable images. And in this case, it only took one layer to do pretty much everything I wanted.



A more complicated picture is this lonely cactus in the northern New Mexico snow. It already has some bright areas and lots of tiny details with the snowflakes blowing about.



The photo was intentionally underexposed to preserve some texture in the snow patches, which means additional steps will be needed to avoid blowing out highlights. Also, the darks are perilously close to full black. That suggests we should attack the mids and low mids more than anything, and so this is a great spot to try out a few tricks. In the “Selections & Masking” chapter, I showed you a quick way to select ranges of values in an image using a Gradient Map.



With the Gradient Map visible, it's fairly easy to pick out the range we want to affect. In this case, it's the slightly brighter midtones. Close the Gradient Editor and in the Channels panel, make a selection from any of the channels, then turn off the Gradient Map adjustment layer. Create a Curves adjustment layer; the mask is automatically applied. Here's the result of setting the unchanged curves layer to Hard Mix at 40% Fill.



The brightest highlights in the snow and darkest shadows around the rocks are untouched, but the high mids are moderated. Let's talk a moment about why this is an advanced move. While I did not have a final vision in mind, I could describe some of the features I wanted in the results: Protect the ends of the dynamic range, and increase contrast and detail in the upper mids. Setting just those goals allowed me to use previously known skills to make an intelligent choice in creating the mask, namely by isolating the region of interest.

Further, we know that the Masks Properties panel comes with some extra goodies, such as Density and Feather adjustments, as well as the ability to access the Select And Mask workspace for refinement. Rather than hand painting the mask or trying to carefully combine multiple selections, the first pass got me close to an 80% solution, or more. The Feather and Density controls also allow me to exercise non-destructive creative decisions about the mask. I can even use Blend If should I wish.

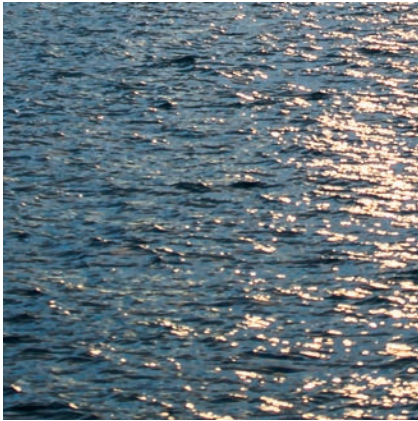
The default transition between masked and not masked is a little harsh, and I would like just a touch more contrast in the areas I previously excluded. For this image (about 7400 px by 5000 px), a feathering setting of 36 px nicely blends those regions. I also dropped the Density setting to about 80%.



To finish this piece off, I added a Hue/Saturation adjustment to drop the saturation a bit, then added a Color Lookup adjustment using the Candlelight preset and lowered its Opacity setting to 45%.







GRADUATED NEUTRAL DENSITY FILTER

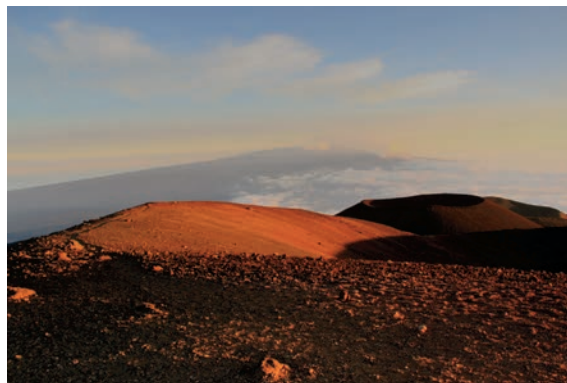
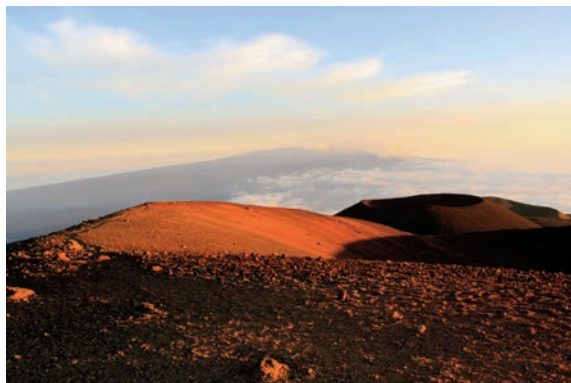
Graduated Neutral Density (GND) filters are popular photographic tools that enable you to balance scenes with wide dynamic range. These glass filters attach to the front of a camera lens, and photographers typically use them for landscapes, sunsets, sunrises, and other scenes where the sky is far brighter than the land. A basic ND filter behaves effectively like sunglasses for your camera, reducing all incoming light (hopefully in equal amounts across the spectrum). A Graduated ND filter has a density ramp (a gradient) from clear to dark, allowing you to more easily balance exposure in a single frame by aligning the clear-to-dark transition with the appropriate areas of your scene. You can create GND filters in Photoshop to help balance your images in the same way. In addition, you can use them to create vignettes and other artistic looks. Just don't expect miracles: The following GND methods can't recover detail that is already lost in your original image, either by shadows that are too dark or highlights that are blown out.

The traditional digital approach for a sunset photo is pretty simple, assuming the sky is a bit too bright for the foreground. Create a blank layer, name it **GND**, press D to set the default foreground and background colors to black and white, and then grab the Gradient Tool (G). From the options bar, choose a linear gradient, and then drag from top to bottom while holding the Shift key. The Shift modifier ensures the gradient is dragged perfectly in the vertical (or horizontal or at 45 degrees, depending the direction you drag). Your result should be black at the top and white at the bottom.



Change the blending mode of the GND layer to Multiply to start. Notice the black areas bring down highlights, while the white areas of the gradient don't

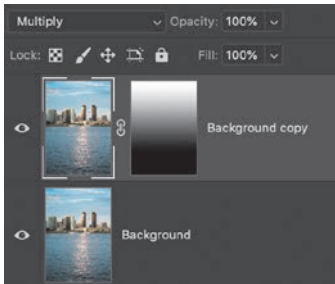
have any effect on the image. Lower the Opacity of the GND layer until the values are more balanced. Unfortunately, I find that many images suffer from loss of saturation, and the result is something a little too muted for my taste.



Instead, I like to experiment with Color Burn and Overlay, depending on the dynamics and what I want out of the process. Color Burn can be really, really harsh, but fortunately it responds differently to Fill than it does to Opacity. For this particular image, lowering the Fill setting of the GND layer to about 55% gives a great result for the sky in this example.



In some situations, it may be better to actually duplicate the photo layer rather than applying a gradient. Duplicate the photo, and change the copy's blending mode to Multiply. Use the Gradient tool to add a layer mask to the copy, and this time let the sky show through while masking the foreground. Keep in mind that while a mask is selected, pressing D will load white to the foreground and black to the background, but also swaps the gradient colors if you're using Foreground To Background as a preset.



Both methods allow for all kinds of customization and tinkering. Duplicating the photo layer and using Multiply quickly burns the image overall, so be sure to keep an eye on artifacts in the darker areas. But any color regions will immediately start to pop. Similarly, Overlay will burn dark areas while dodging light areas—something to keep in mind if you are dealing with a low-contrast image, such as on a hazy, gray afternoon.

The next step in building on GNDs is to expand the idea to vignettes. While the technique is very similar, the intent is quite different. A GND is meant to manage dynamic range; vignettes are primarily meant to guide the viewer's eye around the photograph.



CREATIVE VIGNETTES

Vignettes use the same basic principles as the graduated neutral density techniques, but applying them is much more of a creative endeavor than a corrective one. As such, the possible variations open up quite dramatically. Honestly, anything you do to change the value around the perimeter of your image with the intent of drawing focus to your subject counts as a vignette. Of course, some methods are more popular than others.

To illustrate the concept, let's grab the Gradient tool and choose a Foreground To Transparent gradient with the Radial style. You may have to switch your foreground color to black, and in the options bar select the Transparency option. Also ensure Reverse is checked in the options. On a blank layer above your image, drag from center of the canvas to any edge. Name this layer **Vignette** for now.



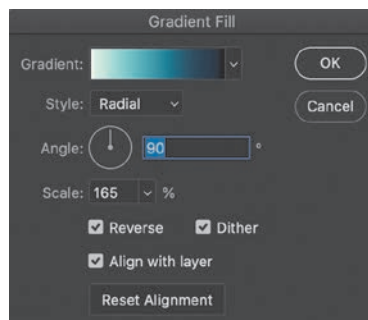
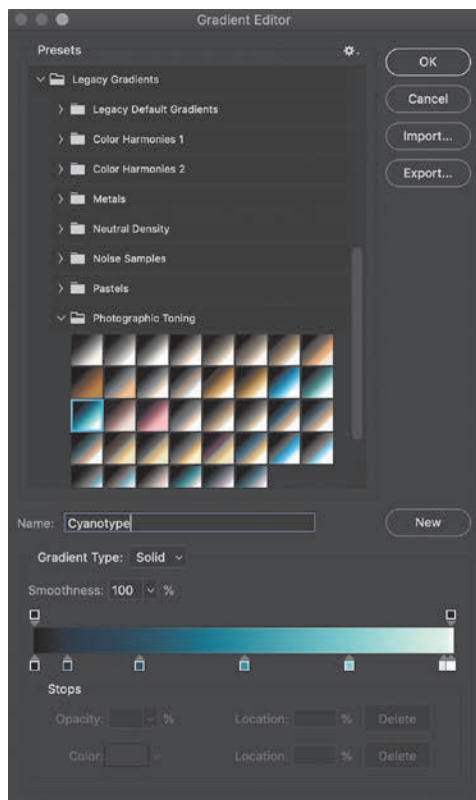
Without blending modes applied to the Vignette layer, the result is predictably dark, but satisfies the basic description of a vignette. In fact, a solid, unblended look is more traditional to vintage film photography. On the Vignette layer, press Command+I (macOS)/Ctrl+I (Windows) to invert the black to white.



There is nothing that requires a vignette to be anything other than something to obscure the border of an image, and even that is not truly necessary. To that end, you can employ shape, color, and size in any way you as the artist see fit. Using the white vignette as on the previous page evokes old-style prints and can be useful in selling an idea of history in your work, especially with toning techniques like Sepia or Selenium (examples of which can be found in the “Color & Value” chapter).



Moving on to a more robust workflow, let's add a Gradient Fill adjustment layer at the top of the layer stack (you'll delete the Vignette layer later). When you first add a Gradient Fill adjustment layer to your document, the Gradient Fill dialog box pops up with a few controls. Choose Radial from the Style menu, then select the Reverse option (it may still be selected if you followed the previous technique). Finally, open the Gradient Editor by clicking the gradient swatch itself. Move the dialog box around so you can see the results of your changes immediately on the canvas.

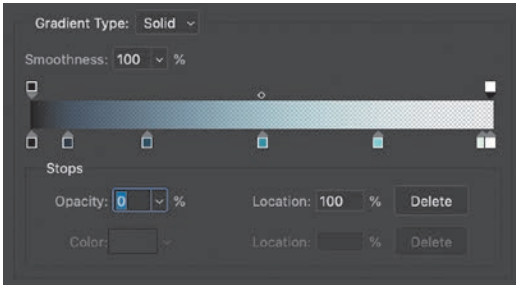


For this example, I'm using the Cyanotype preset from the Photographic Toning collection (see Note). Because the gradient layer needs to have a transparent region but the preset is 100% opaque, we can either use a mask on the Gradient Fill layer or build some transparency into the gradient itself. To be more flexible, let's create a new preset with its own transparency. The stops at the top of the gradient preview bar are for opacity. In this case, we want to

NOTE If you have not used gradient presets before and are using Photoshop 2020, then you'll need to load the Photographic presets for some of the described looks. Choose Window > Gradients and open the panel options menu. Choose Legacy Gradients to load the presets you see in the text.

NOTE Why select Reverse? Because the color ramp in the Gradient Editor presumes the left edge is the center of a radial gradient, and we need the transparent region on the right to be in the center of the document instead. Most of the presets will place darker areas on the left and lighter on the right of the gradient ramp. Using the Reverse option keeps us from having to rebuild the gradients.

make the white region transparent; click on the Opacity stop above the right edge of the bar, then change the Opacity setting at the bottom of the window to 0%.



I find in many cases that I prefer to move each of the color stops to the left to control the size of the gradient. That way the colors from the original gradient are still included. Before I close the Gradient Editor, I want to save the new gradient as a preset. Choosing New lets me save the preset, and I can drag it to any collection in the editor window.

Closing the Gradient Editor window takes us back to the Gradient Fill box, where we can do some additional refinement by adjusting the Scale so that the effect is pushed out more towards the edges. There is one more thing we want to do before closing this dialog box.

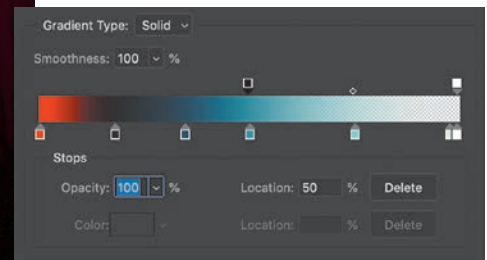


With the Gradient Fill box open, deselect “Align With Layer” so you can drag the gradient around on the screen. That way you aren’t locked in to having the center of the vignette right in the middle of your image. Also try out the Angle settings to see the effect on the shape of the vignette; for radial gradients, this changes the shape from circular to oval. Drag the gradient where you like, and click OK to close the dialog box. If you need to reposition it, you’ll have to open the Gradient Fill box again by double-clicking the adjustment layer icon.

With the gradient in place, you can change the opacity and blending to finish the effect. For this image, I chose to reduce the opacity to around 50%, and set the blending mode to Overlay to preserve the burning effect from the black areas.



While this result looks pretty good, we can make it even more stylized by changing up the gradient a bit. Back in the Gradient Editor, I'll change the far-left Black color stop to a bright red (RGB: 255, 5, 50), then move the 100% Opacity stop to about the midway point. A few other color stop moves, and here's the new result.



Because I made changes to the previous preset, I can save a new one as well to the same collection. This also gives me an excuse to remind you of a great trick using Libraries. Starting in Photoshop 2020, you can see your new presets in the Gradients panel (Window > Gradients) and simply click one to load it into a Gradient Fill layer. The problem is that the radial style is not preserved, nor is the scaling. When you go to apply your saved preset, you'll have to make those settings changes. To get around this, you can drag your entire Gradient Fill layer to a Creative Cloud Library. Whenever you want to use it again, just drag it out to your Layers panel while holding Opt/Alt, and—boom!—instant stylized vignette.

Of course, you are not limited to gradients. It's entirely possible to create vignettes with painting techniques. Turn off or delete the previous vignette and fill layers, and add a fresh, blank layer. Select the Brush tool, grab a large soft brush, and lower the opacity to around 30%, and the flow to 10%. This will allow you to scrub and color in the effect a little more carefully.

Hold Opt/Alt to temporarily switch to the Color Sample tool, and click to select any color you'd like to try for the border. Release the modifier key and begin painting along the same edge you sampled from. Let the paint build up a little at a time, focusing on removing distracting details from the edges of your photo, or drawing focus towards the subject. This is a good technique to start with to ensure some harmony among the colors in your image, but you do have to choose carefully.



With the paint layer still active, try out some of the blending modes. Color is a good one for supporting a particular palette, building a theme across several images, or connecting the image to a viewing environment. Color Burn, as used in the Neutral Density Gradient, will provide a dramatic darkening effect.

Continue painting the other edges using the sampling method or using completely different colors as you go.

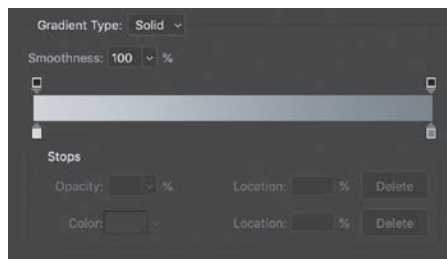
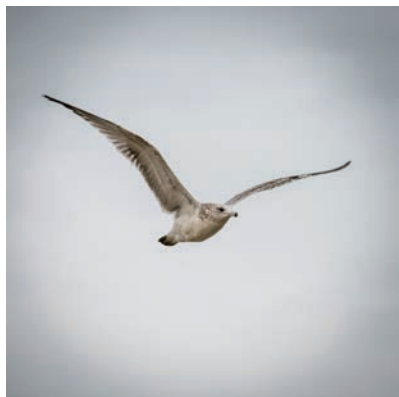
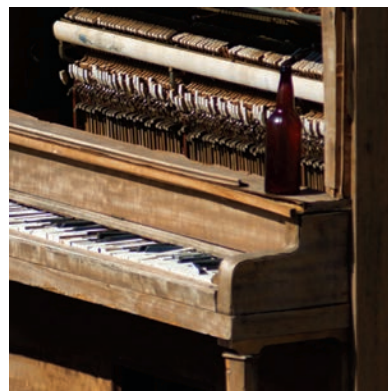
Remember: the point of adding vignettes is to enhance your photo by leading focus, and that means reducing visual clutter away from the subject.

REMOVING VIGNETTES

Now that we have spent some time adding vignettes, let's think about how to remove them. Shooting wide open on most lenses can give you some vignetting under the best of conditions, as will using a polarizer. When I first encountered this and tried removing them in Photoshop, I relied heavily on manually painting them out. As you may expect, that was neither easy nor particularly effective.

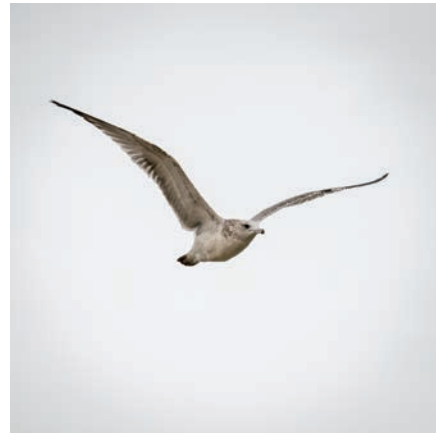
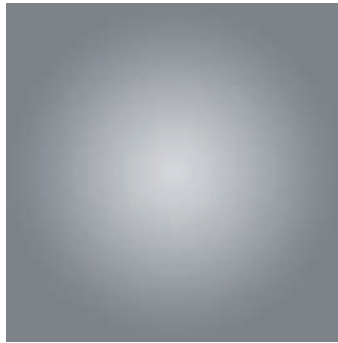
Here's a common situation with a simple vignette.

Let's remove it! On a blank layer above your photo (with no other effects or adjustments active), create a radial gradient that mimics the existing vignette to a reasonable extent. Start by choosing the Gradient tool (G) and the Foreground To Background preset. Hold Opt/Alt while clicking on a representative dark area of the vignette, preferably in a fairly solid area. (You may find it helpful to instead use the Eyedropper tool (I) with a larger sample size to help average out the color.) Press X to swap the foreground and background, then Opt/Alt-click near the center of the image away from the subject to sample a representative color from that area. The gradient ramp in the options bar should have the lighter center color on the left, and the corner color on the right. Remember that you're selecting colors that you want to neutralize.



Using the Radial style, drag out from the center to the corners. For smooth vignettes, this should be pretty straightforward, but be aware that you may have to transform the gradient a bit in some cases.

Change the blending mode of the gradient layer to Divide. The background should be nearly completely white. Remember: anything divided by itself is 1, and in Photoshop that means white. Now we can mask the subject and lower the opacity of the gradient layer to blend everything.



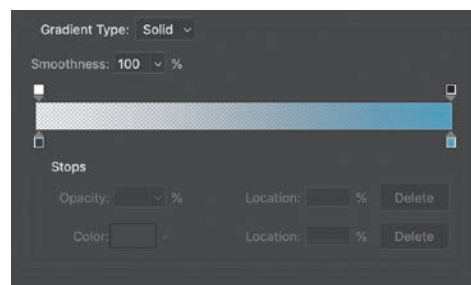
Of course, this is a really simple example to demonstrate the idea. Things get a little more complicated when there is more texture and a bigger subject. Consider this image across San Diego Bay in California; I took it at the same time and location as the gull picture above.



In this case, the corners have clouds and some rich color, so we'll have to be a little more careful. Instead of sampling the sky near the center of the image, let's just leave it transparent. Select the Transparency box in the options bar, and click the gradient swatch to open the Gradient Editor. Ensure the darker corner color is on the right, with its Opacity stop set to 100%. The lighter color should be on the left, and its Opacity stop set to 0%.

Again, drag out the gradient on a blank layer so that the corners are darkened.

It turns out that a few blend modes can work, so the important thing to remember is that you want to use the sampled color to lighten the area. Modes that lighten include Screen, Soft Light, and Linear Dodge (Add). In this case, because there is more texture and a slightly saturated color, Linear Dodge works really well, with about 60% opacity (and of course masking the buildings).



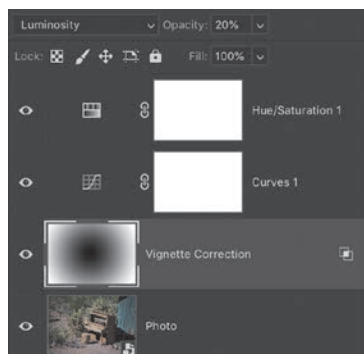
Something to watch for with Divide is desaturation in the blended areas. Moderating this result usually means adding back in some color on a new layer, or reducing opacity even further. Both can have some unintended results. For clear skies, it may be more useful to try a Luminosity blend, instead. This is effective when the actual hue is relatively constant across the area that you need to correct, but varies mostly in brightness. If your scene has any clouds or other elements, they'll have to be masked out. But let's skip ahead to a slightly more complex situation with Luminosity.



There's a strong vignette in this image, but no real way to isolate a color or single luminosity value to put into a gradient. In this case, I tend to use a simple black-to-white radial gradient knowing that I'll have to do some additional corrections. The gradient layer is of course set to Luminosity, but look how washed out everything is even at 20% opacity.



The solution is to toss in some Blend If goodness using the Underlying Layer slider, then mix with a little Curves and Hue/Saturation. This operation effectively equalizes the value variation from center to corner. You can think of it like another frequency, except at a very large scale compared to the image. To negate the frequency, you hit it with a little of the opposite frequency, the radial gradient. Because the larger frequency also affects the details, those will need to be brought back.



You may be wondering about the built-in vignette controls in Camera Raw. They're great! If you haven't discovered them before, now would be a great time to open an image in Camera Raw. Convert your layer to a Smart Object, then choose Filter > Camera Raw Filter. The vignette slider is under the Lens Corrections tab. There is a single slider that accomplishes some of what we've done above.

Even faster to use than Camera Raw is Lens Correction on the Filter menu. This is applied as a destructive filter, so either duplicate your photo layer or convert it to a Smart Object before using it. After choosing Lens Correction, you will need to open the Custom tab and look in the middle of the controls selection. The Vignette slider lets you choose to lighten or darken the corners, and the Midpoint slider adjusts the shape and transition of the correction (or effect if you choose to add a vignette).

While these built-in solutions are amazing, there are situations where they are just not enough. For example, the Vignette correction sliders won't help much with darkening only in one corner, which can happen with polarizers or shadows. It also won't help with smoothing out linear variations as may happen with a shadow in the foreground. Using the above techniques let you have direct, precise control over myriad situations that the Camera Raw and Lens Correction filters won't handle.

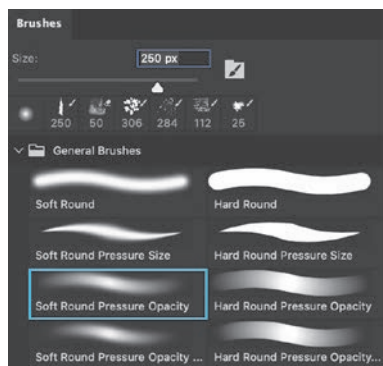


BRIGHT EYES

One of the secrets of retouching is enhancing small details that draw a viewer's attention. For faces, that means eyes! Adding a little brightness and shine to the subject's eyes will make them seem more lifelike to the viewer. This technique should be used with restraint, as overdoing it will be obvious, or at least disturbing.

The choice to use Soft Light here is a nod to that restraint. When I first started using this technique, I relied on Screen, which does not become useful until the opacity is lowered (multiply is the same way). That meant at some point I was not actually brightening the colors so much as adding white and desaturating. Soft Light is not nearly as strong as Screen, but has the advantage of preserving the saturation of the lighter colors.

On a blank layer above the photo, set the blending mode to Soft Light. Use a soft, round brush set to about 20% opacity and 30% flow, a little smaller than the iris (the colored part of the eye). Choose white as your foreground color and work gently around the lighter areas of the eyes, paying attention to and preserving much of the natural shading. The soft brush will also brighten a little of the skin around the eye, and that's fine so long as it's not overdone. The goal is subtle enhancement, not a glowing horror film effect.



Once the overall shaping is complete, decrease the brush size to about half that of the iris, then lower the opacity to about 10%. Look for where the image light is coming from and how it highlights the iris. There should be a lighter and darker area, and you will paint very carefully in that lighter region, creating a new highlight (avoid the pupil at this stage). If the effect is too much, undo it and lower the Flow setting to 10%. You should look for just the barest change here at first.



For softly lit portraits, this should probably be all you need for the highlights. You want to both enhance the shape of the eyeball and bring out the color without diluting it. Highlights over the iris are meant to show clarity as well as draw attention.

Now it's time to work in the darks just a bit. Switch the paint color to black and ensure the brush is small enough to deal with the edges of the iris. Gently brush over the dark edges to give them a little more presence. You can also use this over the pupils, but don't fill them in completely—a tiny variation in the blacks implies depth here.



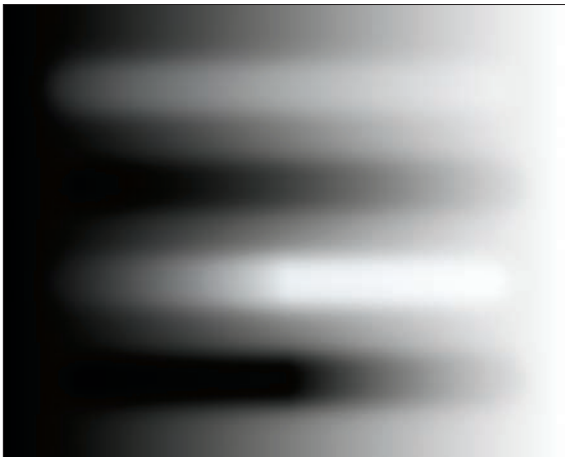
The rims of the eyelid can also be painted over, especially at the outer edges of the subject's eyes. This same technique can be applied to eyelashes as well.

Bring a little of the color back in with a new blank layer set to Overlay blending mode. Sample a part of the eye color that is reasonably saturated but not too dark. Make a few small strokes outward from the pupil to the edge of the iris. This is a really subjective part of the technique, as it's easy to get wrong. The look you're going for is to disrupt the highlight just enough to

maintain realism, without creating artifacts or looking like the eyes have been colored in. Overlay will have the effect of darkening these areas most typically, unless the model has extremely bright irises already (such as you might encounter with colored contacts or some animals). Often, just a few dabs or tiny strokes will be sufficient.



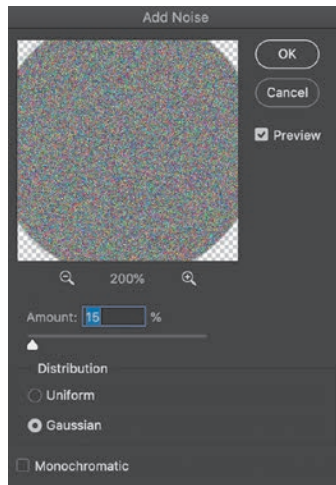
Overlay is a bit stronger than Soft Light, and helps bring back some of the saturation of the colors you sample from the eye without losing detail or causing artifacts. Here is a little demonstration of using the various blending modes for this kind of dodge and burn.



Notice that Overlay (bottom pair of lines) has a stronger effect in the midtones when painting with black or white, while Soft Light is more uniform across the range from black to white. When you want to enhance what's there, choose one of these two blending modes.

In some cases, you can get a dramatic, vibrant change using a slightly different approach. Rather than gently painting in the highlights, this is kind of a brute force method of getting a glassy-eyed look.

On a blank layer set to Normal blending, use a hard, round brush the same size as the iris. Set the brush's Flow and Opacity options to 100%. Pick a neutral gray, around 55% brightness, and stamp a single dot over each eye. Add some noise for texture by choosing Filter > Noise > Add Noise, and choose Gaussian, about 15%–25%. Deselect Monochrome so you get some color variation.



Now change the layer blending mode to Divide.

Egad! It's horrible! Lower the Opacity—quick. Depending on the original eye, the opacity range could be anywhere from 10% up to 80%, so just try it out. Now add a layer mask and soften your round brush. Mask the edges and the pupil. Alternatively, switch the Brush blending mode in the options bar to Clear. This erases the paint on the canvas using the same brush, and you can avoid creating a mask. Also, if the speckled colors are too strong, use a Gaussian blur of about 1 pixel to soften the look.

Now we have a very bright, highlighted iris. Both methods can be made to give nice results. The painting method gives you control over position and shape of the highlights, while the selection method is very fast. There is no reason the two can't be combined, either. In general, Soft Light blending will be more precise and fit a wider variety of eye colors with little variation. The Divide method can be hit or miss, but gives really dramatic results very quickly.



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